NHS Scotland

National Advisory Group

A framework for the sustainable provision of unscheduled care

Executive Summary

1. Remit and context

1.1 In early 2004, Professor David Kerr was asked to lead in the development of a framework for service change for NHS Scotland.

1.2 A National Advisory Group was established under Professor Kerr's chairmanship. This Group in turn established a series of Action Teams to consider key elements of this framework.

1.3 This paper summarises the work of the Unscheduled Care Action Team.

1.4 The group defined unscheduled care as follows:

NHS care which cannot reasonably be foreseen or planned in advance of contact with the relevant healthcare professional, or is care which, unavoidably, is outwith the core working period of NHSScotland. It follows that such demand can occur at any time and that services to meet this demand must be available 24 hours a day[1].

1.5 In developing the strategic principles presented here every effort was made to utilise evidence where possible, but also applied experience and judgement. Reference was also made to feedback from the series of public meetings held in December 2004 and January 2005, and the frontline staff meetings in February 2005.

1.6 The group met formally 6 times between September 2004 and February 2005 and was chaired by Lesley Summerhill, Nurse Director of NHS Tayside and member of the National Advisory Group.

1.7 In developing this framework, the group took into account the work of the Child Health Support Group on emergency care for ill and injured children and young people in Scotland.

2. Underpinning principles

2.1 NHS Scotland has an opportunity to reconfigure services to better match supply to demand. In simple terms, this is an opportunity for us to better meet patient needs.

[1] It should be noted that the remit for the Unscheduled Care Action Team expressly excluded acute mental health, paediatric, and neurosurgical services.

2.2 Current service configurations, cultures, and processes often ask patients to travel unnecessarily. The group believes patients should travel for treatment only when absolutely necessary.

2.3 Patients are often provided care in hospital settings which may be delivered just as effectively locally.

2.4 The current paradigm for much of unscheduled care remains "assess, transport, diagnose, treat" – the patient is first brought directly to a facility where they are diagnosed, and then treated.

2.5 The paradigm should shift to "assess, diagnose, talk, treat" – with transport if absolutely necessary. The first healthcare professional to attend a patient should assess the patient's condition before discussion with other professionals if necessary, define clinical need, then give appropriate treatment, and *only then* transporting the patient.

2.6 Unscheduled care should be considered as a continuum of care across the traditional artificial organisational boundaries between primary, secondary, and tertiary care. NHS Scotland must consider unscheduled care as a whole system.

2.7 The key to delivering services more appropriately is redesigning how NHS Scotland assesses, diagnoses and treats patients. These three elements of care should be delivered as locally as possible, but be as specialised as necessary.

2.8 Clarity is needed around what is required for effective assessment, diagnosis, and treatment.

2.9 Assessment may be defined as the initial consideration of the health need, combined with consideration of the time, facilities, and skills available for treatment. The assessment process may be remote as in NHS24, or direct, as being triaged in an A&E dept and re-directed to a more appropriate service. *Clinical examination is considered as part of diagnosis along with investigations, if indicated*. The healthcare professional dealing with a patient should consider the following questions:

- Do I need to diagnose this patient now? Is it critical that I do so?
- Do I have the appropriate facilities to diagnose this patient now?
- Do I have the appropriate skills and experience to diagnose this patient now?

2.10 If the answer to all three questions is yes, then the healthcare professional may move on to treating the patient. If the answer is no, the patient will need to be diagnosed at another time, or in another place, or by another healthcare professional with more appropriate skills either directly or via communications technology support. This process should allow the healthcare professional to then decide when, where, and by whom the patient should be diagnosed.

2.11 When an assessment is performed and a diagnosis is made, the most appropriate treatment may be identified. The healthcare professional should move through the time, facilities, and skills process to decide when, where, and by whom the patient should be treated.

2.12 By applying this process, more unscheduled healthcare would be delivered locally, while retaining – and utilising more effectively – access to specialised care.

2.13 This calls for the more appropriate use of scarce resources. NHS Scotland has a 21st century workforce operating in a 20th century system. This 20th century system places undue importance on large physical facilities, as opposed to appropriate emphasis on skills. This is a matter of processes, but also of strategic priorities.

2.14 There should be more appropriate utilisation of diagnostic and telecommunications technologies. NHS Scotland does not exploit 21st century technologies to their full potential.

2.15 The systemic weaknesses of NHS Scotland include a limited ability to work across professional and organisational boundaries. The group proposes that NHS Scotland should no longer discuss care in terms of "primary" and "acute", but in terms of "scheduled" and "unscheduled".

3. Recommendations

3.1 The current order in which care is delivered can be summarised as "assess-transport-diagnose-treat", with the emphasis on the patient travelling. The paradigm needs to shift to "assess-diagnose-talk-treat" and only if necessary, "transport".

3.2 NHS Scotland should continue to invest in triage and assessment systems to ensure that patients are directed to the most appropriate service for their needs, minimising unnecessary travel. This means that NHS Scotland should move to present a unified point of entry into the system. This unified "front end" will assist patients in accessing the appropriate service e.g. the ambulance service, telephone clinical triage or

patients' information services. Clinical skills should be integrated into these systems as appropriate.

3.3 The vast majority of unscheduled care takes place outwith hospitals, and there is potential for more care to be delivered outside hospitals. Indeed this must be the case if the growing pressure on emergency services is to be ameliorated. NHS Scotland should work to ensure that as much unscheduled care as possible is delivered in or near the home by telephone advice/ triage services e.g. NHS 24 the Scottish Ambulance Service or local unscheduled care providers.

3.4 NHS Scotland should work to:

i) Maximise the number of patients requiring unscheduled care who are safely assessed without having to leave their homes.

ii) Provide services capable of dealing with non-complex injury and illness on a local level, potentially in hybrid facilities bringing together GP, paramedic and practitioner led casualty services. These should have access to appropriate diagnostic services, and should be linked to other levels of the service by tele-health links in order to facilitate local assessment.

iii) Reconfigure admission services to more appropriately serve the population. Planning of services should emphasise the prevention of admission where this is safe and where adequate services are provided "out of hospital". These services should be supported by appropriate diagnostics and critical care.

iv) Plan unscheduled vascular, urological, and maxillo-facial services on a regional basis. These services are sub-specialised and currently have poorly distributed workforces throughout Scotland.

v) Centralise planning of complex specialised unscheduled care services such as oncology, burns and cardiothoracic surgery, as well as highly specialised paediatric services and neurosurgery[2].

vi) Work towards the provision of a single telephone point of entry for unscheduled care services 24 hours a day. This will be a multi-disciplinary

[2] It should be noted that the future of paediatric services is the subject of a detailed report by the National Review Paediatrics Action Team, while neurosurgery is also the subject of a detailed report. This latter report recommends the centralisation of neurosurgery onto a single site.

triage system which will allow access to appropriate advice as early as possible, referring patients onwards as appropriate. This system is envisaged as the first step towards the development of a single multi-media gateway utilising telephone, internet, digital TV for all NHS service contacts[3]. Ideally this will include booking appointments, repeat prescriptions, test results etc.

vii) Develop a system of **Integrated decision making support.** The current organisation of health services does not always facilitate communication between clinical and care teams. Autonomous decision making is a factor in over-referral to hospital. Investment in Information and Communications Technologies (including electronic patient records and telemedicine) is a necessary first step in delivering such support to the service. The system will need to be supported by continuous audit of, and feedback on, referral patterns to hospitals.

3.5 These proposals require four major supporting struts;

1. Further development and increased utilisation of the Scottish Ambulance Service, not solely to provide transport, but as an element of "a hospital at home".

2. Improved training programmes for all NHS Scotland staff. NES has carried out excellent work on skills for staff involved in the provision of unscheduled out of hours care. NES should be charged with developing competency-based national educational frameworks to support these recommendations.

3. The full exploitation of information and communication technologies, including maximising telephone assessment and telephone management, tele-medical linkages and remote diagnostic technologies. The group sees considerable scope for further integrating this with NHS 24, the Scottish Ambulance Service and building an assessment, diagnostic and management network on a pan-Scotland basis. This network should be supported by appropriate incentives for its use and audit of referral patterns to hospital.

4. Access to appropriate facilities and diagnostics.

[3] This to be implemented following a test and learn pilot phase.

In addition, this model must be supported by an appropriate quality and standards framework, to be developed by Quality Improvement Scotland. This framework needs to be supported by structured prospective clinical audit.

3.6 The emphasis on prevention of avoidable admission by assessing, diagnosing, and treating patients as locally as possible should be a matter of priority for the Centre for Change and Innovation's Unscheduled Care Collaborative. Such work will be supported by a new measurement of emergency care performance.

3.7 It is clear that NHS Scotland is only one part of the whole system of care. Stronger links are required with social care services as a matter of priority, to help provide alternatives to emergency admission, and also appropriate care in the community for those who no longer require care in an acute setting. Lack of integration with social care services has long been recognised but persist and must be addressed as a matter of urgency.

3.8 These recommendations are founding principles for a systematic reconfiguration of NHS Scotland's unscheduled care services. These principles should cut across service providers and follow the patient's journey through the system, ensuring that elements of the system work more efficiently and effectively together. The implementation of these recommendations will entail what are, in some circumstances, radical changes to current configurations of service provision. Careful piloting and experimentation should be put in place to ensure that change occurs in a structured manner, that learning derived from change in one part of the system is applied to other parts, and that the positive attributes of current provision are not disregarded. It is important that policy makers, planners and service providers are able to be open minded and impartial about embracing change.

1. Introduction

1. Context

1.1 A number of factors are coming to bear on NHS Scotland which require changes in the way health services are delivered. These include demographic pressures, the changing expectations of patients, improvements in healthcare technology, and workforce constraints.

1.2 It became evident in Spring 2004 that co-ordinated work was required to provide a national policy context for detailed planning and service redesign efforts at regional and local levels.

1.3 The Scottish Executive's Minister for Health and Community Care established a national review led by Professor David Kerr with a remit to:

- Explore and advise on strategies to secure a sustainable configuration of health services in Scotland;
- Recommend how sustainability might be supported and enhanced through improved integration of care;
- Report to ministers in the Spring of 2005.

1.4 The National Framework Advisory Group was established to lead the review. The group, chaired by Professor Kerr, drew its membership from a broad cross-section of stakeholders, including patients and carers.

1.5 A number of action teams were established to consider the key issues for service delivery, as shown in Box 1:

Box 1:
Action Teams of the National Framework Advisory Group

- Elective Care
- Unscheduled Care
- Diagnostics
- Children (being developed by Child Health Support Group)
- Care in Local Settings
- Highly Specialised Care (neurosurgery and children's tertiary services)
- Rural
- Older People
- Chronic Disease Management
- Inequalities
- Outcomes and Activity

1.6 This paper constitutes the output of the Unscheduled Care Action Team, chaired by Lesley Summerhill, Director of Nursing, NHS Tayside. The membership of the group is listed at Appendix 1.

