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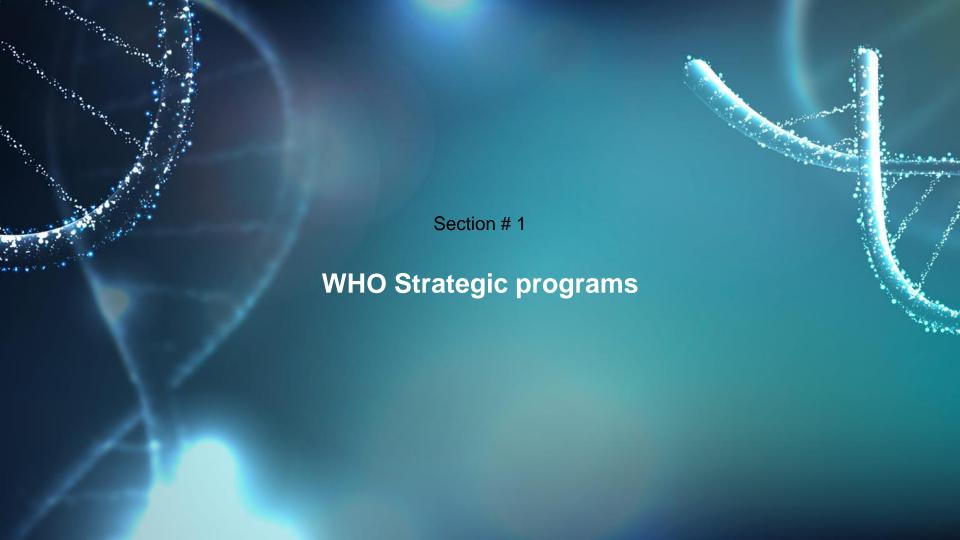
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MNG/PTA01



Agenda

| # | Section Name |
|---|--|
| 1 | WHO strategic programs |
| 2 | Changes in the health status during centuries; social impact of diseases |
| 3 | The position of the Public Health in the 21st century, new challenges, new tasks |
| 4 | Public Health as the system. Health institutions, health care providers, education |
| 5 | Health and its social value |
| 6 | Health condition of population in the Czech Republic |
| 7 | The main determinants of health, possibilities of their influences, quality of life in elderly |
| 8 | Prevention, health insurance in the Czech Republic. |
| 9 | Resources |





They champion health and a better future for all

Dedicated to the well-being of all people and guided by science, the World Health Organization leads and champions global efforts to give everyone, everywhere an equal chance to live a healthy life.

The World Health Organization

Founded in 1948, WHO is the United Nations agency that connects nations, partners and people to promote health, keep the world safe and serve the vulnerable, so everyone, everywhere can attain the highest level of health.

What does the WHO do?

WHO leads global efforts to expand universal health coverage. They direct and coordinate the world's response to health emergencies. And they promote healthier lives from pregnancy care through old age. Their Triple Billion targets outline an ambitious plan for the world to achieve good health for all, using science-based policies and programmes.

They are champions for healthier, safer lives



WHO team of 8000+ professionals includes the world's leading public health experts, including doctors, epidemiologists, scientists and managers. Together, they coordinate the world's response to health emergencies, promote well-being, prevent disease, and expand access to health care. By connecting nations, people and partners to scientific evidence they can rely on, they strive to give everyone an equal chance at a safe and healthy life.

They are professionals committed to integrity and excellence in health. With a spirit of collaboration and a steadfast commitment to science, they are trusted to care for the world's health.

WHO Values

WHO, as the directing and coordinating authority on international health within the United Nations system, adheres to the UN values of integrity, professionalism and respect for diversity.

The values of the WHO workforce furthermore reflect the principles of human rights, universality and equity established in WHO's Constitution as well as the ethical standards of the Organization.

These values are inspired by the WHO vision of a world in which all peoples attain the highest possible level of health, and their mission to promote health, keep the world safe and serve the vulnerable, with measurable impact for people at country level. They are individually and collectively committed to put these values into practice.



Trusted to serve public health at all times
We put people's health interests first
Our actions and recommendations are independent Our decisions are fair, transparent and timely



Professionals committed to excellence in health

We uphold the highest standards of professionalism across all roles and specializations. We are guided by the best available science, evidence and technical expertise We continuously develop ourselves and innovate to respond to a changing world



Persons of integrity
We practice the advice we give to the world
We engage with everyone honestly and in good faith We hold ourselves and others accountable for words and actions



Collaborative colleagues and partners
We engage with colleagues and partners to strengthen impact at country level
We recognize and use the power of diversity to achieve more together We communicate openly with everyone and learn from one another



People caring about people We courageously and selflessly defend everyone's right to health We show compassion for all human beings and promote sustainable approaches to health We strive to make people feel safe, respected, empowered, fairly treated and duly recognized

Promote health | Keep the world safe | Serve the vulnerable

WHO structure

WHO is an organization of 194 Member States. The Member States elect the Director-General, who leads the organization in achieving its global health goals.



Secretariat

WHO's Secretariat includes experts, staff, and field workers at our Geneva-based headquarters, six Regional Offices or other stations located in 150+ countries around the world.



Member States

WHO works with all Member States to support them to achieve the highest standard of health for all people. Our staff working in countries advise ministries of health and other sectors on public health issues and provide support to plan, implement and monitor health programmes.



World Health Assembly

The World Health Assembly is WHO's highest level decision-making forum. Every year, delegates from all Member States convene at the World Health Assembly to set priorities and chart a course for global health progress.

A global presence that puts countries at the centre of their work

From longstanding Geneva headquarters to 6 regional offices, 150 country offices and other offices around the world, WHO plays an essential role improving local health systems and coordinating the global response to health threats.



Working together for the good of all people, everywhere

Collaboration is at the heart of all they do. Every day they connect nations, partners and experts so that they can go further, together. Their partners help support WHO's scientific work and field programmes, contribute funding and resources, engage in campaigns and programmes and join them in advocacy to bring policy and behaviour change for better health.



United Nations and multilateral organizations

As the only UN agency dedicated to global health, WHO works to harness global knowledge and resources to help Member States improve health for all.



Governments and leaders

Every part of WHO's work involves strong collaboration with government leaders. Political will and leadership are essential agents of change to improve the health and wellbeing of everyone, everywhere.



Experts

WHO brings together individual experts to provide scientific, technical and strategic advice on specific health issues. These experts act in a personal capacity and do not represent any external entity, authority or government.



Non-State actors

WHO collaborates with non-governmental and private sector organizations, philanthropic foundations, academic institutions and other non-State actors. More than 800 collaborating centres support WHO on issues such as nursing, occupational health, communicable diseases, nutrition and more.



Partnerships and special programmes

WHO hosts five distinct global health partnerships on topics ranging from health research and policy to financing for vital health services. In addition to other collaborative arrangements WHO hosts six special programmes tackling global threats such as HIV, tobacco and polio.



Goodwill ambassadors

Ambassadors are well-known personalities from the worlds of arts, literature, entertainment, sport or other fields of public life who commit to contribute to WHO's efforts to raise awareness of important health problems and solutions

WHO Governance takes place through the World Health Assembly, which is the supreme decision-making body; and the Executive Board, which gives effect to the decisions and policies of the Health Assembly. The Organization is headed by the Director-General, who is appointed by the Health Assembly on the nomination of the Executive Board.



World Health Assembly

The World Health Assembly is the decision-making body of WHO. It is attended by delegations from all WHO Member States and focuses on a specific health agenda prepared by the Executive Board. The main functions of the World Health Assembly are to determine the policies of the Organization, appoint the Director-General, supervise financial policies, and review and approve the proposed programme budget.



Executive Board

The Executive Board is composed of 34 technically qualified members elected for three-year terms. The annual Board meeting is held in January when the members agree upon the agenda for the World Health Assembly and the resolutions to be considered by the Health Assembly.



Constitution

WHO's work remains firmly rooted in the basic principles of the right to health and well-being for all people, as outlined in our 1948 Constitution. The Constitution was adopted by the International Health Conference held in New York 1946 and entered into force on 7 April 1948.



Election of Director-General

The appointment of the next WHO Director-General will take place at the Seventy-fifth World Health Assembly in May 2022 (WHA75). The election process begins when Member States, through a circular letter sent by the WHO Secretariat, are invited to submit proposals for candidates for the Director-General position. The World Health Assembly will appoint the next Director-General by secret ballot.

WHO Accountability

Independent Expert Oversight Advisory Committee (IEOAC)

As an independent advisory committee established by the Executive Board of WHO, and reporting to the Programme, Budget and Administration Committee, the purpose of the Independent Expert Oversight Advisory Committee is to advise the Programme, Budget and Administration Committee, and, through it, the Executive Board, in fulfilling their oversight advisory responsibility and, upon request, to advise the Director-General on issues within its mandate.





Compliance, risk management and ethics

The Office of Compliance, Risk Management and Ethics (CRE) was established as part of the WHO reform. It is CRE's objective to pursue excellence at all levels of WHO in an effective, efficient, transparent and accountable way. Operational since January 2014, CRE's work is geared towards improving transparency and accountability through enhanced compliance, the development and management of a corporate risk framework, and improved focus and emphasis on ethical values.

How WHO is funded?

WHO gets its funding from two main sources: Member States paying their assessed contributions (countries' membership dues), and voluntary contributions from Member States and other partners.

Assessed contributions (AC) are a percentage of a country's Gross Domestic Product (the percentage is agreed by the United Nations General Assembly). Member States approve them every two years at the World Health Assembly. They cover less than 20% of the total budget.

The remainder of WHO's financing is in the form of **voluntary contributions (VC)**, largely from Member States as well as from other United Nations organizations, intergovernmental organizations, philanthropic foundations, the private sector, and other sources.

