

Prisons and Health



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Prisons and Health

Edited by:
Stefan Enggist, Lars Møller, Gauden Galea and Caroline Udesen

ABSTRACT

This book outlines important suggestions by international experts to improve the health of those in prison and to reduce both the health risks and risks to society of imprisonment. In particular, it aims to facilitate better prison health practices in the fields of: (i) human rights and medical ethics, (ii) communicable diseases, (iii) noncommunicable diseases, (iv) oral health, (v) risk factors, (vi) vulnerable groups and (vii) prison health management. It is aimed at professional staff at all levels of responsibility for the health and well-being of detainees and at people with political responsibility. The term "prison" covers all institutions where a state holds people deprived of their liberty.

Keywords

HEALTHCARE SYSTEMS
HUMAN RIGHTS
MEDICAL ETHICS
PREVENTION
PRISONERS
PRISONS
VIOLENCE

ISBN: 978 92 890 5059 3

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Publications
WHO Regional Office for Europe
UN City, Marmorvej 51
DK-2100 Copenhagen Ø, Denmark

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office web site (<http://www.euro.who.int/pubrequest>).

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Contents

Acknowledgements	viii
About the authors	ix
Abbreviations	x
Foreword	xi
Human rights and medical ethics	
1. The essentials about prisons and health	1
Key points	1
Background	1
The duty of care	1
Why prison health is important	2
Difficulties with isolation of services	2
Essential components of a prison health service	3
Good governance for prison health	4
References	4
2. Standards in prison health: the prisoner as a patient	6
Key points	6
Basic principles	6
Relationship between the prisoner and health care staff	6
Organization of prison health care	7
European Prison Rules	8
References	9
3. Prison-specific ethical and clinical problems	11
Key points	11
Introduction	11
Health care staff in prisons	11
Disciplinary measures	13
Physical restraint	13
Intimate body searches	13
Prisoners who stop eating or go on hunger strikes	13
Torture and inhumane or degrading treatment	16
References	16
4. Violence, sexual abuse and torture in prisons	19
Key points	19
Introduction	19
Definitions of violence in prison	19
Violence in prisons	20
Sexual violence in prisons	20
Torture and ill-treatment	21
Prevention of violence in prisons	22

The role of the prison health services	24
References	24
5. Solitary confinement as a prison health issue	27
Key points	27
Introduction.....	27
What is solitary confinement?	27
How does solitary confinement affect health and well-being.....	27
Particularly vulnerable groups	29
Long-term effects	31
When and why is solitary confinement used in contemporary penal systems?	31
How do international law and human rights bodies view solitary confinement?	32
Conclusion.....	32
References	33
6. Health in pre-trial detention	36
Key points	36
Introduction.....	36
Defining pre-trial detention	36
Guidelines.....	36
Challenges of pre-trial detention	37
Improving health conditions at the pre-trial stage.....	38
References	39
Communicable diseases	
7. HIV and other bloodborne viruses in prisons	45
Key points	45
Introduction.....	45
Bloodborne viruses	45
The issues or challenges within the prison environment.....	46
A comprehensive approach	46
The evidence.....	47
Interventions.....	47
Nutrition support and diet	53
Continuity of treatment.....	53
Palliative care/compassionate release	54
Quality assurance and monitoring of, and interventions for, HIV and hepatitis C and D	54
References	54
8. TB prevention and control care in prisons	56
Key points	56
Introduction.....	56
Transmission.....	57
Case-finding	58

Screening strategies	58
Clinical features of TB	61
Treatment	63
MDR-TB	64
TB/HIV co-infection	66
TB infection control	68
Advocacy, communication and social mobilization	69
Continuum of care for released prisoners	70
References	71
9. Infectious diseases in prison	73
Key points	73
Introduction	73
Influenza	73
Measles, mumps and rubella	74
Viral hepatitis	74
Tetanus	74
Diphtheria	75
Sexually transmitted infections	75
Ectoparasites	76
Vaccination, quarantine and personal hygiene	76
References	77
Noncommunicable diseases	
10. Noncommunicable diseases and prisoners	81
Key points	81
Introduction	81
Burden of disease and risk factors for NCDs in prisoners	81
Challenges in providing appropriate prevention and care to prisoners	82
References	84
11. Mental health in prison	87
Key points	87
Introduction	87
Human and prisoners' rights and basic needs	87
Equivalence	88
Prevalence of poor mental health	88
Complexity and multiple needs	88
Illness and social focus	89
The impact of prison on mental health and well-being	89
Prisoners' views of their needs	89
Prisoners' views on what constitutes a good mental health service	90
Mental health awareness in the prison system	90

Prisoners and their families	90
Diagnosis and assessment.....	91
Screening and assessment.....	91
Treatment in prison.....	91
Personality disorders	92
Continuity of care	92
Meeting the needs of different groups in the prison population.....	92
The recovery approach	93
The roles of peers and mentors	93
Diversion and liaison	94
References	94

Oral health

12. Dental health in prisons	99
Key points	99
Introduction.....	99
Oral health	99
General impact of general health on oral health.....	99
Utilization of the prison dental service	99
Provision of prison dental services.....	100
Accessibility of dental services	100
Good clinical practice.....	101
Oral health promotion.....	101
The dental team	102
Commissioning prison dental services.....	102
References	102

Risk factors

13. Drug use and related consequences among prison populations in European countries	107
Key points	107
Introduction.....	107
Drug use among the prison population	107
The social characteristics of drug treatment clients in prison	109
Health problems	109
Methodological limitations.....	110
References	111
14. Drug treatment and harm reduction in prisons	113
Key points	113
Introduction.....	113
Prevention, treatment, harm reduction and aftercare	115
What works?.....	116

Psychosocial drug treatment and pharmacological approaches as complementary measures in a comprehensive package of drug services	117
Opioid substitution treatment in custodial settings.....	119
Harm reduction programmes	127
References	130
15. Alcohol and prisons	134
Key points	134
Introduction.....	134
Alcohol in Europe	134
Alcohol and crime	134
Alcohol problems in prisoners	135
Effective detection	135
Effective interventions	135
Integrated care	135
Issues and challenges with alcohol problems in prisons.....	136
References	137
16. Tobacco use in prison settings: a need for policy implementation	138
Key points	138
Introduction.....	138
Main issues: prevalence and exposure to SHS in prison settings.....	138
WHO Framework Convention on Tobacco Control (WHO FCTC)	139
Reasons for the high prevalence of tobacco use in prisons.....	139
Significance of tobacco use in prison	139
Tobacco use by prison staff	140
Addressing the smoking issue in prisons.....	140
Outline of a tobacco control policy in German prisons	142
References	143
Vulnerable groups	
17. Prisoners with special needs	151
Key points	151
International standards	151
General principles of care	152
Treatment in prisons	152
A suitable prison or place of detention	152
A proper manner of detention	152
Some important messages	152
Prisoners with physical disabilities	153
Ethnic minorities and indigenous peoples	154
Foreign prisoners	154

Lesbian, gay, bisexual and transgender prisoners	155
Older prisoners	156
References	157
18. Women's health and the prison setting	159
Key points	159
Introduction	159
Violence and abuse	159
Substance use	160
Mental health issues	160
Infectious diseases	161
Dental health	162
Children of women in prison	162
Organization of health care for women in prison	162
References	163
19. The older prisoner and complex chronic medical care	165
Key points	165
Introduction	165
Accelerated ageing: who is old in prison?	166
Geriatric medicine and the multimorbidity model of care	166
Polypharmacy	166
Geriatric syndromes	167
Functional status and environmental mismatch	168
Mental health issues	168
End of life care and death	168
Ageing and re-entry into the community	169
References	169
Prison health management	
20. Primary health care in prisons	173
Key points	173
Introduction	173
The purpose of health care	173
The experience of prison	174
The components of primary care	174
The primary care journey	174
Prison health care resources	175
Common problems encountered in primary care practice in prisons	175
Building blocks for primary care in prison	176
Measuring performance in health care	176
Competencies of and support for prison clinical staff	177
References	179

21. Promoting health in prisons: a settings approach	180
Key points	180
Introduction.....	180
Challenges and opportunities	180
The health promotion needs of prisoners.....	181
A whole-prison approach: a vision for creating a health-promoting prison	181
References	183
22. Staff health and well-being in prisons: leadership and training	185
Key points	185
Introduction.....	185
Health and the prison.....	185
The stressful workplace	185
Risk factors and stress among prison employees	186
Health risk factors for prison staff	186
Health promotion programmes to support employees.....	187
Health awareness.....	187
Prison staff training in health.....	188
Managers, leaders and decision-making	188
Health care professionals.....	188
Maintaining professional standards.....	188
Clinical governance and performance monitoring	188
Conclusion.....	189
References	189

Acknowledgements

The WHO Regional Office for Europe gratefully acknowledges the work of the authors in writing this guide to the most essential areas of prison health. Thanks are also given to Dr Alex Gatherer and Dr Robert Greifinger for reviewing the guide and for their valuable comments.

The document was edited by Mr Stefan Enggist, Technical Officer, Health in Prisons, Dr Lars Møller, Programme Manager, Dr Gauden Galea, Director, and Ms Caroline Udesen, WHO consultant in the Division of Noncommunicable Diseases and Life-course, WHO Regional Office for Europe.

A special thanks to Ms Brenda van den Bergh for her assistance at the start of the project.

The Regional Office is grateful to the Swiss Federal Office for Public Health, the International Committee of the Red Cross, the Pompidou Group of the Council of Europe and the United Nations Office on Drugs and Crime for their conceptual and financial support in the production of this document.

About the authors

Ms Isabel Yordi Aguirre, Technical Officer, Gender and Health, WHO Regional Office for Europe, Copenhagen, Denmark

Mr Cyrus Ahalt, Division of Geriatrics, University of California San Francisco, San Francisco, United States of America

Ms Tomris Atabay, International Consultant, Criminal Justice Reform, London, United Kingdom

Ms Michelle Baybutt, Pan-Regional Prisons Programme Lead and Research & Development Officer, Healthy Settings Unit, University of Central Lancashire, Preston, United Kingdom

Ms Brenda van den Bergh, Technical Officer, HIV/AIDS, STIs and Viral Hepatitis, WHO Regional Office for Europe, Copenhagen, Denmark

Dr Dato Chorgoliani, Medical doctor, International Committee of the Red Cross, Geneva, Switzerland

Dr Pierpaolo de Colombani, Medical Officer, Tuberculosis and M/XDR-TB, WHO Regional Office for Europe, Copenhagen, Denmark

Dr Andrew Coyle, Professor Emeritus, University of London, London, United Kingdom

Dr Joanne Csete, Deputy Director, Global Drug Policy Programme, Open Society Foundations, London, United Kingdom

Dr Masoud Dara, Programme Manager, Tuberculosis and M/XDR-TB, WHO Regional Office for Europe, Copenhagen, Denmark

Professor Mark Dooris, Professor in Health and Sustainability, Director, Healthy Settings Unit, University of Central Lancashire, Preston, United Kingdom

Dr Graham Durcan, Associate Director, Criminal Justice Programme, Centre for Mental Health, London, United Kingdom

Mr Stefan Enggist, Technical Officer, Health in Prisons, WHO Regional Office for Europe, Copenhagen, Denmark

Dr Andrew Fraser, Director of Public Health Science, NHS Health Scotland, United Kingdom

Dr Enrique Acín García, Head, Public Health Department, General Secretariat of Penitentiary Institutions, Ministry of the Interior, Madrid, Spain

Dr Alex Gatherer, WHO consultant, United Kingdom (deceased)

Ms Isabelle Giraudon, Researcher, European Monitoring Centre for Drugs and Drug Addiction, Lisbon, Portugal

Dr Lesley Graham, Public Health Lead for Alcohol, Drugs and Offender Health, Information Services Division, NHS National Services Scotland, United Kingdom

Ms Ruth Gray, Senior Dental Officer, Hydebank Wood Prison, Belfast, Northern Ireland

Dr Sue Gregory, Director of Dental Public Health, Public Health England, London, United Kingdom

Dr Robert B Greifinger, Prison health care consultant, New York, United States of America

Dr Fabienne Hariga, Senior Adviser, HIV/AIDS, United Nations Office on Drugs and Crime, Vienna, Austria

Mr Paul Hayton, Deputy Director, WHO European Collaborating Centre for Health and Prisons, Public Health England, United Kingdom

Mr Ralf Jürgens, Director of Programs, Public Health Program, Open Society Foundations, New York, United States of America

Dr Andrej Kastelic, Head, National Centre for the Treatment of Drug Addiction, University Psychiatric Hospital, Ljubljana, Slovenia, President, South Eastern European Adriatic Addiction Treatment Network

Dr Ruth Elwood Martin, Director and Clinical Professor, Collaborating Centre for Prison Health and Education, Vancouver, Canada

Dr Jens Modvig, Director, Chief Medical Officer, DIGNITY – Danish Institute Against Torture, Copenhagen, Denmark

Dr Lars Møller, Programme Manager, Alcohol and Illicit Drugs, WHO Regional Office for Europe, Copenhagen, Denmark

Ms Linda Montanari, Senior scientific analyst, European Monitoring Centre for Drug and Drug Addiction, Lisbon, Portugal

Ms Manuela Pasinetti, Clinical psychologist, European Monitoring Centre for Drug and Drug Addiction, Lisbon, Portugal

Dr Emma Plugge, Senior Clinical Research Fellow, University of Oxford, Oxford, United Kingdom

Dr Jean-Pierre Restellini, Head, National Commission for the Prevention of Torture, Berne, Switzerland

Mr Romeo Restellini, Medical resident, Centre Universitaire Hospitalier Vaudois, Lausanne, Switzerland

Dr Catherine Ritter, Public health consultant, Geneva, Switzerland

Mr Luis Royuela, Scientific officer, European Monitoring Centre for Drugs and Drug Addiction, Lisbon, Portugal

Dr Sharon Shalev, Director and Editor, Solitary Confinement [website] and Research Fellow, Centre for Criminology, University of Oxford, Oxford, United Kingdom

Dr Heino Stöver, Professor, Social Scientific Addiction Research, University of Applied Sciences in Frankfurt, Frankfurt, Germany

Mr Sven Todts, Independent adviser prison health care, Belgium

Ms Denise Tomasini-Joshi, Deputy Director, International Harm Reduction Program, Open Society Foundations, New York, United States of America

Mr Julian Vicente, Head, Unit of Prevalence and Patterns of Drug Use and Data Management, European Monitoring Centre on Drugs and Drug Addiction, Lisbon, Portugal

Mr Lucas Wiessing, Principal scientist/epidemiologist, European Monitoring Centre for Drugs and Drug Addiction, Lisbon, Portugal

Dr Brie Williams, Associate Professor, Division of Geriatrics, University of California San Francisco, San Francisco, United States of America

Dr Jan Cees Zwemstra, Psychiatrist and board member, National Institute of Forensic Psychiatry and Psychology, Utrecht, Netherlands

Abbreviations

ADL	activities of daily living	IPT	isoniazid preventive therapy
ART	antiretroviral therapy	LGBT	lesbian, gay, bisexual and transgender
ARV	antiretroviral	MDR	multidrug-resistant TB
CPT	European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment	NCD	noncommunicable diseases
DOTS	directly observed treatment, short-course	NTP	national TB programme
DST	drug susceptibility testing	OST	opioid substitution therapy
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction	RNA	ribonucleic acid
EU	European Union	SHS	second-hand smoke
HBsAg	hepatitis B surface antigen	SIZO	sledstvennyj izoljator [Russian pre-trial detention centre]
HBV	hepatitis B virus	STIs	sexually-transmitted infections
HCV	hepatitis C virus	TB	tuberculosis
HIPP	Health in Prisons Programme	UNAIDS	Joint United National Programme on HIV/AIDS
IADL	instrumental activities of daily living	UNODC	United Nations Office on Drugs and Crime
IGRA	interferon gamma release assay	XDR	extensively drug-resistant TB

Foreword

Some six million men and women are imprisoned in the WHO European Region every year. Most of these prisoners are from poor and vulnerable communities.

Prisons are not healthy places. Communicable diseases are frequently transmitted among prisoners, and the rates of HIV, hepatitis and tuberculosis are much higher among them than in the general population. There is also a high prevalence of mental health problems, including substance abuse disorders, and a higher prevalence of noncommunicable diseases. Unhealthy conditions such as overcrowding and poor hygiene are common in many prisons.

Prison health is part of public health and prisons are part of our society. One third of prisoners leave prison every year and the interaction between prisons and society is huge. We have to ensure that prisons are not becoming breeding places for communicable and noncommunicable diseases, and we must also seek to use the experience of imprisonment for the benefit of prisoners and society.

The WHO European health policy framework, Health 2020, aims at improving public health and reducing health inequalities. It considers that social values such as human rights and equity are the key to good governance for health.

This also applies to prison health, with no compromise. When a state deprives people of their liberty, it must

guarantee their right to health and provide them with the best possible care.

A great number of efforts are being made to improve the health of prisoners in our Region. However, many Member States still do not fully meet their responsibility to protect the health of their prisoners.

An expert group advising the Regional Office on the organization of prison health concluded that:

- *the management and coordination of all relevant agencies and resources contributing to the health and well-being of prisoners is a whole-of-government responsibility;*
- *health ministries should provide and be accountable for health care services in prisons and advocate healthy prison conditions.*

I commend this book as a major step towards promoting the health and well-being of prisoners in our Region, and as an important contribution to better public health and to fewer health inequalities. It is aimed at professional staff at all levels of responsibility for the health and well-being of prisoners and at people with political responsibility in this field.

Zsuzsanna Jakab
WHO Regional Director for Europe

Human rights and medical ethics

1. The essentials about prisons and health

Alex Gatherer, Stefan Enggist, Lars Møller

Key points

- The state has a special duty of care for those in places of detention which should cover safety, basic needs and recognition of human rights, including the right to health.
- A primary health care service in prisons must be provided with staff, resources and facilities of at least the same standard as those available in the community. This principle of equivalence is an important measure of the adequacy of health care provision in places of detention.
- All health staff should have complete professional independence and should preferably be employed by a health authority. Their right to practise their profession within their professional codes of conduct and ethical rules should be clearly understood and accepted.
- It is important that all staff working in prisons accept that to the health team, prisoners are patients and must be treated as such. The duty of care placed on professional staff is the same whether the patient is at liberty or in prison.
- The prisoner as patient has the right to confidentiality and to treatment and care that is subject to informed consent.
- The importance of initial health screening and evaluation must be recognized and the best possible service should be provided. All staff involved should be aware of the benefits of diversion to other institutions for those prisoners who need to be in special facilities.
- Continuity of care is a crucial element of a sustainable prison health service. Prison health staff should make arrangements for continuous access to care on transfer or on release, which should be facilitated by prison management.
- Prison services have a responsibility to ensure that prisoners are not exposed to hazards likely to injure their health.
- Health in prisons is too important to be left solely to the health team. All staff working in prisons should have further training in health issues so that they have a better understanding of what the health team is doing and can support those efforts through their duties concerning the prison environment and regimes.
- Health resilience is an important aim of prison health care and an important contribution towards successful resettlement after discharge and to the reduction of health inequalities.

- A prison health service should be seen as helping to build a healthier society. An element of this is to support, where possible, the work of the prison staff in encouraging changes in attitude and behaviour with the objective of a crime-free society.
- Prison health services should not be isolated but should be integrated into regional and national health systems.

Background

In 1994, when it was first suggested to the WHO Regional Office for Europe that special attention should be given to the health of those in prisons and other places of detention, the Regional Director was Dr Jo E. Asvall, whose special enthusiasm was for health for all. Research at that time was drawing attention to tuberculosis (TB) and HIV/AIDS in prisons. It was clear that prisoners were a vulnerable group drawn from those parts of society which were hard to reach as regards health. The Region was leading the world in the settings approach to promoting health, and there was a strong case being made that prisons were a suitable setting, different from health-promoting cities and schools but open to the same holistic approaches that were so successful in daily living settings. Furthermore, in most countries, prison health was the responsibility of the ministry of justice or the ministry of the interior and was thus excluded from any influence from WHO working with the ministry of health.

In 1995, WHO and the United Kingdom organized a pilot meeting of some eight countries and various experts to discuss the proposal to establish a network for the exchange of experience in tackling health problems in prisons. The network, known as the WHO Health in Prisons Programme (HIPP), which developed from that pilot now includes most of the Member States in the Region. The purpose of the network is to exchange experience in tackling the health issues facing prisoners and prisons and to produce consensual statements of advice. The absence of a single publication drawing together advice from experts and members of HIPP led, in 2007, to the publication of the first edition of this guide.

The duty of care

There are several unique factors pertaining to people remanded in custody by a judicial authority or deprived of their liberty following conviction. The first is that

the detaining authority has to assume a duty of care for them, that is, a comprehensive obligation to meet at least their basic needs. The second is that prisoners are entirely dependent on the staff of prisons and detention centres for all aspects of their daily lives, as well as for protection and safety. This dependence must be understood by the staff since they share the duty of care with their employing authority, which should influence their attitude and approach. The third factor is that detainees retain all human rights other than their freedom. Their right to health is in no way diminished by their detention.

Why prison health is important

There are two other compelling reasons for providing health care in prisons. First is the importance of prison health to public health in general. Prison populations contain a high prevalence of people with serious and often life-threatening conditions. Sooner or later most prisoners will return to the community, carrying back with them new diseases and untreated conditions that may pose a threat to community health and add to the burden of disease in the community. Thus there is a compelling interest on the part of society that this vulnerable group receive health protection and treatment for any ill health.

The second reason is society's commitment to social justice. Healthy societies have a strong sense of fair play: those involved in the provision of health care are committed to reducing health inequalities as a significant contribution to health for all. It is a fact that the majority of prisoners come from the poorest parts of society, with deficiencies in education and employment experience. Their admission to prison can be the first time they have had a settled life with adequate nutrition and a chance to reduce their vulnerability to ill health and social failure. Prison health care can play an important role in reducing health inequalities.

All this underlines the need for governments to give a degree of priority to health in prisons. First, they should meet their duty of care for those deprived of their liberty. Second, they should respect prisoners' human rights, aid the protection of their health and contribute to public health as a whole, thus making a major contribution towards reducing health inequalities in a vulnerable part of the population while society awaits the effects of action on the broader social determinants of health.

It is not, however, easy to provide health care in prisons which by their nature are designed for safe custody and provided with regimes that have necessarily developed around questions of security.

Difficulties with isolation of services

One of the early and important lessons learned by the network is that prison health services cannot be adequately provided in isolation from other health and social services. In 2003, the network agreed, and WHO published, the Moscow Declaration, which called attention to the need for prison health services to be integrated or work closely with public health services (1). Since then, the need to avoid professional isolation has been further developed as part of WHO's work with health systems. It is now realized that prison health has important implications for health governance as a whole. A modern prison health service takes as its working method the "health in all policies" approach, in which effective and systematic action for the improvement of health genuinely uses all available measures in all policy fields. In 2013, WHO and the United Nations Office on Drugs and Crime (UNODC) published a policy brief on the organization of prison health, *Good governance for prison health in the 21st century* (2), with the following main findings:

- prisoners share the same right to health and well-being as other people;
- prisoners generally come from socially disadvantaged segments of the community and carry a higher burden of communicable and noncommunicable diseases compared with the general population;
- prisons are settings with high risks of disease; because their inhabitants continuously exchange with outside communities, they present a complex and difficult challenge for public health, especially where communicable diseases such as HIV or TB are concerned;
- states have a special, sovereign duty of care for prisoners: they are accountable for all avoidable health impairments to prisoners caused by inadequate health care measures or inadequate prison conditions with regard to hygiene, catering, space, heating, lighting, ventilation, physical activity and social contacts;
- prison health services should work to at least the equivalent professional, ethical and technical standards to those applying to public health services in the community;
- prison health services should be provided exclusively to care for prisoners and must never be involved in the punishment of prisoners;
- prison health services should be fully independent of prison administrations and liaise effectively with them;
- prison health services should be integrated into national health policies and systems, including the training and professional development of health care staff.

Essential components of a prison health service

Each of these aspects features strongly throughout this guide, as they underpin the objectives of a prison health service and support the motivation of the staff. This overview aims to give a brief outline of prison health services and their main features.

The prison service is the least known and understood of all the public services despite its importance for society. Where health is concerned, a lack of prison health care can threaten public health and add to the health burden on communities. By helping to build healthy communities, a prison health service can help to avoid an increase in the general burden of disease. Good prison health care will also contribute to a reduction in reoffending after release.

The essential points can be summarized under four headings:

- medical care
- health protection
- health promotion
- health resilience.

Medical care

The first essential is the provision of medical care for prisoners in need of it, which requires access to fully trained doctors and nurses with a supply of modern medicines and appropriate facilities, such as consultation rooms, treatment rooms and short-stay beds with some nursing supervision. The recruitment, retention and continuing professional training of health care staff should be arranged so as to create a dedicated and specialized health service for people in detention. It is important to maintain the professional interest of health staff, which is more easily done when the prison service is not isolated from the community health services and has good links to specialist health services.

Health care should include the continuance of any treatment started before admission, so the second essential is a full assessment of a prisoner's health and related needs as soon as possible after admission. This is important to ensure that the prisoner does not have a medical condition that could affect the health of others, such as TB, and that he/she is not a danger or threat to him/herself or others. The initial health screening is recognized as an extremely important phase in prison health. It ensures that a good assessment of the health status of the prisoner and other needs are noted so that a personalized treatment and care programme can be established with the health team and others. Importantly, it draws attention to prisoners whose health needs are too complex to be managed in that prison, so that steps

can be taken to move the prisoner to a more appropriate institution. This is of great value to those with serious mental illness and/or substance abuse problems, who need to be transferred to a facility with specialized expertise. Furthermore, as it offers the possibility to establish evidence of ill-treatment, the initial health screening constitutes a basic safeguard against torture and any other kind of ill-treatment.

The core of prison health is a primary care service, along the lines of primary care in the community. It is not easy to provide such a service within prisons, as easy access to health clinics is usually not possible. What is possible is for a service to be designed, with the agreement of the staff and the prisoners kept fully informed, to provide prompt access to an appropriate level of care. This includes training and retraining for prison staff in first aid and the management of acute mental illness, and training for non-health staff on how to access acute care when the health care staff are not on site.

The prison health services must also have good access to specialist and diagnostic health services, including hospitals, since prison hospitals are often unable to meet the standards of hospitals serving the population outside. Access has to be carefully planned with prison staff. Plans to meet this need must be made in advance and made known to all staff. These will vary with national policies and local circumstances. The arrangements should be known to the prisoners.

Finally, for health care provision in prison to be sustainable, prison health services should do their best to make arrangements for continuity of care on the transfer or release of prisoners. This requires continuing communication between the health team and the management of prisoners so that all steps can be planned in time and all necessary information can be transferred with the prisoner.

Health protection

Governments have a responsibility to ensure health protection, meaning that prisoners in their care are not exposed to serious threats to their health. Many prisons are old and often overcrowded, so this is quite a challenge. Health training for all staff (as recommended in Chapter 22) should include the social determinants of health, the causes of disease and the determinants and mechanisms of ill health. This should greatly increase their understanding of what should be done for the maintenance and protection of good health. The aim is for all prison staff to work with the health care team so that prisoners are discharged with better health and health resilience than they had on admission to prison. A clear understanding of

the expected roles of the health team and those of other prison staff is important for good collaboration.

The key steps in protecting health include: a reduction of hazards in the environment, a good health screening service, attention to immediate health needs, proper nutrition, exercise in the fresh air if possible, and two important additions to the prison service: where possible, a method of using peer groups in what some prisons have developed as a listening service for drawing attention to prisoners in need, and a good complaints service.

Health promotion

Health promotion is now regarded as an essential part of primary health care. The provision of health information in a manner that prisoners can understand remains an important part of promoting health. But this is not enough not on its own. Prisoners' attitudes to health should be assessed and encouraged, and help given to change unhealthy behaviour such as tobacco use, substance abuse and alcohol abuse.

Prison authorities should ensure that health promotion services are available and that deficiencies, such as any necessary immunizations, can be rectified in prison.

It is well recognized that admission to prison can create considerable pain and distress. Nearly all prisoners are challenged by their loss of freedom. Prison regimes leave scant room for self-determination. This is one of the greatest challenges in prisons, and one which should be the subject of regular staff development and continuing training. It is assumed that all prisoners with serious mental illness are diverted to specialist care, but there may be periods when such prisoners have to remain in their prison. Staff need to be trained in the management of these patients.

Prison authorities should be aware of the pressure on staff from prisoners with special needs. Support for staff and opportunities to discuss particular issues should be part of the service provided. It is critically important to maintain confidentiality in all prison health work; this poses a particular challenge to prison staff, who often feel they have a right to know.

All prisoners need assistance to cope with and control the effects of imprisonment. They also need better preparation for life after discharge. This latter challenge involves the whole prison programme, so that educational deficiencies are at least partially met, work experience has been made available and social skills have been greatly enhanced.

Health resilience

Health resilience can be an important part of the rehabilitation and resettlement process. Only in this way, with health teams working collaboratively with other staff in the prison, can prison health care play a part in reducing inequalities, reducing recidivism and helping to produce a better and healthier community.

Good governance for prison health

The management of prisons and places of detention has become a difficult and challenging task. This is often not recognized in government and society. The complex and widely ranging needs of prisoners, combined with their increasing awareness of their rights and greater expectations as well as (in some countries) access to a good complaints system and to legal assistance, play a considerable part in how best to provide prison health services.

The expert group advising the Regional Office on the policy brief on the organization of prison health concluded that:

- the management and coordination of all relevant agencies and resources contributing to the health and well-being of prisoners is a whole-of-government responsibility;
- health ministries should provide and be accountable for health care services in prisons and advocate healthy prison conditions.

A whole-of-government approach to prison health in the longer term will have beneficial effects such as:

- lower health risks and improved health protection in prisons;
- better health for prisoners;
- improved performance of national health systems;
- better health in deprived communities;
- better public health in the whole community;
- better integration of prisoners into society on release;
- lower rates of reoffending and reincarceration and a reduction in the size of the prison population; and
- increased governmental credibility based on greater efforts to protect human rights and reduce health inequalities.

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2. Standards in prison health: the prisoner as a patient

Andrew Coyle

Key points

- People who are in prison have the same right to health care as everyone else.
- Prison administrations have a responsibility to ensure that prisoners receive proper health care and that prison conditions promote the well-being of both prisoners and prison staff.
- Health care staff must deal with prisoners primarily as patients and not prisoners.
- Health care staff must have the same professional independence as their professional colleagues working in the community.
- Health policy in prisons should be integrated into national health policy, and the administration of public health should be closely linked to the health services administered in prisons.
- This applies to all health matters but is particularly important for communicable diseases.
- The European Prison Rules of the Council of Europe provide important standards for prison health care.

Basic principles

Several international standards define the quality of health care that should be provided to prisoners. A provision in Article 12 of the International Covenant on Economic, Social and Cultural Rights establishes "the right of everyone to the enjoyment of the highest attainable standard of physical and mental health" (1). This applies to prisoners just as it does to every other human being. Those who are imprisoned retain their fundamental right to enjoy good health, both physical and mental, and retain their entitlement to a standard of health care that is at least the equivalent of that provided in the wider community.

The United Nations Basic Principles for the Treatment of Prisoners (2) indicate how the entitlement of prisoners to the highest attainable standard of health care should be delivered: "Prisoners shall have access to the health services available in the country without discrimination on the grounds of their legal situation" (Principle 9). In other words, the fact that people are in prison does not mean that they have any reduced right to appropriate health care. Rather, the opposite is the case. When a state deprives people of their liberty, it takes on a responsibility to look after their health in terms both of the conditions

under which it detains them and of the individual treatment that may be necessary. Prison administrations have a responsibility not simply to provide health care but also to establish conditions that promote the well-being of both prisoners and prison staff. Prisoners should not leave prison in a worse condition than when they entered. This principle is reinforced by Recommendation No. R (98) 7 of the Committee of Ministers of the Council of Europe (3) concerning the ethical and organizational aspects of health care in prison and by the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (CPT), particularly in its *3rd general report* (4). The European Court of Human Rights is also producing an increasing body of case law confirming the obligation of states to safeguard the health of prisoners in their care.¹

The argument is sometimes advanced that states cannot provide adequate health care for prisoners because of shortage of resources. In the 11th general report on its activities, the CPT underlined the obligations state governments have to prisoners even in times of economic difficulty (8):

The CPT is aware that in periods of economic difficulty sacrifices have to be made, including in penitentiary establishments. However, regardless of the difficulties faced at any given time, the act of depriving a person of his liberty always entails a duty of care which calls for effective methods of prevention, screening, and treatment. Compliance with this duty by public authorities is all the more important when it is a question of care required to treat life-threatening diseases. In respect of the obligation to provide adequate health care to prisoners, there are two fundamental considerations. One concerns the relationship between the prisoner and the health care staff and the other concerns how prison health care is organized.

Relationship between the prisoner and health care staff

All health care staff working in prisons must always remember that their first duty to any prisoner who is their patient is clinical. This is underlined in the first of the United Nations Principles of Medical Ethics relevant to the Role of Health Personnel, particularly Physicians, in the Protection of Prisoners and Detainees against Torture

¹ See, for example, the cases of *Mouisel v. France* [2002] (5), *Henaf v. France* [2003] (6) and *McGlinchey and others v. The United Kingdom* [2003] (7).

and Other Cruel, Inhuman or Degrading Treatment or Punishment (9), which states the following:

Health personnel, particularly physicians, charged with the medical care of prisoners and detainees have a duty to provide them with protection of their physical and mental health and treatment of disease of the same quality and standard as is afforded to those who are not imprisoned or detained.

The International Council of Prison Medical Services confirmed this principle when it agreed on the Oath of Athens (10):

We, the health professionals who are working in prison settings, meeting in Athens on September 10, 1979, hereby pledge, in keeping with the spirit of the Oath of Hippocrates, that we shall endeavour to provide the best possible health care for those who are incarcerated in prisons for whatever reasons, without prejudice and within our respective professional ethics.

This principle is particularly important for physicians. In some countries, full-time physicians can spend their whole careers working in the prison environment. It is virtually inevitable in such situations that these physicians will form a close relationship with the prison management and indeed may be members of the senior management team of the prison. One consequence of this may be that the director of the prison will occasionally expect the physician to assist in managing prisoners who are causing difficulty. For example, the security staff may ask the physician to sedate prisoners who are violent to themselves, to other prisoners or to staff. In some jurisdictions, prison administrations may demand that physicians provide them with confidential information about a person's HIV status. Physicians should never lose sight of the fact that their relationship with every prisoner should be first and foremost that between physician and patient. A physician should never do anything to patients or cause anything to be done to them that is not in their best clinical interests. Similarly, as with all other patients, physicians should always seek consent from the patient before taking any clinical action, unless the patient is not competent on clinical grounds to give this consent. An internet diploma course entitled *Doctors working in prison: human rights and ethical dilemmas*, provided free on the internet by the Norwegian Medical Association (11) on behalf of the World Medical Association, focuses on many of these issues. See also the World Medical Association Declaration on Hunger Strikers adopted by the 43rd World Medical Assembly, Malta, November 1991 and revised by the World Medical Association General Assembly in Pilanesberg, South Africa, in October 2006 (12).

This primary duty to deal with prisoners as patients applies equally to other health care staff. In many countries nurses carry out a variety of basic health care functions. These may include carrying out preliminary health assessments of newly admitted prisoners, issuing medicines or applying treatments prescribed by a physician or being the first point of contact for prisoners concerned about their health. The nurses who carry out these duties should be properly qualified for what they do and should treat people primarily as patients rather than as prisoners when carrying out their duties. The International Council of Nurses published a statement saying, among other things, that national nursing associations should provide access to confidential advice, counselling and support for prison nurses (13).

Organization of prison health care

One method of ensuring that prisoners have access to an appropriate quality of health care is by providing close links between prison-administered health services and public health. In recent years, some countries have begun to create and strengthen such relationships. Many prison and public health reformers argue, however, that a close relationship is not enough and that prison health should be part of the general health services of the country rather than a specialist service under the government ministry responsible for the prisons. There are strong arguments for moving in this direction in terms of improving the quality of health care provided to prisoners. In Norway, for example, the process of giving local health authorities responsibility for providing health care services in prison was completed in the 1980s. In France, legislation was introduced in 1994 placing prison health under the General Health Directorate for Public Health Issues in the Ministry of Health. In the United Kingdom (England and Wales), responsibility and the budget for prison health care were transferred to the National Health Service in 2002.

The Committee of Ministers of the Council of Europe has urged that "health policy in custody should be integrated into, and compatible with, national health policy" (3). The Committee points out that, as well as being in the interest of prisoners, this integration is in the interest of the health of the population at large, especially as concerns policies relating to infectious diseases that can spread from prisons to the wider community. The vast majority of prisoners will return to civil society one day, often to the communities from which they came. Some are in prison for very short periods. When they are released, it is important for the good of society that they return in good health rather than needing more support from the public health services or bringing infectious diseases with them. Continuity of care between prisons and communities is a public health imperative. Many other people go into and

come out of prison on a daily basis: staff, lawyers, officials and other visitors. This means that there is significant potential for transmitting serious disease or infection. For these reasons, prisons cannot be seen as separate health sites from other institutions in society.

WHO strongly recommends that prison and public health care be closely linked. The Moscow Declaration on Prison Health as a Part of Public Health (14) elaborated on some of the reasons why close working relationships with public health authorities are so important, as under:

- Penitentiary populations contain an overrepresentation of members of the most marginalized groups in society, people with poor health and chronic untreated conditions, drug users, vulnerable people and those who engage in risky activities such as injecting drugs and commercial sex work.
- The movement of people already infected with or at high risk of disease to penitentiary institutions and back into civil society without effective treatment and follow-up gives rise to the risk of the spread of communicable diseases both within and beyond the penitentiary system. Prevention and treatment responses must be based on scientific evidence and on sound public health principles, with the involvement of the private sector, nongovernmental organizations and the affected population.
- The living conditions in most prisons of the world are unhealthy. Overcrowding, violence, lack of light, fresh air and clean water, poor food and infection-spreading activities such as tattooing are common. Rates of infection with TB, HIV and hepatitis are much higher than in the general population.

The Declaration makes a series of recommendations that would form the basis for improving the health care of all detained people, protecting the health of prison personnel and contributing to the public health goals of every Member State in the Region:

- Member governments are recommended to develop close working links between the Ministry of Health and the ministry responsible for the penitentiary system so as to ensure high standards of treatment for detainees, protection for personnel, joint training of professionals in modern standards of disease control, high levels of professionalism amongst penitentiary medical personnel, continuity of treatment between the penitentiary and outside society, and unification of statistics.
- Member governments are recommended to ensure that all necessary health care for those deprived of their liberty is provided to everyone free of charge.
- Public and penitentiary health systems are recommended

to work together to ensure that harm reduction becomes the guiding principle of policy on the prevention of HIV/AIDS and hepatitis transmission in penitentiary systems.

- Public and penitentiary health systems are recommended to work together to ensure the early detection of tuberculosis, its prompt and adequate treatment, and the prevention of transmission in penitentiary systems.
- State authorities, civil and penitentiary medical services, international organizations and the mass media are recommended to consolidate their efforts to develop and implement a complex approach to tackle the dual infection of tuberculosis and HIV.
- Governmental organizations, civil and penitentiary medical services and international organizations are recommended to promote their activities and consolidate their efforts in order to achieve quality improvements in the provision of psychological and psychiatric treatments to people who are imprisoned.
- Member governments are recommended to work to improve prison conditions so that the minimum health requirements for light, air, space, water and nutrition are met.
- The WHO Regional Office for Europe is recommended to ensure that all its specialist departments and country officers take account in their work of the health care needs and problems of penitentiary systems and develop and coordinate activities to improve the health of detainees.

European Prison Rules

All the countries that are members of the WHO Health in Prisons Project are also members of the Council of Europe. In 1973, the Committee of Ministers of the Council of Europe adopted the European Standard Minimum Rules for the Treatment of Prisoners (15), which were closely modelled on the United Nations Standard Minimum Rules for the Treatment of Prisoners (16). In that year, the Council of Europe had 15 members. At the beginning of 1987, when it had expanded to 21 members, the Committee of Ministers of the Council of Europe adopted a new set of European Prison Rules (17). At the time, the Committee of Ministers noted "that significant social trends and changes in regard to prison treatment and management have made it desirable to reformulate the Standard Minimum Rules for the Treatment of Prisoners, drawn up by the Council of Europe (Resolution (73) 5) so as to support and encourage the best of these developments and offer scope for future progress". By 2005, the membership of the Council of Europe expanded further to 46 states. For that reason, the Council of Europe decided to revise the 1987 European Prison Rules.

The revised European Prison Rules, adopted on 11 January 2006 by the Committee of Ministers of the Council of

Europe (18), contain a significantly expanded section on health care in the prison setting. For the first time, the European Prison Rules specifically refer to the obligation of prison authorities to safeguard the health of all prisoners (§39) and the need for prison medical services to be organized in close relationship with the general public health administration (§40).

Every prison is recommended to have the services of at least one qualified general medical practitioner and to have other personnel suitably trained in health care (§41). Arrangements to safeguard health care begin at the point of first admission, when prisoners are entitled to have a medical examination (§42), and continue throughout the course of detention (§43). The commentary to the European Prison Rules refers to some recent developments in imprisonment with implications for health care. One is the increasing tendency for courts to impose very long sentences, which increases the possibility that old prisoners may die in prison. Related to this is the need to give proper and humane treatment to any prisoner who is terminally ill. The Committee of Ministers of the Council of Europe has also made a recommendation on the treatment of prisoners on hunger strike (3). In addition to dealing with the health needs of individual prisoners, those responsible for prison health are also recommended to inspect the general conditions of detention, including food, water, hygiene, sanitation, heating, lighting and ventilation, as well as the suitability and cleanliness of the prisoners' clothing and bedding (§44). The European Prison Rules also recommend that provision is made for prisoners who require specialist treatment (§46) and those who have mental health needs (§47).

One important change should be noted. The 1987 European Prison Rules provided that prison authorities could only impose "punishment by disciplinary confinement and any other punishment which might have an adverse effect on the physical or mental health of the prisoner" if the medical officer certified in writing that the prisoner was fit to undergo such punishment. This led to concerns that, by providing this certification, the physician was in effect authorizing the imposition of punishment, in contradiction to the Hippocratic Oath. The revised European Prison Rules remove this requirement.

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3. Prison-specific ethical and clinical problems

Jean-Pierre Restellini, Romeo Restellini

Key points

- Regardless of the circumstances, the ultimate goal of health care staff in prisons must remain the welfare and dignity of the patients.
- The results of medical examinations and tests undertaken in prison with the patient's consent as part of clinical care must be treated with the same respect for confidentiality as is normal according to medical ethics in general medical practice.
- Prison physicians should avoid dual roles with the same patient. To avoid as far as possible any confusion about the role of the doctor in medical examinations and treatment in the caregiving role and in other functions (such as providing medical expertise for, for example, forensic reports), the doctor should make it clear to the patient at the outset of the consultation that medical confidentiality will not apply to the results of any medical examinations and tests undertaken for forensic purposes.
- Regardless of security issues, health care staff should have unrestricted access at any time and any place to all prisoners, including those undergoing disciplinary sanctions.
- Health care staff should under no circumstances participate in enforcing any sanctions against prisoners or in the underlying decision-making process, as this will jeopardize any subsequent doctor–patient relationship. This includes any medical examination to determine if a prisoner is fit to undergo punishment.
- Medical staff should not carry out any medical acts on prisoners who are restrained (including with handcuffs). An exception may be considered when the person concerned suffers from an acute mental illness which may create an immediate serious risk for him/herself or others.
- Prison doctors should not carry out any body searches or examinations requested by an authority, except in an emergency when no other doctor can be called in or in cases where there is a lack of other qualified health staff. In such cases doctors must explain to the prisoner, before proceeding with the body search, that they are intervening purely as experts, and that their act does not have any diagnostic or therapeutic purpose. Any such body search must have the informed consent of the prisoner.
- During a hunger strike, doctors must avoid the risk that prisoners, the prison or the judiciary authorities manipulate medical decisions.
- Doctors have a duty to document physical signs and/or mental symptoms compatible with a prisoner having been subjected to torture or cruel, inhuman and degrading treatment, and to report through the appropriate channels any sign or indication that prisoners may have been treated violently.
- The health service in a prison can potentially play an important role in the prevention of ill-treatment within the establishment and elsewhere. The physical and psychological examinations carried out on admission are particularly important in this respect.
- All health care staff working with prisoners on an ongoing basis should have access to a specific training programme. Training should address the specificities and inner workings of different types of prison, the handling of potentially dangerous or violent situations, and the risks of ethical breaches specific to their activities as health care providers in prisons.

Introduction

Other chapters of this guide raise important issues relating to equivalence of care, confidentiality and informed consent of the patient detainee. This chapter will address other highly specific and sensitive health problems faced by health care staff (as well as the prison administration) in the practice of prison medicine.

Health care staff in prisons

General role of the medical doctor

The role of a prison doctor is not limited to the provision of care. As already noted, prison doctors should take part in the general management of a prison establishment (such as in control of food and hygiene). As far as possible, a prison doctor should also have a say in the design of various detention regimes as well as participating in the promotion of alternatives to detention, while keeping in mind that the role of the doctor is to promote prisoners' health and social rehabilitation.

In practical terms, the doctor should submit a report to the prison director whenever he/she considers that the physical or mental health of a prisoner or the prison population is at serious risk as a result of prolonged imprisonment or of the conditions of detention, including isolation. Further, the doctor should adopt a proactive approach when the prisoner's state of health is seriously affected and release on medical grounds is required. If the prison management does not accept the doctor's

recommendations, the doctor should ensure that his/her report is submitted to a higher authority (1).

The possible subordination of prison health care to the ministry of health does not exempt doctors working in prison from any functions specific to the practice of medicine in a prison setting.

Multiple loyalties

Doctors working in prisons are frequently torn between various loyalties. Their primary duty is to protect and promote the health of prisoners and to ensure that they receive the best care possible. This duty may, however, conflict with other priorities, notably those of the prison management. In practice, the health care team is frequently obliged, despite its reticence, to take into account issues of order and security. Conversely, security staff may find it difficult to accept attitudes, beliefs and behaviour on the part of the health care staff that they perceive to conflict with prison rules and regulations (2,3).

Although it is not recommended, the prison doctor sometimes also acts as a treating doctor for security staff (and occasionally even for their families). In such a context, the position of prison doctors is extremely complex since their duty is to take care of people who are in opposition to each other, if not in conflict, at the same time. The two types of doctor's activity should preferably be clearly distinguished physically. It should be stipulated beforehand, for example, what percentage of the doctor's time is to be devoted to staff care and that two stocks of medication (for prisoners and staff) will be kept separately. Two separate consultation rooms would be best.

This permanent state of tension can only be dealt with through regular meetings between the prison director and the medical director to make any necessary adjustments. The exchanges during such meetings are even more essential as, in a large proportion of establishments, the acute lack of health care staff can force the prison management to delegate certain tasks related to health care to the security staff.

Regardless of the circumstances, the ultimate goal of health care staff must remain the welfare and dignity of the patients. It should be made clear to the patients, prison staff and the prison director that the primary task of the prison health care staff is the health care of prisoners, and that all work is based on the strict medical and ethical principles of health care professionalism: independence, equivalence and confidentiality of care.

Parallel and conflicting activities

A doctor working in a prison may be called upon to play

two somewhat opposing roles: that of a care provider to the prisoner as a patient, and that of an independent medical expert providing medical evidence concerning a patient to a court or other official body. While the care-provider is concerned with the well-being of the individual patient, the doctor acting as a medical expert is asked to reveal medical information that would otherwise be confidential, in the interests of justice and in the service of the community. The latter role may not be in the doctor's patient's interest. According to common ethical rules, a doctor should be one or the other. Only in an emergency is it tolerated for a doctor to combine these two functions without the formal consent of the patient.

In practice, however, the reality of prison life frequently obliges doctors to go beyond their role as care providers. For instance, the judiciary or prison authorities may ask doctors to establish a person's fitness to be detained or to prepare forensic reports in cases of allegations of ill-treatment. Ideally, such tasks should be performed by an independent doctor from outside the prison system. If, however, a prison doctor has to perform such a task, the doctor charged with examining a prisoner as a medical expert should clearly inform the patient at the outset of the consultation that medical secrecy will not apply to the results of the medical examination and tests, to avoid a confusion of the two roles.

A prison doctor may be asked to evaluate the threat to society posed by a prisoner in connection with, for example, a request for parole or leave of absence. In such situations, the doctor must respond with extreme caution and clearly establish that his/her opinion can only be based on a current assessment of physical and mental function and must not predict future criminal conduct. Doctors are neither trained nor qualified to predict criminal behaviour. In such cases, since the prisoner may see the prison doctor as effectively playing a role in his/her release or continued detention, this has the potential to affect the doctor-patient relationship. Thus again, it is best for an independent opinion to be given by a professional qualified to make judgments on criminality.

Issues of conscience and serious ethical conflict

The multiple parameters affecting the work of prison doctors may run contrary to their personal convictions. It is, therefore, highly preferable to employ prison health care staff who choose to work in prisons and to provide them with focused training. In countries where prison health care services have been integrated with the community health services, patients inside the prison are considered as simply another group within the wider community and the health staff are expected to deliver services at the same level as in the wider community.

In attempting to carry out their duties according to the usual professional and ethical standards, doctors may face conflicts not only with the decisions of the prison administration but also with local regulations and even national laws. In such cases, doctors should ask their national professional organization (national medical association) for advice and, if needed, ask the opinion of colleagues working in other countries in the same field, including seeking the support of the World Medical Association. Another possibility is to contact the national prevention organization, if one exists in the country.

Disciplinary measures

In any prison, access to health care facilities may be difficult because of security practices. This is particularly the case in disciplinary and maximum security units. The prison authorities often want to limit contact with certain prisoners to a strict minimum.

Regardless of the security issues, health care staff should have unrestricted access at any time and any place to all prisoners, including those subject to disciplinary measures. The doctor in charge is responsible for ensuring that each prisoner can, in practice, exert his/her right of access to health care at any time.

When the prison authorities decide to punish a prisoner for breach of regulations, sanctions may take different forms. Health care staff should never participate in the initiation or enforcement of any sanctions, as this is not a medical act and thus to participate will jeopardize any subsequent doctor–patient relationship with this prisoner and with all prisoners.

Doctors may frequently be approached when the sanction considered is solitary confinement. Solitary confinement has clearly been shown to be detrimental to health (4). In cases where it is enforced, its use should be limited to the shortest time possible. Thus, doctors should not collude in moves to segregate or restrict the movement of prisoners except on purely medical grounds, and they should not certify a prisoner as being fit for solitary confinement or any other form of punishment. Prisoners who are placed in isolation should be evaluated initially and periodically for acute mental illness, drug or alcohol withdrawal and injuries. If these are identified, prisoners should have access to prompt and effective treatment. Doctors should not certify fitness for isolation.

Once a sanction is enforced, however, doctors must follow the prisoner being punished with extreme vigilance. It is well-established that solitary confinement constitutes an important stressor and risk, notably of suicide. Doctors must pay particular attention to such prisoners and

visit them regularly on their own initiative, as soon as possible after an isolation order has taken effect and daily thereafter, to assess their physical and mental state and determine any deterioration in their well-being. Furthermore, doctors must immediately inform the prison management if a prisoner presents a health problem.

Physical restraint

In prison, situations of extreme tension can occur. In such cases, the prison authorities can decide to use physical restraints on one or more prisoners for the purpose of preventing self-harm or harm to other prisoners and staff. Restraints must only be applied for the shortest time possible to achieve these purposes and should never be used as a form of punishment. Since the decision to use restraints in situations of violence is not a medical act, the doctor must have no role in the process.

There may, however, be instances where some form of restraint must be applied for medical reasons, such as acute mental disturbance in which the patient is at high risk of injuring him/herself or others. The decision to use restraints or to move a prisoner to a cell for such purposes must be confirmed in each case by health care staff, based purely upon clinical criteria.

Medical personnel should never carry out medical acts on prisoners who are under restraint (including handcuffed), except for patients suffering from an acute mental illness or delirium with potential for immediate serious risk for themselves or others. Moreover, doctors should never agree to examine a blindfolded prisoner.

Intimate body searches

For security reasons, it may be necessary to search a prisoner to ensure that he/she is not hiding anything in a natural body cavity. In many cases it may suffice to keep the prisoner under close surveillance and wait for the illicit object to be naturally expelled. Prison doctors and nurses should not carry out body searches, blood or urine tests for drug metabolites or any other examinations except on medical grounds and with the consent of the patient. Vaginal, anal and other intrusive bodily inspections are primarily a security rather than a medical procedure, and thus should not form part of the duties of prison health care staff. On the rare occasions when intimate body searches are deemed necessary, they should be performed by doctors who are, as far as possible, external to the prison.

Prisoners who stop eating or go on hunger strikes

Differential diagnosis

It is vital to understand why a prisoner stops eating since the medical care will differ completely depending on the reason for refusing food. Prisoners may stop eating:

- for religious reasons, as a part of specific religious festivals or if food is served that is not prepared in accordance with religious precepts; the prison administration should deal with such issues and ensure that religious considerations are taken into account in the preparation of food for prisoners;
- because of somatic problems such as dental problems, ulcers, obstructions of the digestive tract, very poor general health and fever; the appropriate treatment should be provided;
- because of mental disorders such as psychosis, poisoning, delusion, major depressive disorders and anorexia nervosa; such prisoners should benefit from health care support of the kind they would receive in open society;
- with the intention of protesting to achieve some change in their regime or to obtain perceived or actual rights.

In the last case, two sets of values clash:

- the duty of the state to preserve the physical integrity and life of those directly under its charge, notably people it has deprived of liberty; and
- the right of every individual to dispose freely of his/her own body.

Ethical aspect

Such situations are challenging for prison health care staff. Pressure is often brought to bear on the doctor, who should avoid the risk that the prisoner, prison or judiciary authorities manipulate medical decisions.

The most important guidance for prison doctors regarding hunger strikes is the World Medical Association's Declaration of Malta (5). This Declaration is summarized below and some important issues are discussed.

- Physicians have the duty to act ethically. Whatever their role, they must try to prevent coercion or maltreatment.
- The autonomy of the patient must be respected. In order to do so, the physician must assess an individual's mental capacity. Getting a second opinion from an independent psychiatrist as to soundness of mind is always wise in every case of food refusal.
- A thorough examination of the patient should be made and the physician should make sure that the patient fully understands the consequences of his/her hunger strike. It is important to recognize that the refusal of certain treatments must not prejudice any other aspect of medical care, such as treatment of infection or pain.
- The wish to continue the strike must be ascertained on a daily basis, and the physician should talk to the prisoner concerned in private.

The physician must visit patients regularly and, if they

agree, conduct regular follow-up examinations. These consultations should be held in a positive, personalized climate, and the physician should inform the patient of the progressive decline in his/her health. In this way, hunger strikers can freely change their mind at any time and abandon the strike, having been duly informed of the worsening nature of the risks to which they are exposing themselves. The doctor must evaluate each prisoner individually and should be particularly careful in case of a collective hunger strike, as prisoners are often subjected to external pressure.

Physicians should offer detainees the possibility to access a special diet whenever this is possible. It is widely accepted that liquids, vitamins, sugar and trace nutrients protect the striker's health from irreversible damage (6). By lengthening the time of the fast, it can allow both the prisoner and the authorities to propose a mutually acceptable solution in order to avoid lethal deadlock.

- Confidentiality must be respected, unless it is necessary to share information in order to prevent a serious threat to the patient or to others.
- The doctor must keep the prison and judicial authorities informed of the evolution of the health condition of the patient through regular and successive health reports. These carefully established and strictly objective health reports are part of the medical care for a person in danger and allow the authorities to take more adequate decisions.
- If no discussion is possible with the patient (for example because he/she has already lost mental capacity), the physician must respect the patient's wish, but has to consider very carefully the instructions given by the patient as the situation might have changed or the instructions may have been written under pressure. In case of doubt, the physician must act in the patient's best interest.
- In a case of conflict between loyalty to the authorities and to the patient, the physician's primary obligation is to the patient.
- Forcible feeding of prisoners is never ethically acceptable.

Such a procedure can only be justified if a serious mental disorder affects the decision-making capacity of the patient (see Differential diagnosis above). In such a case, this constitutes artificial nutrition and not force-feeding, and must be carried out in a hospital setting.

If there is no obvious alteration in the prisoner's decision-making capacity, the doctor must carefully consider a course of action, keeping in mind that, in the vast majority of cases, the prisoners do not want to die. On the contrary, they want to enjoy better conditions. Patients frequently expect that the doctor,

who will invariably be called in if a hunger strike is kept up, will act as an intermediary and may act to protect them in this struggle.

In these situations, the medical approach should sometimes be frankly paternalistic. It should entail a discussion with the patients on hunger strike to try and persuade them to accept at least a minimal calorie intake. Faced with a firm medical attitude, the prisoner may recover some hope and accept a normal healthy diet later. Some patients do not consider dying as part of their struggle and may even accept artificial feeding, but will not indicate this explicitly. The evaluation of the real volition of the detainee in these situations is very difficult.

Patients may ask for hospitalization to give their case more weight. In this situation, hospitalization unwarranted by clinical status should not appear as an indirect support to achieve their aims. Nevertheless, early hospitalization may allow better follow-up of biological parameters. Further, a radical change of atmosphere could lead to a situation in which the prisoner may choose to interrupt the hunger strike without losing face in front of his/her comrades.

- If the patient's position remains firm, based on his/her free will to exert pressure through his/her body to modify his/her prison situation or to conduct a political struggle, doctors should limit interventions to warning of the dangers to which strikers expose themselves by refusing to eat.

Clinical aspects

The capacity of the human body to survive starvation or water deprivation is not yet fully understood. Obviously, data in this area tend to be anecdotal rather than interventional studies.

In dry fasting, the person refuses all solid or fluid intake. Death occurs in 4 to 10 days, depending on factors such as ambient temperature and humidity and the striker's level of stress and physical activity.

Severe electrolytic imbalance can rapidly cause death due to cardiac arrhythmia or damage to the central nervous system. A hypovolemic state causes multiorgan dysfunction and acute renal insufficiency, worsening an electrolytic imbalance (7,8).

In total fasting, the individual only consumes clear water, with no other intake of nutrients.

Clinical evolution of a hunger strike

The usual clinical evolution of a hunger strike in a healthy, young patient who continues to drink water is as follows:

- first week: sensation of hunger and fatigue; possible occasional abdominal cramping;
- second and third weeks: increasing weakness accompanied by dizziness, making the upright position difficult to maintain; progressive disappearance of the feelings of hunger and thirst; permanent sensation of chilliness;
- third and fourth weeks: progressive worsening of the symptoms mentioned above; slowing down of intellectual faculties;
- fifth week: alteration of consciousness from mild confusion to stupor and sleepiness, apathy and anosognosia, followed by anomalies of ocular movements (initially uncontrollable movements followed by paralysis); generalized lack of motor coordination with notable difficulty in swallowing; diminished vision and hearing, leading to loss of vision and hearing; sometimes diffuse haemorrhaging.

Death can occur abruptly either due to cardiac rhythm alterations, sepsis or several hours after the induction of a comatose state due to hypoglycaemia (11).

In theory, the reserves of the human body should allow a person to survive for 75–80 days without absorbing a single calorie.

In practice, it is usually accepted that there is little risk of dying within the first six weeks of a fast for a previously well-nourished and healthy person (9). Nevertheless, serious, sometimes deadly, clinical disorders may appear after a few weeks of complete fasting, mainly because of susceptibility to infection due to decreased immunity and impaired wound healing. As with dry fasting, renal insufficiency also often causes complications (10).

It should be noted that death is not usually due to tissue loss per se but to organ failure or infection. The limit of a body mass index compatible with life itself is thus not the only parameter that should be taken into account.

It is vital to recognize that certain medical factors can predispose to the rapidly fatal evolution of a fast. The major factors include heart disease, renal insufficiency and diabetes, especially if the patient is insulin-dependent. Gastric or duodenal ulcers can manifest as problems as early as one week after the start of the fast.

Today most hunger-strikers follow dietary fasts with the absorption of certain vitamins, trace minerals and some food (sweet drinks, candy or small amounts of various foods). This type of hunger strike allows them to hold on for several months. Prisoners going on a fast should have access to this diet because the risk of permanent damage

to the nervous system is significantly reduced. However, a prolonged hunger strike poses a substantial risk of permanent damage to the nervous system (12) (such as Wernicke syndrome), and it should be emphasized that glucose intake without vitamin B1 accelerates the process of neurological damage.

In practice, because many different factors affect a fast, such as the type of fast, conditions of detention (temperature, humidity) and mental stressors, it is virtually impossible to determine medically the risk and timing of death.

Re-feeding

The major electrolytes and vitamin depletion in people suffering from malnutrition cause serious threats when it comes to re-feeding. Indeed, glycaemia triggers insulin secretion, which in turns starts the movement of electrolytes and fluids across cellular membranes (mainly of phosphates and potassium). These very rapid changes can lead to lethal consequences, such as cardiac arrest. As mentioned above, glucose intake in a case of vitamin depletion can also precipitate Wernicke syndrome. In consequence, re-feeding should be considered very carefully in people at risk, that is, those who have had no food intake for more than 10 days (5 days if the body mass index is under 18.5 kg/m²) or with laboratory low levels of phosphate and potassium (13).

Torture and inhumane or degrading treatment

Medical personnel seriously violate the rules of medical ethics if they:

- in any way assist in (even by merely being present) sessions of torture or inhumane and degrading treatment or advise the torturers or those inflicting such treatment;
- provide facilities, instruments or substances to that effect;
- certify that a prisoner is able to withstand a torture or inhumane treatment session; or
- weaken the resistance of the victim to torture or inhumane treatment.