2. Remit of the Unscheduled Care subgroup

2.1 It may seem contradictory for a national planning exercise to be considering issues relating to unplanned care but unplanned and planned care must work together to optimise capacity in both systems.

2.2 The Action Team agreed that it would base its work upon;

- The scope for separation of unscheduled care from scheduled care;
- The alternatives to traditional hospital A&E based care;
- The future shape of provision for unscheduled care outwith the normal working week;
- Identifying criteria that will support and optimise the local delivery of unscheduled care. This will be underpinned by the optimal configuration of assessment centres at local, regional and national levels, including consideration of the sustainability of 24/7 emergency centres.

2.3 The Action Team agreed at an early stage on the following definition of unscheduled care (Box 2);

Box 2 – Definition of Unscheduled Care

"Unscheduled Care" is defined as NHS care which cannot reasonably be foreseen or planned in advance of contact with the relevant healthcare professional, or is care which, unavoidably, is outwith the core working period of NHS Scotland. It follows that such demand can occur at any time and that services to meet this demand must be available 24 hours a day.

Unscheduled care is not predicable for the patient, but for the system as a whole emergency demand operates within predictable limits and the system should be set up accordingly to respond to this.

3. Outcomes from this paper

3.1 This paper is intended to articulate the key principles underpinning a new framework for unscheduled care.

3.2 The document underlines the ways in which NHS Scotland can significantly improve the quality of its unscheduled care services.

3.4 The group believes that implementation of the recommendations contained here will significantly improve the quality, efficiency and effectiveness of unscheduled care in NHS Scotland. The public have stated that they would like as much care as is reasonably possible delivered locally.

3.5 The current unscheduled care system is neither desirable nor sustainable given the various drivers for change we highlight in section 2. This paper outlines a framework for change that will lead to more sustainable *and efficient* services.

2. Drivers for change

1. Introduction

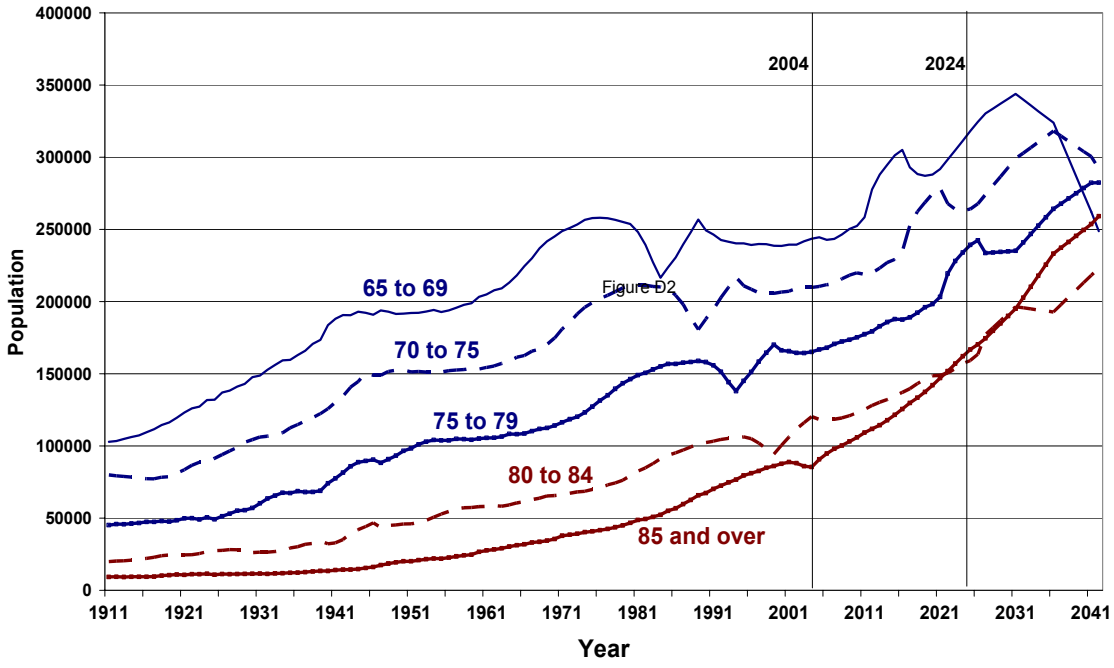
1.1 The following drivers for change are pertinent to the delivery of unscheduled care in Scotland:

- The changing structure of the population and patterns of ill-health
- Workforce constraints – new contracts, legislation, training and increased competition for staff
- Patient expectations – quality and efficiency
- Advances in medical science and technology
- Finance and best value

2. Changing structure of the population and patterns of ill-health

2.1 Scotland faces an ageing population and a growing burden of chronic disease. This is common to all advanced industrial societies but the problems are compounded in Scotland by our relatively poor health by Western European standards and the prospect of the sharpest decline in population in Europe.

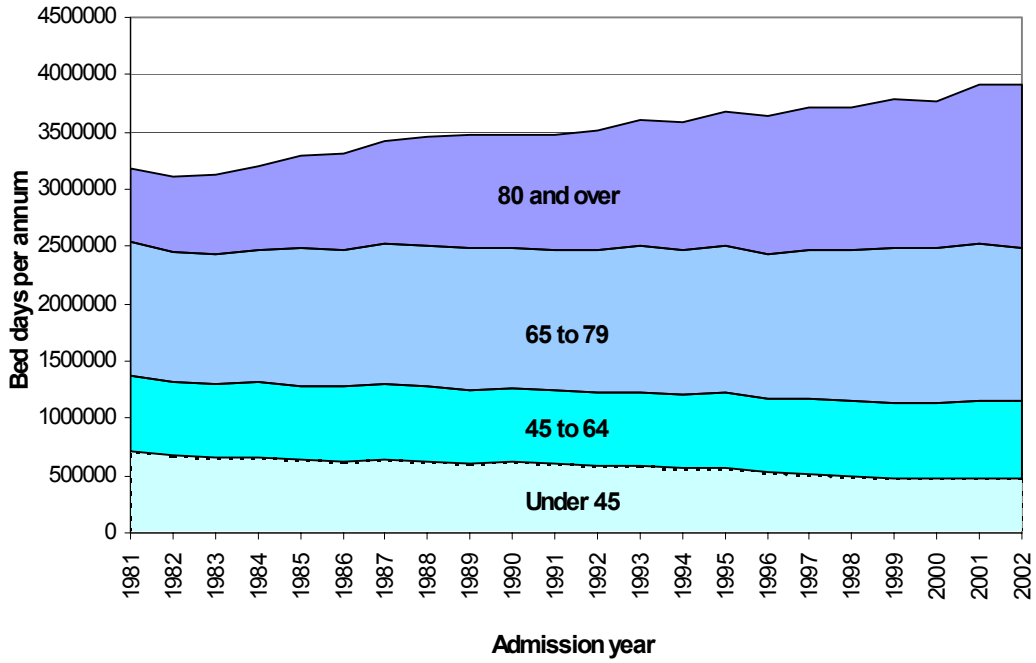
Figure D2 **Scotland's older population by 5 year age group. Trends (1911 to 2002) and GAD projections (2003 to 2042)**
(data from 2028 is linear interpolation between selected years: 2031, 2036,2041)



2.2 One of the major pressure on the NHS over the last twenty years has been the rise in emergency admissions, especially among older people. The increase in hospital beds occupied by emergency inpatients over the last twenty years has mainly been contributed by patients aged 80 and over, as can be seen in figure P2. The balance between elective and emergency activity has changed. In 1983, 59% of emergency bed days were occupied by emergency inpatients, by 1999 this had grown to 76%[4].

Figure P2

Bed days used by emergency inpatients by broad age group. 1981 to 2002.



2.3 The most fundamental strand of explanation for the rise in emergency admissions lies in the mismatch between the needs of the population for proactive, integrated and preventive care for chronic conditions and a healthcare system which is still organised primarily to provide specialized, episodic care for acute conditions.[5] In 1998 70% of emergency admissions were experienced by individuals suffering from at least one long standing illness.[6]

[4] Kendrick S (2001) "Trends in age-specific patterns of patient activity and occupied beds: some implications for the future".
[5] See Increasing emergency admissions among older people in Scotland :
a whole system account: ISD Scotland Whole System Project Working Paper 1.
[6] 1998 Scottish Health Survey

2.4 Unscheduled care is part of the "whole system" of NHS Scotland provision and redesigning unscheduled care in isolation will not solve the problem of rising emergency admissions. Therefore this paper should be considered in conjunction with the rest of the Framework for Service Change.

2.5 There is considerable scope to improve the provision of services for chronic diseases such as diabetes and stroke. By identifying patients with long-term needs earlier, it is possible to significantly reduce the number of emergency admissions for these conditions.

3. Patient expectations

3.1 The 2004 Public Attitudes to the Health Service in Scotland survey may be used as a baseline for current attitudes to the health service, from which we may extrapolate the key elements of public expectation for unscheduled care services.

3.2 The public will demand safe, high quality treatment with minimum variation across the country. Patients will be reluctant to wait for appointments in all settings and will expect well co-ordinated care.

3.3 Meeting such expectations will require delivery of unscheduled care services in settings unfamiliar to the public. This recognises that the majority of unscheduled care requirements are for relatively minor complaints, which should not necessitate long journeys or waits for assessment, diagnosis, and treatment.

4. Information and Communication Technologies (ICT)

4.1 It is clear that more effective utilisation of ICT will be crucial if NHS Scotland is to improve, develop - or in some cases to maintain – its services.

4.2 A whole range of pressures - around workforce (including the need to maintain skills), resources and demography - are coming to bear. Information and Communication Technology and Telemedicine systems are central to the development of a reconfigured health service and must cease to be regarded by healthcare professionals as an adjunct. Understanding their capabilities must be integral to service planning in the future. An integrated, individual, electronic health record combined with standard documentation is critical to the delivery of healthcare in the future.

5. Finance and best value

5.1 It is clear that in Scotland more is spent per head of population on the NHS than in other parts of the UK, as shown in figures 2 and 3. This is partially offset by higher levels of private spend on health services in England than in Scotland.