Thirteenth General Programme of Work 2019-2023

The Thirteenth General Programme of Work (GPW 13) defines WHO's strategy for the five-year period, 2019-2023. It focuses on triple billion targets to achieve measurable impacts on people's health at the country level.

The triple billion targets are to ensure by 2023:

- One billion more people are benefiting from universal health coverage
- One billion more people are better protected from health emergencies
- One billion more people are enjoying better health and well-being

Universal health coverage

Target: 1 billion more people benefitting from universal health coverage without financial hardship

Two key components combine to measure the universal health coverage index: coverage of essential health services and financial hardship.

- Coverage of essential health services (known as average service coverage or ASC) is made up of 14 indicators* in four categories.
- Financial hardship is the proportion of the population that spends more than 10% of household income on health.

For universal health coverage to improve, both of these components must improve. It is not enough to make progress in average service coverage yet see financial hardship worsening over time.

<u>Note:</u> Coverage of essential health services (SDG 3.8.1): Antenatal care, Child pneumonia, Family planning, Immunization, Diabetes, Hypertension, Tobacco, HIV, Malaria, TB, WASH, Beds, Health workforce and IHR.

Health emergencies protection

Target: 1 billion more people better protected from health emergencies

There are three parts that measure the health emergencies protection index:

- **1.** Emergency preparedness (Prepare)
- **2.** Emergency prevention (Prevent)
- **3.** Emergency detection & response (Detect & respond)

The Prepare indicator is the average of the 13 core capacities of the International Health Regulations (IHR), which helps countries build their capacities to detect, assess and report public health events.

Healthier populations

Target: 1 billion more people enjoying better health and well-being

The healthier populations billion is measured using a range of indicators that reflect factors which impact health but which are not in themselves health services. These 16 indicators* cover a range of topics including clean air and water, safe roads, child nutrition and domestic violence. All but two of them are SDG indicators. As you might expect, these varied indicators are measured in different ways. For example, some are a percentage while some are a rate such as per 100 000.

Each healthier populations indicator is also only relevant to a specific population. For example, the stunting prevalence indicator is only relevant to children under 5 years of age, whereas the tobacco use indicator relates specifically to persons aged 15 years and older.

A measurable impact

Tracking the work of WHO, countries, regions and partners to meet the Triple Billion targets and health-related SDGs equitably.

Learn More



Tracking the Triple Billion targets





Universal Health Coverage

One billion more people benefiting from Universal Health Coverage, monitored on two dimensions (coverage of essential health services and financial hardship) and tracked via 15 indicators.



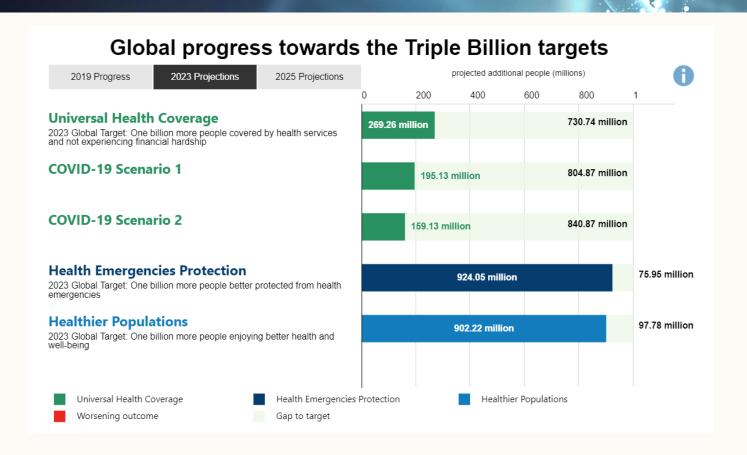
Health Emergencies Protection

One billion more people better protected from health emergencies, tracked via six indicators.

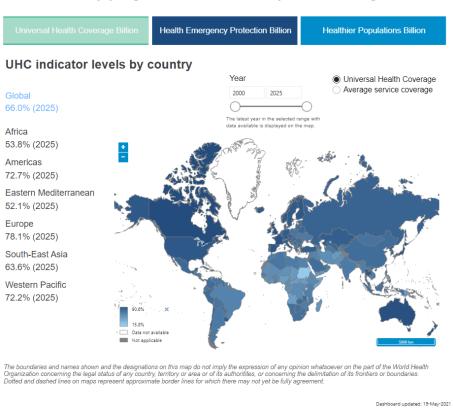


Healthier Populations

One billion more people enjoying better health and well-being, tracked via 16 SDG indicators.



Country progress towards the Triple Billion targets



| # | Name | # | Name |
|----|--|----|---|
| 1 | Strengthening national food control systems | 32 | Integrating rehabilitation into health systems |
| 2 | Translating science for better health emergency preparedness | 33 | Strengthening data on adolescent health |
| 3 | Treating malaria | 34 | Setting standards for adolescent care |
| 4 | Supporting malaria vector control | 35 | Strengthening adolescent-responsive health systems |
| 5 | Developing an urban health research agenda | 36 | Improving safety, quality and choice |
| 6 | Promoting the health of refugees and migrants during COVID-19 pandemic | 37 | Ensuring responsible use of life sciences research |
| 7 | Setting evidence-informed norms and standards on refugee and migrant health | 38 | Promoting national medicines policies |
| 8 | Strengthening health information systems for refugee- and migrant-sensitive healthcare | 39 | Safeguarding biosafety and biosecurity in laboratories |
| 9 | Improving the health and well-being of LGBTQI+ people | 40 | Strengthening rehabilitation research |
| 10 | Improving measurement, monitoring and evaluation of the Decade of Healthy Ageing 2021-2030 | 41 | Promoting walking and cycling |
| 11 | Strengthening partnerships with the faith community | 42 | Strengthening partnerships |
| 12 | Improving our understanding of healthy ageing and trends | 43 | Investing in physical activity |
| 13 | Achieving UHC for older people | 44 | Monitoring financial protection |
| 14 | Transforming health and social services towards a more person-centred and integrated care | 45 | Ensuring sports for all |
| 15 | Addressing TB comorbidities and health-related risk factors | 46 | Mainstreaming gender in WHO's programmes and actions |
| 16 | Engaging the global community in health ethics | 47 | Providing clinical guidance |
| 17 | Developing normative guidance to address ethical challenges in global health | 48 | Promoting rational use of medicines |
| 18 | Supporting countries to manage ethical issues during outbreaks and emergencies | 49 | Improving efficiency across health programmes |
| 19 | Building ethics capacity | 50 | Improving the prevention, diagnosis and clinical management of sepsis |
| 20 | Tackling comorbidities and addressing TB in vulnerable populations | 51 | Synthesizing evidence on clean house energy |
| 21 | Reducing population sodium/salt intake | 52 | Building partnerships to increase access to contraceptive methods |
| 22 | Preventing impacts of electronic waste on child health | 53 | Monitoring tobacco use |
| 23 | Monitoring emerging technologies and building futures-thinking - WHO Foresight | 54 | Public-Private Mix (PPM) for TB care and prevention |
| 24 | Screening for TB disease | 55 | Protecting people from tobacco smoke |
| 25 | Building the evidence for action | 56 | Enforcing tobacco advertising, promotion & sponsorship bans |
| 26 | Strengthening health services with quality | 57 | Promoting joint implementation of foodborne trematode infections with other NTD interventions |
| 27 | Managing childhood illness | 58 | Empowering health care providers to prevent female genital mutilation |
| 28 | Promoting healthy growth and development | 59 | Improving sanitation safety |
| 29 | Rethinking the child health agenda | 60 | Strengthening quality of care by improving WASH and waste management in health care facilities |
| 30 | Tracking SARS-CoV-2 variants | 61 | Monitoring regional and country progress towards the elimination of onchocerciasis transmission |
| 31 | Strengthening rehabilitation in emergencies | 62 | Certifying the elimination of onchocerciasis |