The health service in a prison can, however, potentially play a very important role in the fight against ill-treatment within prisons and elsewhere, specifically police stations. In the context of medical consultations, people sometimes show physical signs or mental symptoms compatible with having been subjected to torture or other forms of cruel, inhumane or degrading treatment.

In view of this, the physical and mental examinations carried out on admission of a prisoner are particularly important.

During a physical examination (most specifically, the one carried out on arrival), any trace of violence compatible with torture or inhumane treatment must be duly noted and registered (photos are desirable) both in the prisoner's personal file and in any general register of traumatic injuries. Likewise, any psychological or psychiatric disturbances that may indicate that a person has been subjected to ill-treatment must be recorded. Such information must be automatically transmitted without delay to the supervising authorities. Prisoners should be entitled to obtain a copy of the medical report concerning them at any time.

However, the simple fact of being identified by the health care services as bearing traces of traumatic lesions or mental symptoms compatible with torture or inhumane treatment can trigger reprisal measures against the victim. To protect patients from this risk of retaliation, doctors must formally inform them that they are going to report to the competent authority the evidence they have gathered during the consultation. If the patients fear that they will be subjected to reprisal, they may decide not to divulge how the lesions were inflicted and even lie about them.

In their reports, doctors must clearly distinguish between the patient's allegations (circumstances of the physical or mental trauma as described by the patient) and complaints (subjective sensations experienced by the patient), and the clinical and para-clinical objective findings (such as mental state; size, location, aspect of the lesions; X-rays and laboratory results). If the doctors' training and/or experience allow, they must indicate whether the patients' allegations are compatible with their own clinical findings.

Capital punishment and executed prisoners as sources of organs

Health professionals should never be complicit in any way (even by their presence) with capital punishment, and should not be involved in examining the detainee immediately before the execution nor in confirming death or issuing the death certificate. The donation of organs after an execution associates the medical profession with the execution and should, therefore, be prohibited (14).

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4. Violence, sexual abuse and torture in prisons

Jens Modvig

Key points

- Violence in prisons is often clandestine because of the fear of reprisal when it is reported.
- Because violence is not brought into the open, it is easily overlooked or underestimated.
- Authorities are obliged to protect prisoners against violence, which must not constitute an additional punishment on top of deprivation of liberty.
- Violence begets violence, so prison violence inhibits rehabilitation for normal life.
- Violence occurs mostly in high-security facilities and prisons with coercive practices, even though the security measures have been established to minimize the violence.
- A key performance indicator for the prevention of violence is that prisoners feel safe and secure.
- About 25% of prisoners are victimized by violence each year while 4–5% experience sexual violence and 1–2% are raped.
- Prevention may focus on the prisoners by identifying groups with special needs who are at risk of being victimized.
- Prevention may focus on creating a positive prison climate to encourage respect, humanity and fairness.

Introduction

Prisons are violent places compared to the community. United States government statistics demonstrate that rates of physical assault for male inmates are more than 18 times higher than the equivalent rates for males in the general population. For female inmates, the rates are more than 27 times higher (1).

Violence in prisons is and should be a prison management and prison health service priority issue for several reasons.

First, violence begets violence, that is, exposure to violence during adolescence increases the risk of later violent and non-violent crime, drug use and intimate violence against or from a partner (2). Thus, the rehabilitation or corrective dimension of imprisonment is undermined if prisoners are placed in an environment that makes them more violent and more criminal than before.

Second, in international law, prisoners are entitled to protection against violence such as assault, rape and torture. According to principle 5 of the United Nations Basic Principles for the Treatment of Prisoners: "Except

for those limitations that are demonstrably necessitated by the fact of incarceration, all prisoners shall retain the human rights and fundamental freedoms set out in the Universal Declaration of Human Rights ..." (3).

Thus, state authorities have an obligation to ensure that prisoners enjoy protection against all human rights violations.

Third, a violent institution is more difficult and expensive to manage than a secure and safe institution with a positive climate, including a positive working environment.

Violence is difficult to address and assess precisely because it is surrounded by silence and, therefore, often underreported. Violence is – except for a justified proportionate use of force by staff – illegal and punishable. For this reason, reporting of violence committed by prisoners or by staff may lead to reprisals and retaliation ("snitches get stitches"). While this may also be the case in the world outside the prison, the deprivation of liberty means that a victim who reports the violence has no possibility of escape from the retaliation by the perpetrator. A study found that 25% of respondents who had not reported their most recent experiences of assault said that they did not believe that reporting victimization would make a difference. An additional 20% did not report an assault because they feared retaliation (4). Comparisons of official violence and disorder statistics with unofficial statistics indeed reveal that the official statistics underestimate the problems (5).

Definitions of violence in prison

WHO has defined violence as "The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation" (6).

It is noteworthy that the definition includes threats such as the potential use of force, and that the defining outcome is not only injury or death but also psychological harm, maldevelopment and deprivation.

Violence may further be categorized as self-directed, interpersonal or collective when directed towards: (i) oneself; (ii) one's family, intimate partner or unrelated person; and (iii) specifically defined groups for reasons of

a social, political or economic agenda. Organized groups or states may perpetrate collective violence. The nature of the violence may be physical, psychological, sexual or deprivation/neglect (7).

In a prison context, the prison authorities have a general obligation to protect inmates against any type of violence, including excessive use of force. This chapter will address how prison authorities, including prison health services, may address the issue of violence.

Except for a proportionate use of force required for security procedures (which is outside the scope of this chapter), the many types of violence that may occur in prisons include:

- suicides, suicide attempts and self-harm;
- physical violence (beatings, fights) among prisoners;
- psychological violence such as threats, bullying or humiliation;
- sexual assaults of prisoners by other prisoners or by prison staff;
- excessive violence committed by prison staff towards prisoners amounting to torture or ill-treatment;
- violence by prisoners against prison staff, from single events to prison riots.

Suicide attempts and self-harm are outside the scope of this chapter. The following discussion will deal with violence more generally between prisoners, between prisoners and staff, sexual violence, torture and ill-treatment. The occurrence of the violence and underlying risk factors will be addressed and the final section will discuss the prevention of prison violence, both among inmates and perpetrated by prison staff.

On a technical note, the measures of violence used in the studies reviewed include the proportion of all prisoners exposed to violence, whether victimized once or several times (sometimes called the prevalence rate). This measure reflects the proportion of all prisoners surveyed as to their exposure to violence in the period of interest. This might be their lifetime prevalence or those who were exposed during a current or recent period of incarceration, for example, in the previous 6 or 12 months.

The studies of violence in prisons do not have uniform measures of frequency, although United States studies tend to focus on the most recent six months. In some studies, the reference period is not explicit. The differences between the estimates may be rather small, especially if the average period in prison was between 6 and 12 months, exposed prisoners were typically exposed more than once, and the prisoner had been in prison only once or twice before.

Violence in prisons

Prisoner-on-prisoner

A recent study found a six-month male prevalence rate of 205 per 1000 for prisoner-on-prisoner physical violence and 246 per 1000 for staff-on-inmate physical violence (1). In other words, 20% of the prisoners had been subjected to physical violence by other prisoners and 25% to violence by prison staff during the preceding six months. For females, the prisoner-on-prisoner rate was the same whereas the staff-on-prisoner rate was 8%, that is, male prisoners experience more staff-on-inmate violence than female prisoners do.

Small to medium-sized facilities had higher prevalence rates of inmate-on-inmate physical violence, whereas medium-sized and large facilities had higher staff-on-inmate rates of physical violence. For comparison, the six-month sexual violence victimization rates for both sexes were 42 per 1000 for any sexual victimization and 15 for non-consensual sexual acts (8).

Fairly consistent with the American study, a recent Australian study reported that 34% of the male inmates and 24% of the female inmates reported having been physically assaulted at any time during their imprisonment, and 7% of both genders had been threatened with sexual assault (9).

Juveniles seem to be involved in prison misconduct and violence more frequently than slightly older prisoners and even more than adults (10).

Prisoner-on-staff

Obviously, violence in prisons makes prisons a violent workplace for the staff. A study of direct, injury-producing violence using workers' compensation claims in a random sample of 807 correctional officers in an urban prison revealed that 25.9% reported one episode and 20.3% reported two or more violent episodes during an average length of employment of approximately 10 years (11). Thus, at least half of the prison staff suffered injury due to violence during a 10-year employment period. The main risk factors for male employees being exposed to workplace violence were long-term substance-abuse, whereas female employees seem to have a violence-reducing effect on the inmate population.

Kratcoski (12) found that more than 70% of the violence against staff occurred in the detention/high security areas, during the day shift, predominantly directed towards trainees with little experience and committed by young inmates aged 25 years or less.

Sexual violence in prisons

Sexual violence is particularly difficult to study and assess

because of the stigma associated with being raped or abused and also because of the risk of reprisals from the perpetrator. Sexual violence may be defined as behaviour that leads a person to feel that he/she is the target of aggressive intentions (13). This may also include sexual pressure. In a recent study, sexual victimization was viewed more narrowly as non-consensual sexual acts with oral, vaginal or anal penetration as well as abusive sexual contacts (touching or grabbing in a sexually threatening manner or touching genitals) (14).

Estimates of sexual assault victimization have varied between 1% and 41%, depending on what was included. The annual rate in United States prisons seems to converge at about 5% or less (14). A thorough review and meta-analysis of studies of prison rape proper concluded that 1.9% of inmates have experienced a completed episode of sexual victimization during their entire period(s) of incarceration (15).

Recently, Wolff & Shi (14) found that 4% of male inmates and 22% of female inmates reported that they had been subject to prisoner-on-prisoner sexual victimization (most often abusive sexual contact such as inappropriate touching) during the previous six months. At least one type of staff-on-prisoner sexual victimization was reported by 7% of male inmates and 8% of female inmates. Non-consensual prisoner-on-prisoner sexual acts amounted to less than 2% over six months, while staff-on-prisoner non-consensual sexual acts were less than 1.1%.

In 2007, the United States Department of Justice conducted a national inmate survey of 60 500 prisoners using an audio computer-assisted self-interview. The survey showed that 2.1% of the prisoners reported inmate-on-inmate victimization and 2.9% reported staff-on-inmate victimization. Of the latter, about half was reported as unwilling activity (16).

A study in a juvenile correctional centre in South Africa, comprising interviews with 439 offenders, revealed that 29% said that they had been assaulted, attacked or physically hurt while in the facility. Of these, 68% had been beaten, pushed, stamped on or the like, 21% had been stabbed and 7% had been assaulted sexually (4).

Of a random sample of current prisoners in California, 4% had experienced sexual violence (rape, other sexual assault) and 59% of transgender prisoners reported that they had been the victim of such experiences (17,18). A British study found, by interviewing ex-prisoners, that 1% of prisoners had been sexually coerced involving sexual intimacy and 4% had been subjected to forced drug searches.

Sexual coercion in United States female facilities showed rates almost as high as male rates: up to 27% of female prisoners had experienced sexual coercion at some point in any prison in the state. Of these, about 25% (7/27) resulted in rape (19), that is, a prison-life rate of 7–8%.

Sexual victimization during imprisonment is experienced by between 1% and 40% of the inmates, while physical victimization is experienced by between 10% and 25% of the inmates (20). However, the resulting estimates obviously depend on the investigation methodology, including the sample and the phrasing of the question posed to the interviewees. Wolff and colleagues found that when they used the same questions, 0.2% of women in a community sample reported being raped (attempted or completed) during a 12-month period compared to 4.6% of women during a 6-month period in prison. The rates of physical assault on men were 0.9% in a community sample over a 12-month period and 32.9% in prison during a 6-month period (19).

Wolff & Shi (14) included in their survey questions about the emotional consequences of their worst incidents of sexual victimization. The majority of the targets reported at least one consequence – most frequently feeling distrust, nervousness, social apprehension, and worry about recurrence and depression. Also, sexual victimization within the previous six months was associated with feeling unsafe. Lockwood (13) reports that a victim of a prison sexual assault finds it difficult to reintegrate into society and tends to become more violent. Many prisoners worry about their sexual identity.

Torture and ill-treatment

Torture is a subgroup of collective violence, defined specifically by the severity of the pain, the intentionality, the purpose and the perpetrator. In the United Nations Convention Against Torture and other Cruel, Inhuman or Degrading Treatment (21), torture is defined as: (i) severe pain or suffering, physical or mental; (ii) inflicted intentionally; (iii) with a specific purpose such as to obtain a confession or to punish; and (iv) by a person acting in a public capacity. In contrast, cruel, inhuman or degrading treatment (also called ill-treatment) may involve less but still substantial pain or suffering and not necessarily be committed for a specific purpose.

Torture is prohibited according to international law, and there are no circumstances that justify an exception to this prohibition. Nevertheless, according to human rights reports, torture is practised in about 130 countries and is widespread and systematically used in 80–100 countries (22).

Hostilities facilitate torture, for example, between the warring parties in an armed conflict or between religious, sexual or political majorities and minorities. Such hostility may develop into de-individualization and de-humanization. Torture may be interpreted as socialized obedience in an environment where the perpetrators see themselves as performing a great service by punishing a group that they perceive deserves ill-treatment (23). For this reason, minorities (of a sexual, political or religious nature) are at increased risk of being victims of torture and may be in need of stronger protection measures.

Pre-trial detainees are at special risk of torture because their investigation is ongoing. Obtaining a coerced confession may be viewed as attractive by law enforcement authorities. In addition to coercing a confession by use of torture or other types of excessive use of force, isolation is particularly sensitive for pre-trial detainees. The mental health impact of isolation is well documented (24); the use of solitary confinement on an accused pre-trial detainee may cause suffering and pressure to force confession to a crime that the detainee might not have committed or admitted.

In some torture settings, the signs of torture may serve a political purpose as a show-case, to scare the opposition or dissidents from being politically active. Here, methods leaving physical marks (unsystematic and systematic beatings, electrical torture, cuts and amputations) indeed serve their purpose. In other settings, the regime pretends to comply with human rights and applies torture methods which leave no marks so that international missions do not detect them. Torture that leaves no visible marks can include psychological torture, such as deprivation, induced desperation, threats, sexual humiliation or desecration (25). Humiliation through strip-searching is a routine practice in many countries (26).

Documentation of torture, both the torture methods used and the medical documentation of the health consequences of torture, is best made according to an internationally recognized standard procedure: the Istanbul Protocol (27). Documentation of torture in places of detention often takes place in connection with national or international external monitoring mechanisms.

Torture leaves severe marks on the body and mind. A recent review of 181 studies demonstrates that post-traumatic stress disorder and depression are frequent consequences of torture and related trauma (28).

The main approach to the prevention of torture is the independent monitoring of prisons. Monitoring mechanisms, which represent the outside world looking

at what goes on behind bars, can contribute to prevention through making recommendations to the authorities and/or by making the findings known to the public.

National monitoring mechanisms include:

- prison inspectorate/police inspectorate;
- parliamentary committees;
- lay monitoring committees;
- national preventive mechanisms established or appointed according to the Optional Protocol to the United Nations Convention against Torture – often an ombudsman or national human rights institutes;
- national nongovernmental organizations.

International mechanisms include:

- the United Nations Sub-Committee for the Prevention of Torture;
- the United Nations Special Rapporteur for Torture;
- the International Committee for the Red Cross;
- the Council of Europe Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment;
- international nongovernmental human rights organizations.

Many intergovernmental monitoring bodies operate with a mandate based on confidentiality, and publication of their findings may only take place if the host state party agrees. Thus documentation of the occurrence of torture rarely originates publicly from these bodies, but rather from national and international nongovernmental organizations (such as Amnesty International and Human Rights Watch) in their country or annual reports.

Prevention of violence in prisons

To address the prevention of violence, the starting point is in the explanation of models of violence. To understand prison violence, there are two main schools of thought (29).

The *importation model* emphasizes that prisoners bring their violence-prone behaviour to the institutions through their histories, personal attributes and links to criminal groups, for example. This model would direct prevention efforts toward addressing the individual prisoners' proneness to violence through initiatives such as anger management programmes.

The *deprivation model* holds that the prison environment and loss of freedom cause psychological trauma so that, for self-preservation, prisoners create an oppositional prison subculture promoting violence. This model would direct prevention efforts towards the environmental factors and general prison climate, which need to be addressed by prison management.

Recent literature has predominantly focused on the details of prison organization, interactions between people and situational factors of considerable significance for prison violence.

Risk factors associated with prisoners

Individual risk factors for committing violence range from potential violence to assaults with serious injuries. Youth and short sentences are associated with higher levels of violent misconduct, while older age, drug convictions and a higher educational attainment indicate reduced violent misconduct (30). Using injury registries (violence- and accident-related), Sung (31) found that a history of violent offences, violent victimization and psychiatric treatment were associated with increased risk of injuries. Work assignments reduced violence-related risks but increased the possibility of accident-related risks.

Wolff, Blitz & Shi (32) studied sexual victimization in prison for inmates with and without mental disorders, and found that the rates were approximately 2.5 times higher for inmates with a mental disorder and three times higher among female inmates compared to males.

Other special needs groups are likely to be at risk of victimization, such as inmates suffering from chronic diseases, minorities (ethnic, sexual, religious) and inmates with substance abuse. Also the rising population of older prisoners is victimized to a large degree (33). Considering the health problems and functional deficits prevailing among older prisoners, it is likely that such victimization has a considerable impact on their quality of life and feelings of safety and security.

Situational risk factors

Studies have found a greater risk of violent incidents in higher-security facilities (34). This might be expected because high-security facilities host more violence-prone prisoners. However, it might also be expected that security measures serve to manage the risk of violence and thereby prevent it. An explanation put forward by Gadon and colleagues is that increased surveillance creates greater levels of violence through a self-fulfilling prophecy.

There is also evidence that mixing the ages of prisoners may be associated with lower levels of violence than those found among groups of younger prisoners.

A study including 371 American prisons revealed that poor prison management is associated with assaults on both prisoners and staff (35). The management variables included the guard-inmate ratio, guard turnover rate, ratio of white-black correctional staff, involvement in

educational, vocational or industrial programmes and size of institution. Violence between inmates and violence against staff are correlated because staff are often injured during attempts to break up fights between inmates (12).

Most violent episodes occur at the weekends, which could be a consequence of the lack of vocational and educational activities during the weekends (34). Crowding is assumed to be a risk factor for violence, but the evidence for this is not convincing (34).

In conclusion, risk factors for violence in prison settings involve factors related to the level of security, mix of prisoners, staff experience, days of the week and management approaches and relationships between different staff groups (34).

It is also a plausible assumption that fights among inmates are often triggered by disagreements about underground economy issues such as money, drugs, weapons and mobile phones. Copes et al (36) studied the phenomenon in survey data from 208 recently released inmates in a midwestern state (United States) and concluded that participation in the prison economy (being in debt, borrowing money and having too little money to buy goods) is predictive of victimization through violence:

Although the picture is complex, and some inconsistent findings have emerged, generally the literature supports the notion that the more coercive the prison environment the greater potential for violence. This is especially so where prison management and treatment of prisoners are perceived by prisoners as unfair or illegitimate, as this strengthens prisoner solidarity in opposition to the authorities (29).

The joint efforts of ombudsmen, prison inspectorates and independent monitoring bodies have not managed to change the culture of casual cruelty in prisons (37). Inspection standards developed in a monitoring context may, however, serve as standards for further quality assurance. One example is the healthy prison concept developed by Her Majesty's Prison Inspectorate in the United Kingdom (37), testing whether prisoners are:

- held in safety
- treated with respect for their human rights
- offered purposeful activity
- prepared for re-settlement into the community.

Recently, performance indicators have emerged as a way of measuring institutional development. In terms of violence prevention, an example of a key performance indicator may be the proportion (say, 90%) of prisoners who felt safe the first night in prison and generally thereafter. Measuring the status of this indicator empirically (through

surveys) and comparing actual performance to the target performance will provide an indication of the need for further measures.

On a more holistic note, the concept of the moral performance of prisons has been developed by Liebling (38) to identify the important qualities of a prison from the point of view of inmates. This is a conceptual framework that is related to the overall social climate and respect for prisoners in general, and to the occurrence of violence and abuses specifically. The overall values included in this concept are:

- respect
- humanity
- staff–prisoner relationships
- trust
- support
- power/authority
- social relations
- fairness
- order
- safety
- well-being
- personal development
- family contact
- decency
- meaning
- quality of life.

A tool has been developed (Measuring Quality of Prison Life) to measure the compliance of prisons with this conceptual framework. This tool has been included in the routine assessments made by Her Majesty's Prison Inspectorate in the United Kingdom.

The role of the prison health services

While the prison management, including security measures and prison climate, has been identified above as the key factor in preventing violence, the health services have the potential to make an important contribution to the prevention of violence. Access to health care is associated with the prison climate: a positive prison climate facilitates interactions between correctional and health care staff and prisoners, while in negative climates correctional staff act as a filter or barrier between inmates and the health services (39).

Registration and documentation of violence

When violence leads to injuries or to psychological consequences, the prison health service is frequently involved in attending to the victims. In delicate cases (cases of sexual violence, torture, or staff-on-prisoner violence), the health services may be involved under a false pretext, such as accidents, fights between prisoners or "falls". They

may even be pressured to make a false report on the causes of the injury. However, it is important to develop a precise health information registry of the causes and circumstances of the injury, that is, violence between prisoners or between staff and prisoner. With an injury registry in place, the injury data can provide indispensable information on how to prevent violence through the examination of such factors as the place, time and day, circumstances, persons involved and the nature of the violence.

Of particular importance for the prevention of violence is the initial medical examination carried out on arrival in the institution (40). This examination should focus on, inter alia, identification of indications (report, signs, symptoms) of violence or even torture experienced prior to arrival at the institution. A careful record should be made of such signs and symptoms and made available to the prisoner for potential subsequent complaint or legal remedy.

In addition to the health information registry of episodes of violence for internal consumption and quality development, the health services need to have a reporting mechanism to independent authorities, such as the ministry of health or an independent human rights body, to ensure that the delicate and punishable cases of violence, torture or sexual abuse may be evaluated neutrally, according to international standards such as the Istanbul Protocol.

The integrity of the health services, that is, the ability to operate professionally independent of the prison management, is at stake here, as is the technical capacity to document sensitive cases of violence, torture and sexual abuse for future documentation and legal remedy.

Protecting special needs groups

As mentioned above, many special needs groups (ethnic, sexual and religious minorities, minors) are at increased risk of being victimized by violence, sexual abuse and even torture. This also applies to prisoners with mental health disorders.

The initial medical examination may serve to identify prisoners with such special needs at an early stage. This allows the prison health service – with the consent of the prisoners – to put forward recommendations for their protection, often through meeting the special needs that apply to each group.

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5. Solitary confinement as a prison health issue

Sharon Shalev

Key points

- Solitary confinement is used in prison systems across the world.
- Research demonstrates that solitary confinement has a negative impact on the health and well-being of those subjected to it, especially for a prolonged time.
- Those with pre-existing mental illness are particularly vulnerable to the effects of solitary confinement.
- Solitary confinement can affect rehabilitation efforts and former prisoners' chances of successful reintegration into society following their release.
- International human rights law requires that the use of solitary confinement must be kept to a minimum and reserved for the few cases where it is absolutely necessary, and that it should be used for as short a time as possible.

Introduction

WHO defines health as a "state of complete physical, mental and social wellbeing, not merely the absence of disease or infirmity", affirming that health, as defined, is a fundamental human right (1). Solitary confinement negatively affects all these aspects of health. It is an extreme form of confinement whose deleterious physical, mental and social health effects have long been observed and documented by practitioners and researchers alike. Yet solitary confinement is a common and universal feature of prison systems worldwide, used throughout the various stages of the criminal justice process and for a variety of reasons including punishment, containment and protection. This chapter offers a brief overview of the practice, with a particular focus on key issues relevant to prison health care staff.

What is solitary confinement?

The term "solitary confinement" refers to the physical and social isolation of an individual in a single cell for 22.5 to 24 hours a day, with the remaining time typically spent exercising in a barren yard or cage (2–4).² Different jurisdictions may use other terms to describe what is essentially a regime of solitary confinement as defined above, including segregation, isolation, closed

confinement, 23/7 regime, cellular confinement and super-maximum security (supermax).³

The deprivation of human contact inherent in solitary confinement is usually accompanied by additional restrictions and controls applied to the prisoner. The exact nature of these will of course vary from one jurisdiction to another. But in most, isolated prisoners will have very limited, if any, access to educational, vocational and recreational activities, all conducted in isolation from others. The number and type of personal belongings allowed in prisoners' small, sometimes windowless cells are highly restricted and closely regulated. Their cells and few belongings are closely monitored and regularly searched. Inside their cells, prisoners are monitored either by closed circuit television or directly by guards. Family visits, where allowed at all, may be held through a glass barrier, preventing any physical contact between the prisoner and others. On the few occasions prisoners leave their cells, they are typically escorted by a minimum of two guards and restrained with handcuffs and in some cases placed in additional body restraints, such as leg-irons and body-belts. Prior to being returned to their cells, they will be body-searched and, in some jurisdictions, subject to a full body-cavity search.

In short, isolated prisoners would typically spend a minimum of 22.5 hours a day locked up alone in a small cell with few personal belongings and little to do. They are routinely subjected to body searches and the application of physical restraints, as well as limits on their communication with the outside world. This regime can last for months or years, and can be of an indeterminate duration.

How does solitary confinement affect health and well-being?⁴

The physical conditions in solitary cells range from reasonably sized cells with windows and natural light, self-contained with a toilet and a shower screened-off from the rest of the cell to protect the prisoner's privacy, to small, windowless, filthy cells where prisoners have to use a bucket to relieve themselves. Similarly, in some

2 The requirement to provide prisoners with a minimum of one hour of fresh air and exercise daily is enshrined in international law as well as in national laws in many jurisdictions.

3 This should be distinguished from isolation (or seclusion) for medical purposes, which is not discussed here.

4 This section is adapted from Chapter 2 of the *Sourcebook on solitary confinement* (3).

prisons, isolated prisoners may have access to books, television and a radio inside their cells, whereas in others prisoners may only be allowed a copy of a religious text, if any books at all. Finally, the degree and quality of human contact prisoners enjoy varies greatly, from no human contact other than with silent prison staff who deliver food and medication to the prisoner inside his cell, to regular contact with family, lawyers, religious personnel and so on.

Three main factors are inherent in all solitary confinement regimes: social isolation, reduced activity and environmental input, and loss of autonomy and control over almost all aspects of daily life. Each of these factors is potentially distressing. Together they create a potent and toxic mix, the effects of which were well summarized as early as 1861 by the Chief Medical Officer at the Fremantle Convict Establishment in Western Australia:

In a medical point of view I think there can be no question but that separate or solitary confinement acts injuriously, from first to last, on the health and constitution of anybody subjected to it... the symptoms of its pernicious constitutional influence being consecutively pallor, depression, debility, infirmity of intellect, and bodily decay (5).

The rich body of literature that has accumulated since that time on the effects on health of solitary confinement largely echoes these observations and includes anxiety, depression, anger, cognitive disturbances, perceptual distortions, paranoia and psychosis among other symptoms resulting from solitary confinement. Levels of self-harm and suicide, which are already much higher among prisoners than in the general population (6), rise even further in segregation units (3,7).

The effects on health of solitary confinement include physiological signs and symptoms, such as:

- gastro-intestinal and genito-urinary problems
- diaphoresis
- insomnia
- deterioration of eyesight
- lethargy, weakness, profound fatigue
- feeling cold
- heart palpitations
- migraine headaches
- back and other joint pains
- poor appetite, weight loss, diarrhoea
- tremulousness
- aggravation of pre-existing medical problems.

Psychological symptoms occur in the following areas and range from acute to chronic:

- anxiety, ranging from feelings of tension to full-blown panic attacks:

- persistent low level of stress;
- irritability or anxiety;
- fear of impending death;
- panic attacks;
- depression, varying from low mood to clinical depression:
 - emotional flatness/blunting;
 - emotional lability (mood swings);
 - hopelessness;
 - social withdrawal, loss of initiation of activity or ideas, apathy, lethargy;
 - major depression;
- anger, ranging from irritability to rage:
 - irritability and hostility;
 - poor impulse control;
 - outbursts of physical and verbal violence against others, self and objects;
 - unprovoked anger, sometimes manifesting as rage;
- cognitive disturbances, ranging from lack of concentration to confused states:
 - short attention span;
 - poor concentration;
 - poor memory;
 - confused thought processes, disorientation;
- perceptual distortions, ranging from hypersensitivity to hallucinations:
 - hypersensitivity to noises and smells;
 - distortions in time and space;
 - depersonalization, detachment from reality;
 - hallucinations affecting all five senses (for example, hallucinations of objects or people appearing in the cell, or hearing voices);
- paranoia and psychosis, ranging from obsessional thoughts to full-blown psychosis:
 - recurrent and persistent thoughts (ruminations) often of a violent and vengeful character (for example, directed against prison staff);
 - paranoid ideas, often persecutory;
 - psychotic episodes or states: psychotic depression, schizophrenia;
- self-harm and suicide.

How individuals will react to the experience of being isolated from the company of others depends on personal, environmental and institutional factors, including their individual histories, the conditions in which they are held, the regime provisions which they can access, the degree and form of human contact they can enjoy and the context of their confinement. Research has also shown that both the duration of solitary confinement and uncertainty as to the length of time the individual can expect to spend in solitary confinement promote a sense of helplessness and increase hostility and aggression (3). These are important determinants of the extent of adverse health effects experienced.

The adverse effects of solitary confinement will thus vary, depending on the pre-morbid adjustment of the individual and the context, length and conditions of confinement. The experience of previous trauma will render the person more vulnerable, as will the involuntary nature of his/her solitary confinement and confinement that persists over a sustained period of time. Initial acute reactions may be followed by chronic symptoms if the regime of solitary confinement persists.

There is, however, and regardless of these variables and with a few notable exceptions,⁵ a general consensus among health practitioners and researchers that solitary confinement adversely affects health and well-being and prisoners' chances of successful reintegration into society.⁶ Indeed, observations on the effects of solitary confinement are so consistent that Harvard psychiatrist Stuart Grassian, a long-time researcher of and commentator on solitary confinement, contends that the constellation of these effects forms a unique syndrome, which he terms the "isolation syndrome":

... while this syndrome is strikingly atypical for the functional psychiatric illnesses, it is quite characteristic of an acute organic brain syndrome: delirium, characterized by a decreased level of alertness, EEG abnormalities ... perceptual and cognitive disturbances, fearfulness, paranoia, and agitation; and random, impulsive and self-destructive behaviour ... (13).

Particularly vulnerable groups

While the effects of solitary confinement vary from one individual to another and depend on the factors listed above, some individuals are particularly vulnerable to the negative effects of isolation, including those with pre-existing mental and learning disabilities, children and young people and detainees held on remand. These categories are briefly examined below.

Prisoners with mental problems

People who suffer mental problems are grossly overrepresented in prisons in general, and in segregation units in particular (7,14). Such individuals may be segregated for their own protection because they are victimized by other prisoners, or they may end up in isolation because they misunderstand the rules and regulations that govern prison life. They may also behave in ways that, in the context of high-security confinement, are interpreted as violations of rules rather

than a manifestation of their mental problems. Where prisoners' progression through the system depends on their behaviour and perceived adherence to prison rules, this can "turn a minor incident into a serious situation" (15) and lead to a vicious cycle which results in a prolonged stay in isolation, where these very conditions make them worse and less able to abide by the rules and regulations. Furthermore, placement in isolation, as noted earlier, also limits prisoners' access to privileges, programmes and work release assignments and affects their chance of early parole (15).

Experts largely agree that individuals with pre-existing mental illness are at a particularly high risk of worsening psychiatric problems as a result of their isolation (for example, Grassian (13); Haney (16); Kupers (17); Reid (18)). This is increasingly being recognized by the courts on both sides of the Atlantic. In a case involving the placement of a prisoner with known mental health problems in punitive isolation for 45 days and his subsequent suicide, for example, the European Court on Human Rights reiterated that:

... the vulnerability of mentally ill persons calls for special protection. This applies all the more where a prisoner suffering from severe disturbance is placed, as in [this] case, in solitary confinement or a punishment cell for a prolonged period, which will inevitably have an impact on his mental state, and where he has actually attempted to commit suicide shortly beforehand (19).

In a class action lawsuit involving the Security Housing Unit at Pelican Bay, California, federal judge Thelton Henderson observed that conditions there may well "hover on the edge of what is humanly tolerable for those with normal resilience, particularly when endured for extended periods of time" (20). But for some, the conditions of prolonged isolation at the Unit were not tolerable. These prisoners included, according to the court:

The already mentally ill, as well as persons with borderline personality disorders, brain damage or mental retardation, impulse-ridden personalities, or a history of prior psychiatric problems or chronic depression. For these inmates, placing them in the SHU is the mental equivalent of putting an asthmatic in a place with little air to breathe (18).

The particularly devastating effects that solitary confinement has on the mentally ill were more recently also recognized by the American Psychiatric Association,

⁵ Most recently, these include O'Keefe et al. (8), who found that: "segregated offenders were elevated on multiple psychological and cognitive measures when compared to normative adult samples. However, elevations were present among the comparison groups too, suggesting that high degrees of psychological disturbances are not unique to the [administrative segregation] environment". The study also found that mentally ill prisoners were more aggravated by their experiences of isolation than prisoners who were not (diagnosed as) mentally ill, but this was true whether they were in segregation or the general population. The study and its methodology were the subject of much criticism, including by Cassela (9) and Grassian (10), among others (11).

⁶ For full referencing and review of the literature, see Shalev (3) and Scharff Smith (12).

which stated that: "Prolonged segregation of adult inmates with serious mental illness, with rare exceptions, should be avoided due to the potential for harm to such inmates" (21).

Children and young adults

Children and young adults are still developing physically, mentally and socially. This makes them particularly vulnerable to the negative effects of solitary confinement which, as psychologist Craig Haney put it, is the equivalent of placing them in a deep-freeze. Furthermore, the prevalence of mental illness among young people in prison is even higher than among adult prisoners, with as many as 95% having at least one mental health problem and 80% having more than one (6). In this context, it is important to note that young people in prisons are 18 times more likely to commit suicide than their counterparts in the community (6). In 2012, a task force appointed by the United States Attorney General to report on children exposed to violence noted the following:

Nowhere is the damaging impact of incarceration on vulnerable children more obvious than when it involves solitary confinement Juveniles experience symptoms of paranoia, anxiety, and depression even after very short periods of isolation. Confined youth who spend extended periods isolated are among the most likely to attempt or actually commit suicide. One national study found that among the suicides in juvenile facilities, half of the victims were in isolation at the time they took their own lives, and 62 percent of victims had a history of solitary confinement (22).

The practice of isolating young people, both in juvenile facilities and in adult prisons, either for their own protection or as punishment is nonetheless common. In Texas, for example, a 2012 survey found that "the majority of jails held juveniles in solitary confinement for 6 months to more than a year" (22).⁷ An inquiry into the use of physical restraint and solitary confinement of children in England and Wales found that solitary confinement was widely used in institutions for young offenders: during an 18-month period, for example, 519 children were placed in solitary confinement in 6 such institutions (23).

Such practices and the particular vulnerability of young people have led international bodies as well as professional associations to call for a prohibition on the use of solitary confinement for juveniles. Rule 67 of the United Nations Rules for the Protection of Juveniles Deprived of their Liberty (24) specifically lists solitary confinement among a list of prohibited treatments:

All disciplinary measures constituting cruel, inhuman or degrading treatment shall be strictly prohibited, including corporal punishment, placement in a dark cell, closed or solitary confinement or any other punishment that may compromise the physical or mental health of the juvenile concerned. The reduction of diet and the restriction or denial of contact with family members should be prohibited for any purpose.

The Istanbul Statement (2), the United Nations Special Rapporteur on Torture (4) and the Essex Expert Group (25), among others, all call for a complete ban on the use of solitary confinement with juveniles and young people. The American Academy of Child and Adolescent Psychiatry has stated that where solitary confinement is used, the young person should be evaluated by a mental health professional within 24 hours (26).

Pre-trial detainees

Detainees held on remand are another particularly vulnerable group, and research shows that their vulnerability is made worse in solitary confinement. In England and Wales, one study found that 54% of prison suicides took place among detainees held on remand, and that around half of these occurred within one month of being taken into custody (27). Another study, of detainees held on remand in Denmark, found that where detainees were isolated for four weeks, "the probability of being admitted to hospital for a psychiatric reason was about 20 times as high as for a person remanded in non-solitary confinement for the same period of time" (28,29). A more recent longitudinal study commissioned by the Swedish Prisons and Probation Service to examine the health effects of restricted detention among those held on remand (including solitary confinement) found that such detention poses a "significant risk of mental illness" (30) even when other factors (previous psychiatric contact, substance abuse, gender, parenting) are controlled for. One in four of those detained with restrictions suffered mental illness, compared to one in five of those held without restrictions. A qualitative study carried out in parallel to the main study found that three factors are particularly harmful to mental well-being and behaviour in prison: passivity, uncertainty and feelings of impotence. These factors, which are present to some degree in any form of confinement, are of course magnified in isolation.

In sum, the literature shows that solitary confinement is damaging across the board, with young people, detainees held on remand and people with learning difficulties and mental illness being particularly vulnerable to the damaging

⁷ In the United States, a jail is a city or county prison.

effects of solitary confinement. The key negative health effects of solitary confinement are listed above.

Long-term effects

While some of the adverse health effects of solitary confinement will subside on its termination, others may persist. The lasting effects of solitary confinement are perhaps most evident in social settings and with interpersonal relationships:

Although many of the acute symptoms suffered by inmates are likely to subside upon termination of solitary confinement, many – including some who did not become overtly psychiatrically ill during their confinement in solitary – will likely suffer permanent harm as a result of such confinement. This harm is most commonly manifested by a continued intolerance of social interaction, a handicap which often prevents the inmate from successfully readjusting to the broader social environment of general population in prison and ... often severely impairs the inmate's capacity to reintegrate into the broader society upon release from imprisonment (13).

The transition from life in solitary confinement to co-existence with others, whether in general prisons or in free society, can be sharp and unsettling. Some of the very survival skills adopted in reaction to the pains of isolation, such as withdrawal and going mute, render the individual dysfunctional upon release. Some become so dependent on the structure and routines of the prison for controlling their behaviour that they find it difficult to function without them. This problem of becoming institutionalized is experienced by many prisoners on their release, but it takes on a much more acute form when the transition is from years of social isolation (31). Unable to regain the necessary social skills to lead a functioning social life, some of those held in solitary confinement in prison may continue to live in relative social isolation after their release. In this sense, solitary confinement operates against one of the main purposes of the prison, which is to rehabilitate offenders and facilitate their reintegration into society.

When and why is solitary confinement used in contemporary penal systems?

Each state has its own peculiarities but in most, solitary confinement is used throughout the different stages of the criminal process: pre-charge, pre-trial and following conviction. The principle of isolation is common to all these uses, but each entails slightly different arrangements and has a different rationale and different official goals.

Solitary confinement can be used:

- when a suspect is being questioned *before being charged*, to prevent collusion between suspects; it

is also an interrogation technique, particularly for people suspected of committing acts against state security;

- when a suspect *has been charged and is awaiting trial*; the purpose of isolating detainees held on remand is to prevent collusion and to prevent them from intimidating potential witnesses;
- *during the trial and immediately after it* in a penal institution while the newly arrived prisoner is being risk assessed.

Solitary confinement also has several roles or purposes *during imprisonment*. It can be used:

- as a short term-punishment for prisoners who break prison rules;
- to prevent escape;
- for the prisoners' own protection to prevent them from harming themselves or being harmed by others;
- as a prison management tool for the safe management of difficult and challenging prisoners, and for the management of prisoners belonging to certain groups (such as prison gang members);
- where capital punishment is still practised; death row prisoners are typically held in solitary confinement, and where the death penalty has been abolished it is often substituted with a sentence of life in conditions of solitary confinement, on the basis that prisoners sentenced to death have nothing to lose and may therefore commit serious crimes inside prison or indeed attempt to escape;
- increasingly, with immigration detainees (32,33);
- while awaiting transfer to another prison or to a hospital, disciplinary or classification hearing, or a bed; these are temporary measures, but in some cases the prisoner may be isolated for many weeks and sometimes months;
- *de facto*; staff shortages, convenience or as group punishment can mean that prisoners are confined to their cells for an entire day or for several days at a time in what is commonly known as lockdown.

As Hayes (14) notes, all these protocols could be considered hidden forms of isolation.

Whatever the reason for placing a detainee or prisoner in solitary confinement, its use in any one case must be proportionate and reasonable and the decision taken by the competent lawful authority. The prisoner must be informed, in writing, of the reasons for his/her placement in solitary confinement, its expected duration and the appeal process. A record of the decision must be kept on file, and it must be substantively reviewed at regular intervals by a body different to that which took the initial decision (3,25,34).

How do international law and human rights bodies view solitary confinement?

The severity of solitary confinement and its potentially devastating effects on the health and well-being of those subjected to it are recognized under international law, where the practice occupies a special place. The United Nations has gone as far as calling for its abolition as punishment (35). Rule 60.5 of the European Prison Rules states: "Solitary confinement shall be imposed as a punishment only in exceptional cases and for a specified period of time, which shall be as short as possible" (36).

The courts and international monitoring bodies also pay particular attention to the practice and, in the light of its severity, have asserted that it is a practice which in some circumstances constitutes a form of torture, inhuman or degrading treatment (see, for example, the United Nations Special Rapporteur on Torture (4,37); the CPT (34); and European Court of Human Rights cases including Ramirez Sanchez v. France [2006] (38) and Razvyazkin v. Russia [2012] (39)).

As far back as 1978, the former European Commission of Human Rights stated the following:

Complete sensory isolation coupled with complete social isolation can no doubt ultimately destroy the personality; thus it constitutes a form of inhuman treatment which cannot be justified by the requirements of security, the prohibition on torture and inhuman treatment contained in Article 3 being absolute in character (40).

This position has since been affirmed and reaffirmed by the European Court in numerous cases: see, for example, Ramirez Sanchez, v. France [2006] (38), Öcalan v. Turkey [2005] (41) and Babar Ahmad and Others v. the United Kingdom (42). More recently, in a case involving the isolation for more than three years of a prisoner labelled as a persistent rule-breaker, the court reiterated that: "... solitary confinement without appropriate mental and physical stimulation is likely, in the long term, to have damaging effects, resulting in deterioration of mental faculties and social abilities" (39).

To fall under the scope of Article 3, the prisoner's treatment must cause suffering which exceeds the unavoidable level inherent in detention (Onoufriou v. Cyprus [2010] (43)), depending on the court's assessment of all the circumstances of the case, such as the duration of the treatment, its physical and mental effects and, in some cases, the state of health of the victim (Kudła v. Poland [2000] (44); Peers v. Greece [2001] (45)). The purpose of such treatment will be taken into account, in particular the question of whether it was intended to humiliate or

debase the victim, but the absence of any such purpose does not necessarily mean that Article 3 has not been violated (45).

While solitary confinement has always been viewed by international human rights law and bodies as an undesirable, if legitimate, prison practice, it is only in the last few years that a more concentrated and targeted campaign against its use especially for prolonged periods, has begun. In 2007, a group of international experts adopted the Istanbul Statement on the Use and Effects of Solitary Confinement, calling on states to limit the use of solitary confinement to very exceptional cases, for as short a time as possible, and only as a last resort (2). In 2008, the then United Nations Special Rapporteur on Torture, Manfred Nowak, endorsed these recommendations and added that: "Regardless of the specific circumstances of its use, effort is required to raise the level of social contacts for prisoners: prisoner-prison staff contact, allowing access to social activities with other prisoners, allowing more visits and providing access to mental health services" (35).

In August 2011, the then new United Nations Special Rapporteur on Torture, Juan Mendez, focused his periodic report to the United Nations General Assembly on the practice of solitary confinement, stating that it is a "harsh measure which may cause serious psychological and physiological adverse effects on individuals" and which can violate the international prohibition against torture and cruel, inhuman or degrading treatment (4). Importantly, the Special Rapporteur called for the absolute prohibition of prolonged solitary confinement, which he defined as a period in excess of 15 days. Soon thereafter, in November 2011, the CPT also focused its annual report on solitary confinement, stating that it is a practice which "can have an extremely damaging effect on the mental, somatic and social health of those concerned. This damaging effect can be immediate and increases the longer the measure lasts and the more indeterminate it is" (34). The CPT called on states to reduce the use of solitary confinement to an absolute minimum and ensure that its use in any given case meets what the CPT has termed the PLANN test: it must be proportionate, lawful, accountable, necessary and non-discriminatory (34).

Conclusion

Solitary confinement is a prison practice whose harmful effects on health and well-being are well documented. The extent of psychological damage varies and will depend on individual factors (such as personal background and pre-existing health problems), environmental factors (physical conditions and provisions), regime (time out of cell, degree of human contact), context of the isolation (punishment,

own protection, voluntary/non-voluntary, political/criminal) and its duration. Notwithstanding variations in individual tolerance and environmental and contextual factors, there is remarkable consistency in research findings on the health effects of solitary confinement dating back to the 19th century. These have demonstrated negative health effects, in particular psychological but also physiological.

The best way to avoid such damage to health and well-being is not to isolate prisoners. Where this is absolutely necessary, it should only be done as a last resort and for as short a time as possible. The decision to place a prisoner in solitary confinement must always be made by a competent body, transparently and in accordance with due process requirements, and be subject to regular, independent and substantive review. The prisoner must be kept in decent physical conditions and have regular access to fresh air and exercise. Educational, recreational and vocational programmes must be provided to prisoners, ideally in association with others, and prisoners should be allowed to keep books, magazines, hobbies and craft materials in their cells. They must be afforded regular, meaningful human contact, ideally also with people from outside the prison, but prison staff should also be encouraged to communicate informally with prisoners who are held in solitary confinement. Finally, isolated prisoners should be allowed, and encouraged, to maintain contact with their friends and family, through open (contact) visits, letters and telephone communications. Crucially, prisoners must always be treated with respect for their inherent dignity as human beings.

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6. Health in pre-trial detention

Denise Tomasini-Joshi, Ralf Jürgens, Joanne Csete

Key points

Pre-trial detainees are a particularly vulnerable group when it comes to health conditions and the provision of health services.

- Many more people move in and out of pre-trial detention than will spend time in prison after conviction.
- People in pre-trial detention have been arrested and accused of a crime but not been found guilty of the crime(s) charged.
- Places of pre-trial detention are often ill-equipped to provide health services.
- People in pre-trial detention often spend time in worse conditions than people who have already been convicted.
- According to international legal standards, health interventions should be available at the earliest possible stage in the criminal justice system.
- Particular attention should be devoted to ensuring continuity of treatment at all stages of the criminal justice process.
- Under international legal standards, pre-trial detention is to be used as an exceptional cautionary measure and wide use is to be made of alternatives to detention.
- Pre-trial release (release pending completion of the criminal justice process) can be an effective health intervention by allowing people to be supervised in the community where health services are more readily available. It is also an effective way to reduce prison overcrowding.

Introduction

It is estimated that about one third of the global prison population is detained prior to the completion of a criminal justice process. In a single year, more than 10 million people globally will spend some time in this type of detention. That is, they have been arrested for an alleged offence and are held but have not been found guilty of that crime. In many countries, pre-trial detainees account for the majority of people incarcerated by the criminal justice system, thereby contributing to overcrowding issues (where such exist).

In some instances, pre-trial detainees are held in special pre-trial detention centres but in others, they are held in police cells or in prisons along with the convicted population. Where pre-trial detainees are held in special pre-trial detention centres, these centres may not provide

the same health services as the prisons because they are considered short-term detention facilities. Police cells are often ill-equipped to house detainees longer-term, and often lack even basic necessities such as toilets or beds. On the other hand, where pre-trial detainees are held in prisons with convicted prisoners, they may not be provided with access to the existing facilities owing to their non-convicted status. For example, they may be denied treatment that requires a long-term commitment (such as treatment for TB) because they are deemed temporary detainees, or they may not have access to prison services simply because they are not under the legal jurisdiction of the prison while they are awaiting trial. In addition, people frequently experience interruption of critically important medications, such as medication to treat HIV, TB or drug dependence, upon arrest, when they are detained in police cells, transferred to pre-trial detention facilities or appearing in court.

Defining pre-trial detention

Most criminal justice systems formally differentiate between sentenced and unsentenced prisoners, that is, people who have been charged and convicted of a crime and people who have been arrested on suspicion of a crime but have yet to be tried and convicted. It is helpful to note that the terms unsentenced prisoner, pre-trial detainee, remand prisoner, remandee, awaiting trial detainee and untried prisoner are used interchangeably in the literature. According to Penal Reform International, “remand prisoners are detained during criminal investigations and pending trial. Pre-trial detention is not a sanction, but a measure to safeguard a criminal procedure” (1). Most countries will also afford individuals who are accused but not convicted a different legal status, in keeping with international standards and norms.

Guidelines

International human rights norms emphasize the important distinction between people who have been found guilty (convicted by a court of law and sentenced to prison) and those who have not. Prisoners awaiting their trial, or the outcome of their trial, are regarded differently because the law sees them as innocent until found guilty (2–5).

The use of pre-trial detention is restricted by several international human rights treaties. The International Covenant on Civil and Political Rights states the following in the relevant part (2):

Anyone arrested or detained on a criminal charge shall be brought promptly before a judge or other officer authorized by law to exercise judicial power and shall be entitled to trial within a reasonable time or to release. It shall not be the general rule that persons awaiting trial shall be detained in custody, but release may be subject to guarantees to appear for trial.

International standards permit detention before trial only under certain, limited circumstances. In 1990, the Eighth United Nations Congress on the Prevention of Crime and Treatment of Offenders (6) established the following principle:

Pre-trial detention may be ordered only if there are reasonable grounds to believe that the persons concerned have been involved in the commission of the alleged offences and there is a danger of their absconding or committing further serious offences, or a danger that the course of justice will be seriously interfered with if they are let free.

One of the major achievements of the Eighth United Nations Congress was the adoption, by consensus, of the United Nations Standard Minimum Rules for Non-custodial Measures (the Tokyo Rules) (7). These rules provide that pre-trial detention shall be used as a means of last resort in criminal proceedings, and that alternatives to pre-trial detention shall be employed at as early a stage as possible.

The tenor of international norms and standards in relation to pre-trial detention is clear: restricting a defendant's freedom should be used sparingly and under prescribed circumstances only. It follows that detention of an accused should occur under circumstances that preserve the presumption of innocence and will not entail a punishment without a trial.

Challenges of pre-trial detention

Pre-trial detainees can be a particularly vulnerable group. The hours following an arrest can be confusing: there may be a delay in communicating with the outside world; torture to obtain confessions, when it happens, typically occurs before trial; and temporary places of detention (such as police cells) are often dirty, poorly lit and ventilated, overcrowded and lacking basic equipment such as beds and toilets.

Various factors exacerbate poor health conditions in pre-trial detention. Firstly, pre-trial detention is seen as a temporary circumstance with the ultimate goal being dismissal of charges, acquittal or conviction after trial. This creates three subsets of problems:

- in many countries pre-trial detention occurs in facilities that are ill-equipped to deliver health services or to house long-term residents, such as police stations;

- in other countries, pre-trial detainees fall under the jurisdiction (care) of an institution other than the agency that oversees convicted prisoners, leading to accountability and oversight problems;
- in many countries, pre-trial detainees are not entitled to participate in programmes that facilitate recovery and re-entry into the community because these are characterized as rehabilitation programmes and a person who has not been convicted cannot by definition be rehabilitated.

Unfortunately for pre-trial detainees, the short-term nature of their status is often part of an illusory legal construct. In 2003, the average length of pre-trial detention in 19 of the then 25 member states of the European Union (EU) was five and a half months, according to a European Commission investigation (8). But in some EU countries (such as France), pre-trial detention can be allowed for years and there are reports of people spending as many as six years without conviction (9, p.25). In Ireland, individuals can spend 12 months without even a review of the grounds for detention, let alone a trial (9, p.26). In many developing countries, the situation is worse. In 2005, the average length of pre-trial detention in Nigeria was 3.7 years (10). In 2010, half of Nigeria's pre-trial detainees had been detained for between 5 and 17 years, according to the country's National Prison Service (11), with cases reported of detainees awaiting trial for up to 20 years (12). In Pakistan, many defendants "spend more time behind bars awaiting trial than the maximum sentence they would receive if eventually convicted" (13), notwithstanding the fact that the law stipulates that detainees must be brought to trial within 30 days of their arrest.

In many countries the majority of people in prison are pre-trial detainees. Likewise, in many countries, prisons are overcrowded by housing many more inmates than they were designed to hold. Where these two factors conflate, the health problems associated with prison overcrowding arise from a failure to provide provisional release – in violation of international norms – to people who have not been convicted and are qualified to await their trial in the community.

Interruption of treatment is one of the most complex issues facing pre-trial detention centres and detainees. For people who have been receiving treatment for a medical condition in the community, arrest and detention represent a potentially deadly interruption of treatment. Treatment may be discontinued for short or long periods of time following arrest and detention in police cells, when detainees are transferred to other facilities or have to appear in court, and upon release. Of particular concern

is the interruption of treatments (such as for HIV) that can lead to negative health outcomes for the individual patient and also, through development of drug-resistant strains of HIV, to negative public health consequences.

Even where pre-trial detainees have access to the same services as convicted prisoners, prison health care is often limited in some ways. Prisons may not have the necessary specialized equipment, they may carry some types of medication but not others, the medical team in the prison may not be experienced in a particular illness, and/or prison regulations may prevent family members from providing medical assistance, such as doctors or medication, even when it is not available in the institution and they have the resources to provide it.⁸

Improving health conditions at the pre-trial stage

Health delivery in prisons should meet the minimum standards set out in international laws, rules and conventions. Most of the problems described here would be greatly diminished by a reduction in pre-trial detention and the use of less restrictive alternatives, such as provisional release paired with a referral to community health care. Without reduced use of pre-trial detention and the attendant problems of overcrowding, it is difficult to imagine how these problems will be addressed. As stated in the 2013 policy brief *HIV prevention, treatment and care in prisons and other closed settings: a comprehensive package of interventions*, “reducing the excessive use of pre-trial detention and greatly increasing the use of non-custodial alternatives to imprisonment are essential components of any response to HIV and other health issues in prisons and other closed settings” (14, p. 1). In addition to this solution, however, there are ways in which health services could be improved and the possibility enhanced for observing the health rights of persons in detention. Some of these measures might also generate information that would be helpful in advocating the reduced use of pre-trial detention. Some avenues toward improved practices and enhanced information are described below.

Investing in improved pre-trial detention health services as a state obligation and an opportunity for early detection, care and linkage to continued care

Pre-trial health services and staffing are often inadequate compared to those in prisons and do not fulfil the state’s obligation for early detection of health problems and initiation of care. The non-involvement of ministries of health in remand health services undermines links to community-based care and may compromise the quality

of health services in remand facilities and the right to equivalence of services for detainees. Pre-trial detention is often a missed opportunity to avert illness and even death, especially in cases of HIV, hepatitis, TB and some mental disorders that require extended treatment and for which early detection and treatment are crucial to good outcomes. As mentioned above, it is extremely important to ensure the continuation of therapy begun before a person’s entry into detention. Each of the situations in which treatment may be interrupted should be addressed and mechanisms established to ensure this does not happen. Policies and guidelines should be developed specifying that people living with HIV (and other conditions necessitating uninterrupted treatment) are allowed to keep their medication with them, or are to be provided with their medication upon arrest and detention and at any time they are transferred within the system or to court hearings. Police and staff working in detention settings need to be educated about the importance of continuity of treatment. Particular attention should be devoted to discharge planning and links to community aftercare.

Because the organization of pre-trial detention may be chaotic, with a rapid turnover of detainees, there is a tendency not to initiate services that could be sustained even in such an environment. Again, links between community-based and prison-based care are crucial. It should be possible to include pre-trial detention in a continuum of care with regard to methadone therapy, for example, as well as directly observed treatment, short-course for TB and antiretroviral treatment for HIV. Health promotion and information involving peers should be possible, even with a high turnover, if staff develop rapid orientation and training to build capacity for peer leadership and engagement.

Finally, the provision of adequate basic services, including health care, water, sanitation, food and protection from the cold and/or heat, would have important benefits beyond the obvious public health outcomes. To the degree that detainees, including children and women, have to trade sex for access to food, blankets and water, adequate provision of these basic services will be a disincentive to coercive sex. Violence linked to competition for access to basic amenities would also be reduced.

Transparency, complaint mechanisms, access to counsel

Much of what is known about the unhealthy and inhumane conditions faced by pre-trial detainees is

⁸ It is commonplace in the United States, for example, to refuse to provide any medication to inmates that was not purchased through the prison system, to avoid issues of provenance and legality of substances. This means that if, for instance, a schizophrenic person is arrested and is carrying medication on his/her person, the authorities will confiscate that medication, assuming that it is contraband, and substitute the closest equivalent found in the prison dispensary.

found in reports of occasional visits by regional and international human rights monitors. There is an urgent need to open pre-trial detention conditions to wider scrutiny, and to establish regular monitoring and public reporting mechanisms. In many countries, access to legal counsel and to the courts by pre-trial detainees would be one avenue for addressing abusive and negligent health practices. There should also be functioning and sustained mechanisms for detainees to report abuses and seek redress without endangering themselves. Such mechanisms should involve competent and independent health professionals.

Mechanisms for prison staff to be independent and to speak out against abuse

Health professionals working in detention settings need to be able to make independent, evidence-based decisions to ensure that health needs and rights are met. Their role as advocates for the health of detainees should be safeguarded. They should also be protected from being complicit in any practice that may constitute cruel, inhuman or degrading treatment or torture, but must be held accountable if they cross that line.

Involvement of ministries of health

Achieving equivalence of care in prisons and remand facilities to that of care in the community argues for greater involvement of ministries of health. At a minimum, they should be responsible for monitoring the quality of care for detainees. The complete isolation of prison and remand health services from the principal health authorities of the state is a recipe for trouble.

Awareness-raising among key stakeholders

In addition to the need for more information and research, there is an urgent need for what is already known about health in pre-trial detention to be more widely disseminated, especially to those whose actions might affect change. Ministries of health may be shielded from day-to-day knowledge of conditions and services if they are not involved in remand facilities, but their involvement and awareness of conditions are important for positive change to happen. Beyond the health sector, judges, prosecutors, police, juvenile justice officials and other people involved in law enforcement must be made aware of the health consequences of heavy use of pre-trial detention. Human rights commissions and nongovernmental organizations not already involved with prison health should be engaged.

Research and access to research results

Access to detention settings for researchers may be restricted in many countries. The fact that health services may be managed in remand facilities by ministries other

than the ministry of health may be a barrier to researchers accustomed to interacting with health sector officials. In particular, there are research needs in the following areas:

- better data on the extent of pre-trial detention, particularly among women, children, people living with drug dependency, people with mental illness and others vulnerable to abuse and health problems;
- the relationship between the extent and duration of pre-trial detention and a variety of health outcomes;
- the physical and mental health impact of overcrowding in pre-trial detention, including whether it is possible to determine critical levels of crowding that trigger accelerated transmission of infectious diseases;
- the physical and mental health impact of extended pre-trial detention on men, women and children;
- the difficulties faced by health professionals in situations of pre-trial detention where services are inadequate and abuse is prevalent;
- best practices for ensuring continuity of care for a wide range of physical and mental health conditions between the community and pre-trial detention, and pre-trial detention and prison or the community;
- the feasibility of and best practices in TB detection, treatment and support in pre-trial detention and beyond.

Where there are efforts to reform pre-trial justice and reduce the use of pre-trial detention, health officials and practitioners should be involved in the planning and implementation of reforms, and the health impact of reforms should be documented.

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Communicable diseases

7. HIV and other bloodborne viruses in prisons

Fabienne Hariga

Key points

- The prevalence of HIV, hepatitis B and hepatitis C is particularly high in pre-trial detention centres and in prisons.
- All modes of transmission of these diseases occurring in the community also occur in prisons: through blood, sexual activity and vertical transmission to a child.
- Measures to address HIV and hepatitis in prisons should be comprehensive.
- Guidelines and standard operating orders should be developed, in line with national guidelines and based on international guidelines, to address bloodborne viral diseases in prisons.
- All preventive, curative and supportive interventions for HIV, hepatitis C and B that are available in the community are effective, feasible and needed in prisons.
- Continuity of treatment is key in the response to HIV, including for people going into, transferring between or released from prisons.
- Measures to address HIV and AIDS in prisons also address HIV and AIDS for staff working in prisons, for people visiting prisons and for the entire community.
- HIV testing cannot be mandatory and all health interventions need to have the informed consent of the people concerned.
- People living with HIV should not be segregated.

Introduction

People in prisons and other closed settings, including people working in prisons, are particularly at risk for hepatitis B, hepatitis C and HIV, due to their own vulnerability compounded by the characteristics of the environment. The prevalence of individuals who use drugs, including injecting drugs, is particularly high in prisons in Europe, a region with an HIV epidemic concentrated among the most vulnerable populations, especially people who inject drugs. Such people are also particularly affected by viral hepatitis, especially hepatitis C. Each of these diseases is preventable and each has a treatment. The overuse of imprisonment and pre-trial detention for drug users is responsible for the high prevalence of HIV and hepatitis among prisoners. In the absence of preventive measures, transmission can also occur in prisons. The lack of access to preventive, curative and palliative care in prisons, poor prison conditions and poor prison management all contribute to increasing the risk of transmission of bloodborne diseases.

Bloodborne viruses

HIV and AIDS

HIV is a virus that infects cells of the human immune system and progressively impairs their function. Infection with HIV leads to immune deficiency, making people vulnerable to a wide range of diseases. About one year after an initial infection, symptoms will develop. AIDS describes the collection of symptoms and infections associated with the deficiency of the immune system caused by HIV infection. The level of CD4 cells (cells from the immune system) and the appearance of certain infections or cancers are used as indicators that HIV infection has progressed to AIDS. Diseases associated with severe immunodeficiency are known as opportunistic diseases. In the prison context, the most significant of these is TB, which can spread very quickly in overcrowded conditions.