Figure 2

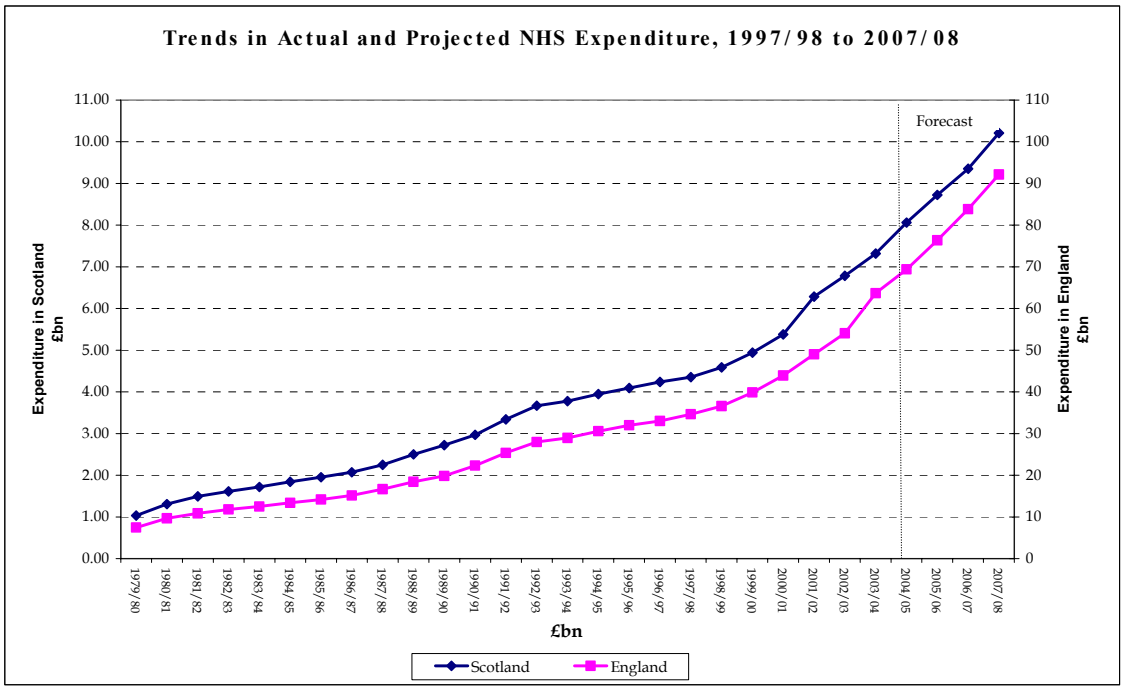
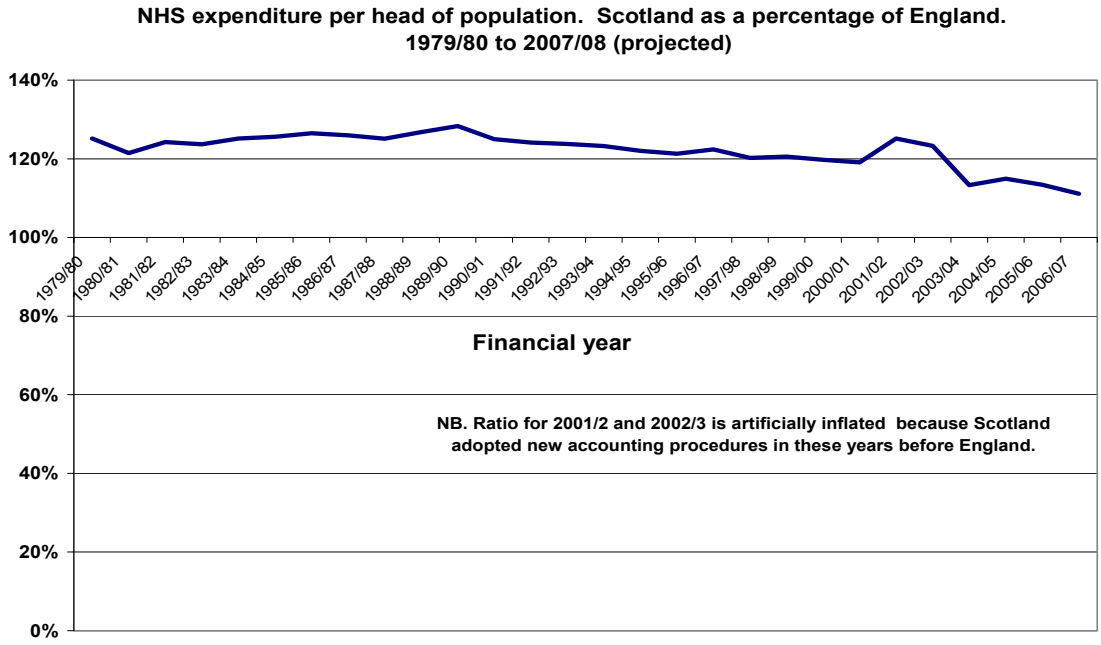


Figure 3



5.2 Additional resources will be required if the various pressures facing the service are to be met whilst standards of care improve.

5.3 As spending on the health service increases, there will be increasing pressure from the Scottish public to demonstrate "value for money".

6. Workforce

6.1 A number of workforce dynamics are currently prevalent in NHS Scotland:

- fewer people of working age;
- an increasing proportion of women in the workforce (60% of the medical student intake in Scotland is now female);
- greater demand for both flexible working patterns and part-time working to reflect the need for work/life balance;
- increased demand for career breaks;
- a reduction in the length of the working week in line with the European Working Time Directive (EWTD);
- Modernising Medical Careers and the move to a consultant delivered service;
- skills shortages in some specialist areas;
- remote and rural challenges with respect to recruitment and retention.

6.2 It is clear that NHS Scotland must recruit more healthcare staff, and this is reflected in the current SEHD recruitment targets. In addition NHS Scotland *must* use staff more efficiently. This means developing new roles and different types of staff.

6.3 The UK is almost unique in the Western world in its reliance on doctors-in-training to deliver service. The hours limits imposed by EWTD and the New Deal for Junior doctors limits the amount of service time they can provide. The service is moving towards a consultant delivered acute service, where the ratio of consultants to junior doctors is greater, consultants are more directly engaged in emergency care and junior doctors develop their skills through more structured training as opposed to the "on the job" training they currently receive. **Modernising Medical Careers** is the process by which these changes will be implemented with the aim of delivering a higher quality of service to patients. However, in the short term these changes will place significant additional demands on the current consultant workforce.

6.4 Scotland has numbers of doctors, nurses, and other healthcare professionals which are, per capita, higher than the UK as a whole, but short of most European countries.

Table 1: OECD Doctors per 100,000 Population (as at 2001)

	Doctors per 100,000 population
France	330
Germany	330
Netherlands	330
Spain (as at 2000)	330
Greece	440
Ireland	240
UK (as at 2000)	200
Scotland (as at 2002)	260

OECD Health Data 2003

6.5 EWTD compliance will not be easier to achieve in Scotland than in England despite a higher proportion of doctors. For example. Scotland has 1.68 hospital doctors per 1000 people, compared to 1.35 per 1000 in England[7]. However these are spread over a far greater number of acute receiving hospitals and Accident and Emergency Departments per head of population. Scotland has 34 Accident and Emergency Departments (i.e. one for every 149,000 people), compared with 209 equivalent Accident and Emergency Departments in England, (i.e. one for every 239,000 of the population).

6.6 Therefore staff are spread thinly across the service. The impact of the European Working Time Directive and the resulting Working Time Regulations will therefore be magnified in Scotland. For instance an A&E service which currently requires 5 doctors to staff will require 8-10 doctors to provide a compliant rota from 2009. There are a higher number of departments in English hospitals which already have this required number of staff as a result of the greater concentration of resources.

[7] Civitas (2004) England vs Scotland: Does more money mean better health?

6.7 The difference is not simply due to Scotland's greater rurality. It is accepted that a 24/7 emergency service should be maintained wherever possible in Scotland's rural areas. This should be achievable through the greater use of tele-medical links, better transport arrangements, and improved diagnostic equipment in these areas. In some urban areas the current level of duplication of emergency services is an unsustainable and inefficient use of medical staff and other resources, which does not provide the best possible service for the public. The current configuration of unscheduled care service is not optimal, mismatching as it does demand for services and the type of services supplied.

6.8 Professor Sir John Temple stated in his *Securing Future Practice: Securing the New Medical Workforce for Scotland* report that these pressures would necessitate a significant reconfiguration of emergency services.

6.9 The necessary changes will not remove local access to the vast bulk of unscheduled care services, with some more specialised services planned and delivered on a regional basis. It is worth considering some of the conclusions of Professor Sir John Temple's report in detail.

7. *Securing Future Practice: Shaping the New Medical Workforce for Scotland*

7.1 At the request of the Scottish Executive Professor Sir John Temple produced *Securing Future Practice: Securing the New Medical Workforce for Scotland* outlining how NHS Scotland can secure the right medical staff to meet the future needs of the health service.

7.2 The report states that it will not be possible to adequately staff every unit currently in place. This makes service change a necessary as well as a desirable goal. The workforce pressures are particularly pertinent in regard to unscheduled care.

7.3 The following were considered in the production of this report:

Recommendation 1 The public must be fully informed about the sustainability of 24/7/52 emergency services and know exactly what to expect in these situations.

Recommendation 2 The service must recognise that current means of delivering service will in many cases not be sustainable. Redesign is necessary if the service is to survive, and this can only be

achieved by organising Scotland around much larger health economies than are provided by the current health boards.

Recommendation 3 The service must set out service goals (outcomes for planning the service) – nationally, regionally and locally. These must provide for emergency and acute care in all locations. This will involve where required, effective partnership with larger more extensively resourced centres and the support of effective and reliable transport geared to sustain patients during transfer.

7.4 Consideration was given to the conclusion in "Securing Future Practice" that:

"To comply with working time regulations by 2009 we will not have sufficient doctors across all grades to provide 24/7/52 care in every locality and unit functioning today."

While this is correct, care must be taken not to characterise NHS Scotland as a purely medically-skilled service. The vast majority of unscheduled care contacts do not require on-site medical skills. The focus must be on fostering a multi-disciplinary clinical team approach that enables flexibility while meeting the needs of patients. Doctors are not required in every unit functioning today and a significant proportion of those currently attending Accident and Emergency Departments may in fact be seen elsewhere by different members of the healthcare team.

7.5 Highly specialist medical skills will be required to deal with true emergency "life and limb-threatening" unscheduled care cases. Dealing with such cases requires appropriately staffed and resourced services, which may need to be provided in fewer sites which concentrate on these cases[8].

7.6 *Securing Future Practice* also pays considerable attention to the difficulties associated with providing unscheduled care in remote and rural areas contending that "low clinical demand in smaller units and in remote areas would be insufficient to develop and refresh clinical competence nor to justify the additional staff required to

[8] *Securing Future Practice*: Professor Sir John Temple : ''A major challenge is the delivery of emergency primary and secondary care. This is likely to impact more on doctors than on other care staff hence their particular interest in seeing how care is provided around the clock. It matters also to the public and patients, who need to have confidence in a 24/7/52 quality acute service. With the limitations on medical staff time this is a powerful lever for service redesign. Decisions on the localities and clinical situations for which triage and transfer arrangements are appropriate must be made on the basis of patient safety, balancing issues of speed of access to specialised medical services against what will be possible to provide and sustain locally. We recommend that this is addressed urgently and realistically, as in many situations the status quo cannot survive."

meet the Working Time Regulations". This is an issue which the Remote and Rural Action Team is considering in more detail.