| | Name | # | Name |
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| 63 | Building national programme capacity to implement WHO-recommended strategies | 95 | Strengthening multisectoral accountability to end TB |
| 64 | Providing evidence-based guidance to countries for onchocerciasis elimination | 96 | Harnessing digital technologies for the TB response |
| 65 | Environmental health impacts | 97 | Raising awareness on ultraviolet radiation |
| 66 | Estimating WASH-related burden of disease | 98 | Supporting the development of national policies on electromagnetic fields |
| 67 | Monitoring water, sanitation and hygiene | 99 | Promoting healthy pregnancy |
| 68 | Investing in WASH as a core element of health emergency preparedness, response and recovery | 100 | Preventing TB |
| 69 | Improving water safety | 101 | Supporting the development of diagnostic tools for Taenia solium infection |
| 70 | Promoting rights-based policy & law for mental health | 102 | Interrupting transmission of Chagas disease to humans |
| 71 | Encouraging medical education to bolster the global health care workforce | 103 | Improving data on Taenia solium infections |
| 72 | Prioritizing quality of care in maternal health | 104 | Promoting prevention and control of Taenia solium infection through animals with the One Health approach |
| 73 | Strengthening health systems and communities | 105 | Supporting countries in their cysticercosis control efforts |
| 74 | Raising the importance of postnatal care | 106 | Implementing an information and surveillance system of Chagas disease |
| 75 | Framing the ethics of public health surveillance | 107 | Providing information, education and communication for key people involved in Chagas disease control |
| 76 | Scaling up diagnosis of TB and drug-resistant TB | 108 | Providing care to populations affected by Chagas disease |
| 77 | Ending TB in children and adolescents | 109 | Supporting a better clinical management of neurocysticercosis |
| 78 | Overcoming health consequences of Fukushima nuclear accident | 110 | Enhancing radiation safety in health care |
| 79 | Supporting countries endemic for leprosy | 111 | Intensifying TB research and innovation |
| 80 | Monitoring the global leprosy situation | 112 | Standardizing biotherapeutic products |
| 81 | Facilitating the provision of medicines for leprosy | 113 | Laboratory quality management |
| 82 | Promoting advocacy and partner coordination for leprosy elimination | 114 | Providing evidence-based guidance to eliminate and control STH |
| 83 | Publishing state-of-the art guidance to reduce the leprosy burden | 115 | Building capacity of national control programmes to implement WHO-recommended strategies to eliminate STH |
| 84 | Engaging affected communities and civil society to end TB | 116 | Establishing targets and monitoring progress towards the elimination of STH as a public health problem |
| 85 | Capacity-building for health workers dealing with leishmaniasis | 117 | Donating high-quality medicines and diagnostics for the control of STH in children |
| 86 | Implementing a global surveillance system for leishmaniasis | 118 | Measuring child growth through data |
| 87 | Supplying antileishmanial medicines to the most vulnerable populations | 119 | Improving the mental and brain health of children and adolescents |
| 88 | Tackling the drug-resistant TB crisis | 120 | TB monitoring and evaluation |
| 89 | Scaling up care for mental, neurological, and substance use disorders: mhGAP | 121 | Transforming services and promoting human rights in mental health and related areas |
| 90 | Making childbirth a positive experience | 122 | Preventing violence against children |
| 91 | Expanding preventive chemotherapy to all in need | 123 | Advocating for road safety |
| 92 | Enhancing implementation of schistosomiasis control and elimination programmes | 124 | Caring for child victims of violence |
| 93 | Reinforcing snail control activities for schistosomiasis | 125 | Regulating nicotine and tobacco products |
| 94 | Increasing awareness on genital manifestations of schistosomiasis | 126 | Improving access to recommended medicines and diagnostics for lymphatic filariasis |

| # | Name | # | Name |
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| 127 | Building capacity of national programmes to implement WHO recommended strategies | 159 | Strengthening echinococcosis prevention and control |
| 128 | Facilitating and monitoring progress of countries towards elimination of lymphatic filariasis as a public hea | 160 | Improving surveillance data on cystic echinococcosis |
| 129 | Providing evidence-based guidance to countries for lymphatic filariasis | 161 | Working with veterinary and food safety authorities to support the development of echinococcosis control programmes |
| 130 | Preventing and controlling meningitis outbreaks | 162 | Supporting endemic countries to implement yaws eradication strategy |
| 131 | Ensuring effective meningitis surveillance | 163 | Promoting and coordinating operational research on yaws |
| 132 | Improving meningitis diagnosis at all levels of health care | 164 | Managing health risks during mass gatherings |
| 133 | Promoting health and well being | 165 | Minimizing health risks at airports, ports and ground crossings |
| 134 | Measuring and evaluating child maltreatment | 166 | Preventing epidemics and pandemics |
| 135 | Strengthening access to essential medicines | 167 | Accessing essential health services in fragile, conflict-affected and vulnerable settings |
| 136 | Ensuring fair prices for medicines | 168 | Rapidly detecting and responding to health emergencies |
| 137 | Improving health literacy | 169 | Managing environmental health risks in emergencies |
| 138 | Implementing health emergency and disaster risk management | 170 | Building a skilled workforce to prepare for and respond to emergencies |
| 139 | Creating healthy cities | 171 | Strengthening national emergency preparedness |
| 140 | Promoting health through good governance | 172 | Treating invasive cervical cancer |
| 141 | Screening and brief interventions for substance use problems | 173 | Issuing medical product alerts |
| 142 | Delivering health through mobile clinics and medical teams | 174 | Immunizing against HPV |
| 143 | Integrated surveillance and climate-informed health early warning systems | 175 | Screening for cervical cancer |
| 144 | Stopping attacks on health care | 176 | Pooling revenues and reducing fragmentation |
| 145 | Making health facilities safe in emergencies and disasters | 177 | Promoting strategic purchasing |
| 146 | Promoting baby-friendly hospitals | 178 | Tsunamis |
| 147 | Integrating nutrition into improving the prevention, care and management of HIV/AIDS | 179 | Supporting health care providers to manage complications of FGM |
| 148 | Establishing global nutrient requirements | 180 | Focusing on postnatal care in low- and middle-income countries |
| 149 | Controlling the global obesity epidemic | 181 | Promoting adolescent well-being |
| 150 | Addressing nutrition in emergencies | 182 | Strengthening home-based records implementation |
| 151 | Certifying countries for interruption of yaws transmission | 183 | Identifying common areas of progress with the Every Newborn Action Plan |
| 152 | Parenting for Lifelong Health | 184 | Research in maternal, perinatal, and adolescent health |
| 153 | Preventing environmental health emergencies | 185 | Addressing critical knowledge gaps in newborn health |
| 154 | Detection and alert in environmental health emergencies | 186 | Implementation of the WHO Traditional Medicine Strategy 2014-2023 |
| 155 | Preparedness environmental health emergencies | 187 | Developing nutrition guidelines |
| 156 | Recovery in environmental health emergencies | 188 | Addressing mobile health |
| 157 | Response in environmental health emergencies | 189 | Certifying eradication of dracunculiasis |
| 158 | Building capacity to enhance early diagnosis and clinical management of cystic echinococcosis | 190 | Eradicating dracunculiasis |

| # | Name | # | Name |
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| 191 | Implementing dracunculiasis surveillance and control | 222 | Streamlining operational R&D response during outbreaks |
| 192 | Providing information on the health effects of chemicals | 223 | Developing norms and standards in the epidemic context |
| 193 | Strengthening capacities for the public health management of chemical incidents | 224 | Synthesizing evidence and knowledge on air pollution |
| 194 | Working together through the WHO Chemical Risk Assessment Network | 225 | Working with partners |
| 195 | Harmonizing global approaches to chemical risk assessment | 226 | Developing the Global Dementia Observatory |
| 196 | Health and Climate Change Global Survey | 227 | Improving Quality of Care for Maternal, Newborn and Child Health (Quality of Care Network) |
| 197 | Fostering fiscal dialogue between finance and health | 228 | Strengthening quality midwifery for all mothers and newborns |
| 198 | Building capacity for prevention and management of poisoning | 229 | Improving coordination and fostering an enabling environment |
| 199 | Prioritizing diseases for research and development in emergency contexts | 230 | Eliminating female genital mutilation |
| 200 | Capacity building and training materials | 231 | Addressing the international migration of health workers |
| 201 | Advocating for hearing care | 232 | Improving data on rabies |
| 202 | Highlighting priorities for ear and hearing care - World Report on Hearing | 233 | Vaccinating against rabies to save lives |
| 203 | Promoting the World Hearing Forum | 234 | Human rabies prevention and management |
| 204 | Urban health across sectors | 235 | Improving care of the injured |
| 205 | Assessing chemical risks in food | 236 | Strengthening the nursing and midwifery agenda globally |
| 206 | Assessing microbiological risks in food | 237 | Promoting safe food handling |
| 207 | Supporting countries endemic for Buruli ulcer | 238 | Improving health workforce data and evidence |
| 208 | Engaging communities to sustain dengue vector control | 239 | Integrating ear and hearing care into health systems |
| 209 | Promoting dengue vector surveillance and control | 240 | Expanding health coverage to all workers |
| 210 | Enhancing dengue diagnosis and case management | 241 | Promoting healthy, safe and resilient workplaces for all |
| 211 | Improving data for dengue | 242 | Protecting health and safety of health workers |
| 212 | Supporting countries endemic for mycetoma | 243 | Health workforce education and training |
| 213 | Promoting research on Buruli ulcer | 244 | Understanding the workforce situation through health labour market analysis |
| 214 | Strengthening research capacity into mycetoma | 245 | Estimating the burden of foodborne diseases |
| 215 | Promoting the integrated approach to skin-related neglected tropical diseases | 246 | Supporting community-based health workers (CHWs) |
| 216 | Engaging partnerships and global coordination for Buruli ulcer | 247 | Assessing country progress in health financing for UHC |
| 217 | Fostering partnerships and coordination for the control of mycetoma | 248 | Improving service access and quality |
| 218 | Raising revenues for health | 249 | Implementing the Urban Health Initiative |
| 219 | Leveraging public financial management for better health | 250 | Building capacity to prevent childhood diseases linked to the environment |
| 220 | Robust monitoring of maternal health data | 251 | Developing technical information on environmental risks to child health |
| 221 | Making listening safe | 252 | Raising awareness on e-waste and children's health |

