



Integrating the social determinants of health into health workforce education and training



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Foreword

Over a decade ago, the World Health Organization's Commission on Social Determinants of Health recommended the development of a workforce "that is trained in the social determinants of health". While knowledge on the social determinants of health has expanded, education of the health workforce is still lagging. In correcting this deficit, it is important that education and training on the social determinants of health is integrated in broader health system developments to advance primary health care and universal health coverage.

This publication is the first global resource that targets educators, setting out social determinants of health theory and practical teaching applications, while drawing on a wide range of WHO and country experiences. This publication, along with the forthcoming *World report on the social determinants of health equity*, spearheads renewed efforts to address the social determinants of health to advance health equity.

The training of the health workforce is part of the larger agenda to transform health workforce education for sustainable development, as recommended by the report of the United Nations High-Level Commission on Health Employment and Economic Growth. This transformation process has become even more vital as the COVID-19 pandemic has highlighted the ways in which social determinants of health affect the vulnerability of people, and the social and public health measures that need to be taken to control the spread of pandemics.

Integrating the social determinants of health into health workforce education and training will complement and improve the outcomes of biomedical interventions. Many of the advances in population health have resulted from public health and social interventions, including improvements in daily living conditions such as the provision of clean water and sanitation, adequate housing, nutritious food supply, advances in education (especially for girls), social security for unemployment, disability and old age, and improved employment conditions. The challenge for health workforce education is to convey to learners that while their focus is on individual minds and bodies, how healthy people are reflects the social, economic, and physical environments in which they live. This then has implications for how clinical and public health practitioners in local communities construe their broader role as advocates for health in society.

It is vital that today's learners – who will become the health leaders of the future – be aware of the interaction between broader society and health care services. Our wish is that universities and other educational institutions around the world will reform curricula and empower a generation of health workers to imagine health beyond individuals and their behaviour, and understand the evidence that individuals reflect the societies in which they live. This book can be an important resource in bringing about this world, and we look forward to seeing its impact over the coming decade.



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Abbreviations

AMR	antimicrobial resistance
DALY	disability-adjusted life-year
EQuAL	Equity-oriented Analysis of Linkages between Health and Other Sectors
GDP	gross domestic product
ILO	International Labour Organization
NGO	nongovernmental organization
NHWA	National Health Workforce Accounts
OECD	Organisation for Economic Co-operation and Development
PAHO	Pan American Health Organization
PROGRESS	place of residence (urban/rural), race/ethnicity, occupation, gender, religion, education, socioeconomic status, and social capital/resources
SDG	Sustainable Development Goal
SUN	Scaling Up Nutrition
TB	tuberculosis
THEnet	Training for Health Equity Network
TVET	technical and vocational education and training
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Executive summary

Introduction to the social determinants of health and health workforce education and training (Chapter 1)

The social determinants of health are the conditions in which people are born, grow, live, and work, and the wider set of forces and systems shaping the conditions of daily life. They describe the everyday reality of the lives of people around the world and recognize that health is influenced by a vast array of factors, many of which lie beyond people's control. Despite this recognition and the rallying of efforts to find solutions, the social determinants of health are still not adequately prioritized by many health systems.

Evidence to date shows that teaching on the social determinants of health is not widespread and sufficiently comprehensive. Key weaknesses include the non-alignment of education and training curricula and standards with population health needs, limited focus on addressing the structural determinants of health and promoting health equity, lack of mechanisms and processes for local communities to actively participate in curriculum and learning programme development, and a focus on classroom teaching over community-based, engaged and distributed learning.

Strengthening the education and training of health workers on the social determinants of health can make a key contribution to wider multisectoral efforts to improve the lives and well-being of populations. The core concepts of social determinants of health are linked with and embedded in important frameworks for health system strengthening and universal health coverage, and the United Nations 2030 Agenda for Sustainable Development. Multisectoral engagement in diverse areas and at different levels of society presents opportunities for action, and many of these entry points and interlinkages should be covered in health workforce education and training curricula in order to strengthen health workers' actions in daily practice. The principles and approaches of lifelong learning – blended with context-adaptable materials applicable to different settings, learning needs and programmes – are therefore essential to incorporate into curricula.

Because the conditions and circumstances in which people live are diverse and constantly changing, it follows that there is no single universal approach to addressing social determinants of health. However, there are common guiding and organizational principles that can be applied in health workforce education and training, in a consistent and reinforcing manner in all settings. This book is targeted primarily at the

educators of health workers (including the public health workforce) and aims to ensure that health workers across all climes and socioeconomic settings can more confidently address the social determinants and advance health equity as part of health promotive, preventive, curative or rehabilitative services offered to their patients and communities.

Importance of strengthened health systems, primary health care, and social empowerment and participation (Chapters 2 and 3)

Measures to introduce and improve the education and training of health workers on the social determinants of health should not be a stand-alone exercise. They should go hand in hand with health system reorientation towards primary health care to achieve universal health coverage. Addressing social determinants recognizes the fundamental importance of equity, social cohesion and social protection mechanisms to ensure access to health without financial hardship for all people, particularly those who are disadvantaged or marginalized. Primary health care systems are often the vehicle to implement or drive universal health coverage. Prior consideration of how health systems are organized and function is therefore very important to addressing the social determinants of health.

In the health sector, efforts to address the social determinants of health and achieve universal health coverage are mutually reinforcing. The development (or reform) of primary health care systems must consider people in the context of their social relations (foster community engagement) and ensure people-centredness and inclusiveness, including by considering all stakeholder voices in their design, delivery, and assessment plans. Again, addressing the social determinants of health reinforces the need for stronger intersectoral policy frameworks and multisectoral mechanisms, so that health workers can contribute to the empowerment of patients and communities by helping them take advantage of options available in healthier societies.

Understanding the social determinants of health (Chapter 4)

This chapter focuses on (a) how health inequities are produced in society, including their grounding in social epidemiology; (b) framing action and implementation considerations for strategies to address the social determinants; and (c) the leadership role of the health sector in advocating action on determinants of health to advance equity. This chapter draws extensively on the

work on social determinants of health sponsored by the World Health Organization (WHO) over the past decade.

The first part of the chapter discusses basic concepts and unpacks the underpinning evidence on general mechanisms and pathways governing the impact of social advantage or disadvantage on health. The conceptual framework developed by the WHO Commission on Social Determinants of Health is used to study causation. The scientific evidence on biological pathways and social and biological mechanisms is also described.

The second part, on action and implementation, summarizes important features of social determinants strategies. Addressing the social determinants of health requires assessing the context to determine the scope of possible changes and to understand the patterns of health inequities and the context specificity of social determinants (including with regard to income-related inequalities, social and cultural norms and the welfare state). Intersectoral action and social participation, as described by the Rio Political Declaration on the Social Determinants of Health (adding to the main points made in Chapters 2 and 3), are introduced as key aspects of policy and practice for addressing the social determinants of health.

The third part of the chapter presents a brief overview of the importance of leadership for health equity within the context of a Health in All Policies approach and the role of “policy champions”. The new type of public health leadership envisages building horizontal multisectoral collaboration and shared accountability across sectors for health, equity and well-being. This section contextualizes leadership for addressing the social determinants, and considers why competencies related to negotiation, coalition building, social platform design, systems thinking, community mobilization, health diplomacy, networking, and interdisciplinary communication are an important part of education and training for understanding and addressing the

social determinants of health and health equity. The importance of teaching these skills is lightly introduced, as the main approaches to teaching methods in integrating social determinants of health into education and training are provided in Chapters 5 and 6.

Social determinants of health in education and training, and daily practice (Chapter 5)

Educators are encouraged to develop programmes that can guide learners in examining how the health services they provide to the individual or community can relate to addressing structural and intermediary determinants of health that are relevant to their settings. The organization of these learning pathways should also consider the role of the life course in shaping social determinants and health outcomes and how to create or target the most favourable entry points, taking into account the interplay of solution mechanisms. This chapter uses examples from specific disease or health programme areas (see Table ES.1). In discussing each area, the following points are used to offer constructs for framing the topic and enhancing understanding:

- a short synopsis of the health and health equity problem and rationale for action, with key messages for orienting training and learning programmes;
- the problems of key social determinants at play and their contribution to inequity, for example pathways, magnitude and social gradients;
- opportunities for action;
- key themes around which lectures can be prepared to highlight the link to equity;
- case studies showing what has been tried and the lessons learned, which may also suggest ways to involve students in active learning.

Key messages for learners and educators across the included health topics are further summarized in Table ES.1.

Table ES.1

Key messages for educators based on health programme themes

Theme	Key messages
Food security, food safety and nutrition	<ol style="list-style-type: none"> 1. Health workers should be trained to develop and implement community-based nutrition interventions aimed at alleviating food insecurity and malnutrition, and providing clinical assistance to patients with ailments compromising their immune system. 2. Partnerships should be encouraged to improve household food security with a specific focus on reducing differentials in access to nutritious and safe food. 3. Advocacy should be raised for strengthening food safety systems and standards to contribute to the availability of, and access to, safe food.

Theme	Key messages
Housing	<ol style="list-style-type: none"> 1. Housing is an upstream determinant of health; poor housing conditions are one of the mechanisms through which social and environmental inequality translates into health inequality, which further affects quality of life and well-being. 2. Interventions reducing health risks from poor housing include direct changes to the built environment and the introduction of loans and subsidies to support improvements in the structural housing environment. 3. Housing interventions represent a major opportunity to promote primary prevention through action across different sectors.
Reproductive health, including family planning	<ol style="list-style-type: none"> 1. Quality of care should be emphasized through counselling by all health workers providing reproductive health care services. 2. Decision-makers should be urged to reduce inequity in the provision of reproductive health services to women by the health sector, particularly through equitable distribution of health care facilities and health care workers, taking account of social factors. 3. Efforts need to be made to convince decision-makers to provide adequate and sustainable funding of services that increase the quality and safety of reproductive health services, including family planning and contraceptive services.
Maternal, newborn, child and adolescent health	<ol style="list-style-type: none"> 1. The survival, health and well-being of women, children and adolescents are essential to ending extreme poverty and promoting sustainable development and resilience to adversity. 2. We have the knowledge and the means to end preventable maternal, newborn and child deaths and stillbirths within one generation. 3. Investing in the health of women, children and adolescents has benefits that span the life course, affecting education, economic productivity, prevention of noncommunicable diseases, overall social stability and peace. 4. Adolescents are not simply “older children” or “younger adults”. All health workers who are in places that adolescents visit (such as hospitals, primary care facilities and pharmacies) should develop their competencies (knowledge, skills and attitudes) in adolescent-responsive health care, to be able to respond to their specific needs.
Tuberculosis	<ol style="list-style-type: none"> 1. It is necessary to understand the social context and identify tuberculosis risk factors as part of clinical management of the patient, including tailoring support to the patient’s needs and helping the patient navigate existing social protection schemes. 2. Access barriers should be uncovered and suggestions provided on how to address those. 3. It is important to identify and communicate social determinants that need to be addressed through a whole-of-society approach.
Diabetes	<ol style="list-style-type: none"> 1. Working with others in the health and social sectors can contribute to providing the continuum of care needed for control of diabetes and its complications and improving well-being and quality of life. 2. Food environments should be improved to promote healthy food options, including through engaging in partnerships to change urban infrastructure to promote physical activity, and measuring the health and economic impacts of these interventions. 3. A cross-sectoral approach should be adopted and promoted to advocate change in public policy, including transport and urban planning.

Theme	Key messages
Mental health	<ol style="list-style-type: none"> 1. Mental health disorders are shaped by the social, economic and physical environments in which people live. Taking action to improve the conditions of daily life – from before birth, during early childhood, at school age, during family building and working ages, and at older ages – provides opportunities both to improve population mental health and to reduce the risk of mental disorders that are associated with social inequalities. 2. Information about social, economic and environmental stressors can be gained through the evidence base on social determinants and on mental health and brain health. Where evidence for a given context may be lacking, structured community engagement, including asking community members to identify sources of psychological distress in their neighbourhoods, can be considered. Participatory processes at the local level enable residents to identify solutions. 3. Neurological disorders include intellectual disorders, autism spectrum disorders, epilepsy, cerebrovascular diseases, headache disorders, Alzheimer disease and other dementias, and neuroinfections. Addressing social determinants is a valuable opportunity to promote brain health and prevent neurological disorders.
Oral health	<ol style="list-style-type: none"> 1. Oral diseases, despite being largely preventable, are very common conditions that have a significant adverse impact on quality of life. However, they disproportionately affect those from more socially disadvantaged backgrounds, resulting in stark oral health inequalities. As oral diseases share common risks with other noncommunicable diseases, an integrated preventive approach is needed. 2. As with general health, oral diseases are directly associated with socioeconomic status. Oral health inequalities exist across the life course from early childhood to older age. The negative impacts of oral disease are also socially patterned and indeed contribute to broader social inequalities in society. For example, absence from school, poor educational performance, time off work, poor self-esteem and social isolation are all negative societal consequences of oral diseases. Community-level action to tackle oral health inequalities requires effective partnership and engagement with local communities. 3. Upstream action is needed to address the underlying social and commercial determinants of oral health inequalities. Healthy public policies, creating supportive environments, and community action are all effective oral health improvement strategies required to promote oral health equity.

Bringing about change: steps, accountability and progress monitoring (Chapter 6)

Integrating the social determinants of health into health workforce education and training will need to go beyond the health sector. Interprofessional education for collaborative practice should prepare health and social care workers to tackle complex challenges, and through a Health in All Policies approach ensure that development trajectories are not exclusively oriented towards economic growth to the detriment of the planet, but towards the well-being of all within planetary boundaries. Interprofessional education for collaborative practice must follow a lifelong learning process, which requires a fundamental transformation in health workforce education whereby health and social care workers

play an active role in creating more just, inclusive, caring and peaceful relationships with each other and with nature.

At the institutional level, social accountability is critical to ensure that the health needs of communities are at the forefront of student enrolment policies. Also important are the application of systems thinking approaches and transformative education that, combined, enable the use of interactive learning pathways. Such pathways, coupled with partnerships and networks in contextualizing problems and solutions, will help establish a strong learning foundation for addressing the social determinants of health and building sustainable societies. Instructional reforms that are founded on institutional reforms, with the support of enabling actions, are equipped to deliver

transformative education. These instructional reforms include the following:

- adopt a competency-driven approach to curriculum development and teaching;
- promote interprofessional and transprofessional education;
- enhance collaborative and non-hierarchical relationships in teams;
- exploit the power of technology for learning;
- strengthen faculty development;
- adopt the competence model as a measure of professional ability and the classification of health professionals;
- embed social accountability in institutional and professional values;
- commit adequate budgetary resources.

These instructional reforms should encompass institutions and programmes that cater to the various health worker groups, including clinicians, public health workers, and relevant non-health sector professionals. Noting the diversity of circumstances and the complexity of addressing the social determinants of health, trainings to improve practice and actions must be context specific and relevant to health worker roles and competencies. Three levels of training interventions are advocated to encompass the layers of needs.

1. Training multisectoral collaboration and Health in All Policies leaders and champions at the global, regional and national levels. Learners at this level should be empowered to address policy coherence for sustainable development for public health and evaluate the inequitable distribution of power, money and resources.
2. Training administrators and managers, public health professionals, clinical actors, the social care workforce, and workers in non-health sectors at the district and community levels. Learners at this level should be empowered to evaluate and address intermediary social determinants of health. They should also be able to act upon community-identified needs and strengthen community assets to improve daily living conditions and support.
3. Training clinicians, social care workers, community health workers, and workers in non-health sectors at the individual or family level. Learners at this level should be empowered to evaluate and address intermediary social determinants of health to improve daily living conditions, and support measures to provide integrated people-centred health services.

Finally, educators will need to undertake regular monitoring and evaluation of education policies and curriculum development. Establishing national standards for equipping the health workforce with the necessary knowledge, skills and competencies and gathering disaggregated data (including those that track

education and training standards for social determinants of health) can help address the social determinants of health. Material produced by WHO on these topics is covered. The WHO National Health Workforce Accounts proposes that setting up mechanisms for dialogue between health and education sectors to coordinate an intersectoral health workforce agenda is also important, with reinforced positive outcomes for education and training, productivity and performance. Institutional mechanisms should also be put in place to document information on good practices in training and education.

Chapter 1.

Introduction



1.1 Background

Taking action on the social determinants of health should be a key part of the roles and responsibilities of health workers in all settings of practice and at all levels of the health system. A concrete step is to empower health workers, educators and their students through effective policies and the use of educational tools such as curricular guides. This will ensure a more comprehensive education and training that recognizes the importance of promoting health equity through actions addressing the social determinants of health.

In a 2019 study, Mangold et al. (1) found that there was limited information on what educators should teach medical students on the subject of social determinants of health, or how they should deliver such teaching. Their study suggested that the social determinants of health should constitute 29% (almost a third) of the total curriculum and should be taught continuously throughout the curriculum. Similarly, Doobay-Persaud et al. (2), in a scoping review to map key concepts and curricular logistics as well as educator and student characteristics, recognized a paucity of curricular guidance available to educators and students. These studies are a reflection of an underlying gap in education on the social determinants of health, and the urgent need for guidance on curricular content and effective teaching and assessment methods for the topic (3). Approaches to addressing the social determinants of health in curricula and training, as with addressing the social determinants of health in practice, should not follow isolated or siloed methods but should be achieved through stakeholder partnerships, sharing best practices and experiences, and engaging stakeholders, including patients, families and professionals from other sectors, in dialogue as part of a dynamic and lifelong learning process. Several of these processes have started to be discussed by bodies setting the vision for health education and medical training, for example in the United States report by the Committee on Educating Health Professionals to Address the Social Determinants of Health (4).