8. Responding to *Securing Future Practice*

8.1 The skills and technologies available to NHS Scotland should allow the great majority of unscheduled care to be provided in local communities. Current configuration of services does not make the best use of NHS Scotland's constituent parts. NHS Scotland patients are often not receiving the services they require because of an adherence to models of care which no longer reflect the demands on the service.

8.2 In particular, the current configuration of services too often brings patients to hospitals for assessment and diagnostic tests that may be delivered locally, i.e. at home, in diagnostic and treatment centres, in primary care centres, in nurse or paramedic led casualty units or other configurations.

8.3 This leads to disruption for patients and increasing numbers of "emergency" attendances which use the time of highly qualified staff who should be focussing on the complex emergency cases which require facilities only available in acute hospitals.

8.4 This contributes to the problem of patients who are simply admitted when the right test, or test result, or the most appropriate treatment or care package cannot be delivered locally, i.e. when the appropriate services are not in place.

8.5 We must develop a network of unscheduled care services which does not move patients by default to Hospital Emergency Services as a result of the absence of other, more appropriate, types of provision.

8.6 The public wants high quality services, with shorter waiting times and improved outcomes. These goals may only be delivered with change. In particular it is important that honest discussion regarding the number of traditional Accident and Emergency departments should take place.

3. Enabling a new framework

1. Introduction

1.1 There are four key supporting struts for a new framework of unscheduled care. National support and co-ordination will be required to deliver this infrastructure:

- Information and Communication Technologies;
- An appropriately skilled and supported workforce;
- Strengthened transport links;
- Access to appropriate facilities and diagnostics

1.2 The new framework must be supported by quality standards.

2. Information and Communication Technologies

2.1 NHS Scotland has not yet begun to fully exploit information and communication technologies.

2.2 The most simple example of this is the reluctance of NHS Scotland to embrace the telephone, which is proving to be an increasingly valuable tool in providing a 'near" service for patients. Scotland's NHS 24 offers advice on this basis and is a key component in the transition to Health Board led out of hours services necessitated by the new General Medical Services contract.

2.3 More advanced technologies are available and may be used to help deliver specialised assessment, diagnosis and treatment skills on a local basis.

2.4 In Grampian, for example, the A&E department at Aberdeen Royal Infirmary provides remote access to specialist skills to areas around rural Grampian. By using teleconferencing and email facilities, A&E consultants support trained nurses and GPs in dealing with non-complex injuries and illnesses.

2.5 For example a burn might currently necessitate a journey of an hour to see a specialist, only for the patient to find that the injury could have been appropriately treated on a local basis. Fully utilising information and communication technologies would allow a local GP or nurse to consult a specialist hundreds of miles away with appropriate diagnosis and treatment skills avoiding unnecessary transfer.

2.6 These examples demonstrate that modern technologies appropriately deployed may help provide care locally which previously was only delivered at hospital.

2.7 The development of a national telemedicine framework would support the integration of assessment pathways between a national telephone advice service, the Scottish Ambulance Service; and the building of an assessment and diagnostic network on a pan-Scotland basis.

2.8 It should be acknowledged that the need to increase public confidence in this medium is critical to expanding its use in both scheduled and unscheduled care. The introduction of national services, based on enabling technologies will require a "bedding in" period.

2.9 This technology exists and must be invested in. **As a relatively rural country by European standards Scotland should be at the forefront of research and implementation of telemedicine to support and develop services in rural areas**.

2.10 Our highly specialised staff can not be based 24/7 in every local community, but access to appropriate expertise is available using communications technology. It is possible to conceive of a future where the bulk of Scotland's diagnostic technology is interlinked to facilitate rapid assessment, diagnosis, expert advice and treatment.

2.11 The key benefit of better use of telemedicine/ ICT is the delivery of appropriate **integrated decision making support** to all parts of the service. The current organisation of health services does not always facilitate communication between clinical and care teams. Even with high quality training, competence in dealing with infrequently presenting specialist conditions atrophies. Lack of communication drives autonomous decision making which may lead to over-referral to hospital or possibly to sub-standard care.

2.12 GPs and patients may justify sending a patient to hospital as "doing the best for the patient". In fact we may do better for the patient by providing appropriate care locally by utilising local access to tele-medical support and local access to diagnostic services – a key plank of better decision making support for GPs and other unscheduled care providers outwith specialist centres.

2.13 Moving to a system of integrated decision making support will require a change in working practices and culture and not simply having the right equipment in place. It means moving towards a more genuinely "whole system approach" to the delivery of care. Greater use of existing skills and the development of new skills in nurse

practitioners, paramedics, AHPs, Pharmacists and GPs using the opportunities in the new contractual frameworks offers some scope to develop this integrated system.

"Relatively small changes in referral rates [from the community] produce disproportionate changes in the emergency admission rate" [9]

2.14 A system should be developed which incentivises local treatment of patients utilising decision making support to influence referral patterns. Initially the system would be supported by continuous audit of, and feedback on, referral patterns to specialist centres. Simultaneously, consultants' job plans under the new contract should include an obligation to participate in the review of the patient's care pathway and the patient experience.

2.15 A single electronic patient record, accessible to patients, carers and appropriate healthcare professionals is now critical. This would significantly increase networking across NHS Scotland. Allowing patients easy access to their records will facilitate greater patient involvement in their own care, managing decisions in partnership with clinicians.

2.16 Access to real time information will also be invaluable to service planners who currently rely on information of highly variable quality from one area to another.

3. Workforce

3.1 The era of doctors and nurses with very clear professional boundaries working in separate spheres is no longer appropriate for unscheduled care. This will mean the development of new roles for existing staff but also new types of staff altogether.

3.2 Nurses, AHPs and other healthcare professionals might take on an increasing role in assessing and diagnosing and treating patients. Medical staff working in unscheduled care should have a special interest (and training) in immediate care. Hospital doctors will work across organisational boundaries.

3.3 The group foresees the need for a multidisciplinary team in each area specialising in unscheduled care. The professional designations within the team are blurred, but examples of competences which would be crucial to all members of the team are:

[9] *Increasing Emergency Admissions in Scotland among older people in Scotland: A Whole System Account* (ISD) also states that " The referral behaviour of General Practitioners may be the single most important "node" in the complex of cause and effect relationships which has produced the rise in emergency admission in general…"

- Recognition and assessment of the acutely unwell patient
- Stabilisation of the acutely unwell patient
- Appropriate transfer of the acutely unwell patient
- Decision-making skills
- Communications Technology skills
- Supporting discharge

3.4 Educational initiatives to support service redesign and role development in unscheduled care.

3.4.1 There is a wealth of educational provision to support the 'unscheduled care' agenda either currently available or in development across Scotland and the UK as a whole. However, until recently this provision has developed in response to local need and has lacked any central co-ordination. While these local arrangements are genuinely collaborative and responsive to the particular context, there has been increasing support for the principle of a standardised core 'curriculum' or competency framework upon which additional local requirements can be built.

3.4.2 This desire for a uniform response across Scotland is tempered by an awareness of the plurality of need across different Scottish healthcare contexts. Nonetheless, a consistent approach would facilitate movement of staff, employability and transferability of skills alongside opportunity for economies of scale.

3.4.3 The emerging multi-professional role development model, linked to skills and competencies, to educational benchmarks such as the Scottish Credit and Qualifications Framework (SCQF), and to Agenda for Change and the medical career structure, will provide service and educational planners with a template to plan both the appropriate skill mix within different service contexts, and to provide relevant programmes to support skill enhancement, skill maintenance and clinical competence.

3.5 Medicine – learning, working and supervising in new ways within the unscheduled care service

3.5.1 There have previously been tensions in the NHS between supporting service delivery and providing training for doctors. Moving NHS Scotland from a service by doctors in training, to one in which trained 'judgement safe' doctors provide the service, will have significant implications for the structure of the

unscheduled care service. Drivers such as alterations to Out-of-Hours GP cover through nGMS, the reforms set out in Modernising Medical Careers, and the application of Working Time Regulations to doctors in training have resulted in the introduction of different patterns of work in medical services across primary and secondary care. Within medical training itself, *Modernising Medical Careers* will rationalise the current training and career grade structure across the whole service, and NES, through the post-graduate deaneries, will support targeted learning opportunities for doctors in all aspects of the new service.

3.5.2 Whilst the relative number of doctors present within particular components of the service may be reduced as they are deployed in other parts of the service, the medical workforce continues to be seen as a pivotal part of an integrated multi-disciplinary approach to unscheduled care provision. As this service develops, optimal assessment/management of undifferentiated illness, diagnosis, treatment, early detection of serious illness and referral to specialist care if required, will remain key medical roles.

3.5.3 Within primary care, the role of the GP will continue to be crucial, not only in providing care to patients, but in guiding, supporting and assessing the development of other practitioners. NES should take a multidisciplinary approach to supporting experiential 'in-service' learning in educationally sound environments for all staff. Joint, inter-professional supervision and assessment models will be developed to support these learning opportunities. Within secondary care settings a parallel process is being undertaken, with the need for medical support and supervision for new role developments in minor injuries and acute illness units, and in A&E departments. As unscheduled care services develop there are likely also to be new medical career opportunities across unscheduled care and there are now increasing opportunities for joint learning in multi-disciplinary teams when appropriate.

3.5.4 The redesign of both service and educational provision to maintain appropriate acute care services and medical training opportunities in smaller and remote hospitals will be fundamental to the successful acceptance of the unscheduled care model by the public and professions alike. The clinician supporting this service will require skills in areas that have historically been thought of as the domain of the GP, Acute Physician or A&E specialist. The ability to assess "front door" arrivals including minor injuries and assessment of A&E and of acute surgical presentations will be an important part of the skills of such a clinician. This new type of clinician will operate in the local

environment, functioning as part of the emerging model of managed clinical networks, providing access to appropriate specialist input when necessary. It is this variety of skills that creates potentially some of the most rewarding and demanding aspects of the design of the training necessitating, by its nature, input from a number of disparate professional groups. Roles such as the 'Intermediate Care' or 'Integrated Care' Physician are current models that may support this approach. In general these roles will be developed through a multidisciplinary model and such interdisciplinary working will be an essential part of the core skills, and of the education, of such a clinician.