| # | Name | # | Name |
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| 253 | Improving childhood cancer cure rate | 289 | Facilitating global surveillance of antimicrobial resistance and use |
| 254 | Addressing the political economy of health financing reform | 290 | Raising awareness and education on antimicrobial resistance |
| 255 | Building capacity for health financing | 291 | Raising taxes on tobacco |
| 256 | Management of noncommunicable diseases | 292 | Accelerating R&D processes |
| 257 | Preventing noncommunicable diseases | 293 | Implementing health financing reform |
| 258 | Integrated management of NCDs | 294 | Harnessing power of science and digital health |
| 259 | Monitoring science and evidence on climate change and health | 295 | Accelerating impact of innovations for health |
| 260 | Advocacy and Partnerships to protect human health from climate change | 296 | Shaping the research agenda |
| 261 | Supporting countries to protect human health from climate change | 297 | Conducting research and building capacity of researchers |
| 262 | Promoting participatory governance, social participation and accountability | 298 | Strengthening effective use of evidence for health impact |
| 263 | Supporting national health policies, strategies, plans | 299 | Providing technical leadership and coordination for trachoma elimination |
| 264 | Working with parliamentarians to achieve UHC | 300 | Eliminating trachoma through high-quality data |
| 265 | Promoting malaria chemoprevention | 301 | Facilitating research for trachoma elimination |
| 266 | Building capacity on climate change and human health | 302 | Eliminating malaria |
| 267 | Controlling Cancer | 303 | Protecting malaria high-risk groups |
| 268 | Ensuring quality cancer treatment | 304 | Protecting malaria high-risk groups |
| 269 | Supporting countries to strengthen palliative care | 305 | Monitoring malaria drug efficacy and resistance |
| 270 | Promoting Cancer Early Diagnosis | 306 | Building capacity on legal matters |
| 271 | Understanding the problem | 307 | Collecting and disseminating legal information |
| 272 | Identifying solutions for countries | 308 | Providing legal advisory services to Member States |
| 273 | Strengthening Private Sector Engagement for UHC | 309 | Ensuring gender-responsive health systems |
| 274 | Preventing cancer | 310 | Closing data gaps in gender |
| 275 | Strengthening legal frameworks for UHC | 311 | Advancing gender, equity and human rights through programmes and policies |
| 276 | Reducing health system corruption | 312 | Addressing antivenoms issues |
| 277 | What is PHC? | 313 | Leading and coordinating anti-rabies efforts with "One Health" partners |
| 278 | Moving towards PHC | 314 | Improving ecological and epidemiological data on snakebite envenoming |
| 279 | Assessing, measuring, improving PHC | 315 | Improving treatment for snakebite patients |
| 280 | Preventing and controlling cholera in endemic countries | 316 | Undertaking health law research |
| 281 | Supporting cholera outbreak response | 317 | Global Coordination Mechanism on NCDs |
| 282 | Hosting the GTFCC secretariat | 318 | Diagnostic testing for malaria |
| 283 | Monitoring progress on antimicrobial resistance | 319 | Preventing and controlling snakebite envenoming |
| 284 | Supporting countries with national action plan implementation | 320 | Health and Climate Change Country Profiles |
| 285 | Fostering international cooperation on antimicrobial resistance | 321 | Investing in school health |
| 286 | Coordinating R&D on antimicrobial resistance | 322 | WHO collaborative multi-centre research project on SARS diagnosis |
| 287 | Optimizing use of antimicrobial medicines | 323 | Supporting country programmes |
| 288 | Building capacity for infection prevention | | |

WHO Initiatives

| # | Name | # | Name |
|----|---|----|---|
| 1 | Access to COVID-19 Tools (ACT) Accelerator | 32 | Health for All Film Festival |
| 2 | Arts and Health | 33 | Health Resources and Services Availability Monitoring System (HeRAMS) |
| 3 | Be healthy be mobile | 34 | High 5s: Standard operating procedures |
| 4 | Beijing+25: Generation Equality | 35 | Hub for Pandemic and Epidemic Intelligence |
| 5 | Cervical Cancer Elimination Initiative | 36 | The International EMF (electromagnetic field) Project |
| 6 | Comprehensive Mental Health Action Plan 2013-2030 | 37 | International Regulatory Cooperation for Herbal Medicines (IRCH) |
| 7 | COVID-19 technology access pool | 38 | Joint UNODC/WHO Programme on Drug Dependence Treatment and Care |
| 8 | Decade of Healthy Ageing (2021-2030) | 39 | Malaria Vaccine Implementation Programme |
| 9 | Defeating meningitis by 2030 | 40 | Maternal and Neonatal Tetanus Elimination |
| 10 | Eliminate yellow fever epidemics (EYE) 2017-2026 | 41 | Medication Without Harm |
| 11 | Epidemic Intelligence from Open Sources (EIOS) | 42 | MPOWER |
| 12 | Every Newborn Action Plan | 43 | Pandemic Influenza Preparedness (PIP) Framework |
| 13 | EVIPNet : Evidence-informed Policy Network | 44 | Patients for patient safety |
| 14 | FAO/WHO Codex Trust Fund | 45 | Preventing and Responding to Sexual Exploitation, Abuse and Harassment |
| 15 | Find. Treat. All. #EndTB | 46 | Private Organizations for Patient Safety (POPS) |
| 16 | Food Systems for Health | 47 | Public health implications of the Nagoya Protocol |
| 17 | A Future for the World's Children | 48 | Rehabilitation 2030 |
| 18 | Global Action Plan for Healthy Lives and Well-Being for All | 49 | SAFER - alcohol control initiative |
| 19 | Global Alliance for Care of the Injured | 50 | Strengthening national nutrition information systems (EC-NIS project) |
| 20 | Global Alliance to Eliminate Lead Paint | 51 | Tripartite Zoonoses Guide |
| 21 | Global Antimicrobial Resistance and Use Surveillance System (GLASS) | 52 | Twinning Partnerships for Improvement |
| 22 | Global Buruli Ulcer Initiative (GBUI) | 53 | United Against Rabies |
| 23 | Global Emergency and Trauma Care Initiative (GETI) | 54 | UN Decade of Action on Nutrition |
| 24 | Global Influenza Surveillance and Response System (GISRS) | 55 | Urban Health Initiative |
| 25 | Global Laboratory Leadership Programme (GLLP) | 56 | WHO 1+1 Initiative |
| 26 | Global Learning Opportunities for Vaccine Quality | 57 | WHO Alliance for the Global Elimination of Trachoma by 2020 |
| 27 | Global Patient Safety Collaborative | 58 | WHO Health and Peace Initiative |
| 28 | Global Surveillance and Monitoring System | 59 | WHO collaborative multi-centre research project on Severe Acute Respiratory Syndrome (SARS) diagnosis |
| 29 | Global Vaccine Safety Initiative (GVSI) | 60 | WHO Global Diabetes Compact |
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Public Health

Public Health is the art and science of preventing disease, prolonging life, and promoting physical and mental health, sanitation, personal hygiene, control of infectious diseases, and organization of health services.

From the normal human interactions involved in dealing with the many problems of social life, there has emerged a <u>recognition</u> of the importance of community action in the promotion of health and the prevention and treatment of disease, and this is expressed in the concept of public health.

The practice of public health draws heavily on medical science and concentrates especially on controlling the environment for the benefit of the public. It is concerned therefore with housing, water supplies, and food.

<u>Noxious agents</u> can be introduced into these through inadequate sewage disposal and drainage, defective heating and ventilating systems, machinery, and toxic chemicals.

Public health medicine is part of the greater system of preserving and improving the public health. Occupational medicine is concerned with the health, safety, and welfare of persons in the workplace. It may be viewed as a specialized part of public health medicine since its aim is to reduce the risks in the environment in which persons work.

Public Health

The journey of preserving, maintaining, and actively promoting public health requires special methods of information-gathering (epidemiology) and corporate arrangements to act upon significant findings and put them into practice.

<u>Statistics</u> collected by epidemiologists attempt to describe and explain the occurrence of disease in a population by correlating factors such as diet, environment, radiation exposure, or cigarette smoking with the incidence and prevalence of disease. <u>The government</u>, through laws and regulations, creates agencies to oversee and formally inspect and monitor water supplies, food processing, sewage treatment, drains, and pollution. Governments also are concerned with the control of epidemic and pandemic diseases, establishing guidelines for appropriate medical responses and isolation procedures, and issuing travel warnings to prevent the spread of disease from affected areas.

<u>Various public health agencies</u> have been established to help control and monitor disease within societies, on both national and international levels. For example, the United Kingdom's Public Health Act of 1848 established a special public health ministry for England and Wales. In the United States, public health is studied and coordinated on a national level by the Centers for Disease Control and Prevention (CDC). Internationally, the World Health Organization (WHO) plays an equivalent role.

History of Public Health

- A review of the historical development of public health, which began in ancient times, emphasizes how various public health concepts have evolved.
- Historical public health measures included quarantine of leprosy victims in the Middle Ages and efforts to improve sanitation following the 14th-century plague epidemics.
- Population increases in Europe brought with them increased awareness of infant deaths and a proliferation of hospitals.
- These developments in turn led to the establishment of modern public health agencies and organizations, designed to control disease within communities and to oversee the availability and distribution of medicines.

Beginnings in antiquity

<u>Most of the world's ancient peoples</u> practiced cleanliness and personal hygiene, often for religious reasons, including, apparently, a wish to be pure in the eyes of their gods. The Bible, for example, has many adjurations and prohibitions about clean and unclean living. Religion, law, and custom were inextricably interwoven.

<u>For thousands of years</u> societies looked upon epidemics as divine judgments on the wickedness of humankind. The idea that pestilence is due to natural causes, such as climate and physical environment, however, gradually developed.

This great advance in thought took place in Greece during the 5th and 4th centuries bee and represented the first attempt at a rational, scientific theory of disease causation. An association between malaria and swamps, for example, was established very early (503–403 bce), even though the reasons for the association were obscure. In the book *Airs, Waters, and Places*, thought to have been written by Greek physician Hippocrates in the 5th or 4th century bee, the first systematic attempt was made to set forth a causal relationship between human diseases and the environment. Until the new sciences of bacteriology and immunology emerged well into the 19th century, this book provided a theoretical basis for the comprehension of endemic disease (that persisting in a particular locality) and epidemic disease (that affecting a number of people within a relatively short period).

Middle Age



<u>Diseases</u> in epidemic proportions included leprosy, bubonic plague, smallpox, tuberculosis, scabies, erysipelas, anthrax, trachoma, sweating sickness, and dancing mania. The isolation of persons with communicable diseases first arose in response to the spread of leprosy. This disease became a serious problem in the Middle Ages and particularly in the 13th and 14th centuries.