This document aims to build on and support these initiatives arising spontaneously in many settings. It serves as a call to action and an initial blueprint to assist educators in framing an optimal education and training approach and creating an enabling environment for health workers to impact wider society and engage better with sectors outside health to address the social determinants of health.

1.2 Objective and target audience

The objective of this book is to compile useful resources from the work of the World Health Organization (WHO) on the social determinants of health and health equity for use by educators and administrators of education and training institutions. These materials will support education providers in introducing social determinants of health concepts, knowledge and practice into health education for pre-service students and health and care workers (including physicians, nurses, midwives, dentists, pharmacists, community health workers, social care workers and public health officers), as well as for professionals outside the health sector. The desired outcome is for health and non-health professionals to be empowered with sufficient knowledge about the social determinants of health and health equity to assist them in changing some of their practice in their professional settings, and possibly even affecting the context of their working environment in the process. The book therefore assembles materials in a training of trainers format, aiming to inspire, frame and stimulate practitioners and others, and provide a compilation of useful content from the perspective of WHO programmes over the past decade.

The primary target audience of the book comprises health educators, including those with education responsibilities for clinical trainees. Administrators who are involved in the development and implementation of educational instructional reforms (including curriculum development) could be a secondary target.

The following learner groups can benefit from education and training on the social determinants of health to empower them in addressing challenges in their respective work contexts:

- students in health sciences programmes, who play important roles in adopting and endorsing new concepts, ideas and practices in health service delivery, as well as being future agents of change;
- workers in the health and social sectors at all levels and settings of health systems;
- health champions, policy-makers and decision-makers undertaking continuous professional development or refresher courses in the line of their assignment.

Health workers and communities have a central role in transforming health workforce education. Creating an enabling environment for taking action on the social determinants of health will require health workers to engage with people and communities to raise awareness of the need for collective action on the social determinants of health. Community organizations and other platforms expressing a community voice are therefore important agents of change. Health workers' interactions with professional organizations across and beyond the health sector to deliver change are also important, as is their ability to ensure buy-in of policy-makers who are responsible for health and health workforce education. This includes education sector governance and planning mechanisms and processes.

1.3 General approach and summary

This book is focused on promoting health equity through addressing the social determinants of health, that is, the circumstances and conditions of ill-health that are avoidable, unfair, unjust and systematic. It provides the policy context and organizational steps required for institutions looking to integrate the social determinants of health into health workforce education and training, as part of lifelong learning. It also offers a practical resource for educators and practitioners on how to integrate the social determinants of health into training and daily practice.

Because the conditions and circumstances in which people live are diverse and constantly changing, it follows that there is no single universal approach to addressing the social determinants of health. However, there are common guiding and organizational principles that can be applied in health workforce education and training in a consistent and reinforcing manner in all settings.

This book is a first effort to compile information related to WHO's work on the three overarching recommendations of the final report of the WHO Commission on Social Determinants of Health into materials for educators (5). These overarching recommendations were:

- improve daily living conditions;
- tackle the inequitable distribution of power, money and resources;
- measure and understand the problem and assess the impact of action.

A key figure in Chapter 5 (Figure 5.1) uses these three recommendations to propose a relevant approach to teaching and learning. This figure also provides an overview of all the compiled materials, helping educators to quickly locate the content and focus of each chapter.

An outline of the content and focus of the chapters is provided below.

- Chapter 2 introduces the structural, institutional and organizational aspects of the social determinants of health and their common guiding and organizational principles.
- Chapter 3 emphasizes the links between education and service, community orientation on the social determinants of health, and the need for people-centred approaches.
- Chapter 4 expands on the broad literature on social determinants of health, health equity, and strategies and policies of redress, including their relationship with Health in All Policies approaches.
- Chapter 5 illustrates specific health programme examples and considers how health inequities can be addressed through action on the social determinants of health in education and practice.

- Chapter 6 recaps and outlines action steps for target audiences and other users.

The first four chapters of this book provide context and core knowledge on the social determinants of health, with Chapter 5 focusing on the necessary competencies and how they apply to education and service. The frameworks that underpin the document adopt a people-centred approach to measuring and understanding the challenges that the social determinants of health pose, while providing a structure to address those challenges. Similarly, the book reinforces the principles of transformative learning, that is, shifting from fact-based learning to the sourcing, analysis and synthesis of information for decision-making. Educators and other users are encouraged to utilize and discuss with students and health workers the critical thinking pathways described in Chapter 5. These pathways provide entry points that are consistent and coherent across the chapters, giving the educator multiple avenues to explore and engage with the topic of social determinants of health in a way that matches their learners' working environment and context.

References:

Chapter 1

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Chapter 2.

Transforming the health workforce to achieve the Sustainable Development Goals: the value proposition



2.1 Framing the action for social determinants of health: 2030 Agenda for Sustainable Development

Political, economic, social and environmental trends impact health care organization and delivery at all levels: at the macro level (ministries and the institutions responsible for delivering better health), at the meso level (communities), and at the micro level (individuals). For example, fuelled by demographic ageing, rapid unplanned urbanization, and the globalization of unhealthy lifestyles, chronic noncommunicable diseases

have overtaken communicable diseases as the world's leading cause of mortality. At the same time, these pressures, together with climate change, make the world more exposed to unpredictable natural catastrophes and the increased ease of spread of infectious diseases, as revealed by the COVID-19 pandemic. These phenomena demonstrate the need for a primary care approach that prioritizes health promotion, disease prevention and holistic, whole-of-government leadership for the early detection of both communicable and noncommunicable diseases and accountability for the health impacts of policies across sectors (Box 2.1).

Box 2.1

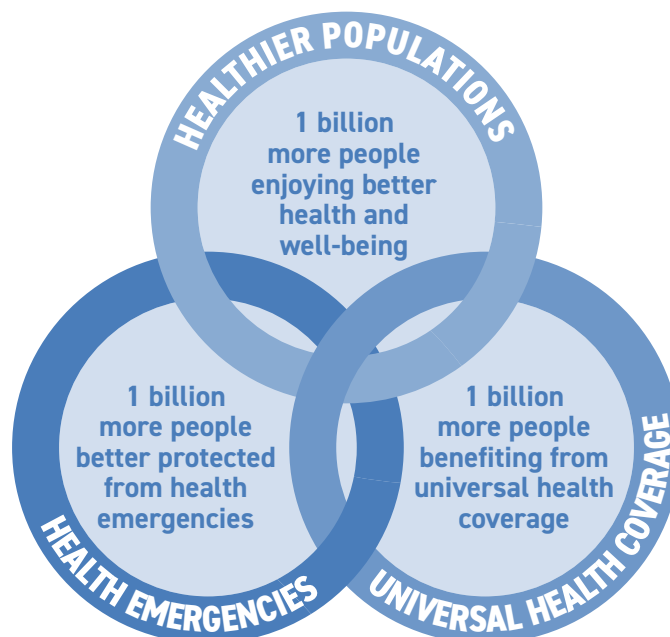
WHO approach to integration of health and sustainable development

The WHO Thirteenth General Programme of Work 2019–2023 (1) puts forward an ambitious agenda to guide WHO's work towards helping countries achieve the health-related Sustainable Development Goals (SDGs) – in particular, SDG 3: Ensure healthy lives and promote well-being for all at all ages. The agenda centres around the “triple billion” goals – 1 billion more people benefiting from universal health coverage, 1 billion more people better protected from health emergencies, and 1 billion more people enjoying better health and well-being (Figure 2.1).

It also calls for the empowerment of people and their governments and multiple stakeholders in business and across society to address the social determinants of health and respond to challenges as part of its vision and mission. To ensure success, governments would need to develop more systematically whole-of-government and whole-of-society approaches in addressing the social determinants of health across all 17 SDGs and in the national SDG frameworks, strategies and action plans of countries.

Figure 2.1

Strategic priorities of the WHO Thirteenth General Programme of Work 2019–2023



2.2 Conceptual framework for action on social determinants of health

The outcome document of the United Nations Conference on Sustainable Development in 2012 – *The future we want (2)* – reaffirmed the principles of the Rio Declaration on Environment and Development of 1992 and past action plans, and recognized the need to advance integration, implementation and coherence to address new and emerging challenges. It renewed the commitment of governments to ensuring the promotion of an economically, socially and environmentally sustainable future for our planet and for present and future generations.

As far back as two decades ago, WHO recognized that healthy and productive lives would require people to live in harmony with nature (3). The fields of planetary health, One Health, One Earth and other such concepts all share the common idea of planet Earth and its ecosystems as our home, and that achieving a just balance among the economic, social and environmental needs of present and future generations will require restoration and protection of the health and integrity of the Earth's ecosystem.

The risks and impacts of climate change, as well as the capacity to respond to it, vary considerably among countries. The baseline health status of a country, or a community, is the single largest determinant of the likely impact of climate change and the cost of adapting to it (4). Promoting health equity and reducing inequalities within and between countries through action on the social determinants of health will require multisectoral cooperation.

The sustainable development agenda provides the framework that enable health workers (including policy-makers and non-health sector workers) to collaborate on the social, economic and environmental dimensions of sustainable development in a consistent and coherent way. The strengthening of health sector leadership, building mechanisms for political and social support, and monitoring progress towards the Sustainable Development Goals regarding environmental threats to health can help mitigate the health impact of climate change.

Integrating the social determinants of health into health workforce education and training should go beyond the health sector. Interprofessional education for collaborative practice should prepare health and social care workers to tackle complex challenges. Through a Health in All Policies approach, development trajectories should ensure that economic growth is not to the detriment of the planet but is focused on the well-being of all within planetary boundaries (5). Interprofessional education for collaborative practice must be a lifelong learning process, which requires a fundamental

transformation in health workforce education whereby health and social care workers play an active role in creating more just, inclusive, caring and peaceful relationships with each other and with nature.

2.3 Universal health coverage: linkages between primary health care and social determinants of health

Universal health coverage recognizes the fundamental importance of equity, social cohesion and social protection mechanisms to ensure access to health without financial hardship for all people, particularly those who are vulnerable or marginalized. Achieving universal health coverage requires tackling health inequities and inequalities within and among countries through political commitment, policies and international cooperation as a means of addressing the social, economic, environmental and other determinants of health.

Universal health coverage is an urgent global priority and is the linchpin of the health-related SDGs. For health care to be truly universal, it requires a shift from health systems designed around diseases and health institutions towards health systems designed with people at the centre. A renewed focus on service delivery through an integrated and people-centred lens is critical to achieving this, particularly for reaching underserved and marginalized populations to ensure that no one is left behind.

Organizing health services around primary health care introduces the key concept of equity, which lies at the heart of addressing the social determinants of health. Health systems that fail to address social determinants of health risk increasing the level of inequity among populations. It is important that policy-makers recognize this linkage during the process of policy formulation (6). Building on equity, other commonalities binding primary health care and the social determinants of health are as follows.

- Primary health care and the social determinants of health are relevant in all countries and contexts, regardless of income level.
- Both consider health as more than the absence of disease.
- The health sector has a key role in operationalizing primary health care and tackling social determinants of health.
- Both primary health care and the social determinants of health require multisectoral action within Health in All Policies.
- The role of empowered communities and the social environment is emphasized in both primary health care and the social determinants of health.

It is essential that attempts to ensure equity in the delivery of health services do not negatively impact the quality of care and health services rendered. Quality of care, with a focus on patient or people responsiveness and safety, is critical to establishing and maintaining trust in health services. It is also key to global health security, which starts with local health security, and in turn depends on high-quality primary care services. The 2018 WHO, Organisation for Economic Co-operation and Development (OECD) and World Bank report on delivering quality health services for universal health coverage provides a strong technical and political case for investing in quality health services (7). The report states that quality of care is “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge”. As nations commit to achieving universal health coverage by 2030, there is a growing acknowledgement that optimal health care cannot be delivered by simply ensuring passive coexistence of infrastructure, medical supplies and health care workers. Improvement in health care delivery requires a deliberate and active focus on *quality* of health services to ensure that they are effective, safe, people centred, timely, equitable, integrated and efficient.

A focus on people-centredness should be at the core of quality services. People, in the context of their work and life in families and communities, must be considered in the context of these social relations and must be engaged in the design, delivery, and ongoing assessment of health services rendered to them. This will ensure that the development of these health services can meet local health needs in a way that ensures equity through addressing the factors underlying the social determinants of health, including access and inclusiveness. Such an approach must be supported by effective leadership that celebrates excellence; communicates transparently and clearly; and fosters collaboration across clinical and other health teams. Patients and their families, and more broadly civil society – including patient groups, occupational and environmental health unions and representatives, other nongovernmental organizations (NGOs), and grass-roots community groups – should also be included within stakeholder groups.

2.4 Educating health workers to address the social determinants of health

2.4.1 Health education as a key to achieving the SDGs and universal health coverage

The report of the United Nations High-Level Commission on Health Employment and Economic Growth (8) states that health workers are the backbone of robust and resilient health systems, and that social and health sectors will have to play a greater role in economies. Investing in health workers is one of the broader objectives of strengthening health systems and social protection, and constitutes the first line of defence against international health crises. The High-Level Commission proposes ambitious solutions to ensure global investment in health workforce employment so that the right numbers of health workers, with the right skills, are deployed in the right places to enable progress towards universal health coverage. The report makes 10 recommendations to transform the health workforce towards the achievement of the SDGs. Six recommendations relate to what needs to be changed in health employment, health education and health service delivery to maximize future returns on investment. This includes recommendation number 3 on education, training and skills: “Scale up transformative, high-quality education and lifelong learning so that all health workers have skills that match the health needs of populations and can work to their full potential” (Box 2.2).

Transforming health workforce education in support of universal health coverage is a necessary foundation for improving health outcomes, well-being, equity and social cohesion, in turn fostering inclusive economic growth. A transformative health workforce education and training agenda can help the shift to lifelong learning systems that include better bridges across specialties and encourage the development of generalists and locally relevant competencies to meet health and social needs.

Furthermore, the balance between health workers focused on addressing specific individual-based health needs, versus community and population-level interventions, needs to be addressed. Structural reforms that recognize the relevance of the workforce, including through accreditation mechanisms and accreditation standards (for example on the social determinants of health), can assist in advancing this transformative agenda.

Transformative education (see section 2.5.3) is a crucial element of the 2030 Agenda for Sustainable Development and has the potential to accelerate progress towards the achievement of all the SDGs. The level of educational attainment in a population is an important social determinant of health and is a strong predictor of long-term health and quality of life. For example, education is one of the most potent ways to improve individuals' health and to make sure that the benefits are passed

Box 2.2

Key recommendation of the United Nations High-Level Commission on Health Employment and Economic Growth

Recommendation 3 creates the building blocks necessary for integrating the social determinants of health into health workforce education and training.

- It recognizes the importance of lifelong learning approaches in catalysing the shift from a focus on conventional pipeline models of health workforce education that encourage narrow specializations to networks of interconnected hubs supplying hybrid, formal and non-formal learning opportunities over the lifetime, with programmes leading to certificates that are recognized and interchangeable.
- A massive scale-up is required of socially accountable and transformative professional, technical and vocational education and training supported with technical cooperation, institutional capacity-building and financing.
- Guidance is needed on the provision of interprofessional education and organization of multidisciplinary care, including recommendations on skills mix and competencies to achieve integrated people-centred care, covering preventive, promotive, curative, rehabilitative and palliative care.
- Evidence indicates the effectiveness of community-based health workers, including health professionals; institutions should consider innovative expansion of faculty through the recruitment of community-based clinicians and health workers as educators.

on to future generations. SDG 4 – Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all – has specific targets for education for sustainable development and global citizenship education. Addressing and taking action on the social determinants of health is implicit in those education targets, creating opportunities for closer alignment of school and health workforce curricula. The active participation of teachers and health workers in policy and social dialogue around the social determinants of health would strengthen connections at all levels, sites and settings of health and education systems. Box 2.3 presents detailed information on a key target that is important for understanding the link between a curriculum on the social determinants of health and transformative education.

Box 2.3

The education sector goal and a key target for transformative education in sustainable development

SDG target 4.7: By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.

SDG indicator 4.7.1: Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessment.

As shown in Box 2.3, SDG target 4.7 commits to ensuring that all learners acquire the knowledge and skills needed to promote sustainable development.

To address the target concept of “knowledge needed for sustainable development” requires greater awareness of the causes of good health across society – the social and societal determinants of health. SDG target 4.7 emphasizes that all learners need to acquire the knowledge and skills needed to promote sustainable development, thereby reinforcing that learning goes beyond health workforce education to become a whole-of-government, whole-of-society effort. All public health evidence indicates that the determinants of health, including social factors, economic factors and the environment, account for 45–60% of population health. In turn, sickness, disability and high death rates in societies have adverse effects on sustainability, the environment and economic activity. The importance of equipping health workers with a holistic vision of health and how it is achieved, rather than a disease-cure focus, is therefore essential to achieving not only the health SDG but also the other SDGs. Education systems and national education policies and curricula that are sensitive to mainstreaming this knowledge of the determinants of health, and nurture the ability to think and act intersectorally, make a fundamental contribution to transformative education across schooling, tertiary education and vocational training levels. In turn, public health workforce education needs to address the existing maldistribution and inefficiencies associated with an inappropriate skills mix across population (public) health and clinical services and systems. The

ability of the current public health workforce to work in a multidisciplinary context is critical. There is a need for shared planning and accountability between the ministries responsible for health and education (and other impacted sectors) and monitoring and evaluation using appropriate indicators.