3.5.5 An increasingly important part of the medical contribution to unscheduled care management will be through the provision of high quality advice, guidance and diagnostic support - linking across primary/secondary care – via tele/video-conferencing. Telemedicine and remote medical support roles will be crucial to the success of unscheduled care provision, not only in remote and rural services, but in supporting new practitioners to develop and maintain their skills and competencies. Developments in the educational process have mirrored clinical developments here, with increasing volumes of clinically-focused CPD provision delivered and supported through teleconferencing.

3.6 New nursing, AHP and Paramedic roles in unscheduled care

3.6.1 Due to particular pressures on the service, the focus of much of the initial educational work has been upon supporting the development of practitioners to support the 'Out-of-Hours' (OoH) service needs that have arisen in relation to nGMS. This work has centred around the integration of nurses, paramedics and AHPs into the unscheduled care workforce and the enhancement of their skills and competencies to support these new roles.

3.6.2 The key elements for new practitioner development identified within the NHS Education for Scotland (NES) 'OoH' scoping work (see www.nes.scot.nhs.uk/multi) were;

- *Advanced Clinical Examination*
- *History-taking, Diagnosis and Decision-making skills*
- *Minor Injuries management*
- *Management of common complaints/ Minor Illness*
- *Extended and Supplementary Prescribing*

3.6.3 These elements map directly onto the required 'unscheduled care' skills and it is clear that the roles and competencies considered appropriate for the 'OoH' service map closely to those required of new practitioners across the broader canvas of 'unscheduled care'. Further, the service changes necessitated by nGMS have created new cross-sector models with nurse and paramedic practitioners working between primary and secondary care. The recently created Community Health Partnerships (CHP) have been tasked with working with secondary care to integrate services – these will be an important vehicle for change. These roles, though small in number and currently limited to the 'out-of-hours' period, could be argued to represent the early model for practitioners in a 24/7 'unscheduled care' service. Therefore, the educational programmes and experiential learning opportunities designed to support practitioners in 'Out-of-Hours' are well placed to support practitioner development in 'unscheduled care' as the new service begins to take shape. This takes into account the integration of services provided by other statutory and non-statutory agencies and the education and training required to work effectively in patient centred multi agency teams.

3.7 New healthcare roles

3.7.1 Alongside the development of existing professional roles through additional education and skill enhancement, there may be opportunities to draw entirely new types of healthcare workers into specifically targeted areas of the service. For example, new practitioner models that seek to develop science graduates, who would not previously have chosen to undertake nursing or medical training, are currently being explored across the UK. There may also be virtue in examining, and piloting, some of the wide range of practitioner roles employed in non-UK healthcare systems. Whilst any such roles would require to support the particular Scottish healthcare context, there may be lessons to be learnt from the way in which they are utilised elsewhere.

3.8 Identifying and supporting the skills and competencies required for unscheduled care

3.8.1 The central task, for both service and education is to work backwards and forwards identifying the skills and competencies required in each setting, the optimum skill mix within that context, and appropriate educational input to support continuing development. Since any change in a single element will influence the others, this mapping process must be on-going and include all elements simultaneously.

3.8.2 For Nurses, paramedics and AHPs, learning credit (via the SCQF) should be linked to the development of portfolios of learning and to professionally accredited skills assessment. Reflective self-assessment, regarding the practitioner's existing skills base, will encourage practitioners to identify their own strengths, and also any gaps in their knowledge and skills base. All professionals should be encouraged to use portfolio development as a mechanism for reflecting upon their professional and role development.

3.8.3 Maintenance and update of new skills will require to be addressed, particularly in areas of broad remit and responsibility but with a low turn-over, such as remote and rural settings. Online/distance learning materials will allow for greater continuity and consistency, and support this agenda alongside routine update programmes. This should take account of the principles of adult education, using different methods to deliver the education and training to suit the individual's learning methods. Also, ways of reducing isolation and increasing peer support should be a part of the portfolio of methods considered.

3.9 Clinical Assessment and Educational Supervision:

3.9.1 Crucially, given the contextually-bound nature of much of this learning, any educational initiative must be centred around experiential learning within and across the clinical environments. Central support for the pump priming of the development, maintenance and hosting of such initiatives is likely to be worthwhile. Robust and responsive supervision of skills and competence will be central to the safe and effective delivery of these initiatives. Considerable expertise in supervising and assessing such skills exists currently within NHS Scotland across the professions. However, there is a need to ensure that these processes are formalised, resourced and established within contracting arrangements. Jointly validated, multi-professional competence measurement tools should be generated from existing frameworks designed to support for example GP trainees, Paramedics, Triage Nurses and Emergency Nurse Practitioners. Opportunities to access standardised quality assured self-assessment and self-evaluation tools to support this process should be encouraged.

3.10 Accreditation of Educational Provision:

3.10.1 In establishing identified core and additional add-on components for these new roles, and in seeking to ensure quality, transferability and fitness for purpose there has been a call for the accreditation/validation of programmes which seek to support this agenda. Whilst the Higher Education sector QA mechanisms support such accreditation with respect of academic standards, there are also professional accreditation mechanisms related to most components of the role. A unified multi-professional endorsement process via NHS Education for Scotland, would support the transferability of learning, and cement the relationship between academic award and service accreditation. A further important issue is the transferability of this skill base across Scotland, and across the UK and further consultation with all professions and Health Board areas is on-going and will support the credibility of this model. Linking the educational quality assurance process through NES with the service clinical standards and governance agenda supported by NHS QIS would further support an integrated approach across NHS Scotland.

4. Transport

4.1 Scotland's geography presents significant transport challenges. NHS Scotland will need to further develop transport links, and make better use of the specialist skills of the Scottish Ambulance Service.

4.2 The increased demand on the Ambulance Service resulting from the reconfiguration of specialist hospital-based unscheduled care services should be offset by the establishment of appropriate assessment and diagnostic services for local areas, with transportation required only if appropriate treatment cannot be given locally.

4.3 The service currently uses the Scottish Ambulance Service to transport patients who are then triaged and treated.

4.4 This process should, where possible, be re-ordered to "assess, diagnose, talk, treat" – with transport if absolutely necessary . The Scottish Ambulance Service has a key role to play in helping to deliver unscheduled care assessment, diagnosis, and treatment services by maximising the use of "see and treat" methodologies[10].

[10] See, for example, SAS "Treat and Refer" project

4.5 The Scottish Ambulance Service currently provides services for patients with a medical need for assistance. This can be during the patient's journey or, where appropriate, offering skilled treatment in the field.

4.6 A number of key elements may be identified:

- An Emergency service geared to provide a timely response to serious and life-threatening emergencies.

- Not all calls on the service, following skilled treatment in the field, require transport to a hospital Accident and Emergency department – some may be discharged after treatment; others taken to a community assessment centre; whilst yet others may be taken to a non-emergency intermediate care facility.

- Mobile access to assessment, diagnostic and treatment skills, equipment, and facilities rapidly.

- An increased number of inter-hospital transfers, many of them intensive care or high-dependency, arising from a stratification of specialist services, separately funded, resourced and managed from the A&E and Non-Emergency services.

- A Non-Emergency Service appropriately categorised to ensure that patients in health priority groups receive a high performing service. Where patients need enhanced levels of care from this service, it should work with A&E colleagues to provide it.

Finally the service needs to support Regional Planning Groups in developing co-ordinated arrangements to take the service to the patient through designated transport for visiting specialists and other diagnostic treatment services.

4. Demand within NHS Scotland

1. Introduction

1.1 The group has considered ways in which the type of demand for unscheduled care services may be categorised using existing data.

2. Categorising demand

2.1 We have categorised demand as follows:

- Patients requiring assessment and treatment for "minor" injury and illnesses
- Patients requiring assessment and diagnosis ahead of potential admission to hospital for surgical or medical treatment
- Acutely unwell patients requiring resuscitation

2.2 Conceptually, the group conceives of a broad, cross-cutting demand group which includes patients who could be assessed, diagnosed and treated outside the traditional unscheduled care frameworks. This flow is centred around patients who are currently dealt with in unscheduled care services, but who – with appropriately supportive models of care – could become "scheduled" patients.

2.3 These patients include those with chronic diseases, with requirements for social care, or indeed those with a need for surgical intervention that need not be met on an unscheduled basis as is the case at present, but could be dealt with on a "scheduled" basis.

3. Patients requiring treatment for "minor" injury or ailment

3.1 The vast majority of patients requiring some form of unscheduled care are those with ailments and injuries who do not require admission to an acute hospital, and in fact do not need to be treated in a traditional "A&E" department.

3.2 Data from Forth Valley NHS Board area indicates that approximately one-third of all current attendances at an A&E are for some form of non-complex injury – a deep cut, a sprain, a straightforward fracture – which can be treated by appropriately trained non-medical clinical staff in a range of settings. These injuries do need to be assessed carefully and managed according to clearly agreed protocols, and there is a clear role for the telecommunications technology described above, with clinical advice and support provided from elsewhere.

3.3 Another one-third of all current A&E attendances are for some form of illness which requires assessment, diagnosis and treatment, but does not require admission to a hospital. These are often the kinds of illness that patients would normally visit their local GP practice for treatment, but for a variety of reasons do not. These are patients who do not necessarily need to be treated in an acute hospital facility if appropriate alternatives were in place.

4. Patients requiring admission for surgical or medical treatment

4.1 These are patients who require (or potentially require) admission for forms of treatment which cannot be provided outwith an acute hospital.

4.2 This encapsulates, for example, those patients who may require admission to a Coronary Care Unit following a heart attack, or indeed the elderly patient who requires further investigation of breathing difficulty. These constitute the "medical" component of this group.

4.3 This group of patients includes those who are brought into hospital for emergency surgical procedures, for example for repair of a major blood vessel, for pinning of a lower limb fracture, or for abdominal surgery.

4.4 This constitutes approximately 25-30% of all attendances at A&E departments.

4.5 Ideally in these cases, patients would be admitted, diagnosed, treated and discharged from their local hospital quickly. There is a paucity of step-down units and facilities outwith hospitals which must be dealt with as a matter of urgency for this to become the reality.

4.6 In some cases the need for specialised treatment requires further treatment in another hospital as part of the same admission. This is particularly true of patients requiring treatment for less common health problem, such as emergency cardiac or neuro-surgery. The group believes that numbers of patients who require transfer from a "district general hospital" to specialist facilities is approximately 1.5%.

5. Prevention of admission

5.1 Considerable work has been undertaken within NHS Scotland regarding the prevention of avoidable emergency admission, most notably the *Emergency Medical*

Admissions Scoping Group Final Report[11]. This report represented an important breakthrough for NHS Scotland, as it demonstrates several key issues which require resolution.