The Black Death, an outbreak of plague, reached the Mediterranean ports of southern Europe in 1347 and in three years swept throughout Europe. The chief method of combating plague was to isolate known or suspected cases as well as persons who had been in contact with them. The period of isolation at first was about 14 days and gradually was increased to 40 days. Stirred by the Black Death, public officials created a system of sanitary control to combat contagious diseases, using observation stations, isolation hospitals, and disinfection procedures. Major efforts to improve sanitation included the development of pure water supplies, garbage and sewage disposal, and food inspection. These efforts were especially important in the cities, where people lived in crowded conditions in a rural manner with many animals around their homes.

During the Middle Ages a number of first steps in public health were made: attempts to cope with the unsanitary conditions of the cities and, by means of quarantine, to limit the spread of disease; the establishment of hospitals; and provision of medical care and social assistance.

<u>Centuries of technological advance</u> culminated in the 16th and 17th centuries in a number of scientific accomplishments. Educated leaders of the time recognized that the political and economic strength of the state required that the population maintain good health.

<u>No national health policies</u> were developed on the Continent, however, because the government lacked the knowledge and administrative machinery to carry out such policies. As a result, public health problems continued to be handled on a local community basis, as they had been in medieval times.

Scientific advances of the 16th and 17th centuries laid the <u>foundations of anatomy and physiology</u>. Observation and classification made possible the more precise recognition of diseases. The idea that microscopic organisms might cause communicable diseases had begun to take shape.

Among the early pioneers in public health medicine was English statistician John Graunt, who in 1662 published a book of statistics, which had been compiled by parish and municipal councils, that gave numbers for deaths and sometimes suggested their causes. Inevitably the numbers were inaccurate but a start was made in epidemiology.

<u>Nineteenth-century movements</u> to improve sanitation occurred simultaneously in several European countries and were built upon foundations laid in the period between 1750 and 1830. From about 1750 the population of Europe increased rapidly, and with this increase came a heightened awareness of the large numbers of infant deaths and of the unsavoury conditions in prisons and in mental institutions.

This period also witnessed the beginning and the <u>rapid growth of hospitals</u>. Hospitals founded in the United Kingdom, as the result of voluntary efforts by private citizens, helped to create a pattern that was to become familiar in public health services. These efforts mold public opinion and attract governmental attention. Finally, such agitation leads to governmental action.

This era was also characterized by efforts to <u>educate people in health matters</u>. In 1752 British physician Sir John Pringle published a book that discussed ventilation in barracks and the provision of latrines. Two years earlier he had written about jail fever (later thought to be typhus), and again he emphasized the same needs as well as personal hygiene. In 1754 James Lind, who had worked as a surgeon in the British navy, published a treatise on scurvy, a disease caused by a lack of vitamin C.

- Advances in public health in England had a strong influence in the United States, where one of the basic problems, as in England, was the need to create effective administrative mechanisms for the supervision and regulation of community health.
- In America recurrent epidemics of yellow fever, cholera, smallpox, typhoid, and typhus made the need for effective public health administration a matter of urgency.
- The so-called Shattuck report, published in 1850 by the Massachusetts Sanitary Commission, reviewed the serious health problems and grossly unsatisfactory living conditions in Boston. Its recommendations included an outline for a sound public health organization based on a state health department and local boards of health in each town.
- In New York City (in 1866) such an organization was created for the first time in the United States.

- France was preeminent in the areas of political and social theory. As a result, the public health movement in France was deeply influenced by a spirit of public reform. The French contributed significantly to the application of scientific methods for the identification, treatment, and control of communicable disease.
- Although many public health trends in Germany resembled those of England and France, the absence of a centralized government until after the Franco-German War did cause significant differences. After the end of that war and the formation of the Second Reich, a centralized public health unit was formed.
- Another development was the emergence of hygiene as an experimental laboratory science. In 1865 the creation at Munich of the first chair in experimental hygiene signaled the entrance of science into the field of public health.
- There were other advances. The use of statistical analysis in handling health problems emerged. The forerunner of the U.S. Public Health Service came into being, in 1798, with the establishment of the Marine Hospital Service. Almost one hundred years later, the service enforced port quarantine for the first time.

The work of Italian bacteriologist <u>Agostino Bassi</u> with silkworm infections early in the 19th century prepared the way for the later demonstration that specific organisms cause a number of diseases. Some questions, however, were still unanswered. These included problems related to variations in transmissibility of organisms and in susceptibility of individuals to disease. Light was thrown on these questions by discoveries of human and animal carriers of infectious diseases.

In the last decades of the 19th century, <u>French chemist and microbiologist Louis Pasteur</u>, <u>German scientists Ferdinand Julius Cohn and Robert Koch</u>, and others developed methods for isolating and characterizing bacteria. During this period, <u>English surgeon Joseph Lister</u> developed concepts of antiseptic surgery, and <u>English physician Ronald Ross</u> identified the mosquito as the carrier of malaria. In addition, <u>French epidemiologist Paul-Louis Simond</u> provided evidence that plague is primarily a disease of rodents spread by fleas, and the <u>Americans Walter Reed and James Carroll</u> demonstrated that yellow fever is caused by a filterable virus carried by mosquitoes.

Thus, modern public health and preventive medicine owe much to the early medical entomologists and bacteriologists. A further debt is owed bacteriology because of its offshoot, immunology. French chemist and microbiologist Louis Pasteur made many important contributions to science, including the discovery that microorganisms cause fermentation and disease.

The development of microbiology and immunology had immense consequences for community health. In the 19th century the efforts of health departments to control contagious disease consisted in attempts to improve environmental conditions. As bacteriologists identified the microorganisms that cause specific diseases, progress was made toward the rational control of specific infectious diseases.

In the United States the diagnostic bacteriologic laboratory was developed, a practical application of the theory of bacteriology, which evolved largely in Europe. These laboratories, established in many cities to protect and improve the health of the community, were a practical outgrowth of the study of microorganisms, just as the establishment of health departments was an outgrowth of an earlier movement toward sanitary reform. And just as the health department was the administrative mechanism for dealing with community health problems, the public health laboratory was the tool for the implementation of the public health program. Evidence of the effectiveness of this new phase of public health may be seen in statistics of immunization against diphtheria in New York City the mortality rate due to diphtheria fell from 785 per 100,000 in 1894 to 1.1 per 100,000 in 1940.

<u>The Centers for Disease Control and Prevention</u> (CDC; originally the Communicable Disease Center), an agency of the U.S. Department of Health and Human Services, was founded in 1946 and was tasked with the mission of preventing and controlling disease and promoting public health. The CDC serves a key role in gathering and disseminating information on disease and disease prevention to the general public. Today it is a leading center of epidemiology.

While <u>improvements</u> in environmental sanitation during the first decade of the 20th century were valuable in dealing with some problems, they were of only limited usefulness in solving the many health problems found among the poor. In the slums of England and the United States, malnutrition, venereal disease, alcoholism, and other diseases were widespread.

<u>Nineteenth-century</u> economic liberalism held that increased production of goods would eventually bring an end to scarcity, poverty, and suffering. By the turn of the century, it seemed clear that deliberate and positive intervention by reform-minded groups, including the state, also would be necessary.

For this reason many physicians, clergymen, social workers, public-spirited citizens, and government officials promoted social action. Organized efforts were undertaken to prevent tuberculosis, lessen occupational hazards, and improve children's health.

<u>The first half of the 20th century</u> saw further advances in community health care, particularly in the welfare of mothers and children and the health of schoolchildren, the emergence of the public health nurse, and the development of voluntary health agencies, health education programs, and occupational health programs.

In the second half of the 19th century, two significant attempts were made to provide medical care for large populations. One was by Russia and took the form of a system of medical services in rural districts; after the communist revolution, this was expanded to include complete government-supported medical and public health services for everyone. Similar programs have since been adopted by a number of European and Asian countries. The other attempt was prepayment for medical care, a form of social insurance first adopted toward the close of the 19th century in Germany, where prepayment for medical care had long been familiar. A number of other European countries adopted similar insurance programs. Later, prenatal care made a substantial contribution to preventive medicine, with the education of mothers influencing the physical and psychological health of families and being passed on to succeeding generations. Prenatal care provides the opportunity to educate the mother in personal hygiene, diet, exercise, the damaging effects of smoking, the careful use of alcohol, and the dangers of drug abuse.

<u>Public Health interests</u> also have turned to disorders such as cancer, cardiovascular disease, thrombosis, lung disease, and arthritis, among others. There is increasing evidence that several of these disorders are caused by factors in the environment. For example, there exists a clear association between cigarette smoking and the eventual onset of certain lung and cardiovascular diseases. Theoretically, these disorders are preventable if the environment can be altered. <u>Health education</u>, particularly aimed at disease prevention, is of great importance and is a responsibility of national and local government agencies as well as voluntary bodies. Life expectancy has increased in almost every country that has taken steps toward reducing the incidence of preventable disease.

International organizations

Since ancient times, the spread of epidemic disease demonstrated the need for <u>international cooperation</u> for health protection. Early efforts toward international control of disease appeared in national quarantines in Europe and the Middle East.

The first formal international health conference, held in Paris in 1851, was followed by a series of similar conferences aimed at drafting international quarantine regulations. A permanent health organization, the International Office of Public Health (L'Office International d'Hygiène Publique), was established in Paris in 1907 to receive notification of serious communicable diseases from participating countries, to transmit this information to the member countries, and to study and develop sanitary conventions and quarantine regulations on shipping and train travel. This organization was ultimately absorbed by the World Health Organization (WHO) in 1948.