HIV is transmitted when infected blood, semen, vaginal fluids or breast-milk enter another person's body. This occurs during unprotected sex, when sharing needles during injection drug use or tattooing and piercing, through blood transfusion, through unsafe medical care (such as the use of improperly sterilized syringes and other medical equipment in health-care settings) or through accidental puncture with contaminated medical wastes. Women living with HIV who become pregnant can transmit HIV to their babies during pregnancy or delivery as well as through breastfeeding. All these modes of transmission can occur in prisons if appropriate measures are not taken.

HIV is not transmitted through casual contact. HIV infection is asymptomatic for a long period during which the virus can be transmitted to another person. The only way to determine whether HIV is present in a person's body is by taking a test for it. There is no vaccine to prevent HIV, and there is a treatment but no cure. Antiretroviral therapy (ART) slows down the progression of the disease by decreasing the amount of virus (viral load) in an infected body. The decrease in viral load, for example when people are on antiretroviral treatment, also reduces the risk of transmission to another person.

Hepatitis B

Hepatitis B is a viral infection of the liver that can cause both acute and chronic disease. About 10% of infected adults will develop chronic liver disease, with a high risk of death from cirrhosis of the liver and/or liver cancer. The virus is transmitted through contact with the blood

or other bodily fluids (semen and vaginal fluid) of an infected person or from an infected mother to her child at birth. Hepatitis B is not spread through food or water or by casual contact, such as hugging, kissing and sharing food or drinks with an infected person. The transmission of hepatitis B is thus similar to HIV but the virus is 50 to 100 times more infectious than HIV. Hepatitis B virus (HBV) can survive outside the body for at least seven days. It is an occupational hazard for health workers, but it is preventable with a vaccine and is curable. More and more countries vaccinate infants against hepatitis B during national immunization.

Hepatitis C

Hepatitis C is also a liver disease, caused by the hepatitis C virus (HCV). It can also be acute or chronic, but most of the time the acute phase is unnoticed. About 70% of infected persons develop chronic liver disease. In the absence of treatment, after 20 years of evolution, 5–20% will develop cirrhosis and 1–5% will die from cirrhosis or liver cancer. HCV is most commonly transmitted through contact with the blood of an infected person, such as through receipt of contaminated blood transfusions, blood products and organ transplants; injections given with contaminated syringes, needle-stick injuries; injection drug use; and vertical transmission from an HCV-infected mother. It is less commonly transmitted through sex with an infected person and sharing of personal items contaminated with infectious blood. Hepatitis C is also very infectious. It is not spread through breast-milk, food or water or by casual contact such as hugging, kissing and sharing food or drinks with an infected person. Currently, there is no vaccine to prevent hepatitis C but it is curable.

The issues or challenges within the prison environment

HIV prevalence is generally higher in prisons and pre-trial detention centres than in the community. People in prisons typically come from socially and educationally disadvantaged groups with poor access to health care and prevention in the community. The populations at highest risk for HIV, hepatitis B and C infections in the community, such as people who inject drugs and sex workers, are over-represented in prison populations. In the absence of preventive measures, transmission occurs in prisons. Risky behaviour such as sexual intercourse (consensual or forced) without protection, sharing injection equipment and tattooing and piercing equipment, sharing razors or scissors or sharing blood through brotherhood rituals occur in prisons in all countries in the world. Epidemics have been described in several countries such as Estonia (2002), where 300 people were infected in less than 6 months. Factors related specifically to the prison

system and environment that contribute indirectly to HIV vulnerability are: overcrowding, poor prison conditions, violence, sexual abuse, gang activities, poor classification, lack of protection for vulnerable prisoners, stigma and discrimination, corruption and poor medical services.

Medical services that are separate from national public health programmes, especially from HIV programmes, often do not access or use the resources available in the community such as medication and guidelines for prevention, diagnosis, follow-up or treatment. Underfunded and underskilled medical services and programmes may be responsible for transmission through the use of contaminated medical or dental equipment, inadequate sterilization procedures and absence of or inadequate universal precautions. In the absence of programmes for comprehensive prevention of mother-to-child transmission, pregnant and nursing mothers can transmit hepatitis B or HIV to their children.

A comprehensive approach

As mentioned above, there are many factors and co-factors contributing to the prevalence of bloodborne diseases in prisons. Health authorities alone cannot address prevention, early identification and treatment. Attention from other actors, such as in the environmental, criminal justice and prison management areas, is often required. The health sector does, however, have a crucial role to play in the implementation of health-specific measures and in raising the awareness of prison managers about other essential interventions.

A comprehensive approach needs to be taken, including protecting staff, since transmission can occur in prisons, people entering prison can already be infected with HIV and some can be severely ill (Fig. 1). In 2013, UNODC in collaboration with the International Labour Organization, the United Nations Development Programme, WHO and the Joint United Nations Programme on HIV/AIDS (UNAIDS) published a policy brief on a comprehensive response to HIV in prisons (1). This included a comprehensive package of interventions, mainly in connection with the health sector, as under:

- information, education and communication;
- condom programmes;
- prevention of sexual violence;
- drug dependence treatment including opioid substitution therapy;
- needle and syringe programmes;
- prevention of transmission through medical or dental services;
- prevention of transmission through tattooing, piercing and other forms of skin penetration;
- post-exposure prophylaxis;

- HIV testing and counselling;
- HIV treatment, care and support;
- prevention, diagnosis and treatment of TB;
- prevention of mother-to-child transmission of HIV;
- prevention and treatment of sexually transmitted infections;
- vaccination, diagnosis and treatment of viral hepatitis;
- protection of staff from occupational hazards.

The evidence

By definition, an intervention that is effective in the community to prevent or to treat a disease should be effective in prisons. However, the prison system, and sometimes each prison in the system, needs to develop or adapt new implementation modalities to ensure effective access to and impact from the intervention. There is a need to be creative and to discuss the objective of the interventions with all stakeholders to ensure they understand and to identify the best modalities for implementation and evaluation. Prison-specific evidence has been collected on the prevention of sexually-transmitted infections (STIs) and programmes for condoms,

treatment for HIV, needle and syringe programmes and treatment for drug dependence in prisons.

Interventions

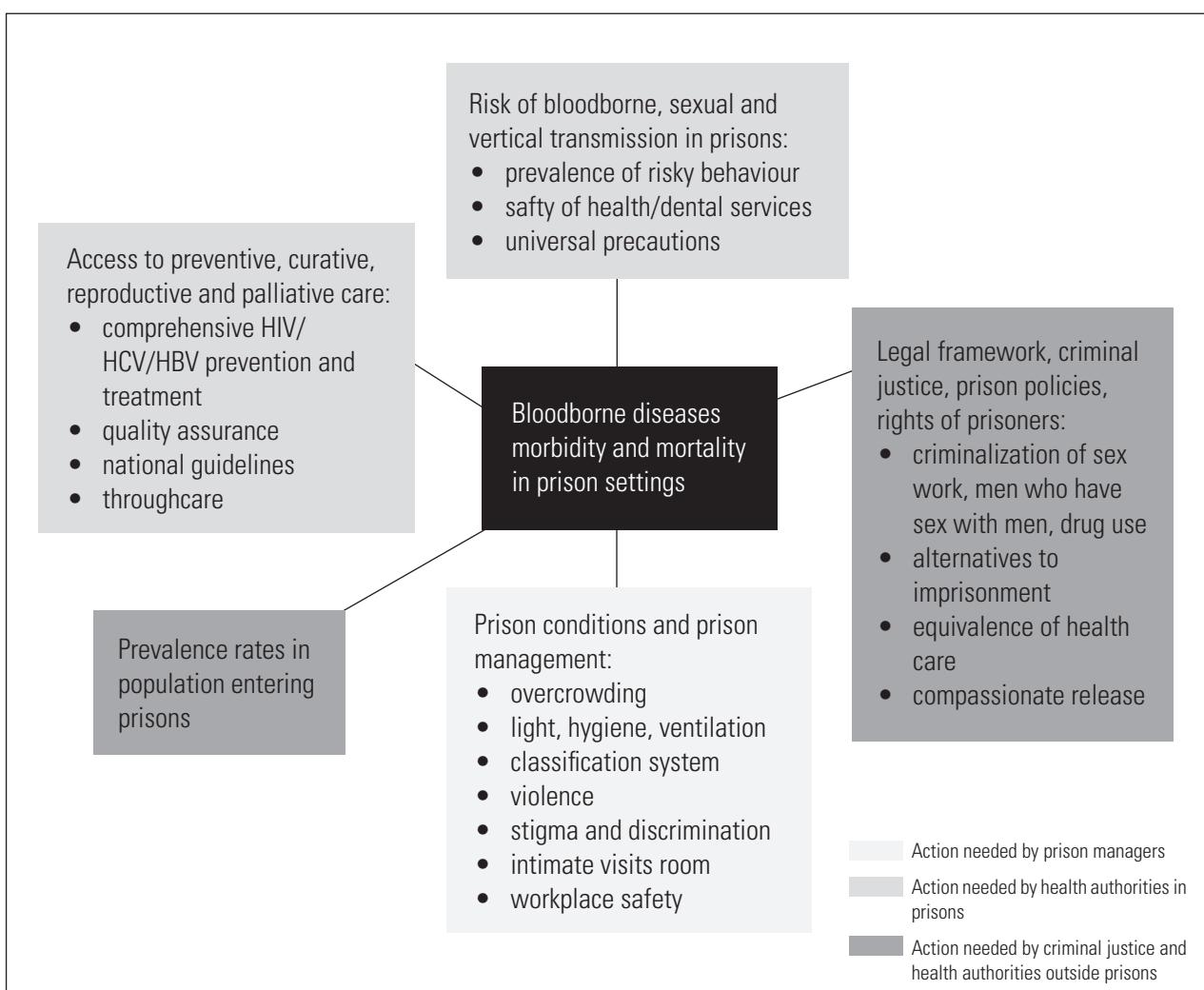
Prevention

The similarities in modes of transmission of bloodborne diseases means that measures for their prevention are almost all valid for all three diseases.

Information, education and communication for prisoners and prison staff

Information is not enough to prevent the transmission of HIV or hepatitis but it is an essential precondition to the implementation of HIV prevention measures in prisons. The main principle is that all information on bloodborne diseases that is available to the community should be tailored to the needs, cultural and educational backgrounds and languages of the prison population, both staff and prisoners. All types of support, including hard copy, videos, radio programmes and electronic support can be used, and staff or prisoners should actively participate in developing them. Education programmes in prisons

Fig. 1. HIV management in prison settings men who have sex with men



are more likely to be effective if they are developed and delivered by peers, although nongovernmental organizations can play a leading role in developing, implementing and monitoring them. These programmes should cover all the aspects of the diseases – prevention of transmission, testing and treatment – and they should address stigma and discrimination.

Prevention of sexual transmission and provision of condoms and lubricants

In prisons, consensual sex occurs between men, between women and between men and women. However, sex in prison is a major taboo, which makes access to condoms a particular challenge. There is evidence that when programmes are well-prepared and well-implemented they are effective and are not the source of problems.

Condoms and lubricant should be easily, discreetly and freely accessible. Staff in each prison should identify the best locations for making them accessible, taking into account the layout of the building, leadership and the movement of prisoners within the premises. In addition, it is essential to make condoms available in the intimate visit rooms.

Measures to prevent sexual violence, such as proper classification, protection of the most vulnerable, rooms for conjugal visits and reporting systems must also be put in place by prison management.

Prevention of transmission through needles shared by injecting drug users

Different modalities have been adopted in several countries to make safe injection equipment available in prisons through health staff, by peers or through dispensing machines. There is evidence that these programmes are effective and not the source of security problems. They have also been shown to facilitate contacts with health staff and enrolment in a drug dependence treatment programme. Not only do they prevent transmission between injecting drug users but they also protect staff by reducing the risk of accidental puncture during cell searches. To prevent hepatitis C, the injection kits should contain (in addition to the syringes) filters, water and cups. Bleach, especially in the prison context, is barely or not effective for disinfecting injection equipment and preventing the transmission of HIV and hepatitis. Whichever system is chosen to provide needles and syringes or kits, the method should include a component for the safe disposal of used needles and syringes.

Safe tattooing and piercing equipment

Tattooing or piercing is highly prevalent in prisons and closely linked to the prison sub-culture. Research has

demonstrated that injecting drug users tend to get tattooed in prison more frequently than other prisoners.

Tattooing workshops, with professionals well-trained to give information and show how to operate safely, can be held. Alternatively, professional tattooists could be invited to offer their services. Information, needles and bleach can be distributed to the prisoners. Nongovernmental organizations can also play an important role in the implementation of such programmes.

Prevention of transmission of hepatitis through shavers, scissors, etc.

It is important to ensure that information on the risks of transmission, especially of hepatitis, from sharing toothbrushes, shavers or scissors is communicated to all prisoners. In some countries, all prisoners entering prison are given kits with items for personal hygiene to prevent the sharing of equipment.

Prevention of mother-to-child transmission

Prevention of the transmission of virus to children begins with access to reproductive health and contraception. As with pregnant women outside prison, pregnant women in prisons need access to the full range of interventions for the prevention of mother-to-child transmission, including family planning and ART prophylaxis for pregnant and breastfeeding mothers. Children born to women living with HIV should be followed up according to national guidelines.

To prevent transmission of hepatitis B from mother to child, newborns should be vaccinated at birth. The schedule for hepatitis B immunization of children recommended by WHO consists of a dose within 12–24 hours of birth, followed by a second and third dose of vaccines containing hepatitis B at intervals of at least 4 weeks. If, as recommended, the mother gives birth at the hospital, it must be ensured that the vaccination is given to the child as soon as possible after birth if the mother has HBV infection, and before they leave the hospital in other cases.

To prevent transmission of HIV, all pregnant women who are not in need of ART for their own health ($CD4 >350$ and no symptoms of AIDS) require an effective antiretroviral prophylaxis strategy to prevent HIV transmission to the infant. This prophylaxis should start at the 14th week of pregnancy, or as soon as possible when women present late in pregnancy, in labour or at delivery (2). Infants born to HIV-infected women receiving ART for their own health should receive ART for six weeks.

To prevent transmission of HCV, caesarean sections are not recommended for HCV-infected pregnant women. Mothers with chronic hepatitis C can breastfeed their

babies unless they are co-infected with HIV. Children of HCV-infected mothers should be tested for HCV-ribonucleic acid (RNA) one month after birth.

Universal precautions and safe health services (3)

Universal precautions are essential to ensure a safe workplace for staff and to prevent accidental or iatrogenic transmission of HIV and hepatitis in prisons. In addition to the transmission through blood transfusion of infected blood or through transplantations, HIV and hepatitis can be transmitted through used needles or dental and gynaecological equipment or any medical equipment that can be in contact with blood. Up-to-date sterilization measures, the safe collection and disposal of sharps and disposal of medical waste, based on guidelines for health (and dental) settings in the community, apply in prisons. All cuts and abrasions should be covered. Prison staff can be provided with gloves and eye protection to avoid accidental exposure to contaminated blood. Training of staff is essential for the understanding and application of these measures. Posters could be placed in different parts of the prisons as reminders of these essential measures.

Hepatitis B vaccination

All staff working in prisons and prisoners should be vaccinated against hepatitis B. All prisoners entering prisons who have not been vaccinated should be offered the hepatitis B vaccination. There is no need to check the serological status for hepatitis B before vaccination if there is no suspicion of hepatitis B infection. Three doses are needed and different schedules are possible. A classic schedule requires a minimum of two months. In view of the high turnover in prisons and the need to get early protection, a rapid schedule might be the best choice, as national regulatory authorities allow. But this type of schedule requires a booster after one year. A combined hepatitis A and B vaccine is particularly indicated for people affected by hepatitis C (Table 1).

Post-exposure prophylaxis

Both prisoners and staff can be accidentally exposed to body fluids potentially infected by HIV. Post-exposure prophylaxis is short-term (one month) ART to reduce

the likelihood of HIV infection after potential exposure, either through sexual activity or blood. Post-exposure prophylaxis should only be offered for exposure that has the potential for HIV transmission and must be initiated within 72 hours after exposure. It is, therefore, essential that clear guidelines and standard procedures to follow in case of suspected accidental exposure are produced and disseminated (4). These guidelines, based on national guidelines for post-exposure prophylaxis, should include first aid measures, reporting mechanisms, persons to contact, support and counselling measures. Most countries have a reference centre for post-exposure prophylaxis, with people trained to prescribe the treatment.

Drug dependence treatment

Drug dependence treatment, including opioid substitution therapy for maintenance, is an essential component of the prevention of transmission through injection equipment (see Chapter 14).

Testing and counselling

Testing for HIV or hepatitis is both an information (prevention) measure and a diagnostic measure. Thus whatever the context in which a test is conducted, it should be accompanied by pre- and post-counselling for both positive and negative test results. Testing for HIV and hepatitis, as with any other medical intervention, cannot be mandatory. In view of the window period during which the test is negative even if a person is infected, and of the risk of a person acquiring HIV while in pre-trial detention or prison, mandatory testing is not effective. Health services in prisons can use rapid tests with laboratory confirmation, according to national regulations.

All tests need to ensure the informed consent of the person and confidentiality. Every effort must be made to return the final results confidentially and within a reasonable time (about one week), accompanied by counselling. All persons with a positive test for HIV or hepatitis should be referred to a service that provides follow-up and treatment, including ART and other treatments as needed. There is no need for anyone, except the patient and the medical doctor, to be informed about the result of a test.

Table 1. Hepatitis B immunization schedules for adults

Dose	Hepatitis B	Hepatitis A-B (very rapid schedule)	Hepatitis A-B (rapid schedule)
First dose	day 0	day 0	day 0
Second dose	month 1	day 7	1 month later
Third dose	1–12 months later	day 21	2 months later
Booster	–	after 1 year	after 1 year

Testing and counselling for HIV

Health care providers should offer confidential HIV testing and counselling to all detainees during medical examinations, especially when prisoners ask for it and if the previous test was more than 12 months earlier. The test should be recommended to all prisoners with symptom markers of HIV infection, those with TB, and female prisoners who are pregnant.

All detainees should have unhindered access to voluntary counselling and HIV testing programmes at any time during their detention. Nongovernmental organizations can most effectively organize and provide voluntary counselling and testing in prisons. Often prisoners will prefer to be tested by an external organization.

Testing for hepatitis B

The viral incubation period for hepatitis B is 90 days on average, but can vary from about 30 to 180 days. HBV may be detected 30 to 60 days after infection and persist for widely variable periods of time. Hepatitis B surface antigen (HBsAg) testing is the primary tool for screening and diagnosis. A second test a few weeks later is needed to confirm a first positive test (5) (Table 2).

Testing for hepatitis C

The diagnosis of HCV infection is based on detection of anti-HCV antibodies by enzyme immunoassay. A positive test must be confirmed with an HCV RNA qualitative assay or, ideally, with a real-time polymerase chain reaction assay.

Table 2. How to interpret a hepatitis B serological test

Hepatitis B test	Result	Interpretation
HBsAg anti-HBc ^a anti-HBs ^b	Negative Negative Negative	Susceptible (no recent or old infection)
HBsAg anti-HBc anti-HBs	Negative Positive Positive	Immune due to natural infection
HBsAg anti-HBc anti-HBs	Negative Negative Positive	Immune due to hepatitis B vaccination
HBsAg anti-HBc IgM ^c anti-HBc anti-HBs	Positive Positive Positive Negative	Acutely infected (less than 6 months)
HBsAg anti-HBc IgM anti-HBc anti-HBs	Positive Positive Negative Negative	Chronically infected
HBsAg anti-HBc anti-HBs	Negative Positive Negative	Interpretation unclear; four possibilities: <ul style="list-style-type: none"> • resolved infection (most common) • false-positive anti-HBc, thus susceptible • low-level chronic infection • resolving acute infection

^a anti-HBc – hepatitis B core antibody

^b anti-HBs – hepatitis B surface antibody

^c IgM – immunoglobulin

Source: US Centers for Disease Control (6).

The diagnosis of chronic hepatitis C is based on the detection of HCV infection, confirmed by HCV RNA assay (positive anti-HCV antibodies and HCV RNA) in a patient with signs of chronic hepatitis.

Collaborative HIV/TB programme

The risk of developing TB is about 12–20 times greater among people living with HIV than among those who do not have HIV infection. These risks are especially serious in prisons, with their high HIV prevalence, high TB prevalence rates and environmental conditions that include overcrowding, poor ventilation and poor light.

Collaborative HIV/TB programmes aim to reduce TB-related mortality and morbidity among people living with HIV and to reduce HIV-related morbidity and mortality (see Chapter 8).

Assessment, treatment and follow-up

HIV

Sustainable HIV treatment programmes in prisons are either integrated into or linked to countries' general HIV treatment programmes.

The strategies for treating people living with HIV are:

- provision of ART to reduce the progression, mortality and transmission of the disease;
- prevention, diagnosis and treatment of opportunistic diseases.

Assessment

The first step for a person diagnosed with HIV is to determine the stage of the disease and when to start ART. It is, therefore, most important to check any person diagnosed with HIV infection every six months. Both clinical and immunological criteria are used. Where clinical and immunological classifications are both available, immune status (reflected by CD4) is usually more informative. If there is no access in the country to CD4 count, clinical criteria can be used alone.

CD4 cells count is the standard way to assess the severity of HIV-related immunodeficiency. HIV infection is responsible for a decrease in the number of a specific type of lymphocyte, the T cells that bear the CD4 receptor. The progressive depletion of CD4 is associated with an increased likelihood of opportunistic infections, wasting and death. The immune status of a person living with HIV/AIDS can be assessed by measuring the absolute number (per mm³) or percentage of CD4+ cells. It is recommended that all patients, irrespective of the clinical stage, have access to CD4 counts (7).

Viral load testing is not needed routinely and is only recommended to confirm suspected failure of treatment.

The assessment should include testing for hepatitis B and C and screening for TB.

Clinical assessment of HIV

Clinical assessment is used to guide decisions on when to start cotrimoxazole prophylaxis and when to start ART. Table 3 shows WHO's recommendations for a staging system for HIV infection and disease in adults and adolescents (8).

ART

There is evidence that ART is feasible in prison settings (9). One of the problems of ART is resistance to some of the drugs that can be caused by the interruption of treatment. It is, therefore, most important to avoid any interruption of treatment when individuals are admitted to pre-trial detention centre or prison, when they are transferred from one prison or pre-trial detention centre to another, and when people under treatment are released into the community. In addition, specific attention should be paid to adherence to the treatment.

ART should be started:

- as a priority, in all individuals with severe or advanced HIV clinical disease (WHO clinical stage 3 or 4) and individuals with CD4 count ≤ 350 cells/mm³ (*strong recommendation, moderate-quality evidence*);
- in all individuals with HIV with CD4 count > 350 cells/mm³ and ≤ 500 cells/mm³ regardless of WHO clinical stage (*strong recommendation, moderate-quality evidence*);
- in all individuals with HIV regardless of WHO clinical stage or CD4 cell count in the following situations:
 - those with HIV and active TB disease (*strong recommendation, low-quality evidence*);
 - those co-infected with HIV and HBV with evidence of severe chronic liver disease (*strong recommendation, low-quality evidence*);
 - those with partners with HIV in serodiscordant couples, to reduce HIV transmission to uninfected partners (*strong recommendation, high-quality evidence*);
 - pregnant and breastfeeding women.

As the medical treatment is rapidly changing, please consult the WHO web site for the drug regimen (10).

Clinical and laboratory follow-up is needed to monitor the response to treatment. The minimum requirement is to monitor the level of CD4. All ART drugs have numerous adverse effects and the treatment requires monitoring for these effects.

Table 3. WHO's recommendations for a staging system for HIV infection and disease in adults and adolescents

Clinical stage	Symptoms
1. No symptoms	No symptoms or only persistent generalized lymphadenopathy.
2. Mild symptoms	Moderate weight loss (5–10%). Recurrent upper respiratory tract infections (sinusitis, tonsillitis, otitis media, pharyngitis). Minor mucocutaneous manifestations (Herpes zoster, Angular cheilitis, recurrent oral ulcerations, Papular pruritic eruptions, Seborrhoeic dermatitis).
3. Moderate symptoms	Weight loss >10%. Unexplained chronic diarrhoea for longer than one month. Unexplained persistent fever (intermittent or constant for longer than one month). Persistent oral candidiasis. Oral hairy leukoplakia. Pulmonary TB. Severe bacterial infections (pneumonia, empyema, meningitis, pyomyositis, bone or joint infection, bacteraemia, severe pelvic inflammatory disease). Acute necrotizing ulcerative stomatitis, gingivitis or periodontitis. Unexplained anaemia (below 8 g/dl), neutropenia (below 0.5 x 10 ⁹ /litre) and/or chronic thrombocytopenia (below 50 x 10 ⁹ /litre).
4. Severe symptoms (AIDS)	HIV wasting syndrome. Pneumocystis jiroveci pneumonia. Recurrent severe bacterial pneumonia. Chronic herpes simplex infection (orolabial, genital or anorectal of more than one month's duration or visceral at any site). Oesophageal candidiasis (or candidiasis of trachea, bronchi or lungs). Extrapulmonary TB. Kaposi sarcoma. Cytomegalovirus disease (retinitis or infection of other organs, excluding liver, spleen and lymph nodes). Central nervous system toxoplasmosis. HIV encephalopathy. Extrapulmonary cryptococcosis, including meningitis. Disseminated non-TB mycobacteria infection. Progressive multifocal leukoencephalopathy. Chronic cryptosporidiosis.

Prevention of opportunistic infections

Prevention of opportunistic infections is part of the treatment for HIV. In view of the higher risk in prison settings, this component is essential to prevent mortality linked to HIV. Please refer to the WHO web site for detailed information (10–12).

Adults and adolescents living with HIV and screened with a clinical algorithm for TB, and who report any one of the symptoms of current cough, fever, weight loss or night sweats may have active TB and should be evaluated for TB and other diseases.

HIV/hepatitis B co-infection

As mentioned above, ART should start in all individuals co-infected with HIV/HBV who require treatment for their HBV infection (chronic active hepatitis), irrespective of the CD4 cell count or the WHO clinical stage. The drug regimen should include two ARVs having both anti-HIV and anti-HBV activity.

HIV/TB co-infection

In cases with active TB co-infection, ART treatment should be initiated as soon as possible (within the first eight weeks) after starting TB treatment.

Co-infection with HCV is associated with a higher risk of death and of advanced liver disease. HIV infection accelerates the progression of and mortality from HCV-related disease. The management of people co-infected by HIV and HCV is complicated owing to the increased toxicity and interactions between the ribavirin used for HCV treatment and several ARV used for the treatment of HIV.

Assessment and treatment of hepatitis B (13)

There is no specific treatment for acute hepatitis B. Care is aimed at maintaining comfort and adequate nutritional balance, including replacement of fluids that are lost from vomiting and diarrhoea.

Assessment of and treatment for chronic hepatitis B is expensive and not available in all countries. The objectives of the assessment are to evaluate the severity of the liver disease and to decide when to start the treatment.

Assessment of the severity of the liver disease should include:

- biochemical markers, including at least aspartate aminotransferase and alanine aminotransferase, and possibly gamma-glutamyl transpeptidase, alkaline phosphatase, prothrombin time and serum albumin;
- blood counts;
- abdominal ultrasounds;
- HBV DNA detection and measurement of the HBV DNA level as they are essential for the diagnosis, decision to treat and subsequent monitoring of patients;
- investigations for other causes of liver disease and co-infection with hepatitis C or with HIV.

Liver biopsy is not always required (for example, when there are clinical symptoms of cirrhosis) but enables the determination of the degree of inflammation and fibrosis in patients with either increased alanine aminotransferase or HBV DNA levels >2000 IU/ml (or both). Recently, non-invasive techniques (including serological techniques) have been developed to assess the level of fibrosis.

The goal of therapy for chronic hepatitis B is to prevent the progression of the disease to cirrhosis, decompensated cirrhosis, end-stage liver disease, hepatocellular carcinoma and death through suppression of HBV replication. HBV infection cannot, however, be completely eradicated.

Hepatitis C

As with hepatitis B, diagnosis and treatment for hepatitis C are expensive and not available in all countries.

Assessment for hepatitis C is very similar to assessment for hepatitis B (14). In addition to assessment of the severity of liver disease, it includes the determination of the genotype of the virus. Both components are critical to treatment decisions. It consists of the following steps:

- assess the severity of the liver disease (see hepatitis B);
- investigate other causes of liver disease and co-infection with hepatitis B or with HIV;
- determine HCV genotype (1 to 6) prior to antiviral treatment, as the genotype will determine the treatment;
- vaccinate for hepatitis A-B to prevent co-infection with these hepatitis viruses and protect the liver – the objective of the treatment is to cure the patient; the

current standard therapy includes pegylated interferon in combination with ribavirin.

Nutrition support and diet

The energy needs of people living with HIV, and in particular people with AIDS, increase by about 10%. HIV infection affects the person's appetite and ability to take in food and reduces the body's ability to absorb ingested nutrients, while metabolic changes actually increase the person's nutritional needs. Adherence to treatment is key to its success and to prevent interruption and possible development of resistance. Poor nutrition status and a low diet lead to difficulties in ingesting the medications and lower compliance with treatment. Malnutrition increases mortality among people living with HIV/AIDS who are on ARV treatment. People on ART are at an increased risk for metabolic diseases, such as dyslipidemia or diabetes.

People living with HIV require food supplements that complement their diet to enable them to meet their total micronutrient and macronutrient needs. In particular, fresh fruits and vegetables should complement the staple foods. A nutritionist should advise the prison authorities on the specific needs of patients without breaching confidentiality about the disease.

Continuity of treatment

For both HIV and hepatitis C, continuity of treatment is essential to ensure the best outcomes and prevent the development of resistance. Health programmes in prisons should, therefore, work in close collaboration with the HIV programme in the community to ensure that treatment is not interrupted when people enter and leave prison. It is also important to organize this continuity when prisoners are transferred from one prison to another within the police/justice system.

Before an individual is released from prison, links should be established with a service that will continue treatment. Sometimes it is difficult for ex-prisoners to go to these services. This situation should be identified in advance and remedies or support should be provided to ensure that contact will be established. The continuity of treatment is best when community services can provide support to a prisoner in prison and after release and accompany his/her re-entry into the community. Before release, prisoners undergoing treatment should be provided with a stock of medications for one month and a complete copy of their medical files, including the results of all tests conducted during incarceration. When a prisoner is transferred between prisons, health professionals should ensure that the medical file follows the prisoner.

Palliative care/compassionate release

Terminally ill prisoners, if they have support from family or friends in the community, should be released on compassionate grounds so that they are able to die with dignity at home in the company of family or friends.

Quality assurance and monitoring of, and interventions for, HIV and hepatitis C and D

Different measures should be implemented to optimize the result of the HIV programme. The development of guidance notes and standard operating procedures, based on national guidelines, strengthens the adherence of prison staff, both security and health, to the policy and strategy. All staff should be trained in these guides and the rationale and importance of their role in the response explained.

Monitoring related to HIV should be aligned with and integrated into national HIV and other bloodborne diseases monitoring systems.

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8. TB prevention and control care in prisons

Masoud Dara, Dato Chorgolian, Pierpaolo de Colombani

Key points

- TB in prisons is a major public health problem in many settings, particularly in countries with a high incidence of TB.
- The TB notification rate in prisons ranges from 11 to 81 times higher than in the general population. The situation is worsened by the emergence and spread of drug-resistant TB, particularly multidrug-resistant (MDR) and extensively drug-resistant (XDR) TB.
- Prompt detection of TB among prisoners should be ensured through a combination of screening methods (screening on entry, mass screening at regular intervals, passive screening, contact screening) based on clinical questionnaires, chest X-rays, smear microscopy and self-referrals.
- The implementation of new, rapid diagnostic methods such as Xpert MTB/RIF is an important breakthrough in the fight against TB and (X)MDR.
- Drug susceptibility testing (DST) should be performed on all patients with treatment adapted to the resistance pattern to help further amplification of resistance.
- Effectiveness is improved when treatment is administered under the direct observation of health care staff and in line with national TB programme (NTP) guidelines.
- Adequate procurement, supply and management of quality medication and effective administration should be in place. Airborne infection control, including protective measures for staff, should be ensured, and provider-initiated HIV counselling and testing to detect HIV and TB/HIV co-infected individuals should be promoted to provide the necessary support and care.
- Continuity of care is imperative for released prisoners who are on treatment and for individuals who are on treatment before entering the prison services.
- TB control is strengthened in prison-based programmes by raising awareness of TB among prisoners and prison medical and non-medical staff through continuous educational activities.
- Operational research should be promoted to contribute to evidence-building for effectiveness.

Introduction

TB is a major global health and public health problem. There are clear challenges in two regions of the world: Africa (where there is also a high prevalence of HIV infection) and eastern Europe. In eastern Europe, the situation is serious due to MDR and XDR forms of TB

and inadequate responses by health systems, leading to poor case management and the further emergence of drug-resistant cases. The situation in parts of Europe and central Asia has recently been aggravated by the increasing prevalence of HIV infection in certain populations, which considerably increases the risk of active TB in those infected with both TB and HIV (1).

The scourge of TB in prisons remains a persistent problem. The occurrence of active TB in prisons is generally reported to be much higher than the average levels reported for the corresponding general population. In the last survey of TB control in Europe, undertaken in 2006, it was estimated that European prisons notify TB at an average rate of 17 times more than in the population at large, ranging between 11 times more in western Europe to 81 times more in eastern Europe (2). TB in prisons is a major cause of death and constraint for TB control in the civilian system, especially in countries with a high incidence of TB.

High levels of TB in prison populations are likely to be attributable to the fact that a disproportionate number of prisoners are from population groups already at high risk of TB infection and TB disease, such as people who inject drugs, homeless people, mentally ill individuals, people returning to prison and undocumented immigrants from areas with a high incidence of TB.

Prison settings, where segregation criteria are based on crime characteristics rather than on public health concerns, may facilitate transmission. Overcrowding, late detection and treatment of infectious cases, frequent transfers between prisons and poor airborne infection control measures are all factors contributing to transmission of TB (3). Prisoners may be at higher risk of TB disease following a recent infection or reactivation of latent infection through co-immune-depressing pathologies, particularly HIV infection, intravenous drug use and poor nutritional status (4). Moreover, prisons represent a reservoir for transmission of the disease to the community at large through prison staff, visitors and close contacts of released prisoners with still active TB disease (5). The transmission dynamics between prisoners and the general population have been hypothesized as playing a key role in driving overall population-level incidence, prevalence and mortality rates of TB. Neglecting TB prevention

and control in prison settings can, therefore, carry serious consequences for both prisoners and the general population, especially in countries with poorly performing NTPs and high incarceration rates.

On 13 October 2010, the Global Plan to Stop TB 2011–2015 was launched by the Stop TB Partnership (a coalition of more than 1000 organizations worldwide), with the aim of halving TB mortality and prevalence rates by 2015 compared to the 1990 baseline (6). One of the main objectives in achieving this aim is to ensure the early diagnosis of all TB cases, including in vulnerable populations such as prisoners.

In 2013, the International Union against Tuberculosis and Lung Disease published an official statement urging health authorities, national and international technical agencies, civil society organizations and donor agencies to prioritize the prevention and control of TB in prison settings, with recommendations for 12 points for action (7).

Transmission

TB is an infectious disease caused by a bacillus named *Mycobacterium tuberculosis*. Transmission occurs by airborne droplets produced by coughing, sneezing or talking that are subsequently inhaled by contact people (8). The risk of inhalation increases when several coughing people are kept in a small, unventilated room. The risk of TB being transmitted in settings in which people are in close contact (as in prisons and hospitals) is particularly high. Thus, prisons provide ideal conditions for TB transmission.

In general, about 30% of contact people that inhale bacilli become infected. But in prisons with overcrowding, twice as many contacts or more could become infected (9). Smoking seems to aggravate the risk of becoming infected.

How are people exposed to TB? Exposure results from breathing the air containing the *M. tuberculosis*. Once an infectious TB patient breathes, sneezes or coughs, mycobacteria are spread in the air which can be inhaled by a healthy individual. Three factors play a role: the number of infectious patients, the duration of their infection and the intensity of the contact with them. Thus, by reducing the duration of infectiousness, or the contacts between infectious TB patients (such as prisoners), exposure can be reduced.

Despite being infected with *M. tuberculosis*, a person can stay healthy and never become sick. Most will remain at the stage of subclinical infection. That means they have been infected but are healthy. Only about 10% will progress to disease, of whom half will develop an

infectious form of TB, while the other half will develop a non-infectious form.

However, when a person's immune system is affected (through, for example, HIV infection, chemotherapy for cancer, old age, stress or imprisonment), the infected person will be more likely to develop TB disease. TB can affect any organ or part of the body, but especially the lungs. The pulmonary form of TB is that which is infectious through transmission of airborne droplets. Indoors, droplets produced by coughing or sneezing can remain airborne for extended periods of time, especially if the ventilation is poor.

When no treatment is available, at least half of those with TB disease die within two years. Some may heal spontaneously and others become chronic cases that continue to transmit the disease.

Five factors in the spread of TB in prisons are described in the *Guidelines for control of tuberculosis in prisons* (10), as follows.

Prisons receive TB. Prisoners mainly come from communities with high rates of TB, unhealthy lifestyles and addictions. As a result of ignorance or lack of means, they may enter prisons with untreated TB. Moreover, conditions for drug resistance are often created when prisoners arrive with partially treated TB or their treatment is interrupted upon arrival.

Prisons concentrate TB. Overcrowding, poor ventilation (lack of windows, or covering them to block cold air entering the cell) and prolonged incarceration inside prison cells are all factors conducive to the transmission of airborne infection. If a TB patient in the community can infect 15–20 people a year, a TB patient in prison could infect significantly more.

Prisons disseminate TB. In many countries, the lack of funding and management and the absence of laboratories and trained staff result in TB cases going undetected. Individuals with undetected TB can easily disseminate TB inside the prison system as they often move from one prison to another.

Prisons make TB worse. Several factors contribute to the worsening of TB disease in prison, including delayed diagnosis (caused by, for example, absence of entry screening, lack of trained staff and overload of medical personnel by overwhelming numbers of prisoners entering the system, weak infrastructure, bad organization of laboratory services and disruption of drug supply) and frequent interruptions to or incomplete

treatment (medical records do not always follow prisoners during regular prison transfers or on release). Many factors occurring in prison might worsen poor treatment outcome: malnutrition, drug addiction, mental stress, poorly treated co-morbid diseases (such as HIV, diabetes and hepatic insufficiency) and factors related to weak health services in the system.

Prisons export TB. Prisoners may export disease to the outside world through contact with prison staff and visitors, as well as when prisoners are released who have not finished their treatment. Prisons are reservoirs for the transmission of resistant forms, especially as release often takes place during the lengthy period of MDR-TB treatment (18–24 months).

What can be done to reduce the risk of transmission of TB? Interventions to interrupt the cycle of transmission can be directed at: (i) preventing transmission of TB from people with infectious TB to their contacts; and (ii) preventing the disease from developing once any contacts have become infected. To prevent transmission, early case detection, immediate and adequate treatment and infection control interventions are needed. To prevent infected contacts from developing active disease, preventive chemotherapy should be considered.

Case-finding

Case detection is one of the core elements of TB control. If conducted properly, systematically and effectively and followed by an adequate treatment regimen, it could lead to a reversal of the growing incidence of TB and to a reduction in TB mortality.

There are two strategies for case-finding: (i) through self-referral and passive case-finding during incarceration; and (ii) through regular active case-finding during incarceration.

Passive case-finding

Passive case-finding examines TB suspects (individuals who have had a cough for three weeks or more) among people who spontaneously visit health centres seeking care for respiratory symptoms. It presumes that there is complete access to health services, without which there may be delays in case-finding. For case-finding to be effective, patients must be aware that the symptoms they experience may be symptoms of TB and that TB can be treated. They must be willing to seek diagnosis and treatment and must be able to access TB care. Educating everyone in prison about TB is, therefore, important.

Passive case-finding may, however, have limited success in prisons. Some inmates may be afraid to come forward,

fearing the repercussions of a diagnosis of TB such as stigma, a delay in release or a transfer to another prison. TB disease may indeed be a reason to transfer a prisoner to a better setting, so there could be a secondary gain for some prisoners to try to be diagnosed with TB. Sometimes inmates may not be allowed to seek care because of their place in the internal prisoner hierarchy.

Active case-finding

Active case-finding involves the screening of prisoners at different points during their incarceration and the use of various methods, including questionnaires, chest radiography, tuberculin skin testing and immunoglobulin gamma interferon assay (IGRA), or a combination of these methods.

In prisons, passive and active case-finding should be carried out simultaneously and systematically. A combination of these two approaches will substantially increase case detection.

Some of the advantages and disadvantages of conducting passive and active case-finding are detailed in Table 4.

Screening strategies

How screening activities should be implemented depends on many factors, including the type of facility, the prevalence of TB infection and disease in the facility, the prevalence of TB in the inmates' communities, the prevalence of other risk factors for TB (such as HIV) in the inmate population and the average length of stay of inmates in the facility. The type of screening recommended for a particular facility is determined by an assessment of the risk of TB transmission within that facility (11).

Screening for TB on entry

The revised European Prison Rules (12) state that prisoners are entitled to a medical examination at the point of first admission (§42) and that prison authorities have to safeguard the health of all prisoners (§39).

Screening on entry is aimed at detecting undiagnosed TB (among other things) and identifying patients who were receiving treatment before incarceration to ensure that they complete their treatment.

Medical screening on entry into the prison system is essential, as many prisoners come from communities with a high prevalence of TB. Prisoners should not enter the body of the prison population until it has been verified that they do not have infectious TB. When possible, newly arrived prisoners should not be housed with other inmates until they have been properly screened for TB.

Table 4. Advantages and disadvantages of passive and active case-finding

Passive case-finding	Active case-finding
<p><i>Advantages</i></p> <ul style="list-style-type: none"> • Identifies cases missed through other case-finding measures (such as entry screening, contact investigation, mass screening or surveys). • Identifies cases who develop TB after entry. • Is relatively less expensive and simpler for programmes to implement. 	<ul style="list-style-type: none"> • Increases case notification; links the prison health system to the NTP and feeds data into the system. • Reduces delays and thus transmission through immediate removal of infectious cases by separating them from the general prison population and providing effective treatment. • If done early, makes it easier to treat patients detected in the early stages of TB. • Is likely to find prevalence rates much higher than the prevalence rates outside the prison, which can be a useful tool for advocacy.
<p><i>Disadvantages</i></p> <ul style="list-style-type: none"> • Relyes on patients' readiness to attend medical services for evaluation (self-referral). • May result in delayed case-finding and initiation of treatment, with prolonged chances of transmission to others. • May result in advanced disease that can be more difficult to treat. • May be biased by internal regulating mechanisms among prisoners (for example, bullying or corruption) leading to a denial of access to the medical ward to certain subgroups by the "prisoner bosses". 	<ul style="list-style-type: none"> • Increases duties and workload of the health staff in prison, who are already limited in number and may not be sufficiently motivated. • Is a burden on the penal and public health care system, which needs to support active case-finding activities; the high cost may render these activities unsustainable. • Overburdens the capacity of local health centres and hospital laboratories to respond to increases in smear and culture examinations. • Diverts funds from other directly observed treatment, short course (DOTS) activities. • Leads to potential over-diagnosis of TB, if diagnosis is only based on radiography.

Source: Dara M et al (10).

This initial and temporary segregation is an opportune time to check for TB.

Entry screening should be documented on the screening register and must be followed up with standard procedures for diagnosis and treatment.

Contact investigation

In prisons, TB contacts are persons who share air for prolonged periods with an active TB case. These include the following: all prisoners who sleep in the same cell or housing unit as the TB patient, prisoners who spend time in closed or poorly ventilated work areas inside

the prison, prisoners who interact with the TB patient during recreational activities, prison staff who come into contact with a TB case and visitors.

The *Guidelines for control of tuberculosis in prison* recommend (10) screening for TB among contacts of sputum-smear-positive cases, as these patients are infectious. Contacts should be identified through an interview with the patient regarding his social network and daily activities to help to identify groups of contacts who might be exposed. The next step will be contact investigation by sputum-smear microscopy or chest radiography.

Mass screening

Mass screening means to check the whole population of prisoners (or other segment of population) to identify suspected cases of TB and confirm diagnoses by sputum-smear or other examinations. Two factors are obligatory with mass screening: it should cover the whole population group, and rounds must be regular. In the prison system, two massive screening rounds a year are ideal. This strategy is very useful to find previously undetected cases missed by passive case-finding. Mass screening is not, however, recommended as the sole method of case-finding in prisons. It is preferable to start with mass screening in the initial phases of project implementation and complement it with other screening strategies (on entry, passive) to ensure that prisoners with TB who enter prison or cases that occur between mass screening rounds are detected properly. Moreover, regular mass screening may not be sustainable in resource-limited settings due to cost and other logistical barriers. Thus, this intervention may be reserved to places where resources permit.

Screening methods

Symptom screening

Whenever possible, health care workers should conduct screening by special questionnaire (10). The questionnaire should be based on three crucial aspects: history of former TB disease (previous treatment, interrupted treatment), clinical symptoms and body/mass index. Prisoners who have a previous history of TB and/or clinical symptoms such as coughing for more than two weeks, sputum production, fever, night sweats, loss of weight and appetite, haemoptysis, chest pain and/or low body mass index may be considered as suspects for TB. All prisoners with signs or symptoms suggestive of TB should undergo a thorough medical evaluation, with confirmation of the diagnosis by smear investigation.

The questionnaire as a screening method can be used widely, as it is less expensive than radiography, is rapid, simple, does not require special equipment and is easy to implement. Its major disadvantage is that the predictive value of a positive test (the probability of smear-positive TB occurring among those identified as suspects) is likely to be low, resulting from a high false-positive rate for the questionnaire. Thus, it is very important that case-finding staff should be trained in interview techniques and the correct completion of the questionnaire (10). A standardized approach should be emphasized and staff should avoid guiding a prisoner to one answer or another. Merely giving the questionnaires to the prisoners for self-completion is unacceptable. Symptom screening alone is adequate and satisfactory in facilities with a minimal risk of TB (those with a small population or no cases in the previous year).

Screening through chest radiography

Many industrialized countries screen prisoners on entry by chest radiography. Studies show the utility of such screening in finding prisoners who would have been missed by symptom screening alone (13). Prisoners with abnormal chest radiography are then followed up with sputum examination. Most east European countries use mobile miniature radiography. Unfortunately, the overwhelming majority are old-fashioned machines, produced 30–40 years ago, which causes significant logistical problems and errors in reading and interpretation. The use of mobile miniature radiography is not recommended unless it is digital, which provides a high-quality image.

Digital radiographs (miniature or full-size) provide enhanced imaging and improved storage and readability. A miniature radiograph can be performed in under a minute and exposes the patient to approximately one tenth of the radiation dose of a conventional radiograph. One cost-effectiveness analysis of miniature chest radiography for TB screening on admission to jail indicated that more cases were detected with this method than either tuberculin skin test or symptom screening, and the cost of radiograph screening was less per case detected (14). The extent to which radiological screening is used in a given institution should be dictated by multiple factors, including: the local epidemiological characteristics of TB disease; inmates' length of stay; the ability of the health-care professionals in the facility to conduct careful histories, tuberculin skin or QuantiFERON-TB Gold testing and cross-matches with state TB registries; and the right time for the radiographic study and its interpretation. Screening with chest radiographs might be appropriate in certain jails and detention facilities that house substantial numbers of inmates for short periods and serve populations at high risk of TB (such as those with a high prevalence of HIV infection or history of injection-drug use and foreign-born persons from countries with a high prevalence of TB). In facilities where routine radiographic screening for all inmates is not carried out, a chest radiograph should be part of the initial screening of HIV-infected patients (often missed at a sputum-smear screening because of infiltrative TB infection in their lungs) and those who are at risk of HIV infection but whose status is unknown (11).

Other screening methods

The tuberculin skin test and IGRA are used for the detection of latent TB infection. Countries with a low incidence of TB sometimes use tuberculin skin test and IGRA in correctional institutions (11). Tuberculin skin test and IGRA can only indicate an infection but not active disease. The use of these tests is not, therefore, recommended in prisons in countries with a high incidence of TB, where most prisoners are already infected with TB and the

priority for TB control programmes is to detect and treat active TB cases.

Clinical features of TB

The disease starts in the lungs after inhalation and is most frequently manifested in the lungs as pulmonary TB. An immune system response causes the formation of abscesses in the lung's parenchyma. As long as these abscesses are contained, there is little risk of transmission (closed TB), but if these abscesses break through into the airways, the infectious content will be coughed up (open TB). Abscesses contain billions of bacilli so that people with open TB are highly infectious. About 50–60% of people with TB eventually become infectious. In cases with weak immune defences that prevent the formation of an abscess (such as HIV infection), the lung's parenchyma has a more diffusive inflammation which does not damage airways and bacilli do not break through. These cases are less infectious.

The bloodstream can carry bacilli to other parts of the body situation, which occurs in about 15–20% of people with TB. Almost all organs can be affected and sometimes serious illnesses, such as meningitis or septicaemia, may occur.

The most important symptoms of active TB are cough, haemoptysis, chest pain, breathlessness, fever, night sweats, fatigue and loss of appetite (8,9). Productive cough is the most common symptom of pulmonary TB. The presence of a cough is, however, non-specific: having the cough for three weeks or more is a criterion for defining the patient suspected of TB disease.

Diagnosis

Chest radiography

The introduction of radiography as a diagnostic and screening tool was an important landmark in the knowledge of the natural history and diagnosis of TB in humans. Practical experience and some studies have, however, proved that no radiographic picture is absolutely typical of TB (15). Many diseases of the lungs show a similar radiographic appearance and can easily imitate TB. Chest radiography can undoubtedly be very helpful in localizing abnormalities in the lung and indicative lesions of TB, but *only bacteriology can provide the final proof of TB*.

The efficacy of chest radiography is determined largely by the reader's ability to detect abnormal opacities and interpret them correctly. This ability varies from one reader to another (inter-individual variation). It also happens that a reader may, on first examination of a film, see abnormalities that he/she does not see after a week

or so when re-examining the same film. On the other hand, at the second reading, the reader may find new abnormalities on a film that were not seen at the previous examination (intra-individual variation).

The high number of false TB cases over-diagnosed by chest X-ray largely exceeds the number of those missed by smear microscopy. Moreover, X-ray and mobile miniature fluorography are expensive, require specially trained technicians and may face interruption in services in some settings due to breakdown of equipment, lack of spare parts and repair experts, scarcity of films and shortage of electricity.

The most important indication for chest radiography is when there are negative sputum smears by microscopy (two negative smears, or at least one culture negative, or both) but a clinical suspicion of TB. The diagnosis of bacteriologically negative TB is, therefore, presumptive and must be based on epidemiological and clinical information and failure to respond to a full course of broad-spectrum antibiotics to exclude other lung infections. A chest X-ray is also required if the patient has breathing difficulties, haemoptysis or suspected pleural or pericardial effusion, or may need specific treatment (such as pneumothorax). Radiography also plays an essential role in the diagnosis of TB in HIV-positive patients who may not have abnormalities in X-ray (12–14%). Digital radiography has the advantage of producing instant results which can be assessed remotely through an online transfer of the image.

Sputum-smear microscopy

Direct sputum-smear microscopy certainly has some technical shortcomings, but its operational advantage is obvious. That a diagnosis of TB (in persons producing large amounts of bacilli) may be established with certainty and chemotherapy started on the same day is without doubt the greatest advantage of smear microscopy. Direct smear microscopy is not, however, sensitive enough to detect TB bacilli in sputum when the number of bacilli is small. It requires a high volume of bacilli in the specimen (around 10 000 per ml) to be read positive by an experienced laboratory technician. Direct smear microscopy is comparatively inexpensive and fast, does not require sophisticated equipment and can be carried out by trained technicians in primary care settings. Consequently, it is the method of choice for early identification of TB cases in low-resource settings.

Sensitivity for detection of TB bacilli in sputum increases substantially if the sputum is concentrated (decontaminated and centrifuged) and stained with fluorescent solutions (such as auramine O). Slides can

then be observed through a special microscope, such as a fluorescent or a light-emitting diode microscope. This technique requires lower magnification while examining the slides and reduces the time of observation. Thus, more slides can be read in less time. Prisoners suspected of having pulmonary TB should submit two samples to establish a diagnosis of TB. It is preferable to obtain early morning sputum as this is more likely to contain tubercle bacilli. The way sputum is produced is also very important. Sputum samples should be submitted following instructions from and under the supervision of a health care worker to ensure sampling with the right technique and from the right person. Samples should be collected in a well-ventilated area (better outdoors). In some prison settings, inmates may exchange their sputum samples or use other practices to get positive results from the sputum smear, so staff need to observe the production of the sample, using personal protective measures (filter face-piece 2 or N95 respirators) and/or other infection control measures.

Culture

Culturing a specimen means growing the bacilli on media, which are substances that contain nutrients, in the laboratory. Lowenstein Jensen is the most frequently used solid media. Not all TB patients have positive smears. If there are only a few bacilli in the sputum (around 10–20) the smear will appear negative but the culture will usually be positive. A positive culture is proof of TB. The isolation of TB bacilli in sputum (and other clinical specimens) through culture, with further biochemical or molecular tests for identification, constitutes a definitive diagnosis of TB. The sensitivity of the culture is substantially higher than that of smear microscopy; sputum-smear microscopy detects only up to 50% of culture-confirmed pulmonary TB cases. The technical superiority of culture over smear microscopy is largely due to quantitative factors. Usually only about 1–3% of the smear is examined by microscopy, whereas in the culture tube the whole yield of colonies may be seen practically at a glance. Although a large proportion of organisms are destroyed by decontamination procedures, the quantitative differences are still so large that the probability of finding bacilli by culture is many times greater than it is by direct smear microscopy. The importance of its use to confirm disease should, therefore, be emphasized, especially among HIV-infected individuals, who are frequently smear-negative.

Additionally, this method allows for identification of drug-susceptibility patterns, which is crucial for guiding therapeutic management. Culture and DST should, therefore, be considered for all TB patients who are suspected of being infected with multidrug-resistant strains. Culture is part of the routine work-up when evaluating TB suspects in industrialized countries.

However, important factors limit the widespread use of culture in developing countries. Traditional culture methods in solid media (Lowenstein-Jensen) require decontamination, homogenization and centrifugation of samples, which implies more equipment (such as a centrifuge and biosafety cabinets) and higher maintenance costs. Personnel require more training. These procedures produce more aerosols containing the TB bacilli, so the laboratory staff have to be adequately protected. The growth of TB bacilli in solid media can be observed within four to six weeks. More rapid culture results may be obtained through the use of automated or semiautomatic methods that make use of liquid media. These include the mycobacteria growth indicator tube (the BACTEC MGIT 960 system can detect results as early as one to two weeks) and molecular line probe assay, which can indicate the presence of *M. tuberculosis* within 12 hours.

Laboratories carrying out culture (especially rapid diagnostic methods) and DST need safety measures for staff. Such facilities are expensive to build and run, and maintenance and running costs may render them inaccessible to some TB programmes in prisons.

Alternatively, an adequate network of smear microscopy sites should be set up inside the prison system, so that peripheral prisons/colonies have easy and rapid access and the number of tests carried out is still sufficient to ensure adequate quality. The network in the prison system should be coordinated with the network of outside laboratories in the civilian sector and should be part of a laboratory quality assurance system.

Xpert MTB/RIF diagnostic molecular test

The development of the Xpert MTB/RIF assay for the GeneXpert platform was completed in 2009 and is considered an important breakthrough in the fight against TB. For the first time, a molecular test is simple and robust enough to be introduced outside conventional laboratory settings. Xpert MTB/RIF detects *M. tuberculosis* as well as rifampicin resistance-conferring mutations using three specific primers and five unique molecular probes to ensure a high degree of specificity. The assay provides results directly from sputum within 100 minutes, even in sputum-smear negative samples.

WHO strongly recommends that Xpert MTB/RIF should be used as the initial diagnostic test in individuals suspected of having MDR-TB or HIV-associated TB (16). The recommendations apply to the:

- use of Xpert MTB/RIF in sputum specimens (including pellets from decontaminated specimens) (data on the utility of Xpert MTB/RIF in extrapulmonary specimens are still limited);

- use of one sputum specimen for diagnostic testing, acknowledging that multiple specimens increase the sensitivity of Xpert MTB/RIF but have major resource implications;
- use in children, based on the generalization of data from adults and acknowledging the limitations of microbiological diagnosis of TB (including MDR-TB) in children.

Access to conventional microscopy, culture and DST is still needed for monitoring therapy, for prevalence surveys and/or surveillance, and for recovering isolates for drug susceptibility testing other than rifampicin (including second-line anti-TB drugs).

WHO's analyses of progress towards meeting the projected diagnostic targets in the *Global Plan to Stop TB, 2011–2015* (6) show that:

- for MDR-TB: implementing Xpert MTB/RIF to meet diagnostic targets for MDR-TB will cost less than conventional culture and DST for diagnosis of MDR-TB, both globally and in varied country settings, requiring less than 1% of current funding for TB control;
- for HIV-associated TB: the cost of testing all HIV-positive individuals suspected of having TB will be similar to the cost of conventional culture for diagnosis of TB, requiring 1–2% of current funding for TB control and amounting to <1% of current expenditure on HIV care in several countries with high burdens of TB-HIV;
- testing all persons suspected of having TB will be strongly dependent on screening and diagnostic algorithms at the country level; in both low- and middle-income countries, pre-test screening strategies should be considered to optimize the efficiency and cost of Xpert MTB/RIF.

WHO recommends that the following groups of people should receive Xpert MTB/RIF tests as a primary diagnostic test:

- people who have been treated with anti-TB drugs and in whom pulmonary TB has again been diagnosed, that is, all retreatment categories (failure, default, relapse);
- people suspected of having pulmonary TB and considered to be at risk of harbouring MDR-TB bacilli (risk groups as per national policies or as defined in WHO's *Guidelines for the programmatic management of drug-resistant tuberculosis, emergency update 2008* (17));
- all people living with HIV who have signs or symptoms of TB, those seriously ill and suspected of having TB regardless of HIV status, and those with unknown HIV status presenting with strong clinical evidence of HIV infection in HIV-prevalent settings.

Xpert MTB/RIF is suitable for use at district and sub-district level and should not be restricted to the central/reference laboratory level only.

It is considered essential that, in eastern European countries, Xpert MTB/RIF assay is placed in central prison hospitals or special TB colonies or facilities where prisoners receive TB treatment.

The introduction of Xpert MTB/RIF assay simplifies and changes the diagnostic algorithm. In eastern European prisons, where the X/MDR-TB level is significantly high, the following algorithm is proposed: all prisoners suspected of TB or X/MDR-TB should undergo smear investigation by microscopy. Regardless of the smear status, every case should receive the Xpert test (if resources are limited, priority should be given to the MDR high-risk group). Based on the results of the test, three groups should be defined: (i) no TB → further clinical management; (ii) confirmed TB but no RIF resistance → treat with first-line drugs; (iii) confirmed TB with RIF resistance → treat with second-line drugs.

Although testing with Xpert MTB/RIF does not require additional laboratory equipment, the sophisticated nature of the device requires careful handling, that is, a stable and uninterrupted electrical supply to avoid interruption of the procedure and subsequent loss of results, security against theft, adequate storage space for the cartridges, dedicated staff to perform testing and biosafety procedures similar to microscopy.

Treatment

The aims of treatment for TB are to cure the patient and restore quality of life and productivity, to prevent death from active TB or its late effects, to prevent relapse of TB, to reduce transmission of TB to others and to prevent the development and transmission of drug resistance.

There are five anti-TB first line drugs: rifampicin (R), isoniazid (H), ethambutol (E), pyrazinamid (Z) and streptomycin (S). Rifampicin and isoniazid are the most powerful bactericidal medicines active against TB bacilli. In prison settings, a daily treatment is recommended and the whole process should be under the direct supervision of a health-care worker (16). WHO recommends the use of fixed-dose combination drugs as they are thought to improve adherence, errors in prescribing are avoided and the number of tablets to be ingested is reduced (18).

New patients (who have no history of previous TB treatment or who have received anti-TB drugs for less than one month) with pulmonary TB should receive a regimen including six months of rifampicin. In the

intensive phase the patient receives isoniazid, rifampicin, pyrazinamide and ethambutol daily for two months, and in the continuation phase isoniazid and rifampicin for four months (2HRZE/4HR).

Since in many settings, particularly prisons, the risk of drug-resistant TB may be high, it is highly recommended that the resistant pattern of the strains the patient is infected with is documented and the appropriate treatment administered accordingly.

The treatment for patients who have previously been treated is more complicated and depends mainly on facilities' diagnostic capacity. The Consolidated Action Plan to Prevent and Combat Multidrug and Extensively Drug-Resistant Tuberculosis in the WHO European Region 2011–2015 sets a target for all previously treated patients to have access to DST at the beginning of treatment by 2015 (19). The purpose is to identify MDR-TB as early as possible so that the appropriate treatment can be given. Specimens for culture and DST should, therefore, be obtained from all previously treated TB patients at or before the start of treatment. It is highly recommended that people living with HIV and new TB cases in settings with higher than 10% of MDR-TB among new cases should be tested for drug susceptibility. If resources allow, DST should be performed for all patients. It should be performed for at least isoniazid and rifampicin.

The approach to the initiation of retreatment depends on the laboratory capacity of the country/institution, specifically when (or if) DST results are routinely available for the individual patient. Countries using rapid molecular-based DST will have results for rifampicin/isoniazid available within one to two days; these results can be used in deciding which regimen to start for the individual patient.

The use of conventional DST methods yields results within weeks (for liquid media) or months (for solid media). Because of this delay, prison health facilities using conventional methods will need to start an empirical regimen while DST results are awaited and then modify the regimen based on the DST results. Alternatively, treatment might be started with the standard re-treatment regimen, which includes streptomycin and lasts for eight months (2HRZES/1HRZE/5HRE), and modified once the DST results are available.