5.2 Foremost amongst these is that the number of unscheduled admissions to medical and surgical specialities in Scotland has risen consistently over the last 20 years, particularly medical admissions. This rise appears to be as a direct result of the number of long-staying admissions, particularly among the over-80 age group, and particularly among those patients who have multiple admissions within the same 12-month period[12]. More emphasis is required on admission avoidance supported by improved diagnostic support, and increased primary care-based support. These principles apply equally to general surgical admissions, another major stream of activity. Pressures on emergency care will only be relieved by proactive care management and care for the elderly from other parts of the system.

5.3 Service planners and clinicians in NHS Scotland must now take these messages on board and develop local strategies to keep patients out of hospital unless clinically necessary.

5.4 This will require working across organisational and professional boundaries. A clear role is identified for the emerging CHPs given their requirement to integrate primary and secondary care, local authorities and other statutory and non-statutory agencies.

6. Acutely unwell patients requiring "resuscitation"

6.1 This group of patients generates the most public interest and anxiety.

6.2 These are patients who need very specialised care for acutely life-threatening conditions and problems: these may be as a result of a car crash, a heart attack, a ruptured aneurysm, or a similarly urgent healthcare need.

6.3 These patients require the very best care possible. They constitute approximately 3% of all attendances at "A&E" departments. Some patients need to be triaged to a major unit, particularly after trauma, in order to maximise care. Nevertheless this is a small proportion of the work of an average Accident and Emergency department.

6.4 This group of patients requires treatment in an appropriately well-staffed, skilled and equipped "Emergency Department".

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[11] *Emergency Medical Admissions Scoping Group* (NHS Quality Improvement Scotland, 2004)
[12] *Ibid, p.14-17, reproduced at Appendix ?*

7. Summary

7.1 The following table demonstrates the indicative proportions of workload attending current A&E services in the Forth Valley area:

Table 2 – showing indicative workload proportions attending current A&E services, mapped against severity of clinical need

Patient flow	Proportion of workload in this category
Resuscitation	0-5%
Admissions	20-30%
Minor ailments	30 – 40%
Minor injuries	30 – 40%

Note: These workload proportions are indicative, based on "live" data gathered in NHS Forth Valley.

7.2 Variations will exist across the country, for example, A&E departments in large conurbations may see a greater proportion of medical problems as patients in rural areas are more likely to seek GP advice. Data analysis carried out in NHS Lothian suggests that of 131,316 A&E attendances in 2003-2004, 73,481 were for some sort of minor injury, 30,362 for minor ailments. This means that minor injuries and minor ailments for which patients were discharged directly accounted for some 70-80% of total A&E attendances in this period in Lothian[13].

7.3 In England, the National Audit Office report *Improving Emergency Care* (2004) suggested that 57% of attendances at A&E were for minor injuries or ailments, based on a survey of English NHS Trusts.

7.4 The detail above allowed the group to consider what happens in the average hospital, and allows a clearer understanding of what workload is associated with each category. What is not captured above, however, is that much of this workload could be dealt with in a different way. Neither does it capture the vast amount of work currently carried out outside acute hospitals – that provided by GPs, community pharmacists, NHS 24, community and district nursing services, and by the Scottish Ambulance Service.

[13] Excludes paediatric data.

7.5 Data relating to this workload is not necessarily as easily obtainable as that for acute hospitals. As an example, the Forth Valley NHS system has approximately 75,000 patient contacts with GP out of hours services each year – the same amount as that which currently attends A&Es in the Forth Valley (this does not include "in hour" unscheduled GP attendances).

7.6 In the out of hours period NHS 24 currently fronts all primary care OOH services. For every 100 callers to NHS 24, 40 will be given advice to self-care or be directed to the appropriate in hours scheduled care service, 5 will be directed to A&E, 2 will have an emergency ambulance sent to them, and the remaining 53 will be seen face to face by local OOH services. These figures relate only to the out of hours period, and do not take into account Scottish Ambulance Service 999 callers, those who present at A&E directly, or direct out of hours presentations.

8. Implications of this analysis

8.1 The existing evidence on demand allowed the group to demonstrate that it is possible to deal with a significant proportion of current A&E attendances in alternative settings.

8.2 This section has grouped patients by clinical need. This has allowed the group to consider the most appropriate configuration of levels of service for unscheduled care, and to better understand how resources should be configured to meet this demand. The figures here are indicative and will vary across Scotland. However it is clear that our Accident and Emergency centres currently see a high proportion of non-emergency cases which may be dealt with elsewhere. In many areas this might mean a re-profiling of existing services from inadequately staffed catch-all "A&E departments" to a mix of casualty departments dealing with non-complex injuries and ailments, and well staffed and resourced emergency centres offering optimal treatment for genuine emergencies.

8.3 This is an attempt to use existing data to group patients by clinical need. These are not "patient flow groups" which are derived from process flow analysis and will be used to support service redesign by the Unscheduled Care Collaborative Programme.

8.4 Unscheduled care providers are increasingly coming to recognise the importance of patient flow through the system. To this end, the Action Team endorses the use of patient flows by the Unscheduled Care Collaborative.

9. The Unscheduled Care Collaborative

9.1 Work in England by the Modernisation Agency and Warwick Business School developed an approach to redesign by considering emergency care delivery in terms of high volume patient flows.

9.2 The flows reflect length and complexity of the patient journey and are based on the concept that patients in each flow require the same systematic process steps in their care pathway. It is important to note that the flows are based on process steps irrespective of where care is given.

9.3 However, to get clear focus and scope for the Unscheduled Care Collaborative programme in Scotland, the major emphasis initially will be on care that is currently managed by the acute divisions. However, because of the diversity of Scotland local programmes should be developed to meet local need for change and improvement.

Group 1 – Minor Injury and Illness, including care provided in A&E Departments, in Minor Injury Units and through schemes such as Paramedic See and Treat.

Group 2 – Acute Assessment, this includes the 'majors patients' in A&E and patients referred to Acute Assessment and Receiving Units. The key to understanding the definition of this flow is the patients' predominant need for ongoing assessment to determine the next step in their care pathways. This flow should be limited to a maximum of 48 – 72 hours in Assessment Units reflecting patient needs. However, the 4-hour waiting time target applies to trolleyed areas in these units, to ensure that patients are treated equitably irrespective of the point of access and in the most appropriate clinical environment.

Group 3 – Medical Admissions, patients who require a period of acute hospital care under the management of a Medical or Elderly Care team. Work in this flow will be linked to the chronic disease management agenda.

Group 4 – Surgical Admissions, patients who require a period of acute hospital care, under the management of a Surgical Team. Work in this flow will be linked to redesign of the elective surgical flow and links to theatres redesign.

Group 5 – Out of Hospital Care, this is the largest flow and has been developed as an additional flow group for Scotland to support a whole systems, holistic approach to service redesign. It covers care given to the majority of patients with unscheduled care needs.

9.4 For the purposes of redesign work supported by the Unscheduled Care Collaborative Programme, the emphasis will be to support the development of alternatives to hospital attendance and admission, reducing waits and delays for patients who need urgent hospital assessment and treatment and facilitating timely discharge for those who are ready for discharge from hospital. This is exactly in line with the long term direction established by the Unscheduled Care Action Team.

5. A tiered model of provision

1. Introduction

1.1 At present it is often difficult for service planners, clinicians, patients, carers, and the public to understand exactly how NHS Scotland services work together.

1.2 It is imperative that all stakeholders understand that the tiered model described below is dependent on smooth working across physical and organisational boundaries to ensure an appropriate patient journey, and on the enablers described in chapter three.

1.3 It is also clear that the current configuration of services does not provide sufficient facilities or capacity dedicated to those who do not require acute unscheduled care.

1.4 Key to the proposed model is the principle that the type of service supplied should match the type of demand.

1.5 This means acknowledging that many patients travel unnecessarily and are treated in facilities that are not designed for their needs, and by staff who may be better deployed treating genuine emergencies.

1.6 The skills and training of NHS Scotland staff have outgrown the current framework of unscheduled care services, which has been developed for 20th century healthcare needs. In particular, staff are now able to carry out much more assessment, diagnosis and treatment on an independent basis, supported by senior clinical colleagues and organisational frameworks.

2. A tiered model of care

2.1 The tiered model of provision proposed here concentrates on providing the vast majority of care at local and community levels, thereby preventing inappropriate travel to - and unnecessary stays in - hospitals.

2.2 This model suggests fewer catch all “accident and emergency units”, as currently understood, replaced by practitioner led casualty departments and adequately staffed emergency centres. The group believes that current configurations do not appropriately match supply with demand and that highly trained doctors should focus

more on true emergencies, based in well staffed and resourced departments; with more non-complex injuries and ailments dealt with in local, dedicated facilities.

2.3 The adoption of the tiered model is necessary to ensure sustainability, given the drivers for change outlined above, particularly in relation to the medical workforce and education. The model represents a better use of resources but crucially, in light of public demand, maintains services for the vast majority of unscheduled presentations locally – in many cases more locally than at present.

2.4 This will improve the service that patients receive. It bears repeating that there does not seem to be any benefit in travelling long distances to access a highly sub-specialised service for assessment, diagnosis and treatment if this can be delivered more quickly, more efficiently, and equally safely on a local basis.

2.5 There is, therefore, a requirement for NHS Scotland to ensure that:

- Effective assessment is carried out locally
- Access to specialised diagnosis skills available locally
- Access to specialised treatment skills available locally
- That these processes are supported by robust risk management processes.

2.6 This underlines the already changing unscheduled care paradigm, from "assess, transport, diagnose, treat" to "assess, diagnose, talk, treat" – with transport only if necessary

2.7 The group has worked through its model of care using activity data from a sample Scottish population in the Forth Valley. For every 100 residents of Forth Valley requiring unscheduled care;

- At least 50 will have appropriate care provided by NHS 24, the Scottish Ambulance Service, and GP unscheduled care services;
- Up to 35 may have to travel a short distance to be assessed or treated in a local facility for a minor ailment or minor injury with appropriate equipment and staffing;
- 12 may have to be admitted to a local district hospital;
- 2 would have to travel to a regional centre for diagnosis and treatment for an uncommon, but not rare, health condition;
- 1 may have to travel to one of 2 or 3 national centres for a rare investigation or treatment.