<u>In the Americas</u>, the organization of international health probably began with a regional health conference in Rio de Janeiro in 1887. From 1889 onward there were several conferences of American countries, which led ultimately to the establishment of the Pan-American Sanitary Bureau, which was made a regional office of WHO in 1949, when it became known as the Pan-American Health Organization.

International organizations

The rise and decline of health organizations has been influenced by wars and their aftermaths. After World War I a Health Section of the League of Nations was established (1923) and functioned until World War II.

After the war, the United Nations Relief and Rehabilitation Administration (UNRRA) was set up; it processed displaced persons in such a way as to prevent the spread of disease. It was responsible for the planning steps that led to the establishment of WHO as a special agency of the United Nations.

WHO maintains close relationships with other United Nations agencies, particularly the <u>United Nations Children's Fund</u> (UNICEF) and the Food and Agriculture Organization (FAO), and with international labour organizations. From its inception in 1946, UNICEF focused its aid on maternal and child health services and the control of infections, especially in children. Priority has been given to the production of vaccines, the institution of environmental sanitation, the provision of clean water, and the training of local personnel in their own countries (especially in rural areas). Aid is channeled through organized health services in less-developed countries. Recent efforts have concentrated on persuading governments to undertake national surveys to identify the basic needs of their children and to devise appropriate national policies.

Patterns among developed countries

The official responsible for the administration of national health affairs is in most cases a member of the cabinet. Advisory councils are frequently used to bring the ideas of leading scientists, health experts, and community leaders to bear on major national health problems.

An organization that provides basic community health services under the direction of a medical officer is called a local health unit. It is usually governed by a local authority. Its programs may include maternal and child health, communicable-disease control, environmental sanitation, maintenance of records for statistical purposes, health education of the public, public health nursing, medical care, and, often, school health services.

<u>The population</u> served by a local health unit may be only a few thousand or several hundred thousand. There are substantially different problems involved in administering health services for a large rural area that is sparsely populated and a municipality with a population of one or two million.

Medical care is provided as a public service to some degree in most countries. It may be limited to the hospitalization of persons afflicted with certain ailments, for example, mental disease, tuberculosis, chronic illness, and acute infections. Comprehensive health services may be provided for some specific population groups, as in Canada and the United States, where the federal government provides care for Indians and Eskimos. Many countries have compulsory medical insurance, and some combine the socialization of hospitals with medical insurance covering general medical care, as in Denmark. Full-scale socialization of health services exists in a few countries, including the United Kingdom and New Zealand. Such socialized health services are often alternatively described as systems of public, or universal, health care.

There is a <u>trend</u> toward regional planning of comprehensive health services for defined populations. In an idealized plan, the first level of contact between the population and the system, which can be called primary care, is provided by health personnel who work in community health centres and who reach beyond the health centres into the communities and homes with preventive, promotive, and educational services. At the next level of care, specialists in community hospitals provide secondary care for patients referred from the primary-care centres. Finally, tertiary, or superspecialty, care is provided by a major medical centre.

Variations among developed countries

Among the developed countries, there is <u>substantial variation</u> in the organization and administration of health services. The United Kingdom, for example, has a National Health Service with substantial autonomy given to local government for implementation. The United States has a pluralistic approach to health services, in which local, state, and national governments have varying areas of responsibility, with the private sector playing a prominent role.

The health services of the United States can be considered at three levels: local, state, and federal. Locally, in cities or counties, there is substantial autonomy within broad guidelines developed by the state. The size and scope of local programs vary, but some of their functions are control of communicable diseases; clinics for mothers and children, particularly for certain preventive and diagnostic services; public health nursing services; environmental health services; health education; vital statistics; community health centres, hospitals, and other medical care facilities; community health planning and coordination. At the state level, a department of health is charged with overall responsibility for health, though a number of agencies may actually be involved. The state department of health usually has five functions; public health and preventive programs; medical and custodial care such as the operation of hospitals for mental illness; expansion and improvement of hospitals, medical facilities, and health centres; licensure for health purposes of individuals, agencies, and enterprises serving the public; and financial and technical assistance to local governments for conducting health programs. At the federal, or national, level, the Public Health Service of the Department of Health and Human Services is the principal health agency, but several other departments have health interests and responsibilities. Federal health agencies accept responsibility for improving state and local services, for controlling interstate health hazards, and for working with other countries on international health matters. In addition, the federal government promotes and supports medical research, health services, and educational programs throughout the country. Voluntary effort is a significant part of health work in the United States. Voluntary agencies in the health field function mostly at the local level, though they also may be active at state and national levels. Supported largely through private sources, these agencies contribute to programs related to education, research, and health services. Medical care is provided and paid for through many channels, including public institutions, such as municipal, county, state, and federal health centres, hospitals, and medical care programs, and through private hospitals and private practitioners working either alone or, increasingly, in groups. Generally, medical care is financed by public funds, voluntary health insurance, or personal payment. Thus, in the United States there is great variety in the content, scope, and quality of health services. These services are provided by several independent agencies. In effect, however, they constitute a working partnership for the protection and promotion of human health.

<u>Developing countries</u> have sometimes been influenced in their approaches to health care problems by the developed countries that have had a role in their history. For example, the countries in Africa and Asia that were once colonies of Britain have educational programs and health care systems that reflect British patterns, though there have been adaptations to local needs. Similar effects may be observed in countries influenced by France, the Netherlands, and Belgium. However, whereas clear patterns in health care organization can be found among some less-developed countries, there also exist wide variations and gaps in the health resources and administration found in other less-developed countries. These variations and gaps are more pronounced in less-developed versus developed regions because within the former are complex factors (such as political or societal instability) capable of complicating and sometimes even entirely disrupting the administration of health care. Countries with such unstable health care infrastructure often are dependent on aid from international organizations.

Patterns among less-developed countries

All health services, except for a small amount of private practice, are under a ministry of health, in which there are bureaus, or departments, hospital services, health services, education and training, personnel, and research and planning. Hospital and health services are distributed throughout the country. At the periphery of the system are dispensaries, or health outposts, often staffed by one or two persons with limited training. The dispensaries are often of limited effectiveness and are upgraded to full health centres when possible. Health centres and their activities are the foundation of the system. Health centres are usually staffed by auxiliaries who have four to 10 years of basic education plus one to four years of technical training. The staff may include a midwife, an auxiliary nurse, a sanitarian, and a medical assistant. The assistants, trained in the diagnosis and treatment of sickness, refer to a physician the problems that are beyond their own competence. Together, these auxiliaries provide comprehensive care for a population of 10,000 to 25,000. Several health centres together with a district hospital serve a district of about 100,000 to 200,000 people.

<u>The district hospital</u> is dependent on a regional hospital, to which patients with complex problems can be referred for more-specialized services. Administrative direction of both regional health services and regional hospital services can be combined at this level under a regional medical officer. The central administration of the ministry of health provides policies and guidance for an entire health service and, in some instances, also provides a central planning unit.

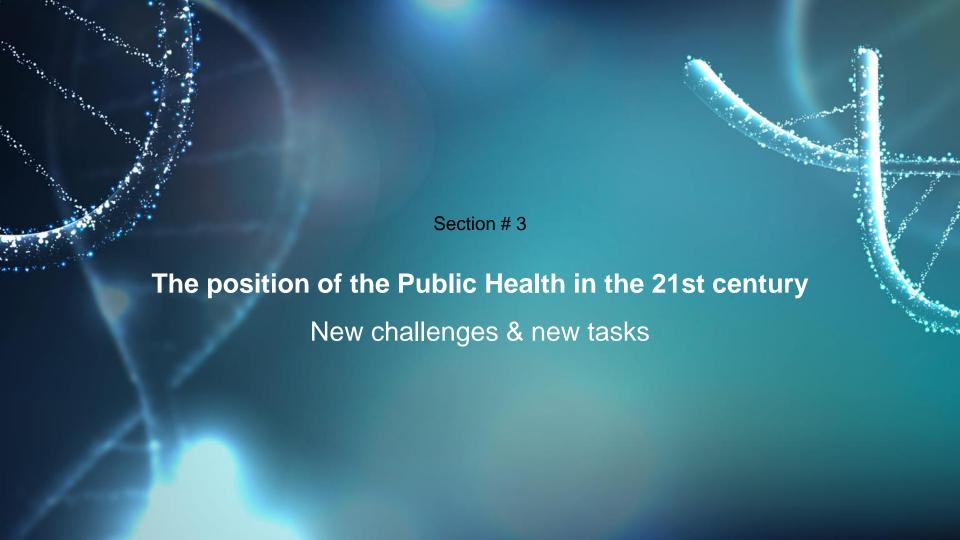
<u>Problems of transportation</u> and communication over great distances, shortages of staff and other resources, and inadequacies in staff preparation and motivation often lead to malfunctions in the system. Nonetheless, the public health services developed in African and Asian countries have generally provided a sound basis for future development within the framework of national development.

Variations among less-developed countries

The organization of public health services in Latin American countries differs substantially from those of Africa and Asia. These differences are an expression of the different historical backgrounds of the regions.

The <u>Latin American</u> countries are generally more affluent than those of Asia and Africa. Private practice is more widespread, and private or voluntary agencies are more prominent. Health services are provided largely by local and national governments. Many Latin American countries also have systems of clinics and hospitals for workers financed by employers and workers. The distribution of health services, with health centres, hospitals, and preventive services, is roughly similar to Africa and Asia. The Latin American countries, however, have used auxiliaries less than African and Asian countries. Latin America has pioneered in the development of health planning methods. Chile has one of the most-advanced approaches to health planning in the world.