Where DST is not yet routinely available for individual retreatment patients, an interim approach could be implemented while the country is strengthening its laboratory system. Under this exceptional circumstance, an NTP/health ministry may consider a short-term policy of

directly starting patients from such a group on an empiric MDR-TB regimen without confirmation of isoniazid and rifampicin resistance. This is a temporary measure, while the country is building the laboratory capacity to perform routine DST for individual retreatment patients. Groups of patients whose likelihood of MDR is medium or low will receive the eight-month (full course) retreatment regimen with first-line drugs (2HRZES/1HRZE/5HRE).

It is obvious that implementation of Xpert in prison facilities will shorten the delay between date of diagnosis and initiation of treatment. In fact, a doctor can diagnose TB, determine whether the case is drug-resistant and initiate treatment, all in one day.

MDR-TB

The European Region has the highest rate of MDR-TB in the world, which illustrates the failure of health systems to treat the disease effectively. Additionally, the social determinants contributing to the emergence and spread of the disease still prevail in most settings. People living with HIV, migrants, prisoners and other vulnerable populations are at most risk. Despite the availability of new diagnostic techniques, only one third of estimated MDR-TB cases are diagnosed, and only two thirds of these are reported as receiving adequate treatment. Based on a decision of the sixtieth session of the WHO Regional Committee for Europe in 2010, the Consolidated Action Plan to Prevent and Combat Multidrug and Extensively Drug-Resistant Tuberculosis in the WHO European Region 2011–2015 (19) has been developed to strengthen and scale up efforts to address the alarming problem of drug-resistant TB in the Region. Another important document issued by WHO regarding MDR-TB is the 2011 update of *Guidelines for the programmatic management of drug-resistant tuberculosis* (20).

An MDR-TB case is defined as a patient who is identified as infected with a strain that is resistant to at least isoniazid and rifampicin. XDR-TB is a case that is resistant to isoniazid, rifampicin, plus any fluoroquinolone, and at least one of three second-line injectables – amikacin, kanamycin or capreomycin.

From a microbiological perspective, resistance is caused by a genetic mutation that makes a drug ineffective against the mutant bacilli. Although its causes are microbial, MDR-TB essentially results from clinical and programmatic mistakes.

There are three main causes of drug resistance:

- *mistakes caused by health care workers, inadequate regimens:* inappropriate guidelines, non-compliance with guidelines, absent guidelines, poor training, no

- monitoring of treatment, poorly organized or funded TB control programmes, poor adherence (or poor DOTs, unmotivated staff);
- inadequate supply or poor quality of medicine:* unavailability of certain medicines (stock-outs or delivery disruptions), poor quality manufacturing, poor storage conditions, wrong dose or combination;
- inadequate medicine intake:* poor adherence, lack of information, lack of money (no treatment available free of charge), lack of transport, adverse effects, social barriers, malabsorption, substance dependency, disorders.

The only way to confirm MDR-TB and XDR-TB is through DST of first- and second-line medicines, respectively. For the purposes of the recommendation, the expert group considered a rapid test as one providing a diagnosis of resistance to isoniazid and rifampicin or rifampicin alone within two days of specimen testing. Only molecular tests can detect resistance so fast, of which two technologies (line probe assay and Xpert MTB/RIF) are currently recommended for use by WHO (20). Conventional DST of cultured mycobacteria typically provides results within one to three months.

The best strategy for averting deaths and preventing acquired MDR-TB is to carry out DST in all patients before treatment, using a rapid test that detects resistance to isoniazid and rifampicin. The modelling work showed that rapid testing of both isoniazid and rifampicin at the time of diagnosis was the most cost-effective testing strategy for any patient group or setting, even at very low levels of resistance among TB patients. For previously untreated patients, DST at the start of treatment was a better strategy than waiting to test only those patients who remained sputum-smear-positive later in the course of their first-line treatment.

A short time to diagnosis may influence the composition of a patient's initial treatment and increase the likelihood of starting appropriate treatment early. The likely benefits of rapid DST include increased cure rates, decreased mortality, reduced development of additional drug resistance, and a reduced likelihood of failure and relapse (20).

In designing a treatment regimen, the following groups of medicines might be used:

- first-line anti-TB drugs;
 - second-line parenteral agent (injectable anti-TB drugs): kanamycin, amikacin, capreomycin;
 - fluoroquinolones: levofloxacin, moxifloxacin, gatifloxacin, ofloxacin;
 - oral bacteriostatic second-line anti-TB drugs: ethionamide, prothionamide, cycloserine, terizidone, p-aminosalicylic acid;
 - group 5 drugs: clofazimine, linezolid, amoxicillin/clavulanate, thioacetazone, clarithromycin, imipenem.
- According to WHO's latest recommendations (20) for the treatment of patients with MDR-TB:
- a fluoroquinolone should be used;
 - a later-generation fluoroquinolone rather than an earlier-generation fluoroquinolone should be used;
 - ethionamide (or prothionamide) should be used;
 - four second-line anti-TB drugs likely to be effective (including a parenteral agent), as well as pyrazinamide, should be included in the intensive phase;
 - regimens should include at least pyrazinamide, a fluoroquinolone, a parenteral agent, ethionamide (or prothionamide), and either cycloserine or p-aminosalicylic acid if cycloserine cannot be used.
- Compared to WHO's previous recommendations, the last version emphasized the following principles of treatment:
- include at least four second-line anti-TB drugs likely to be effective as well as pyrazinamide during the intensive phase of treatment;
 - if no evidence is found to support the use of more than four second-line anti-TB drugs in patients with extensive disease, it is permissible to increase the number of second-line drugs in a regimen if the effectiveness of some of the drugs is uncertain;
 - ethambutol may be used but is not included among the drugs making up the standard regimen;
 - group 5 drugs may be used but are not included among the drugs making up the standard regimen.
- The analysis (20) provided evidence of an association between the success of treatment and the total length of treatment and the length of the intensive phase. In the treatment of patients with MDR-TB (who had not previously received MDR-TB treatment), it is recommended that there should be an intensive phase of at least 8 months' duration and total treatment duration of at least 20 months.
- Three options or types of treatment scheme are recommended by WHO:
- standardized treatment:* all patients receive the same treatment regimen;
 - standardized treatment followed by individualized treatment:* initially all patients receive the same regimen based on DST survey data for certain groups, and later the regimen is adjusted based on DST results;
 - empirical treatment followed by individualized treatment:* each regimen is individually designed on the basis of the patient's history and then adjusted when DST results become available.

These schemes use information obtained from DST results and drug-resistance surveillance within the local population. The latter can also be obtained from drug-resistance surveys.

Despite good progress in several countries, the prison system is not fully included in the TB control network. There are still wide differences in policy and administration, including financial capacity, between ministries of health and prison health authorities in many countries, leading to unequal health care services.

The Consolidated Action Plan to Prevent and Combat Multidrug and Extensively Drug-Resistant Tuberculosis in the WHO European Region 2011–2015 has six strategic directions and seven areas of intervention (19). In view of the high prevalence of M/XDR-TB in prison settings, prison health systems should follow all the steps defined for the civilian sector, as only very close integration between civilian and prison health systems guarantees success countrywide. The Plan includes the following special action to be taken in prison settings:

7.2 Strengthen MDR-TB control in prisons

Activity 7.2.1 The Regional Office, using the successful model of its Health in Prison Project, will assist Member States in continuously improving TB control in penitentiary services.

Activity 7.2.2 Member States will ensure that early diagnosis and effective treatment of M/XDR-TB are available in all penitentiary services across the Region by the first quarter of 2013.

Activity 7.2.3 Member States will establish mechanisms for the continuum of care for released prisoners receiving TB treatment by the end of 2012.

TB/HIV co-infection

HIV is the strongest risk factor for developing TB disease in those with latent or new *M. tuberculosis* infection. The risk of developing TB is between 20 and 37 times greater in people living with HIV than among those who do not have HIV infection. TB is responsible for more than a quarter of deaths among people living with HIV. In response to the dual epidemics of HIV and TB, WHO has recommended 12 collaborative TB/HIV activities as part of core HIV and TB prevention, care and treatment services (21).

Collaborative TB/HIV activities by NTPs and national HIV/AIDS programmes should prioritize prisons, where the prevalence of both diseases is higher. The goal of these activities in prisons, as in any community, is to decrease the burden of TB and HIV. The specific objectives of the collaborative activities are threefold:

- to establish a mechanism for collaboration between both programmes;
- to decrease the burden of TB in people living with HIV/AIDS;
- to decrease the burden of HIV in TB patients.

There should be an adequate mechanism for collaboration between TB and HIV/AIDS programmes at the local level and district public health services, and both should include prisons in their workplans. All activities implemented in the community should also be made available for prisoners. Collaborative activities include surveillance of HIV among TB patients, joint planning and mobilization for TB/HIV and capacity-building for TB/HIV.

It is recommended that provider-initiated voluntary HIV testing and counselling of TB patients be implemented (22).

TB and HIV/AIDS programmes should coordinate TB/HIV plans, and communicate and coordinate activities in prisons to prevent duplication of work. The roles and responsibilities of each programme and of the prison staff need to be clearly defined, understood and monitored.

Capacity-building for public health and prison personnel is crucial for delivering good quality and effective TB/HIV interventions in prisons. The prison setting offers the advantage that the same health staff carry out all health-related activities and programmes; thus, a one-stop approach can be implemented for TB/HIV activities. It is very important to involve different types of group, nongovernmental organization and religious community in educating and counselling suspected cases of TB.

Decreasing the burden of TB in people living with HIV is referred to as the three I's: intensified TB case-finding, isoniazid preventive therapy (IPT) for HIV-infected people and infection control.

In prisons, all individuals living with HIV should be screened for TB either at the time of HIV diagnosis or before starting ART, when TB is most likely to be detected. In addition, intensified TB case-finding should be carried out regularly thereafter (for example, every six months), and can be done with the aid of a simple questionnaire, often the same form used during entry screening of prisoners (23). Intensified TB case-finding among HIV-infected individuals prevents transmission and mortality, reduces the risk of nosocomial transmission and offers an opportunity for delivering IPT (24).

The latest WHO recommendations (24) regarding intensified TB case-finding and IPT issued in 2011 are the following.

Adults and adolescents living with HIV should be screened for TB with a clinical algorithm. Those who do not report any one of the symptoms of current cough, fever, weight loss or night sweats are unlikely to have active TB and should be offered IPT.

Adults and adolescents living with HIV who have an unknown or positive tuberculin skin test status and are unlikely to have active TB should receive at least six months of IPT as part of a comprehensive package of HIV care. IPT should be given to such individuals irrespective of the degree of immunosuppression, and also to those on ART, those who have previously been treated for TB and pregnant women (WHO also advises 36 months duration taking into account the local epidemiology of TB and HIV in settings with a high prevalence of TB in people living with HIV).

Tuberculin skin test is not a requirement for initiating IPT in people living with HIV. People living with HIV who have a positive tuberculin skin test do, however, benefit more from IPT.

The provision of IPT to people living with HIV does not increase the risk of developing isoniazid-resistant TB. Concerns regarding the development of isoniazid resistance should not, therefore, be a barrier to providing IPT.

Decreasing the burden of HIV in TB patients includes the following activities: HIV counselling and testing of prisoners with TB, prevention of HIV transmission in prisons, co-trimoxazole preventive therapy and effective HIV treatment, care and support.

Prison health care workers should offer HIV counselling and voluntary testing to prisoners, especially TB patients, for several reasons: prisoners may want to know their HIV status; access to ART is increasingly available in many countries, including in prison populations; better diagnosis and management of other HIV-related illnesses can be achieved when the HIV status is known because some anti-TB medicines are more suitable for HIV-positive individuals; a better selection of medicines is possible when the HIV status is clear; and prisoners can be given health education to reduce high-risk activities and avoid further HIV transmission. Counselling must be confidential and done before and after the HIV testing. WHO recommends provider-initiated HIV testing and counselling.

Preventing HIV transmission can contribute to the prevention of TB. The behaviour mainly responsible for HIV transmission in prisons is injecting drug use, unprotected sex between men, and piercing and tattooing with unhygienic tools. TB and HIV/AIDS programmes should

collaborate to implement comprehensive HIV strategies that target sexual, parenteral and vertical transmission of HIV. Measures to reduce the sexual spread of HIV include promoting safer sexual behaviour and practices. The provision of condoms and the prevention of rape, sexual violence and coercion are recommended. Measures for decreasing parenteral HIV transmission include ensuring the use of sterilized injections and surgical equipment in prison clinics. WHO and UNODC recommend that harm reduction programmes, syringe and needle exchanges, substitution therapy and education for prisoners about HIV and drug-injecting should be introduced in settings with a high HIV prevalence among injection drug users (22).

Co-trimoxazole preventive therapy reduces mortality among smear-positive TB patients who are HIV-positive. It also reduces hospitalization and morbidity among persons living with HIV/AIDS. For TB patients, co-trimoxazole prophylaxis should be initiated irrespective of the CD4 cell count.

Effective HIV treatment includes access to ART as part of comprehensive HIV/AIDS care. ART is recommended for all patients with HIV and drug-resistant TB requiring second-line anti-TB drugs, irrespective of CD4 cell count, as early as possible (ideally as early as two weeks, and no later than eight weeks) following initiation of anti-TB treatment (21).

The pooled individual patient data from longitudinal cohort studies showed a lower risk of death and a higher likelihood of cure and resolution of TB signs and symptoms in patients using ART compared with those not using ART (25). The strong recommendation for use of ART is based in part on indirect evidence from its use in any patient with active TB, which shows considerable beneficial effects and a very high mortality when ART is not employed, particularly in highly immune-compromised patients (CD4 cell count <50 cells/mm³). In the absence of other data specific to patients with drug-resistant TB receiving second-line anti-TB medication, the decision on when to start ART should be no different from the approach to the HIV-positive drug-susceptible TB patient (25).

The successful implementation of this recommendation will depend on the availability of more providers trained specifically in the care of HIV, TB and drug-resistant TB and drug-drug interactions. A substantial increase in the availability of treatment and patients' access to it will probably be needed together with additional support for ensuring adherence. The need for increased integration of HIV and TB care for effective patient management, prompt evaluation of adverse events and case-holding throughout treatment will require more resources.

In 2011, WHO issued recommendations and a plan of action for improving TB/HIV collaborative mechanisms in the Region (20,26). All these recommendations apply to both civilian and prison populations, and include the following action:

- the Regional Office will document best practices and experiences in effective integration and service delivery models for TB/HIV/drug dependence services;
- the Regional Office and other partners will support training and education for HIV and TB health care professionals on a regular basis;
- the Regional Office and other partners will support the revision of national TB/HIV policies;
- Member States will establish a functional TB/HIV coordinating mechanism to facilitate the delivery of integrated TB and HIV (and drug use/narcology) services within the same facilities, including in prisons;
- Member States will develop directives to deliver ART in TB dispensaries and TB treatment in AIDS dispensaries (or relevant/appropriate facilities), where these are lacking;
- all authorities under the ministries of health and justice in Member States will expand access to evidence-based harm reduction services, including TB and HIV prevention, diagnosis and treatment services for people living with or at risk of HIV, in particular people who use or inject drugs;
- Member States will scale up the provision of TB prophylactic treatment in all AIDS dispensaries as a core HIV care intervention in line with internationally recommended evidence-based policies;
- ministries of health will ensure the availability of isoniazid in AIDS dispensaries as part of HIV care intervention;
- national TB and HIV programmes and dispensaries will actively engage with civil society partners to improve access to integrated TB/HIV and, where appropriate, harm reduction services for the most at-risk and vulnerable populations.

TB infection control

TB infection control is a combination of measures aimed at minimizing the risk of TB transmission. The basis of such infection control is early and rapid identification of individuals with suspected and known TB and effective treatment of disease. TB infection control, as a component of WHO's revised Stop TB Strategy (6), is intended to strengthen health systems.

Policy and service delivery areas related to TB infection control (27) may be studied at four levels:

- managerial (organizational) control measures, including the development of TB infection control

policy, strategic planning, advocacy, human resource development, monitoring and evaluation, operational research;

- administrative control measures, including early TB case detection, TB screening, separation or isolation of patients, cough etiquette and hygiene;
- environmental control measures, including natural and mechanical ventilation, ultraviolet germicidal irradiation;
- personal protection control measures, including respirators and respiratory fit testing.

Several infection control measures could be conducted in prisons (10):

- preventing the spread of infection from community to prison by using intensified TB screening for new or transferred prisoners and preparing special quarantine blocks or cells (to be used for one or two weeks) for new or transferred prisoners;
- preventing the transmission of TB infection from one prisoner to other prisoners or to prison staff by: (i) conducting contact investigations for TB suspects and cases; (ii) improving infection control by carrying out organizational, administrative and environmental interventions in prisons; and (iii) using information, education and communication for prisoners;
- preventing the infection of family members and the community by released prisoners or prison staff by examining prisoners before release and examining prison staff regularly;
- establishing TB infection control in the community by instituting early TB case detection and using effective treatment.

Managerial activities in prisons

The full set of national managerial activities designed for the civilian sector should also apply to congregate settings. As a first step, policy-makers responsible for prison settings should be made part of the coordinating system for planning and implementing interventions to control TB infection. In particular, the medical service of the ministry of justice and correctional facilities should be fully engaged and encouraged to implement TB infection control. Overcrowding should be avoided in prisons because it can lead to non-infected individuals being exposed to TB. Prisons should be part of the country's surveillance activities and should be included in assessment of facilities for TB infection control. Such assessment will be useful in determining the level of risk of the facility or building. Any advocacy and information, education and communication material should include a specific focus on prisons, as should monitoring and evaluation activities. There is a great need for more research on TB infection control in prisons.

Facility-level managerial activities should also apply (with some adaptation) to prisons. Ideally, each prison should have a written TB infection control plan with a protocol for the prompt recognition, separation and provision of services for and investigation of TB, and referral of patients with suspected or confirmed TB disease. A designated infection control officer is responsible for overseeing the implementation of infection control measures and providing infection control training for health care and other staff members who may be exposed to TB infection.

Monitoring and evaluation provide the means to assess the quality, effectiveness, coverage and delivery of infection control interventions and to ensure that there is continuous improvement in the carrying out of programmes. Monitoring and evaluation should involve collaboration and sharing of indicators between programmes (for example, programmes related to TB, HIV, occupational health and infection control) and should include links between prison and civilian health services, particularly regarding the continuum of care and follow-up of released prisoners with TB.

Administrative measures

The implementation of administrative interventions in particular work practices has the highest possible impact on preventing TB transmission and is usually the least expensive measure and is, therefore, strongly advocated in most settings. To decrease TB transmission in prisons, cough etiquette and respiratory hygiene and early identification, followed by separation and proper treatment of infectious cases, should be implemented. In particular, all inmates in long-term stay facilities and inhabitants of other congregate settings should be screened for TB on entry. People suspected of having TB should be diagnosed as quickly as possible. Those patients should always be separated and, if possible, isolated in an adequately ventilated area until sputum-smear conversion. In short-stay congregate settings, such as jails and shelters, a referral system for proper case management should be established.

In prisons with a high prevalence of HIV, patients living with HIV and other forms of immune suppression should be separated from those with suspected or confirmed infectious TB. All staff and persons residing in the setting should be given information and encouraged to undergo HIV testing and counselling. If diagnosed with HIV, they should be offered a package of prevention and care that includes regular screening for active TB. Additional measures for groups at high risk (such as injecting and other drug users) should be ensured. In prisons with patients having, or suspected of having, drug-resistant TB, such patients should be separated from other patients

(including other TB patients) and referral for proper treatment established.

Environmental controls

Buildings in congregate settings should comply with national norms and regulations for ventilation in public buildings and specific norms and regulations for prisons, where these exist. It is recommended that the air change rate should be no less than 6–12. Ideally, cells and wards in prison hospitals should have large windows which should be kept open often. When other environmental control measures are not in place, the emphasis should be on natural ventilation by maximizing the opening of windows.

Well-designed, well-maintained and correctly operated exhaust fans (mixed-mode ventilation) can help to obtain adequate ventilation when sufficient air change per hour cannot be achieved by natural ventilation alone.

In prisons in which there is a high risk of TB transmission and where adequate ventilation cannot be achieved (for example, because of design constraints or cold winters), another option is the use of an upper room or shielded ultraviolet germicidal irradiation device. If such a device is used, fixtures should be designed to prevent injury from improper use or tampering with the device.

Personal protective equipment in congregate settings

In addition to carrying out administrative and environmental controls, health-care workers may use respirators when caring for patients with infectious TB. Respirators (N95 or filter face-piece 2 equivalent or higher) provide reasonably good protection against TB by filtering out microscopic droplets and aerosols. The use of respirators provides protection for health-care workers in close contact with TB patients. This protection is particularly important when health staff are supervising a cough-inducing procedure (such as bronchoscopy) or sputum collection. Prisoners who are TB patients should use surgical masks when moving around inside the hospital.

Advocacy, communication and social mobilization

Advocacy, communication and social mobilization constitute the important component of the Stop TB Strategy. Although such initiatives are mainly aimed at the general population, their importance and applicability in prisons cannot be underestimated. At the institutional level, prison health authorities should address the following key strategies: improving TB case detection and compliance with treatment, combating stigma and discrimination, empowering people affected with TB and

mobilizing political commitment and resources to fight TB.

Usually, patients must present themselves to the prison health services when TB symptoms emerge (mainly in institutions where no active case-finding is in place) and adhere to treatment for at least six months. As this approach (passive case-finding) relies on prisoners' awareness of TB symptoms, delays in diagnosis and the start of treatment are common in many settings. Studies document that in prisons where educational sessions are carried out (including talks, videos, flipcharts, other educational materials, contests, question-and-answer games), adherence to treatment improves and the cure rate rises. Good results have also been achieved by involving peer educators (prisoners) (28).

Educational campaigns in prisons should be directed against stigmatization and discrimination, which are the greatest threats to TB programmes in both civilian and prison populations, and involve the prison administration as well as detainees.

In the fight against TB and HIV, it is highly recommended that the prisoners should be involved in the development and dissemination of educational programmes. Prisoners might be engaged as peer educators and treatment supporters and can play a crucial role in identifying TB suspects. During the educational campaigns everybody should be involved in designing and developing the activities: prison administration, health staff and prisoners. This kind of collaboration makes the information more sensitive and appropriate to the prison context, increases the sense of ownership among prisoners and contributes to the continuity of the programme.

A complementary political commitment lies at the core of efforts to establish and sustain effective TB control strategies in prisons. The common denominator of successful initiatives is the equal participation of decision-makers, administrators and those responsible for implementation in the public health and prison systems. Policies that support ongoing and sustainable programmes should be introduced, together with adequate resources to build the capacity to translate such policies into effective practice.

There must be political commitment at the various levels of the NTP and of the prison system. In the public health sector, the decentralization that has occurred in many resource-constrained countries has shifted the planning and resource allocation processes from the central level to provincial and district authorities, limiting in many instances the influence and involvement of the central

level. Thus, strong advocacy and the continuous fostering of awareness are essential for TB services in prisons on the periphery, and decision-makers at these levels should become stakeholders in the programme to help ensure its continuity

In the Roadmap to prevent and combat drug-resistant tuberculosis (19), WHO addressed the challenges to the implementation of advocacy, communication and social mobilization activities in both the civilian and prison sectors and developed a package of recommendations, including the following:

- use the successful model of the HIPP to assist NTPs in improving TB activities in the prison system;
- facilitate the adaptation and development of advocacy, communication and social mobilization materials appropriate to the country (and prison setting);
- use all forms of the media to inform, persuade and generate action among the whole population or targeted subpopulations (prisoners) about TB, and to generate awareness of the challenge of M/XDR-TB and thus the importance of prevention, increased and speedy detection and completion of treatment;
- train (prison) health care staff in patient-centred care and intrapersonal communication skills on a regular basis to enable them to develop appropriate consultation skills and supportive attitudes.

Continuum of care for released prisoners

Following release, prisoners face problems with housing, unemployment, registration of residence, social stigma, negligence and a cautious attitude by civil society. Since released prisoners often give priority to these competing issues over their health, they need to be followed by the local health centre, NTP or organization collaborating with the NTP. This follow-up often does not happen: in eastern European countries, reportedly around 60–70% of prisoners do not refer to TB facilities after release. To minimize the interruption of treatment in released prisoners, it is recommended that discharge or referral planning, post-release follow-up, notification of unplanned releases and monitoring of referrals should be implemented (10).

Discharge or referral planning

Prison health staff, as case managers, should coordinate the follow-up of released prisoners with the civilian sector (district TB coordinators) regarding where prisoners live after release, any available social support and post-release assistance (with factors such as housing, employment, continuation of treatment and psychological support). An important factor is the education of family members about the importance of the prisoner adhering to treatment and the consequences of interruption. In this

regard, peer educators play a significant role in educating prisoners. While in treatment, prisoners with TB should supply the addresses and telephone numbers of relatives and family members and information about where they plan to live.

Post-release follow-up

The following activities can contribute to an easy transition. Prison health staff should complete a referral form (part of the NTP's information system forms) for the prisoner to give to the local health centre staff where he/she will continue treatment in the community. A copy should be kept in the prison and a second copy sent to the regional area or district NTP manager. The same procedure applies to prisoners who are transferred to another prison; wherever possible, the prisoner should be introduced (preferably face to face) to the TB programme manager or district TB programme supervisor who is responsible for treatment and care in the community (local health centre staff and district NTP). Post-release appointments should be made at the local TB facility, and the prisoner supplied on release with adequate TB drugs to last until the next medical appointment.

Depending on local resources and capacity, prison and NTP local staff can work with advocacy groups or private or government-funded programmes to facilitate a safe, supported transition for prisoners into the community. Substance use, mental health conditions and poverty affect health care. The greatest barriers to continuity of care for TB lie with adherence to medication, housing, social relationships and unemployment. Nongovernmental organizations and churches working in prisons can play crucial roles in helping to follow up prisoners undergoing TB treatment after their release from prison. It is essential to establish partnerships with them that include well-defined tasks and responsibilities, and they should be sought out and included in planning and monitoring activities.

Notification of unplanned releases and unplanned transfers

Unplanned releases (amnesty, etc.) often create problems with the continuity of treatment. The prison administration should inform the health staff about all scheduled and unscheduled releases as soon as information becomes available. Prompt remedial steps need to be taken in collaboration with the local NTP supervisors to guarantee that the released TB patients visit the local health centre and continue therapy there. For this notification, prompt communication via telephone, text messages and other rapid methods are encouraged. The patient's treatment card (or a copy of it) must be sent to the receiving health care facility that will follow up the patient.

A referral register is useful for monitoring and evaluating referral and should include feedback. Registers are kept in prisons or by district NTP supervisors or both. The important indicator in monitoring released prisoners is the number of released prisoners registered in civilian TB units.

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9. Infectious diseases in prison

Sven Todts

Key points

- Infectious diseases are an important problem in prisons, interacting dynamically with other problems of prisoners such as mental illness, addiction or homelessness.
- Contextual factors such as overcrowding, limited access to water or delays in diagnosis contribute to higher transmission rates.
- Every prison health care service should have a comprehensive vaccination programme for prisoners and prison staff.

Introduction

An effective infectious disease strategy is impossible without close collaboration between health care staff and custodial staff. As elsewhere in the world, prisoners in Europe have complex health needs, which result from an amalgam of mental and physical illness, unemployment, addiction and homelessness. Infectious diseases are an important constituent of this amalgam. The different elements do not exist as separate entities but interact dynamically, as shown in the case study of the dynamics between infections and mental illness described by Rutherford (1). People with mental illness are more likely to be infected with bloodborne viruses because of risky behaviour such as homelessness, rapidly changing moods and multiple partners. Brunette notes that the treatment for hepatitis with interferon can lead to depression and that people with mental illness may be less able to cope with side-effects such as fatigue (2).

Incoming prisoners are at higher risk of HIV, viral hepatitis, STIs, TB and methicillin-resistant *Staphylococcus aureus* (3). Contextual factors inside prisons contribute to a higher risk of transmission among prisoners. Among these factors are overcrowding, delays in diagnosis and treatment, limited access to water, soap or clean laundry and lack of availability of harm reduction measures such as condoms, clean tattooing equipment or syringes (4).

This chapter reviews the most important infectious diseases apart from HIV and TB, which are discussed in other chapters.

Influenza

Ever since Quinton described, for the first time, an outbreak of influenza in Wandsworth prison (United Kingdom) in 1890 (5), many more outbreaks have been

documented. In fact, the 1918 outbreak in the prison of San Quentin (California, United States) seems to have been one of the primary foci of the 1918–1920 pandemic (6). Nevertheless, as Awofeso (6) states, outbreaks have become rather rare in recent times. Two major strategies to prevent an outbreak have been developed. The preferred strategy involves consideration of the whole prison population as a risk group and vaccination of as many prisoners as possible every year. The disadvantages of this strategy are that it is expensive (since outbreaks are rare) and that the distribution of vaccines can be complex. A recent evaluation in the United States showed that 20% of federal and state prisons and 33% of jails did not receive the necessary vaccines (7). The prison population should be vaccinated for seasonal influenza every year from October to December.

Another proposed strategy consists of quarantine, vaccination (if available) and short-term (prophylactic) treatment of cases and their close contacts (8). Mathematical modelling shows that this strategy might also work in a prison setting (6). If vaccination of the entire population is impossible, at least prisoners belonging to risk groups should be offered vaccination. Whichever model is chosen, it must be stressed that the model needs to take into account the equivalence of care issues (9).

In 2009, at a time when no vaccine was available, the H1N1 influenza epidemic also threatened the Belgian prison system. Preparations and procedures for dealing with it at national level included the following:

- organization of a direct link to the national crisis coordination centre (interior affairs);
- creation of a crisis coordination centre for the justice department and/or prison administration;
- appointment of a responsible person for all information, announcements and publications;
- securing of funding for the prevention kits (see below: local level);
- setting up of a centralized registration procedure for staff members and detainees who were ill:
 - staff returning after a bout of influenza to be placed in sections with sick prisoners;
 - directives for separating prisoners who were not yet ill, ill or had recovered in different sections;
 - centralized registration for the organization of help for the hardest hit prisons;

- issuing of directives for quarantine of diagnosed prisoners by the medical staff;
- issuing of guidelines for the use of antiviral medication and vaccines (when they became available);
- issuing of directives to limit movement inside facilities and into or out of affected units.

Measures at local level consisted of cancelling common activities and issuing prevention kits for prisons (prisoners, staff and visitors) containing:

- non-alcoholic hand disinfection dispensers;
- non-alcoholic disinfection gels in places with no access to running water;
- a stock of disposable mouth masks;
- a stock of disposable gloves and paper handkerchiefs;
- extra dustbins to collect all the disposable material;
- posters and leaflets with prevention messages (also on the intranet);
- a stock of dry foods (in cases where kitchens or suppliers can no longer function).

Measles, mumps and rubella

Measles is a highly contagious viral disease spread by droplet infection through sneezing and coughing. Initial symptoms include high fever and a runny nose, followed by a rash descending from the head and neck. Serious complications can develop, specifically in malnourished patients or in patients with diminished immunity. Laurent et al (10) showed how the immune status of migrant populations in a Swiss prison was fairly low. Targeted vaccination programmes for migrant prisoners could reduce the risks of transmission. In fact, vaccination for measles (combined with mumps and rubella) should ideally be offered to all incoming prisoners without a reliable vaccine history.

Measles, mumps and rubella vaccination should also be offered to female prisoners of childbearing age without a reliable vaccine history, to protect them against rubella.

Some authors also suggest vaccination of prisoners against varicella zoster, the virus that causes chickenpox (4). There are combined measles, mumps, rubella and varicella zoster vaccines.

Viral hepatitis

Viral hepatitis is the leading cause of cirrhosis and liver cancer, which in turn ranks as the third cause of cancer death worldwide. Within the WHO European Region, approximately 14 million people are chronically infected with HBV, and 9 million people are chronically infected with HCV (11).

Across Europe, prisoner populations are disproportionately affected. The reasons are to be

found in the lifestyles of many prisoners. Injecting drug use, tattooing and risky sexual behaviour all favour transmission of these bloodborne viruses. Another reason is the overrepresentation of migrants from endemic regions in European prisons.

With few exceptions, European countries now have universal vaccination for HBV in children. As a result, most new cases now occur among adults. Non-immune prisoners are at high risk of becoming infected and should be vaccinated. Different countries have allowed rapid or ultra-rapid vaccination schemes (for example, on days 0, 7 and 21 with a booster after 1 year) for adult prisoners, thus avoiding the risk of incomplete vaccination when a regular scheme (0, 1 and 6 months) is used.

In the absence of a vaccine for hepatitis C, treatment is the only option. Ideally, all incoming prisoners should be screened for hepatitis C and, if found positive, liver damage and the need for treatment should be evaluated. Treatment is complex and expensive. Collaboration with haepatology departments is necessary. Most existing guidelines discourage the treatment of active drug users, but recently evidence has emerged that treatment of active users could help to contain the HCV epidemic:

A recent modelling study suggests that, based on realistic treatment capacity, treating 40 per 1000 IDUs annually could result in a 70% decrease in HCV prevalence over a 10-year period. The underlying principle of this 'treatment for prevention' approach, also advocated by the HIV/AIDS research community, is that the overall viral load in the population can be reduced through effective treatment of those infected, thereby halting the cycle of transmission (11).

The transmission of hepatitis A happens through contaminated food or water or by faeco-oral contamination. Foodborne and waterborne outbreaks in prisons have been described. Patients are contagious from two to four weeks before the appearance of symptoms (pruritis, jaundice) until the disappearance of symptoms. Among other risk groups, food handlers, men who have sex with men, injecting drug users, people with mental deficiencies and patients with chronic liver disease should all be vaccinated. It is, therefore, sensible to vaccinate all non-immune incoming prisoners.

Tetanus

Tetanus is caused by *Clostridium tetani*, a bacterium that enters the body through soiled wounds. In the majority of cases, the entry place is a small wound. Puncture wounds, bite wounds, wounds that are soiled and wounds that are not treated within six hours carry a higher risk. Tetanus can also, although rarely, be transmitted through

injecting drug use (12,13). It causes focal or generalized muscular spasms. Even under the best of circumstances, the mortality from tetanus is 10–40%. Incoming prisoners should, therefore, be vaccinated unless they have proof of their immune status, notwithstanding that tetanus has become a rare disease in Europe. At the least, prisoners presenting themselves with wounds should be vaccinated immediately. A patient with a type of wound carrying a higher risk should also be treated with specific immunoglobulins.

Diphtheria

Diphtheria is caused by *Corynebacterium diphtheriae*, which is spread by sneezing or coughing by the diseased patient (droplet infection). The bacteria produce an exotoxin that is the cause of the symptoms: obstructive respiratory problems with the formation of false membranes in nose and throat. There can be systemic complications, such as heart failure or paralysis. Mortality is 5–10%. The level of immunization is below standard in many parts of the world. In 1993, a nationwide epidemic struck the Russian Federation, following the breakdown of vaccination programmes (14).

Treatment consists in immediate medical isolation and treatment (antitoxins and antibiotics) of the patient and close contacts. Antibiotic treatment renders the patient non-infectious within 24 hours.

Incoming prisoners should be vaccinated unless their immune status can be proven, using the combined diphtheria/tetanus vaccine for adults.

Sexually transmitted infections

As Tang (15) states:

There is ample evidence worldwide that sexually transmitted infection and bloodborne viral infection are more highly prevalent in prison populations than in the outside community. STI diagnosis and treatment services in prisons are therefore an essential component of any STI control programme.

Prisoners often belong to vulnerable groups in society, who have a higher risk of STI because of, for example, injecting drug use, engagement in commercial sex activities and unprotected intercourse. They also engage in high-risk sexual behaviour in prison, or can become the victim of sexual violence.

Apart from screening for HIV, HBV and HCV, voluntary screening for other STIs (chlamydia, gonorrhoea, syphilis) should be offered to all prisoners with risky behaviour.

With the advent of nucleic acid amplification tests for chlamydia and gonorrhoea, male patients show less

resistance to testing. Nevertheless, prisoners may find donating a urine sample problematic for fear of drug testing. It is the responsibility of the prison health care team to build up the necessary trust and confidentiality.

Gonorrhoea is a bacterium that infects the urethra in men and the cervix, uterus and fallopian tubes in women. Although a silent (symptomless) infection is possible, many men will experience burning pain while urinating. The infection produces a white to green discharge. In women, symptoms are often less specific: burning sensations while urinating, blood loss and vaginal discharge. In both men and women, rectal infection can create painful defecation, rectal discharge, bleeding and anal itching.

Untreated, gonorrhoea can cause infertility through pelvic inflammatory disease in women and through epididymitis in men. Treatment consists of antibiotics. More and more strains of *Neisseria gonorrhoea* are resistant to ciprofloxacin, penicillin or tetracyclines.

Chlamydia trachomatis often presents without symptoms. In men, it can cause urethritis, epididymitis and proctitis. In women it causes cervicitis (often with contact bleeding), which can develop into pelvic inflammatory disease. Diagnosis is preferably made by nucleic acid amplification tests (urine or urethral discharge in men, vaginal discharge or cervix in women, rectum if anal intercourse has taken place and pharynx in case of oral sex).

Syphilis, caused by *Treponema pallidum*, evolves in several phases. The hallmark of primary syphilis is a painless wet ulcer (chancre) at the site of inoculation (genitals, anus and mouth), which disappears after three to six weeks. The secondary phase, which starts some weeks after the chancre, consists of body rashes, often on the palms of the hands and soles of the feet. It can last up to two years and be accompanied by subfebrility, fatigue, weight loss, patchy hair loss, swollen lymph nodes and muscle pains. In the third stage of late syphilis, serious and irreparable damage is done to the nervous system, the heart, the brain and other parts of the body.

As a primary screening test, treponema pallidum haemagglutination assay or enzyme immunoassay can be used. A fluorescent treponemal antibody test can then be used as confirmation. Venereal Disease Research Laboratory and rapid plasma reagent tests are used to monitor the response to antibiotic treatment. Interpretation of syphilis serology can be difficult and is best left to specialists. Syphilis is often found in people

with HIV/AIDS. A confirmed diagnosis of syphilis should, therefore, prompt HIV testing.

Notification and treatment of partners can be difficult in prison, either because of practical difficulties (if partners live in the community) or because of the taboo on sex among inmates. In the first case, collaboration with an outside agency can be a solution.

Ectoparasites

Ectoparasites such as scabies and lice are not uncommon in prisons.

Rash, pruritis and/or skin lesions are the hallmarks of scabies. In most instances, diagnosis is not too difficult. Indeed, it is often self-diagnosed. Efficient treatment is, however, only possible if there is close collaboration between medical and custodial staff. Efficient treatment requires the diagnosis and topical treatment of the index case and other cell-mates, together with access to showers and disinfection of bed linen, towels and clothes. Not infrequently, the handling of infected items in the prison laundry leads to new cases. This can be avoided by using protein-based laundry bags to collect the infected items: the bags can be put inside the washing machines without further handling of the infected clothes or linen.

Pediculosis capitis, or head lice, are caused by an insect parasite of human head hair. Apart from the hair, bed linen, clothes, combs and brushes can be infested. Treatment should, therefore, not only include topical treatment but also disinfection of the mentioned items. Prison barbers (often prisoners) should be educated on the cleaning and disinfection of their barbering equipment.

Vaccination, quarantine and personal hygiene

Table 5 gives a proposed vaccination scheme for certain infectious diseases.

In cases of highly contagious disease or a threatened epidemic, isolation for medical reasons (quarantine) can be warranted. In such cases, the following rules should apply.

Only a medical doctor can decide on the need for isolation. The beginning and end of quarantine measures are strictly medical decisions.

The duration of isolation should be limited to the strictly necessary minimum.

Medical and custodial staff will see to it that the rights of prisoners are guaranteed as far as possible (daily walk, legal assistance, contact with family).

The quarantined sections of the prison (a cell, a section or the entire prison) must be marked by biohazard signs (Fig. 2). Biohazard signs (such as posters and stickers) should always be available in the medical department. Other logograms at the entrance of the quarantined zones can show which protective measures (such as disposable mouth masks and gloves) are necessary to enter the zone.

Fig. 2. Biohazard sign



Protective clothing and dustbins for used disposables should be made available at the entrances/exits of the quarantined zones.

Table 5. Vaccination scheme for certain infectious diseases

Disease	Vaccination scheme
Seasonal influenza	All prisoners or risk groups (October–December)
Tetanus/diphtheria	All incoming prisoners without a reliable vaccination history
Measles, mumps, rubella	All incoming prisoners without a reliable vaccination history and women of childbearing age without a reliable vaccination history
Hepatitis A	All incoming non-immune prisoners
Hepatitis B	All incoming prisoners without a reliable vaccination history
Pneumococcus	Prisoners aged over 65 years and prisoners with HIV/AIDS

Finally, the following are the rules for personal hygiene.

1. All incoming prisoners should be educated about the importance of personal hygiene and should have regular access to decent toilets, toilet paper, sanitary napkins, clean water, soap and clean laundry. They should be aware of the importance of wound care and have access to wound care material if necessary.
2. Targeted efforts should be made to educate and assist prisoners who may have difficulties with personal hygiene, such as prisoners with an intellectual disability.
3. All incoming prisoners should be educated about the universal precautions against bloodborne viruses and have access to the means to protect themselves, such as sterile syringes, condoms, dental dams, personal towels and personal toothbrush or comb.
4. Prisoners and all staff must be able to recognize the biohazard sign (Fig. 2) and understand which measures need to be taken to protect themselves if necessary.

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Noncommunicable diseases

10. Noncommunicable diseases and prisoners

Emma Plugge, Ruth Elwood Martin, Paul Hayton

Key points

- The global burden of and threat from noncommunicable diseases (NCDs) constitute a major public health challenge that undermines social and economic development throughout the world. Prisoners are at greater risk for such diseases.
- Most information on NCDs in prisoners comes from high-income countries despite the fact that globally, 80% of these deaths from these diseases are in low- and middle-income countries.
- NCDs comprise mainly cardiovascular diseases (48%), cancers (21%), chronic respiratory diseases (12%) and diabetes (3.5%). They share four key behavioural risk factors: tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol. Prisoners are more likely to smoke and to drink harmful amounts of alcohol than the general population.
- Prisoners' diets are often unhealthy with either under- or over-provision of calories and with excessive levels of sodium.
- The primary prevention and treatment of NCDs in prisons has largely been neglected.

Introduction

NCDs are increasingly recognized as a considerable global public health issue (1). Cardiovascular diseases, cancers, diabetes and chronic respiratory diseases are the four most common NCDs, causing an estimated 36 million deaths each year – 63% of all deaths globally (1). While these diseases affect people of all nationalities, ages and wealth, there are clear global inequalities in the burden of NCDs, with those in vulnerable situations particularly affected. There is a clear link between socioeconomic disadvantage and NCDs; given that most of the 10 million people imprisoned worldwide are from the poorest and most marginalized sections of society, they are likely be at greater risk for NCDs. The primary prevention and treatment of NCDs in prisons have, however, been largely neglected. In part this may be because of a lack of awareness of the global importance of NCDs, but there is also a perception that prisoners tend to be younger than the general population and thus NCDs are not likely to be an issue – despite the fact that 44% of all deaths in the general population are in people under the age of 70 years (2).

This chapter will highlight the importance of tackling NCDs in the prison population. It will focus on the burden

of NCDs and risk factors in prisoners and examine the challenges in providing appropriate prevention and treatment in prisons.

Burden of disease and risk factors for NCDs in prisoners

Most of the information on the prevalence of cardiovascular diseases, cancers, diabetes and chronic respiratory diseases in prisons comes from high-income countries despite the fact that globally, 80% of deaths from these diseases are in low- and middle-income countries. Evidence from Australia, the United Kingdom and the United States shows that NCDs are an important public health problem in prisons. A study in the United States showed that prisoners had a higher prevalence of hypertension, diabetes, myocardial infarction, asthma and cancer (cervical) than non-imprisoned adults of similar ages and sex (3). Another United States study looking specifically at cancers found that the most common cancers in prisoners were lung carcinoma, non-Hodgkin lymphoma and carcinomas of the oral cavity and pharynx (4). Among women, cervical carcinoma was the most common. Lung carcinoma, non-Hodgkin lymphoma and hepatic carcinoma accounted for more cancer deaths among inmates than in a community comparison group, and the median survival time in prisoners was lower than in the comparison group: prisoners' median survival time from diagnosis was 21 months compared to 54 months in the community cohort (4).

NCDs are an issue in other countries too. Women prisoners in Queensland, Australia, were three times more likely to suffer from asthma than women in the general population, with a prevalence of 36.3%. Diabetes was also more common in imprisoned women, found in 6.2% of women prisoners compared to 0.3% of women aged 25–34 years in the general population (5). Important differences have been found within subgroups in the prison population, particularly ethnic/racial differences. Data from the United Kingdom and United States suggest that the prevalence of chronic conditions is greater in white populations compared to ethnic minorities. This is not, however, the pattern seen in Australian prisons where indigenous prisoners are more likely to suffer from NCDs.

It is important to note that NCDs are preventable. Up to 80% of heart disease, stroke and type 2 diabetes and

over a third of cancers could be prevented by eliminating the common risk factors (6). The four key modifiable risk factors are smoking, the harmful use of alcohol, inadequate physical activity and unhealthy diet. The available evidence suggests that prisoners are likely to be at high risk of NCDs because of high risk behaviour. Smoking in prisons is a huge public health problem (see Chapter 16). Between 64% and 91.8% of prisoners smoke. In some countries, these rates were more than three times as high as in the general population (7). This may in part explain why lung cancer and cancers of the oral cavity and pharynx are higher in prisoners than in the general population.

The harmful use of alcohol is also an issue for many prisoners (Chapter 15). Estimates of the prevalence of alcohol abuse and dependence in male prisoners range from 18% to 30% and in female prisoners from 10% to 24% (8). These figures may be an underestimate because of the strict inclusion criteria of the review but they point to a substantial health issue. In most prisons across the world, prisoners are allowed to smoke but the use of alcohol is prohibited. It is harder to smuggle alcohol in to prisons than illegal drugs; while prisoners may attempt to brew their own alcohol, it is rarely possible to do so in large quantities. As a result, alcohol is not widely consumed in prisons and prisoners may be protected from the immediate adverse effects, such as alcohol-related injury, although many prisoners remain at high risk of the longer-term consequences, such as hepatocellular carcinoma.

A recent review of 60 000 prisoners in Africa, Asia, Australia, Europe and North America indicates that unhealthy diets and a lack of physical activity are important health issues for prisoners (9). Diets for male prisoners in high-income countries provide an appropriate calorie intake but diets for women prisoners provided a substantial excess of total energy. This may be because women prisoners are detained in institutions designed by men for men with little concern for the needs of women, who form a minority of the global prison population; they are thus supplied with a diet appropriate for males. This is likely to contribute to obesity in the female prison population. Women prisoners are more likely to be overweight and obese than the age- and sex-adjusted population, with high prevalence rates estimates of 37% to 70%. Male prisoners, by contrast, were less likely to be overweight or obese than the general population; this held true in high-, middle- and low-income countries.

Other aspects of prisoners' diets also put them at increased risk of NCDs. The review showed that dietary salt intake was over twice the recommended levels in

diets for both males and females and that diets were high in carbohydrates, with an excess of percentage energy intake of fat. The problem may be compounded in high-income countries by the availability of extra snacks; prisoners are able to buy these to supplement their diet, but they tend to be energy-dense and salt-rich.

WHO recommends that all adults aged 18–64 years should undertake at least 150 minutes of moderate physical activity each week to benefit their health (10). Physical activity data on prisoners in Australia and the United Kingdom showed a contrasting picture, in which United Kingdom prisoners were less likely to achieve the recommended guidelines for physical activity in comparison both to Australian prisoners and to the general United Kingdom population. Australian prisoners were more likely than the sex-adjusted general population to do more than 150 minutes of moderate exercise per week. This is an important difference, which highlights the fact that it is possible to enable prisoners to take enough physical activity in the prison setting.

Challenges in providing appropriate prevention and care to prisoners

Primary prevention of NCDs

Smoking

Tackling smoking in prisons is a complex issue involving not simply health concerns but concerns about other important issues such as human rights. Smoking plays a complex role in prison life. Prisoners smoke for a variety of reasons, not just because they are addicted but also because of the perceived benefits in social situations, managing stress and alleviating boredom. Cigarettes may also be an important form of currency. Many prison staff smoke too, making the acceptability and implementation of smoking bans in the prison environment challenging. While total smoking bans in prisons may be seen as coercive and unrealistic as cigarettes would become, like drugs, an illicit substance to be smuggled and traded, partial smoking bans may be more effective. In the United Kingdom, smoking in public places in prisons is banned but prisoners are allowed to smoke in their own cells. The stated aim of the Prison Service in the United Kingdom (England and Wales) is for prisons to be smoke-free in the future. In the short term the partial ban has delivered health benefits, particularly where it is supported by appropriate interventions, such as counselling and nicotine replacement therapy, while enabling individual prisoners to retain the right to smoke. These issues are discussed further in Chapter 16.

Alcohol

In most prisons throughout the world, the consumption

of alcohol by prisoners is banned, which largely prevents excessive consumption in prisons. As already highlighted, however, a significant proportion of prisoners enter prison dependent on alcohol and needing appropriate care and treatment (11). This is discussed in detail in Chapter 15.

Diet

Prison administrations need to ensure that prisoners have access to a nutritionally adequate and balanced diet. The provision of healthy options does not, however, mean that prisoners will benefit from a good diet. As with tobacco, prisoners have a complex relationship with food and it is often used, for example, to relieve the boredom of imprisonment. There is also some evidence to support the high prevalence of eating disorders in women prisoners in high-income countries (12,13). Prisons need to ensure that all the options are healthy and should provide guidance to prisoners on the nutritional content of the food provided. Special diets must be provided for prisoners with specific cultural, religious or medical needs, and the different dietary needs of men and women should be catered for. In those countries where prisoners are able to supplement their diets with items they can purchase, there should be mechanisms in place to ensure that these snacks are healthy and not highly processed and calorie-dense. The prison environment can contribute to the development of healthy eating patterns in prisoners. A recent study in Spain demonstrated how the provision of a special diet to prisoners at high risk of cardiovascular disease led to positive changes in their weight, body mass index and blood pressure (14). In Japan, the metabolic profile of diabetic prisoners improved when in prison because of the high-fibre diet and increase in physical activity (15). Other prisons in Japan where prisoners are physically active at work for up to eight hours each day and have a calorie-restricted diet have also demonstrated improvements in prisoners' cardiovascular risk factor profiles following imprisonment (16).

In many prisons across the world, food is scarce and prisoners are not provided with sufficient calories or nutrients. Indeed, there have been documented outbreaks of nutritional deficiencies (17). Prisoners in such situations are at risk of health problems because of these deficiencies, and also because food becomes a commodity traded between prisoners and may be instrumental in bullying. Those denied food are at particular risk of developing health problems. It is important, therefore, that prison authorities provide not only an adequate diet but also ensure that the security and safety of prisoners include specific measures to reduce bullying.

Evidence is emerging to show that there are other good reasons why prison authorities should provide a nutritional

diet. There is some suggestion that micronutrient deficiencies in young offenders play a role in poor behaviour while they are imprisoned and that correcting these deficiencies leads to a decrease in infractions of the rules (18). There is also increasing evidence to show that poor diet and poor mental health are related, and that dietary interventions may be of therapeutic value in conditions such as depression. Given the high prevalence of mental illness in prisons, this supports the need for efforts to prioritize the provision of a healthy diet for all prisoners.

Physical activity

Prison authorities have an important role in ensuring that there are appropriate opportunities for prisoners to undertake sufficient physical activity to benefit their health. In many countries this does not happen, and it is likely that the prison environment prevents individuals who want to exercise from doing so (19). There are a number of barriers to adequate physical activity in the prison setting, including security concerns, overcrowding and understaffing which make supervision of activities outside cells more difficult. As already outlined, however, there are health benefits for prisoners in the longer term, as well as immediate benefits (relief from boredom, an opportunity for positive social interaction, a feeling of wellbeing) (Box 1). The provision of adequate opportunities for physical activity is also likely to benefit the whole prison, including improved staff-prisoner relationships (20).

In prisons worldwide, overcrowding is one of the greatest threats to prisoners' ability to exercise. In some countries, prisoners have been so tightly packed in cells that they can barely move, let alone undertake the necessary moderate physical activity necessary to benefit their health. This is clearly not acceptable on health or human rights grounds and highlights the importance of decency within prisons. A "decent" prison regime will ensure that prisoners are able to meet WHO guidelines on physical activity, should they choose, and will provide them with appropriate health education materials to enable them to make an informed choice.

The care and treatment of prisoners with NCDs

The guiding principle for all prisoners with cardiovascular diseases, cancers, diabetes or chronic respiratory diseases must be that of equivalence of care, that is, they should receive the same standard of care and treatment for their disease in prison as they would if they were in the community. Care and treatment for these chronic diseases have some key elements that should also be provided in the prison setting. Some opportunities and challenges in making such provision are discussed below.

Box 1. Example of effective intervention for nutrition and physical activity, Canada

This project started in 2007 and was carried out in the main short-sentence (two years or less) minimum/medium security women's correctional centre in Canada, housing up to 150 women. At the time, incarcerated women who were engaged in a prison participatory action research project had identified nine health goals that were essential for their successful reintegration into society following release from prison. One goal was improved awareness and integration of healthy lifestyles, including exercise and nutrition. In keeping with this health goal, incarcerated women on the research team designed, implemented and evaluated a prison pilot nutrition and fitness programme. Interested women attended a general gym facility orientation and were offered the option of exercising in group circuit classes or of developing an individual exercise plan. The circuit stations and aerobic routine were altered every two weeks and group circuit class sessions were held twice a day. Pre-and post-programme assessments included a self-administered questionnaire and body measures. Sixteen women in prison completed the programme. Weight, body mass index, waist–hip ratio and chest measurements decreased, and energy, sleep and stress levels improved by the end of the programme. Having fun was a recurrent theme in the open-ended responses. Some women continued their exercise programme in the community after release from prison. In conclusion, a prisoner-designed and led fitness programme is feasible and in this case resulted in improved body measures and self-reported health benefits. Incarceration provides opportunities to engage women in health programmes with potential long-term healing benefits.

Source: Martin RE et al (21).

Identification of NCDs – initial screening

When prisoners are first received in prison they should undergo health screening, including for detection of NCDs. Prisoners who are aware that they have an NCD must be given the opportunity to tell health care staff about their condition and medication. The initial screening also gives staff an opportunity to diagnose hitherto undetected diseases, such as diabetes by urinalysis or blood test and hypertension by blood pressure monitoring. This is particularly important for prisoners who, for a variety of reasons, are often not in contact with the appropriate health services in the community.

Encouragement of self-care

In the community, patients with long-term conditions are encouraged to care for themselves. The prison environment poses particular problems for self-care as security concerns preclude many prisoners from keeping their own medication and monitoring devices. The promotion of self-care runs contrary to the ethos of prison regimes, which are designed to disempower prisoners. There have, however, been some promising local initiatives in some countries. The model described in Box 2 may prove a cost-effective way of ensuring adequate care.

Ensuring access to secondary care

While most prisoners with NCDs can be managed in primary care in prisons most of the time, many will need to visit hospitals for specialist care as outpatients. These visits can pose particular problems as appropriate transport must be arranged and escorts provided. Resource constraints often make this difficult for many

prisons, but it is important to recognize and prioritize this particular health need. In some countries, innovative developments to circumvent these difficulties have encompassed the use of telemedicine or initiatives to bring specialists into prisons to visit patients. However, some aspects of the care of NCDs, such as the use of sophisticated scanning procedures, must necessarily be accessed in hospitals and prison regimes must adapt accordingly.

Throughcare

The majority of prisoners will be released into the community at some stage of their lives. Adequate planning to ensure appropriate throughcare is particularly important for those with NCDs. Prisoners should not be released without adequate medication and appropriate arrangements for follow-up in the community.

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Box 2. Example of good practice regarding the encouragement of self-care by prisoners, United Kingdom (Scotland)

The health care team in a young offenders' institution in Scotland is committed to delivering a high degree of professional health care. They consistently achieve a positive effect on the general health of the young offenders through a model of care that adapts the concept of specialist teams for primary care, mental health and addictions. In the sphere of primary care, each nurse has developed at least one area of specific need and interest. The development of health care has enabled the team to progress from the traditional route of a young offender reporting sick to a self-referral system that allows each young offender to specify which clinic he/she wishes to attend. Specialist clinics exist for individuals with a wide range of health needs, including a number of clinics for NCDs such as asthma, diabetes and epilepsy.

There are some benefits to this model. The service mirrors the service provided in the community and is primarily nurse-led. There is a high patient satisfaction rate: young offenders feel empowered by the service and are interested in their own health. Adopting the principle of self-care has allowed prisoners to become involved in caring for themselves, or at least sharing the responsibility for their care. This not only allows them to learn more about their health and illnesses but also prepares them to access and deal with health care services in the community once they are liberated, thus facilitating throughcare (in prison and post-release). Once involved, prisoners tend to access more health care services and become involved in promoting the services to other prisoners. They also become more involved in health care committees and make suggestions and recommendations to the team for change.

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11. Mental health in prison

Graham Durcan, Jan Cees Zwemstra

Key points

- Prisoners with mental health problems benefit from good basic prison care. The mental well-being of any prisoner can deteriorate if his or her needs are not met.
- Studies have consistently shown that the prevalence of poor mental health among prisoners is considerably higher than in the community. Prison mental health services should be based on the health needs of prisoners. This might require more intensive and integrated services than in the wider community.
- Prisoners with mental health problems will often also have several other vulnerabilities, such as substance misuse problems, poor physical health, learning difficulties, poor life skills, histories of trauma, relationship difficulties, unstable housing and/or homelessness, poor education and limited experience of employment.
- Mental health treatment and care need to address all the prisoners' needs, including their social needs, and be psychosocial in nature.
- The first step in understanding the mental health situation in a prison population is to ask prisoners their views on their needs and how these might be met.
- All staff working in prisons should have an appropriate level of mental health awareness training, which should cover the specific needs of those with personality disorders.
- Maintaining links between a prisoner and his/her family can be crucial for the mental well-being of the prisoner, for a successful return to society on release, as well as benefiting the family.
- All prisoners should be screened on entry to prison for a range of mental health and related problems. There should also be other opportunities to identify needs.
- Some prisoners suffer from severe or acute mental health symptoms and may benefit from treatment in a psychiatric unit, either in the prison or in a hospital.
- The mental health needs of different groups of prisoners such as women, older prisoners, children and young people, prisoners from minority ethnic or cultural groups and foreign prisoners, may need to be addressed differently.
- Continuity of care is important for a prisoner, including the continuation of treatment that he/she was receiving prior to incarceration and the handing over of care to a community-based provider on release.

- The notion of "mental health recovery" provides a useful approach for prison mental health care services. Mental health recovery is not the same as clinical recovery. It is much more about social recovery and support for sufferers in overcoming social deficits and thereby improving their quality of life.
- Fellow prisoners or ex-offenders can often help to support mental well-being through mentoring.
- Where appropriate, preventing people with mental health problems from entering prison in the first place requires that mental health services liaise with police and courts and provide a diversion service. Comprehensive community care services should see those entering and leaving the criminal justice system as part of their business.

Introduction

This chapter focuses on the basic principles that can guide those with a responsibility for providing prison mental health care. How these principles are translated into practice will vary according to national legislation and the local prison system and culture. Prisoners often come from communities where there is significant deprivation or poverty. Houchin's research in Scotland (1) found that in the most deprived communities one man in nine had been to prison at least once by the time they were 23 years of age. These communities also have higher levels of ill health, greater psychiatric morbidity and many social issues. It is important to recognize these factors, as supporting prisoners in maintaining their well-being or treating those with poor mental health is not only a matter of providing the right medication and psychological treatment, but is also about helping them to address their physical health and social needs.

Human and prisoners' rights and basic needs

Blaauw & van Marle (2) have pointed out the importance of ensuring that all those incarcerated have their most basic needs and human rights met, such as access to light, food and water and access to exercise and meaningful occupation.

The Standard Minimum Rules for the Treatment of Prisoners include the following (3).

- There shall be no discrimination on the basis of race, colour, sex, language, religion, political or other opinion, sexual orientation, national or social origin,

property, birth or other status and, on the other hand, it is necessary to respect the religious beliefs and moral precepts of the group to which a prisoner belongs (Rule 6).

- Prisoners shall be kept in rooms that are sufficiently large and sufficiently lighted, heated and ventilated (Rule 10).
- Adequate bathing and shower installations shall be provided so that every prisoner may be enabled and required to have a bath or shower ... at least once a week (Rule 13).
- Prisoners shall be provided with water and with such toilet articles as are necessary for health and cleanliness (Rule 15).
- In order that prisoners may maintain a good appearance compatible with their self-respect, facilities shall be provided for the proper care of the hair and beard, and men shall be enabled to shave regularly (Rule 16).
- Prisoners shall be provided with a separate bed, and with separate and sufficient bedding which shall be clean when issued, kept in good order and changed often enough to ensure its cleanliness (Rule 19).
- Every prisoner who is not allowed to wear his own clothing shall be provided with an outfit of clothing suitable for the climate and adequate to keep him in good health. Such clothing shall in no manner be degrading or humiliating (Rule 17).
- Every prisoner shall be provided at the usual hours with food of nutritional value adequate for health and strength, of wholesome quality and well prepared and served, and drinking-water shall be available to every prisoner whenever he or she needs it (Rule 20).

Additional factors essential to maintaining mental health are:

- reliable, tangible assistance from people, settings and services that facilitate self-advancement and self-improvement;
- recognition of the need to be loved, appreciated and cared for, and of the desire for intimate relationships that provide emotional sustenance and empathy;
- activity and distraction to maximize opportunities to be occupied and fill time;
- safety and environmental stability and predictability;
- privacy or autonomy.