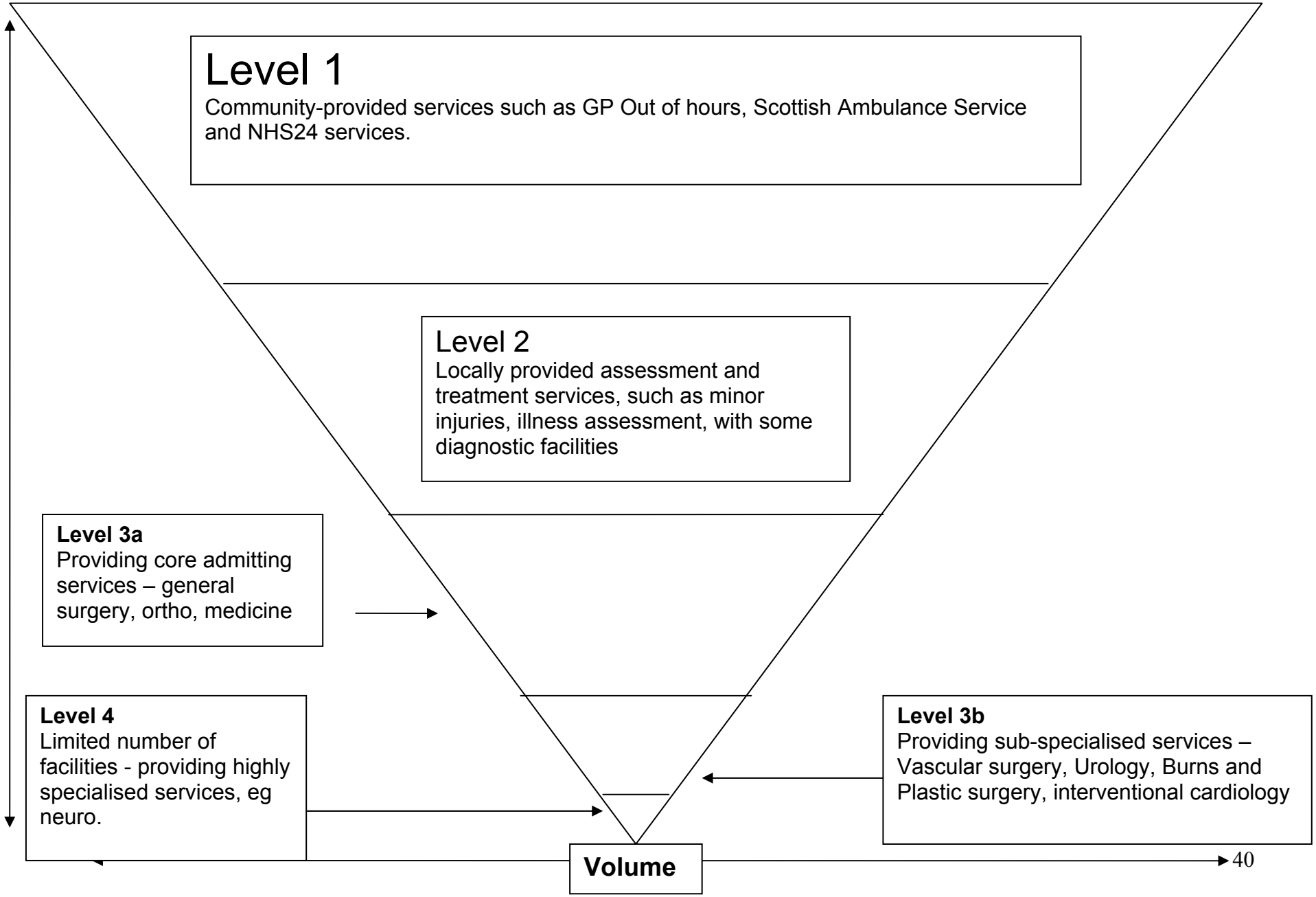
2.8 The group accepts that a proportion of patients will need to travel for appropriate treatment, but believes that in many cases this is already the case.

2.9 The group also believes that allowing boards to develop appropriate sub-specialised facilities and staff groupings at the local level will lead to higher quality care for the vast majority of patients.

3. The Pyramid of Care

3.1 This model is represented graphically overleaf as a pyramid of care. The pyramid of care represents a stratification of services and should be interpreted as such. It does not represent the patient's journey through the service.

3.2 The intention is not that patients should have to travel through all levels of the system, rather that there is clarity regarding which services are provided where, and that an emphasis is placed on appropriate assessment and streaming of patients.


Level 1
Community-provided services such as GP Out of hours, Scottish Ambulance Service and NHS24 services.
Level 2
Locally provided assessment and treatment services, such as minor injuries, illness assessment, with some diagnostic facilities
Level 3a
Providing core admitting services – general surgery, ortho, medicine
Level 4
Limited number of facilities - providing highly specialised services, eg neuro.
Level 3b
Providing sub-specialised services – Vascular surgery, Urology, Burns and Plastic surgery, interventional cardiology
Volume

5. Planning of services

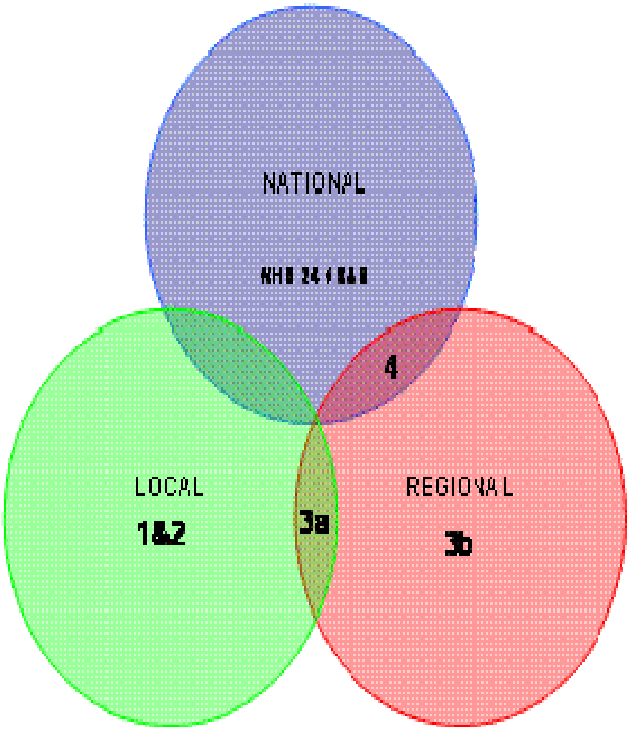
5.1 The group believes that the unscheduled care service must be planned in a more effective way than at present, particularly with reference to decision-making across Health Board area boundaries. Certain services will benefit from being provided on a national basis e.g. national telephone advice and consultation service.

5.2 To this end, the group believes that regional planning groups should have an overview of service provision, and should be charged with the responsibility of planning some unscheduled care services effectively.

5.3 Levels 1 and 2 of the pyramid of care should be planned within current health board areas. National telephone advice and SAS are level 1 services but planned nationally in partnership with local systems.

5.4 Level 3 services and above should be planned collaboratively with regional planning groups working alongside NHS Boards (on levels 3a and 3b) and working with the Scottish Executive to plan national services at Level 4.

Who plans which services?



5.5 The enabling elements of the framework – telecommunications, transport, and workforce – should have strategic direction set centrally by the Scottish Executive, based on this framework.

5.6 These enabling elements should be key considerations which are explicitly addressed by health boards and regional planning groups when reconfiguring services.

5.7 Quality Improvement Scotland should be charged with developing a quality improvement framework for this stratification of services.

6. Service definitions

1. Introduction

1.1 This section describes the 4 levels of unscheduled care provision which form the unscheduled care model for NHS Scotland, and identifies the building blocks for each of these levels.

1.2 These levels are intended to act as the basis for future standards of care to be supported through the performance management and quality frameworks of NHS Scotland and its constituent health boards.

1.3 It should be noted at the outset that these levels are based on a mix of principle and observable data. Some of the definitions will be subject to change with the passage of time.

1.4 What may be clearly seen is that without the radical reconfiguration proposed here, confusion over responsibility for services will continue and sustainability will be threatened.

1.5 For example evidence suggests that it is unlikely that a 24/7/52 rota for a high-intensity speciality such as acute medicine, general surgery, or orthopaedics could be sustained with any less than 8-10 doctors by 2009 as a result of the need to secure EWTD compliance. Innovative networking solutions will therefore need to be found if these types of services are to be maintained in some areas.

2. Service Planning

2.1 The following descriptions of the service levels include the types of services provided, and descriptions of how these link to levels above and below. Standards for these levels should be drawn up and monitored centrally within NHS Scotland around quality indicators, but also around service sustainability issues. This process should include regional planning groups, health boards, NES, NHS QIS, Royal Colleges, and recognised professional bodies.

2.2 One other key issue must be considered in service planning. As noted above, Scotland – outside the central belt - has largely rural areas with dispersed populations.

2.3 Remote and rural Health Boards must urgently consider how services should be provided. Some may choose to maximise provision of level 3a services: others may

choose to divert resources into ensuring that patients may be effectively assessed, diagnosed and treated locally where realistic and sustainable, and transferred more quickly if necessary. These decisions should be made in conjunction with regional planning groups and neighbouring health boards. The model of the rural general hospital developed by the remote and rural group is relevant here and combines a mixture of level 2 and level 3 services.

2.4 This process is aimed at configuring unscheduled care services to most effectively meet need. The needs of remote and rural communities (including in terms of travel time) are likely to mean that emergency care will be provided for smaller populations than would be reasonable in urban areas.

2.5 It is important to realise that different combinations of these service levels may be delivered on a single site depending on local circumstances. For example, major teaching hospitals may see levels 2-4 co-located on the same site.

3. Level 1 services

3.1 Level 1 services are those services currently provided on an assessment, diagnosis and treatment basis by GPs, pharmacy, the Scottish Ambulance Service, district and community nurses, NHS 24.

3.2 These services will in future provide unscheduled care for the majority of unscheduled care contacts, especially for minor illness in the community.

3.3 These services should act as the first point of contact to the NHS Scotland Unscheduled Care system, and to this end the protocols and diagnostic algorithms utilised by each service should be harmonised.

3.4 Clinical staff at this level should have the following indicative core competencies;

- History-taking;
- Rapid assessment of severity of clinical need;
- Understanding of patient pathways for onward referral;
- Prescribing of appropriate basic medicines e.g. pain management;
- Utilisation of basic diagnostic technologies, including telemedicine;
- Utilisation of basic patient record systems;
- Basic resuscitation techniques (eg CPR) and first aid (eg splinting);
- Basic pain management.

3.5 Further work on these competencies should be developed by NES, building on the work carried out to date to support the reconfiguration of NHS Board OOH services and NHS 24 services.

3.6 Staff at this level should be able to access quickly and accurately the services provided at other levels of the system.

3.7 These services should be a key “growth area” of unscheduled care in Scotland, with a significant role in utilising appropriate assessment and diagnostic techniques to redirect work currently carried out on an unscheduled basis to a scheduled setting.

3.8 In particular, the group sees vast potential here in applying the new GMS contract and forthcoming community pharmacist contract to tackle illness assessment, chronic disease management and the proactive management of the elderly patient.

4. Level 2 services

4.1 Level 2 facilities will represent the lynchpins of the unscheduled care framework. These facilities will deliver the vast majority of what members of the public currently consider to be A&E services, and will deliver them locally for communities without requiring the additional travel often associated with service reconfiguration.