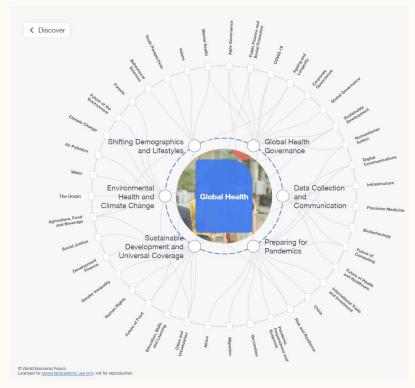
<u>Thailand</u> was never colonized and therefore has no historical influence favouring any particular pattern of health services. The Thai Ministry of Health has a well-developed system of hospitals and health centres across the country to serve both rural and urban people. In 2001 the country adopted a universal health care plan, supported in large part by government financing and supplemented by private funds. Within the public health services of Thailand, there are a number of separate divisions—e.g., for tuberculosis, sexually transmitted diseases, and nutrition.



World Economic Forum

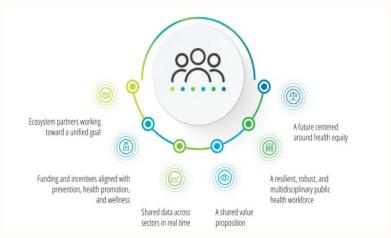


Pic 1. Future of Health & Healthcare

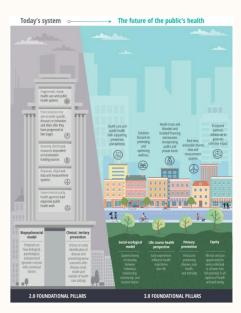


Pic 2. Global Health

Deloitte Insights



Pic 3. Six reinforcing dimensions



Pic 4. The Future of Public Health

World Health Organization



June 2018

ORIGINAL: ENGLISH

Facing the future: opportunities and challenges for 21st-century public health in implementing the Sustainable Development Goals and the Health 2020 policy framework

Pic 5. Facing the future

A new vision in the 21st century

The public health function is an <u>organized, multisectoral, societal function, involving government as well as other dimensions of society (civil society, the media, etc.)</u>. Ultimately, because of the government's responsibility for the human right to health, the function rests with government. In practice, leadership may be delegated to the ministry of health or another responsible organization or organizations.

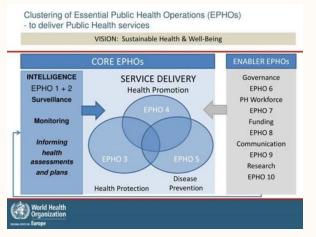
The public health function is far more than simply an expert, professional or service function. It must avoid being, or becoming, overly narrow and, while scientifically sound, it should avoid spurious scientism. The public health function should be an advocate for the paradigm shift towards a focus on health, well-being, health promotion and disease prevention, provide a strong and consistent voice on behalf of vulnerable populations and address health inequities.

The public health function needs a locus. It will be for Member States to decide where the leadership should lie, and at what level. The public health function will be needed centrally, regionally and locally. The identity of the locus and the organization(s) involved will differ from country to country, depending on the context and other prevailing circumstances. National institutes of public health may play a major role, as centres of knowledge, expertise, research, postgraduate and continuing education and capacity-building. Universities, schools of public health, medical schools and wider academia have similarly important roles to play, as do collaborative professional organizations working internationally.

A new vision in the 21st century

The broad public health function includes specialist capacity providing many technical public health services. These services provide a range of public, specific, organizational forms for delivering the <u>10 EPHOs in a given</u> Member State.

The EPHOs are shown in picture 6 below. They deal with the full range of determinants of health: genetic, political, social and economic, environmental, commercial, cultural and health system. This requires interconnected, horizontal and networked governance for health – open, collaborative and consensual.



Pic 6. The EPHOs

The nature of today's challenges

Modern public health activities <u>must be effective</u> in a world of considerable unpredictability, complexity, ambiguity and uncertainty. Some actions will <u>remain more aspirational</u>, particularly if these require fundamental political and social reorientation; other actions are more tactical and the challenge is to implement them.

The breadth of potential public health aspiration and engagement <u>requires prioritization</u>, and a focus on "what matters most" to the health of populations. This approach acknowledges that single causal risk factors do not act in isolation, and that understanding the nature of diseases requires an understanding of the nature of causal structures. The political challenge here is to <u>accept responsibility and respond positively</u> to the social and economic dimensions of health experience.

While traditional rational, linear approaches to evidence in support of programme development and implementation have often prevailed to date, a "complex adaptive systems" perspective suggests that these are invariably found wanting. While <u>evidence is important</u>, it is inevitably imperfect and incomplete, and action is also needed. Context and relationships also matter; and we learn by doing and through real-time evaluation.

<u>A systemic, sustained portfolio of initiatives</u>, delivered at scale, is needed to address this condition and its associated health burden. Importantly, such initiatives are considered cost-effective for society: savings on health-care costs and higher productivity outweigh the direct investment required to deliver the intervention, when assessed over the full lifetime of the target population.

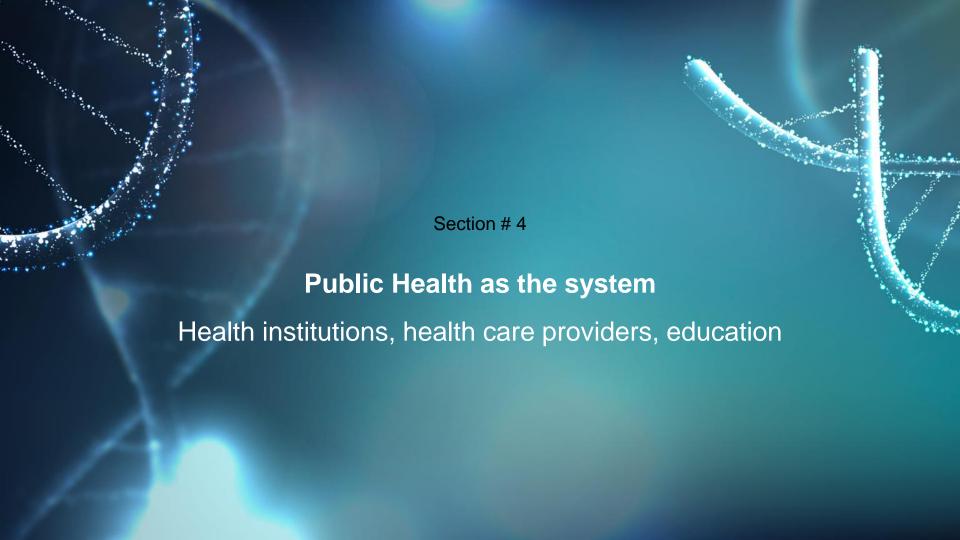
While education and personal responsibility are critical elements of any programme to reduce obesity, these are not sufficient on their own. <u>Additional interventions</u> are needed that rely less on conscious choices by individuals and more on changes to the environment and societal norms. Such changes <u>require engagement</u> from as many sectors as possible, including the private sector at all points along the food chain.

In addition to such analyses, the pervasive phenomenon known as "lifestyle drift" suggests a need to move beyond a <u>single-minded approach to modifiable individual behavioural determinants</u>, affecting specific public health topics such as smoking cessation, obesity and alcohol misuse, towards a more balanced, comprehensive, multideterminant, systems-based approach which takes a life-course perspective and acknowledges the co-clustering of behaviours in particular groups and communities that have complex political, economic, social and environmental causes as well as complex consequences.

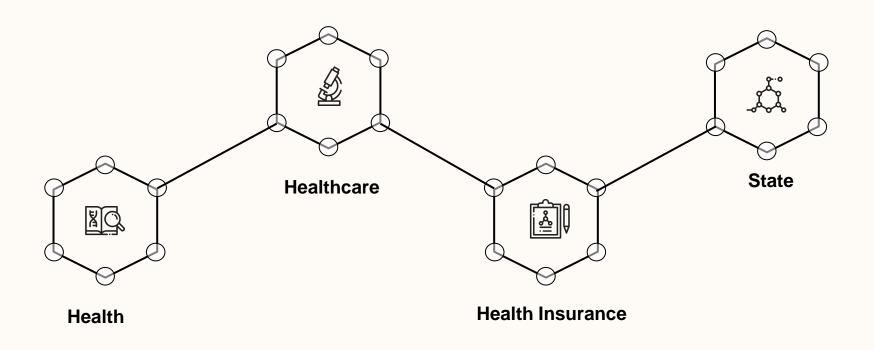
In response to such challenges, success can only be achieved through programmes which are <u>systematic and scaled-up</u>, <u>driven by public health intelligence and informed by evidence</u>, <u>with sound infrastructure</u>, <u>business plans</u> and programme management.

Real-time evaluation allows interventions to be tracked and adjusted continuously as required, based on the results of monitoring against clear and measurable process and outcome indicators. To date, evaluative research has often not provided sufficiently rapid feedback to be useful for policy analysis or change. Evaluative research is, however, an issue of which academics are increasingly aware and which they are actively seeking to address by clarifying, and giving greater attention to, pathways for the co-production and co-design of research in tandem with those at whom it is targeted.

The complex political, social, economic and environmental challenges of the 21st century require <u>multifaceted</u>, <u>multilevel policy interventions</u>, <u>involving both vertical and horizontal integration</u>. In the health field, there is growing evidence of the cost–effectiveness of such interventions. Complex systems approaches are required, with real-time evaluation and feedback.



Health & Healthcare



Basic models of healthcare financing

Depending on the maturity of individual economies, different models of health care financing are used in the world. Some developed countries provide health care for their citizens free of charge and on an equal basis for all; with the exception of special services paid for by the patient.

Currently, 3 basic models of health care financing can be distinguished:

- From taxes
- From health insurance
- Market model

Model of healthcare financing from taxes

Health care is provided for all residents, regardless of their ability to pay, free of charge. It is provided by the state; medical facilities are state-owned, doctors are state employees. Health care is paid for from the state budget (taxes).