Finally, the Working for Health 2022–2030 Action Plan (9) can help health workforce policy- and decision-makers to accelerate progress towards universal health coverage, emergency preparedness and response, and attainment of the SDGs. It builds on lessons from a previous five-year plan (10) to scale up the growth of catalytic investments to assist WHO, Member States and stakeholders to jointly support countries in optimizing, building and strengthening their health and care workforces.

2.4.2 Aiming for equity through alignment of health worker competencies with health needs

It is important that policy-makers and educators in countries are equipped with the necessary tools and resources to develop competent health workers who can respond to primary health care needs with minimal and cost-effective training. The WHO Global Competency Framework for Universal Health Coverage (11) provides practical support for this approach by offering a guide to competency-based education programmes for health workers with 12–48 months pre-service training, with the aim of equipping health workers with the knowledge, skills, attitudes and behaviours to provide the range of quality essential health services that meet the health needs of local populations. As part of the people-centredness domain, the fourth competency is to be able to “incorporate a holistic approach to health”, and this is demonstrated through the behaviour of supporting people “to challenge or address their economic, environmental, political and social determinants of health”. Educational institutions can apply the competency-based approach by identifying the extent of the local health needs to be met; defining the competencies, programme structures and outcomes needed to meet those needs; and tailoring the curriculum and assessments to meet the relevant learning objectives.

Community health workers are a critical occupational group whose educational needs could be informed by the Global Competency Framework. As they are often in close relationship with communities, it is important that policy-makers and educators ensure that their pre-service curricula and lifelong learning opportunities include competency domains for social determinants of health if their expected role includes such functions (12). Similarly, other equally important occupational groups with longer study periods, such as paramedical practitioners and clinical officers, have a long history of helping to increase access to care, with an emphasis on

primary care for rural and marginalized communities. It is important that social determinants of health also be included in their curricula to strengthen their ability to address equity in delivering health services. An exploratory study by Cobb et al. (13) inventoried the global distribution of paramedical practitioners across 46 countries, demonstrating the usefulness of the occupational group in increasing access to health care with a focus on health equity.

2.5 Principles reinforcing learning on the social determinants of health

2.5.1 Lifelong learning systems

To address the complex health and other challenges on the near horizon and facilitate the attainment of universal health coverage, countries will have to develop effective policies to optimize the financing, development and training of health workers. This implies that the institutional landscape will need to be reconfigured from the conventional pipeline model to a network of interconnected hubs supplying hybrid, formal and non-formal learning opportunities over the life course, with programmes leading to certificates that are recognized and interchangeable.

Lifelong learning is based on integrating learning and life. It includes learning activities for people of every age, in all contexts (family, school, community, workplace), using different modalities (formal, non-formal and informal education), which together respond to a wide range of learning-related needs and demands. Lifelong learning policies and strategies advocate and advance lifelong learning as the conceptual framework and organizing principle for education reforms in the 21st century (14–16).

Universal health coverage and lifelong learning are strategic priorities and are pivots for both sectorwide and multisectoral action to achieve health, well-being and equity. They both adopt a sociocultural and humanistic approach towards understanding and fostering the strengthening of health and education systems that goes beyond the limits of technical and bureaucratic approaches. The conceptual framework of the WHO Commission on Social Determinants of Health can be equally applied to learning, in particular the social determinants of lifelong learning (17). Adopting lifelong learning approaches in addressing the social determinants of health can highlight new and sometimes overlooked opportunities to simultaneously achieve health gains and contribute to sustainability objectives.

Within lifelong learning approaches, technical and vocational education and training (TVET) could help to establish diverse learning pathways with multiple entry and exit points, supporting learning and career progression. The United Nations Educational, Scientific and Cultural Organization (UNESCO) Strategy for Technical and Vocational Education and Training (TVET) 2016–2021 (18) gives policy directives that can potentially offer future and current health workers inclusive, accessible and flexible interconnected learning opportunities that are responsive to community needs. TVET can take place at different levels and sites, and as such can play a role in helping to connect education subsystems, including education and training for both youths and adults and the health workforce. TVET could also be a strategic modality for addressing inequalities and promoting equality of opportunity in learning and the world of work, thereby promoting gender equality, economic inclusion and social cohesion. Flexible learning pathways could enable learners to navigate between different sites or levels and gain recognized skills and qualifications throughout the life course. At the same time, these networks and learning pathways could stimulate health promotion and health education at community level, as health workers and teachers move between schools and health facilities in the course of their daily work. In many communities, schools already act as hubs for groups and activities and are actively engaged in multistakeholder partnerships. Together, such learning networks and learning pathways could form more flexible and responsive lifelong learning systems.

2.5.2 Social accountability

WHO defines social accountability as “the obligation [of medical schools] to direct their education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve. The priority health concerns are to be identified jointly by governments, health care organizations, health professionals and the public” (19). Social accountability mechanisms can move educational programmes towards better meeting changing health and health system needs, empower community participation in health workforce education and training, and support collaboration and cooperation between the health and education systems and across sectors. Interprofessional collaboration in health education and practice recognizes the importance of learning with and from communities and other sectors to address the social determinants of health. Tackling the social determinants of health is integral to addressing

the health needs and concerns of local communities. Accreditation can help ensure that education programmes are better aligned with changing health and health system needs. A systematic and coherent approach is needed to develop accreditation standards for interprofessional education that take account of the social determinants of health and social accountability, which in turn could contribute to assessment of the impacts of action on service and education.

Key strategies associated with social accountability in health workforce education include the alignment of curricula with local needs, targeted student selection, location of training in the primary care contexts in which graduates are expected to serve, regional postgraduate training and career pathways in underserved regions, interprofessional education and practice, and meaningful partnerships with communities and other stakeholders. There is evidence that aligning curricula with local needs and training students in the context in which they are expected to work increases the likelihood that graduates choose to work in primary care and rural settings (20). By focusing on needs as well as patient- and community-centred care, social accountability calls for the development of team-oriented competencies. Social accountability as an element of national-level accreditation standards facilitates alignment of a national, transformative, health workforce education agenda with the priorities of other sectors, contributes to development of strategies for integrated people-centred health services, and creates an enabling environment to promote health equity through actions on the social determinants of health.

Box 2.4 presents information on the Training for Health Equity Network (THEnet), which is a global movement promoting social accountability in health workforce education.

2.5.3 Transformative learning

In many countries there is a lack of alignment between health workforce education and changing health and health service needs. Traditional education approaches have focused more on curing disease than keeping people healthy, and often fail to provide learners with an understanding of the importance of addressing the social determinants of health. The seminal work of the Lancet Commission on Education of Health Professionals for the 21st Century, which provided an analysis of the ongoing challenges facing health workforce education, remains valid (21).

The Training for Health Equity Network (THEnet) is a global movement promoting socially accountable, transformative, health workforce education. THEnet's Framework for Socially Accountable Health Workforce Education was developed in collaboration with THEnet's founding member schools to support evidence-based, socially accountable health workforce education that is people centred and focuses on addressing inequities. The framework identifies key factors that affect a health professional school's ability to educate a health workforce that will positively influence health outcomes and health system performance, and develops ways to measure and improve the outcomes across institutions and contexts. It can also support school leaders who are engaged in reform or in designing socially accountable health workforce education programmes or programme components.

The framework is designed to serve as a continuous quality improvement tool, helping schools assess how well they are doing in terms of meeting priority needs and assisting them in establishing priority areas for research and improvement.

Source: THEnet <https://thenetcommunity.org/the-framework/>.

■ New infectious, environmental, and behavioural risks, at a time of rapid demographic and epidemiological transitions, threaten health security of all. Health systems worldwide are struggling to keep up, as they become more complex and costly, placing additional demands on health workers. Professional education has not kept pace with these challenges, largely because of fragmented, outdated, and static curricula that produce ill-equipped graduates. The problems are systemic: mismatch of competencies to patient and population needs; poor teamwork; persistent gender stratification of professional status; narrow technical focus without broader contextual understanding; episodic encounters rather than continuous care; predominant hospital orientation at the expense of primary care; quantitative and qualitative imbalances in the professional labour market; and weak leadership to improve health-system performance.

these reforms in a coherent and systematic manner. In turn, implementing these reforms and creating the necessary enabling policy environment will support addressing and taking action on the social determinants of health by the current and future health workforce.

Intersectoral planning for health workforce education and training, in the context of SDG 3 (on health) and SDG 4 (on education), is needed to respond effectively to changes in the health labour market and in the demand for health services and the evolving needs of local communities, including those resulting from public health emergencies. Such an approach could catalyse and drive new thinking and enhance collaboration and cooperation between ministries of education, health, labour and finance, and other ministries, professional organizations and stakeholders.

Transformative learning is the result of instructional reforms and involves three fundamental shifts (21):

- from fact-based learning to searching, analysis and synthesis of information for decision-making;
- from professional credentials to core competencies for effective teamwork in health systems;
- from passive adoption of educational models to creating systems adapted to local needs.

Integrating the social determinants of health into health workforce education and training will require instructional and institutional reforms in health workforce education, and – critically for success – will need an enabling policy environment to ensure the effective implementation and operationalization of

2.5.4 Interprofessional education for collaborative practice

Interprofessional education occurs when two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes. This might include cross-sectoral interprofessional education to promote health equity through actions on the social determinants of health. A transformative health workforce agenda can promote the skills development of workers in the health sector and in other sectors for enhanced responses in humanitarian settings and public health emergencies, both acute and protracted, where collaboration across sectors can be essential to improving health outcomes.

Collaborative practice as defined by WHO empowers and engages people and communities to take charge of

their own health, which aligns with the WHO definition of people-centred care. A fit-for-purpose worker in the health and social sector is someone who has learned how to work in an interprofessional team and is competent to do so. Interprofessional education for collaborative practice:

- supports the skills mix of the health workforce, and allows health system planners to engage individuals whose skills can help achieve population and community health goals;
- is essential to the development of a collaborative “practice-ready” health workforce – one in which staff work together to provide comprehensive services in a wide range of health care sites and settings, and that supports achievement of SDG 3 targets, notably universal health coverage, and contributes to other SDGs, notably SDG 4 (on opportunities for lifelong learning);
- has been shown to provide a strong curricular framework within which to situate teaching and learning of the social determinants of health.

The WHO Framework for Action on Interprofessional Education and Collaborative Practice (22) identifies the mechanisms that shape successful collaborative teamwork and outlines a series of action items that policy-makers can apply within their local health system. The mechanisms are as follows:

1. institutional support mechanisms:
 - a) governance models
 - b) structural protocols
 - c) shared operating resources
 - d) personnel policies
 - e) supportive management practices;
2. working culture mechanisms:
 - a) communications strategies
 - b) conflict resolution policies
 - c) shared decision-making processes;
3. environmental mechanisms:
 - a) built environment
 - b) facilities
 - c) space design.

The goal of the framework is to provide strategies and ideas that will help health policy-makers implement the elements of interprofessional education and collaborative practice that will be most beneficial in their own jurisdiction. Applying these mechanisms in services needs to happen simultaneously with integrating social determinants of health into training and education, as much of the work on addressing the social determinants of health in practice will require teamwork, intersectoral or multisectoral collaboration, and adjustments according to the modalities of service provision.

To facilitate systemic change on the education front, national education plans for the health and social care workforce, including pre-service education and training curricula, continuing professional development, continuing education, and in-service training, should be aligned with national health plans for services and the roles of health providers in addressing the social determinants of health for advancing equity. Lifelong learning systems help frame interprofessional education within a lifelong learning framework and support health services to become providers of health workforce education. Generally, health service providers have access to a broader range of data on health needs and concerns of communities, including the social determinants of health, than pre-service health workforce education institutions. Health service providers are potentially able to develop education and training through data-driven processes, which can be tailored to specific sites and settings based on information from health workforce information systems (see section 6.3), thus helping to deliver formal, informal and non-formal learning across a range of platforms. Interprofessional collaboration in health education and practice recognizes the goals of inclusive and equitable quality education and promoting lifelong learning opportunities for all (SDG 4) and supports learning with and from communities and other sectors to address the social determinants of health (23).

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Chapter 2

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Chapter 3.

Engaging people to thrive



3.1 Strengthening health systems to respond to needs

A good health system ensures the delivery of quality services to all people, when and where they need them. Despite significant advances in people's health and life expectancy in recent years, relative improvements have been unequal among and within countries. Where accessible, care is often fragmented or of poor quality, and consequently the responsiveness of the health system and satisfaction with health services remain low in such settings. Fragile and poorly integrated health systems were crucial contributors to the Ebola virus disease outbreaks that lasted from 2013 to 2016 in West Africa (1, 2). Continued lack of connection between health systems and strengthening capacities will constrain efforts to launch rapid and well coordinated responses to public health emergencies. The fragmented nature of today's health systems means that they are becoming increasingly unable to respond to the demands placed upon them. Many countries continue to face significant problems with regard to unequal geographical access to health services, shortages of health workers and weak supply chains. Continuity of care is also poor for many health conditions owing to weak referral systems. Service providers are often unaccountable to the populations they serve and therefore have limited incentive to provide the responsive care that matches the needs of their users. In many cases, people are unable to make appropriate decisions about their own health and health care, or exercise control over decisions about their health and that of their communities.

The onset of the COVID-19 pandemic laid bare the aforementioned challenges, even as some countries with relatively high expenditure on health care were unprepared to manage the burden placed on their health systems by ill patients (3, 4). It was however noted that countries that effectively combined public health pandemic resilience with robust primary health care and equity foundations fared better, with reduced numbers of illnesses and deaths, compared to others with less equity or less efficient access to primary health care (4–6).

Health workers themselves are unequally affected by challenges related to the social determinants of health. Health workers in lower-resource settings are more likely to be faced with lack of availability of personal protective equipment due to cost (7). In such scenarios, they are exposed to preventable infections and deaths, further compounding the already limited access to health care of the populations they serve. Health labour disputes due to several issues, including a lack of personal protective equipment and decent working conditions, were noted across the world as the pandemic began to take its toll. Restricted access to health information and online learning opportunities, perpetuated further by an increasing digital divide, also puts health workers in lower-resource settings at a disadvantage (8). These arguments point to the need for adequate investment in the needs and welfare of

health workers as part of the social determinants of health discourse, given that properly managed, protected and motivated health workers are essential for the continuity of health service delivery (9).

Health is increasingly being shaped by ageing populations, urbanization and the globalization of unhealthy lifestyles, resulting in a transition in the burden of health care towards noncommunicable diseases, mental health and injuries. Nevertheless, the COVID-19 pandemic has proven that infectious diseases are still a clear and present threat.

▮ The focus on hospital-based, disease-based and self-contained “silo” curative care models further undermines the ability of today's health systems to provide universal, equitable, high-quality and financially sustainable care.

3.2 Applying systems thinking to health system strengthening

A health system consists of all organizations, people and actions whose primary intent is to promote, restore or maintain health. Its goals are mainly improving health and health equity in ways that are responsive, are financially fair, and make the best, or most efficient, use of available resources. The WHO Framework for Action on Health Systems (10) describes six clearly defined health system building blocks that include the health workforce and together constitute a complete system in which the components relate to, interact with and influence one another. Health systems are likely to be stronger when they are anchored in dynamic, well designed, systemic architecture that supports decisiveness in subsystem interaction. Many health systems lack the capacity to adequately measure their constraints or even progress, compromising the ability of policy-makers to make evidence-based or scientifically sound interventions.

Work in other fields as diverse as engineering, economics and ecology shows systems to be constantly changing, with components that are tightly interconnected, interdependent and highly sensitive to change elsewhere in the system, requiring a One Health or planetary health approach (Box 3.1). WHO's One Health is an approach to designing and implementing programmes, policies, legislation and research in which multiple sectors communicate and work together to achieve better public health outcomes (11). The areas of work in which a One Health approach is particularly relevant include food safety, the control of zoonoses (diseases that can spread between animals and humans, such as zoonotic influenza, rabies and Rift Valley fever), and combating antibiotic resistance (when bacteria change after being

exposed to antibiotics and become more difficult to treat). Similarly, the Rockefeller Foundation–Lancet Commission on planetary health defines planetary health as “the achievement of the highest attainable standard of health, wellbeing, and equity worldwide through judicious attention to the human systems – political, economic, and social – that shape the future of humanity and the Earth’s natural systems that define the safe environmental limits within which humanity can flourish” (12). The Commission’s report notes that “despite present limitations, the Sustainable Development Goals provide a great opportunity to integrate health and sustainability through the judicious selection of relevant indicators relevant to human wellbeing, the enabling infrastructure for development, and the supporting natural systems, together with the need for strong governance.”

“Health professionals have an essential role in the achievement of planetary health: working across sectors to integrate policies that advance health and environmental sustainability, tackling health inequities, reducing the environmental impacts of health systems, and increasing the resilience of health systems and populations to environmental change” (12).

Systems thinking is a concept that has increasingly been used to tackle complex health problems and understand how they relate to their predisposing risk factors, for example in such areas as tobacco use, obesity and tuberculosis. On a broader level, however, systems thinking has huge untapped potential, first in deciphering the complexity of an entire health system, and then in applying this understanding to design and evaluate interventions that improve health and health equity. Health in All Policies is an example of a systems thinking approach that can be applied at all levels, from community health through to global health (see section 4.3).

Systems thinking can provide a way forward for operating more successfully and effectively in complex, real-world settings. It can open powerful pathways to identifying and resolving health system challenges, and as such is a crucial ingredient of any health system strengthening effort. Anticipating how an intervention might impact health subsystems on a broader level is crucial, and provides an opportunity to apply systems thinking in a constructive way (Tables 3.1 and 3.2).