Prison systems that hold children and young people must take into consideration the United Nations Convention on the Rights of the Child (4), which underlines the importance of using custody as a last resort.

Equivalence

To meet the health needs of prisoners, prison health care services should aspire to equivalence of care between

standards inside and outside prison. This can be defined in different ways. Lines (5) warns that caution needs to be used, since equivalence of health care can be defined as providing the same care as is provided outside the prison. Few systems achieve this, but Lines argues that this as a goal is not appropriate. Prison populations do not reflect the communities that surround them; instead prisons represent communities where the prevalence of all illnesses, including and especially mental illness, is much higher than in the community. This might require more intensive and integrated services than in the wider community.

Prevalence of poor mental health

Most prevalence studies have been conducted in developed countries and show consistently that a very high proportion of prisoners suffer from poor mental health. For example, the most exhaustive study in the United Kingdom found that 90% of prisoners aged over 16 years suffered from a mental illness, addiction or a personality disorder, and 70% of prisoners had two or more such problems (6). The prevalence of learning and communication difficulties and of addiction problems is also much higher than in the general population. In addition, prevalence studies in many countries show that 10–15% of the prison population suffer from severe and enduring mental illnesses such as schizophrenia, bipolar disorder and autism disorders, often complicated by comorbidity. The prevalence rates of poor mental health for young people in prison are very high, including over half with conduct disorders (7) and around a third of young girls having a major depression. Studies in some countries have shown that the risk of suicide is much greater in a prison population, particularly in adolescent prisoners (8).

Where studies of mental illness have been conducted with prison populations, the prevalence has been consistently shown to be high. There is no reason to believe that countries which have not conducted such surveys will have significantly different prevalence rates.

Complexity and multiple needs

Prisoners seldom have just one problem, and those suffering from mental health disorders may find that their mental health problems are exacerbated by their other problems or even caused by them.

The likelihood is that many prisoners will have interwoven multiple and complex problems. In a prison, the severe major disorders can be treated with medicines and basic talking/counselling therapies, but other more social problems need to be addressed too.

Prisoners in the United Kingdom interviewed by Durcan (9), in addition to having mental health problems, commonly

experienced most if not all of the following problems concurrently:

- a history of unemployment
- poor education
- learning difficulties
- addiction or problematic substance misuse
- poor life and social skills
- poor access to stable housing
- debts both inside and outside prison
- poor general health
- past life trauma.

Many, if not most, of the above are beyond the scope of health or mental health care services, and yet they are crucial to the health of prisoners and their recovery.

Illness and social focus

A focus needs to be adopted on both illness and wellness/social health. The former characterizes much health care in many settings, certainly in many prison settings, but increasingly there is recognition of the importance of social interventions, although these are not standard in most services geared towards detecting and treating illness. Because resources are limited in prison systems, the risk of focusing on illness is that only those with the most severe problems are dealt with. High mental health service thresholds have to be set, leading inevitably to frustration for the many prisoners who fall below this threshold.

Given the large number of prisoners who suffer from poor mental health, it seems wise to encourage all the prison staff to recognize their responsibility in this area, rather than relying on a possibly small number of health professionals.

Attempting to have a whole-prison focus on promoting and improving mental well-being can mean that the limited resources dedicated to mental health care can be put to the most effective use. It is also likely to have a positive impact on the regime in terms of safety and security. Additionally, it may result in improved outcomes for prisoners on release from prison, both for the risk of exacerbation of illness and in the recidivism risk for criminal offences.

The impact of prison on mental health and well-being

The following are factors that WHO and the International Red Cross (10) identify as negatively impacting on prison mental health:

- overcrowding;
- various forms of violence;
- enforced solitude;

- lack of privacy;
- lack of meaningful activity,
- isolation from social networks;
- insecurity about future prospects (work, relationships);
- inadequate health services, especially mental health services, in prisons.

The English prisoners interviewed by Durcan (9) on the aspects of their lives in prison that challenged their mental well-being identified issues very similar to those listed above:

- bullying by other inmates;
- concerns about family – difficulty in communicating with them;
- lack of a person they could trust to talk to;
- little meaningful activity and the monotony of the regime;
- no privacy;
- worries and concerns over release;
- substance misuse;
- incompatibility with cell-mates;
- poor diet;
- limited access to physical activity such as the gym;
- unresolved past life traumas;
- difficulty in accessing services, particularly health care and counselling.

Once again, much of the above is beyond the scope of a health service and provides a further argument for making prisoners' mental well-being a whole-prison responsibility.

On the other hand, in well-resourced prison systems the prison can also be a place to stabilize, to start treatment and to recover.

Prisoners' views of their needs

The best source of information on prisoners' mental health needs is prisoners themselves. Ideally, basic mental health needs assessments should be conducted on entry, including an element of direct consultation with prisoners.

In 2006, Durcan conducted just such a needs assessment in 5 prisons in the United Kingdom that involved interviewing about 100 prisoners in depth (9). The prisoners included men, women and young males and juveniles, some sentenced and some awaiting trial or sentence. Some of the prisoners had severe and enduring mental health problems and some had mild to moderate mental health problems. Despite the heterogeneous nature of the sample of prisoners interviewed, the way in which they saw their mental health needs being best met were remarkably similar. The findings from this exercise are not unique to these prisons nor are they likely to be unique to

western Europe. A striking finding about prisoners' views on the best way to improve their mental health, when compared to the findings from interviews conducted with staff (particularly health and mental health staff), was the emphasis on social recovery and the meeting of their most basic survival needs. The lists of needs that both staff and prisoners identified were similar, but the order of priority was markedly different. Professionals tended to give prominence to direct mental health interventions, such as medication and psychological therapy, but the prisoners (who often focused most on their release) prioritized access to housing, access to adequate funds (especially through a job), and often support for a substance misuse problem as their first health need. The following summarizes these prisoners' views of their mental health needs.

Someone to talk to

A non-judgemental person for a prisoner to talk to could be a psychiatrist, therapist or counsellor, or even a peer mentor.

Preparation for release

Most prisoners will eventually leave prison. Many current prisoners may have left prison before, failed to reintegrate successfully into society and want help with getting a place to live and enough money (preferably through a job) and support with any substance misuse problems.

Something meaningful to do

Prisoners want to be active and preferably involved in an activity that might help them when they leave prison, such as work or training to get work on release. Prisoners with mental health problems are no different; indeed, there is strong evidence that work is effective in helping people with mental health problems to recover (11).

For young people and children, access to education should be an important part of their purposeful activity in prison.

Help in a crisis

Prisoners say they need someone to talk to and provide support when they most need it. If a prisoner receives bad news from home, being able to talk to someone can help reduce the likelihood of any deterioration.

Therapy and medication

Prisoners do recognize the importance of getting the right medication and support in using it if and when they need it, just as professionals do.

Advocacy

Prisons can be harsh environments where, by definition, a prisoner loses much control over his or her life. This can

induce a sense of powerlessness, which is aggravated in the more vulnerable prisoners with mental health problems. Sometimes this means that even when the right help is available, prisoners may not feel able to seek it. The importance of having someone to talk to who can represent the prisoner's needs becomes all the more urgent. As well as health professionals, the role of peer mentors is being recognized in this area.

Prisoners' views on what constitutes a good mental health service

Prisoners in focus groups conducted by Rob Jayne in 2006 (12) identified the following positive characteristics of a mental health service:

- an ability to form trusting relationships with health professionals;
- continuity of care;
- not being misinformed or deceived with false information;
- clear and detailed information regarding side-effects of medications;
- education about the nature of their illness;
- involvement in planning their own care and pathways of care;
- rapid transfer to hospital if treatment cannot take place in the prison when acutely unwell;
- treatment or therapy appropriate to a prisoner's condition.

Mental health awareness in the prison system

If improving mental well-being is going to be a whole-prison responsibility, then awareness of what supports mental health and the ability to recognize mental health problems are crucial. There are many approaches to mental health awareness training. Some prison staff may require more extensive training than others, but all prison staff and managers require some training. Ideally the basic training for any prison officer should include a module on prison mental health well-being, with opportunities to refresh this knowledge. Some prisoners with experience of mental health problems can make an extremely useful contribution by providing insights that a professional trainer often does not have.

Prisoners and their families

Many prisoners will lose contact with their families, and this can have a negative impact on both parties. The focus of this chapter is on the prisoner, but it should be recognized that imprisonment of parents can lead to poor outcomes for their children. This is particularly critical when a mother or the more active carer is imprisoned. Maintaining contact for both male and female prisoners (where appropriate) is important.

From the perspective of prisoners with mental illness, their families are often the sole source of support. They may be critical for a prisoner to re-enter society successfully. Prisoners who are fortunate enough to get jobs on release often do so through personal contacts, primarily their families.

Maintaining healthy social networks is important for good mental health and, like many interventions that are likely to maintain and improve a prisoner's mental health, keeping contact with his or her family is not the sole domain of the prison health/mental health service. The health services do, however, have a role in the recognition of a prisoner's needs and advocacy on behalf of the prisoner in the local community.

It is important to foster the links between younger prisoners and their families, especially their carers or parents. This should include supporting positive parenting approaches.

Diagnosis and assessment

Many textbooks describe the signs and symptoms of mental illness and their assessment, as does WHO in *Mental health primary care in prison* (13). This text provides recommendations to diagnosis for a wide range of psychiatric disorders, symptom and assessment checklists and treatment responses.

Screening and assessment

Prisons have very little control over who arrives at their gates but they can control the detection of poor mental health in new prisoners. This is not just crucial in ensuring appropriate interventions and the best outcome for prisoners, but can also help in increasing the safety of both prisoners and staff and in the running of the regime.

In practice, screening immediately on arrival may not achieve all that could be desired because prison reception areas can be busy, with little space allowing for privacy and often time limitations. Often the most that can be achieved on arrival is a crude screening for the most obvious signs of poor mental health or the most obvious risks. It is, therefore, strongly recommended that either the health staff, or prison staff with some training, should conduct a more detailed screening in the first few days, to include the following:

- look for signs of poor mental health in the past;
- check the prisoner's current mental health;
- look for signs of particular symptoms of poor mental health;
- check for addiction problems;
- look for evidence of learning disability or difficulty;
- gauge possible traits suggesting personality disorder;

- look for evidence of autistic spectrum disorder;
- look for signs of possible head injury;
- try to learn something of the social and relational circumstances of the prisoner;
- ask about aspects of the offence or alleged offence – certain offences (such as where violence is used or those that carry greater legal sanctions) can add to the risk of poor mental health and even self-harm and suicide;
- check any aspect which may make the prisoner more vulnerable.

The sources of information that can be used for screening are numerous and include the prisoners themselves together with written reports and information arriving with them. For younger people, parents should be an important source of information.

Mechanisms for the continuing monitoring of prisoners with potential risks are important. These can include reviewing the use of health resources in the prison and regularly checking with the prison staff who have day-to-day contact with the prisoners about any changes in their behaviour. In practice, such monitoring can prove difficult, as prison health and mental health services tend to be under pressure. Additional sources are the courts or police, health and other services in the prisoner's home community, observations by prison staff working with the prisoner, other prisoners and the prisoner's family.

Young people may manifest poor mental health in very different ways to adults. Difficulties in communication, challenging behaviour and behavioural difficulties could be signs of poor mental health.

Treatment in prison

The social structure in a prison is often relatively stable. Basic rules give safety and oversight, and basic needs (food, shelter) are met. For many inmates, this was not the case before they were imprisoned. This means that prison can be the place where disorders can be (re)detected, diagnosed and given basic treatment. It should be possible to give basic interventions, such as psychological support through counselling from a psychologist, nurse or stable peer, and psychotropic medications such as antipsychotics, as well as to motivate patients for treatment and medication during and after prison and to stabilize addiction problems.

For a limited number of severely psychiatric-disordered prisoners, it will also be necessary to have a crisis facility within or outside the national prison system, the latter depending on the relevant legislation. These facilities should be adequately staffed. They can also be used as a training facility for staff in other prisons.

Personality disorders

It is probable that a high proportion of both male and female prisoners will suffer from at least some personality disorder traits, especially antisocial personality disorder and traits.

The Sainsbury Centre for Mental Health (12) describes personality disorders in the following way:

People with a personality disorder can have difficulty dealing with other people. They tend to be unable to respond to the changes and demands of life. Although they feel that their behaviour patterns are perfectly acceptable, people with personality disorders tend to have a narrow view of the world and find it difficult to participate in normal social activities. Consequently their behaviour deviates markedly from the expectations of their culture. It is persistent and inflexible, and can often lead to distress for themselves or others.

Some prisoners with personality disorders will pose the highest danger to others, but most will not. How they relate to others can prove challenging to prison staff. There is limited evidence about the treatability of these disorders, particularly in prisons, but an understanding of them applied to the management of these prisoners can lead to improved outcomes and can help staff who may otherwise find people with personality disorders challenging. Often, the basic rule is to offer structure and a form of support.

Training that includes awareness of personality disorders should be part of broader mental health awareness training. Since it is likely that a large number of prisoners will have personality disorders, prisons should aim to be much more psychologically informed environments. All staff should have a good grounding in the different forms of personality disorder and the way each can affect behaviour. Equally important, staff should be aware of the impact their behaviour and responses can have on such prisoners. Ideally, regular opportunities should be provided for all staff to meet a psychologist or similarly trained professional to reflect on their interactions with these prisoners, and even plan interactions and interventions.

Continuity of care

Prison is often a limited phase in a person's life. Prison mental health care professionals should use information about a prisoner's earlier treatments and try to ensure that treatment is continued after his or her release (if necessary), especially for the severely mentally ill. If help and support has been possible in prison, part of the answer to a successful re-entry into society is to ensure that similar help and support continues outside. It can be

hugely difficult for prison health services to reconnect prisoners to external health services, sometimes due to unwillingness on the part of the external service, sometimes due to limited prison health resources or a prison being located a considerable distance away from the prisoner's home. Once again, some prison systems have begun using peer mentors to support such reconnecting: a mentor meets the prisoner on release and comes with him or her to visit services that might help, thus providing active advocacy. Society has a broad interest both in the stability of ex-prisoners with psychiatric disorders and in a lower rate of recidivism.

Meeting the needs of different groups in the prison population

Prisons include many different groups. Three such groups are considered below, to show that one approach to mental health care will not suit all prisoners.

Women

Several surveys show that the prevalence of poor mental well-being among women is even higher than among the general prison population. It is also more common for women prisoners to have experienced traumatic events, such as sexual abuse. Additionally, women may well have been the main carer for their children and imprisonment often involves separation from them, which can add to the difficulties they experience with their mental health.

Young people

For incarcerated children and young people, special attention should be given to the United Nations Convention on the Rights of the Child (4), in particular to article 40 dealing with justice for juveniles, and article 25 dealing with children held in care, including those held in custody. All the other articles also apply to children and young people in prison, however, and a prison system catering for children and young people must ensure that all of them are adequately addressed. The Convention is crucial to the maintenance of children's and young people's well-being. The United Nations Children's Fund provides a useful summary fact sheet (14), while General Comment No. 10 on the Convention includes a discussion of Article 40 (15).

Children and adolescents will often manifest poor mental health differently from adults, and the treatments and interventions for them need to reflect this. This also applies to young adults who may legally be regarded as adults (at 18 or 21 years, for example) but who may have very specific needs. Young adults may well express their thoughts and emotions differently and often have a very different language to describe their feelings compared to older people. This can add to the difficulty in detecting

and recognizing mental health needs in young people. Additionally, their cognition is different to that of a mature adult.

Foreign prisoners and prisoners from different cultural communities

Foreign prisoners can experience greater isolation than other prisoners and can face greater uncertainty about life after release, which can add to any difficulties with their mental health. If possible, foreign prisoners should be transferred to prisons in their own countries.

Awareness of mental illness, and the language used to describe it, can differ between cultural communities. In some communities there is an even greater stigma around mental illness. Diverse cultural needs pose a major challenge, but direct consultation with different groups of prisoners can help to get an understanding of their needs and how these might be addressed. Language barriers often lead to difficulties in communication for both foreign prisoners and health care staff. In such situations, inmates and health professionals should benefit from the services of a qualified interpreter, as recommended by the Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (16). The relevant authorities should try to ensure that an adequate number of suitably qualified interpreters are trained and available.

The recovery approach

The needs of a person with mental illness are not necessarily determined by their diagnosis. Prisoners with schizophrenia, depression or personality disorder, while suffering from very different disorders, may have similar needs. This is because mental health problems do not just manifest themselves as a set of clinical symptoms. Poor mental health has many social symptoms and can have an impact on people's housing, employment, finances, ability to meaningfully occupy themselves, relationships and social networks.

The notion of mental health recovery is gaining greater credence in many countries as the ultimate goal. It provides a radically new way of thinking about mental services and care, moving away from professionalization. It is not one and the same as clinical recovery; indeed it is recognized that some people with mental illness will continue to experience the symptoms of their illness. Mental health recovery is much more about social recovery and supporting the sufferer in overcoming many social deficits, thereby improving their quality of life. Such recovery is self-defined. Professionals cannot "recover" their patients: recovery is something that can only be achieved by the person experiencing the mental health problem. The role of the professional

is to facilitate this. Mental health services that give credence to this notion of mental health recovery are giving greater emphasis to a different type of expert, the "expert by experience". People who have experienced recovery themselves can provide credible support to current sufferers. In some areas, such "experts" are being employed by mental health services to become peer mentors and advocates.

The roles of peers and mentors

In some prisons, prisoners already provide a peer mentor role, usually on a voluntary basis. Some ex-offenders also provide mentoring, some on a voluntary basis and some as employees. While peer mentoring is not totally cost-neutral (training, support and coordination are crucial), it provides considerable value for the small investment it takes. Peer mentors are "experts by experience": those that have experience of recovering from poor mental health can provide credible support for other prisoners. In some prison systems, ex-prisoners provide mentoring support on release and give crucial support to otherwise isolated people. This usually involves meeting prisoners at the prison gate and being available, especially during the first few weeks when a released prisoner can be at his or her most vulnerable.

Inside prisons, mentors can have very different roles. Some provide advice and guidance for new prisoners (a potentially vulnerable group), some provide crisis support and some provide health promotion advice.

Peers in a mentoring role are not unique to mental health, and in prison systems they can provide a critical role in supporting fellow prisoners in a process of change and rehabilitation. In some countries they already do so, and some ex-offenders can provide a mentoring support role to released prisoners who may not necessarily be suffering from mental health difficulties. This can also be a cheap and effective tool for low-income countries.

The following set of principles is quoted by the Sainsbury Centre for Mental Health in its paper *Making recovery a reality* (17) from *Recovery – concepts and application* by Laurie Davidson:

- Recovery is about building a meaningful and satisfying life, as defined by the person themselves, whether or not there are ongoing or recurring symptoms or problems.
- Recovery represents a movement away from pathology, illness and symptoms to health, strengths and wellness.
- Hope is central to recovery and can be enhanced by each person seeing how they can have more active control over their lives ('agency') and by seeing how others have found a way forward.

- Self-management is encouraged and facilitated. The processes of self-management are similar, but what works may be very different for each individual. No 'one size fits all'.
- The helping relationship between clinicians and patients moves away from being expert/patient to being 'coaches' or 'partners' on a journey of discovery. Clinicians are there to be "on tap, not on top".
- People do not recover in isolation. Recovery is closely associated with social inclusion and being able to take on meaningful and satisfying social roles within local communities, rather than in segregated services.
- Recovery is about discovering – or re-discovering – a sense of personal identity, separate from illness or disability.
- The language used and the stories and meanings that are constructed have great significance as mediators of the recovery process. These shared meanings either support a sense of hope and possibility, or invite pessimism and chronicity.
- The development of recovery-based services emphasizes the personal qualities of staff as much as their formal qualifications. It seeks to cultivate their capacity for hope, creativity, care, compassion, realism and resilience.
- Family and other supporters are often crucial to recovery and they should be included as partners wherever possible. However, peer support is central for many people in their recovery.

Diversion and liaison

Some people with mental health problems come into prison for relatively minor offences that could be dealt with in the community with appropriate treatment and support. Others who commit more serious offences related to their mental illness may be better treated in a secure hospital rather than a prison, where one exists. In both cases, the mental health services need to work closely with the police and courts to identify people with mental health problems, make recommendations to the police and/or courts, and provide packages of care as soon as possible that address the needs of the people concerned.

Mental health services working with the police and courts attempt to divert people with mental health problems, where appropriate, either to community- or hospital-based services. When a person is being sent to prison, the mental health service working with the police or court passes information to the prison health service to ensure continuity of care. Such services provide an important liaison role between the criminal justice system and community health and social care services.

These services obviously go beyond what prison mental health services can provide. A system of comprehensive

community mental health care should see those who enter (and leave) the criminal justice system as part of their business.

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Oral health

12. Dental health in prisons

Ruth Gray, Sue Gregory

Key points

- Good dental health is as important for prisoners as it is for everybody else.
- Many prisoners suffer from poor oral health when they enter prison.
- Many prisoners only access dental services when they are imprisoned.
- Prisons should offer a comprehensive dental health care service and provide an appropriate range of treatments based on patients' clinical needs.
- Oral health should be included in prisoner induction programmes and health triage systems.
- Oral health promotion should be an integral part of health service provision.
- Prison dental teams should be clinically experienced and competent.
- Dental teams should encompass a varied mix of skills and include dental hygienists, therapists and oral health educators, where appropriate.
- Commissioners of dental services for prisons should have a good understanding of the complex needs of prisoners and the difficulties of providing a dental service in the prison structure.
- Remuneration systems for dental professionals should be appropriately weighted for patients' special conditions and the special requirements of the prison environment.

Introduction

The oral health needs of prisoners are complex. Coupled with chronic diseases and high levels of co-morbidity, this creates a high demand for dental services. The prison dental team needs to have good clinical experience and competence and a good understanding of the prison structures and processes. Commissioners and managers of services should be aware of the special demands of providing prison dentistry and should plan, evaluate and remunerate these services accordingly.

Oral health

The oral health needs of the prison population are greater than those of the general population. Prisoners exhibit a higher prevalence of dental caries compared to the general population, with considerable unmet needs for treatment. Studies have revealed that prisoners had significantly

more decayed and missing teeth and fewer restorations than the general population (1–3).

A high prevalence of periodontal disease has been recorded among prisoners (4), exacerbated by the large number of prisoners who smoke, misuse substances and exhibit stress-induced parafunctional habits.⁹

Current evidence supports the finding that these high levels of oral disease have an impact on prisoners' quality of life (5).

General impact of general health on oral health

Prisoners have a disproportionately high prevalence of health problems. A high prevalence of infectious disease, chronic medical conditions and psychological disorders has been reported. Additionally, prisoners are likely to experience social exclusion (6).

Studies have shown that the prevalence of dental caries and periodontal disease is higher among substance misusers than in the general population (7). Mental health illness among prisoners is also associated with oral health issues such as xerostomia, smoking and poor oral hygiene. The behavioural management of people with mental health problems or those who have experienced sexual or physical abuse must be competent and appropriate, and the dental team should be given relevant training (8).

Utilization of the prison dental service

The demand for dental services in prisons is high, resulting in long waiting-lists for dental care. Many prisoners only access dental services when they are incarcerated; outside prison they often only seek emergency dental care (9).

A study of young offenders in the United States found that the commonest reason for health care visits was for dental care (10), while the results of an Australian study revealed that prisoners used the prison dental service to a greater extent than they had used general dentists before being incarcerated (11). An Irish study examining and interviewing methadone and heroin users in Dublin revealed that their most likely access to dentistry was through the prison dental service (12).

⁹ Parafunctional habits are the habitual use of the mouth in ways unrelated to eating, drinking or speaking, such as teeth-grinding or nail-biting.

Many prisoners only become aware of their poor oral health when they enter prison and start a detoxification regime. The analgesic properties of substances such as opiates or alcohol mask dental disease. Once these are removed, the patient may experience severe pain and seek immediate dental care.

In a prison survey, 76.8% of participants claimed to have difficulty accessing dental care. The barriers they cited included lack of information about dental services, anxiety, long waiting-lists, appointments clashing with legal and family visits, transfers between prisons and lack of an available escort to take prisoners to dental appointments (3).

Provision of prison dental services

Equity of access to health care is a key aim of prison dental services. The Strategy for modernising dental services for prisoners in England (13) calls for prisons to identify resources and operational issues specific to prisons to meet the dental needs of prisoners. The most significant challenges to prison health providers were summarized

in the document *Reforming prison dental services in England. A guide to good practice (14)* (Fig. 3).

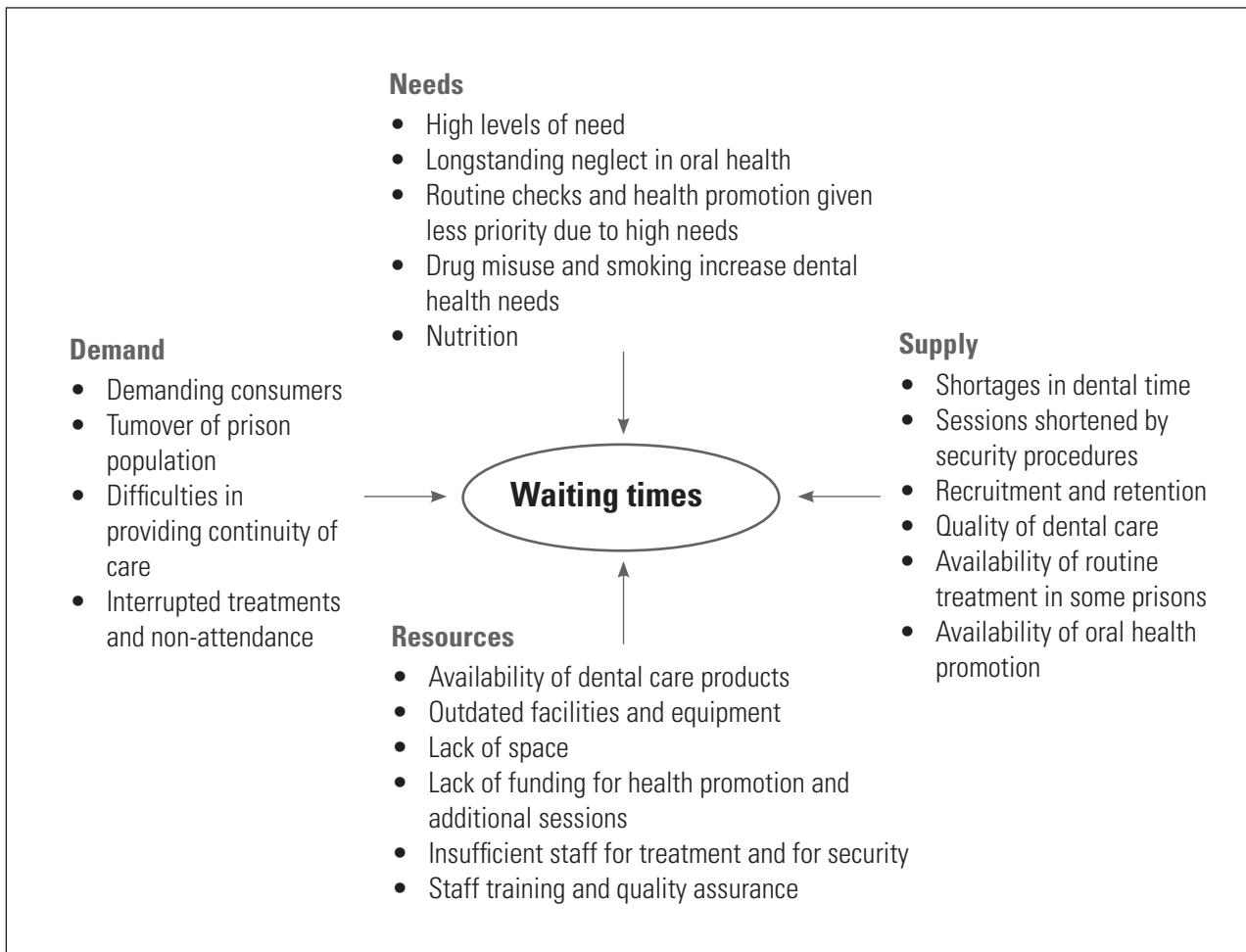
Accessibility of dental services

On committal, every prisoner undergoes a medical assessment, which should include an oral health screening assessment. A dental care professional or trained member of health care staff can conduct a dental triage at committal. This initial screening assessment can be used to prioritize dental treatment (3,15).

A prisoner should undergo an induction programme soon after committal. This should include information about the medical and dental services, which should be simple and accessible and outline the dental services available in the prison, details of how to make a referral, patients' entitlements and the range of treatments available.

To ensure that services are efficient, the dental team must work in close cooperation with the prison officers and health care staff. Prisoners or health care staff can make referrals. Protocols are necessary for these referral processes.

Fig. 3. The challenges in providing effective dental care to prisoners



Source: Harvey et al. (16).

Many prison dental services do not work at full capacity due to delays and cancellations of appointments. It is essential that a coordinated approach is taken with the prison management to maximize sessions, with a high priority given to dental appointments in prisoner movement programmes.

The frequent transfer of prisoners between prisons causes much difficulty in accessing services. Where possible, a record of ongoing dental treatment should be transferred with the prisoner. Continuity of care between prison and the community dental services is reliant upon clear communication and robust protocols on release of the prisoner.

Good clinical practice

The high quality of dental care in prisons should be based on the principles of clinical governance.

Prison dental teams have the responsibility of looking after patients in a high-risk environment. Good equipment, infection control and decontamination procedures are essential. Evidence-based practice should be the focus of each service (14).

Good record-keeping is essential, and training in the response to legal queries is recommended. The dental

notes in every prison should be integrated into the prisoner's clinical record.

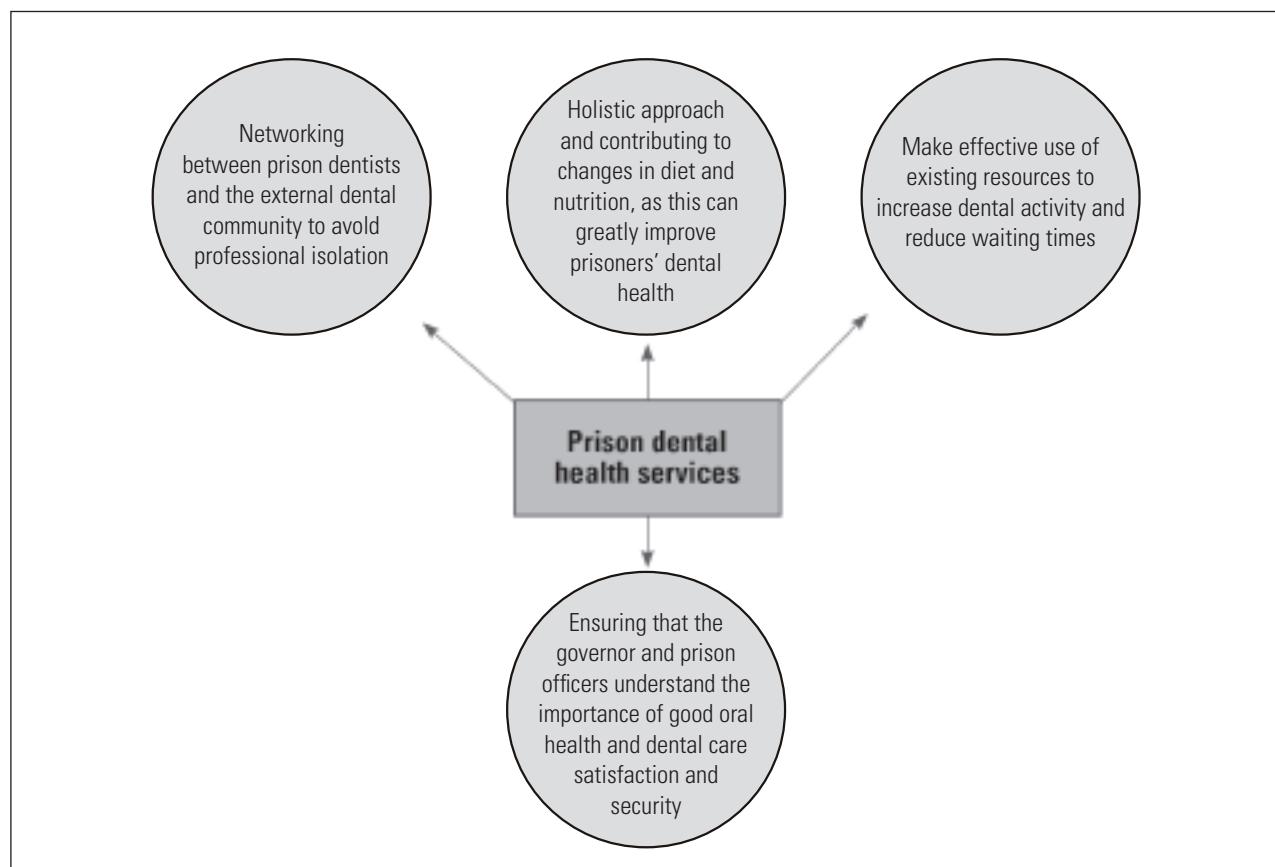
Dental teams should incorporate the values of fairness, respect, equality, dignity and autonomy into high standards of clinical care and the provision of a service accessible to all.

Oral health promotion

The *Strategy for modernising dental services for prisoners in England (13)* stated that prisons should aim "to raise awareness of good oral health throughout the prison, among prisoners, prison staff and voluntary agencies working in prisons".

Most prisons recognize the importance of oral health promotion although not all have the resources or capacity to do so (14). A tension exists between the high demand for treatment, long waiting-lists and time to conduct health promotion initiatives. It is suggested that dental teams include time dedicated to oral health promotion activities in their job plans, and work in collaboration with the prison governor and staff to aim for a holistic approach to oral health care (Fig. 4) (16).

Fig. 4. Good practices for prison dental health services



Source: Bose & Jenner (16).

The availability of materials for dental care is limited. Toothbrushes and toothpaste are available, but a better range of toothbrushes, higher fluoride concentration in toothpaste, interdental aids and fluoride products are not available or are expensive to buy in prisons (14). A study concluded that improvements in the prison issue oral health kits led to better oral health and hygiene among the population (4).

Coordinated health promotion programmes, involving the common risk factor approach, should be interdisciplinary with the dental team also involved in their planning and administration.

A prison shop can be an important part of the prisoner's week, enabling a small amount of autonomy. It is recommended that the dental team work with the administrators of the shop to highlight and promote healthy options for prisoners, and evaluate this regularly.

Good oral health enables individuals to communicate effectively and is important to the overall quality of life, self-esteem and social confidence.

The dental team

To provide an efficient and effective dental service, the dental team must have a good understanding of the prison structures and processes. They must be able to interact with the prison managers and health care and security staff.

All prisons should provide support for dentists working in a prison environment by ensuring that there is an effective induction programme. They should also ensure that dentists have the appropriate qualifications and work within a clinical quality assurance framework.

The dental team often works in isolation and should have good clinical experience and be competent in simple oral surgery techniques.

There should be a good skill mix of dental professionals in the team, including dental hygienists and therapists to plan and run oral care clinics and initiatives.

The dental team should collaborate with other prison health care staff and dental teams to produce relevant research evidence in this field.

All dental teams working in prisons have a duty to undertake continuing professional development and should be encouraged and supported to attend courses and conferences related to prison dentistry. They should demonstrate appropriate professional standards through peer review, appraisal and clinical audit.

Commissioning prison dental services

Commissioning is one of the means by which the best value service is secured. A good commissioning process includes five components (16).

1. An oral health needs assessment assesses the oral health needs of the population and reviews the resources and capacity of the existing service.
2. Following the needs assessment, priorities should be decided in terms of the range of dental treatments available, length of a prisoner's stay, management of referrals, prevention, skill mix of the team, research priorities, risk management and the creation of a supportive prison environment. Strategic planning should be carried out and minimum standards assured.
3. A service-level agreement should be developed and the services reviewed against it. The agreement should be specific to the prison dental service and take into account the high prevalence of oral disease, the complex needs of prisoners and the difficulties in and barriers to providing a dental service in the prison.
4. Commissioners are encouraged to shape the supply and manage the market by using open tendering in their procurement strategy to ensure innovation, quality and value.
5. Arrangements should be made to manage performance and support quality improvement through frequent service reviews, using a robust and balanced set of measures for quality improvement (17).

Remuneration systems for service payment should be appropriately weighted for the special conditions and complex demands of the prison environment.

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Risk factors

13. Drug use and related consequences among prison populations in European countries

Linda Montanari, Luis Royuela, Manuela Pasinetti, Isabelle Giraudon, Lucas Wiessing, Julian Vicente

Key points

- A history of drug use is common among European prisoners, with levels disproportionately high compared to the general population.
- Health problems, especially communicable diseases and psychiatric co-morbidity, are especially prevalent among prisoners using drugs.
- The mortality risk in the first weeks after release from prison is extremely high.
- Relevant differences are reported between European countries in drug use and drug-related problems among prisoners.
- In European countries, valid and comparable data on drug use and related consequences among prisoners are still scarce and harmonization work is needed

Introduction

Prisons are places with difficult living conditions, where populations from poor communities and marginal social groups are overrepresented (1).

According to data from the Council of Europe, about 635 000 people were estimated to be in penal institutions in the 28 EU member states and Norway on 1 September 2010, an average of 135 prisoners per 100 000 population in European countries (ranging from 60–70 per 100 000 population in Denmark, the Netherlands, Norway, Slovenia and Sweden to over 200 in the Czech Republic, Estonia, Latvia, Lithuania and Poland). This figure is lower than in some large countries, for example 620 in the Russian Federation and 740 in the United States (2).

Drug users, including problematic drug users,¹⁰ often represent a large part of the prison population. Drug users may be reported among prisoners who are sentenced for a drug offence such as supply or use (although many of them are only drug traffickers), among prisoners sentenced for a crime committed to support their drug use and among people imprisoned for offences not related to drugs. The available data on drug use among prisoners usually reflect the whole prison population, without a breakdown by type of sentence.

Even though many drug users stop or reduce their use of drugs when they enter prison, some continue to use and some may even start to use drugs there (4–6).

At present, data on illicit drug use and its consequences among prisoners in Europe are limited, and there are significant national differences in data collection methods. This should be borne in mind when data are interpreted. Nevertheless, a general profile of drug users in European prisons can be drawn from the latest data reported in 2011 (referring to 2010) by European countries to the European Monitoring Centre for Drug and Drug Addiction (EMCDDA) (5,6).

Drug use among the prison population

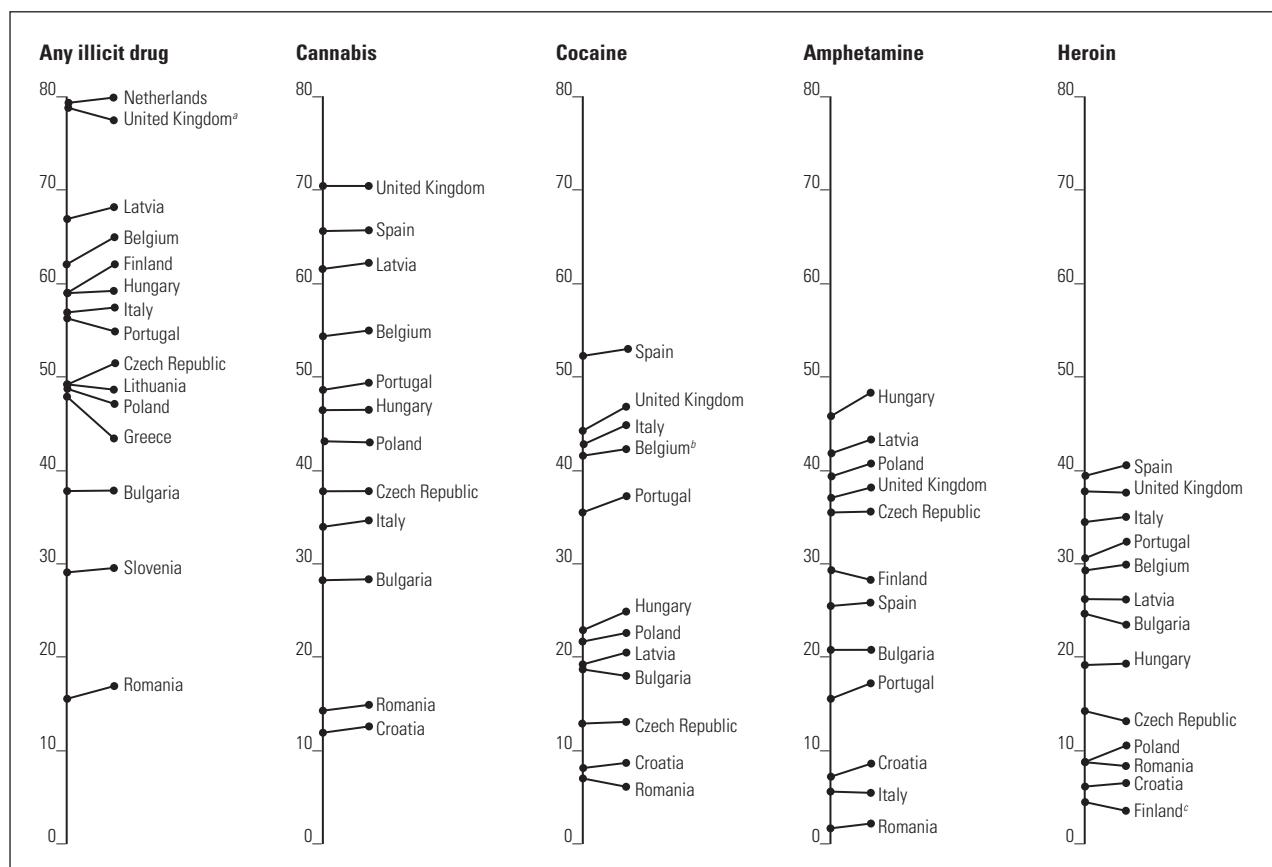
In Europe, data on past or current drug use among prisoners are scarce and mainly based on research studies and/or routine assessment at prison entry. The availability, methods of collection and quality of data vary greatly among countries. Data on drug use among prisoners are reported by the EU countries to the EMCDDA once a year. They refer to prisoners who have ever used illicit drugs in their lifetimes and to those who are currently using drugs while in prison, but not to the recent history of drug use (in the last year or last month). Furthermore, not all countries are able to provide these data, and the number of reporting countries varies according to the type of data and the year of reporting.

Drug use and drug use patterns before imprisonment

The most recent available data from EU countries (mainly from 2010) show that a high percentage of prisoners have used illicit drugs at some point in their lives (Fig. 5) (7). Variations between countries appear to be important, but they may also reflect differences in data collection methods. Among 17 EU countries reporting data on drugs and prison since 2000, the proportion of prisoners who have ever used any drug ranges from 16% in Romania to 79% in the United Kingdom (England and Wales) and the Netherlands, with 9 countries reporting percentages higher than 50%.¹¹

¹⁰ The EMCDDA defines problem drug use as “injecting drug use or long-duration/regular use of opioids, cocaine and/or amphetamines” (3).

¹¹ These percentages mainly correspond to the prevalence levels of people who have ever used cannabis (the illicit substance most frequently used).

Fig. 5. Lifetime prevalence of drug use among prisoners in European countries

^a Any of amphetamines, cannabis, crack, cocaine or heroin.

^b Includes crack cocaine.

^c Opioids.

Data refer to lifetime prevalence of use prior to imprisonment, with the exception of data for Belgium and Bulgaria, which refer to lifetime prevalence inside and outside prison. The prisoner sample in Finland was made up of convicts presenting for voluntary HIV testing. In the United Kingdom, the sample consisted of adults receiving sentences of between one month and four years. The studies were carried out in 2000 (Greece), 2001 (Finland), 2003 (Italy, Lithuania, Netherlands), 2005/6 (United Kingdom), 2006 (Romania, Spain), 2007 (Poland, Portugal), 2008 (Slovenia), 2009 (Hungary) and 2010 (Belgium, Bulgaria, Croatia, Czech Republic, Latvia).

Source: EMCDDA (7), based on data supplied by REITOX focal points.

The most common drugs ever used by prisoners are, in descending order, cannabis, cocaine, heroin and amphetamines, the same as in the general population even if the latter present a substantially lower prevalence for all those substances.

Cannabis has the highest prevalence of lifetime use among prisoners who have ever used any illicit drug (ranging from 12% to 70% of prisoners who have ever tried it). Cannabis is also the most ever-used substance in the general population, although the levels there are substantially lower (1.6% to 33% among the group aged 15–64 years). The prevalence of lifetime use of cocaine among prisoners who have ever used any illicit drug ranges from 6% in Romania to 53% in Spain (in the general population, the prevalence rates range from 0.3% in Malta to 10% in Spain); 7 out of 15 European countries where data were available report a lifetime prevalence of cocaine use of 20–50% of prisoners. Amphetamine experience among prisoners ranges from 1% to 45%, whereas among the

general population the range is from almost 0% to 12%. Lifetime prevalence of heroin use among the prisoners who have ever used any illicit drugs ranges from 8 to 39%, with 8 out of 13 countries that were able to provide information reporting levels in the range 15 to 39%. In the general population, lifetime prevalence of heroin use is below 1% in all countries. Equivalent data on lifetime use of other substances (such as volatile substances, hypnotics and sedatives) are hardly available in prison, or are only reported by a few countries. For many of those substances, prevalence rates among prisoners and among the general population are usually low.

Data on more problematic patterns of drug use among prisoners are limited. One international review of studies on prisoners found that 25–50% of people received into custody were clinically assessed as having serious drug problems (8), often including opioid dependence. Furthermore, a systematic review of 13 studies measuring the prevalence of drug and alcohol abuse and dependence

in male and female prisoners on reception into prison ($n=7563$) noted that 10–48% of men and 30–60% of women were abusing or dependent on illicit drugs on entry to prison (9,10). Although these data are mainly based on American research, European prisoners also often have histories of harmful patterns of drug use, including heroin injection and polydrug use.

Drug injection (mainly of heroin) is a particularly harmful way to use drugs, being associated with the spread of communicable diseases, especially when drug injectors share needles and/or other paraphernalia. Injecting use is also associated with a higher risk of overdose, resulting in significant mortality. Rates of ever-injecting drugs are substantially higher among prisoners than among the general population (on average, current injectors among the general population are estimated to be 0.3% of all adults). Based on available data, countries report that between 5% and 38% of prisoners admit that they have ever injected drugs prior to imprisonment (7).

Drug use and patterns of drug use in prison

Even if most users reduce or stop consuming drugs when entering prison, it is recognized that illicit drugs find their way into prisons. Furthermore, prison may be a setting for initiation into drug use, initiation of the use of additional drugs or for switching from one substance to another, sometimes to more harmful patterns of drug use (11). The reasons for switching to a different drug may be related to a lack of the preferred substance inside prison, the choice of substances for which it is easier to avoid control, or other factors which are still unclear (9,12).

A Belgian study carried out in 2008 found that more than one third of drug-using prisoners had started to use a new additional drug during detention that they were not using before prison, with heroin most frequently mentioned (13).

Studies carried out in 15 EU countries since 2000 estimate that 2–56% of prisoners have ever used any type of drug while incarcerated, with 9 countries reporting levels in the range 20–40%. The drug most frequently used by prisoners is cannabis, followed by cocaine and heroin. The rates of prisoners who have ever used heroin while in prison vary between 1% and 21% of prisoners. The wide variation in prevalence rates between countries mainly reflects methodological limitations, which are particularly relevant when drug use prevalence is surveyed within prisons.

Some prisoners may have been drug injectors in the community and either continue to inject or start to inject drugs while in prison. In the EU (according to data reported since 2000), between 2% and 31% of

prisoners, depending on the country, are reported to have ever injected any drug while in prison, although data are limited to a few countries and methods for collecting data vary greatly between them (for example, through surveys or clinical assessments, self-reports or interviews). The findings of qualitative studies suggest that in prison settings the likelihood of injecting in order to maximize the effect of the substance could increase, owing to the scarcity of drugs. The scarcity of sterile equipment may lead to prisoners sharing syringes and other injecting paraphernalia (14).

The social characteristics of drug treatment clients in prison

Information on the social characteristics of prisoners using drugs is scarce and come mainly from qualitative studies (15). In Europe, information on the characteristics of drug users in prison is reported through the national reports on the drug situation and the treatment demand indicator (16), which refers to people who enter drug treatment in specialized drug treatment centres, including treatment units in prison (4,5).

Eight European countries (France, Germany, Ireland, Luxembourg, Hungary, Romania, Slovakia, Sweden) reported data on people who entered drug treatment in prison in 2010 ($n=5146$ persons). In these countries, the social profile of drug clients entering treatment in prison, while generally similar to that of those entering treatment in the community, had some distinct characteristics.

In prison, about 90% were males compared to 80% in the community; they were slightly younger (29 years) than those in the community (30 years), and reported starting their drug use at an earlier age (18 years in prison compared to 21 years in the community).

The social conditions of drug clients before entering prison were generally poor. Many individuals had a low educational level, were unemployed before entering prison and/or were living in unstable accommodation. Despite differences in definitions of what constitutes an immigrant, the presence of immigrants among imprisoned drug users is high and seems to have increased in the last decade, although it is important to note that there is no scientific evidence to suggest that drug use is higher or lower among immigrants than in the general population. Finally, many prisoners who have used or are using drugs have a past history of violence, abuse and poverty (17–19).

Health problems

Communicable diseases

Prisoners, including drug users, suffer from high levels of physical and psychiatric disorders, ranging from

communicable diseases (HIV, hepatitis B and C, TB) to psychiatric co-morbidity (antisocial and borderline personality disorder, depression, post-traumatic stress disorder, psychosis and alcohol dependence) (10,20,21).

European data on HIV infection among injecting drug users in prison are limited. The prevalence of infection does, however, vary and in some countries can be high among prisoners who have ever injected. In the eight countries providing communicable disease data to the EMCDDA (Bulgaria, Croatia, the Czech Republic, Finland, Hungary, Malta, Spain, Sweden), HIV prevalence among injecting drug users in prisons was mostly low to moderate (0–7.7%) in four countries, although Spain reported a prevalence of 39.7%. According to EMCDDA national reports, in countries with a high prevalence of HIV among injectors outside prison, HIV prevalence is also high among lifetime injectors in prison. Although no large differences can be observed in HIV prevalence between injecting drug users in prison and those in other settings, it should be noted that prisons may concentrate a high proportion of injectors and, therefore, the prevalence of HIV in the overall prison population can be much higher than in the general population (5,6,22).

Seven countries in Europe reported data on HCV antibody prevalence among injecting drug users in prison, with a range of 11.5% (Hungary) to 90.7% (Luxembourg). In the Czech Republic, Luxembourg and Malta, HCV appears to be somewhat more prevalent among injectors tested in prison compared to those tested in other settings.

Psychiatric co-morbidity

Prisoners with a history of drug use often have multiple and complex mental illnesses. Differences in psychiatric morbidity between the prison population and the general population are demonstrated by several studies, with prisoners more often presenting a problematic mental health profile. This involves both severe pathologies, such as psychosis and personality disorders (especially antisocial and borderline disorders), and other problems such as anxiety and depression. A systematic review of 62 surveys covering about 23 000 prisoners from 12 countries worldwide showed that up to 65% of prisoners have a mental health disorder, ranging from personality disorder (42–65%, mostly antisocial disorder) to major depression (10–12%) to psychotic illnesses (4%, including schizophrenia, schizophreniform disorder, manic episodes and delusional disorder) (23). Those disorders represent a serious risk factor for suicide, which is the leading cause of death among prisoners (23). Studies from European countries, including France, Spain and the United Kingdom, support those results (24). Particular attention has been drawn to personality

disorders, which are often associated with problem drug use (25). In a French study, the most common problems among prisoners with a diagnosis of psychiatric co-morbidity were depressive syndromes (40%), generalized anxiety (33%), traumatic neuroses (20%), agoraphobia (17%), schizophrenia (7%), and paranoia or chronic hallucinatory psychoses (7%) (26).

Mortality among prisoners using drugs

Mortality among prisoners in general (both drug users and non-drug users) is high, with suicide accounting for about half of all prison deaths. Recent cohort studies in Europe report that suicide accounts for 10–20% of deaths among problem drug users in the community (10).

Increased mortality from all causes, and particularly from drug overdoses on release, has been documented in many countries (27). Prisoners should receive particular attention during the period following release because of their extreme vulnerability on return to the community. This is when there is a very high risk of overdose, frequently due to their relapse into heroin use and reduced tolerance to opioids (28). A review of drug-related deaths soon after release from prison in Australia, Europe and the United States showed that 6 out 10 deaths in the first 12 weeks after release were drug-related. The authors concluded that there is an increased risk of drug-related death during the first two weeks after release from prison and that the risk remains elevated up to at least the fourth week (29). A study in the United Kingdom (England and Wales) also showed that 6 out of 10 deaths were drug-related and that the risk of death was strikingly acute in the first and second weeks following release from prison (30). Male prisoners were 29 times more likely to die and female prisoners were 69 times more likely to die compared to the general population during the week following their release (30). In Ireland, an investigation of deaths among drug users following release from prison between 1998 and 2005 showed a considerable risk of death at the time of release: of 105 deaths observed after release from prison, 28% occurred within the first week of release and a further 18% in the first month (31).

Methodological limitations

The data presented in this chapter have several methodological limitations, partly related to the subject (drug use) and the setting (prison) of the analysis, and partly to the lack of European harmonization. Clustering, self-selection and self-reporting biases particularly affect data collection and research in prison settings. Validity biases are particularly evident due to the sensitivity of the topic studied (drug use) (32).

Methodological differences between European countries and between individual prisons are wide. Data may be collected through ad hoc studies or routine monitoring systems or both. Coverage and sampling may vary considerably between studies. Representativeness of the sample is an issue, since studies may refer to different types of prison population (for example, only convicted prisoners or also prisoners on remand) or to different types of prison (for example, prisons for young people, or for women or for all adults). Variables and time windows included in the studies (such as type of drug or reference time for using the drug) may also vary between countries. Finally, the routine reporting and the studies may be conducted between different time periods and dates.

This lack of common standards and of a consensus on data collection methods on drug use at European level limits the comparability and harmonization of data. If health consequences are to be monitored to provide support and evidence for policy, there is a need to develop a rationalized and more standardized approach at European level to the collection of data on drugs and prison (33).

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14. Drug treatment and harm reduction in prisons

Heino Stöver, Andrej Kastelic

Key points

- Estimates suggest that half the prisoners in the EU have a history of drug use, many with problematic injecting drug use.
- Drug use is one of the main problems facing prison systems. It threatens security, dominates relationships between prisoners and staff and leads to violence, bullying and mobbing for both prisoners and often their spouses and friends in the community.
- The prevalence of infectious diseases (particularly HIV and AIDS, hepatitis B and C, and TB) is often much higher in prisons than outside and often related to injecting drug use.
- High rates of injecting drug use, if coupled with lack of access to evidence-based prevention measures, can result in a frighteningly rapid spread of HIV and hepatitis B and C.
- Drug dependence services and measures to address infectious diseases in prisons should be equivalent to the services provided outside prisons. Continuity of treatment for prisoners entering and leaving prison necessitates close cooperation between prisons and external agencies.
- Relapses into drug use and fatal overdoses after release are widespread. A wide range of drug services should be available to prisoners, based on local and individual needs.
- Prison drug strategies require action for individual behavioural change as well as on the structural level. National and international networking and the exchange of good practice models seems to be a valuable method for all prison systems. Guidelines and detailed protocols are needed at national level in delivering adequate health care services (for example, for substitution treatment for opiate-dependent prisoners).
- Drug services in prisons should be subject to monitoring and evaluation.

Introduction

Drug use and the consequences for prisoners, prisons and prison health care

Drug use and bloodborne virus infections (including HIV/AIDS and viral hepatitis) are serious health problems in prisons and wider criminal justice systems (1). This makes these places important settings for the provision of effective

drug-related and bloodborne virus services to help reduce the damage that drug use does to health, prison safety and security as well as the broader community (through increased re-offending and infections on release).

Large proportions of the people who enter criminal justice systems and prison have a history of drug use and injecting. Many of these people continue to use drugs while they are in prison. The prison environment may have a positive impact on some drug users, helping them to stop or reduce their drug use or to use less frequently, but for others prison will be an environment where they switch to more harmful patterns of drug use.

Prisons are risky environments because they are often overcrowded, stressful, hostile and (sometimes) violent places in which individuals from poor communities and from ethnic and social minorities are overrepresented, including people who use drugs and migrants.

A European study of health problems arising in prison highlighted three main issues: substance abuse, mental health problems and communicable diseases (2). These three problem areas are closely interrelated. Some of the harms associated with drug users in the criminal justice system include:

- high rates of HIV and viral hepatitis infection (imprisonment is associated with higher rates of bloodborne virus infection among injecting drug users);
- high rates of TB in some countries;
- restricted access to harm reduction services and treatment for drug dependence and bloodborne viruses;
- increased risk of death by overdose after release;
- increased risks of transmission of prison-acquired infections;
- increased risk of reoffending after release.

Although alternatives to imprisonment have been introduced in many countries, more and more people who have used or still use drugs enter prisons. Only some are in prison as a result of conviction for a drug offence. Most are there for other drug-related offences.

Generally, in many countries the number of drug users with problematic consumption patterns in prison populations has dramatically increased over the last two decades.¹²

¹² Problematic drug use is defined as "injecting drug use or long duration/regular use of heroin/cocaine and/or amphetamines" (3). This definition can include other opioids such as methadone. Drug consumption is deemed to be problematic if it is combined with other risky behaviour, causes damage to other people or produces negative social consequences.

Every sixth prisoner is thought to be a problem drug user (4). Thus, people who use drugs are overrepresented in prisons throughout Europe (see Chapter 13). Several factors have contributed to this, including poverty, migration, violence and the fact that increased incarceration is often politically expedient. Ultimately, however, repressive legislation against drugs in the context of growing drug consumption in the community has often played an important role.

This fact inevitably affects life in penal institutions. Drugs have become a central theme, a dominating factor in the relationships between prisoners and between prisoners and staff. Many security measures are aimed at controlling drug use and drug trafficking within the prison system. Daily prison routine in many respects is dictated by drug-dependent inmates and drug-related problems: drug-related deaths, drug-induced cases of emergency, increases in the number of people who use drugs, hierarchies of dealers, debts, mixed drugs, drugs of poor quality, incalculable purity of drugs and risks of infection (particularly with HIV and hepatitis) resulting from contaminated and shared syringes and drugs. Drugs become the central medium and currency in prison subcultures. Many routine activities for inmates focus on the acquisition, smuggling, consumption, sale and financing of drugs.

Prison managements are faced with increased public pressure to keep prisons drug-free. Few prison managers talk frankly and in public about drug use in prisons, establish adequate drug services or develop new drug strategies. People who confess that drug use is prevalent in prisons and that prison is a risk environment are frequently blamed for failing to maintain security in prisons, so a considerable number of prison managers continue to deny or ignore drug use in prison.

Furthermore, many prison physicians believe they can cure the inmates' drug problems by temporarily forcing them to stop using drugs. Thus it becomes obvious why dealing with people who are dependent on drugs in detention is difficult. The goal of rehabilitating the convicts must be pursued, but prison managers in many countries face rising drug consumption among inmates and political and economic circumstances that make solving the drug problem even more difficult. The current judicial situation is paradoxical: a solution has to be found to a problem that is not supposed to exist – drugs in prisons.

Nature and prevalence of drug use and related risks in prisons and on release

Many drug users in prisons come from the more disadvantaged groups in society, with a high prevalence of low educational attainment, unemployment, a history

of physical or sexual abuse, relationship breakdown or mental disorder. Many drug users lead chaotic lives and experience a range of issues with housing, employment, education and health that need to be addressed. Many of these prisoners have never had access to health care and health promotion services before imprisonment. The health care services, therefore, offer an opportunity to improve their health and personal well-being (5).

Drug use in prison takes place in extreme secrecy, and drug seizure statistics, based solely on the confiscation of needles/syringes and positive urine test rates, only indicate some of the story of drug use behind bars. The patterns of drug use vary considerably between different groups in the prison population. For instance, drug use among women differs significantly from that among men, with different levels and types of misuse and different motivations and behavioural consequences.

Many countries report changes in the patterns of drug use (volume and type of drug) when the preferred drugs are scarce (6). Studies and observations by prison officers indicate that, on the one hand, switching to alternative drugs (such as from opiates to cannabis) or to any substitute drugs with psychotropic effects, no matter how damaging this would be (illegal drugs and/or medicine) is widespread. On the other hand, due to a lack of access to the preferred drug or because of controls (such as mandatory drug testing), some prisoners seem to switch from cannabis to heroin, even if on an experimental basis, because cannabis is deposited within fatty tissue and may be detected in urine up to 30 days after consumption.

In many prisons, the most commonly used drug besides tobacco is cannabis, which is used for relaxation purposes. Some studies have shown that more than 50% of prisoners use cannabis while in prison: prevalence on entry varies between 38% in France (7) to 50–55% in the United Kingdom (England and Wales) (8,9), 65% in Switzerland (10), 74% in Greece (11) and 81% in the United Kingdom (Scotland) (12). Studies indicate that both prison staff and inmates consider that cannabis provides psychological relief and has a positive impact on the social ambiance in the particular setting of prisons.

Tackling cannabis use in prison needs to take these effects into account and to include harm reduction measures tailored to the individual users and their therapeutic needs (13).

A much smaller percentage of prisoners report that they inject drugs in prison (14). The extent and pattern of injecting and needle-sharing vary significantly from prison to prison. Prisoners who use drugs on the outside usually

reduce their use in prison, and only a minority of prisoners use drugs daily.