4.2 These facilities should work very closely with Level 1 and Level 3 services. A crucial role will be the identification of those cases which require referral to another part of the service. Appropriate risk management and quality standards will need to be put in place. Again, there is a role here for QIS and NES.

4.3 This level of service should include assessment, diagnosis, and treatment for minor injuries, and minor ailments. In some areas this might mean overlapping or co-location of GP OOH services with minor injury and ailments services.

4.4 Boards will be expected to ensure that there are appropriate diagnostic and treatment facilities in place for the delivery of these services.

4.5 The following basic competencies would be required by staff working in these facilities;

- History-taking;
- Assessment of severity of clinical need;
- Understanding of patient pathways for onward referral;
- Prescribing of basic medicines;
- Utilisation of basic diagnostic technologies, including telemedicine;
- Utilisation of basic patient record systems;
- Basic resuscitation techniques (eg CPR) and first aid (eg splinting);
- Basic pain management;
- Stabilisation and transfer of critically ill patients.

For Minor Injuries

- Requesting and Interpreting x-rays and other basic diagnostic tests;
- Use of telemedical technology;
- Suturing;
- Pain management and prescribing of basic medicines;
- Decision-making;
- Organisation of follow-up information, appointments, and diagnostics as appropriate;

- Plastering, and application of splints.

For Minor Ailments

- Ordering and interpretation of diagnostic tests;
- Observation of conditions and patients;
- Utilisation of early warning protocols and procedures;
- Redirecting of patient to “lower” level of care, if appropriate.

4.6 It is important to realise that the group does not see these as inpatient services as currently conceived.

5. Level 3 services

5.1 Level 3a services

5.1.1 Level 3a represents the core of admitting services for acute assessment, and medical and surgical admission. Boards will need to make sensible pragmatic decisions about how services may be sustained. To this end, the following services should be provided:

- General Surgical 24/7 receiving services;
- General Medical 24/7 receiving services (including provision for geriatric admissions);
- Orthopaedic surgery 24/7 receiving services;
- Anaesthetic services on a 24/7 basis, including general critical care services;
- Radiology services on a 24/7 basis;

5.1.2 In addition, these services may be supported by one or more of the following services, depending on local drivers;

- Paediatric receiving services;
- Obstetric receiving services;
- Gynaecology receiving services

5.1.3 These services together will allow appropriate assessment, diagnosis and treatment for the majority of admission or potential admission cases. In addition, this will allow for the appropriate transfer for further sub-specialised treatment if so required.

5.1.4 These services should be provided by medical practitioners conforming to the definition of trained practitioners outlined in *Securing Future Practice*.

5.1.5 The Action Team felt that a population of a quarter of a million would require the services delineated above as Level 3a. The Team did not see this as a "minimum" for the provision of service, but rather as a realistic population for which to plan these clinical services. The Team was explicit that this was a matter of sustainability of service, but also accepts that population base is not the only measure of sustainability.

5.2 Level 3b services

5.2.1 Level 3b services are those required to accurately diagnose and treat certain less common conditions. These services are those required by a much smaller proportion of the population; this leads to a smaller workforce and a much larger population required to provide an appropriate critical mass. Hence, these services should be planned on a regional basis.

5.2.2 These services may be provided in one of two ways. These could be provided as a network between sites providing level 3a services, or in areas with high populations and high population densities, they may be provided as integral to level 3a services.

5.2.3 These services should also provide robust assessment and diagnosis links to Levels 1, 2, 3a and 4.

5.2.4 These services include:

- Vascular surgical services;
- Burns and plastic surgery;
- Oral and Maxillo-facial services;
- Urological services;
- Interventional cardiology services.

5.2.5 These may also be supplemented by services such as paediatrics, maternity, or gynaecology.

6. Level 4 services

6.1 These are services which are highly specialised, providing services for rare or particularly complex conditions.

6.2 These unscheduled care services will include the following;

- Cardiac surgery;
- Thoracic surgery;
- Neurosurgery;
- Sub-specialised critical care (for example, a renal ITU);
- Sub-specialised diagnostic services.

6.3 These are services which also need to have strong assessment and diagnostic linkages to other levels, in order to facilitate effective delivery – and if necessary transfer – of care.

Conclusions and recommendations

Conclusions

Key Principles:

- Match capacity to demand
- Make better use of all consultants, dealing with fewer “minor” complaints
- Assess, diagnose, talk, treat
- Think in terms of scheduled/ unscheduled
- Centre for Change and Innovation programme the first step towards reform of the service
- This is a long-term programme with an emphasis on sustainability

Recommendations

1.1 The recommendations are framed for local, regional, and national planning apparatus. Relationships between these three have previously been unclear, leading to a chronic lack of clarity as regards the responsibility for delivering real improvements to services.

1.1.1 These recommendations are designed to provide a modern, effective unscheduled care system based around the needs of patients. This is in turn predicated on *sustainable* services.

1.1.2 To this end, all elements of NHS Scotland should be subjected to a sustainability test for the provision of unscheduled care. Services should not be provided, or marked for development, if they fail the sustainability test.

1.1.3 This test should include the following elements;

- Compliance with employment law in all respects;
- Compliance with educational requirements for healthcare professionals;
- Compliance with agreed quality and performance frameworks;
- Clear and unambiguous sharing of this information with the public.

1.2 National planning

1.2.1 SEHD

The Scottish Executive Health Department should as a matter of priority develop a plan for the delivery of unscheduled care which includes the following;

- An explicit, ongoing, data-based consideration of demand and capacity in unscheduled care;
- A plan for the establishment and sustaining of a national communication technology/ telemedicine centre;
- Clear support for the CCI Unscheduled Care collaborative as a first step in the delivery of this agenda;
- A plan for supporting on an ongoing basis the Out of Hospital Care strand of the UCC work;
- A performance management framework for the delivery of unscheduled care should be developed, sensitive to local circumstances but minimising variability. This to include analysis of variation in patterns of emergency admissions.

1.2.2 NHS 24

NHS 24 should develop a plan for the delivery of its elements of unscheduled care which include;

- An explicit, ongoing, data-based consideration of demand and capacity;
- A plan for joint working with local and regional planning apparatus that recognises local variations;
- A route map to a unified front end with SAS;
- A detailed consideration of moving beyond a nurse-delivered service to being able to connect to a variety of *multi*-disciplinary advice sources.

1.2.3 SAS

SAS should develop a plan for the delivery of its elements of unscheduled care, which includes;

- An explicit, ongoing, data-based consideration of demand and capacity;
- A plan for joint working with local and regional planning apparatus that recognises local variations;
- A route map to a unified front end with NHS 24.

1.2.4 SAS and NHS 24

SAS and NHS 24 must also develop, with support from a national communication technology centre, a plan for an integrated triage system for NHS Scotland.

1.2.5 NES

NES should produce a plan for the delivery of competency-based education to support the unscheduled care agenda. This plan must include a clear mechanism for working with educational bodies such as universities and colleges.

1.2.6 NES, SAS, and NHS 24

These three bodies must produce a joint plan for the development of an appropriate workforce to support the development of an integrated triage and referral system for NHS Scotland. This workforce planning will need to be performed in conjunction with local and regional unscheduled care providers. This will allow the development on network workforce plans, including rotations etc.

1.3 Regional Planning Groups

Regional Planning Groups should as a matter of priority develop a plan for unscheduled care on a regional basis, which should include the following elements;

- A clear commitment by constituent health boards to work within the regional planning framework;
- Mechanisms for ensuring a consistent approach to the delivery of unscheduled care within the region, with particular emphasis on the delivery of level 3a services;
- A plan for monitoring capacity and demand on an ongoing basis, and for the provision of support to local boards in this monitoring;
- A plan for the sustainable development of level 3 services in collaboration with local Health Boards, including whether these services should be provided on a networked or centralised basis in the region. This plan must also include an explicit, data-based consideration of demand and capacity for these services;
- A plan for the sustainable development of level 4 services, including whether these services should be provided on a networked or centralised basis;
- A clear workforce plan developed in conjunction with SEHD and NES;
- A commitment to close partnership working with NHS QIS in the development of a national quality framework for the delivery of unscheduled care;
- Recognise the developments in social and local authority care and ensure that important local linkages are taken into consideration at the regional level.

1.4 Local/ Health Boards

Health Boards should as a matter of priority develop a plan for the delivery of unscheduled care within their areas. This plan should include the following;

- An ongoing data-based consideration of demand for local services in terms of clinical need, along the lines of the analysis outlined in this document;
- An ongoing data-based consideration of capacity for meeting this demand, which should centre on the workforce and skill mix required to meet the demand;
- Clear plans developed with primary care for the reconfiguration of local unscheduled care services to meet the model laid out within this document, supported by workforce development plans;
- A plan for the integration of current primary care unscheduled care services with current acute minor injury services;
- A plan for sustaining or developing level 3 services in collaboration with Regional Planning Groups. This to include:
    - A consideration of quality improvement issues;
    - A plan for public engagement that seeks to share understanding of the relationship between quality and volume, and a clear explanation of local demand and capacity;
- A clear commitment to supporting the CCI Unscheduled Care Collaborative as a first step in this process;
- Plans for close partnership with NHS 24, SAS, NES, non-statutory agencies and the social care sector in developing sustainable services;
- A commitment to close partnership in working with QIS in the development of a national quality framework for unscheduled care;
- A local performance management framework for unscheduled care.

Appendix 1 – Membership of the Unscheduled Care Action Team

Lesley Summerhill	Director of Nursing, NHS Tayside
Theresa Fyffe	Nursing Officer, Scottish Executive Health Department
Tom Beattie	Chair Emergency Care for Acutely Ill and Injured Children Review Group.
Andrew Marsden	Medical Director Scottish Ambulance Service
Jim Ferguson	A&E consultant, NHS Grampian
Brian Robson	Medical Director, NHS 24
Sonya Lam	Allied Health Professionals Programme Director, NES (NHS Education for Scotland)
Mike Sabin	Nursing, Midwifery & Allied Health Professional Directorate, NES
Derek Bell	Associate Medical Director, NHS Lothian
Margaret Duffy	Chief Executive, Acute Services Operating Division, Forth Valley NHS
Christine McFarlane-Slack	Out of Hours Project Nurse Manager, NHS Highland
David Heaney	Senior Research Fellow Centre for Rural Health, University of Aberdeen
Frances Elliot	Medical Director, NHS Fife Primary Care Division
Mini Mishra	Senior Medical Officer, SEHD
Sandra Campbell	Senior Medical Officer, SEHD
Colin Briggs	Clinical Change Project Team, Acute Services Operating Division, Forth Valley NHS
Brian Dornan	SEHD