Box 3.1

Planetary health

The concept of planetary health provides an opportunity to re-examine approaches to strengthening education and training on addressing the social and environmental determinants of health. Planetary health reinforces the 2030 Agenda for Sustainable Development with its 17 integrated and interconnected goals, which balance the three dimensions of sustainable development (social, economic and environmental). It is therefore essential to leverage the policies and practical mechanisms being used to address planetary health challenges, noting that similar principles underpin equity in human health and development. The health sector has a critical role to play in assessing sustainable and healthy options and empowering patients and communities to take advantage of the options available. Education and training that takes account of social contexts in explaining health inequalities can help equip health workers with the skills to address health equity and wise stewardship of the Earth’s natural systems. The rise of health inequities and the growing threat to the health of our planet and human health are interconnected and interdependent. The concept of health often fails to take into account whether health gains are achieved at a cost to the Earth’s underpinning natural systems that provide essential services (food, fuel, water, shelter) and on which human civilization depends. Health inequities reflect broader social inequities and their historical legacy. The health sector must adopt a proactive leadership role in promoting health and driving intersectoral collaboration for lasting solutions.

Source: Whitmee et al. (12).

Table 3.1

Comparison of systems thinking with usual approach

Usual approach	Systems thinking approach
Static thinking	Dynamic thinking
Focusing on particular events	Framing a problem in terms of a pattern of behaviour over time
System-as-effect thinking	System-as-cause thinking
Viewing behaviour generated by a system as driven by external forces	Placing responsibility for a behaviour on internal actors who manage the policies and "plumbing" of the system
Tree-by-tree thinking	Forest thinking
Believing that really knowing something means focusing on the details	Believing that to know something requires understanding the context of relationships
Factors thinking	Operational thinking
Listing factors that influence or correlate with some result	Concentrating on causality and understanding how a behaviour is generated
Straight-line thinking	Loop thinking
Viewing causality as running in one direction, ignoring (either deliberately or not) the interdependence and interaction between and among the causes	Viewing causality as an ongoing process, not a one-time event, with effect feeding back to influence the causes and the causes affecting each other

Source: Alliance for Health Policy and Systems Research and World Health Organization (13)

Key points are as follows.

- A systems perspective can help understand how health system building blocks, contexts, and actors interact with each other, and is an essential approach in designing and evaluating interventions.
- Mainstreaming a stronger systems perspective in the health sector will assist this understanding and accelerate health system strengthening.
- Systems thinking offers a comprehensive way of anticipating synergies and mitigating negative emergent behaviours, with direct relevance for creating policies that are more system ready.

Table 3.2

Elements of systems thinking

Systems thinking elements	
Systems organizing	Managing and leading a system; the types of rules that govern the system and set direction through vision and leadership, set prohibitions through regulations and boundary setting, and provide permissions through setting incentives or providing resources
Systems networks	Understanding and managing system stakeholders; the web of all stakeholders and actors, individual and institutional, in the system, through understanding, including, and managing the networks
Systems dynamics	Conceptually modelling and understanding dynamic change; attempting to conceptualize, model and understand dynamic change through analysing organizational structure and how that influences behaviour of the system
Systems knowledge	Managing content and infrastructure for explicit and tacit knowledge; the critical role of information flows in driving the system towards change, and using the feedback chains of data, information and evidence for guiding decisions

Source: Richmond (14).

Before applying health system strengthening interventions, it is important to have baseline evidence from a situational analysis and to ensure that the planned interventions are sensitive to the existing levels of interaction between the subsystems. Systems thinking places a high value on understanding context and looking for connections between the parts, actors and processes of the system (Box 3.2). It makes deliberate attempts to anticipate, rather than react to, the downstream consequences of changes in the system, and to identify upstream points of leverage. It revolves around how system stakeholder networks are included, composed and managed, and how context shapes this stakeholder behaviour. Stakeholders are not only at the centre of the system as mediators and beneficiaries but are also actors driving the system itself. Their participation as individuals, civil society organizations, stakeholder networks, and health workers influences each of the health system building blocks in uniquely positive ways.

Systems thinking is a key element to translating the three overarching recommendations of the Commission on Social Determinants of Health (see section 1.3), in particular measuring and understanding a problem and assessing the impact of action. The critical thinking pathways described in Chapter 5 encourages adoption of systems thinking for specific health programmes (15). Systems thinking will allow educators and health workers to measure and understand problems in an integrated and mutually reinforcing manner, and assess the impact of action in service (SDG 3) and education (SDG 4) using a common SDG framework (16).

In transforming health workforce education systems to ensure that they address equity, understanding where to begin to frame a systems approach can be a challenge. As discussed in this chapter, educators and health workers will need to embrace systems thinking to develop a deeper understanding of the linkages, relationships, interactions and behaviours among the elements that characterize the entire system.

Box 3.2

Lifelong experiential learning: a systems approach to education of health professionals

Ensuring that health workers are geared towards addressing the social determinants of health is important to help countries achieve the targets reflected in national and international policy tools and guidance documents. Educating health professionals in and with communities that are negatively affected by the social determinants of health can generate awareness among those professionals about the potential root causes of ill-health. This can help them contribute to more effective strategies for improving health and health care for underserved individuals, communities and populations.

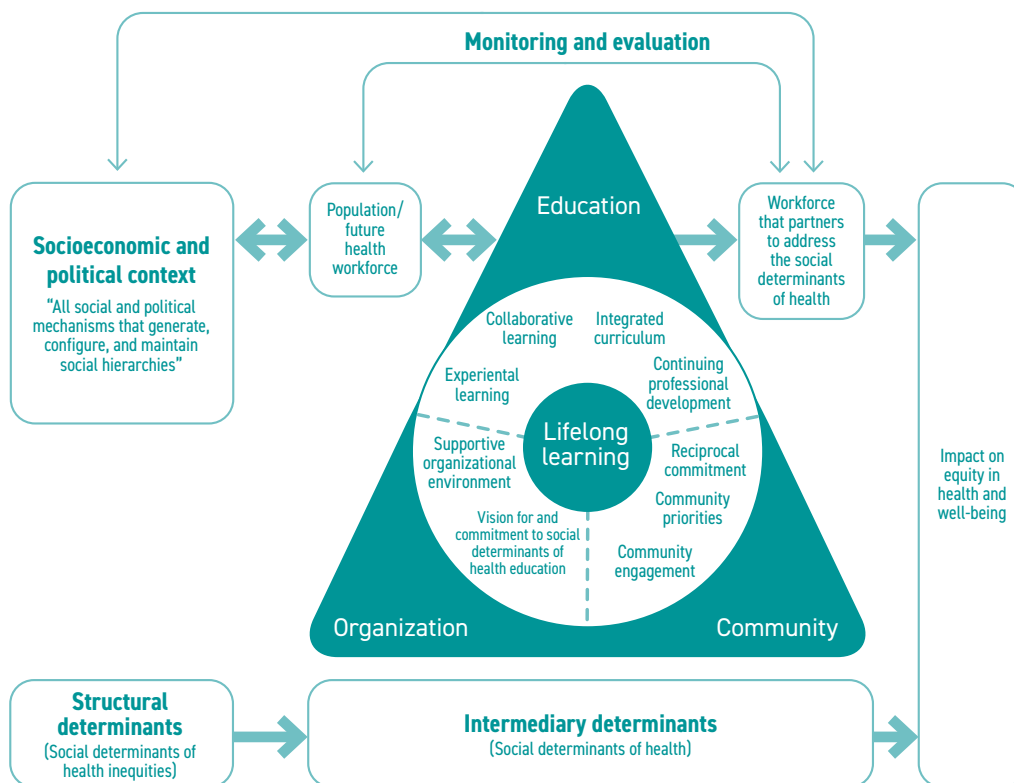
To maximize the education of health workers being trained in disadvantaged settings, learning programmes and curricula must frame lifelong experiential learning within social determinants of health structures, as illustrated by the interdependent and interconnected systems in the United States National Academies of Sciences, Engineering, and Medicine framework for educating health professionals to address the social determinants of health (Figure 3.1). The model places lifelong learning at the centre of its framework to reinforce how promoting health equity through action on the social determinants of health must be a collective process of learning with and from others. It is important that curricula are adapted to articulate these interconnecting components and their relationships according to context so that learners can better appreciate the value of relationships and collaboration to address community-identified needs.

Experiential learning should also be a core principle in adopting a systems approach, as it engages participants in critical thinking, problem solving and decision-making. This approach to learning also allows opportunities for debriefing and consolidation of ideas and skills through feedback, reflection and the application of lessons learned to new situations.

It is good practice for educators to review the enablers of and barriers to integrating the social determinants of health into their curricular design and learning programmes. In doing so, they should note what instructional and institutional reforms might be required and reflect on the actions and partnerships needed to create an enabling policy environment.

Figure 3.1

Conceptual model for strengthening health professional education in the social determinants of health



Source: United States National Academies of Sciences, Engineering, and Medicine (17).

3.3 People-centred health systems

3.3.1 WHO Framework on Integrated People-Centred Health Services

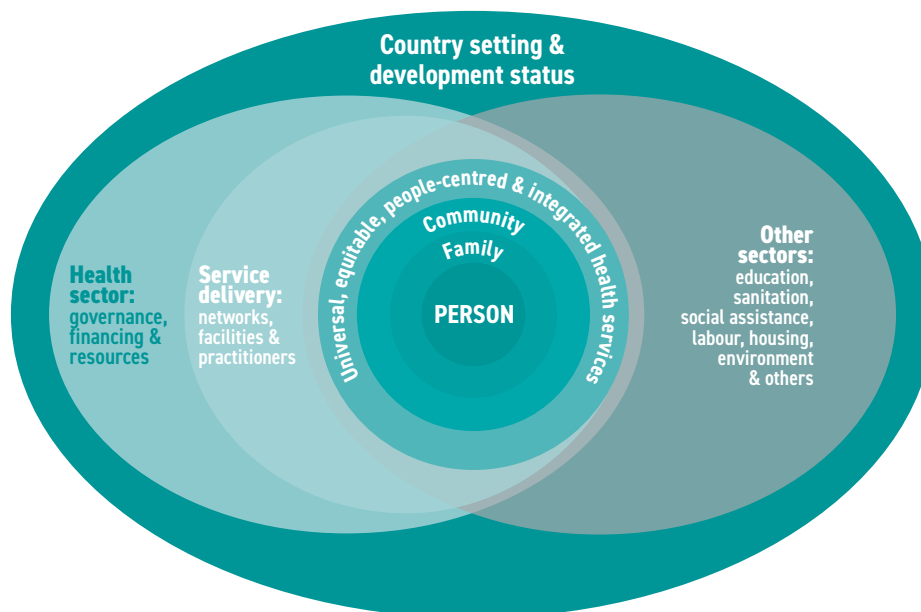
At least half of the world's population still do not have full coverage of essential health services (18). Longer lifespans and the growing burden of chronic conditions requiring complex interventions over many years are also changing the demands on health systems. This can range from the way services are delivered to changes in the way organizations, care systems and policy-making processes operate. Reforming health services to be integrated and people centred should be a core element of strategic efforts to achieve universal health coverage. Ensuring that health services are integrated and people centred is an important way to empower patients, address health system fragmentation, and foster greater coordination and collaboration with organizations and providers across care settings, thus facilitating the

delivery of health services that are aligned with the needs of people.

The WHO Framework on Integrated People-Centred Health Services (Figure 3.2) calls for a fundamental shift in the way health services are funded, managed and delivered (18). It supports countries as they progress towards universal health coverage by shifting away from health systems designed around diseases and health institutions towards health systems designed for people. Discussions on resilient and responsive health systems highlight those that provide integrated people-centred services, with a focus on primary health care as the front line of routine services and outbreak response. Health system resilience needs to be qualified by an explicit focus on equity and social justice, and support for the empowerment of the most vulnerable. Promoting health equity through action on the social determinants of health can be enhanced by integrating people-centred health services beyond traditional health system boundaries.

Figure 3.2

WHO Framework on Integrated People-Centred Health Services



Source: World Health Organization (19).

A people-centred approach is needed for:

- equity in access: for everyone, everywhere to access the quality health services they need, when and where they need them;
- quality: safe, effective and timely care that responds to people's comprehensive needs and is of the highest possible standards;
- responsiveness and participation: care is coordinated around people's needs, respects their preferences, and enables their participation in health affairs;
- efficiency: ensuring that services are provided in the most cost-effective way with the right balance between health promotion, prevention, and inpatient and outpatient care, avoiding duplication and waste of resources.

The framework considers four strategic approaches in engaging and empowering people.

- 1. Engaging and empowering individuals and families.** To achieve better clinical outcomes through co-production of care, particularly for noncommunicable and chronic diseases, individuals and families need to be active participants. Empowerment implies that care is delivered in an equal and reciprocal relationship between, on the one hand, clinical and non-clinical professionals, and, on the other, the individuals using care services, their families and communities, thereby improving their care experience. This step is fundamental because people themselves spend the most time living with and responding to their own health needs and will be the ones making choices regarding healthy behaviours and their ability to self-care.
- 2. Engaging and empowering communities.** This approach will enable communities to voice their needs and so influence the way in which care is funded, planned and provided. Engaging and empowering communities helps in building confidence, trust and mutual respect and in creating social networks, acknowledging that people's physical and mental well-being depends on strong and enduring relationships. The approach strengthens the capacity of communities to organize themselves and generate changes in their living environments.
- 3. Engaging and empowering informal carers.** Family members and other caregivers play a critical role in the provision of health care. Carers must receive adequate education to be able to provide high-quality interventions, and to serve as advocates for the recipients of care, both within the health system and at the policy level. Additionally, carers have their own needs for personal fulfilment and require emotional support to sustain their role.
- 4. Reaching the underserved and marginalized.** This approach is of paramount importance for guaranteeing universal access to health services. It is essential for fulfilling broader societal goals such as equity, social justice and solidarity, and helps to create social cohesion. It requires action at all levels of the health sector, and concerted action with other sectors and all segments of society, to address the broad range of determinants of health and health equity.

3.3.2 Human resources for people-centred and integrated health services

■ The health workforce should be geared towards addressing the social determinants of health to ensure optimal health promotion, disease prevention, primary care and people-centred community services.

Health workforce education and training play a key role in enabling the provision of health services that are organized around people's needs. Accordingly, it is critical to ensure the equitable selection, education, training and deployment of health workers in rural or underserved areas using financial and non-financial incentives, regulatory measures or service delivery reorganization. Such measures will require the development of new competencies, new positions and new ways of working that are essential to deliver the necessary actions to address the social determinants of health within health service delivery, including for public health functions and emergencies.

The creation of specific roles to ensure the assessment, detection and management of the social determinants of health in patients and communities could further highlight the importance of those determinants while ensuring dedicated oversight. Such roles may involve health personnel already integrated within the care team or overarching management roles to coordinate social determinants of health programmes in health facilities or institutions. Enhancing social workers' competencies is also important and can result in better patient outcomes by improving the quality of social services delivered to patients and communities.

Finally, there is a need for new ways of working that organize interprofessional and multidisciplinary teams and equip them with the knowledge and tools to manage the social determinants of health. Ensuring better ways of working could be promoted by creating an enabling environment with the appropriate level of technology to motivate and facilitate collaboration amongst health workers.

3.4 Engaging people and communities

3.4.1 The dynamics of power and empowerment

Placing people and their institutions at the centre of integrated services emphasizes commitment to the principles and values of primary health care – fairness, social justice, participation and intersectoral collaboration.

People-centred care requires that people have the education, resources and support they need to make decisions and participate in their own care. It is organized around the health needs and expectations of people rather than around diseases. It further requires that communities have resources and are enabled to co-produce healthy environments, are supported to provide care services in partnership with health and social sectors, and can contribute to healthy public policy.

In considering the mechanisms and pathways of systems thinking as it relates to the social determinants of health, it is useful to reflect on the concepts of “social cohesion” and “social capital”, which occupy an unusual (and contested) place in understanding the social determinants of health. The WHO Commission on Social Determinants of Health adopts the position that the state should play a fundamental role in social protection, ensuring that public services are provided with equity and effectiveness. The welfare state is characterized as a systematic defence against social insecurity, which can be defined as the vulnerability of individuals, groups or communities to diverse environmental threats.

3.4.2 Evidence on the importance of community engagement

Despite a growing body of research that points to the many benefits of participatory models of engagement for all aspects of development (including public health, even in wealthy countries), many health systems are yet to fully adopt effective engagement processes and mechanisms. The traditional artificial separation between service planning and delivery on the one hand, and service uptake on the other, is being challenged. The hard lessons learned from the Ebola virus disease crisis clearly demonstrate the importance of the interdependent and reciprocal relationship between service providers and service users (20). The competence, ethics, attitude and actions of health workers and responders significantly impact community trust, resilience and vulnerability. Since the Ebola epidemic in West Africa, the notion of “community engagement” has become more visible. Although there is no universally agreed definition of community engagement within the health sector, there is an increasing appreciation that community engagement has an extensive reach that can fundamentally influence the direction and quality of public health implementation efforts.

Community engagement is often understood as taking place outside the health sector, and as being the responsibility of civil society organizations, NGOs and agencies that normally deal with “generating demand”. This has resulted in a general neglect of health care processes that have significant systemic and (often) non-direct effects on patients and families, and on community satisfaction with and use of health services. Decades of experience with implementation of health programmes, including in the areas of HIV/AIDS, immunization, maternal and child health, and more recently health emergencies, has shown that there are disciplinary, technical, programmatic and cultural barriers to scaling up and institutionalizing existing models of best practice in community participation and mobilization. These challenges contribute to a culture within health systems that reinforces hierarchy, bureaucracy, silos, vertical programming and services, lack of transparency, and ineffective coordination and collaboration, inhibiting innovation and collective purpose, acceleration of best

practice, problem identification and solution finding – in effect, the emergence of an adaptive self-learning workforce within an adaptive self-learning system.