According to various studies undertaken in Europe, between 16% and 60% of people who injected on the outside continue to inject in prison (15). Although they inject less frequently than outside prison, prisoners are much more likely to share injecting equipment than are drug injectors in the community, and with a greater number of people (16). Many were accustomed to easy and anonymous access to sterile injecting equipment outside prison and start sharing injecting equipment in prison because they lack access to safe equipment there.

Although injecting drug use in prison seems to be less frequent than in the community, each episode of injection is far more dangerous than outside due to the lack of sterile injecting equipment, the high prevalence of sharing and already widespread infectious diseases.

Prisons are high-risk environments for the transmission of HIV and other bloodborne infections for several reasons:

- a disproportionate number of inmates come from and return to backgrounds where the prevalence of HIV and bloodborne virus infection is high;
- the authorities fail to acknowledge officially the presence of HIV and bloodborne viruses, thus hindering education efforts;
- activities such as injecting drug use and unsafe sexual practices (consensual or otherwise) continue to occur in prison, with clean injecting equipment and condoms rarely provided to prisoners;
- tattooing and piercing using non-sterile equipment is prevalent in many prisons; and
- epidemics of other STIs such as syphilis, coupled with their inadequate treatment, lead to a higher risk of transmitting HIV through sexual activity.

There were early indications that HIV could be transmitted extensively in prisons. HIV outbreaks in prison have been documented in some countries, demonstrating how rapidly HIV can spread in prison unless effective action is taken to prevent transmission (17, p.11).

Although smoking heroin ("chasing the dragon") instead of injecting plays an increasing and significant role all over Europe, this route of administration is not widespread in prison. Drugs are expensive in prison, and injecting maximizes the effect of a minimal amount of drugs and is not as easily detectable as smoking (both by prison staff and other prisoners).

A substantial number of drug users report having first started to inject while in prison. Studies of drug users in

prison suggest that between 3% and 26% first used drugs while they were incarcerated, and up to 21% of injectors initiated injecting while in prison (18).

In addition to illegal drugs, legal drugs such as tobacco (19), alcohol and prescribed pharmaceuticals (20) often contribute to substance dependence and related health problems among prisoners. Many prisoners have a long history of regular use of legal drugs. Polydrug use is common among offenders entering custody, codependent on any combination of alcohol, opiates, stimulants and benzodiazepines. Dual diagnosis, or the coexistence of mental health and substance use problems, has also increased in recent years.

Prevention, treatment, harm reduction and aftercare

In general, drug services in prisons can be divided into assessment, prevention, counselling, abstinence-oriented and medication-assisted treatment, self-help groups and peer-driven interventions, harm-reduction measures and pre-release and aftercare programmes. It is essential to recognize that drug dependence (whether on opiates, cocaine, tobacco, alcohol or other drugs) is not criminal or hedonistic behaviour but a chronic disease, characterized by a long process of relapses and attempts at stabilization, which consequently requires a continuing care and support approach. It should be treated in the same way as other chronic illnesses, including diagnosis and a treatment plan. It is vital that any drug treatment and intervention strategies are not developed in isolation but linked to other relevant initiatives and strategies. A prison drug strategy should be part of and in line with the national drug strategy (21).

All drug services available in the community should also be available in prisons, in the same quality, size and accessibility than outside. The World Health Organization (WHO) Health in Prisons Programme and the Pompidou Group of the Council of Europe principles for the provision of health care services in prisons (2001) state that: "... there should be health services in prisons which are broadly equivalent to health services in the wider community" (22) (the principle of equivalence).

The goals of drug treatment services in prisons must be, at the least, that prisoners leave in a healthier state than when they arrived and, as the best outcome, that they are psychosocially stabilized and their treatment is continued after release. Thus, the ultimate goal of all treatment for drug dependency, on an individual level, is to achieve abstinence from the drug (or drugs) on which prisoners are dependent with or without medication-assisted treatment. On a system or institutional level, reducing

re-offending and improving health and rehabilitation are the overarching twin aims.

Throughout the EU, the introduction of prevention, treatment and harm reduction measures in prisons is still inadequate compared to developments achieved in the last 30 years in the community. An EU report emphasizes this lack of equivalence, in that interventions in prisons within the EU are still not in accordance with the principle of equivalence adopted by the United Nations General Assembly (23), UNAIDS/WHO (24) and UNODC (25), which calls for equivalence between the health services and care (including harm reduction) available inside prison and those available to society outside prison.

What works?

It is well-established that good drug treatment for prisoners can reduce both drug use and rates of re-offending. *The Lisbon agenda for prisons* stated that "positive experience from in-prison treatment helps inmates to continue treatment after release, reduce relapse rates and related health risks, and also reduce delinquency recidivism" (26).

Opioid substitution therapy is the most effective treatment for preventing HIV and hepatitis C among opiate users (27–29). Intensive psychosocial support and/or supervision on release, therapeutic communities and the 12-step abstinence-based programme have evidential support. This means that pharmacological and psychosocial as well as other supportive "wraparound" interventions are promising strategies for stabilizing prisoners. The inclusion of integrated medical and psychosocial services in a comprehensive package, together with a range of offers meeting the needs of drug-dependent prisoners, is critical for effective drug services.

The Patel Report puts it this way (5, p.24):

One of the overall themes to emerge is that people need to feel they have choices. This is as important when deciding about treatment and interventions options and in choosing their own route to recovery i.e. working toward abstinence. The reality of supported self-change is vital in a recovery focused treatment system in order to raise aspirations and create opportunities for further self-change and personal development.

Coping with drug use in prison is difficult for several reasons. Drug use is illegal. If discovered, it leads to harsh consequences for the time spent in prison including loss of privileges (such as home leave), segregation, more frequent controls (such as cell searches) and discrimination by non-drug-using prisoners (fear of transmitting infectious diseases). In the prison subculture, drug users are often

perceived to be in the lower ranks: they are blamed for new supervisory and control procedures that aggravate the custodial conditions (30).

Prison health services face a dilemma regarding therapeutic resources. Staff in prison health care units and security staff have to deal with the consequences of drug use, but the causes of drug use usually remain beyond their reach. The prison staff and administration often do not have the capacity to respond adequately to the health problems of drug users, especially if they are in prison for short periods of time. Prisons are not therapeutic institutions. Time in prison should not, however, be considered lost. The opportunities prisons may provide in terms of health care, social support and the involvement of community health agencies should be used. Prisons can provide an opportunity to help drug users, many of whom have not had any previous contact with helping or treatment agencies. People often change the drug use patterns they had before imprisonment, voluntarily or not. Because of a lack of drugs, they might stop using altogether, reduce the quantity or change the route of administration because of a lack of sterile needles and syringes.

Measures designed to achieve abstention from drug use in prison, or at least a reduction in harmful drug-using patterns, include:

- counselling on drug-related issues by prison staff or specialized personnel, integrated with external drug services;
- housing for drug-using prisoners in specialized units with a treatment approach and multidisciplinary staff;
- provision of printed and audiovisual material in different languages, with the involvement of prisoners and external counselling agencies in its production.

Measures to prevent the transmission of infectious diseases among drug users include:

- availability of sterile injecting equipment;
- provision of opiate substitution treatment to opioid-dependent prisoners at any stage of their imprisonment;
- availability of condoms and lubricants;
- implementation of vaccination programmes against hepatitis A and B;
- face to face communication: counselling, personal assistance, assistance from and integration of outside agencies for AIDS help or bloodborne viruses, and safer use training for drug users;
- provision of leaflets;
- availability of bleach or other decontaminants (30).

Strategies to reduce risk applied outside prison are often regarded as undermining the measures taken inside prison

to reduce the supply of drugs. Supporting the safer use of illegal drugs (such as by providing bleach and sterile injecting equipment) and at the same time confiscating the drugs is a fundamental dilemma. Studies show, however, that harm reduction measures can be provided safely and without compromising the measures aimed at reducing drug use in prisons (31).

Prison drug policies should allow for:

- assessment, screening, counselling and treatment on a voluntary basis;
- the keeping of a distance from the drug-using subculture, since drug users who are motivated to undergo a treatment programme have to be able to do so in a protected environment, which is difficult for many prisons due to overcrowding;
- throughcare and aftercare, which are essential elements of efforts to reduce relapse and re-offence and build trust with caregivers;
- provision of the diversity of measures that are offered outside prisons: social services, drug-care units, drug counselling and treatment services (including harm reduction); and
- discouragement of the import and traffic of drugs in the prison system.

Psychosocial drug treatment and pharmacological approaches as complementary measures in a comprehensive package of drug services

An integrated drug treatment system, such as that developed in the United Kingdom (England) (32), is needed for a comprehensive response to the complex phenomenon of drug dependence. Drug-free as well as pharmacological interventions, together with stimulation for self-help, are key to the success of drug services. Psychosocial drug treatment and clinical substance dependence management must be integrated and harmonized. Drug-free orientation and pharmacological treatment are not contradictory strategies; on the contrary, they can complement each other with psychosocial drug treatment and rehabilitation.

Inside prisons, the use of illegal drugs is a criminal offence and abstinence-based interventions are, therefore, generally viewed as compatible with the goal of prison systems to eradicate drug use. Abstinence is compatible with, and reinforces, the aims of custody in general and is envisaged as enabling prisoners to avoid committing criminal offences after release.

Prisons run a variety of rehabilitation programmes for drug users based on different therapeutic approaches and assumptions. These programmes are designed to reduce

the risk of re-offending through alleviating prisoners' problems with substance use. Three main approaches and types of programme can be distinguished.

The *cognitive behavioural therapy approach* has different levels of intensity (low/medium intensity programme, gender-specific and short duration). The aim is to gain social learning experience, and to understand and treat drug-related problem behaviour associated with substance-related offending.

The *12-step approach* is based on social learning within a peer approach, with new group members given instruction in ways to lead a drug-free life by more established prisoners. It works on the assumption that addiction is a life-long illness that can be controlled but not necessarily completely cured. The programmes are high intensity for highly dependent prisoners, regardless of the specific drug (they may last for 15 to 18 weeks).

The *structured therapeutic community approach* is based on hierarchical treatment and aims to teach new behaviour, attitudes and values, reinforced through peer and therapeutic community support. It is available for adult prisoners with a medium or high risk of reconviction and level of dependence on drugs (5).

Referral to these programmes is based on individual risks and needs. The different approaches allow individual prisoners to be directed towards the treatment most suited to the severity of their problem and fitting their personal characteristics and circumstances. Some of the cognitive behavioural therapy programmes are suitable for people who are stabilized on opioid substitution programmes, either as part of the process of working towards abstinence or towards better stabilization, while the 12-step and therapeutic community models require participants to be entirely drug-free before starting the programme: "The factors which are rated as being good include the quality of relationships, ease of access and experiencing a transformation in which drug users describe their life as having been 'turned around'." (5, p.29).

These approaches can be matched with, on the one hand, voluntary drug testing that aims to provide an incentive for prisoners to stay drug-free because they are recovering from drug dependence or because they wish to continue receiving particular privileges (such as release on temporary licence or a better job in the prison) or, on the other hand, having something meaningful to do such as work, education and structured programmes, which seems to be a key determinant in remaining drug-free.

Abstinence-oriented treatment and therapeutic communities in prisons

Abstinence-oriented treatment for prisoners is generally provided in special facilities (therapeutic communities). Most of the member states of the Council of Europe have abstinence-based programmes. Therapeutic communities are intensive treatment programmes for prisoners with histories of severe drug dependence and related offending who have a minimum of 12–15 months of their sentence left to serve. They are drug-free environments implementing an intensive treatment approach that requires 24-hour residential care and comprehensive rehabilitation services. Residents are expected to take from 3 to 12 months to complete the programme. In general, therapeutic community treatment models are designed as total-milieu therapy, which promotes the development of social values, attitudes and behaviour through positive peer pressure. Although each therapeutic community differs in terms of the services provided, most programmes are based on a combination of behavioural models with traditional group-based, confrontational techniques. As high-intensity, often multistage programmes, therapeutic communities are provided in a separate unit of the prison. Many prison therapeutic communities ensure a continuum of care by providing community-based aftercare, which is closely connected to the specific therapeutic community and part of the correctional system.

Little research has been done on the effectiveness of therapeutic communities and the sustainability of abstinence. The unsolved problem is that therapeutic communities are often not linked with interventions for safer drug use and the prevention of death after relapse following release. It is suggested that prisoners' experience in treatment should be followed up after release.

Contract treatment units and drug-free units

Drug-free units or wings or contract treatment units aim to allow prisoners to keep a distance from the prison drug scene and to provide a space to work on dependence-related problems. The focus in these units is on drug-free living. Prisoners stay in these units voluntarily. They commit themselves (sometimes with a contract) to abstinence from drugs and not to bring in any drugs and agree to regular medical check-ups often associated with drug testing. Prisoners staying in these units sometimes enjoy a regime with more favours and privileges, such as additional leave, education or work outside, excursions and more frequent contact with their families. Drug-free units (often called drug-free zones) do not necessarily include a treatment element. They aim to offer a drug-free environment for everyone who wants to keep away from drug-using inmates.

The purpose of staying in a contract treatment unit is that the inmate will remain drug-free or at least become motivated to continue treatment after release. Attempts will be made to motivate the inmate to strengthen his or her health and personality, to participate in work routines and to maintain and strengthen his or her social network.

Counselling, peer support and peer-driven interventions

Peer education and peer support can be defined as the process by which trained people carry out informal and organized educational activities with individuals or small groups in their peer group, such as those of the same age or – in this context – other prisoners. Peer education targets individuals and groups that cannot effectively be reached by existing services, with the overall aim of facilitating improvements in health and reducing the risk of transmitting HIV or other bloodborne diseases. Peer-driven interventions make systematic use of the authentic value of peers.

On the basis of the data available and extrapolating from the literature on community-based programmes, education programmes in prisons (as in community settings) are more likely to be effective if peers develop and deliver them. As Grinstead et al. (33) have stated:

When the target audience is culturally, geographically, or linguistically distinct, peer education may be an effective intervention approach. Inmate peer educators are more likely to have specific knowledge about risk behaviour occurring both inside and outside the prison. Peer educators who are living with HIV may also be ideal to increase the perception of personal risk and to reinforce community norms for safer sexual and injection practices. Peer education has the additional advantage of being cost-effective and, consequently, sustainable. Inmate peer educators are always available to provide services as they live alongside the other inmates who are their educational target.

Peer educators can play a vital role in educating other prisoners, since most of the behaviour that puts prisoners at risk of HIV, hepatitis and overdoses in prisons involves illegal (injecting drug use) or forbidden (same-sex activity and tattooing) and stigmatized (same-sex activity) practices. Peers may, therefore, be the only people who can speak candidly to other prisoners about ways to reduce the risk of contracting infection. In addition, peer educators' input is not likely to be viewed with the same suspicion as the information provided by the prison hierarchy. Peer educators are more likely to be able to discuss realistically the alternatives to risky behaviour that are available to prisoners and are better able to judge which educational strategies will work within their prison and the informal

power structure among prisoners. Finally, peer-led education has been shown to be beneficial for the peer educators themselves: individuals who participate as peer educators report significant improvements in their self-esteem (34).

Opioid substitution treatment in custodial settings

Background

Prisons are not the right place for treating drug-dependent men and women, and countries should develop policies for alternatives to imprisonment. As long as these alternatives are not available, prison authorities are faced with this specific population in need of treatment, care and support. Research has shown that treatment for opioid dependence (opioid substitution therapy – OST) is the most effective way to treat opioid dependence, to reduce the risk of HIV and hepatitis C transmission, and to reduce the risk of overdose (35,36).

The need for access to treatment for opioid dependence in prison was internationally recognized more than 30 years ago. In 1993, WHO issued guidelines on HIV infection and AIDS in prisons (24) which stated the following:

Drug-dependent prisoners should be encouraged to enrol in drug treatment programmes while in prison, with adequate protection of their confidentiality. Such programmes should include information on the treatment of drug dependency and on the risks associated with different methods of drug use. Prisoners on methadone maintenance prior to imprisonment should be able to continue this treatment while in prison. In countries in which opioid substitution treatment is available to opiate dependent individuals in the community, this treatment should also be available in prisons.

In 2004, in a position paper on substitution maintenance treatment, UNAIDS, UNODC and WHO concluded that the provision of substitution maintenance treatment for opioid dependence is an effective strategy for preventing HIV/AIDS, which should be considered for implementation as soon as possible in communities at risk of HIV infection (37).

A failure to implement effective drug treatment and HIV and hepatitis C prevention measures could result in the further spread of HIV and hepatitis C infection among injecting drug-users and the wider prison population, and could potentially lead to generalized epidemics in the local non-injecting drug-user population.

Injecting drug-users who do not enter OST are up to six times more likely to become infected with HIV than those who enter and remain in treatment. The death rate of people with opioid dependence in OST is one third to one quarter the rate in those not in treatment.

The most common form of OST is methadone maintenance treatment. Methadone has been used to treat heroin and other opiate dependence for decades. The more recently developed buprenorphine is also quite common in many countries. Both have been proved to make a major reduction in the risk of HIV infection by reducing the use of opioids and the sharing of drug injection, needles and syringes, and improving the health and quality of life of opiate-dependent people.

OST is, therefore, an effective strategy for preventing the transmission of HIV and hepatitis C. It should be implemented as soon as possible in prisons at high risk of HIV infection (38).

Before starting treatment, drug users must be provided with relevant information, especially about the risk of overdose and the potential risks of multiple drug use and interactions with other medications. They should also be informed about the primary physician's obligations to the state, to the prison and to the prisoner (39).

Medication-assisted treatment for opioid dependence (OST – substitution treatment, agonist pharmacotherapy, agonist replacement therapy or agonist-assisted therapy) is defined as the administration under medical supervision of a prescribed opioid substance, pharmaceutically related to that producing dependence, to people with substance dependence so as to achieve defined therapeutic aims.

OST is a form of health care for heroin- and other opioid-dependent people. It uses prescribed opioid agonists or partial agonists which have some properties similar to or identical with heroin and morphine in their action on the nervous system, alleviate withdrawal symptoms and block the craving for illicit opioids. Examples of opioid agonists are methadone, sustained-release morphine, codeine, buprenorphine (a partial agonist-antagonist) and, in some countries, diamorphine. Most of these substances, except for diamorphine, are characterized by a long duration of action and the absence of "rush" (Table 6).

Antagonists, which reverse the effects of opioids, are also used in treating opioid dependence. They occupy the same receptor sites in the brain as opioids and, therefore, block the effects of opioids. However, they do not stop craving. If a person takes an antagonist followed by an opioid, the euphoric effects of the opioid are nullified as they cannot act on the brain. If the antagonist, which has a higher affinity for opioid receptors, is taken after the opioid, an opioid-dependent person will go into opioid withdrawal (so antagonists are contraindicated for people who have not been detoxified from opioids). Naltrexone is the opioid antagonist most commonly used in treating opioid

Table 6. Substitution agents

Medication	Frequency	Optimal recommended dose	Route of administration	Overdose risk	Withdrawal	Notes
Methadone	Every 24 hours	60–120 mg/day	Oral (syrup, tablets) Injectable	+++	+++	Optimal dose level dependent on subject can be <60mg or >120mg according to individual variability
Buprenor- phine Buprenor- phine naloxone (4:1 ratio)	Every 24 to 48 or 72 hours	8–24 mg/day	Sublingual (with additional drugs)	+	+	Start 6–8 hours after the last heroin intake or on appearance of withdrawal symptoms. If the person was previously using methadone, methadone has to be tapered until 30 mg/day and buprenorphine can be administered at 48 hours after last methadone dose or on appearance of withdrawal symptoms.
Sustained release morphine	Every 24 hours	300–1200 mg/day	Oral (capsules)	+++	++(+)	Provided in some countries when provision of methadone or buprenorphine is contraindicated or when these substances are not tolerated (Australia, Austria, Bulgaria, Slovenia, Switzerland and the United Kingdom).
Diamor- phine	2–3 times every 24 hours	400–700 mg/day	Injectable, smokeable	+++	+++	Only legally available to long-term, non-stabilized opioid users in Denmark, Germany, the Netherlands, Switzerland the United Kingdom while in Canada and Spain it is permitted in the context of research trials only.
Levo-alpha- acetyl- methadol	Every 4–72 hours	70–120 mg 3 times per week	Oral	+++	+++	Not available in the EU, and there are concerns regarding safety (QTc interval extension in electrocardiogram)
Levo- methadone	Every 24 hours	40–60 mg/day	Oral (syrup)	+++	+++	Only available in Germany
Codeine			Oral (syrup, tablets)	++	+++	Available for maintenance treatment in Germany

Source: adapted from Verster & Buning (40).

dependence. Naloxone is only used for the emergency reversal of opioid overdose situations. Buprenorphine is a partial agonist-antagonist and is being used increasingly to treat opioid dependence. There are combinations of naloxone with buprenorphine (1:4 ratio) to prevent the abuse of the medication via injection.

The differences between OST (agonists) and blocking or aversion treatment (antagonists) are shown in Table 7.

OST is valuable because it provides an opportunity for dependent drug users to reduce their exposure to high-risk behaviour and to stabilize themselves in health and social terms before they address the physical adaptation dimension of dependence. OST is generally considered for people who have difficulty in stopping their drug use and completing withdrawal.

It is desirable that medications used in OST have a longer duration of action, or half-life, than the drug they are replacing so as to delay the emergence of withdrawal symptoms and reduce the frequency of administration. This allows the person to focus on normal activities without the need to obtain and administer drugs. Further, prescribed medication for an illicit drug helps to break the connections with criminal activity while supporting the change in lifestyle.

Good-quality treatment should be:

- ongoing, in keeping with treatments for other chronic illness (for example, antiviral/antiretroviral treatment and psychiatric comorbidities);
- able to address the multiple problems posing a risk of relapse (such as physical and mental health disorders and social instability);
- well-integrated into society to permit ready access for monitoring purposes and to forestall relapse.

Other characteristics of good models include:

- adequacy of the time available for treatment;
- availability of close links to community health and drug services, together with training provided for health and other treatment professionals;
- the extent to which the views of the prisoners themselves have been considered.

The main goals of OST

Although the ultimate goal of treatment may be to get people to stop using drugs, the main aims of OST are based on the concepts of public health and harm reduction. They are:

- to assist people to remain healthy until (with the appropriate care and support) they can achieve a drug-free life; when they are stabilized, if they cannot or do not want to quit OST, they can remain in treatment for years or even for their lifetime;
- to reduce the use of illicit drugs and non-prescribed medications;
- to deal with problems related to drug use;
- to reduce the dangers associated with drug use, particularly the risk of transmitting HIV, hepatitis B and C virus and other bloodborne infections from injecting and sharing injecting paraphernalia;
- to reduce the chances of future relapse into drug use;
- to reduce the need for criminal activity to finance drug use;
- when appropriate, to stabilize the person on a medication to alleviate withdrawal symptoms and craving;
- to improve overall personal, social and family functioning; and
- to reduce the risk of drug-related death, particularly at the time of release from prison.

In their 2004 common position paper, UNAIDS, UNODC and WHO stated the following:

Table 7. Differences between OST (agonists)and blocking or aversion treatment (antagonists)

OST	Blocking or aversion treatment
<p>Agonists (methadone, levo-alpha-acetylmethadol, long-acting morphine and heroin):</p> <ul style="list-style-type: none"> • in some ways, act similarly to opioids • stimulate opioid receptors • alleviate or stop the craving for opioids • do not produce a rush (except diamorphine) can produce or maintain physical dependence 	<p>Antagonists (naltrexone and naloxone):</p> <ul style="list-style-type: none"> • block the action for opioids • block opioid receptors • do not alleviate or stop the craving for opioids • do not produce a rush • do not produce physical dependence

Substitution maintenance therapy is one of the most effective treatment options for opioid dependence. It can decrease the high cost of opioid dependence to individuals, their families and society at large by reducing heroin use, associated deaths, HIV risk behaviours and criminal activity. Substitution maintenance therapy is a critical component of community-based approaches in the management of opioid dependence and the prevention of HIV infection among injecting drug users. (41)

Ample data support the effectiveness of OST in reducing high-risk injecting behaviour and the risk of contracting HIV (27–29). OST is the most effective treatment available for heroin-dependent injecting drug users in terms of reducing mortality (the death rate of people with opioid dependence in methadone maintenance treatment is one third to one quarter the rate of those not in treatment), heroin consumption and crime. Drug users are often heavily involved in crime before entering treatment, but after one year of methadone maintenance treatment, these levels go down by about half. The benefits are greatest during and immediately after treatment, but a significant improvement continues for several years after treatment. The reductions are most marked in drug-related criminal behaviour.

Many of the concerns raised about OST have been shown to be unfounded. In particular, OST maintenance has not been shown to be an obstacle to ceasing drug use and, in fact, it is more effective than detoxification programmes in stopping people from using drugs illegally and keeping them in drug treatment programmes. Injecting drug users who do not enter treatment are up to six times more likely to become infected with HIV than those who enter and remain in treatment (42).

OST is a cost-effective method of treatment, comparing favourably in terms of cost-effectiveness with other health care interventions, such as therapy for severe hypertension or for HIV/AIDS. According to several conservative estimates, every euro invested in OST programmes may yield a return of between four and seven euros in reduced drug-related crime, criminal justice costs and theft. When savings related to health care are included, total savings can exceed costs by a ratio of 12:1.

Finally, people treated with OST who are forced to withdraw from methadone when they are incarcerated often return to narcotic use, often within the prison system and often via injection. It has, therefore, been widely recommended that prisoners who were in OST outside prison should be allowed to continue this treatment in prison (43).

In many countries, however, OST is unavailable or not widely enough available in prisons. Initially, OST was often

only made available in prisons to inmates living with HIV or with other infectious diseases or to pregnant women. Provision generally remains inadequate and below the standards of OST in the community. In many countries, OST is still likely to be discontinued when people on treatment enter prison. A treatment gap persists between those requiring OST and those receiving it.

Some prison systems are reluctant to make OST available or to extend its availability to prisoners who were not receiving it before incarceration. Methadone or buprenorphine are sometimes viewed as just more mood-altering drugs, delaying the personal growth necessary to move beyond a drug-centred existence. Some people also object to OST on moral grounds, arguing that it merely replaces one drug of dependence with another. Other reasons for resistance to OST include:

- the fact that prisons are supposed to be drug-free;
- the fear that the opioid medications used may be diverted and sold;
- a lack of understanding of drug dependence as a chronic disease;
- limited space and lack of resources and staff in many prisons;
- the cost of and additional organizational tasks required to implement it;
- anxiety that it will destabilize the prison.

If other reliable and effective methods could achieve enduring abstinence, OST could indeed be seen as inadequate. However, there are no such alternatives (44).

In recent years, evaluations of prison OST have provided clear evidence of its benefits. Studies have shown that, if dosage is adequate (at least 60–80 mg methadone or 12–16 mg buprenorphine) and treatment is provided for the duration of imprisonment, such programmes reduce drug-injecting and needle-sharing and the resulting spread of HIV and other bloodborne infections. In addition, they have other worthwhile benefits, both for the health of prisoners participating in the programmes and for prison systems and the community.

- OST positively affects institutional behaviour by reducing drug-seeking and thus improving prison safety. Prison systems where OST is provided benefit by, among other things, reduced withdrawal symptoms on admission (often accompanied by self-harm or even suicide attempts), alleviation of anxiety upon entry, reduced trade in drugs and increased productivity among prisoners on OST.
- Re-offending is significantly less likely among prisoners who receive OST.
- Prisoners on OST in prison are significantly more likely to enter and remain in post-release treatment than those enrolled in detoxification programmes.

- Although prison administrations often initially raise concerns about security, violent behaviour and diversion of prescribed drugs, these problems are less frequent than when substitution treatment programmes are absent.
- Both prisoners and correctional staff report how OST positively influences life in prison.
- OST offers daily contact between the health care services in prison and the prisoners, a relationship that can serve as baseline for raising further health issues and links with other strategies for preventing HIV transmission.
- There is evidence that abrupt cessation of OST increases the risk of self-harm and suicide.

In addition, OST can help to reduce the risk of overdose (45). Many prisoners resume injecting once they are released but are at increased risk of a fatal overdose as a result of reduced tolerance for opioids. Extensive research has noted a large number of deaths during the first weeks post-release attributed to drug overdose. Following a United Kingdom study of 51 590 releases from prison (46), it has been estimated that approximately 35% of all male drug-related deaths and 12% of all female drug-related deaths are among prisoners recently released from prison custody. This points to the utility and necessity of throughcare (in prison and post-release) via drug treatment and OST to counteract such risky situations, and highlights the importance of OST as a strategy not only for preventing the transmission of HIV and hepatitis C in prisons but also for reducing overdose deaths after release.

Effective treatment

In order to be effective, OST, as any other type of treatment, must be: (i) based on the needs of prisoners; (ii) provided for the right period of time and at the right dose required by the individual; and (iii) provided continuously throughout imprisonment and following release.

As mentioned above, effective treatment has many benefits for individuals by helping them to stay alive, reducing the risk of infection (particularly from HIV and hepatitis), achieving abstinence or a stabilized pattern of use, stabilizing their social life, improving physical and mental health and reducing criminal activity. It also benefits society by improving public health, reducing emergencies and hospitalization, reducing the spread of HIV and other infectious diseases, reducing social welfare costs and reducing costs to the criminal justice system.

OST programmes vary in duration, dosage and scheme. Although much evidence (47) indicates that OST is more effective when higher dosages are prescribed on a

maintenance basis, many programmes focus on short-term detoxification with decreasing dosages.

In addition, distinguishing between low- and high-threshold programmes is important. The distinctions can be broadly summarized as follows.

Low-threshold programmes:

- are easy to enter;
- are oriented towards harm reduction;
- aim principally to relieve withdrawal symptoms and craving and improve quality of life;
- offer a range of treatment options.

High-threshold programmes:

- are more difficult to enter and may have selective intake criteria;
- are abstinence-oriented (which could include subsequent abstinence from OST medications);
- do not have flexible treatment options;
- adopt regular (urine) control;
- have an inflexible discharge policy which may lead to patients that continue using illegal drugs at the same time as the substitutes being excluded from the programmes; this would be against both medical ethics (because OST has been proved to be good for their health) and the rationale of OST, since its aim is precisely to help people suffering from illegal opioid use;
- may include compulsory counselling and psychotherapy.

Low-threshold should not be regarded as synonymous with low-quality. In general, low-threshold programmes are more successful in serving harm reduction purposes for both addicted individuals and society, by rapidly engaging and keeping people in treatment. For those with a chaotic lifestyle due to their drug habits, such programmes are associated with better treatment outcomes and thus meeting the aims of OST.

Treatment criteria and treatment plan

OST should be restricted to people who meet the clinical criteria for opioid dependence. Restrictive regulations regarding the admission and inclusion criteria of OST are, however, counterproductive with regard to access to treatment and prevention of HIV and hepatitis transmission. Issues such as the maximum dose or maximum length of treatment should be left to the practitioner's clinical judgment, based on the assessment of the individual.

In principle, everyone who is opioid-dependent and in need of treatment and expresses a desire for OST can be stabilized after appropriate assessment and start of treatment. It is, however, recommended that

the availability of treatment sites is taken into account when adopting admission criteria. Age, length of opioid addiction, physical and mental health and personal motivation of the opioid-dependent person should all be considered. Some groups, such as pregnant women or people living with HIV or other illnesses, should be given priority, although this should not entail compulsory HIV-antibody testing. Furthermore, since release from prison is associated with an increase in drug-related deaths due to restart of drug use after a period of abstinence or reduced use (during which opioid tolerance may have been reduced), where resources are limited those about to be released from prison should be given priority for treatment.

Risks and limitations

The most significant risk with methadone and other opioid agonists is an overdose, which can be fatal. Research evidence (40) indicates that the highest risk of overdose is when OST is begun. Low doses are, therefore, recommended at the beginning of treatment with methadone. However, once a stable dose of methadone is settled (after about two weeks), the risk of overdose death is substantially reduced compared with the risk before treatment.

Buprenorphine as a partial agonist has less intrinsic activity than full agonists, and there is a plateau (ceiling) to dose–effect with much less possibility of overdose, allowing for a much faster reduction rate (two to three days).

Methadone

Methadone (methadone hydrochloride) is the predominant medication used for OST inside and outside prison in a majority of countries. It is a synthetic opioid agonist with an effect similar to that of morphine. Methadone is well-absorbed from the gastrointestinal tract, irrespective of formulation (syrup versus tablet). It has very good bioavailability of 80–95%. The half-life of methadone is 24–36 hours, with considerable variations between individuals (10 to 80 hours). This pharmaceutical profile makes methadone useful as an OST medication, because it allows oral administration, single daily dosage and achievement of steady-state plasma levels after repeated administration, with no opioid withdrawal. Some patients experience side-effects, the most common being increased perspiration, constipation and sleep disturbances, reduced libido, reduced power of concentration and potential weight gain. Such undesirable side-effects generally occur at the beginning of treatment and decrease over time, although in some patients they can persist generally without medical consequences. Fewer than 20% of patients taking methadone therapy

experience side-effects. Methadone is a safe medication with no lasting deleterious physical or physiological effects. Contrary to popular assumption, it has no directly damaging effects on bones or teeth (opioids do restrict saliva production, which in turn can lead to dental caries). For some patients, however, detoxifying from methadone might be very difficult and protracted. Methadone is a cheap medication; it is easy to deliver to the prisoner and the intake can easily be supervised. In most cases, little information is given to patients about the medication prescribed, possibly because the providers assume that experienced patients already know everything about the medication. However, this is not always the case.

Dosage

The general rule with dosing of methadone is to start low and go slow, but aim high.

- First, do no harm: estimates of degrees of dependence and tolerance are unreliable and should never be the basis for starting with high doses of methadone that could, if the estimation is wrong, cause overdose.
- There is no moral value associated with either high or low doses.
- Methadone should not be given as reward or withheld as punishment.
- Doses should be increased and decreased gradually. Both for safety and comfort, smaller changes (such as 5 mg at a time) at wider intervals (such as every five days) should be made for people on less than 60 mg a day, whereas larger and more frequent changes (such as 10 mg every three days) will generally be safe at higher levels.
- In general, higher maintenance doses are associated with better therapeutic outcomes than are lower doses. The optimal range for most people is 60–120 mg per day.
- When there are subjective complaints of the methadone “not holding”, the daily dose could be divided or increased. This may be particularly relevant for women who are pregnant and/or receiving ART.

Buprenorphine

Buprenorphine is a partial opioid agonist with weaker opioid agonist activity than methadone. Buprenorphine is not well-absorbed if taken orally, and the usual route of administration in treating opioid dependence is, therefore, sublingual. With increasing doses of buprenorphine, the opioid effect reaches a plateau, so it is less likely than either methadone or heroin to result in opioid overdose, even when taken with other opioids at the same time. The effectiveness of buprenorphine is similar to that of methadone at adequate doses in terms of reduction in illicit opioid use and improvements in psychosocial functioning. Buprenorphine may, however, be associated

with lower rates of staying in treatment. It is currently more expensive than methadone.

Buprenorphine is acceptable to heroin users, has few side-effects and is associated with a relatively mild withdrawal syndrome. When used in OST for pregnant women with opioid dependence, it appears to be associated with a lower incidence of neonatal withdrawal syndrome.

A combination product of buprenorphine with a small amount of naloxone (4:1 ratio) has been developed to reduce potential diversion and misuse of the drug. Naloxone is poorly absorbed sublingually, which limits its pharmacological effect. If the tablet is crushed and used intravenously by an opioid-dependent person, the naloxone is bio-available and can precipitate severe opioid withdrawal, which can potentially deter further such abuse by this route.

Sustained-release morphine

Sustained-release morphine is seen as a valuable contribution to OST in some countries (Australia, Austria, Bulgaria, Slovenia, Switzerland and the United Kingdom). Some studies have reported that oral sustained-release morphine leads to improved well-being for its recipients compared to those receiving methadone maintenance due to a better side-effect profile. In particular, sustained-release morphine is easy to use (once daily), and the users report better concentration, no major mood disturbances, no weight gain and a better sexual drive.

Dosing and supervision of intake

There is no such thing as an average dose. Dosage should be part of the doctor–patient relationship and adjusted according to individual needs. The dose needs to be at a level that can reduce craving and block the use of heroin to produce euphoria. Prisoners should be informed of their dose unless they specifically request not to know.

Either nurses or guards can supervise the ingestion of the (liquid or solid) methadone, depending on how and where the medication for OST is dispensed: either within the medical unit or on the cells/wards. This is to ensure that the substance is swallowed (methadone) or diluted under the tongue (buprenorphine) completely.

There is a consensus that the administration of OST (as well as other psychoactive substances) must be supervised to make sure that the medication has been used correctly, to avoid coercion to sell or divert it, and to avoid overdoses in prisoners with no opioid tolerance.

Antagonist treatment: naltrexone

If a prisoner abstains from opioid drugs, therapy with naltrexone can be started in prison or prior to release.

Naltrexone is a pure opioid antagonist and, as such, is often not considered an OST medication. It has, however, received considerable attention when used for ultra-rapid detoxification under general anaesthesia, a practice that is not without risk to the patient. In addition to its use as a rapid detoxification agent, naltrexone has been used for decades as a longer-term blocking agent (full opiate antagonist) in maintenance treatment.

Naltrexone may be used as part of relapse prevention programmes. A single maintenance dose of naltrexone binds to opioid receptor sites in the brain and blocks the effects of any opioid taken for the next 24 hours, or it can be taken in a double/triple dose three times a week. It produces no euphoria, tolerance or dependence. Patients generally require 5–10 days of abstinence before starting naltrexone (the length of abstinence depends on the length of half-life of the opioid that was regularly taken prior to starting naltrexone).

A Cochrane review on the effectiveness of naltrexone maintenance treatment (48,49) did not find evidence for its effectiveness in maintenance therapy. A trend in favour of treatment with naltrexone was, however, observed for certain target groups (especially people who are highly motivated).

Medication-assisted treatment of opioid dependence in prisons

Initiation of OST in prisons

Historically there has only been limited availability of OST in prisons. The principle of equivalence with health care offered in community settings would, however, suggest that OST should be available and accessible to all prisoners according to their health needs. Since many prisoners experience immediate relapse after release they should have an informed choice of either detoxification or maintenance.

Given the often relapsing/remitting nature of opioid dependence, detoxification alone is only effective in producing a long-term change for a minority of users. The benefits of OST programmes can be maximized by:

- keeping people in treatment;
- prescribing higher rather than lower doses of methadone;
- orienting programmes towards maintenance rather than abstinence;
- offering counselling, assessment and treatment of both psychiatric co-morbidity and social problems;
- using and strengthening the therapeutic alliance between clinician and patient to reduce the use of additional drugs.

There are three scenarios where it may be appropriate to start users on opioid maintenance in prison as the first stage of OST. These are: immediately upon admission to prison, during incarceration and for a period before release.

As mentioned above, there is an extremely high risk for prisoners using drugs to relapse and take an overdose shortly after release. Overdoses on release and suicides in prisons were key elements in some countries for integrating OST into prison health care services. In order to avoid relapse and overdose on release, it is recommended that the prisoner be kept on a stable dose until he or she is released.

Overdoses on release and suicides in prisons were also key drivers in some countries to use OST in prisons (50).

Detoxification

Some drug-users manage to abstain permanently while in prison, although detoxification alone is seldom effective in producing a long-term change for the majority of drug-users.

Institution-related factors militating against continued abstinence are a lack of resources and/or personnel resulting in a limitation on the availability of treatment places, lack of knowledge, lack of supporting regulations and guidelines, dependence on the development of OST in the community, opposition to OST in prisons and a restrictive OST policy in the local community.

Relapses after detoxification are extremely common and detoxification on its own rarely constitutes adequate treatment for substance dependence. The options include managing withdrawal on admission in the form of gradual detoxification or moving to abstinence-oriented treatment or maintaining long-term substitution. Interventions that are client-centred and personalized have the best outcomes.

Urine controls

Urine analysis has been much debated in this field. Although urine controls are a vital part of the initial medical assessment of the patient (for confirmation that the patient is actually using opiates), they are often used as a form of control over patients to monitor for illicit drug use. Many professionals question the effectiveness of urine analysis as a positive factor in treatment.

It is also argued that a positive urine sample should never be the sole reason for discontinuing treatment, as this is part of the condition for which the patient is being treated.

OST should never be a reward for good behaviour or withheld as punishment, but rather administered as a

normal part of a variety of medical and psychosocial treatments.

Psychosocial care

A combination of physical, psychological and social experiences contributes to the complexity of drug dependence. To treat the disease successfully and overcome drug dependence, it is necessary to address both the physical and psychosocial dimensions of the disease (27). For many dependent drug-users this may entail substantial physical, psychological and lifestyle adjustments – a process that typically requires a lot of time. OST must not only treat the opioid addiction but also deal with mental and physical health and social problems. Psychosocial care is, therefore, regarded as an additional and necessary part of treatment in support of the medical part of OST in prison.

Personalized patient care in prisons can be a significant challenge. A personalized treatment plan should be drawn up with the patient and regularly evaluated.

Polyvalent drug use

Clear and transparent protocols and guidelines should be in operation regarding the use of other drugs prisoners may have been using. In particular, benzodiazepines, barbiturates and alcohol may pose severe health risks for patients on OST. In these cases, the continuity of OST should be thoroughly discussed, case by case. The options should ideally be considered by a multidisciplinary team and (if one is available) with the prison drug counselling service. Future plans and goals should be decided and agreed, including increasing the dose of OST medication and psychosocial therapy and possibly even discontinuing OST.

Continuing OST between the community and prison

The medication of patients who are on OST prior to imprisonment should be continued in prison, although there are many barriers to such continuity of care. The most significant barrier is that maintenance therapy is interrupted for many patients if they spend time in police custody prior to prison. This can result in significant loss of opioid tolerance. Wherever possible, users should continue their opioid maintenance therapy at their prescribed dose while in police custody.

The high numbers of users requiring treatment in prison, where the supply of illicit drugs is markedly reduced, can mean that the protocols and practices of OST are oriented more to the institution's governance requirements than to each patient's needs and wishes. For instance, it takes approximately five minutes for the supervised administration of buprenorphine (sublingual). This is both time-consuming and allows for the potential diversion

of the medication, so methadone is often prescribed as the first-line medication in prisons. Since some users could perceive this as not being equivalent to the treatment offered in the community, the replacement of one substitution drug with another for the newly arrived prisoner obviously needs to be clearly communicated to him/her and is not recommended.

OST in the criminal justice system

OST should be available at all stages of the criminal justice system if it is available at the community level and should be started and/or continued from arrest to release and afterwards.

It may also play an important role in police detention and pre-trial detention institutions. People addicted to heroin or other opioids who are arrested and taken into police detention can face severe withdrawal symptoms.

OST should be offered as a form of throughcare, providing stability in the physical and mental health of offenders as well as in terms of overdose prevention. The risk of overdose after a short period of detoxification rises, as opioid addicts lose their opioid tolerance within days. The effect of OST on reducing suicide risk has not been studied but a positive impact is thought to be likely whether in prisons, remand facilities or police detention. Moreover, the risk of relapse increases during home leave, holidays and so on.

Special considerations for women

Women tend to experience both drug dependence and treatment differently from men. Major issues are related to the high levels of both physical and mental co-morbidity of women with opioid dependence, which need to be taken into account in their treatment. Women with opioid dependence often face a variety of barriers to treatment, including a lack of financial resources, absence of services and referral networks oriented to women and conflicting child-care responsibilities.

Effective OST can substantially improve obstetric, prenatal and neonatal outcomes. OST also has an important role in attracting and keeping pregnant women in treatment and ensuring good contact with the obstetric and community-based services, including primary care.

Harm reduction programmes

Definition of harm reduction

In their broadest sense, harm reduction policies, programmes, services and action work to reduce the health, social and economic harms to individuals, communities and society that are associated with the use of drugs (51). The *Status paper on prisons, drugs and harm*

reduction (21) defined harm reduction measures in prisons as follows:

In public health relating to prisons, harm reduction describes a concept aiming to prevent or reduce negative health effects associated with certain types of behaviour (such as drug injecting) and with imprisonment and overcrowding as well as adverse effects on mental health.

Harm reduction acknowledges that many drug users cannot totally abstain from using drugs in the short term and aims to help them reduce the potential harm from drug use, including through assistance to stop or reduce the sharing of injecting equipment so as to prevent the transmission of HIV or hepatitis which, in many ways, is an even greater harm than drug use. A harm reduction approach recognizes that a valid aim of drug interventions is to reduce the relative risks associated with drug misuse.

In addition, the definition adopted by WHO acknowledges the negative health effects of imprisonment (51). These include the impact on mental health, the risk of suicide and self-harm, the need to reduce the risk of drug overdose on release and the harm resulting from inappropriate imprisonment of people who in fact require facilities unavailable in prison, especially when overcrowded.

All drug treatment services, both residential and community-based, should incorporate a distinct harm reduction element to reduce the spread of bloodborne viruses and risk of drug-related deaths, notably deaths from overdose (15). Specific harm reduction interventions include:

- advice and information to prevent transmission of bloodborne viruses (particularly hepatitis A, B and C and HIV) and other infections related to drug use;
- vaccination for hepatitis B;
- access to testing and treatment for hepatitis B and C and HIV/AIDS;
- counselling related to HIV/hepatitis testing (pre-and post-test);
- advice and support on preventing the risk of overdose;
- risk assessment and referral to other treatment services;
- needle exchange services, that is, the provision and disposal of needles and syringes and other clean injecting equipment (such as spoons, filters and citric acid) in a variety of settings;
- advice and (peer) support on safer injection and reducing injecting, and reducing the initiation of others into injecting;

As shown above, many prisoners continue to use drugs in prison, and some people start using and injecting drugs

while in prison. Despite often massive efforts to reduce the supply of drugs, the reality is that there is a demand and drugs can and do enter prisons.

In prisons, as in the community, harm reduction measures have been successfully implemented during the past 20 years throughout Europe as a supplementary strategy to existing programmes oriented to drug-free treatment. Harm reduction does not replace the need for other interventions but adds to them, and should be seen as a complementary component of wider health promotion strategies. The following hierarchy of goals should guide drug policy, in prisons as outside:

- securing survival;
- securing survival without the person contracting irreversible damage;
- stabilizing the addict's physical and social condition;
- supporting people dependent on drugs in their attempts to lead drug-free lives.

Harm reduction has been addressed in *Risk reduction for drug users in European prisons*, which has been translated into and adapted to seven European languages (52). The major objectives of this book are:

- to raise awareness of health problems connected to drug use and drug-related infectious diseases;
- to initiate and support a discussion about risk reduction in response to these health problems;
- to contribute to knowledge, skills and insight into the problems and encourage a positive attitude towards risk reduction activities by both inmates and personnel;
- to disseminate information relevant for health promotion by a range of means;
- to stimulate and support the carrying out of risk reduction activities for both inmates and staff.

The book also contains information for prison staff about health and workplace safety, drugs, addiction, infectious diseases and the services needed. Interactive material about risk situations and risky conditions in prisons has been included for inmates.

Provision of disinfectants

The provision of bleach or other disinfectants to prisoners is an option to reduce the risk of transmission of bloodborne viruses through the sharing of injection equipment, particularly when sterile injection equipment is not available. Many prison systems have adopted programmes that provide disinfectants to prisoners who inject drugs as well as instructions on how to disinfect injecting equipment before reusing it. Evaluations of such programmes have shown that it is feasible to distribute bleach in prisons and does not compromise security (53–56). Studies in the community have, however, raised doubts

about the effectiveness of bleach in decontaminating injecting equipment. Today, disinfection as a means of preventing HIV is regarded only as a second-line strategy to syringe exchange programmes. Cleaning guidelines recommend that injecting equipment should be soaked in fresh full-strength bleach (5% sodium hypochlorite) for a minimum of 30 seconds. More time is needed for decontamination if diluted concentrations of bleach are used. Further, a review of the effectiveness of bleach in the prevention of hepatitis C infection concluded that "although partial effectiveness cannot be excluded, the published data clearly indicates that bleach disinfection has limited benefit in preventing [hepatitis C virus] transmission among injection drug users" (57). In prisons, the effectiveness of bleach as a decontaminant may be even further reduced.

Needle and syringe exchange programmes

In the community, needle and syringe exchange programmes are widely available in many countries and have been proved to be the most effective measure available to reduce the spread of HIV and hepatitis through the sharing of contaminated injecting equipment. In prisons, however, needle and syringe programmes remain rare, although they have been successfully introduced in about 70 prisons in a growing number of countries including Germany, Kyrgyzstan, Luxembourg, the Republic of Moldova, Romania, Spain, Switzerland and Tajikistan. Evaluations of existing programmes (56,58,59) have shown that they:

- do not endanger staff or prisoner safety, and in fact make prisons safer places to live and work;
- do not increase drug consumption or injecting;
- reduce risk behaviour and the transmission of disease, including HIV and hepatitis C virus;
- have other positive outcomes for the health of prisoners, including a drastic reduction in overdoses (reported in some prisons) and increased referral to drug treatment programmes;
- have been effective in a wide range of prisons;
- have successfully employed different methods of needle distribution to meet the needs of staff and prisoners in a range of prisons; and
- have been successfully used in prisons alongside other programmes for preventing and treating drug dependence.

When prison authorities have any evidence that injecting is occurring, they should introduce needle and syringe programmes, regardless of the current prevalence of HIV and the hepatitis infection rate.

Despite the massive overrepresentation of injecting drug users in custodial settings worldwide, the availability

of harm reduction measures in prisons lags far behind the availability of these interventions in the general community. Illustrating this gap most vividly is the provision – or lack – of needle and syringe programmes. In 2007, for instance, the Commission of the European Communities found that although 24 of the EU member states had needle and syringe programmes in the community, only 3 of those countries had introduced them into prisons. This disparity led the Commission to conclude the following:

Harm reduction interventions in prisons within the European Union are still not in accordance with the principle of equivalence adopted by United Nations General Assembly, UNAIDS/ WHO and UNODC, which calls for equivalence between health services and care (including harm reduction) inside prison and those available to society outside prison. Therefore, it is important for the countries to adapt prison-based harm reduction activities to meet the needs of drug users and staff in prisons and improve access to services. (60)

The Commission's findings were recently confirmed, and expanded upon, in a 2008 report from the Regional Office which monitored Member States' progress in achieving the goals of the Dublin Declaration (61). This report found that, of the 53 signatory countries, condoms were available in prisons in only 18, substitution treatment in 17 and syringe exchange programmes in 6 (61,62). A review by the International Harm Reduction Association in 2009 found the situation had only marginally improved, with 9 countries in Europe and central Asia having introduced syringe exchange in prisons and 28 with substitution treatment (63).

Transferring harm reduction strategies into the prison setting

Despite the evidence that prisons can successfully introduce harm reduction measures, with positive results for prisoners, staff and ultimately for the community, many are still afraid that introducing such measures would send the wrong message and make illicit drugs more socially acceptable. Many prisoners are in prison because of drug offences or because of drug-related offences. Preventing their drug use is an important part of their rehabilitation. Some have said that acknowledging that drug use is a reality in prisons would be acknowledging that prison staff and prison authorities have failed. Others say that making needles and syringes available to prisoners would mean condoning behaviour that is illegal in prisons. However, since HIV and hepatitis B and C seriously threaten prisons and communities, harm reduction measures must be introduced to protect public health. Making available to prisoners the means necessary to protect them from the transmission of HIV and hepatitis C virus does not mean

condoning drug use in prisons. Introducing needles and syringes is not incompatible with a goal of reducing drug use in prisons. Making needles and syringes available to drug users has not increased drug use but has reduced the number of injecting drug users contracting HIV and other infections.

Involvement of community services

In the past decade, there have been new approaches aiming to divert individuals away from prison and into treatment alternatives as well as (for prisoners) into a range of services in prisons. Specific legislation in several countries has been introduced with the purpose of enhancing links between the criminal justice system and health services to reduce the number of drug users entering prison. Despite these developments, the number of prisoners with drug dependence has continued to grow. As drug users often serve short sentences, they return to their communities and many return to their old drug-using habits. Support services need to be continued in order to sustain successes achieved while in custody. This indicates that criminal justice agencies need to improve their links with drug services.

Pre-release units

Prisoners should begin to be prepared for release on the day the sentence starts, as part of the sentence planning process. All staff should be involved in preparing prisoners for release. Good release planning is particularly important for drug-using prisoners. The risks of relapse and overdose are extremely high. Measures taken in prison to prepare drug-using prisoners for release include:

- implementing measures to get prisoners off drugs and keep them drug-free after release;
- granting home leave and conditional release, integrated into treatment processes;
- cooperating with external drug services or doctors in planning a prisoner's release;
- involving self-help groups in the release phase; and
- taking effective measures (such as the provision of naloxone and training) in prison to prevent prisoners dying of a drug overdose shortly after release.

The challenge for prison services in facilitating a successful return to the community is not only to treat a drug problem, but also to address other issues including employability, educational deficits and the maintenance of family ties.

Many prisons undertake efforts to reduce relapse and to provide social reintegration. Protocols are sometimes set up with drug treatment centres from the national and community health networks. In Portugal, for instance, some projects focus on preparing for freedom and that

getting a life means getting a job. Peer groups have been developed to support treated drug addicts to prevent relapse.

Aftercare

Several studies show that effective aftercare for drug-using prisoners is essential to maintain gains made in prison-based treatment (64, pp.223–231). Nevertheless, prisoners often have difficulty in accessing assessments and payment for treatment on release under community care arrangements. In view of the increased risk of overdose deaths, especially the first two weeks after release, it is important to prepare prisoners with drug problems about the risk of overdose and to ensure the close follow-up of released prisoners with any drug problems (65).

Therapy instead of punishment

Several countries have legal provisions for suspending the sentences of drug users. In Sweden, Section 34 of the Prison Treatment Act states that a prisoner may be permitted – while still serving the prison sentence – to be placed in a treatment facility outside prison. This is not by definition a suspended sentence: it is an alternative to staying in prison until release. Another possibility is that the court sentences a person to probation with contract treatment. This is possible when there is a clear connection between drug abuse and crime. The person has to accept and give consent to treatment instead of prison. If the person interrupts or neglects the treatment, the contract treatment will be interrupted and converted into a prison sentence.

In Germany, Section 35 of the Opium Law allows prisoners to undergo treatment instead of punishment when the sentence is no more than two years.

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15. Alcohol and prisons

Lesley Graham

Key points

- The harmful use of alcohol is a major public health problem in Europe.
- The link between alcohol and crime, particularly violent crime, is strong.
- The prevalence of alcohol problems in prisoners is high.
- The prison setting is an opportunity to detect and treat those who are hard to reach.
- Delivering interventions for alcohol problems in prisoners has the potential to reduce alcohol problems, reduce re-offending and tackle health inequalities.

Introduction

Health problems in prisoners mirror and often magnify those of the wider population. The same is true for alcohol problems.

Alcohol in Europe

Alcohol is a psychoactive, toxic and potentially addictive substance (1). It is a causal factor in over 60 diseases and injuries and accounted for 6.4% of all deaths in the Region in 2004 (2). Some consequences, such as intoxication or injury, are acute while others, such as liver disease and cancers, result from longer-term consumption. As well as the impact on individuals, the consequences of alcohol consumption may result in harm to others, such as drink-driving (3).

In most European countries, the drinking of alcohol is common in the adult population, with 80–95% drinking at least occasionally (4). Over the past two decades average population consumption has been stable, although in countries such as France and Italy there has been a decrease and in others (Estonia, Ireland and the United

Kingdom) levels have been rising (5). Average population consumption is linked to the number of heavy drinkers and to the levels of alcohol-related harm (1). In 2004, the one-year prevalence of alcohol use disorders (alcohol problems which can be defined as hazardous drinking, harmful use or dependency (6)) in the Region was 1 in 20 (5.5%), with a higher proportion in men (9.1%) (2).

Alcohol and crime

The link between alcohol and crime, particularly violent crime, is strong and evident in all European countries. Alcohol-related crime is both common and costly. In 2003, alcohol-related crime in Europe was estimated to cost €33 billion (7).

Table 8 shows the percentage of all crimes and violent crimes related to alcohol in selected European countries. As there is no standardized definition of alcohol-related crime, caution should be taken in drawing comparisons.

Alcohol-related crime can be described in three broad categories: (i) where there is a direct causal relationship (alcohol-specific offences such as drunk-driving and drunkenness); (ii) where alcohol is a contributory factor (with alcohol a trigger or facilitator to offending, for example, assault, antisocial behaviour); and (iii) where there is a co-existent relationship (the offender's alcohol consumption has no relation to the crime) (8).

The relationship between alcohol and crime is not, therefore, a simple causal one. With regard to violence where alcohol is recognized as a contributory factor, theoretical models based on empirical evidence have grouped factors into the following four broad areas (9):

Table 8. All alcohol-related crimes and violent crimes in selected European countries (%)

Country	Alcohol-related crime (%)	Alcohol-related violent crimes %)
Belgium	20	40
Finland	47	66
Germany	7	24
United Kingdom (England and Wales)	25	48

Source: Anderson & Baumberg (7).

- physical and psychological effects of alcohol on the individual:
 - reduced impulse control and impaired motor functioning;
 - impaired cognition, less self-reflection, impaired ability to process multiple cues and solve problems;
 - alcohol-induced myopia (short-sighted focus on the immediate situation);
 - greater willingness to take risks;
- personal characteristics:
 - impulsiveness;
 - frustration;
 - anxiety;
 - drinking patterns;
- situational context within which alcohol is consumed:
 - poor layout of bars with increased likelihood of crowding;
 - low staff-to-patron ratio;
 - encouragement to drink large quantities;
- cultural context:
 - acceptance of public drunkenness;
 - acceptance of violence;
 - unstructured drinking;
 - beliefs about personal responsibility when drunk.

Measures to tackle alcohol-related crime need to include interventions at the level of the individual as well as broader interventions aimed at the social, physical and cultural environments.

Alcohol problems in prisoners

The prevalence of alcohol problems in prisoners is high, although the evidence base to date is limited. An international systematic review found that 18–30% of men and 10–24% of women prisoners had alcohol problems, but the studies were noted to be heterogeneous (10). In the United Kingdom (Scotland) in 2011, 50% of prisoners reported that they were drunk at the time of their offences, an increase of 10% over the previous 5 years (11). Nearly half (48%) said they would accept help for their alcohol problems if it was offered in the prison. Further Scottish research found that 73% of prisoners had an alcohol-use disorder, with 36% possibly being alcohol-dependent (12). A further breakdown showed differences, with younger drinkers less likely to show habitual and addictive forms of behaviour, which is of importance for the delivery of appropriate interventions (13).

The prison setting is an opportunity to detect, intervene or direct into treatment prisoners who have alcohol problems which may or may not be directly linked to their offences but who are often hard to reach. Prisoners often come from disadvantaged areas where alcohol mortality can be disproportionately high. Tackling alcohol problems in

prison has the potential not only to reduce such problems but also to reduce health inequalities and re-offending.

Effective detection

The first step in addressing an alcohol problem in a prisoner is to be able to identify it. The routine taking of a clinical history can be augmented through the use of a validated alcohol screening tool, although there is limited evidence of the testing of screening tools in the prisoner population. A rapid literature review identified three screening tools as having good validity and reliability in offending populations, although no single tool was identified as superior (12). The WHO Alcohol Use Disorders Identification Test (AUDIT) screening tool (14)(Table 9) was considered to be the most promising, although more than one screening tool may be required for this diverse population. One small-scale study has shown that the timing of the screening may be relevant: screening immediately on reception into prison, a time of competing demand and stress, is perhaps less effective (15).

Effective interventions

Interventions for alcohol problems need to be effective for the type of alcohol problem identified. They can range from brief interventions for hazardous drinking, to cognitive-behavioural approaches for more harmful and dependent drinkers, to pharmaceutical treatment for acute alcohol withdrawal or prevention of relapse. Current evidence about effective interventions in the prisoner population is limited as many studies conflate alcohol and drug problems, making it difficult to identify alcohol-specific outcomes. There is evidence of the effectiveness of therapeutic communities, but only for those with alcohol and drug problems, and they can be costly and time-intensive to provide. The highest quality evidence base is that for alcohol brief interventions. Some studies have been conducted in the wider offender population but the effectiveness of these interventions in prisons has yet to be established (12). There is some limited evidence that alcohol interventions can reduce re-offending (16). Further details about interventions targeting prisoners with an alcohol problem can be found in the WHO publication *Alcohol problems in the criminal justice system: an opportunity for intervention* (17).

Integrated care

The detection and treatment of, and interventions for, alcohol problems in prisons are optimized when delivered with an integrated, person-centred approach. What care is delivered by whom, when and where can be mapped out in an alcohol care pathway. This enables care delivery to be seen as a whole system, promoting appropriate access and continuity of care. The key elements should include screening on arrival, detoxification for those in need, triage, a range of effective interventions and throughcare (12).

Table 9. The WHO Alcohol Use Disorders Identification Test (AUDIT): interview version

1. How often do you have a drink containing alcohol?	6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
(0) Never [<i>Skip to questions 9–10</i>] (1) Monthly or less (2) 2–4 times a month (3) 2–3 times a week (4) 4 or more times a week	(0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily
2. How many drinks containing alcohol do you have on a typical day when you are drinking?	7. How often during the last year have you had a feeling of guilt or remorse after drinking?
(0) 1 or 2 (1) 3 or 4 (2) 5 or 6 (3) 7, 8 or 9 (4) 10 or more	(0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily
3. How often do you have six or more drinks on one occasion? (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily [<i>Skip to questions 9 and 10 if total score for questions 2 and 3 = 0</i>]	8. How often during the last year have you been unable to remember what happened the night before because you had been drinking? (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily
4. How often during the last year have you found that you were not able to stop drinking once you had started? (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily	9. Have you or someone else been injured as a result of your drinking? (0) No (2) Yes, but not in the last year (4) Yes, during the last year
5. How often during the last year have you failed to do what was normally expected from you because of drinking? (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily	10. Has a relative or friend or a doctor or another health worker been concerned about your drinking or suggested you cut down? (0) No (2) Yes, but not in the last year (4) Yes, during the last year

Issues and challenges with alcohol problems in prisons

Alcohol services in prisons, as with all prison health delivery, take place within the constraints of a custodial regime where security and order are necessary. Prisons can often be overcrowded and with a high turnover that

can make access to treatment and continuity of care more difficult to achieve. Many prisoners have other complex needs, such as drug misuse and mental health problems, which can make treatment all the more challenging. Literacy problems can limit understanding of, for example, health education materials, or make self-referral to

services difficult if this has to be by written request. On first arrival, the absence of alcohol in the prison environment and other pressures can mask alcohol problems, except in the case of those who develop alcohol withdrawal symptoms. Prisoners can also be unwilling to admit to alcohol problems at any point in their incarceration. On release, there is the risk of relapse into previous drinking behaviour as prisoners return to their communities.