This model predominates, for example, in GB, Denmark, Sweden, Italy, Greece.

Basic models of healthcare financing

Model of healthcare financing from health insurance

The origins of this model date back to the 19th century, when German Chancellor Otto von Bismarck introduced a new social security system that covered all sections of the population. The model is based on the principle of required health insurance, which is based on society-wide solidarity and health risk sharing. Depending on the amount of their income, each person pays required health insurance and receives health care for them as needed. Provider health services are separate economic entities. Health care is not state, but the state provides health care for all residents. The emphasis is on preventive care in an effort to reduce treatment costs.

<u>The model is used</u>, for example, in the Czech Republic, Austria, Germany, France.

Private insurance financing model (market model)

The essence of the model lies in the idea of individual care for each citizen about their health. Health services then represent standard goods in the market system. Only citizens living below the subsistence level and the elderly are paid for from public funds.

This model predominates in the USA, partly also in Switzerland.

Insured

(recipient of healthcare)

- Employees
- Self-employed persons
- State insured.
- Persons without taxable income

Payers

- Insured persons
- Employers (pays insurance for employees)
- State (pays insurance for state insured)

Healthcare providers (healthcare intermediaries)

Health insurance companies

- Všeobecná zdravotní pojišťovna ČR (111)
- Vojenská zdravotní pojišťovna ČR (201)
- Česká průmyslová zdravotní pojišťovna (205)
- o Oborová Zdravotní Pojišťovna Zaměstnanců Bank, Pojišťoven A Stavebnictví (207)
- Zaměstnanecká pojišťovna Škoda (209)
- o Zdravotní pojišťovna ministerstva vnitra ČR (211)
- o Revírní bratrská pokladna, zdravotní pojišťovna (213)

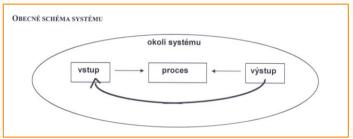
Healthcare in the Czech Republic

According to the type of health care facility and specialization, health care can be categorized as follows:

- Primary or general healthcare, which is available at the municipal level and includes: general practitioner services for children and adults, as well as basic gynaecological and dental care.
- Specialized, secondary healthcare includes a wide range of fields: urology, surgery or traumatology, etc.
 These services are provided in hospitals, dispensaries and clinics.
- Tertiary healthcare provided by highly specialized professionals, especially in large hospital facilities.

Note: Law No. 372/2011. The Act on Health Services and the Conditions for Their Provision (the Law on Health Services) Part Two, Health Services and Health Care further divides health care into types and forms of health care.

General systems theory: all objects, phenomena and processes of the real world can be imagined as systems



Pic. 7: General Systems theory

The system is a complex of interdependent elements, elements that interact with each other.

According to the relationship to the system environment, we distinguish:

- Closed systems
- Open systems
- Autopoietic systems

The healthcare system is the part of the social system that consists of measures, institutions, organizations and activities that seek to treat diseases, prevent them and strengthen health.

Organizational unit of organized relations between:

- Public
- Healthcare providers
- Financial subjects
- Political representation

In whose interest health care is provided.

Influence on the health status of the population:

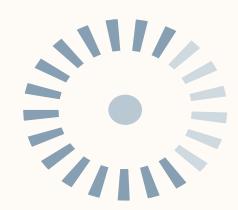
- Long term and complex development in individual countries
- Different social, economical, cultural and political conditions





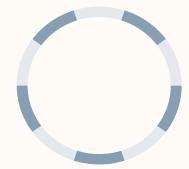
Some indicators of healthcare systems

- Number of doctors per capita
- Structure of primary, secondary and tertiary care
- Bed fund number, structure, usage, length of stay
- Structure of care provided
- Structure of expenditures on provision of care
 - prevention
 - outpatient services
 - sickness
 - rehabilitation
 - post acute care



Some criteria:

- o The availability of care takes into account the barriers to accessing health care
- The quality of care determines the level of health services according to the latest scientific and research findings
- Economic costs
- Performance
- Equality
- Access to care
- Social acceptability



Health 2030 in the Czech Republic

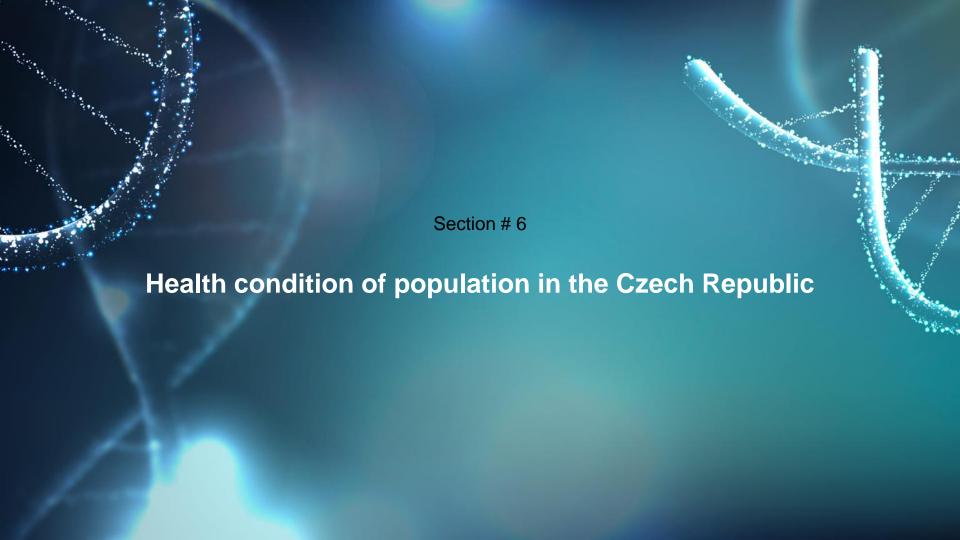
With the adoption of the Strategic Framework of the Czech Republic 2030, the Government of the Czech Republic has set a basic overarching goal for the area of healthcare, which is "The health of all groups of the population is improving". This overarching goal is to be achieved through the fulfilment of defined specific

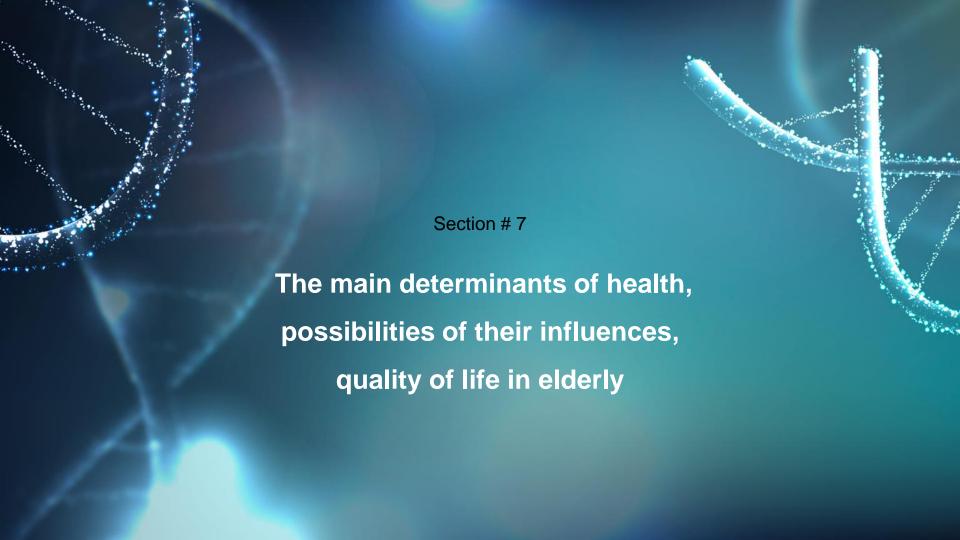
goals:



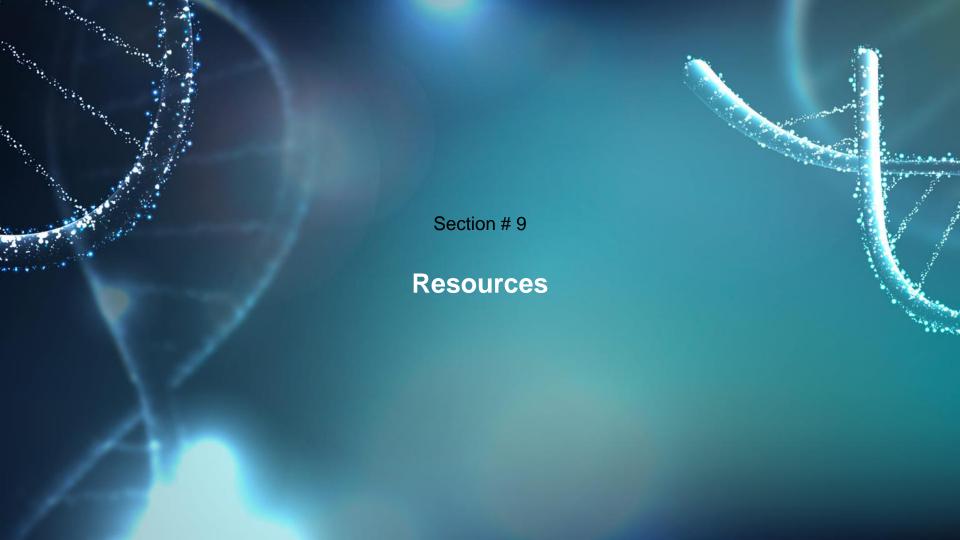
Pic 8. Strategic Framework











Resources

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Thank You

Does anyone have any questions?

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