Community engagement is widely used in health promotion, yet its component models associated with improved health are poorly understood. No standard typology of community engagement interventions exists, and current interventions do not address the centrality of human relationships through which technical work gets done and trust emerges. Studies have demonstrated that community engagement can positively impact health behaviours, public health planning, health service access, health literacy, and a range of health outcomes (21, 22).

Key community engagement components that have contributed to these findings include real power-sharing, collaborative partnerships, and bidirectional learning, incorporating the voice and agency of beneficiary communities in research protocols and using bicultural health workers for intervention delivery. In addition, there are gaps in the current measurement of community engagement in health intervention studies, and several papers argue that randomized controlled trials are the most effective way of evaluating community engagement interventions and processes that are context specific and have non-linear effects occurring over time.

3.4.3 Opportunities to promote community engagement

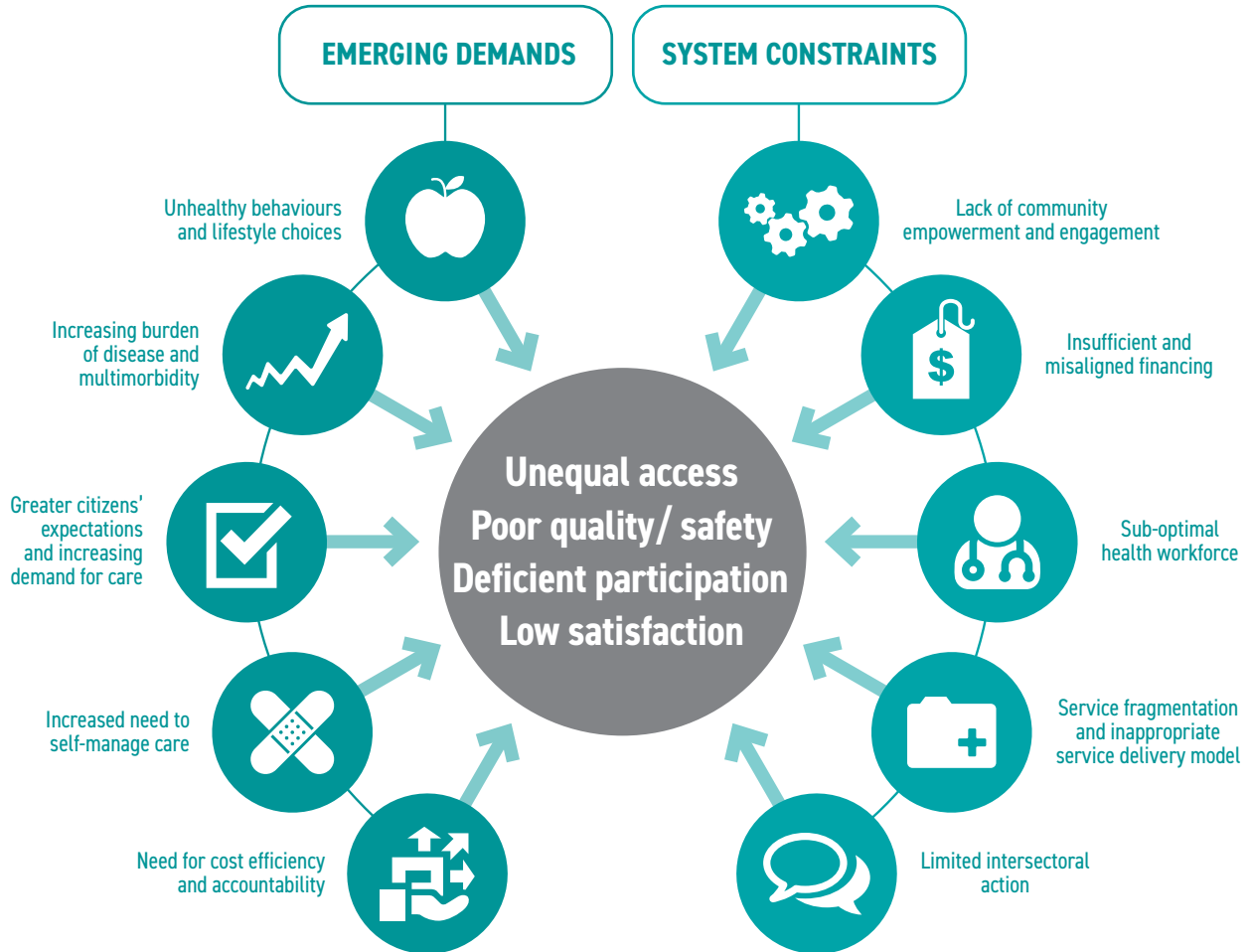
Health systems are complex and can be challenging environments for work. As a microcosm of the society they are set up to serve, they need to accommodate diverse cultures and languages and bring together different health and social workforce occupations and disciplines that need to collaborate effectively to deliver lifesaving results.

Positive changes will be observed in relationships, conversational patterns, interactions and behaviours when health workers are supported (as part of their job functions) to act from a place of receptivity and helped to engage in constructive, compassionate and empathetic ways. These changes will have non-linear, systemic effects that will need to be captured and measured in new ways. A robust model and framework for community engagement is required that embraces comprehensiveness and recognizes that engagement and resilience are dynamic processes. Such a framework will have the potential to create multiple entry points for engagement. It will acknowledge that the relative levels of power can influence and impact opportunities for knowledge-sharing, relationship-building and lifelong learning inside a health system. Figure 3.3 uses a generic health system example to illustrate the emerging demands and system constraints that affect the balance of community health and community engagement in a country.

Figure 3.3

Community engagement as a key component of health system strengthening and outcomes improvement

The place of community engagement in addressing health system challenges



Source: Adapted from World Health Organization (23).

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Chapter 3

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Chapter 4.

Understanding the
social determinants
of health



▮▮ The social determinants of health are the social, economic and environmental conditions in which people are born, grow, live, work and age that impact health and well-being across the life course, and the inequities in access to power, decision-making, money and resources that give rise to these conditions.

4.1 The social determinants of health equity

4.1.1 History and background

The social determinants of health are concerned with all aspects of people's living and working conditions and the structural factors that shape them. The social determinants are responsible for the stark fact that in many African countries, life expectancies are as low as the mid-50s, while in many OECD countries they are well over 80 years (1). These gaps have been evident across countries for decades. In recognition of this, the need to address social determinants for improved health outcomes is entrenched in the Constitution of the World Health Organization, 1948 (2), and the Universal Declaration of Human Rights, 1949 (3).

▮▮ The Constitution of the World Health Organization refers to health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.” The Universal Declaration of Human Rights affirms: “Everyone has the right to a standard of living adequate for the health of himself and of his family, including food, clothing, housing and medical care and necessary social services.”

WHO has consistently argued that attention should be paid to these broader societal determinants of health, essentially the drivers of who has opportunities for health and who does not. This perspective was enshrined in the Declaration of Alma-Ata on Primary Health Care, 1978 (4), which called for a new economic order to address inequities in health status for the achievement of health for all by the year 2000. In fact, since that time, economic inequities have increased dramatically (5), and health inequities remain between and within countries despite generally rising life expectancies. The commitment to socially engaged primary health care was recently renewed by Member States and the global health community at the Global Conference on Primary Health Care, Astana, Kazakhstan, 25 and 26 October 2018, as a demonstration of the continued

relevance of achieving health for all. WHO has also affirmed the importance of good governance and, within that, healthy public policy as a crucial element of achieving health for all. This concept, which was an integral theme of literature on primary health care and intersectoral action in the early 1980s (6), was enshrined in the seminal Ottawa Charter for Health Promotion, 1986 (7). It has formed the rationale for both the Healthy Cities initiative (which aimed to encourage local governments to adopt coordinated and planned approaches to healthy public policy) and the Health in All Policies approach, a whole-of-society and whole-of-government approach that is described in detail in the WHO training manual on Health in All Policies (8) and in the first and second Adelaide statements (9, 10).

WHO's strong support for comprehensive, socially embedded primary health care has encountered tensions with biomedical models. While medical care is an essential element of primary health, a comprehensive approach uses evidence to argue that (a) more can be done at the clinical interface to ensure people-centred care (11); and (b) population health and health equity require populationwide social, environmental and economic investments (12). It is further argued that governments have the responsibility to institute the public policies that will result in improved population health and equity through bringing about healthy public policies in all sectors (13). As observed in a historical background paper to the WHO Commission on Social Determinants of Health (2005–2008), the last several decades have witnessed the negative impacts of the dominant neoliberal model of governance (14). Since the financial crisis of 2007, United Nations reports have outlined the decline in economic inclusion witnessed since that date, with real wage growth for lower-income earners lagging behind wage growth for the highest 10% (15). Economic inequities have increased as a consequence of the COVID-19 pandemic. Economic disruptions, accompanied by growing unemployment, have caused the global economy to contract by more than 3%, reducing the income of billions of people and driving close to 95 million people into extreme poverty (16). Other impacts of the COVID-19 pandemic – including job losses (which have been borne disproportionately by women and by workers in lower socioeconomic positions); disrupted education for students; compromised food security; increased gender inequalities, discrimination and stigmatization, including ageism; and worsened mental health of already disadvantaged groups – together make it unlikely that the SDGs will be met.

The neoliberal model of economic and social organization is based on the assumption that societies are most efficiently organized if governments withdraw from as many services as possible – including health, housing, water and power supplies – and instead outsource or privatize services and provide limited or no oversight, with a corresponding reduction in public services. The evidence is now accumulating that neoliberalism has led to a concentration of wealth and the growth of massive corporations that prioritize profits above the health and well-being of the population (17). Several researchers have argued that the philosophy of neoliberalism has posed a threat to the social determinants of health agenda and acted to undermine its implementation by devaluing the role of government (13, 18). Neoliberalism has also governed the formulation and implementation of global agreements. The Lancet–University of Oslo Commission on Global Governance for Health (19) has called for more accountability and effective governance of transnational corporations and the global economic system in general. Illustrative of this diminished role of nation states in governance for health, the relative power of public interests to regulate transnational companies has not grown to the same extent as the relative power of private sector interests to expand markets for the sale of unhealthy products globally.

4.1.2 Concepts and terminology

Social determinants of health

Understanding the social determinants of health requires consideration of how they are studied in the scientific literature. This includes unpacking the ways in which they operate to affect individual and population health. The literature commonly identifies two groupings of the social determinants of health and health equity – structural and intermediate social determinants.

The distinction between the two is important as the intermediate social determinants tend to focus on the circumstances of daily life that support good health, access to health care, and recovery from illness, while the structural determinants tend to focus more on the “causes of the causes” – the historical, socioeconomic, political and cultural factors that give rise to inequities in the conditions needed for good health.

Furthermore, structural determinants broadly refer to factors giving rise to differences in social position and are related to access to power, money and the resources essential for good health. They entrench the social hierarchies that impact the intermediary determinants of health and well-being outcomes. They are fixed in place through specific historical and political systems, policies and laws, market and trade systems, and social and cultural norms. The structural determinants of health equity are mostly responsible for the patterns of health inequity through their impact on intermediate determinants of health related to the conditions or circumstances of daily life – differentials in material

circumstances, differentials in psychosocial factors, differentials in health behaviours, and differentials in health service access and the consequences of illness and treatment. For example, for people living with physical or mental disability, the consequences of how their social position enables them to deal with their state of health are of critical importance.

A framework expressing these ideas, and a host of recommendations for action, was provided by the seminal 2008 report of the global Commission on Social Determinants of Health *Closing the gap in a generation: health equity through action on the social determinants of health* (20). This analysis was further developed by the Pan American Health Organization (PAHO) through its Commission on Equity and Health Inequalities in the Americas in the 2019 report *Just societies: health equity and dignified lives* (21).

The frameworks demonstrate that the social determinants of population health and health equity consist of the underlying structural determinants of health (structural drivers) and the intermediate determinants (conditions of daily life), the distribution of which is largely determined by the structural factors.

PAHO identified that for its region, the important structural determinants of health and health equity included:

- political, social, cultural and economic structures (and values/norms)
- natural environment, land and climate change
- history and legacy (ongoing colonialism, structural racism).

The intermediate determinants, or conditions of daily life, included:

- early life and education
- working life
- ageing
- income and social protection
- peace, security and safety
- environment and housing
- health systems.

A further WHO effort to shed light on the intermediate social determinants from a generic, intersectoral perspective is the Equity-oriented Analysis of Linkages between Health and Other Sectors (EQuAL) framework (22). These are also referred to as “domains” of material and psychosocial circumstances, with indicators characterizing these as “social risks”. EQuAL groups material and psychosocial intermediate determinants into three main domains with subitems, as follows:

- Environment quality, public infrastructure, services and safe products:

- community and public spaces (for example, green and blue spaces) and the
- housing conditions (for example, affordability) and amenities (water, energy, air, digital access)
- health services and other public services (for example, transport mobility)
- quality of products (including nutritious and safe food) and safety;
- working conditions
- Accountability, non-discrimination and inclusion:
 - gender equality
 - non-discrimination
 - participation and involvement
 - peace, trust and safety (non-violent -families, communities, societies)
 - social capital and social support (being valued), cultural and family support (parenting)
- Livelihoods and learning:
 - early childhood and youth development and experiences (for example, trauma)
 - education and skills
 - employment relations
 - income and food security (and social protection)
 - work-life balance and ageing

These conditions conducive to health are not static and need to be viewed over a lifetime and life course through which there is an accumulation of positive and negative effects of social determinants on health, sometimes with high physical and mental health impacts at critical periods of physical development or when social roles change over the life course.

If the intermediate determinants are unevenly distributed in a population, this gives rise to health inequalities or disparities. Some analyses of noncommunicable diseases attribute 50% of inequities in noncommunicable diseases to the distribution of intermediate determinants (23).

The hierarchy of social determinants of health over lifestyles and behaviours is another important message from the evidence base, as illustrated in Figure 4.1, developed by Dahlgren and Whitehead in 1991 (24). This rainbow representation is one of the most famous visual representations of the social determinants of health, including seven main domains: agriculture and food production; education; working environment; unemployment; water and sanitation; health care services; and housing.

Figure 4.1 The main determinants of health



Source: Dahlgren and Whitehead (24), as recreated by WHO (8).

Health disparities, inequality and inequity

The terms health disparity and health inequality are often used interchangeably in policy and literature to express the difference in health outcomes between groups within a population (sometimes with the implication that such differences are unfair). While the terms health inequity and health inequality are also often used interchangeably, inequity is the term most commonly associated with differences in health that are judged to be avoidable by reasonable action and are thus unfair.

Health inequality refers to differences in health status or in the distribution of health determinants (for example, access to improved water and sanitation) between different population groups. Health disparity and health inequality denote differences, whether unjust or not. Health inequity, on the other hand, denotes differences in health outcomes favouring more advantaged social groups that are systematic, avoidable (or remediable), and unjust.

The paper by Whitehead titled *The concepts and principles of equity and health* identified health inequities as differences in health that are “unnecessary, avoidable, unfair and unjust” (25). Health equity was further defined by Braveman and Gruskin as “the absence of systematic disparities in health (or in the major social determinants of health) between groups with different levels of underlying social advantage/disadvantage” (26).

The core aim of the measurement of health equity is to identify differences in health between population groups that are stratified or ordered according to social position. This requires collection of specific individual and contextual data on the health event of interest and the individuals concerned. These data include the measurable dimensions of social inequality, focusing primarily on the population groups that are most affected. Common stratifiers explored by WHO in the development of the *Handbook on health inequality monitoring* include wealth, income, occupation, place of residence, education level, sex, age and geographical location (27).

The individual characteristics offered by the PROGRESS acronym – place of residence (urban/rural), race/ethnicity, occupation, gender, religion, education, socioeconomic status, and social capital/resources – offer a useful systematic and memorable checklist of characteristics that stratify health opportunities or outcomes across society. The elements of PROGRESS were first proposed in 2003 by Evans and Brown (28).

4.1.3 General mechanisms and pathways

The mechanisms governing the impact of social advantage or disadvantage on health can be grouped according to two main complementary perspectives: (a) the social causation perspective; and (b) the life course (including critical periods and accumulation) perspective.

Under another view – based on the concept of social selection – people who are downwardly or upwardly mobile across social classes increase or decrease the health of those in the destination classes. Overall, this mechanism is not regarded as the predominant mechanism for health inequities in societies but can play a role (29).

Regarding the social causation perspective, whereby social position determines health through material, psychosocial, and behavioural or biological factors, people living in adverse social and economic situations have worse health outcomes. The longitudinal study by Marmot et al. in 1978 (30) suggested that social causation was the main contributor to health inequities, as differences in exposure to material, psychosocial and (conditioned) behavioural factors lead to health inequities. A 2002 study by Ben-Shlomo and Kuh (31) identified the role of the “critical period”, whereby exposure to certain factors during a specific period had lasting or lifelong effects on an organism, leading to accumulation of disadvantage over the life course. More details of this literature are summarized by Solar and Irwin (32) in a background paper to the Commission on Social Determinants of Health, which was published subsequently. Of relevance to this discourse is Nancy Krieger’s “embodiment” notion, whereby genetic selection and hereditary factors at the cellular level produce ill-health and transfer ill-health across generations (33):

We literally incorporate biological influences from the material and social world ... no aspect of our biology can be understood divorced from knowledge of history and individual and societal ways of living.