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16. Tobacco use in prison settings: a need for policy implementation

Michelle Baybutt, Catherine Ritter, Heino Stöver

Key points

- Tobacco is the psychoactive substance most widely used by prisoners, with prevalence rates ranging from 64% to more than 90%, depending on the country and the setting.
- Tobacco use is completely entangled in prison life where it helps to cope with boredom, deprivation or stress, relieve anxiety and tension and function as a source of pleasure or monetary value in an environment without currency.
- Few measures other than the implementation of bans have been taken so far to reduce exposure to second-hand smoke (SHS), indicating the low priority attached to this factor in health promotion in prisons.
- There is limited available evidence for best practice regarding smoking cessation in prison populations. More cessation programmes need to be implemented. Smoking by staff should be addressed systematically in tobacco control policies in prisons. Since the broader public health system should systematically include incarcerated people, national and local tobacco strategies and plans should include prisons.

Introduction

Tobacco is the psychoactive substance most widely used by prisoners, with prevalence rates ranging from 64% to more than 90%, depending on the country and the setting. The rates regarding female prisoners are either comparable or higher (1). Whereas a remarkable decline in smoking prevalence rates has been observed in the general population where tobacco control policies are being implemented (2), no comparable changes have occurred in prisons over the last decades. Smoking prevalence rates in prison populations remain two to four times higher than in the general population.

Prisoners face an elevated probability of being exposed to SHS due to the high prevalence of smokers and the fact that they are often forced to spend most of their time indoors where ventilation is usually poor. This creates a need for effective interventions to reduce involuntary health risks to both detainees and staff.

Main issues: prevalence and exposure to SHS in prison settings

The reported prevalence rates of exposure to SHS in the literature vary according to the setting (prison, jail, remand custody), the country and the study population.

One common trend, however, shows higher prevalence inside prisons (two to four times) or proportions that tally with the proportion of non-smokers outside prison (for example, 75% of smokers inside and 25% outside) (3).

In the United States, it has been reported that 82.5% of male prisoners smoke (4,5). In Australia, values reach 90% or even 97% (6,7). In Europe, high prevalences are reported in: Greece 91.8% (8) or 80% (9), France 90% (10), Germany 88% (11), Lithuania 85.5% (12), Switzerland 83% (13), Poland 81% (14), United Kingdom 78% in London (15) or 89% (16) and Italy 77% (17).

Fewer data are available for women. In the United States, prevalence varies from 42% to 91% (18,19). In Australia, 88% has been reported (20). Values are similarly high in Europe, with 85.3% in Lithuania (21), and 85% in the United Kingdom (22). Smoking is also reported during pregnancy in 66% of women (23).

Almost no data are available for younger prisoners. In the United States, 46.6% smoke daily (24). In Australia, 58% smoke despite a total ban (25).

The situation among staff is also largely unexplored and few data are available. In some countries, the prevalence rates among staff in detention facilities are higher than or comparable to those of the general population. In Canada they are 2.5 times higher in prison (26). In Switzerland, prevalences of smoking among staff ranging from 26% to 55% have been reported (17).

Related to the high prevalence of tobacco-smoking, exposure to SHS is frequent when prisoners spend a lot of their time indoors and in compounds with poor ventilation systems. SHS is known to have health-damaging effects, including an increased risk of heart disease and lung cancer (by 25% to 30%) in non-smokers (27). There is no threshold below which exposure is risk-free, and measures such as separating smokers from non-smokers and improving ventilation are either inadequate or impracticable in most situations and do not provide full protection from SHS (2,28–31).

The introduction of total bans, where the entire compound should be completely smoke-free, and partial bans, where smoking is allowed in cells or designated places indoors or outdoors, have shown improvements in air quality. These

are still insufficient, however, as the detected thresholds of dust particles or nicotine concentrations remain above those detected outdoors or in completely smoke-free areas (28,32,33). Such isolated measures can bring an improvement that remains partial. A more comprehensive approach is needed to reduce SHS further, by helping tobacco-users to change their behaviour and not just regulating the places where they are allowed to smoke or not.

WHO Framework Convention on Tobacco Control (WHO FCTC)

In 2003, the Fifty-sixth World Health Assembly developed the WHO Framework Convention on Tobacco Control (WHO FCTC) (34). This declares that all persons need to be protected from exposure to environmental tobacco smoke (Articles 4 and 8), which in practice includes prisoners and prison staff, as specified in the Guidelines regarding the implementation of Article 8: "Careful consideration should be given to workplaces that are also individuals' homes or dwelling places, for example, prisons, mental health institutions or nursing homes. These places also constitute workplaces for others, who should be protected from exposure to tobacco smoke" (31). A further specific document considers the application of Article 8 in prisons (35).

Reasons for the high prevalence of tobacco use in prisons

Prisons concentrate people who frequently use tobacco and show an important degree of dependence. They often have a lower socioeconomic status, use multiple drugs (including alcohol) and suffer from mental health problems. They are also recognized as the groups resistant to smoking cessation strategies outside (7,9,15,25,36–38).

Another main reason for the high prevalence rates of smoking in prisons is the absence of interventions addressing this issue, specifically among prisoners. Prisons have rarely been included in national tobacco strategies (9,39) and there is still a lack of evidence for best practice regarding smoking cessation among inmates (7).

As with the great majority of all smokers, incarcerated men and women are interested in stopping their tobacco use (40,41). As spontaneous cessation is rare, however, there is a need for a policy to address the characteristics of closed settings and the complex needs of the individuals living and working there.

Even if prisons are considered as places where there are opportunities to equilibrate access to health care services (15,42), effective prevention messages and smoking cessation programmes have not maximized the potential reach to the incarcerated population (5). In most places, quitting remains a lone and environmentally unsupported decision and process.

Smoking cessation programmes are given a lower priority than other health care issues or other substance abuse programmes. It is not uncommon to find, along with highly developed access to health care, inclusive harm reduction and OST for intravenous drug users, an absence of concern or programme addressing tobacco use and a lack of health staff specifically trained to address tobacco cessation support. Tobacco-smoking seems to be the health risk addressed the least compared to abuse of other substances, which are massively overrepresented in prisons (43).

Furthermore, even when they are available, prisoners seem to make little use of treatment programmes for smoking cessation (40,44).

Significance of tobacco use in prison

Smoking is an established and integral part of the culture and a social norm in prisons and other criminal justice settings (7,38,45). Prisons have entrenched cultures that shape the ways in which social relations between prisoners, and between prisoners and staff, are conducted (46,47). A male prisoner in a category C prison in England described the significance of tobacco as "everybody's lifeline in here" (48).

Smoking habits can change in prison, either positively or negatively. For example, a lack of access to tobacco and other factors can be associated with a reduction in the amount of tobacco smoked and/or frequency of smoking (12,22). Conversely, being imprisoned can lead to an increase in smoking behaviour. Factors such as boredom and coping with stress are frequently given by prisoners to explain why they feel a stronger need to smoke while in prison – 40% of Polish prisoners in a survey said that the boredom associated with being in prison encouraged smoking (9,49). Smoking can be seen by prisoners as a way of helping to manage stressful situations such as prison transfers, court appearances and prison visits (49). Lack of family support and missing friends and family have been identified as further reasons why prisoners may feel a need to smoke while in prison (9).

Further, boredom, prolonged periods locked in cells, bullying and stress have also been given as reasons for relapse by prisoners who tried to stop while in prison (49). Cigarettes and tobacco are frequently used by prisoners as currency (38,50) and there are reports that this may apply to medicinal nicotine as well (15,50,51). In some instances, it has been reported that prisoners have gone on to stop smoking programmes in order to obtain nicotine replacement therapy to sell to other prisoners while they themselves continue to smoke (15). Nicotine patch exchange schemes have been introduced into some prisons in response to this problem (51). Some prisons

insist on the use of transparent patches to prevent the concealment of illicit substances.

Offenders often show other challenging issues in addition to smoking, including addiction to other substances. Social and interpersonal difficulties can also affect their motivation and ability to stop smoking (22,52,53).

Learning difficulties and high rates of low educational attainment among prisoners (54) can have an impact on their ability to access services through the application process, in addition to coping with complex health information materials (55) which frequently do not translate easily to the prison setting.

The transient lives of prisoners can provide additional challenges in terms of engaging them and keeping them in contact with smoking cessation services as well as the continuation of support and counselling (51,56). The post-release period is particularly challenging and a stressful time of readjustment. Smoking cessation services should, therefore, plan for the likelihood of transfers (49) by ensuring that medical records are transferred with prisoners together with a short supply of pharmacotherapy to last until prescribing can be renewed at the new location (51). Linking community smoking cessation services with prison programmes could offer post-release support and thus reduce rates of relapse (44,52).

On the other hand, qualitative research conducted in United Kingdom prisons has revealed that many prisoners want to achieve something while in prison and view stopping smoking as a big achievement (51). Prisoners have described being in prison as an opportunity to access stop smoking services and nicotine replacement therapy (57).

Resistance and negative attitudes to smoking cessation in prisons can be based on the belief that stopping smoking, especially if this is enforced through smoking restrictions, would place an intolerable burden of stress on prisoners at an already stressful time (58). Mitigating stress and boredom among prisoners should be considered as part of stop smoking initiatives. Since physical exercise has been described by prisoners as a substitute for smoking, these could include improved access to gym facilities or sporting activities, for example, as part of a joint response across the prison setting (49).

While not primarily concerned with the health of the prison population, prisons have a duty of care for those they hold in detention. In relation to smoking, this should include the promotion and support of cessation for those smokers wishing to stop, protecting non-smokers from starting to smoke and protecting prisoners, staff and visitors from exposure to passive smoke. Tackling smoking

is difficult in an environment where it is an established and integral part of the culture and social norms, widely used in social rituals to relieve boredom and stress, and in which tobacco is often used as currency (7,38,45).

Addressing smoking among the offender population should not be limited to prisons, as smokers awaiting trial or on probation after serving a sentence may also need help and support. It is well recognized that addressing inequality issues through an engagement with stop smoking initiatives with offenders will have improved health outcomes for their families and the wider communities in which they live. A current study in the north-west of England addresses these issues by looking at the organizational and systems perspectives across a series of criminal justice settings in relation to tobacco control and stop smoking support and treatment (Box 3).

Tobacco use by prison staff

Tobacco is particular in the sense that it is the only psychoactive substance visibly used by prison staff. The regulations regarding their use of tobacco while at work vary greatly between countries, ranging from total prohibition to smoking being allowed in designated areas, even indoors (Germany, for example) (37). The United Kingdom is an example of how support for smoking cessation is sometimes available and included as a health promotion target for staff (59). It is particularly important to gain a better acceptance of regulations. Staff have been shown to be resistant to changes in smoking policy (60), with non-smokers being more supportive of a ban (61). As part of a whole-prison approach, staff should systematically be included in tobacco control policies in prisons and supported in their attempts to stop (62).

Addressing the smoking issue in prisons

Prison administrators should address the tobacco issue in cooperation with prison health staff and tobacco cessation specialists from the regional network, to ensure the inclusion of the various components of an efficient policy and, in particular the regional regulations prevailing outside prison, cessation support, training of medical and prison staff, and education of prisoners about tobacco and the consequences of its use (63,64). Confusion over ownership of the smoking problem between the health department and custodial authorities has to be avoided. The importance of a whole-prison approach managed through a multidisciplinary team is also underlined (65).

A study completed in 2011 in prisons in Germany included the design of a tobacco control policy in prisons (66). It is intentionally addressed to prison administrators, to guide their reflections on and implementation of comprehensive tobacco control policies in their institutions.

Box 3. Case study: local action for tobacco control: criminal justice setting, United Kingdom (England and Wales)

Background

In England and Wales, over 80% of men and women in prison are smokers, compared to general population levels of around 21% (20,22,36,37). Similar levels are apparent in police custody and probation, although there is less information available. A strong case for addressing tobacco control issues in prisons and the wider criminal justice setting is increasingly being recognized (67,68), with positive effects on public health as individuals move in, through and out of criminal justice settings.

Prisoners' health has been a responsibility of the National Health Service since 1995. The aim is to give prisoners access to the same range and quality of health care services as the public receives in the community (69,70). Support to stop smoking is commissioned by primary care trusts and provided in a variety of ways, typically by specialists going into prisons or by prison health care staff being trained and supported by community stop smoking services. Cessation work with other categories of offender, such as those in custody or on probation, is minimal. Common areas in prisons are smoke-free but prisoners may smoke in their cells in adult prisons, with issues recognized in relation to shared cells and staff exposure on entering cells.

Achievements

With the innovative appointment of a tobacco control coordinator for the North West Region, the project (2010–2011) has focused on organizational systems in prisons, probation and police custody and the relevant health commissioners and providers in relation to tobacco control and stop smoking services and treatment. This project is part of the Health Inequalities Programme funded by the Department of Health and led by the United Kingdom Centre for Tobacco Control Studies (a United Kingdom public health research centre of excellence and a strategic partnership of nine universities involved in tobacco research in the United Kingdom) (71).

A wide range of activities have encompassed: (i) a rapid review of literature (72); (ii) initial mapping of cessation activity across 16 prisons in the north-west of England, which highlighted a wide variety of models for the provision of stop smoking services – all establishments have smoking policies in place as required in Prison Service Order 3200, Health Promotion (73); and (iii) five in-depth case studies, which provide a focus on the key issues of tobacco in varied criminal justice settings.

Key project outputs have included the development of a Stop Smoking Training Framework for Prisons, a service delivery framework for stop smoking services in prison, a nicotine replacement therapy protocol for prisons to provide consistency and a data collection reminder paper.

The tobacco control coordinator was an active participant in various regional meetings and tobacco control local alliances. This made it easier to raise awareness of tobacco control issues in criminal justice settings for health care commissioners and providers and to help establish tobacco control issues on the broader criminal justice agenda.

Conclusion

This project is evidently unique and, with its emphasis on the role of a project coordinator, many strengths have been identified which are clarified in its evaluation, including acting as a conduit for information-sharing and knowledge transfer, supporting the development of services and networking. The coordinator has provided a proactive and consistent voice in a range of health and criminal justice settings. It is vital that these strengths are disseminated directly to a variety of audiences including the criminal justice system, agencies providing smoking cessation support and relevant geographical alliances, whether or not additional funding for a separate role can be identified. More information on the project can be found on the web site (72).

Source: Baybutt M, MacAskill S, Woods S. Report of North West Case Studies of Best Practice and Innovation, 2011. Prepared as part of the Tobacco Control in Prisons and Criminal Justice Settings: Regional Coordination Pilot Project (unpublished document).

Outline of a tobacco control policy in German prisons

Introduction¹³

In 2011, a study was undertaken in German prisons, supported by the Federal Ministry of Health, with the aim of proposing a sustainable tobacco control policy in German prisons.

The objectives of the policy are to improve the living and working conditions of prisoners and staff by creating a better health-promoting environment, in particular to reduce their exposure to SHS, to support smoking reduction and cessation attempts, and to optimize cooperation between health services and prison administrators.

Some of the elements presented here might not be adaptable to the exact situations prevailing in other countries, where different degrees of protection against exposure to SHS might already have been implemented.

The policy is aimed at prisoners and staff. It consists of six modules: (i) general principles of the policy; (ii) regulations; (iii) health education and training; (iv) individual support to reduce or stop smoking; (v) networking with tobacco prevention experts; and (vi) a checklist.

General principles of the policy

The concept is based on the following principles.

According to the regional laws protecting against SHS (Germany counts 16 regions and laws) smoking is only allowed in designated areas. The cell is considered a private area. Smoking is prohibited when numerous people, including non-smokers, are together in the same area (74).

Isolated measures are insufficient. Examples are: the availability of therapeutic services with no account taken of the environment; or the implementation of smoke-free regulations alone, when they should be supplemented by therapeutic and counselling services, efficient networking and staff training.

Regulations for protection against SHS or for smoke-free areas should be as comparable as possible with those prevailing outside prisons (in the corresponding area). This allows for greater acceptance by everyone involved and prepares prisoners for their return to life outside prison, since they are familiar with the same rules. In this respect, efforts to accept measures for protection against SHS are part of social reintegration.

A health promotion officer should be designated in the prison and trained to implement the tobacco control policy and develop advice, reduction and cessation programmes for both prisoners and staff.

Tobacco use and protection against exposure to SHS should be tackled as part of health promotion in the workplace. It is a crossover issue and requires concerted work with clearly defined responsibilities for the health services, prison staff representatives, prison administration and representatives of prisoners.

Tobacco is often used together with other substances. Tobacco control should, therefore, be included in the implementation of comprehensive addiction strategies at institutional, regional and national levels.

Campaigns that are organized outside prison can also be implemented inside prison, in particular activities during the World No Tobacco Day on 31 May (75) or, for example, during a one-week campaign before or after that date, when prisons can focus on tobacco issues.

Smoke-free regulations

Prison regulations should be checked for their inclusion of rules governing exposure to SHS. Non-smokers should not share cells with smokers. Smoke-free floors should be established, with specific smoke-free cells available for prisoners on the first day of their arrival in the prison. The smoke-free regulations covering the working areas should be implemented and endorsed uniformly, especially regarding breaks. Working areas and toilets should be smoke-free, in line with the law prevailing outside prison.

Health education and training

Information should be available about the consequences of tobacco use and reducing or stopping it. Each region should provide education and training for staff. Unfortunately, the tobacco use issue is still rarely systematically included in training programmes, meaning that interested prison and health staff have to find out by themselves where such training is available.

Individual support to reduce or stop smoking

Support in reducing or stopping smoking should be available to individual prisoners and staff members, as follows.

Prisoners should actively and regularly (at all stages of detention) be approached about their smoking behaviour.

Support should be available for prisoners seeking to reduce or stop their use of tobacco. Such support should be

¹³ This policy was prepared by Catherine Ritter and Heino Stöver in 2012 as part of a research project on tobacco prevention in prisons.

developed according to the uses and resources available in each setting (for example, access to medication either free of charge or with shared costs).

Staff should be told about the smoke-free regulations applying to them when they start work in the detention setting. These regulations should be one of the main principles in each setting.

As a general rule, staff should not smoke with prisoners, especially not in their cells. This is to avoid giving a false impression of solidarity, to respect prisoner' private space and to avoid hiding when smoking has been banned indoors.

Conversations between prisoners and staff should take place in rooms other than cells occupied by smokers (74).

Cells should be intensively aired before they are searched and prisoners should be asked to refrain from smoking when staff are present.

The motivation for staff to reduce or stop using tobacco should be regularly tested. Smoke-free workplaces promote smoke-free homes, which further protect families and strengthen smoking cessation attempts in general.

To avoid the promotion of smoking while at work, there should be no indoor smoking areas and tobacco use should be limited to designated places outdoor and during breaks (even where it is legally permitted to smoke indoors, as in Germany (76,77)).

A qualified professional should be available to provide support for individuals trying to reduce or stop their smoking.

Rewards (or contingency management) could be introduced as part of the support for people trying to stop smoking, such as a half-day off for non-smokers.

Networking with tobacco prevention experts

Cooperation with competent and qualified experts in tobacco use, reduction and cessation should be sought and developed at local or national level. This is important and useful for the provision of training materials (in particular for vulnerable groups, such as young people) and in certain facilities such as prison hospitals.

Checklist

A checklist is useful in reviewing the situation regarding exposure to SHS and efforts to reduce it. It clarifies which points in this policy have been achieved and which need closer attention (Fig. 6).

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Fig. 6. Suggested checklist for reviewing exposure to SHS

<p>If you answer one or more questions with "No", you are recommended to look up those particular aspects with the help of specialized literature or local experts in tobacco-related issues.</p>		
Prisoners		
<i>Smoke-free regulation</i>		
Is protection for prisoners against exposure to SHS discussed with the medical unit?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is protection for prisoners against exposure to SHS discussed with their representatives?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Has a person been nominated to be in charge of protection against exposure to SHS or of health promotion among the prisoners?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are experts in protection against exposure to SHS involved, for example in a local network?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are there smoke-free regulations?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are the regulations endorsed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Do non-smoking prisoners have systematic and straightforward access to smoke-free cells?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are the work areas smoke-free?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are the toilets smoke-free?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are the indoor break rooms smoke-free?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<i>Health education</i>		
Are the sources of information on tobacco use (consequences, cessation) known?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is information on tobacco use (consequences, cessation) regularly and proactively distributed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are prisoners involved in the transmission of information to other prisoners?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<i>Training</i>		
Are the staff (health, social or prison) trained in health education regarding tobacco use?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are the health staff trained to support prisoners trying to reduce or stop their tobacco use?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is the nominated person in charge of prisoners' protection against exposure to SHS trained in this issue?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<i>Individual support to reduce or quit smoking</i>		
Is it easy for prisoners to get access to help in reducing or stopping tobacco smoking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are prisoners regularly approached to reduce or stop their tobacco smoking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Staff		
<i>Smoke-free regulations</i>		
Is protection for staff against exposure to SHS discussed with the medical unit?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is protection for staff against exposure to SHS discussed with their union or representatives?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Has a person been nominated to be in charge of protection against exposure to SHS or of health promotion among the staff?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are experts in protection against exposure to SHS involved, for example in a local network?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are there smoke-free regulations?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are the regulations endorsed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are staff protected against exposure to SHS outside the cells?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is the purchase of tobacco impossible at work?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are staff restricted to smoking in their breaks in designated areas outdoors?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are staff restricted to smoking in their breaks?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<i>Health education</i>		
Are the sources of information on tobacco use (consequences, cessation) known?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is information on tobacco use (consequences, cessation) regularly and proactively distributed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<i>Training</i>		
Is the tobacco issue addressed in staff training?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is the nominated person in charge of staff protection against exposure to SHS trained in this issue?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<i>Individual support to reduce or quit smoking</i>		
Is it easy for staff to get access to help in reducing or stopping tobacco smoking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are staff regularly approached to reduce or stop their tobacco smoking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

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Vulnerable groups

17. Prisoners with special needs

Alex Gatherer, Tomris Atabay, Fabienne Hariga

Key points

- All prisoners are potentially vulnerable people, with individual health and care needs requiring proper assessment and management.
- Prison populations in many parts of Europe are becoming increasingly complex with regard to special needs.
- Overcrowding has a negative impact on the physical and mental health of prisoners, and particularly on the health of prisoners with special needs, posing additional challenges to prison authorities.
- Two major requirements in dealing with prisoners with special needs are: (i) a skilled assessment as part of the admissions procedure; and (ii) a suitable staff recruitment and training policy so that the staff who work in prisons are enabled to respond appropriately and effectively to special needs.
- An individualized approach is essential.
- Needs are not static, so re-assessments are necessary throughout the whole term of imprisonment. New needs emerge, such as those relating to the rising number of older prisoners in prison.
- It is not possible in prisons to deal satisfactorily with people with severe special needs that require facilities and skilled attention which are only available in specialist institutions.
- Admission of severely ill or disabled people to prison should be avoided and only used as a last resort.
- Diversion schemes and other alternatives to imprisonment should be used more widely and consistently than at present.

This chapter concerns prisoners with specific needs associated with their disability, minority status, nationality, sexual orientation and age. Prisoners with mental health care needs (another large group with special needs) are covered extensively in Chapter 11, and a more detailed discussion of the health care needs of older prisoners is included in Chapter 19.

The starting point in the discussion of prisoners with special needs today must be the recognition of the growing complexity of prison populations. Nearly all prisoners may have special needs, all are vulnerable to a greater or lesser extent and the vast majority come from difficult and deprived backgrounds, with personal histories which can considerably influence the care and treatment they require. Thus it is essential to give priority

to the reception process, the early days in prison and the health and other relevant assessments.

Many prisoners have needs that require special consideration. Women, young people and prisoners with mental health care needs are important examples. This chapter looks at prisoners who have special needs due to their disability or age, or because of their ethnicity, indigenous or minority status, nationality or sexual orientation, which present diverse and challenging needs. For those whose health care requirements are most difficult to meet within a prison, the correct approach is early appreciation of their needs and a diversion scheme to admit them to places equipped to provide them with appropriate care. This has become increasingly well-recognized for those with severe mental ill health or advanced illnesses where it is not possible to provide the level of expertise and care necessary within the restrictions of a prison service. However, diversion schemes remain underdeveloped in many parts of Europe, which increases the pressures on criminal justice systems to meet the requirements of those with considerable needs who have to remain in prison.

International standards

This chapter is mainly based on the UNODC *Handbook on prisoners with special needs* (1), which goes into greater detail and includes important information about the definitions of the conditions and groups being considered, the background and size of the problem, the relevant international standards and examples of good practice.

Some relevant provisions from two of the key international treaties which are relevant to all of the groups covered in this chapter, including their health and care requirements, are quoted below. These instruments, and other standards relevant to specific groups, prohibit any discrimination in ensuring that everyone, including prisoners with diverse backgrounds and needs, enjoys the right to the highest attainable standard of physical and mental health:

International Covenant on Civil and Political Rights
Article 26

All persons are equal before the law and are entitled without any discrimination to the equal protection of the law. In this respect, the law shall prohibit any discrimination and guarantee to all persons equal and effective protection

against discrimination on any ground such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status. (2)

International Covenant on Economic, Social and Cultural Rights
Article 12(1)

The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health. (3)

General principles of care

Prison systems are required to protect the physical and mental health and well-being of prisoners. This challenging task, within often old and overcrowded institutions, can only be tackled in accordance with the general principles of care stressed throughout this guide. These include: respect for the individuality of each prisoner; the importance of a holistic approach; the essential need for basic care such as adequate nutrition, exercise and constructive use of time; maintenance of contacts with family and friends; and a basis of hope for the future.

Treatment in prisons

The medical examination on entry into prison should reveal whether a prisoner has special needs. If this is the case, a fuller assessment is necessary so that a diagnosis and plan of treatment can be prepared. Even in countries with good resources and with an established national health service, it is unlikely that the prisoner will be carrying a health notice drawing attention to a health condition or allergy, but these should be investigated and their presence or absence noted. If the prisoner is a non-national, and has brought medicines from his or her country of origin, these should be discussed with the prison's pharmacist or brought to the attention of a medical member of the prison health team so that local equivalents can be obtained in good time.

The treatment to be provided should be confirmed in writing by the health team and should clearly indicate the quantity and frequency of treatment. The quality of the treatment is generally measured as equivalent to that provided for citizens in the local community. It is not possible to meet every special demand as some may be unrealistic or unreasonable. All requests should, however, be carefully considered and where they are impossible to meet, a record should be made of what was asked for with an explanation as to why the request could not be met. The standard of treatment must be enough to meet the requirements of the illness and must comply with established medical opinion.

A suitable prison or place of detention

Prison authorities are obliged to recognize that prisoners with special needs should be admitted to prisons capable of handling the needs and providing the necessary care. This can create problems for prison staff who have no say in who is sent to the prison and often have little warning as to the special needs involved. It is essential, therefore, that the whole criminal justice system should be alert to plans for dealing with prisoners with special needs. Where there is serious mental illness, there should be a possibility of diversion at an early stage of the criminal justice process to a place with the specialist psychiatric facilities necessary for the treatment of that prisoner. Responding to the needs of prisoners with severe physical disabilities or with more than one serious health or other problem can be very challenging. While it is not possible to plan for every rare condition, a whole criminal justice system plan for the more common conditions with advice on what to do in emergency situations is becoming an essential part of a well-managed prison health care system.

A proper manner of detention

With reference to a proper manner of detention, the European Court of Human Rights issued a judgment in the case of Feher v. Hungary (2013) which is applicable to all prisoners, including those with special needs. The Court stressed that States must ensure that "the manner and method of the execution of the measure do not subject the individual to distress or hardship of an intensity exceeding the unavoidable level of suffering inherent in detention" (4). The proper manner of detention will depend on the training of all staff working in prisons and on the ethos of the prison as developed by the senior management team. It also requires the embedding of knowledge and attitudes which will be conducive to meeting the above requirements as regards all prisoners with special needs. The importance of staff training has led to the inclusion of a chapter on the subject in this guide. The additional requirement for meeting special needs is to conduct joint training and multidisciplinary training in the training programme, in order to improve the capacity of the staff to respond to the sometimes complex needs of individuals with special needs in the most holistic and effective way.

Some important messages

The difficulties encountered by policy-makers, courts and prison authorities when trying to meet the needs of offenders with special needs encourage an approach which looks carefully at the following points. First, prisons must meet the needs of the clear majority of prisoners, who are relatively young and relatively lacking in handicapping conditions. Second, imprisonment should as a general principle be considered as a last

resort. This is particularly important in the case of older or severely handicapped people: alternatives to prisons and community sentences need serious consideration and are often the best way to ensure the most humane and acceptable way to carry out the decisions of the courts. Third, when assessing the suitability of the necessary treatment in a suitable place and in the desired manner, it should be remembered that prisons inevitably magnify the individual's problems. Fourth, regular monitoring and reassessment is necessary as illnesses can become more serious and disabilities more complicated over time. Fifth, most prisoners with special needs have more than one serious condition and several challenging needs, which need to be assessed and treated in a holistic manner. Finally, while prison staff are becoming more professional and their training and continuing training will probably increase, many prison systems find it difficult to recruit suitable people willing to work in prisons, especially as their status and remuneration are limited. In providing quite complicated treatment regimes, and in the need to have knowledge and understanding of the wide range of problems involved, the quality of staff must be a key priority and they must receive considerable skilled support before prisoners with special needs can be satisfactorily catered for in most prison systems.

Prisoners with physical disabilities

An increasing number of prisoners have physical disabilities, in part due to the ageing of prison populations. The adoption of the United Nations Convention on the Rights of Persons with Disabilities (5), which entered into force in May 2008, has introduced clear obligations to prison authorities and health care services in relation to the treatment and care of prisoners with disabilities. In particular, Article 25 of the Convention covers the health care rights of persons with disabilities, as follows:

States Parties recognize that persons with disabilities have the right to the enjoyment of the highest attainable standard of health without discrimination on the basis of disability. States Parties shall take all appropriate measures to ensure access for persons with disabilities to health services that are gender sensitive, including health-related rehabilitation. In particular, States Parties shall: (a) Provide persons with disabilities with the same range, quality and standard of free or affordable health care and programmes as provided to other persons, including in the area of sexual and reproductive health and population-based public health programmes; ...

Recommendation No. R (98) 7 of the Council of Europe Committee of Ministers (Concerning the Ethical and Organizational Aspects of Health Care in Prisons), paragraph 50, provides important guidance on the

accommodation of prisoners with disabilities and older prisoners (6):

Prisoners with serious physical handicaps and those of advanced age should be accommodated in such a way as to allow as normal a life as possible and should not be segregated from the general prison population. Structural alterations should be effected to assist the wheelchair-bound and handicapped on lines similar to those in the outside environment.

See the *Handbook on prisoners with special needs* (1) for other relevant provisions and additional international standards of relevance.

Health issues

Prisoners with physical disabilities require access to some services which may not be available in every prison, such as physiotherapy, occupational therapy, and regular dental, sight and hearing tests and aids. Close cooperation with community health care services is essential to ensure that such services are offered to prisoners according to their needs. The particular health problems which can arise in the case of, for example, prisoners in wheelchairs or with limited mobility, include pressure sores which must be detected early, suitably treated and deterioration prevented.

Some prisoners with disabilities, especially those with sensory disabilities, are at risk of developing mental health care needs, as the isolation experienced by such individuals may be intensified in the prison environment. Taking into account the problems with communication faced by prisoners with sensory disabilities, assistance should be provided to ensure that they have equal access to counselling programmes.

A suitable prison

Careful assessment will be necessary to check that people with physical disabilities can cope with the arrangements of the prison, such as stairways, beds, access to toilets and bathing facilities, and access to prison programmes and leisure rooms. As recommended by the Council of Europe (see above), structural adjustments may need to be made to accommodate the needs of prisoners with physical disabilities. For example, handrails can be provided in their cells, bright colours may be used for steps to make them visible for those with visual disabilities, and ramps can be introduced to facilitate the access of those using wheelchairs.

A proper manner of detention

Those with disabilities are highly vulnerable to humiliation and violence. Plans to tackle such stigma, discrimination

and bullying must be part of the prison coping mechanism for such prisoners, reflected in prison staff training.

Ethnic minorities and indigenous peoples

In many countries, ethnic minorities and indigenous peoples are overrepresented in prisons. This is important to remember in assessing the treatment and care plans for these groups in prison. Why this occurs could be a useful topic for discussion among staff as part of their continuing training. It is important that there should be no discrimination in the treatment of members of these groups, including in responding to their health care needs which, in practice, requires some additional considerations to be taken into account.

The International Convention on the Elimination of All Forms of Racial Discrimination, *General recommendation XXXI on the prevention of racial discrimination in the administration and functioning of the criminal justice system*, Article 38, states the following (7):

38. When persons belonging to the groups referred to in the last paragraph of the preamble are serving prison terms, the States parties should:

(a) Guarantee such persons the enjoyment of all the rights to which prisoners are entitled under the relevant international norms, in particular rights specially adapted to their situation: the right to respect for their religious and cultural practices, the right to respect for their customs as regards food, the right to relations with their families, the right to the assistance of an interpreter, the right to basic welfare benefits and, where appropriate, the right to consular assistance. The medical, psychological or social services offered to prisoners should take their cultural background into account; ...

A full outline of the definitions differentiating these groups can be found in the *Handbook on prisoners with special needs* (1).

Health issues

An understanding of the needs of ethnic minorities and indigenous peoples will involve some awareness of the differences in traditions, religion and language. Some members of these groups may not speak the language most commonly spoken in the prison. It is essential that interpretation services are provided during their medical examinations and consultations and that written and visual information on health care be available in the languages of minority groups most commonly represented in prisons. The relationships of these groups with health teams can be complicated by the discrimination they have experienced, or feel they have experienced, as well as the

physical and verbal abuse they may have been subjected to. Voluntary agencies who work on issues related to the needs of these groups can be of assistance.

Members of these groups may have special health care needs as a result of their socioeconomic marginalization in many societies. They are generally likely to have received inadequate medical care prior to imprisonment, and they may be at a higher risk of some conditions, such as STIs and health problems relating to substance abuse. There should be no differences in medical or nursing care otherwise, but respect and trust between them and the health teams have to be deliberately strengthened.

A suitable prison

The location (distance from place of origin) of the prison may have an impact on the mental well-being of members of some indigenous groups, as the family is central in some indigenous societies and critical to the well-being of the individuals. The breaking of family and community ties can have a particularly harmful effect on the mental health of members of indigenous groups, especially women.

A proper manner of detention

The proper manner of detention is key in meeting the needs of ethnic minorities and indigenous peoples. The attitudes of the staff and their understanding of diversity must be part of their continuing training. In addition, the assessment and allocation of these prisoners should aim to ensure that they are not accommodated with any other prisoners who may pose a risk to their safety, such as prisoners who are known to have racial or ethnic prejudices or backgrounds involving violence against minority groups.

Foreign prisoners

In recent times, there has been a marked increase in the number of foreign nationals in prisons in western Europe. Prison services are, therefore, likely to have policies and plans in place to meet their general needs. In its *Recommendation No. R (84) 12 concerning foreign prisoners* of 1984, the Council of Europe made specific recommendations on the treatment of foreign prisoners, requiring (among other things) that, as far as possible, authorities take measures to counterbalance disadvantages faced by this group of prisoners (8). This requirement applies to health care needs, which may sometimes differ from those of the national prison population:

13. Foreign prisoners, who in practice do not enjoy all the facilities accorded to nationals and whose conditions of detention are generally more difficult, should be treated

in such a manner as to counterbalance, so far as may be possible, these disadvantages.

Health issues

The most serious challenge for foreign prisoners is communication. It is essential that prison services make every effort to provide interpretation during medical examinations (as necessary), to prevent misunderstandings and health complications. This is also important to reassure foreign nationals, who do not speak the language of the country in which they are imprisoned, that their needs are being taken seriously. Nevertheless, the possibility of misunderstanding has to be remembered and follow-up of discussions with the health team may be necessary. Assessments should take into account the possible presence of a tropical disease or one that is endemic in the country of origin but rare in the country of imprisonment. Specialist help in diagnosis and the drawing up of treatment plans may be necessary.

It is more important than ever that information, health information, health promotion and harm reduction materials (leaflets, audiovisual materials) should be made available in different languages and using vocabulary adapted to the level of education of the prison population.

A suitable prison

Being imprisoned in a foreign country can complicate the maintenance of family contacts or planning for discharge. While it is not easy to see a remedy, the prison authorities could try to compensate by allowing foreign prisoners to make more telephone calls home and at more flexible times, facilitating contact by technical aids such as skype where feasible, and allowing longer than usual visits for family members travelling from abroad. A transfer of the prisoner to his or her country, if not a resident in the country of imprisonment, should be discussed with the prisoner at an early stage and transfer procedures started if he or she wishes such a transfer. Countries may have bilateral agreements to exchange or repatriate detainees, and such arrangements should be fully deployed on health grounds when necessary.

A proper manner of detention

Most prison staff are likely to share their native country's attitudes and prejudices, so it is a further challenge for them to understand and accept the diverse backgrounds of people in the prison. Yet all prisoners, without discrimination, must be treated in the same way by all those working in the prison. Prison policies which do

not tolerate any kind of discrimination together with the training and continuing training of staff are crucial in this regard. Once again, the assessment and allocation of foreign prisoners should aim to ensure that they are not accommodated with prisoners who may represent a risk to their safety due, for example, to nationalistic views and violence based on such views.

Lesbian, gay, bisexual and transgender prisoners

Lesbian, gay, bisexual and transgender (LGBT) prisoners comprise a particularly vulnerable group, due to the heightened risk of discrimination and abuse in the closed environment. In comparison to other groups covered in this chapter, this group has the further complication that in some countries, sex relationships between consenting same sex adults are criminalized under various morality or other laws. It is, therefore, of great importance that there are top-level policies on how to deal with this particularly vulnerable group in prisons.

The relevant international standards relating to the treatment of LGBT persons in prisons are summarized in the *Yogyakarta Principles on the Application of International Human Rights Law in relation to Sexual Orientation and Gender Identity*, principle 9: the right to treatment with humanity while in detention (9),¹⁴ extracts from which are provided below:

STATES SHALL:

- A. Ensure that placement in detention avoids further marginalising persons on the basis of sexual orientation or gender identity or subjecting them to risk of violence, ill-treatment or physical, mental or sexual abuse;
- B. Provide adequate access to medical care and counselling appropriate to the needs of those in custody, recognising any particular needs of persons on the basis of their sexual orientation or gender identity, including with regard to reproductive health, access to HIV/AIDS information and therapy and access to hormonal or other therapy as well as to gender-reassignment treatments where desired; ...

See the *Handbook on prisoners with special needs* (1) for the definitions of each group and other important information.

Health issues

The major difference in terms of health needs for this group concerns the possibility of STIs, since often they will

¹⁴ In 2006, a set of international legal principles on the application of international law to human rights violations based on sexual orientation and gender identity was developed by the International Commission of Jurists and the International Service for Human Rights, on behalf of a coalition of human rights organizations, in order to bring greater clarity and coherence to states' human rights obligations. Following an experts' meeting held in Yogyakarta, Indonesia, from 6 to 9 November 2006, experts from 25 countries unanimously adopted the Yogyakarta Principles on the Application of International Human Rights Law in relation to Sexual Orientation and Gender Identity (The Yogyakarta Principles).

have engaged, or been forced to be engaged, in a lifestyle that includes risky behaviour. With LGBT prisoners being at high risk of rape, they are also at high risk of acquiring HIV/AIDS in prisons. The health team will advise on detection and assessment as well as on therapeutic regimes. Transgender prisoners having undergone surgery might need specific attention and specialized care.

Prisoners with gender dysphoria should be provided with treatment available in the community, such as hormone therapy, as well as psychological support if required.

LGBT prisoners may also be in need of counselling for mental health needs associated with victimization.

There should be close collaboration with community-based organizations working on LGBT issues and specialized health care services to ensure that additional specialist help from outside the prison, including professional staff with added experience and skills in this field, is available to assist with the health care of these prisoners so as to meet the possible requirements mentioned above effectively.

A suitable prison

The vulnerability of these prisoners, especially to violence (including sexual violence), has to be carefully assessed in terms of allocation of prisoners within the prison. While this is essentially a matter for the prison management, the health team should make it clear that safety is essential to protect their mental health and physical integrity and that protection and support are important requirements, if treatment of any illness is to be effectively provided.

A proper manner of detention

As indicated above, staff will need the guidance of national policies and the leadership of senior management in providing a proper manner of detention. The prisoners themselves will not usually report victimization, aggression and humiliation as they are too well aware of retaliation. An essential principle of classification and allocation should be to house LGBT prisoners in whichever environment will best ensure their safety, while endeavouring to avoid segregation or isolation to the maximum possible extent unless the prisoners themselves request it. In the allocation of such prisoners, their wishes and concerns should be taken into account as far as possible, especially in the cases of transgender prisoners. When transgender prisoners are accommodated according to their birth gender, especially when male-to-female transgender prisoners are placed with men, this can pave the way to sexual abuse and rape.

Older prisoners

In many countries, older prisoners form a growing proportion of the prison population. The dividing line is often taken to be 50, 55 or 60 years because of the belief that vulnerable populations tend to have accelerated ageing by about 10 years. While there are no specific standards which apply exclusively to older prisoners, Council of Europe Recommendation No. R (98) 7 (6) referred to above includes some provisions which apply to older prisoners. Articles 13 and 14 of the United Nations Principles for Older Persons cover the needs of all older individuals, including prisoners (10):

13. Older persons should be able to utilize appropriate levels of institutional care providing protection, rehabilitation and social and mental stimulation in a humane and secure environment.

14. Older persons should be able to enjoy human rights and fundamental freedoms when residing in any shelter, care or treatment facility, including full respect for their dignity, beliefs, needs and privacy and for the right to make decisions about their care and the quality of their lives.

See also Chapter 19 of this guide.

Health issues

Prisoners sentenced when they are older may receive different treatment from that for prisoners who age in prison. In the former case, there may well be a considerable medical history to check on admission, and many may be on long-term preventive medication such as aspirin or cholesterol-reducing medicines. As prisons are obligated to protect the physical and mental health of the prisoners, the principle of continuum of care should be applied and the treatment provided outside prison continued, while also taking into account any findings of the health assessment carried out on admission. The impact of unhealthy life styles and inadequate medical attention in the years leading up to imprisonment should be borne in mind. Older prisoners may typically suffer from chronic and multiple health problems, including heart and lung problems, diabetes, hypertension, cancer, Alzheimer's disease, Parkinson's disease, ulcers, poor hearing and eyesight, memory loss and a range of physical disabilities including dental problems and related mastication difficulties. Alcohol abuse has also been identified as a widespread problem among this group. In addition, depression and fear of dying, and particularly dying in prison, affect the mental well-being of older prisoners. As a result, older prisoners are likely to require a number of health care services, including medical, nutritional and psychological treatment. Thus, the health care of older prisoners necessitates the engagement of

a multidisciplinary team of specialist staff, including a medical specialist, nurse and psychologist as a minimum. Prison authorities need to establish close cooperation with community health services to ensure that specialist care is provided by outside medical services, as necessary.

It is advisable for the admissions procedure to include a screening tool to establish any physical difficulties (such as impaired hearing and vision and decreased mobility) experienced by the prisoner so that adequate medical care and assistance can be provided.

Prison authorities should ensure that special dietary needs are catered for to maintain the health of older prisoners and to prevent serious health complications.

A suitable prison

In most countries there is as yet no upper age limit as regards imprisonment, but the physical demands need to be considered against the probable development of incapacity in older prisoners. As with a number of the groups covered in this chapter, alternatives to imprisonment should be considered wherever possible, taking into account the probable harmful impact of imprisonment on older prisoners and the costs associated with catering for their multiple health care needs.

As older prisoners are also likely to include a high proportion of prisoners with physical disabilities, structural alterations may need to be made to their accommodation to facilitate their mobility in the prison and protect them from accidents.

A proper manner of detention

Council of Europe Recommendation No. R (98) 7 recommends that prisoners "of advanced age should be accommodated in such a way as to allow as normal a life as possible and should not be segregated from the general prison population" (6). The determination of suitable accommodation should be based on a careful assessment of individual needs. In general, allowing older prisoners to live with the general prison population is important to protect them from isolation and to ensure their access to all the programmes and activities offered in the prison. At the same time, account needs to be taken of their special accommodation requirements referred to above.

The day-to-day difficulties which may be faced by older prisoners are likely to be readily understandable to staff as most societies now have a proportion of elderly people in their midst. Such prisoners could well also deteriorate more rapidly in prison, both physically and mentally, with loss of hearing or problems with memory or eyesight. Issues of this kind should be revealed through regular monitoring.

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18. Women's health and the prison setting

Brenda van den Bergh, Emma Plugge, Isabel Yordi Aguirre

Key points

- Female prisoners are a minority within prison populations worldwide, usually accounting for between 2% and 9% of the prison population in a country.
- The majority of offences for which women are imprisoned are non-violent and property- or drug-related. Female prisoners mainly serve short sentences.
- Many women in prison are mothers and usually the primary or sole caregivers for their children.
- Female prisoners have complex health needs, particularly with regard to their physical and mental health. High rates of post-traumatic stress disorders are reported.
- Women in prison have mental health problems to a higher degree than both the general population and male prisoners. There is a close link between a woman's criminal pathway and her mental and physical illness.
- Drugs often hold a key to a woman's offending. A high percentage of women in prison suffer from a drug problem and problematic drug use rates are often higher among female than among male prisoners.
- Women are at greater risk than men of entering prison with HIV, hepatitis C, reproductive health needs and STIs such as chlamydia infection, gonorrhoea and syphilis.
- Three times as many women as men report that they have experienced violence, either physical or sexual, before their imprisonment.
- Health service provision in prisons needs to recognize women's sex and gender-specific health care needs, and should be personalized and delivered in a holistic and humane manner.
- Gender-sensitive training and training on the specific health needs of women in prison should be widely available in all prison systems.

Introduction

Women in prison constitute a special group within the prison population, first and foremost because of their sex and gender inequalities. They constitute a small proportion of prison populations worldwide, usually between 2% and 9% of the prison population. Only 12 prison systems worldwide report a percentage higher than 9% (1). Although women are a minority group within total prison populations, the number of women in prison is nevertheless increasing and the rate of the increase is

often greater than that for men. For instance, in the United Kingdom (England and Wales), the number of women in prison increased by more than 200% over the period 1996–2006 versus a 50% increase in the number of men in prison during the same period (2). Some of the increase can be explained by the global displacement of women due to war, social unrest, economic crisis and gender-insensitive criminal justice systems.

Women in prison often come from deprived backgrounds, and many of them have experienced physical or sexual abuse, alcohol or drug dependence and inadequate health care before imprisonment (3). Offences for which women are imprisoned are mainly non-violent and property- or drug-related. This means that imprisoned women often serve a short sentence, resulting in a high turnover rate in women's prisons (4). Because in most countries there are only a few women's prisons, women convicted of a wide range of offences are frequently housed together, which implies that the overall regime is determined by the high-security requirements of a very few high-risk prisoners (5).

As a result of the lifestyles many women have had before entering the prison system, their time in prison might be the first time in their lives that they have had access to health care, social support and counselling. The prison service should pay careful attention to women's special needs, including specific health care needs, and guarantee a gender-sensitive system of care while recognizing the opportunity for empowerment and supporting healthy choices.

This chapter discusses the health issues facing women in prisons, specifically:

- violence and abuse
- substance use
- mental health issues
- infectious diseases
- reproductive health
- dental health.

Special attention is given to children of imprisoned women, and the end of the chapter focuses on the organization of health care for female prisoners and opportunities for health promotion.

Violence and abuse

Many prisoners have experienced violence in their time before or in prison, often gender-based violence from

their intimate partners. Three times as many women as men report that they have experienced violence, either physical or sexual, before their imprisonment (6). Women who have experienced violence and abuse before their imprisonment may have low self-esteem and poor skills and suffer from a lack of confidence. Violence and abuse are also associated with poor outcomes in terms of mental and physical health problems, including reproductive health problems.

It is important that prison systems identify women who have been victims of violence or abuse before their imprisonment and take into account the possible re-traumatizing effect of some aspects of the prison regime, such as strip-searching. Counselling and support should be available, and should continue after release.

Substance use

Drugs often hold a key to a woman's offending. A high percentage of women in prison suffer from a drug problem and problematic drug use rates are often higher among female than male prisoners. It is estimated that around 75% of women arriving in prison have some sort of drug-related problem at the time of arrest.

Generally, women with substance use problems have fewer resources (education, employment and income), are more likely to be living with a partner with substance use problems, to be taking care of dependent children, have severe problems at the beginning of treatment for their substance use and have higher rates of trauma related to physical and sexual abuse and mental disorders than men. Post-traumatic stress disorder and anxiety disorders are especially common (7).

Women with substance use problems need treatment. A major concern is that prison systems frequently do not guarantee access to this treatment. A gender-sensitive approach to women's health care should always take into account the need to provide specialized addiction treatment programmes. Substitution treatment has been proved to be the most effective treatment option for persons with substance use problems, and attention should be paid to implementing substitution treatment more widely in prison settings. Support for staff should also be developed, including the production of clear guidelines (8).

Alcohol use

The prevalence of alcohol use and dependence in women entering prison ranges from 10% to 24% (9), although more recent studies have identified higher prevalence rates. For example, in Finland 51% of women prisoners are alcohol-dependent and there

is evidence to suggest that alcohol use disorders are an increasing problem among women prisoners (10). Despite the wide variation in prevalence estimates, it is clear that alcohol use is a greater problem for women in prison than for those in the general community. Prevalence rates tend to be higher among women prisoners than male prisoners – a consistent finding in several countries. Alcohol use disorders in women are associated with a range of other health and social issues including poverty, mental illness, drug use and a history of abuse in childhood.

Mental health issues

Women in prison are more likely to have mental health problems than both the general population and male prisoners (11), including high rates of post-traumatic stress disorders. Trauma are indirectly and directly linked to criminal pathways and to both mental and physical illness (12).

In the United Kingdom (England and Wales), it was shown that 90% of women in prison have a diagnosable mental disorder, substance use problem or both, and 9 out of 10 women in prison have at least one of the following: neurosis, psychosis, personality disorder, alcohol abuse or drug dependence (13). The prevalence of severe mental illness (psychosis and major depression) is higher in the prison population than in the general population. A systematic review in 2002 showed that the prevalence of psychotic illnesses in women prisoners worldwide was 4% and of major depression 12%, indicating that women prisoners are two to four times as likely to have a psychotic illness or major depression as the general population, and that 42% of women prisoners worldwide have a personality disorder, about 10 times the prevalence in the general population (14). Not only are women prisoners more likely to suffer from severe mental illness than the general population but they are more likely to do so than male prisoners. A British survey reported annual incidence rates of psychosis in women prisoners to be more than double that in male prisoners: 110 per 1000 compared to 52 per 1000 (15).

Women's mental health is likely to deteriorate in prisons that are overcrowded, where prisoners are not properly differentiated and programmes are either non-existent or inadequate to address the specific needs of women. Promoting mental health and well-being should be central to a prison's health care policy (16).

Self-harm and suicide

Suicide and self-harm are important issues for female prisoners and the early period in custody is recognized as being a time of particularly high risk. Studies worldwide

have shown that suicide rates in prisons are up to 10 times higher than those in the general population (17,18), and suicide is a leading cause of death in custody. The rate of suicide is higher in women prisoners than in male prisoners, in stark contrast to suicide rates in the general population which tend to be higher in men. Features of the prison regime as well as traumatic experiences in childhood and adulthood, mental health problems and a lack of social support are associated with suicidal behaviour (19).

Many more women in prison self-harm than commit suicide. Women prisoners are more likely to self-harm than male prisoners and than women in the community. A study of women prisoners showed that 16% had harmed themselves in the month before imprisonment (20). Those who self-harm are more likely to have a psychiatric disorder, drink hazardous amounts of alcohol and to have been abused as a child or adult.

To address the risk of suicide and self-harm, prison systems need to ensure that their health services are effective and that all staff working with women prisoners are aware of the issue.

Infectious diseases

Women are at greater risk than men of entering prison with HIV, hepatitis B and/or hepatitis C (21). Women who engage in risky behaviour, such as sex work or injecting drug use, are at particularly high risk. Women prisoners also have higher rates of STIs than male prisoners and the general female population. This has been attributed to the fact that they are more likely to participate in risky sexual behaviour, including sex work and injecting drug use. Syphilis is a rare disease among the general population but in some countries not uncommon in imprisoned women.

Many STIs stay undetected. Some infections are more likely to be asymptomatic in women but at the same time more likely to have serious long-term health consequences such as ectopic pregnancy, infertility and chronic pelvic pain. They are a major factor in the spread of HIV, as they enhance transmission and diminish the woman's general resistance.

Prison services should ensure that women living with HIV receive prevention, treatment, care and support equivalent to that available to people living with HIV in the community, including ART. Clean needles and syringes should be available to prevent women from sharing them and thus prevent the spread of HIV and other infectious diseases. If needles and syringes are not allowed in prison, other harm reduction measures

should be accessible. While imprisoned women who are HIV-positive, or are at risk of being infected, face similar challenges to men in terms of access to essential care such as ART and harm reduction measures, they also have additional needs. Gender-specific interventions have been shown to be more successful than interventions that are gender-neutral. In particular, women prisoners benefit from interventions that address HIV prevention in terms of interactions and relationships with other people and those that also address the cultural and socioeconomic conditions in which the women live. Many women will have suffered from sexual abuse and need psychological interventions that address this together with gender-specific empowerment strategies to enable them to negotiate safer sex practices effectively (22).

Reproductive health

Women prisoners are a high-risk group for sexual and reproductive health diseases, including cancer and STIs, particularly due to the typical background of these women which often includes injecting drug use, sexual abuse and violence, sex work and unsafe sexual practices (23).

Screening programmes for diseases such as cervical cancers should be included in the standard procedure in women's prisons. Imprisoned women are at high risk of cervical cancer yet they are less likely to have been screened for it and are unlikely to complete appropriate follow-up and management of abnormal smear results. They are more likely to have a sexually transmitted disease and, more specifically, to have evidence of human papilloma virus infection that is causally related to cervical cancer. Several studies have shown higher rates of abnormal smears in the prison population. Evidence from Canada suggested that women prisoners presented with more severe abnormalities at a younger age than the general population (24). Paradoxically, these imprisoned women who are at greatest risk of cervical cancer are least likely to have been screened for this disease. This may be because of limited access for women with low incomes (if payment is required), a low level of knowledge or fear of a gynaecological examination. Prison health care providers need to develop locally appropriate services that ensure that women in need of cervical screening are rapidly screened and treated, if necessary, with clear pathways to ensure throughcare.

Women's normal human functions, such as menstruation, are too often medicalized by prison systems and many fail to cope with women's menstruation. For instance, they fail to provide menstrual products such as sanitary towels or adequate bathing and washing facilities (3). Menstrual products and frequent access to showers need to be freely available.

Pregnancy, postnatal care and breastfeeding

Imprisoned women who are pregnant constitute a high-risk obstetric group, that is, both mother and foetus are more likely to have problems during pregnancy and, subsequently, to have poorer outcomes. Some factors are likely to contribute to this: imprisoned women are likely to come from socially deprived backgrounds and are more likely to smoke, drink alcohol to excess and use illegal drugs than the general population. Various studies have shown that smoking rates in pregnant women prisoners approach 70% (25). The majority of these pregnant women have a history of drug abuse, and estimates of actual drug abuse during pregnancy range from 27% (26) to 71% (25). In addition, they are more likely to have a medical problem which could affect the pregnancy outcome and yet less likely to receive adequate antenatal care (27).

Women in prison also tend to have poorer birth outcomes than the general population. They are more likely to have a low birthweight baby and perinatal mortality rates are higher in this population (28). When compared to pregnant women matched for age, race, parity and socioeconomic status, however, there are no significant differences between the groups with regard to outcomes such as birthweight and foetal death rate. Furthermore, it seems that imprisonment has a favourable effect on pregnancy outcomes. Several studies have shown that longer periods spent in prison improve outcomes such as increasing the birthweight of the baby, or decreasing the likelihood of premature or instrumental delivery. Martin and colleagues estimate that for every day the mother spent in prison, the baby gained an additional 1.49 g (29). Possible explanations for these improved outcomes might be that prison provides food and shelter, moderates the use of drugs and alcohol, prevents strenuous activity, protects women against abusive partners and ensures access to antenatal care. However, imprisoning pregnant women when the majority have not committed a violent crime and therefore pose little risk to the public is ethically questionable. While the evidence that indicates that imprisonment may have benefits for the physical health of the mother and baby, imprisonment also presents many challenges to pregnant women. Imprisoned mothers are more stressed, anxious and depressed than the general population (30,31).

Dental health

Prisoners have significantly greater oral health needs than the general population and have often had very limited contact with dental health care services in the community. Many prisoners enter prison with dental health problems requiring urgent treatment. High levels of alcohol consumption, smoking and substance use all contribute to poor oral health. A survey in 2002 in the United Kingdom (Scotland) concluded that the severity of tooth decay was considerably worse in

the prison population than in the community, especially for female prisoners (32). Providing appropriate dental services is an essential part of prison health services and must be guaranteed for all women prisoners.

Children of women in prison

Many women in prison are mothers and usually the sole or primary carers for their children. This results in large numbers of children being institutionalized when women are imprisoned, since the fathers often fail to care for the child(ren). In Europe, it is estimated that about 10 000 children under the age of two years are affected by their mothers' imprisonment every day. For instance, in the United Kingdom, a national study showed that in 85% of the cases the father does not look after the child when the mother is imprisoned (20). The imprisonment of a mother may have a traumatic and lasting effect on both mother and child, in part due to great distress because of the separation together with a range of emotional and psychosocial problems, and also because they are less likely than imprisoned men to have someone in the family looking after their child and are more likely to lose their housing and children as a result of their imprisonment.

In many countries, babies born to women in prison can stay with their mothers in prison. Very young children may often accompany their mothers into prison, up to the age of three years on average in Europe. This age limit varies considerably across countries in Europe, with a maximum of six years old.

Most countries where children are allowed to stay with their mothers in prison have special mother-and-baby units, where mother and child can stay together.

Children of imprisoned women have not committed a crime and should not suffer as if they had done so. The lives of the children who live in prison should be as good as the lives they would have led outside in the community, including good nutrition and decent playing areas. It should be possible for these children to leave the prison at any time if this is considered to be in their best interests.

Difficult problems and dilemmas arise both from accommodating children in prisons and separating them from their mothers. It is vital that in all decisions made concerning a child of an imprisoned woman, the best interest of the child is the primary consideration.

Organization of health care for women in prison

The specific needs of women are often not met by prison systems, which have been largely designed by and for

men. Women in prison need free access to a full range of gender-specific health services. There should be explicit recognition that women and men are different and that equal treatment of men and women does not result in equal outcomes.

The standards which should define a health care system for women prisoners are laid down in the United Nations Rules for the treatment of Women Prisoners and Non-custodial Measures for Women Offenders (the Bangkok Rules) (33). These standards can be summarized as follows.

1. Imprisonment of women should always be a last resort. Suitable non-custodial alternatives shall be made available whenever possible.
2. Medical screening on entry should include comprehensive screening to determine primary health care needs. It should also determine: sexually transmitted or blood-borne diseases including HIV; mental health care needs; the reproductive health history of women prisoners and related health issues; the existence of drug dependency and sexual abuse and other forms of violence suffered prior to admission.
3. Medical confidentiality must be respected, including the right not to share information and to undergo screening related to reproductive health history.
4. Children accompanying women prisoners shall also undergo health screening and shall receive health care at least equivalent to that in the community.
5. Gender-specific health care services at least equivalent to those available in the community shall be provided to women prisoners.
6. Comprehensive mental health care and rehabilitation programmes shall be made available for women prisoners.
7. Programmes to prevent and treat HIV/AIDS shall be responsive to the specific needs of women, including prevention of mother-to-child transmission.
8. Specialized treatment programmes for women substance abusers shall be provided.
9. Strategies and support to prevent suicide and self-harm among women prisoners shall be part of a comprehensive policy of mental health care for women prisoners.
10. Women prisoners shall receive information and education about all relevant preventive health care measures.

Gender-sensitive training for staff working with woman prisoners must take into account the specific vulnerability and health care needs of woman prisoners. Continuity of care is particularly important for women, who are often on very short sentences but whose physical and mental health needs are long-term (5).