There has long been an understanding by philosophers, healers and spiritual leaders in societies across human history that psychosocial stress can manifest in physical form. In recent decades, large-scale multicountry surveys have demonstrated the epidemiological associations between exposure to adversity, especially in early life, and the onset of mental and physical health conditions. Adverse childhood experiences are strongly linked with the development of mental health conditions (including mood, anxiety, and behavioural disorders), substance use, and physical health conditions (including

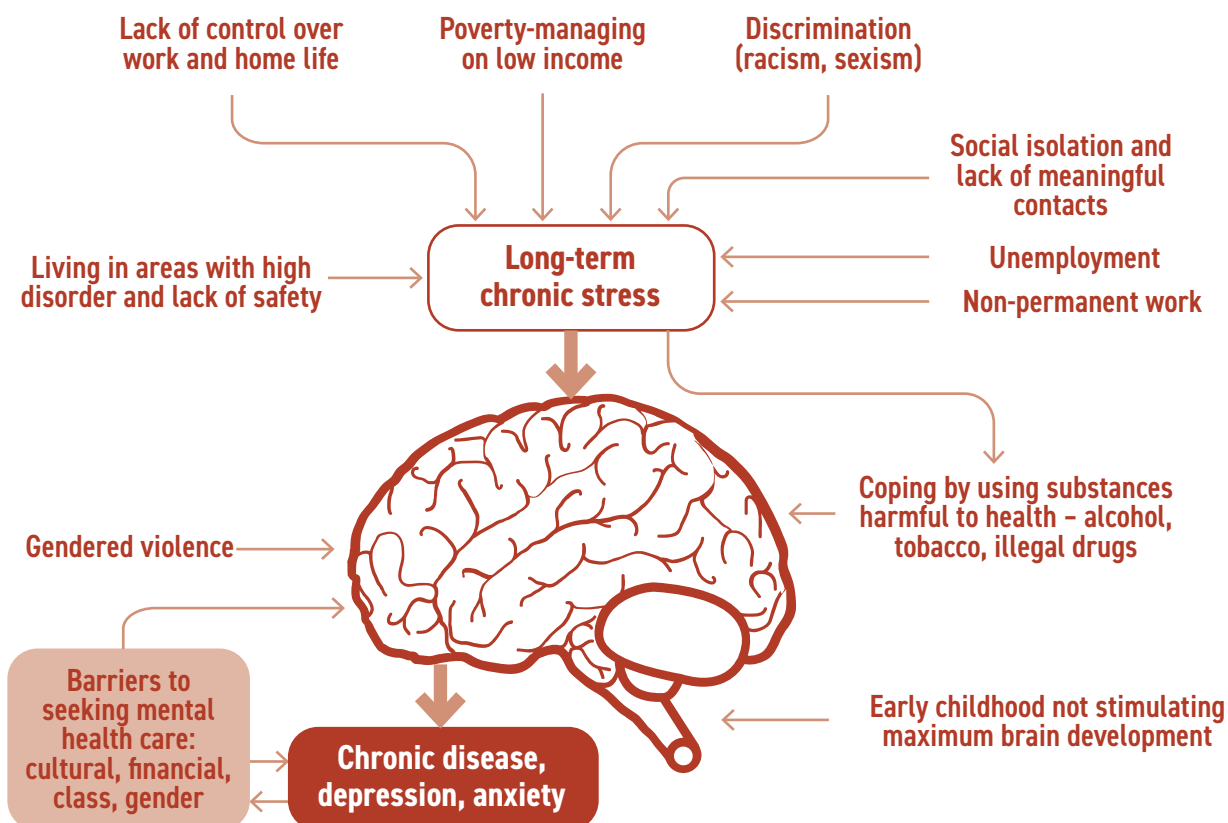
hypertension, diabetes, and heart disease) across the life course (34–37). Figure 4.2 demonstrates how social determinants interact to affect mental health with feedback loops to other noncommunicable diseases.

Experiencing socioeconomic adversity in adulthood is also correlated with the onset of both mental and physical health conditions (38). The groundbreaking studies of Marmot demonstrated the impact of social status on health (30, 39, 40). More recently, burgeoning biomedical literature offers explanations for these epidemiological associations by elucidating the impacts of adversity on the brain’s prefrontal cortex and the hypothalamic–pituitary–adrenal axis, with subsequent impacts on neuroendocrine, immunological and metabolic responses to stress (41–45). These processes contribute to the development of multiple health conditions in addition to other factors influenced by social determinants, including psychosocial factors, behavioural risk factors, and access to health care.

The biological mechanism through which socioeconomic disadvantage can get “under the skin” has been investigated in relation to ageing and epigenetics. Fiorito et al. (46) report that socioeconomic adversity is associated with accelerated epigenetic ageing, implicating biomolecular mechanisms that may link socioeconomic status to age-related diseases and longevity. Vineis et al. (47) map these effects across the life course from multicountry data. Chronic stress reduces healthy ageing markedly, reducing life expectancy by three to four years. Risk accumulation literature shows that layering of material or psychosocial factors may result in cumulative damage to tissues and organs that are greater than the proportional impacts on health of each individual determinant, as intensity, number and duration of exposures increase.

It is important to re-emphasize a set of core concepts and terms used in the study of the mechanisms generating health inequities (practical examples of these are discussed for specific health themes in Chapter 5).

Figure 4.2 How social determinants affect chronic stress and mental health



Source: Baum (45).

Diderichsen, Evans and Whitehead (48) developed a model to explain how the uneven distribution of determinants resulted in health inequities through social mechanisms. They identified the following social mechanisms that stratify health outcomes.

- Social contexts, which include the structure of society and the social relations in society, create social stratification and assign individuals to different social positions.
- Social position and stratification in turn engender differential exposure to psychosocial stress and material risks (for example, a person exposed to dangerous chemicals through their work) and differential vulnerability (also referred to as “susceptibility”) to health-damaging conditions (for example, someone who is already immunologically compromised as a result of poor nutrition, or populations experiencing clusters of environmental health risks, have increased susceptibility to contracting infections).
- Health system access and responsiveness differentially favour people from higher social position, resulting in health care inequities and differential outcomes from health treatments.
- Social position and stratification likewise determine differential consequences of ill health for more and less advantaged groups (including social and economic consequences, as well as longer-term differential health outcomes).

Differential exposure

Exposure to most risk factors and health damaging and compromising conditions (material, psychosocial and behavioural) is inversely related to social position.

Many public health initiatives and programmes do not differentiate exposure or risk reduction strategies according to social position. Analysis by social group would clarify which risk factors most affected each group, and the extent to which that impact differed from an overall population analysis. Understanding root causes is vital for developing appropriate equity-oriented strategies for health. There is increasing evidence that people in disadvantaged positions are subject to differential exposure to a number of intermediate determinants and risk factors, including natural or anthropogenic crises, unhealthy housing, dangerous working conditions, low food availability and quality, social exclusion and barriers to adopting healthy behaviours.

Differential vulnerability (to health-compromising conditions)

The same level of exposure to health-damaging or health-compromising conditions may have different effects on different socioeconomic groups, depending on their social, cultural and economic environments and cumulative life course factors.

Clustering of risk factors in some population groups renders them biologically more susceptible to illness arising from any given exposure. Social risks, including social exclusion, low income, alcohol abuse, malnutrition, crowded housing and poor access to health services, may be as important as the individual exposure itself. Further, coexistence of other health problems, such as coinfection, often augments susceptibility to disease. It is crucial that attempts to reduce or eliminate co-morbidities identify appropriate entry points for breaking the vicious circles in which populations find themselves trapped.

The role of health systems

The health system plays an important role in mediating the differential consequences of illness in people’s lives. The conceptual framework of the Commission on Social Determinants of Health departs from many previous models by conceptualizing the health system itself as a social determinant of health. The role of the health system becomes particularly relevant through the issue of access, which incorporates differences in exposure and vulnerability, and through intersectoral action led from within the health sector (49). There are many barriers to equity of access in health systems. Thiede, Akweongo and McIntyre (50) and the final report of the Knowledge Network on Health Systems of the Commission on Social Determinants of Health (51) outline various dimensions of access reflecting the interaction between demand and supply:

- availability and physical accessibility (having services available at the right place and time and not too far from people’s homes);
- affordability (free or low-cost services, including associated costs, such as transport and taking time off work);
- acceptability (including cultural and gender acceptability), which is also strongly related to the concept of health system responsiveness and civil and political human rights (such as being treated with dignity, autonomy, confidentiality and privacy) (52).

Each of these is intimately connected with the social determinants of health.

Differential health outcomes and other consequences

Equity in health care ideally implies that everyone in need of health care receives it in a form that is beneficial to them, regardless of their social position or other socially determined circumstances. The result should be the reduction of all systematic differences in health outcomes between different socioeconomic groups in a way that levels everyone up to the health of the most advantaged. But owing to the social determinants and inequities in health system access, differential health outcomes arise that are patterned according to a social gradient. These differentials can be captured as the main summary indicators for assessing health equity in a particular country or population.

Poor health may have several social and economic consequences, including loss of earnings, a decline in the ability to work, and increasing social isolation or exclusion. There are several other differential consequences of ill-health, including catastrophic out-of-pocket expenditure, for example arising from unpaid sick leave resulting in loss of income. These other consequences may affect social position, for example through loss of income and employment, inability to afford decent housing, and social stigmatization. While advantaged population groups are better protected – in terms of job security, paid sick leave and health insurance, among other factors – for the already economically disadvantaged, and increasingly for the middle classes facing real wage declines and deteriorating conditions of work in many countries, ill-health might result in crossing the poverty line and accelerating a downward spiral that further damages health.

Life course perspectives

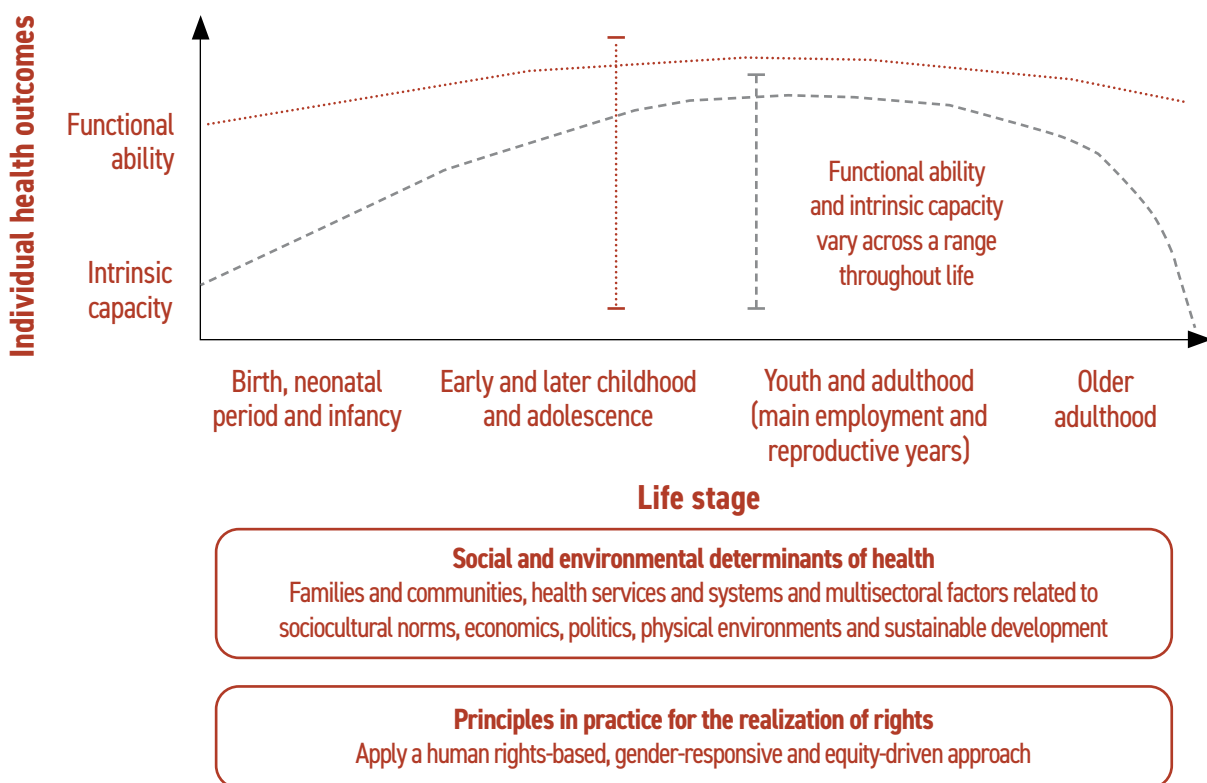
The impact of social determinants and the resulting illnesses vary across life. The life course perspective entails consideration of roles and intrinsic capacities and susceptibility at different stages or periods of life, and the consequent accumulation of risk (53). Adopting a life course perspective when considering a health equity problem

enables an understanding of the causal links between exposures and outcomes that may reveal common patterns in social determinants over the life courses of people from particular social groups, and across generations. The life course perspective aims to understand how temporal processes across the life course influence the health of the population cohort, and how the health of one cohort is related to that of previous and subsequent cohorts, as manifested in disease trends observed over time in populations. A model for visualizing health at different stages of life is presented in Figure 4.3. Critical periods such as early life are included in this model.

Time lags between exposure, disease initiation and clinical recognition (latency period) suggest that exposures early in life may initiate disease processes prior to clinical manifestations. However, the recognition of early life influences on chronic diseases does not imply deterministic processes that negate the value of intervention later in people's lives. Additional interventions into adulthood can yield significant improvements in health equity in the areas of mental health and healthy ageing (47). Yet, the evidence is clear that childhood is a critical period for interventions on the social determinants of health. This includes the provision of good housing, healthy food, safe environments and secure parenting.

Figure 4.3

Conceptual framework of a life course approach to health



Source: Kuruvilla et al. (54).

Structural determinants and the role of power

The original conceptual framework of the Commission on Social Determinants of Health describes the evidence on the above mechanisms in light of social theories analysing power – how one social group gains power over another – and then uses that evidence to identify a hierarchy of determinants, the first category of which is “structural determinants”, that is, the political, social, cultural and economic structures. Authors have categorized power as (a) power over (ability to influence or coerce); (b) power to (organize and change existing hierarchies); (c) power with (power from collective action); and (d) power within (power from individual consciousness) (32).

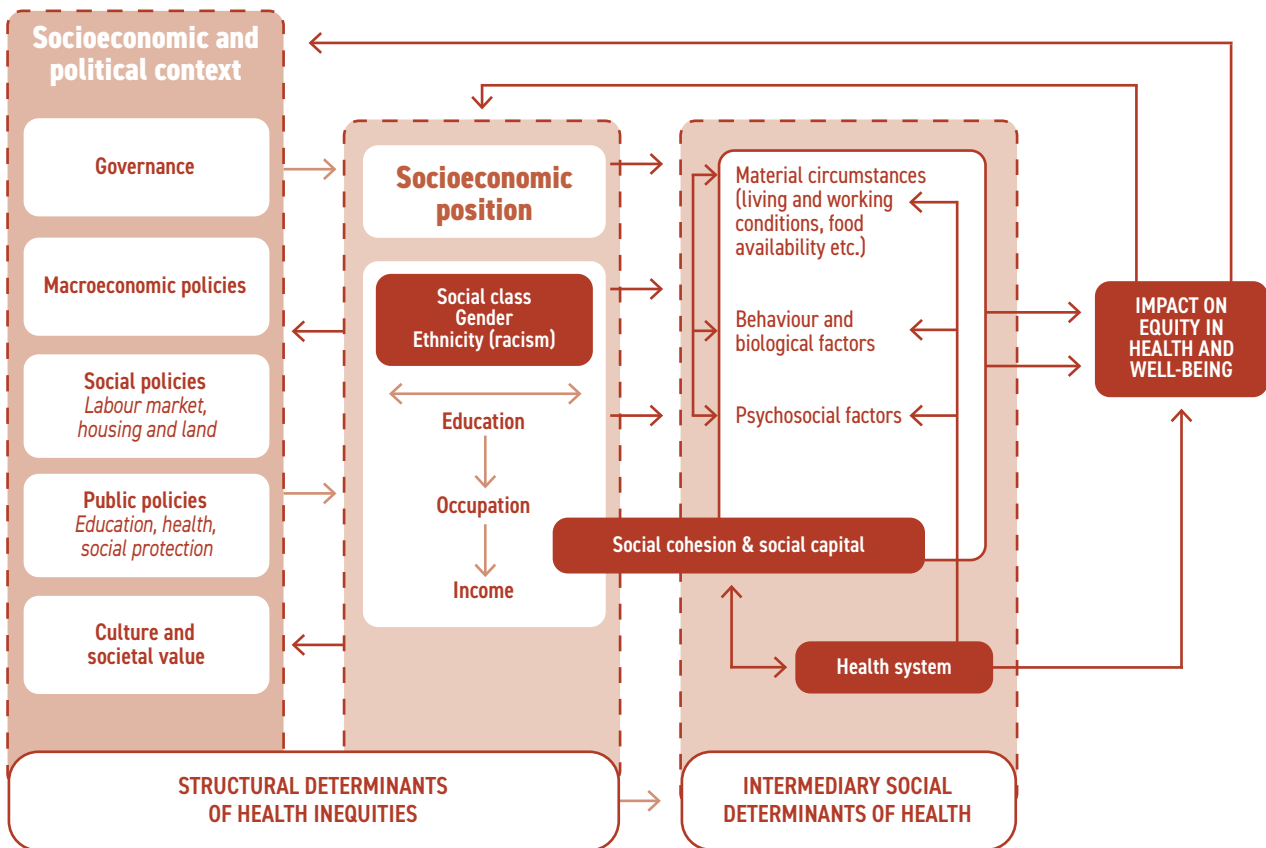
The social context can be conceptualized as the interaction between key systems or structures in society (for example, the welfare state, the labour market, the educational system and political institutions) and other cultural and societal values, and the formation of classes distinguished by their power, money and accumulated resources (Figure 4.4). Among the contextual factors that most strongly affect health and health equity is the existence of the state and how it uses power to affect distributive and redistributive policies (these mechanisms are also discussed in the “political” determinants of health literature). In the conceptual framework of the WHO

Commission on Social Determinants of Health, structural mechanisms are those that generate stratification and social hierarchy, emphasizing class divisions in society and defining individual socioeconomic positions within hierarchies of power, prestige and preferential or discriminatory access to resources. Structural mechanisms are rooted in the key institutions and processes of the socioeconomic and political context (the first column in Figure 4.4) and are reinforced by social groups (the second column, with arrows pointing to the left). Based on their respective social status, individuals experience differences in exposure and biological vulnerability, also termed “susceptibility”, to health-damaging and compromising conditions.

▄▄ Social position exerts a powerful influence on the type, magnitude and distribution of health in societies.

Understanding and addressing stratification is critical to reducing health inequity. Thus, a specific focus on the structural determinants of health is vital to fully understand how health inequities are produced and can be addressed by healthy public policy.

Figure 4.4 Summary of the pathways for the social determinants of health inequities



Source: Solar and Irwin (32).

The interaction between structural variables and the power they exert was demonstrated through studies of countries that achieved a higher life expectancy than other countries with a similar economic performance, as measured by gross domestic product (GDP) (55). For instance, while Costa Rica had a GDP about one third of the United States of America, it exceeded the life expectancy of the United States by one year (55). The original study that sought to explain these apparent inconsistencies was conducted in the 1980s. It identified Sri Lanka, China, Costa Rica and Kerala state in India as achieving good health at low cost (55). The following five factors contributing to good health were identified: (a) political commitment to advancing health; (b) valuing equity and community participation; (c) provision of quality education, especially for women; (d) sufficient and sustained investment in primary health care; and (e) strong intersectoral linkages to support health. These factors are suggestive of the elements of the socioeconomic and political context (left-hand column in Figure 4.4) that are vital in reducing social inequities and challenging power relationships, including those related to gender. Since then, the role of education has been a focus of much study. The role of parental education in promoting social position and thereby mitigating intergenerational health inequities was further validated in a study by Balaj et al. (56).

Also included in the structural determinants are a set of determinants that include contentious factors such as racism, culture, social norms and commercial determinants of health (under macroeconomic policies and governance – where governance also refers to the political determinants of health – in Figure 4.4).

Cultural and social norms have an important influence both on the positioning of people in the social hierarchy and, directly, on the intermediate determinants of health. Social norms and values may derive from cultural or religious traditions or a combination of factors related to commercialization, history and religion. Anthropologists study how health, illness and death are perceived by different cultures and how this influences their interactions with health services, social position, and their experience of intermediary determinants over the life course (57). The *World development report* of 2006 noted that all cultures have some concept of equity and fairness, whether fairness in distribution of goods and services or fairness in process (58). At the macro level, culture influences social norms and, through these, community, family and individual behaviours. Cultural institutions can often act as gatekeepers that maintain social norms that are either positive or negative for health and health equity. Culture can also affect the nature of the welfare regimes established, as noted in a review by Chauvel and Leist (59).

The impact of these factors is influenced by international contexts. Gleeson and Friel (60) showed how regional trade agreements can restrict the ability of governments

to pass public health laws, because they are construed as a constraint on trade. They can also result in the import of unhealthy products to low- and middle-income countries (for example, the export by industrialized countries of unwanted, high-fat-content mutton flaps to the Pacific islands). As Gleeson and Friel (60) note:

▮ The capacity for regional agreements such as the [Trans-Pacific Partnership] to create and exacerbate health inequities derives, in part, from their inherent power imbalances. Wealthy countries have more bargaining power to negotiate advantageous trade rules and tend to use this power to gain concessions that they are unable to obtain through the [World Trade Organization].

How the structure of the economy and commercial factors increasingly dominate all aspects of human development, and thereby influence health equity, is becoming of greater importance in the work to understand and address health equity. The *Human development report 2019* (61) describes how wealth concentrated in the private sector leads to lower levels of well-being and underfunding and poor distribution of services that are important for more equitable human development. Private corporations also seek to influence medical education and research. Commercial private sector interests can be involved in preference shaping that leads to worse health behaviours.

The general trend towards reduction in the wealth of the state relative to the wealth of private individuals, and by association corporations, undermines the traditional redistributive role of the state and its mandate to broker power. So too does the increase in state corruption (not totally unrelated to the growth of corporate sector entities and their role in funding political campaigns), wherein the corrupt state emphasizes the enrichment of state officials and allied supporters to the detriment of its redistributive role, and emphasizes private enrichment over public value. These trends embed income inequality as a strong structural feature of many economies that is detrimental to health and well-being.

Together, context, structural mechanisms and the resultant socioeconomic position of individuals are the structural determinants that are vital to understand the pathways leading to health inequities, and to differentiate the ecological approach to social determinants from other approaches focused more on individual behaviours separate from these structural drivers. The underlying social determinants of health inequities operate through a set of intermediary determinants of health to shape health outcomes, of which an individual's health behaviours are one factor. The vocabulary of structural determinants and intermediary determinants underscores the causal

priority of the structural factors, while the success of policy measures to address those may be observed in individual behaviours. The terminology of structural determinants includes recognition of the relatively greater power of organized commercial groups and structures in society compared with the power of individuals, households, civilians, and communities.

Population groups and social position

The identification of population groups who are experiencing health inequities is fundamental to working on the social determinants of health. Frequently the population or social group experiencing inequity and the causative social determinant itself are combined in the measurement of equity stratifiers using disaggregated data. The identification of social groups should pay close attention to the fundamental analysis of the control of power, money and resources in society (as outlined above), recognizing that social or socioeconomic position affects the occurrence of differential exposures, differential vulnerabilities and unequal consequences of illness. Identification of social or population groups should also consider how different social determinants intersect to focalize disadvantage. It is through social position, and the mechanisms over the life course, that any particular group has systematically worse health. Disadvantaged social groups can have multiple overlapping or intersecting identities.

The Commission on Social Determinants of Health's framework emphasizes three aspects of social (socioeconomic) position (Figure 4.4): social class (working through education, occupation, income and wealth), gender discrimination, and ethnic discrimination or racism. In monitoring health inequities various proxy variables, such as education, occupation and income, are used to approximate class, while racism normally uses identifiers related to ethnicity or language. Gender is distinct from sexual orientation, and both are further aspects of discrimination and social position.

When evaluating the impacts of policies on the health of specific populations, it is possible to use more nuanced

classifications of social groups that intersect multiple categories in order to specify social position more accurately. Some of these categorizations can be more relevant to particular health conditions (see Chapter 5). For example, a South African study explaining social determinants of health in South Africa identified female heads of households as a population group of key concern (62). The 2017 *Health equity report*, analysing health disparities in the United States, describes several sociodemographic attributes of households that provide further insight into the identification of social class and the mechanisms by which stratification affects particular groups. For example, home ownership is both a status symbol and an indicator of differential health outcomes, resulting in an equity gap between those who rent and those who own their homes (Box 4.1) (63).

Intermediary determinants

The structural factors described above combine and interact to shape the type and distribution of intermediary determinants affecting the health of individuals forming part of social groups and communities. Structural determinants shape where we live, the state of our environment, our income and education levels, and our relationships with friends and family. While for an individual, access to and use of health care services is extremely important (especially in instances of illness or for vaccinations and preventive screenings), at a population level, these factors are related to structural factors determining insurance coverage and entitlements to universal health care. This is why health service access is placed as an intermediate determinant.

Studies have been conducted to assess the relative contribution to health outcomes of different social determinants, as represented by the various intermediate determinants, which are more easily measurable at the individual level (Figure 4.5). The first pie chart (A) in Figure 4.5 is derived from a study conducted by the WHO Regional Office for Europe in 2019 (64), which used data from individual questionnaire surveys on health and sociodemographic variables covering many social determinants to analyse correlations between differences

Box 4.1

United States: asthma in children

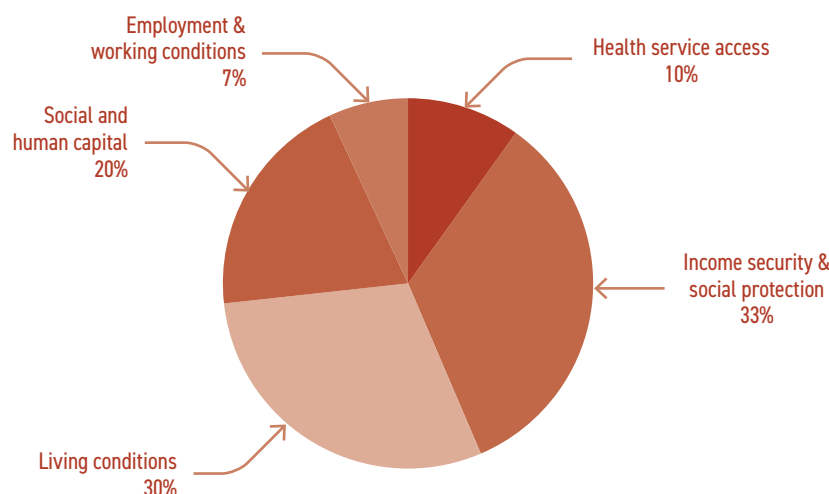
The 2014 report by the Maternal and Child Health Bureau – *The health and well-being of children: a portrait of states and the nation 2011–2012* – found asthma to be the most common chronic condition among children in the United States. In an interview survey, approximately 9% of children were reported by their parents to have asthma. Children living in rented homes were 30% more likely to have asthma; children living below the poverty line were 56% more likely to have asthma than children in the highest family income group; and children living in families characterized by the survey as “Non-Hispanic Black” were over 200% more likely to have asthma than children in families characterized as “Non-Hispanic White”.

Source: United States Department of Health and Human Services (63).

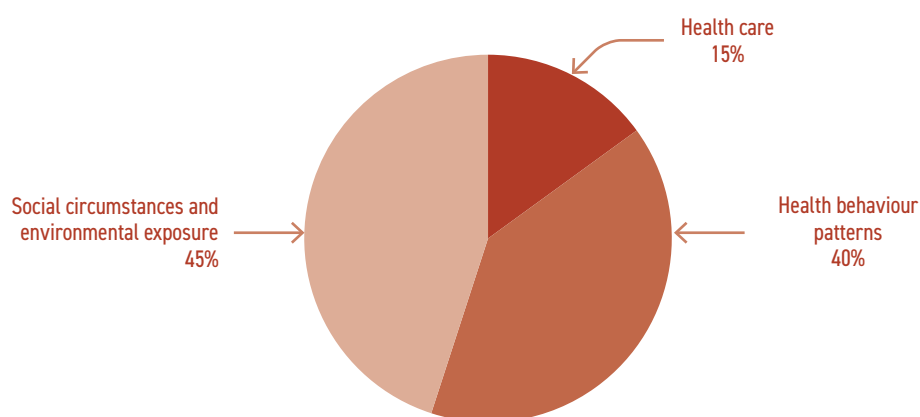
Figure 4.5

Weighing the importance of different determinants of health and health equity

A. Determinants of health inequities (by wealth)



B. Determinants of average population health



Source: A: WHO Regional Office for Europe (64); B: Donkin et al. (65).

in self-reported health (according to household levels of wealth) and the intermediate determinants. The second pie chart (B) relates to a study undertaken by McGinnis in 2002 through assessment of expert opinion in the United States, as described by Donkin et al. (65). For that study, experts were asked to assess the relative weight of different causes of the burden of disease; responses ranked health care at 15%, health behaviour patterns at 40%, and social circumstances and environmental exposures at 45%. Both expert opinion and survey data show high proportions for the impact of the broader social determinants of health, but the WHO study that assessed the determinants of health inequities in a context of relatively well resourced health systems found that the social determinants play a large role in understanding the patterns of health inequities. Income security and social protection were weighted at 33%, living conditions at 30%, social and human capital (including education) at 20%, and employment and work at 7%.

4.1.4 Summary of the main pathways to health impacts of the social determinants

The main generic categories of intermediary determinants of health that are applied when focusing on how they impact health – through exposure, vulnerability and unequal consequences – are material circumstances; psychosocial circumstances; behavioural and biological factors; social capital; and the health system itself as a social determinant. These categories are aligned with the main pathways of influence on health at the individual level. Their main links to health are described here in brief; for specific examples, see Chapter 5.

- **Material and physical circumstances.** These include income and wealth, access to housing, healthy food, appropriate clothing, and good quality of employment. Safe water and clean air, healthy workplace, and conducive housing, communities and

roads all contribute to good health, whereas unsafe and unclean environments can contribute to stress.

- **Psychosocial factors.** These include stressful living circumstances and relationships, stressful life events, fear (for example, of stigma or discrimination), isolation, and the amount of control that people have over their lives (degree of autonomy), taking account of their coping strategies.
- **Behavioural factors.** These include so-called risk behaviours (such as physical activity, diet, tobacco and alcohol consumption), which are distributed differently among different social groups. Everyday living conditions and upstream structural determinants shape personal behaviour – diet, exercise, and potentially harmful activities such as smoking and drinking – as well as coping skills (or the lack thereof) – how we deal with life’s stresses. The more advantages an individual has in life, the greater the potential for that individual to exhibit healthy behaviours.
- **Social capital.** A diverse set of concepts on how social capital influences health underpin the study of social capital in the literature. Fundamentally, social capital refers to the role that trust in social (including cultural) institutions, social relationships and social networks plays in influencing people’s health and health behaviours. Social capital cuts across structural and intermediate determinants. Studies show direct impacts on psychosocial well-being but also highlight the importance of indirect mechanisms related to how social capital mediates access to resources and power and influences their distribution.
- **Health systems.** The health system, and the extent to which it enables access to and use of services that prevent and treat disease and that promote health actively, is an important intermediary determinant of health. However, health and welfare as a right and universal health coverage are structural determinants. They shape access to health systems in the sense that the services offered at different levels of care are structured by policies, laws and regulations that govern who is covered by health policies, at what cost, and to which treatments and services their coverage extends.

The impact of these intermediary factors on health is affected in turn by genetics. Inheritance of genetic traits plays some part in determining lifespan, healthiness and the likelihood of developing certain illnesses. But, as previously explained, the mechanism of embodiment implies that, at any particular time, the genetic history of an individual represents a cumulation of previous socially conditioned experiences affecting health. The exact nature of the interaction between genetic and social factors is a subject of continuing study.

- **Impact on equity and well-being – disability, ill-health and chronic health conditions.** While not considered a primary mechanism in understanding

health equity patterns, a person’s health and well-being in part reinforce the factors affecting social position, intermediate determinants and access to the health system. People who were in social positions entitling them to financial health protection may find their financial protection depleted after health episodes or as a result of ongoing chronic conditions. Those already lacking financial health protection coverage owing to poor social position are forced to further compromise resources for health when paying for health services out of pocket. The WHO and World Bank *Global monitoring report on financial protection in health 2019* concluded that globally, the population impoverished by out-of-pocket health spending, which crowds out spending for food, shelter, and education, increased between 2000 and 2015 (at the relative poverty line of 60% of median daily per capita consumption or income) (66).

In summary, individuals have limited control over many of the determinants of health, as the intermediary determinants, including behavioural factors, are shaped by structural determinants of power, money and resources (67–70). Another example relates to indigenous people in many countries, who have been colonized and suffered the loss of their land, culture and language (71). The resulting powerlessness has given rise to a number of health problems, including poor mental health, high rates of suicide and many physical health conditions. A Canadian study found lower suicide rates in aboriginal communities in British Columbia that had higher rates of “cultural continuity” or self-determination (72). Indigenous peoples are likely to score lower than non-indigenous populations on many of the indicators reflecting the social determinants of health, including quality of housing, employment rates and educational achievement. This does not reflect the individuals’ qualities, but rather the constraints on intermediary determinants experienced because of structural factors.

4.2 Action on the social determinants of health

4.2.1 Framing action

The work of the Commission on Social Determinants of Health highlights the scope of action areas and (along with other literature) suggests that there are several important features of policy actions or strategies to address structural and intermediate social determinants of health, whether they be comprehensive strategies or focus on particular areas of determinants (Box 4.2).

Summary of key recommendations of the WHO Commission on Social Determinants of Health

The three overarching recommendations of the report of the Commission on Social Determinants of Health are summarized below, with specific recommendations listed under each of the broad recommendations.

1. Improve daily living conditions

Measures to improve daily living conditions include the following:

- improve the well-being of girls and women and the circumstances in which their children are born;
- invest in early child development and education for girls and boys;
- improve living and working conditions;
- create social protection policy supportive of all;
- create the conditions for a flourishing older life.

Policies to achieve these goals will involve civil society, governments and global institutions.

2. Tackle the inequitable distribution of power, money and resources

In order to address health inequities and inequitable conditions of daily living, it is necessary to address inequities – such as those between men and women – in the way society is organized. In a globalized world, the need for governance dedicated to equity applies equally from the community level to global institutions, including the following measures:

- place health equity in all policies and in doing so address gender and economic and other inequities that are at the heart of how society is organized;
- create a strong, committed, capable and adequately financed public sector;
- ensure financing for action on social determinants, including progressive taxation and international finance for health equity;
- encourage market responsibility and corporate accountability;
- reinforce the primary role of the state in the provision of basic services essential to health;
- create a strong system of local, regional, national and global governance that enables legitimacy, space, and support for civil society, an accountable private sector, recognition by society of agreed public interests, and reinvestment in the value of collective action.