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19. The older prisoner and complex chronic medical care

Brie Williams, Cyrus Ahalt, Robert Greifinger

Key points

- Prisoners are often considered geriatric at the age of 50 or 55 years.
- Plans should be made for the increasing use of health care services and medical care costs in the light of the growing number of older prisoners.
- Consideration should be given to developing a geriatric, team-based model of care for older prisoners, particularly those with multimorbidity.
- The medication lists of older adults should be regularly reviewed to avoid specific medications and to limit polypharmacy.
- The physical and mental health status of older prisoners should be assessed by focusing on geriatric syndromes, such as sensory impairment, functional impairment, incontinence and cognitive impairment, which are common and may pose unique risks in prison.
- Specific housing and prison environments should be evaluated and adapted as needed to ensure that older prisoners with limited function or mobility are not at risk for falls or social isolation.
- The risks and benefits of screening tests or medical treatment plans should be discussed with older prisoners, taking into account life expectancy and the individual's goals for care.
- Approaches should be developed to address behavioural infractions among older prisoners with sensory, functional or cognitive impairment, and prison officers and staff educated as needed.
- People who are independent in the community might be functionally impaired in prison. Older prisoners should be assessed for their ability to perform physical prison tasks such as standing to be counted, getting in and out of a top bunk or responding to alarms, and adaptations made as needed.
- Prior to release from prison, an inmate should receive personalized discharge planning, including a bridging supply of medications, post-discharge medical appointments, summarized health records, a social support plan and age-specific community agency referrals.
- Resources should be developed, either prison-based or community-based working in the prison, to provide seriously ill and dying prisoners with palliative and/or hospice care according to individual need.

Introduction

General population ageing is a worldwide trend in nearly all regions outside sub-Saharan Africa, with prisons no

exception. The growing number of older prisoners with complex medical co-morbidity has become a global challenge. Over the past decade, while overall prison populations have grown in nations as varied as Turkey (90% increase), Argentina (55%), Kenya (40%), Spain (30%), the United Kingdom (15%), the United States (13%) and China (10%) (1), in many places there has been a concurrent disproportionate growth in the number of older prisoners. In the United States, where the total prison population grew 100% between 1990 and 2009, the number of prisoners aged 55 years or older increased by more than 300% in the same period (2). In Japan, the number of older adults in prison has doubled in the last decade despite just a 30% increase in the number of older Japanese overall. Many other nations are also experiencing an increasing number of older prisoners, reflecting trends in ageing and in criminal justice policy. As societies age, the arrest and sentencing of older adults are on the rise. At the same time, more and more adults are growing old in prisons as countries embrace tougher criminal justice policies, including the increased use of life sentences, stronger drug and immigration laws and mandatory minimum sentencing practices. Regardless of nation-specific criminal justice policies that contribute to these shifting demographics, the growing population of older prisoners is expected to increase as the world population ages, unless there are significant policy changes.

Many prisons now provide primary care to a growing number of medically vulnerable older prisoners. Accordingly, prison health care systems must evaluate and optimize their ability to deliver complex chronic medical and social care for older prisoners if prison administrations are to provide for the basic rights of all prisoners. This imperative is also critical from a fiscal perspective as the ageing population in detention is a principal driver of the rising cost of incarceration, primarily due to greater health care costs (3).

To provide cost-effective and adequate health care to the growing number of older prisoners, prison administrations must first acknowledge the unique challenges associated with the ageing prisoner population. Ageing in general brings with it new physical, psychological and social challenges. Prisons and jails are typically designed for younger prisoners. For older prisoners, this introduces additional challenges to safety, functional ability and

health (4). Additionally, for older adults the health risks following release from prison may be magnified by challenges such as receiving only limited social support, being frail in unsafe neighbourhoods and having complex medication needs (5). Thus, for a growing number of older adults in countries around the world, prisons occupy an important place on the health care continuum.

This chapter applies the fundamental tenets of geriatric medicine to correctional health care to illustrate how to optimize care for older prisoners.

Accelerated ageing: who is old in prison?

The goal of geriatric medicine (and gerontology, its counterpart in nursing and the social sciences) is to increase the health, independence and quality of life of older adults by providing high-quality, patient-centred, interdisciplinary care (6). In the prison setting, geriatric care models may often be appropriate for prisoners who are younger than the 65-year cut-off typically used to define the elderly in the non-incarcerated population. This is because many medically and socially vulnerable adults (such as homeless or impoverished people, refugees and prisoners) experience accelerated ageing, that is, they develop chronic illness and disability approximately 10–15 years earlier than the rest of the population (7). Older prisoners often fall into several categories of the medically vulnerable, owing to a history of poverty, poor access to health care, substance use or other factors. As a result, many criminal justice systems consider prisoners to be older, or geriatric, by the age of 50 or 55 years (5,7,8). Prison health care administrations should take accelerated ageing into account when determining the eligibility criteria for age-related screening tools and medical care protocols.

Geriatric medicine and the multimorbidity model of care

The first step towards optimizing the care of older prisoners is to adapt care models already developed and tested in the fields of geriatrics and gerontology to older prisoner health care. Geriatric medicine uses the multimorbidity model of care. Rather than focus on a single disease, the multimorbidity care model prioritizes the chronic medical conditions that most affect health status and quality of life for each individual (9). As with all older adults, the prevalence of multiple chronic medical conditions in prisoners increases with age. One study from the United States found that 85% of prisoners aged 50 years or older in the Texas prison system (which holds more than 150 000 prisoners of all ages) have one or more chronic medical conditions and 61% have two or more conditions. In contrast, just 37% of prisoners in Texas aged 30–49 years and 16% of those aged under 30 years reported two or more chronic medical conditions

(10). Other studies similarly reveal higher rates of chronic illness in older versus younger prisoners for conditions including hypertension, arthritis, heart disease, chronic obstructive pulmonary disease and cancer (11). In Texas, older prisoners were also substantially more likely than other prisoners to have infectious diseases such as TB, hepatitis B and C, methicillin-resistant staphylococcus aureus, syphilis and pneumonia (8).

The multimorbidity care model uses care coordination, patient education and shared decision-making between the health care clinician and the patient to weigh the risks and benefits of each medical decision on the individual patient. In acknowledgement of the complex needs of older adults, geriatric medicine is often practised in teams that include, for example, physician and nurse clinicians, social workers and pharmacists. Many older adults entering prison will not have had extensive contact with the health care system prior to their incarceration, and a complete medical assessment on arrival is often an important first step in diagnosing chronic disease, cognitive impairment and disability. The results of a comprehensive assessment can also help with decisions related to housing, security risk and programming eligibility.

Polypharmacy

A key barrier to the optimal management of chronic disease for older patients is polypharmacy. Defined as the inappropriate use of multiple medications, polypharmacy is a particular risk for older adults because of age-related changes in the metabolism, clearance and delivery of many medications. This heightened risk is also increased when multiple medications are used at one time and with specific high-risk medications.

Several lists of inappropriate and potentially inappropriate medications in the elderly exist and should be made easily available to prison health care clinicians. Medications with anticholinergic properties, for example, should be avoided in older adults as these drugs can result in side-effects that include falls, delirium (acute confusion) and urinary retention (12). Anticholinergic properties are found in many classes of medication including antihistamines, some benzodiazepines and some antibiotics (13). In addition to being aware of important medications to avoid in the elderly, it is also critical that prison health care clinicians use caution when adding new medications to the regimens of older adults. Older prisoners should have their entire medication list reviewed regularly to assess the need for continuation of each medication while considering the possibility of drug–drug interactions with other concurrent medications. In keeping with the geriatric care model, a team approach may help to ensure proper management of medications in older prisoners.

Geriatic syndromes

Geriatic syndromes are conditions that have multifactorial etiologies, significant morbidity and adverse effects on quality of life and are more common in older adults (14). The common geriatric syndromes considered here include falls, dementia, incontinence, sensory impairment and symptom burden. Health care providers who specialize in older adults focus as much time on assessing and addressing geriatric syndromes as on the diagnosis and management of chronic medical illnesses. In prison, geriatric syndromes are similarly important, affecting many older prisoners and increasing their risk for adverse health events.

Falls

Studies have found that approximately 30% of people aged over 65 years fall each year, a rate that increases with advancing age (12). Of those who fall, approximately 20–30% suffer injuries with significant consequences for their independence and functioning, and even their risk of death (15). Older prisoners are at heightened risk of falls if they are housed in institutions with poor lighting, uneven flooring or poorly marked stairs or if they are required to perform activities beyond their functional ability, such as standing for long periods or climbing onto a top bunk. Other factors contributing to the increased risk of falls in prison could include allocation to accommodation that necessitates the use of many stairs, crowded areas where others are moving quickly and may jostle the older prisoner, or the use of ankle and/or wrist shackles which can affect normal gait by decreasing arm swing and can restrict the ability to compensate for imbalance with a wide-spaced gait. In addition, vitamin D deficiency can lead to abnormal gait, muscle weakness and osteoporosis, increasing the risk of injury from falls. This can be a particular problem for prisoners with less outdoor access. One study of older women prisoners in the United States found that 51% experienced a fall over a one-year period in custody (16). Effective interventions to reduce falls in the community include exercise programmes to promote balance and muscle-strengthening, environmental modifications such as grab bars and reviews of medication to avoid polypharmacy.

Dementia

Dementia is defined as a decline in two or more areas of cognitive functioning severe enough to cause functional decline. The prevalence of dementia doubles every five years from the ages of 60 years to 80 years, when it affects one third to one half of the population (12). The dementia risk is worse for people that are also at risk of incarceration, including those with a history of post-traumatic stress disorder, low educational attainment, traumatic brain injury or substance abuse. Some of

these factors are also associated with the earlier onset of dementia, such that prisoners could be at risk for cognitive decline at young ages. Cognitive impairment can be harder to detect in prison, given that many of the daily tasks necessary for independence in the community are frequently not required of prisoners, such as doing their laundry, cooking and balancing their finances. If it goes undetected, however, cognitive impairment could have considerable consequences in prison, including victimization, unwarranted disciplinary measures or failure to meet complex release instructions. For these reasons, many recommend cognitive screening upon intake for all older prisoners, and annually for those ageing in prison (4).

Incontinence

The prevalence of incontinence increases with age and is often under-reported and under-diagnosed (12). One study of United States prisoners found that 40% of inmates aged 60 years and older reported some incontinence (17). Many types of incontinence can improve with treatment, yet a study of Californian prisons found that incontinence was often not treated by medical staff. Incontinence supplies were also found to be lacking (18). For older prisoners, untreated incontinence could lead to social isolation, depression, decreased functional status, ridicule or physical victimization. Prison health care clinicians should be trained to diagnose incontinence, investigate its causes and provide treatment, including incontinence supplies.

Sensory impairment

Impairments to hearing and vision, both common with advancing age, are associated with problems with balance, social isolation and disability (12). In prisons, these risks may be magnified as older prisoners with visual impairment struggle to negotiate unseen obstacles, or those with hearing impairment are unable to hear orders or are misconstrued as disrespectful of fellow inmates whose comments they have not heard (16). For prisoners with active legal cases, unaddressed sensory impairment could reduce their capacity to participate effectively in their own defence. It is, therefore, critically important that sensory impairments are identified and that adaptations are made available. Lawyers, correctional and law enforcement officers and other front-line criminal justice professionals should also be trained to identify prisoners with potential impairments for referral to medical staff.

Symptom burden

A high prevalence of distressing symptoms in older prisoners can confound approaches to effective medical treatment. Among older prisoners, emotional symptoms related to social isolation and long-term incarceration (or institutionalization) are common and can lead to

adverse mental and physical health outcomes (7). Physical symptoms are also prevalent in ageing populations. Persistent pain, for example, is among the most common presenting complaints in older adults who visit hospital emergency departments. In prisons, pain treatment is often complicated by co-occurring substance use disorders, clinicians' concerns about diversion of medicaments, prison policies limiting controlled substances and other factors (13). Yet without adequate treatment, distressing symptoms can lead to a lower quality of life, new or worsened functional impairment, increased use of the health care services and a rapid decline in health for older adults. Additional symptoms that are often under-recognized and/or undertreated in older adults include shortness of breath, constipation and dizziness (12). Thus, a full assessment of symptoms and targeted planning of treatment should be considered critical components of all older prisoners' medical care.

Functional status and environmental mismatch

Geriatric syndromes can greatly affect functional status, defined as a person's degree of independence in the activities of daily living (ADL – bathing, dressing, eating, toileting and transferring between chair and bed or toilet). Dependence in these and instrumental ADL (IADL – typically including managing medications and finances, transportation or shopping) increases with age and is associated with more use of the health care services and higher health care costs, a further decline and greater morbidity (19). Although evidence describing the prevalence of functional impairment in prisons is limited, one study in a United States jail found that 20% of men aged over 50 years were dependent in some IADLs and 11% required assistance in some ADLs (17). Such studies may, however, significantly underestimate the prevalence of functional impairment in older prisoners because incarceration includes many unique physical activities not accounted for in traditional ADL and IADL assessments. Another study sought to identify the unique nature of functional ability in prison by identifying prison-specific ADL. These included dropping to the floor for alarms, standing for head count, getting to the dining hall for meals, hearing orders from staff, and climbing on and off one's bunk (16). The unique daily activities required for independence in prison differ by institution and housing unit. The study found that many older prisoners who would be independent in the community were functionally impaired in prison after accounting for the unique physical tasks required for independence in prison. As a result, experts recommend that a list should be drawn up of the physical activities necessary for independence in each housing unit or institution. These lists should be used to house and stratify for risk older prisoners in need of

additional supervision and assistance, and an annual screening policy should be instituted to assess functional impairment in individuals growing old in prison (4).

Mental health issues

Older prisoners are likely to suffer from mental illness at higher rates than their age-matched counterparts in the community (20–22). One study in the United Kingdom found that as many as one in three older prisoners suffered from depression. The same study also found that psychiatric conditions were among the most under-detected and under-treated illnesses in older prisoners (22). Mental health issues in older prisoners may be particularly hard to detect or identify. As behavioural health risk factors associated with incarceration (such as traumatic brain injury and substance abuse) accumulate over time, challenges to effective diagnosis and the prescribing of medications are greater. Worsening physical health may also have an impact on mental health. Functional impairment, for example, can lead to decreased participation in social, vocational or work programmes which may, in turn, lead to social isolation, withdrawal and depression (23).

Older adults may also experience psychological trauma directly related to their incarceration. A sample of elderly first-timers in United Kingdom prisons were frequently anxious, depressed or psychologically traumatized by incarceration (24). After a long period of imprisonment, older prisoners may also have anxieties related to release (7). One study also showed that long-term prisoners experience a winnowing of their outside social support network, with fewer visits and less contact with outside family or friends over time (23). Other older prisoners may develop anxiety at the onset of new medical conditions or a fear of dying while in prison (7). Older prisoners should, therefore, be re-evaluated by a mental health provider with knowledge of ageing-related mental health issues as factors related to their physical health, criminal justice disposition or changes in their outside social support structures.

End of life care and death

Although many older prisoners will eventually be released, death in custody occurs in nearly any prison system. Some legal systems provide for the early (or medical or compassionate) release of terminally or seriously ill prisoners (25), although uniform standards for such programmes are not in place in every system. Where early release is provided for, prison health care professionals should be trained in the relevant legal and medical guidelines and, where appropriate, should be capable of assisting eligible prisoners to navigate the process. In the United States, in states with early release laws, the lack of a clearly defined prisoner advocate or role for the prison

health care provider has sometimes served as a barrier to the release of medically eligible prisoners (25). Prison administrations where early release laws exist should, therefore, consider implementing prisoner advocacy protocols that ensure prisoners have full access to the law regardless of their medical disposition.

In the many countries and cases where early release does not apply, hospice and/or palliative care may provide the best standard of care for seriously ill or dying prisoners. Hospice care is focused on people who are dying (usually in the last six months of life), while palliative care is focused on providing guidance and symptom control for all seriously ill individuals, regardless of prognosis. In the community, both care models have demonstrated improvements in the quality of patients' remaining lives while reducing health care costs (26). At present, however, the most effective means of providing end-of-life medical care in prisons is not well understood. In the United States, approximately 70 prisons have hospice units modelled closely on community-based hospice programmes. These hospice units have been shown to produce cost-effective, high-quality end-of-life care. Issues remain, however. The appropriate use of volunteers in prison hospice units, patient-clinician trust, and the support mechanisms available to prisoners making decisions about life-prolonging treatment, for example, have been identified as areas where more research is needed. In the United Kingdom, palliative care in prison provided by community providers is the commonly used care model for seriously ill prisoners (27). Yet, again, more research is needed to gain a better understanding of how prisoners experience these services and how they can be further optimized (2).

Ageing and re-entry into the community

Studies have shown that advancing age is one of the few reliable predictors of decreasing recidivism (7). As a result, there have been many calls in the United States for the early release of nonviolent geriatric prisoners to alleviate overcrowded prisons and reduce correctional costs. Others have proposed wider use of alternatives to incarceration for nonviolent older prisoners, such as house arrest or electronic monitoring. If momentum builds behind such policies, and as ageing societies continue to process growing numbers of older adults through prison, effective preparation for the re-entry of older adults to the community will be increasingly important.

On release, geriatric ex-prisoners may face unique challenges, with potential consequences for community-based health care and social services systems. Older adults are particularly vulnerable to difficulties in finding employment and suitable housing. After long periods of incarceration, many may also have difficulty navigating

the bureaucratic processes required to re-enrol in social benefits programmes (5,28). Such social challenges both hinder successful reintegration and pose additional health risks. Inadequate planning for medical care and/or social support prior to release may also place older adults at risk of interruptions in treatment and failure to continue with needed medications (5,13). Such system-level deficiencies can result in avoidable use of the emergency services, hospitalization and even death. Steps can, however, be taken before release to smooth the transition back into the community for older adults, such as training in independent living skills (cooking, shopping, banking), a health care transition plan that includes health care and access to medication, a summary of medical problems sent directly to the post-release physician, links to age-specific community resources and social support, and education about self-care and disease management. Although the current evidence base is limited, intensive case management and peer mentoring programmes for older adults may also improve outcomes in the important period following release.

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Prison health management

20. Primary health care in prisons

Andrew Fraser

Key points

- Prison is a special setting for primary health care. All prison health services should strive to provide prisoners with health care equivalent to that provided in the community.
- The main purpose of health care is patient care. Prison health care is no different. Health professionals in prison also advise prison governors or directors and sometimes serve the courts. They should do so with the greatest possible involvement of their patients, balancing ethics and care within the controlled environment of prison.
- Prisoners and health professionals alike have rights and responsibilities. Professional groups should adhere to national standards of practice and to international rules and recommendations.
- Health professionals should understand and seek to minimize the negative effects of the experience of prison and use opportunities that prison can offer to benefit their patients.
- Prison health services should understand the health needs of their patients and seek to meet these needs to the greatest extent possible within the available resources and norms for the country.
- Mental health, addiction problems and infections dominate most health needs of prisoners. Other types of acute and chronic health condition are also common and deserve attention.
- The primary care service should get to know their patients on admission, care for them during their stay and help to prepare them for release.
- Prison health services should understand the justice and health policies and practices in their facilities and seek to link up with local services and resources, especially regarding the management of people with severe mental illness.
- Every prison should have medical, nursing, dental, psychological and pharmacy services, with administrative support.
- Every prison should have access to an appropriate level of health services at all hours.
- Every prison should maintain a system that accounts for its work, including its assets, resources, processes, key clinical challenges and outcomes, including critical incidents.
- Primary health care in prison is important for the well-being of the patients, all prisoners and the community, for the effectiveness of prison services and the public health of the community.

Introduction

The health care of prisoners is an integral and essential part of every prison's work.

Primary care is the foundation of prison health services. Primary care is the most effective and efficient element of health care in any public health system (1) and, as such, should be available to every prisoner. As described in more detail in Chapter 2, prisoners have the same right to health care as everyone else in society.

The purpose of health care

In most respects, the purpose of health care in prison is the same as outside prison. The care of patients is its core function and its main activities are clinical. A full primary care service, however, also includes elements of disease prevention and health promotion (2).

As with primary care in the community, there are secondary duties. Prison health professionals may occasionally carry out other duties and services. They may provide reports to the courts, and reports for when the early release of a prisoner is being considered on general or specific health grounds. In most countries, these processes occur under the protection of laws and regulations. Unless there are exceptional circumstances, such as the potential for damage to a patient or to the interests of someone else mentioned in the report (a third-party interest), patients should be involved in decisions about their health care and the use of personal health information, and be entitled to see and keep copies of reports and correspondence.

Despite the many similarities in health care between prison and the community, there are also differences. Prison brings a loss of freedom which has many consequences for health care.

- Prisoners automatically lose the social component of health, including the loss of control of their circumstances, the loss of family and familiar social support and a lack of information and familiarity with their surroundings.
- The prison environment often poses a threat to mental well-being, especially to the decision-making capacity, and to a sense of personal security.
- In most circumstances, prisoners are unable to choose their professional health care team.
- Similarly, primary care teams in prison cannot select their patients.

- Neither the patient nor the health care team chooses the beginning and end of courses of treatment or of the clinician–patient relationship in general – this is largely decided by the courts.
- Generally, patients who are prisoners need a high level of health care.

The experience of prison

All aspects of prisoners' lives in prison affect their health, not only the quality of the health services provided.

To create the best conditions for good health and effective health care, prisons should adopt a whole-prison approach (see Chapter 21) to the provision of:

- a healthy environment and a culture of care and rehabilitation;
- an atmosphere in which prisoners feel safe in the company of other prisoners and staff;
- opportunities for prisoners to talk to other people in confidence;
- opportunities for properly supervised care, including basic social care for prisoners by other prisoners;
- opportunities, through visits, to maintain family links;
- information about the prison routine;
- ways to keep loneliness and boredom to a minimum;
- adequate food, opportunities for exercise and access to fresh air; and
- sufficient privacy, adequate light, ventilation, heating (and sometimes cooling) and access to sanitation in the cell or barrack;
- basic training for all prison staff on matters of health, health care and the legal duties of care (Chapter 22).

Prison staff and management should be aware of, and educated in, basic health issues, particularly in factors that determine whether a prison environment promotes health. Staff should also be able to spot signs of serious illness and be expert in first aid and management of mental health crisis situations.

The components of primary care

The key components of a prison health service are contained in a section of the *Standard minimum rules for the treatment of prisoners*, produced by WHO and the Office of the United Nations High Commissioner for Human Rights (2). The remainder of this chapter is based on this authoritative source. Rules 22–26 cover the medical services that should be available in all prisons:

22. (1) At every institution, there shall be available the services of at least one qualified medical officer who should have some knowledge of psychiatry. The medical services should be organized in close relationship to the general health administration of the community or nation. They shall

include a psychiatric service for the diagnosis and, in proper cases, the treatment of states of mental abnormality.

(2) Sick prisoners who require specialist treatment shall be transferred to specialized institutions or to civil hospitals. Where hospital facilities are provided in an institution, their equipment, furnishings and pharmaceutical supplies shall be proper for the medical care and treatment of sick prisoners, and there shall be a staff of suitable trained officers.

(3) The services of a qualified dental officer shall be available to every prisoner.

23. (1) In women's institutions, there shall be special accommodation for all necessary prenatal and postnatal care and treatment. Arrangements shall be made wherever practicable for children to be born in a hospital outside the institution. If a child is born in prison, this fact shall not be mentioned in the birth certificate.

(2) Where nursing infants are allowed to remain in the institution with their mothers, provision shall be made for a nursery staffed by qualified persons, where the infants shall be placed when they are not in the care of their mothers.

24. The medical officer shall see and examine every prisoner as soon as possible after his admission and thereafter as necessary, with a view particularly to the discovery of physical or mental illness and the taking of all necessary measures; the segregation of prisoners suspected of infectious or contagious conditions; the noting of physical or mental defects which might hamper rehabilitation, and the determination of the physical capacity of every prisoner for work.

25. (1) The medical officer shall have the care of the physical and mental health of the prisoners and should daily see all sick prisoners, all who complain of illness, and any prisoner to whom his attention is specially directed.

(2) The medical officer shall report to the director whenever he considers that a prisoner's physical or mental health has been or will be injuriously affected by continued imprisonment or by any condition of imprisonment.

The primary care journey

At the minimum, primary care interventions are required at the times of highest risk to the health of prisoners, namely on admission and before release. They are also needed to address health matters that arise during imprisonment.

Every prisoner should be seen by a health professional at the time of reception and by a doctor soon after reception.

On first assessment, the following questions should be examined.

1. What are the main health problems for the prisoner as a patient?
2. Is the patient a danger to him/herself?
 - Does he/she have a serious illness, or is he/she withdrawing from a substance misuse dependence or correct medication?
 - Is he/she at risk of self-harm or suicide?
3. Has the patient suffered injury or ill-treatment during arrest or detention?
4. Does the patient present a risk or a danger to others?
 - Does he/she have an easily transmitted disease that puts others at risk?
 - Is his/her mental state causing him/her to be a threat or likely to be violent? Note: prison health professionals should assess the patient's risk to others on health grounds alone.

Every prisoner should be assessed, or his/her health care reviewed, after a suitable period of settling into prison, as follows.

1. Are any immediate health problems (questions 1 and 2 above) under control?
2. Do the problems require more detailed assessment and a treatment plan?
3. What is the past record and wider assessment of this person's health?
4. Does the person need specialist assessment, treatment plans or further reports?
5. Does the person need an integrated care plan for several problems, for instance, for mental health and dependence problems?
6. Who will take action on the care plans?
7. What can be done by:
 - the patient
 - the health care team
 - secondary or specialist care
 - the rehabilitation team
 - the prison generally?
8. Are there other key determinants that influence the patient's health and well-being, such as housing, welfare or family matters?

Primary health care in prison should be accessible to all prisoners when they request it, according to their requirements. The needs of long-term prisoners should be reviewed regularly and care and treatment goals agreed with them.

Each patient should receive help in preparing for release and should be put into contact with primary care services in the community.

Prison health care resources

Prisons should recognize that most prisoners need a considerable amount of health care (3). Adequate resources should be channelled to prison health care services to provide prisoners with a standard of health care that is at least equivalent to that provided in the community. Further, it is important for prisoners to take advantage of the opportunity that imprisonment represents. Many come from marginalized and poor communities and are in poor health. Because prison health is integral to good public health, effective health care in prison ultimately reduces the health risks to people in the community.

All prison systems receive people who:

- are marginalized, poor, homeless or out of work, with mental health and dependence problems;
- have led a chaotic life, without access to proper and regular health care, and have co-occurring health problems; and
- have health care needs requiring specialists from some disciplines, including infectious diseases, dentistry, psychiatry and psychology, optometry and pharmacy.

The provision of adequate primary care in prisons ideally leads to a narrowing of the health gap and to promoting equity in health (4). Prisoners can gain access to care for known conditions that may not otherwise be available to them in the community such as mental health care, dental care and management of long-term conditions. Primary health services can offer an opportunity to assess, detect and treat serious illnesses, especially mental health, infections and dependence problems.

Common problems encountered in primary care practice in prisons

Primary care in prisons has to deal with a very wide range of common problems. Prisoners have a higher likelihood of almost any clinical problem compared with the general population, in line with their socioeconomic conditions and drug and alcohol use. No conditions are unique to prison, but many are more prevalent among prisoners, including suicide risk, addictive disorders, mental disorders and bloodborne communicable diseases (3). Some conditions can be promoted by prison conditions (often for the worse), such as airborne infection, shared injecting equipment, anxiety, depression and other mental health problems. Clinicians should always be vigilant for signs of recent injury and seek to establish the cause.

Common problems in prison health care practice include the following.

- Physical problems include:
 - dependence (drugs, alcohol, tobacco);
 - communicable diseases;

- oral diseases;
- chronic medical disorders (diabetes, epilepsy, diseases of the reproductive system, cancer, and heart, lung and liver disease).
- Mental health problems include:
 - low mood or self-confidence (self-esteem and dependence on, for example, drugs or alcohol);
 - anxiety;
 - depression;
 - severe mental disorders;
 - post-traumatic stress disorder.
- Co-occurring problems include:
 - vulnerability (people with a learning disability, brain injury or learning difficulty resulting, for instance, from autistic spectrum disorder or dyslexia);
 - the nature of the sentence (harm against women, offences against children, bullying or recollection of being a victim of abuse);
 - personality disorder;
 - physical and mental trauma and stress;
 - sensory, motor or cognitive disability;
 - social determinants of poor health.

Prison health care services must be able to address the following priority areas:

- access as necessary to an appropriate level of care;
- continuity and coordination of care;
- adequate recording and transfer of medical information;
- standardization of care for acute and chronic conditions, based on scientific evidence;
- attention to patient safety to minimize risk of harm;
- the health needs of special populations, including women and elderly and disabled people.

All health care services should be proficient in, or have ready access to, specialists in mental health care and drug dependence.

Mortality among the population involved with the criminal justice system is much higher than among their peers in the community, with the greatest risk to life immediately after release from violence, self-harm, or drug and alcohol intoxication (5,6). Primary and specialist services should work closely to prepare prisoners for release and find support thereafter.

Building blocks for primary care in prison

The quality of primary health care in prison depends on many factors:

- the total resources available to the prison system;
- the state of development of primary health care in the community, including entitlement to dental, pharmacological and clinical investigations, and

- the fluidity with which prisoners can intersect with community health care resources (where medically appropriate);
- the development of mental health care in the community, specifically forensic psychiatry and addiction treatment; and
- the qualifications and experience of prison-based health professionals.

Within a prison, the factors that affect the quality of care include:

- the size of the prison population;
- the commitment of the governor or director to the health care of prisoners;
- the professional independence of doctors and clinical managers from the prison management;
- the population dynamics of the institution, including length of stay;
- gender;
- special health care needs, including for LGBT, young and older people, people with a spectrum of disabilities and non-native speakers (7).

Women have specific needs for care and protection in prison (7,8 Rule 10). Their needs and rights have been highlighted in Chapter 18, with supporting documents ratified by United Nations agencies. Wherever possible, women should receive medical treatment from women nurses and doctors. A female prisoner is entitled to have her request met that she be examined or treated by a female physician or nurse. The prisoner's preferences should also be taken into consideration in the medical establishment to which she is referred. If these arrangements are not possible, there must be a female supervisor during her examination in line with the prisoner's request. The prisoner should not be obliged to explain the reasons for her preference.

Measuring performance in health care

Performance measurement is critical to the development and maintenance of high-quality health care services. The ability to measure performance depends on: (i) the resources allocated to prison health care; and (ii) the prison's capacity for recording information and for having achievable and recognized standards for good practice that are aligned with the country's public health system.

Key areas for measuring performance are:

- adequate facilities and medical equipment;
- equivalent standards and links with public health services for consultations and transitions;
- knowledge of the population-based distribution of risk and disease;
- a supportive prison culture;

- adequate staffing;
- compliance of clinical performance with evidence-based guidelines;
- a focus on public health and health protection;
- a focus on health promotion;
- functional health information systems and transfer of information.

Performance depends on adequate facilities and processes that allow prisoners to access health resources easily. This is an important matter, dependent on security staff being able to escort prisoners and to provide safety and assurance for health care staff. On balance, facilities should allow for protection of confidentiality and privacy, with assessment and diagnostic facilities that match the skill and capacity of the public health service. More complex primary care services can include day care and inpatient accommodation. Facilities should be adequate to deliver care, including of sufficient size and cleanliness, with equipment, natural light, good access for people with disabilities, and meeting, reference and administrative facilities.

Equivalence to public health services requires national prison health care services to adhere to national codes of professional practice, standards of quality of care and regulatory matters. A positive aspect of demonstrating such equivalence is to use the same measures of quality assessment for prison services as for:

- local public health services;
- national medical and professional institutions, colleges, academies and independent prison inspection teams;
- international organizations and comparable prison systems.

Prison health services require the capacity to record and understand the health needs of prisoners and to provide care with:

- resources that are sufficient to meet patient needs;
- a prison culture that supports the health service and the access of prisoners to health care;
- links to other rehabilitation and care resources in the prison, between prisons and, following release, in the community.

The prison director's leadership is vital in creating an environment in which prisoners and staff members value good health, feel safe and support each other. There should be a culture of respect and entitlement with:

- a humane health professional culture that respects patients' confidentiality and privacy and their right to health care equivalent to that sought by the general public;

- links to other functions of the prison;
- an effective comments and complaints system when things go wrong;
- a sustained commitment to limiting the illegal supply of and trade in alcohol and illicit and prescription drugs.

Competencies of and support for prison clinical staff

Quality of care should be ensured through the following factors.

- Medical practitioners working in prison should strive to have expertise, at least in general medical practice, mental health, addictions and infection control. These skills should be reflected in health care staff from other disciplines.
- Dental practitioners should be well trained in severe dental disease.
- Large establishments with specialist facilities (such as hospitals and day care) should have adequate staffing levels and skills to deal with seriously ill patients.
- Prisons that contain women or young people should employ practitioners with skills that are sensitive to the particular conditions of these groups, including the care of women and young children.
- All health care professionals should be properly trained in the constraints of clinical practice in a prison, including the need for high standards and consistent practice, teamwork skills, good judgement in prescribing potentially addictive or mood-altering drugs, and adherence to policies designed to uphold the confidence of vulnerable people who are patients in prisons.

There must be sufficient time:

- to assess and treat patients;
- to meet as a health care team;
- to maintain professional development and networks of fellow professionals with common interests and to operate a method of appraisal that demonstrates that staff are learning in carrying out modern practice;
- to support active teaching and training programmes; and
- to have the capability to deliver care that meets modern standards.

The primary care service should have access to or skills or capacity in public health and health protection matters, including to the *Standard minimum rules for the treatment of prisoners (2)* as follows:

26. (1) The medical officer shall regularly inspect and advise the director upon:

- (a) the quantity, quality, preparation and service of food;
- (b) the hygiene and cleanliness of the institution and the prisoners;
- (c) the sanitation, heating, lighting and ventilation of the institution;
- (d) the suitability and cleanliness of the prisoners' clothing and bedding; and
- (e) the observance of the rules concerning physical education and sports, in cases where there is no technical personnel in charge of these activities.

(2) The director shall take into consideration the reports and advice that the medical officer submits according to rules 25(2) and 26 (see Box 4.1) and, in case he concurs with the recommendations made, shall take immediate steps to give effect to those recommendations; if they are not within his competence or if he does not concur with them, he shall immediately submit his own report and the advice of the medical officer to higher authority.

Methods of self-critical review of critical incidents should be in place for key events such as deaths in custody, deaths following custody, infectious disease outbreaks, suicide prevention programmes and people with serious mental illness.

Health protection and promotion as part of primary medical care in prison

Health promotion is an important part of the work of the prison health care service.

- Health care professionals should be: educated, aware and demonstrate high standards of hygienic practice; capable of assessing the cleanliness of patients and all prison facilities; and aware and capable of operating effective TB control, including auditing the results.
- Effective control procedures are needed to limit the transmission of bloodborne viruses and STIs.
- There should be a smoking control policy for health centres, prisoners and staff throughout the prison.

A service should be developed that incorporates health promotion into the wider work of the prison, such as:

- encouraging people to acquire basic life skills;
- encouraging training for employment and purposeful activity;
- locating suitable accommodation after release;
- linking with welfare programmes and entitlements after release;
- encouraging participation in programmes to help people stop taking illegal and harmful drugs, smoking tobacco and drinking excessive alcohol; and

- encouraging people to exercise regularly and to learn to prepare and enjoy foods that provide a balanced and nutritious diet.

Key background factors that are important for health promotion for prisoners include:

- social, economic and life determinants of lifestyle health problems;
- overcrowding, smoking, drugs and dependence;
- ethnic diversity, language and religion in the context of drugs and mental health;
- disability, especially intellectual or developmental disability or brain disease;
- alcohol and dental health;
- nutrition and infections;
- poor hygiene;
- sexual health and chronic conditions;
- chaotic, unstructured lifestyles;
- abusive relationships;
- poor educational attainment;
- personality disorders;
- lack of assets or social capital;
- history of past abuse;
- poor family cohesion, parenting and supportive relationships.

Health services in prison should ensure that patients' health records are kept at a high standard, equivalent to best practice in the national public health service, and including:

- practical processes for recording, recalling and sharing clinical information to support the care of the patient;
- standard methods for reporting to the prison director, national prison services and outside organizations on the work of prison health centres and accounting for the delivery of health care, using anonymous data extracted from health care records;
- a comments and complaints system for patients both to correct apparent faults and to learn from their experience.

Prison health care should have good links with public health services outside the prison, for many reasons, including:

- assuring the continuation of treatment for patients coming into prison;
- securing primary care services, mental health and addictions care and other continuing care following release from prison;
- ensuring access to specialist services, including secure forensic psychiatry facilities for those who require it;
- ensuring access to specialist public health help in the event of an incident or outbreak;

- ensuring that prison health care staff can access and benefit from education and training opportunities; and
- allowing for the sharing of clinical information between health professional staff for the purpose of direct patient care, in accordance with the patient's wishes and with good practice in ensuring confidentiality.

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21. Promoting health in prisons: a settings approach

Michelle Baybutt, Enrique Acin, Paul Hayton, Mark Dooris

Key points

- Prisoners tend to have much poorer physical, mental and social health than the population at large.
- Health promotion and the prevention of disease for this group should be based on an assessment of health needs.
- The quantity and quality of service should be at least equivalent to services offered in the outside community.
- A whole-prison or settings approach to promoting health draws on three key elements: (i) prison policies that promote health (such as a smoking policy); (ii) an environment in a prison that is supportive of health; and (iii) disease prevention, health education and other health promotion initiatives that address the health needs assessed within each prison.
- A policy framework needs to be in place at national and local levels to support this type of work.
- Prison health services have the chance to engage those who are hard to reach.
- The needs of prisoners should be considered together with those of staff, where appropriate, especially in such areas as smoking restrictions and smoking cessation.
- All staff members need to be made aware of their potential roles in promoting prisoners' health and should be trained and supported in these roles.
- The potential for using prisoners as effective peer educators has been demonstrated in many countries and can be of great value.

Introduction

In addition to providing health care, prisons should also provide synergistic health education, patient education, prevention and other health promotion interventions to meet the assessed needs of the prison population. Indeed, the whole prison regime and environment should demonstrate a commitment to health and well-being through supportive policies and practices. To underpin and support health promotion activities in prisons, there is a need for integrated and joined-up health services across the whole criminal justice system, including adequate throughcare and support with broad resettlement needs. Good health and well-being are key to successful rehabilitation and resettlement (1–3).

This chapter offers guidance to help those working with prisoners to:

- build the physical, mental, social and spiritual health of prisoners (and, where appropriate, the staff) as part of a whole-prison approach;
- help prevent the deterioration of their health during or because of custody; and,
- help them to adopt healthy behaviour patterns that can be taken back into the community.

A whole-prison approach to health promotion is advocated, with extended use of evidence-informed health promotion initiatives.

Challenges and opportunities

In general, the prison populations in Europe come from sections of society with high levels of poor health and social exclusion. Prisoners tend to have poorer physical, mental and social health than the general population (2–5). Their lifestyles are more likely to put them at risk of ill health. Many prisoners have had little or no regular contact with health services before entering prison. Mental illness, drug dependence and communicable diseases are the dominant health problems among prisoners (6).

Prison authorities should regularly assess the health needs of their populations, and ensure that health promotion and prevention programmes provided to prisoners meet their exact needs (7). The prison environment presents special challenges in the promotion of health.

The prison environment often undermines the values aligned to health promotion, such as empowerment (1). At the individual level, prison takes away autonomy and may inhibit or damage self-esteem. Common problems in prisons include bullying, boredom and overcrowding. Social exclusion on release from prison may be worsened as family ties are stressed by separation while in prison.

A health-promoting prison may, however, be instrumental in tackling health inequalities and reducing social exclusion (3), and present significant and useful opportunities for health promotion (8).

- Prison can offer access to disadvantaged groups that would normally be considered hard to reach. This creates an opportunity to address inequality in health by means of specific health interventions, and to lessen the impact on prisoners' health and self-reliance from years of disadvantage and personal neglect through, for example:

- developing their capacity to improve personal skills, abilities and education;
- improving the physical and social environments of the prison and their impact on mental well-being;
- improving the management of the prison and daily prison regime;
- establishing synergistic models of working with the external community.
- Prison is sometimes the only opportunity for an ordered approach to assessing and addressing the health needs of prisoners who have led chaotic lifestyles prior to imprisonment. It is, therefore, important to provide information, education and support in building the skills, confidence and self-esteem necessary for individuals to be empowered to make choices relating to health.
- Prison is a home to prisoners and a workplace to staff. Wherever possible, initiatives to promote the health of staff should be encouraged – both for their own well-being and in recognition that a healthy and motivated workforce is more able to promote the health of prisoners.
- Each prison has the potential to go beyond the delivery of specific health promotion interventions and to work towards being a healthy setting, that is, adopting a whole-prison approach to addressing physical, mental, social and spiritual health (9).
- The development of an ethos and environment supportive to health is fundamental to the creation of a health-promoting prison, together with a participatory process that responds to assessed needs and harnesses assets across the whole prison community so as to promote well-being.

The health promotion needs of prisoners

An assessment of health needs lies at the heart of successful interventions and useful outcomes. This can be done by examining the epidemiological evidence and talking to the stakeholders (prisoners, doctors, health care staff, education and other prison staff).

The following lists provide a starting point for needs assessment in prisons (7). They focus both on defined health needs and on wider policy and practice (such as in the area of smoking policy) with the potential to have a more favourable impact on prisoners' health and well-being. This demonstrates the move from a biomedical perspective towards a more holistic and social model of health that is aligned to the whole-prison approach, with its more joined-up organizational response.

All prisoners are likely to need:

- appropriate screening for and advice on preventing communicable diseases (such as STIs, HIV and hepatitis);
- advice and education on high-risk lifestyles (relating, for example, to illegal drugs, alcohol, smoking and passive smoking);
- support in adopting healthy behaviour (for example, increased levels of physical activity and a balanced diet);
- measures to promote mental health (for example, for social interaction, meaningful occupation and building and maintaining strong family relationships).

Many prisoners are likely to need:

- training and support in psychological skills (such as cognitive behaviour, self-esteem and anger management);
- education in health and empowerment (including information about risk factors and behaviour, the development of decision-making skills and support in becoming more empowered);
- development of life-skills (for, for example, looking for work, employability and parenting);
- specific health promotion interventions (such as peer support, mentoring and smoking cessation).

Some prisoners are likely to need:

- education related to specific illnesses (such as HIV and TB), including the options for treatment and prevention of transmission;
- immunization (TB, pneumococcus, hepatitis, influenza);
- advice on specific conditions (diabetes, epilepsy, asthma, sickle-cell disease);
- access to cancer prevention and advice and services for early detection;
- special treatment programmes (for example, protection from gender-based violence);
- gender-specific health care treatment and programmes.

A whole-prison approach: a vision for creating a health-promoting prison

Evidence from other healthy settings initiatives (such as Healthy Hospitals, Healthy Cities and Healthy Schools) has increasingly shown that effective programmes are likely to be complex and multifactorial and involve activity in more than one domain (10). Thus it is important to apply the healthy settings model to criminal justice and develop a whole-prison approach if health interventions are to have a chance of success (Boxes 4, 5).

The settings approach is rooted in core values and characterized by an ecological model of public health, a systems perspective and a whole-organization focus (11,12). When this framework is applied to the criminal justice system, it is clear that a health-promoting prison is one that is also safe, secure and reforming, and is underpinned by a commitment to participation, equity,

Box 4. Development of a whole-prison approach through a multidisciplinary team at a prison in the United Kingdom

At Risley prison (a medium security “training prison” for about 1000 men), a three-year health promotion strategy was developed, using a whole-systems approach to improving and promoting health. A multidisciplinary team of committed prison staff and external partners, together with prisoners, developed the Healthy Prisons health improvement plan to embed a whole-prison approach to health and well-being. This group also monitors the effectiveness of interventions and projects. In addition to a broad range of health services reflecting those available in the local community and mirroring the topics advocated in *Prison Service Order 3200 – Health Promotion* (13), the prison has focused attention on particular areas, such as prisoners as peer educators and interventions to help prisoners deal with being in prison.

Box 5. A holistic health project that develops self-esteem through horticulture and growing food

Styal is a prison for female offenders, with an average daily population of up to 460 prisoners serving mainly short sentences or awaiting trial. It is one of the largest women’s prisons in the United Kingdom (England and Wales). Approximately 80% of the women originate from the north-west of England; 50% are primary carers or mothers (around 55% of women in prison have a child aged under 16 years, 33% have a child under 5 years and 20% are lone parents); 40% are in custody for the first time; 75% have significant literacy or numeracy problems; and 80% have serious drug and addiction problems.

The prison is running a horticultural project called Grow Your Way to Personal Success with a small number of adult and young offenders, funded as part of the Big Lottery Fund, Target: Well-being programme. It is a three-stage project that focuses on growing produce, using it in the prison’s self-catering houses in educational cookery sessions and developing learning cards so that prisoners can pass on what they have learnt to other people in the prison and to families outside the prison. Bee-keeping and recycling are also key features of this project.

The project has prison-wide commitment as well as community-based partnerships that are enabling prisoners to develop life and social skills (such as those fundamental for employment and independent living), improve their literacy and numeracy and increase their qualifications. It has also had a positive impact on their health and well-being, particularly mental well-being, by encouraging resilience, confidence, self-esteem and reductions in self-injury.

In addition, the prison gardens have become a focal point for visitors to the prison, for staff to relax during breaks and for prisoners (both those who work there and those who visit), with a recognizably positive impact on prisoners’ mental well-being (they sleep better and are less anxious and more relaxed) and physical health (through exercise).

partnership, human rights, respect and decency. The concept of decency is a particularly important foundation for promoting health because it underpins all aspects of prison life. This means that:

- prisoners should be offered treatment that respects the law;
- promised standards should be delivered;
- facilities should be maintained that are clean and properly equipped;
- prompt attention should be paid to prisoners’ proper concerns;

- prisoners should be protected from harm;
- prisoners should be provided with a regime that makes imprisonment bearable;
- staff should be treated fairly and consistently (9).

An *ecological model of public health* means understanding health as a holistic concept determined by a complex interaction of environmental, organizational and personal factors, that requires prisons to be committed to supporting the health and well-being of prisoners and staff through their systems and structures.

A *systems perspective* means acknowledging that the various parts of the prison system (and not solely the health care service) work together over a wide range of health and social issues and across the wider offender pathway of the criminal justice system before, during and after prison.

A *whole-system focus* means using organizational development to introduce and manage change throughout the prison, with a concern to:

- ensure living and working environments that promote health and effectively rehabilitate prisoners;
- integrate health and well-being within the culture and core business of the prison; and
- forge connections to the wider community.

In putting this healthy settings framework into operation, a strategic approach for health-promoting prisons could comprise three elements:

- creation of an environment within each prison, through procedural and capacity-building measures, that is supportive of health and the concept of decency (that is, making sure that the prison regime in general supports prisoners' well-being);
- implementation of policies that specifically promote the health of staff and prisoners (in areas such as taking exercise or reducing or stopping smoking); and
- delivery of disease prevention, health education and other health promotion initiatives that address the health needs in each prison (for example, using motivational interviewing with individual prisoners to help them adopt healthy behaviour) (9).

A national approach: United Kingdom Prison Service Order 3200

Prison Service Orders are mandatory for prison governors, who have to apply them in their own prisons. *Prison Service Order 3200 – Health Promotion* is a high-level policy instruction from the Prison Service for the United Kingdom (England and Wales) to encourage a whole-prison approach to creating a health-promoting prison. It states the following (11):

Governors, working in partnership with the National Health Service, must ensure that ... they have included health promotion considerations adequately and explicitly within their local planning mechanisms ... The Health Promotion Section in the local plan must specifically address, as a minimum, needs in the five major areas:

1. mental health promotion and well-being
2. smoking
3. healthy eating and nutrition

4. healthy lifestyles, including sex and relationships and active living
5. drugs and other substance misuse.

These areas of health and well-being should reflect a process of health needs assessment and not just health care needs assessment, and should involve a whole prison approach. Consultation should represent a wide variety of professional stakeholders, and prisoners must also be involved in this process.

Prison Service Order 3200 has helped to raise the profile of health promotion and the important contribution prisons can make to public health in the United Kingdom (England and Wales).

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22. Staff health and well-being in prisons: leadership and training

Andrew Fraser

Key points

- A successful prison ensures safe custody and good order within an environment of respect and decency.
- Prison management has a key role to ensure that staff and prisoners alike feel safe and have opportunities to maintain and improve their health.
- Prisons have duties to care for both staff and prisoners and offer an opportunity to maintain and improve public health, encourage good health for the individual and offer a rewarding and fulfilling career for staff.
- Prisons can, by reputation and experience, be hazardous and stressful places for staff. It need not be this way. Leadership and staff training are fundamental to ensure that employees can work productively, act as role models for prisoners, be healthy and be confident of support in the event of illness or injury.
- Prisons should aim to be healthy workplaces. They should apply the same safe systems of work, good health and safety practices and systems of employee support as other front-line public services.
- All staff in prisons should recognize the importance of balancing the need for safe custody and control on the one hand, and care and rehabilitation on the other. The needs for custody and order should not infringe human rights.
- All prison staff should have basic training in the laws and duties of care for prisoners, the right to health and access to health care in prison as in the community, the ethical duties of staff and health professionals working in prisons, and the ability to deal with health emergencies and administer first aid.
- To provide a consistent level of service and understanding, it is proposed that all prison systems have a core curriculum for health for all staff working in prisons, with added elements to support further development and updates for managers and leaders.

Introduction

Successful prison systems ensure safe custody and good order for detainees, but also opportunities for rehabilitation and reintegration on release back into the community. Effective prisons provide health care to a standard equivalent to that available in the community, which can only be achieved when prison management and staff all understand and promote health and health care within a "healthy prisons" approach (1). Good health in prisons

cannot flourish without an environment of safe custody and good order and without prisoners and staff feeling safe. Only then can all staff working together produce the kind of setting that protects and promotes health. In many countries, prison authorities have not appreciated their potential for benefit to the community, as leading employers of staff and rehabilitation settings for prisoners.

There is a significant opportunity for staff to create a healthy prison that benefits prisoners, staff and the wider community because "good prison health is essential to good public health" (2). Leadership is key to creating an ethos in prisons of upholding human rights and a full acceptance of the dignity, respect and self-efficacy of individuals. An effective, efficient and healthy prison requires adequate levels of staffing, with proper training, a mix of disciplines and specific expertise in key important areas. Policies and practices should be in place to prevent violence, threats and stress and to provide effective plans and interventions to cope when things go wrong.

This chapter describes the challenges for prisons as healthy settings for their staff, frameworks and examples for good practice, and the essential and core requirements for staff training and prison leadership in health.

Health and the prison

Prison is a place where detainees live and staff work. Often, each group perceives that they lead separate lives, but prisoners and staff have many aspects in common – often similar social backgrounds and, in small communities, possibly similar social networks. In prisons, staff and prisoners share the same space, air for breathing and water for washing or drinking, and face the same physical hazards of the prison environment. Above all, they have a common humanity.

The prison is a special setting – both an institution where people may live for long or short periods and a workplace. Prison staff have several roles, with a focus on control and security within a high-risk environment balanced with care for people with complex characteristics and problems.

The stressful workplace

Often, prison is a stressful and hazardous place to work, and the need for staff to be aware of and to maintain

their health is, therefore, strong. Prison systems can experience increasing absence rates due to stress, burn-out and alcohol and drug use, often connected with the conditions of work. The combination of poor health and prolonged absence from work often leads to early retirement or to retirement with physical and mental problems, at significant costs to individuals, their families and the prison system.

The growing scale of penal institutions worldwide, and rising expectations from and duties imposed on them, means that urgent attention should be given to the pressure on staff. Current problems that affect staff and prisoners alike include overcrowding, intercultural conflicts, violence and gang crime, language problems, drug use, ageing buildings in poor repair and, frequently, insufficient staff levels with poor training to support them.

The experience of working in prisons has not been widely studied but it is clear that, while there is a need for safe systems in all workplaces, there is a particular requirement for these in prisons. Studies have drawn attention to the paradox of high levels of discontent not due primarily to stress from working with prisoners, but to organizational conditions and relationships between authorities and staff.

Risk factors and stress among prison employees

Studies of the health of prison staff have outlined problems arising from stress, particularly reflecting on the interaction between work and distinct factors in the prison setting. Goffman (3) recognized that prison staff work in a closed and "total" system, with a high degree of professional isolation. Strict routines and regimes, hierarchy, depersonalized relationships and bureaucracy serve to remove some amount of control for staff over their work circumstances. Communication between authorities and staff in prisons and old methods of personnel management compound these problems. Staff members need support to define their roles and identities with respect to the prisoners and to work through the divide between the necessary activities of security and basic services and growing expectations for their involvement in the care and rehabilitation process. Prison staff have to reconcile their roles between care and control, between being a guard and a helper. This challenge is greater in countries that lack respect and esteem for the contribution of prisons in society and where the media popularly focus on the withdrawal of liberty and punishment.

There should be wider moves to alter public attitudes towards prison. Management methods and structures

in some prison systems need to be modernized to allow staff more control and influence over the circumstances of their work and to enable them to challenge and influence management. In turn, staff may respond better to the challenge of engaging with prisoners in moving towards rehabilitation, which should engender mutual respect and better relationships between prisoner and staff, and empower staff within the controlled environment. The net effect of these improvements would have a direct effect on staff health and well-being.

Health risk factors for prison staff

Prisons can be hazardous locations. Large and sometimes old buildings, they are crowded and can be inadequately staffed while holding the most dangerous individuals in the community who are capable of harm to others, including other prisoners and members of staff. The net effect of prisons that do not address these realities shows in stress that affects people mentally, physically and cognitively. Adverse events and long-term poor working environments can result in post-traumatic stress disorder and similar conditions. While absence levels, vacancy rates and staff turnover may rise or remain high, other matters (such as misuse of coffee, cigarettes and alcohol, poor eating habits and use of medication) are also indicators of a poorly functioning workplace.

Successful prison systems rely on managing these factors through modern and enlightened employment practices. Reward and recognition schemes, opportunities for career progression and occupational health services are necessary components in strategies to address stress and poor working conditions. Good employers ensure that a good team spirit and productive work is encouraged and recognized, and that there is peer support. Mentoring schemes are modern and cost-effective developments. Prisons need to go to extra lengths to be seen as healthy workplaces and to attract and retain a healthy and committed workforce.

The healthy workplace should be a realistic goal for all employers, and most countries require prison systems to comply with health and safety laws, regulations and conventions. It is fundamental that prison systems have safe systems of work and that they recognize hazards and mitigate risks. If adverse and critical events occur, there should be contingency plans to manage them well and to support staff who are harmed or witness harm occurring. The wider environment of the good workplace is that the employer rewards the staff reliably, puts in place welfare schemes for necessary absences and following retirement, and ensures support in adversity, not only for sickness and injury at work but also for those who witness traumatic incidents.

Good employers in the prison system plan for contingencies and train staff to cope. They will also offer a range of opportunities for assisting staff in the event of personal trouble, whether related to work or personal circumstances. This will ensure that the workforce remains committed to its task and less vulnerable to corruption or compromise with prisoners, and will underpin the performance of the workforce as a coherent team.

For prisons to be successful as institutions that employ staff and detain prisoners, they need:

- workforce policies, applied consistently;
- capable management that is firm and fair to staff and prisoners;
- enforcement and monitoring processes that are transparent and reasonable for staff who are unable to comply with the policies or who are found not to;
- an occupational health system that underpins these policies and practices.

A member of staff who sustains an injury as a result of his or her work should have access to prompt and expert treatment, suitable rehabilitation and a programme for return to work that suits his or her abilities or takes residual health problems into account.

Staff who have drug and alcohol problems or bloodborne virus infections resulting from risky lifestyles require approaches that support and motivate them to recover and contribute effectively to their work. For those whose work is persistently affected by problems of misuse, proper sanctions should be available.

Many prisons have smoking control policies for staff, not only in the interests of safety and security in the workplace but also for the general health of staff and prisoners alike. Smoking restrictions should be consistent and complementary with policies and entitlements for prisoners.

Staff have a very important part to play as role models in the rehabilitation of those in their care, engendering a culture of positive health that is an important contributor to a healthy workplace for everyone in the prison.

Health promotion programmes to support employees

Several countries operate programmes that promote good health in the workplace. WHO supports such programmes globally and regionally.

In the United Kingdom (Scotland), all prisons and the Prison Service headquarters subscribe to the Healthy Working Lives Award scheme that supports employers and employees in developing practical health promotion and

safety themes in the workplace. The scheme encourages development of programmes, staff involvement and workplace engagement with the wider community. It is suitable for all settings, including prisons.

In Germany, a progressive scheme of prison-based health promotion began in 1997 in association with the WHO Health in Prisons project and has spread widely across the country. It has attracted support from politicians and ministries, who now realize the meaning and practical use of health promotion strategies and actively support their implementation.

The WHO publication *Health in prisons* (4) contains a checklist for action and initiatives for self-help in prisons, as follows:

- set up a health promotion group (quality circle);
- conduct internal public relations work in penal institutions;
- set up health information centres;
- provide assistance in health target and service agreements;
- initiate service agreements concerning drug abuse;
- raise money for work;
- prepare and carry out an interview survey for staff about their health status;
- prepare and carry out health days;
- prepare and carry out information days on such topics as drugs, bullying and stress;
- prepare stress management seminars;
- organize consultations on nutrition;
- organize fitness and sports;
- organize fitness offers;
- offer supervision for team consultations;
- promote get-together activities (such as team parties or hiking);
- improve nutrition during work, such as fruit in the canteen and a water cooler;
- encourage problem and crisis consultations with colleagues;
- mediate drug, crisis or debt consultations;
- set up regional working groups for exchanging experience;
- offer support to stop smoking.

Health awareness

The positive features of health awareness among staff are that it will aid their own basic training, support their own well-being, support and influence those they supervise while acting as role models and develop a framework for staff training.

The foundation of health awareness is the culture in prisons. They should be safe, secure and those within

its walls should feel an individual benefit from health awareness measures. Safe custody and good order in prisons, as well as an atmosphere of respect and decency in adequate surroundings, are fundamental to good health.

Prison staff training in health

Prison staff require training in health matters if they are to achieve adequate levels of health, starting with basic measures to create a safe working and living environment. This chapter does not set out to prescribe the requirements for health professionals working in prison, but focuses on staff whose prime responsibilities lie elsewhere.

All staff working in prisons need a basic level of knowledge and understanding of health issues.

They need to be aware of the impact of the overall prison environment on health and of how their working methods and attitudes can enhance rather than hinder the well-being of vulnerable people in their care (5). The public health importance of their work should be underlined (6). Such awareness and knowledge about health should be built into induction training programmes as well as into basic training, and there should be regular updates in specific subject areas. The relationship between the health of staff and of prisoners should be linked to matters such as standards of conduct, management of risks such as self-harm and suicide, and their role in detecting those who need further care, help in coping and in the prevention of serious harm such as suicide and injury to others. First aid training should be included, including recent developments in mental health first aid.

Managers, leaders and decision-making

The principles of health and disease and the organization and objectives of health care should be core subjects in induction programmes for senior and middle managers. Continuing professional education should include updates on more recent thinking on health protection, health promotion and quality and governance in health care. Simple facts regarding the health status of the offender population, such as about clinical diseases and an understanding of mental ill health, drug problems and other addictions, should be provided. Some reference material and special short courses would add value. Senior staff should understand their leadership role within prisons in protecting and promoting health and well-being, including mental health. They need to know the purpose and objectives of the prison health services, both in support and independently of custody and operational matters, and the ways in which prison management can aid good prison health care. The difficult subject of dual loyalty of prison health staff should be included for discussion, including the reasons why health staff must

obey professional good practice guidelines and rules of confidentiality so that good patient–doctor relationships can be the norm.

Health care professionals

The basic professional training of health staff should be the same as for doctors and nurses working in the community health services in the country. In post-qualification terms, the first essential is that health staff must be aware of prison management techniques and approaches to working safely in a secure setting, and their application within that country and in that particular prison. This would include effective prison practice, any special circumstances affecting prison management, and the overall aims and objectives of prison management. In clinical subjects, they need further training in the main health problems facing prisoners, such as poor mental health, addictions and clinical disease including TB, HIV/AIDS and hepatitis. They also need further training, as appropriate, relating to the types of prisoner held in particular institutions, such as young people, women and foreign nationals.

Maintaining professional standards

Professional isolation in prison work is a risk as regards maintaining clinical standards. All health professionals working in prisons should have active and meaningful links to the health professional organizations within their countries. Such links may need to be especially strong in specific cases and sometimes in the setting of their work (addiction, mental health, women's health and so on). Ideally, professionals should hold some clinical responsibilities outside prisons. Aside from maintaining the quality of clinical practice, this extra perspective can be important for the image of their work in the eyes of fellow professionals and may enhance respect between the prisoner as a patient and the doctor concerned.

Clinical governance and performance monitoring

Clear arrangements should be made for the management of prison staff and their employment, well-being and health. Training and learning should be shared with other staff who are in direct contact with prisoners with respect to the vital functions of prisons where responsibilities are shared, such as support for people with addictions, mental health crises and suicide attempts.

Facilities and arrangements should be available for staff training, associated with a public health system in the case of health care staff. Continuing training should be recognized and accepted as a priority for both staff and management. Part of the ethos of any training framework should include a discussion of simple ethical decision-

making steps and opportunities for discussion of case studies and challenging or critical situations in operations and practice.

Health and equality is an important part of training. Some prison systems go further to meet their duties of care and compliance with the law regarding, for instance, equality in mental health matters or learning disabilities. Physical disability is an emerging issue as prison populations rise in number and groups with particular health needs (such as women and older people) grow more rapidly. Specific training should be available for staff who care for prisoners with particular needs and wider considerations.

Conclusion

Staff well-being, training and effectiveness, not only in ensuring secure custody but also in delivering care for prisoners, are interlinked and are important elements of a successful prison system. Staff have an interest in their own health as well as the health of those for whom they have responsibility. The workplace should ensure that health, safety and security for staff and ways of recognizing and dealing with stressful situations are well-founded through leadership and good training. Staff should understand their roles in the protection and creation of good health as well as facts relating to ill health and disease. A good employment environment as well as physical surroundings and cultural norms that promote health and positive role models are integral to successful prison work, rehabilitation for offenders and improving levels of public health which will all benefit prison staff, prisoners, their families and the wider community.

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The WHO Regional Office for Europe

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ISBN 978-9-289-05059-3

World Health Organization
Regional Office for Europe
UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark
Tel.: +45 45 33 70 00. Fax: +45 45 33 70 01. E-mail: contact@euro.who.int
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