3. Measure and understand the problem and assess the impact of action

Acknowledging that there is a problem, and ensuring that health inequity is measured – within countries and globally – is a vital platform for action, including the following measures:

- establish within national governments and international organizations, with the support of WHO, national and global health equity surveillance systems for routine monitoring of health inequity and the social determinants of health, and assessing the health equity impact of policy and action;
- build the capacity of organizations to act effectively on health inequity, including through investment in training of policy-makers and other actors;
- increase public understanding of the social determinants of health;
- invest in more research on the social determinants of health.

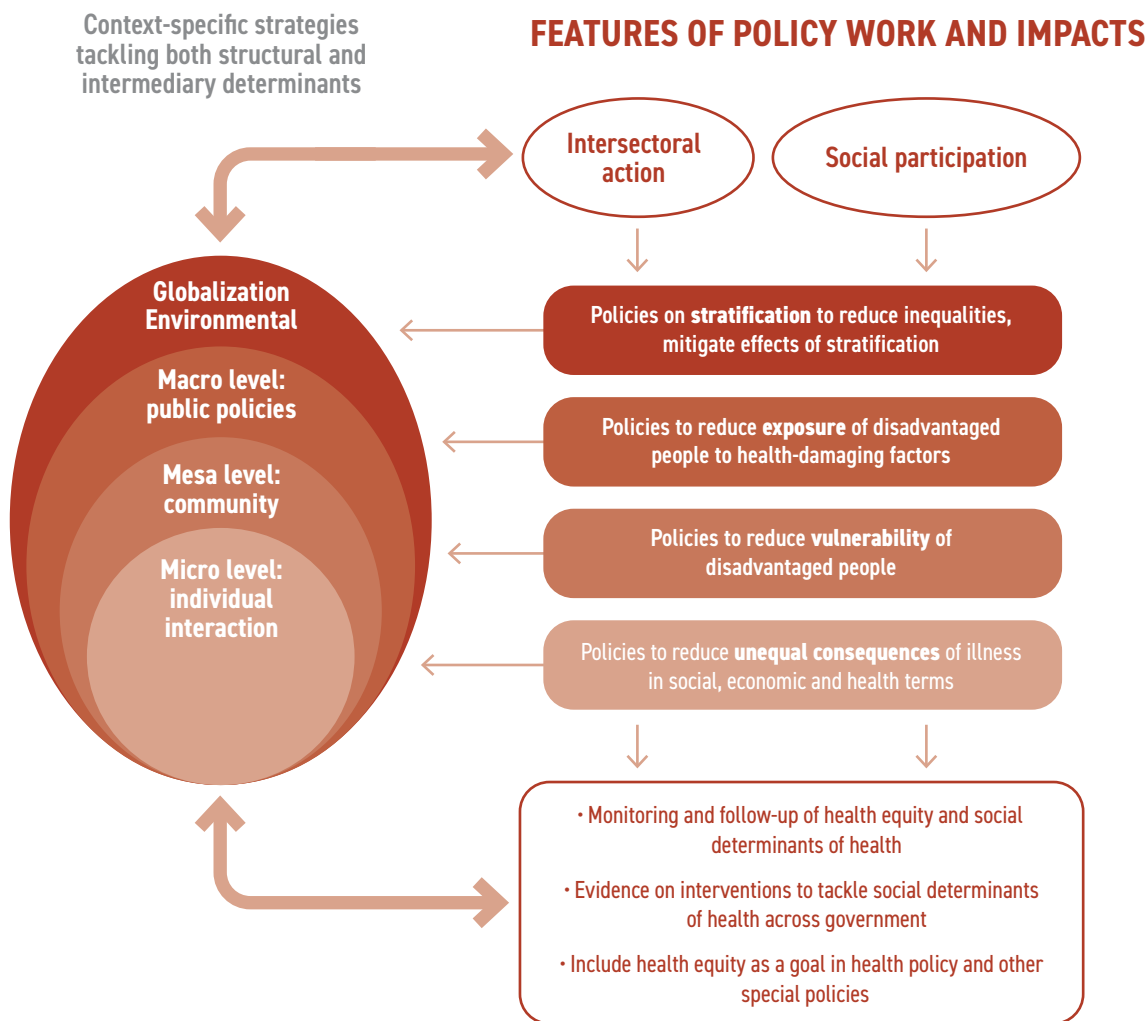
Source: Adapted from WHO Commission on Social Determinants of Health (20).

Three broad features of social determinants strategies are as follows (Figure 4.6).

- Policies and programmes addressing the social determinants of health require context-specific consideration to assess how likely they are to address health inequities and which health inequities they will impact (targeted versus universal approaches address different health equity challenges).
- Intersectoral work requires adoption of specific mindsets, multidisciplinary analysis and collaboration mechanisms, which will form part of the process of work for the health sector involved in advocacy or implementation activities to address the social determinants of health.
- Social participation and empowerment will need to be part of any strategy of sustainability, as the reality of how the social determinants of health affect people, and government responsiveness, will evolve as society changes over time (32).

Figure 4.6

Framework for tackling social determinants of health inequities



Source: Solar and Irwin (32).

The aforementioned strategies of intersectoral action and social participation and empowerment were broadly re-emphasized in the Rio Political Declaration on Social Determinants of Health, adopted on 21 October 2011 at the conclusion of the World Conference on Social Determinants of Health (73). By the Rio Political Declaration, Member States pledged to work towards reducing health inequities and promoting development by taking action across five priority areas. The declaration was endorsed by Member States at the Sixty-fifth World Health Assembly in May 2012 by the adoption of resolution WHA62.14 (74), which committed Member States to implement the pledges made in the Rio Political Declaration, including through reinforcing global political commitment to the implementation of a social determinants of health approach and building momentum within countries for the development of dedicated national action plans and strategies. The Rio Political Declaration laid out the following five key action areas to address health inequities:

- better governance for health and development;
- promotion of participation in policy-making and implementation;
- reorientation of the health sector towards reducing health inequities;
- strengthening global governance and collaboration;
- monitoring progress and increasing accountability.

Broad implementation roles attributed to the health sector are (32):

- to monitor health inequities and the social determinants;
- to provide evidence on and evaluation of effective interventions, while seeking to identify co-benefits for equity, human development and reducing climate change;
- to include health equity as a goal of policies in other sectors in a way that respects the imperatives of other sectors, and supports prevention and health promotion through integrated policies addressing the social determinants of health inequities.

4.2.2 Implementation considerations

The central policy goal, in response to the wide-reaching impact of the social determinants of health on the health prospects and opportunities of people, is to reduce the overall social gradient in health related to social position.

This poses several political and technical challenges. In brief, these include:

- understanding the multifaceted nature of health equity as a political, technical and operational challenge;
- the difficulties faced in rewarding health promotion and prevention of ill-health, including building capacities to work across different disciplines and organizational hierarchies, and contributing to the success of another sector without express incentives, which could raise political and bureaucratic conflicts;
- the difficulty of ensuring true participation and empowerment in different political and governance settings across sectors and within countries.

Extent of the gradient

Reducing the social gradient in health such that large sections of the population who are experiencing much shorter healthy life expectancy can reach the levels of life expectancy experienced by the top 10% or even the top 1% of the population is a reasonable aim, but a difficult challenge. The gradients are extensive and the gaps between the top and the bottom are frequently very wide within the same country, or even in the same city. Table 4.1 describes the extent of the gradient in several different contexts. While there is usually some degree of social gradient underpinning inequities in social determinants, the communication of the problem in a policy context often relies on taking the difference between the highest and lowest across the gradient, referred to in summary as “the gap”.

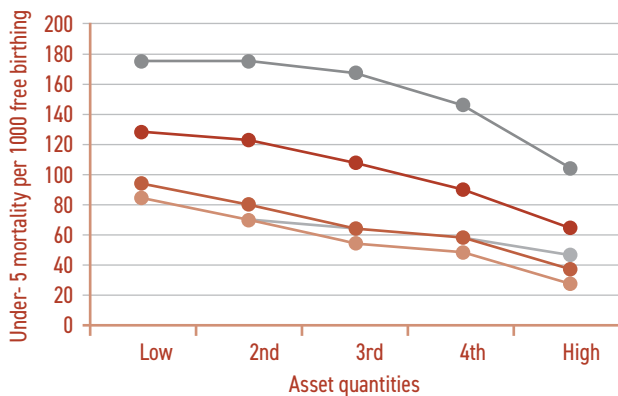
It is also important to identify the pattern of the equity gradient before embarking on a strategy to address the social determinants of health inequities. Figure 4.7 shows an example of the pattern of inequities in health and in access to service coverage. In panel A, the top line shows a situation where the highest-income groups have markedly lower mortality rates, whereas the other lines show more of a regular gradient by wealth. In panel B, the bottom line shows that most socioeconomic quintiles do not benefit from service coverage, whereas in the topmost line, only the poorest quintile experiences a large coverage deficit. For addressing problems typified by the latter pattern, targeting interventions to the poorest quintile is a predominant strategy.

Table 4.1 Examples of the health equity challenge

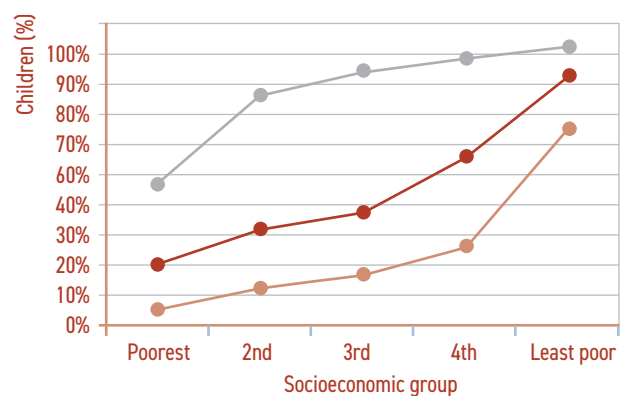
Settings and context	Population groups, areas and health outcomes
Developing countries	Under-5 mortality inequities within developing countries account for roughly half of the mortality gap between developing and most developed countries. <i>Source: Amouzou, Kozuki and Gwatkin (75).</i>
European Union countries	Life expectancy exceeds 81 years in most European Union Member States. There are large gaps in life expectancy by education level and socioeconomic status and in self-reported health by income level: 60% of people with the lowest income report being in good health, compared to 80% of those with the highest income. <i>Source: Scholtz (76).</i>
Cities	The Mind the GAP comparisons made available by Health Scotland show that within a two-mile radius of Edinburgh, comparing areas of different deprivation levels, male life expectancy varies by 10.9 years and female life expectancy by 8.2 years. <i>Source: data available from http://www.healthscotland.scot/health-inequalities/measuring-health-inequalities.</i>

Figure 4.7 Patterns of social gradients in health and health service coverage

A. Health outcomes by asset quintile



B. Health service coverage by poverty quintile



Source: Blas and Sivasankara Kurup (77).

Understanding context in addressing the social determinants of health equity

Contexts are contingent conditions that can alter the relationship between the treatment (the program) and the outcomes ... Context can refer to country policies, community norms, institutional locations, and cultural systems. Pawson et al. (78)

Implementation approaches to raise the visibility of health inequities and the need to address social determinants of health take place in a variety of contexts. Given that there is no one-size-fits-all approach, the policy implementation literature has begun to outline salient features to take into consideration when undertaking actions to address social determinants for advancing health equity.

First, evaluation of how comparative strategies and approaches were implemented in other countries is useful. These analyses are available in the published literature to a limited degree as the area of complex policy evaluation for health equity is still under development. The analyses of impact in the literature use methodologies developed by social, economic and political sciences. The realist evaluation literature and complex interventions literature are increasingly informing understanding of effective actions (79). For decades, a solid tradition of medical anthropology has received too little focus in policy and programme development (80, 81). These approaches can also be drawn upon to structure the preparation and design of strategies addressing the social determinants of health inequities, including developing a solid understanding of the theory of the problem and the theory of change.

Any initiative, policy, programme or practice devised to address social determinants of health needs to specify how health inequities are assumed to have arisen, and what the theory of change for the intervention is. Realist programme designers and evaluators stress the importance of considering the linkages of different policy agendas and multiple levels for action when analysing context at global, regional, national and local levels, and how interventions will impact health inequities. Specific considerations for understanding the logic of interventions include individual capacities, interpersonal relationships, and institutional settings, and how these relate to wider infrastructure, welfare and development policy systems.

Second, interventions and policies to reduce health inequities must not limit themselves to intermediary determinants but should include tackling underlying structural determinants. This is one of the greatest challenges for health actors to address, given their relatively low power in many government administrations relative to other ministries and authorities (for example, those dealing with the economy); the deeply rooted nature of structural determinants in the institutional and social fabric of society; and the existence of policies that reflect the current socioeconomic and political context. The sections below highlight key considerations to inform strategies for addressing the social determinants of health and advancing health equity in the broader context.

Third, actors in different countries have different perspectives on the factors driving socially determined health inequalities, and these views and ways of seeing the challenge need to be taken into account when identifying entry points and strategies to address the social determinants of health equity and inequity. Of relevance are the WHO reports on *Governance for health equity* (82) and *Key policies for addressing the social determinants of health and health inequities* (83), as well as examples from Europe (76), Africa (84) and the Eastern Mediterranean Region (85) (Box 4.3).

Box 4.3

Studies on the main drivers of health inequities

Europe: by country

Sweden: Employment – Education – Flaws in distribution of resources according to need – Weakening of social connectivity/cohesion

Spain: Employment and work conditions – Poverty – Gaps in welfare state for women – Growing problems related to obesity, smoking, alcohol – Environment (injuries, pollution)

United Kingdom: Poverty of resources – Poverty of expectation (professionals, not just poor) – Wide socioeconomic inequalities – Powerlessness

Poland: Uncontrolled market – Inequalities in access to resources for health – Failures in accountability (value base/bribery)

Source: Whitehead et al. (79).

Synthesis of survey results for African countries

Poverty – Armed conflict – Colonial legacy – Tribalization – Political instability – Lack of good governance – Resource endowment – Culture – Global factors

Source: Eshetu and Woldeesenbet (84).

Direct and indirect consequences of conflict in the Eastern Mediterranean Region

As studied by the Commission on Social Determinants of Health in the Eastern Mediterranean Region, the context of conflict presents an enormous challenge for working on the social determinants of health equity.

Conflict drives the impact of many social determinants of health, and without peace and the rule of law there can be little advance on the social determinants of health. The WHO Health and Peace Initiative has pointed out how the health sector can have a positive impact on peace and other social determinants of health, for example through creating training programmes to employ youths and offer them alternative livelihoods to armed conflict.

The impacts of conflict on the social determinants of health are presented below.

Conflict consequence	Types of actions	Effects on health and social determinants of health
Direct (battlefield)	<p>Armed conflict</p> <ul style="list-style-type: none"> • Small arms, grenades, artillery mines, bombs, air attacks • Torture, sexual violence • Kidnapping assassinations, imprisonment • Besiegement 	<p>Combat deaths and injuries</p> <p>Combat-related illnesses</p> <ul style="list-style-type: none"> • Infectious diseases, cardiovascular and respiratory diseases • Sexual and reproductive health • Mental health, e.g. post-traumatic stress disorder • Malnutrition, anaemia
Indirect	<p>Destruction and disruption of:</p> <ul style="list-style-type: none"> • health facilities and systems • schools and education systems • housing • water and sanitation systems • food production and distribution • infrastructure (roads, power, transportation) <p>Economic disruption</p> <ul style="list-style-type: none"> • Destruction of factories, agriculture • Commercial, banking disruption • Exodus of people and their skills (health care workers, teachers etc.) <p>Resources diverted to conflict</p> <ul style="list-style-type: none"> • Fewer resources for social needs, e.g. health, education, social, protection, infrastructure • Reduced subsidies • Reduced capacity of and confidence in the public sector <p>Focus on survival more than healthy behaviours</p>	<p>Inadequate health care access and quality</p> <ul style="list-style-type: none"> • Reduced availability of equipment and supplies • Reduced health care and public health functions <p>Inadequate education access and quality</p> <ul style="list-style-type: none"> • Reduced pre- and general school enrolment • Gender imbalance in schools • Reduced safe and secure shelter <p>Destruction of infrastructure and essential supplies</p> <p>Inadequate housing, electricity and fuel, water and sanitation</p> <p>Increased pollution</p> <p>Increased prices for food, transport, water</p> <p>Unemployment and reduced family income</p> <p>Interrupted safety nets</p> <ul style="list-style-type: none"> • Pensions and support for elders • Poverty reduction programs (e.g. cash transfers, food support) <p>Reduced personal care</p> <ul style="list-style-type: none"> • Poor diet, lack of exercise, smoking

Source: Commission on Social Determinants of Health in the Eastern Mediterranean Region (85).

Income-related inequalities and power

An important element of context, when tackling inequities in health and other social outcomes, is the extent of income-related inequalities and their impact on other social outcomes of interest, and how these relate to existing power structures. Figure 4.8 shows the positive correlation between countries with better social and health indices and lower income inequality (86). For example, Finland and the United Kingdom both have a high GDP per capita, yet lie at opposite ends of the line of association in Figure 4.8. In the case of Finland, low income inequality is associated with a better composite index of social and health indicators; whereas in the case of the United Kingdom, higher income inequality is correlated with worse health and social indicators.

Culture, social norms and values, trust, and corruption

Social and cultural norms drive and respond to changes in income inequality, broader commercial factors, technology, religion and governance. They also shape the way health and disease are perceived and dealt with. If social and cultural beliefs and norms that are detrimental to health coincide with particular disadvantaged groups, this can reduce their resilience and compound their health disadvantages.

At a macro scale, social norms related to governance can perpetuate corruption, affecting trust, efficiency and equity. Trust in government affects public health responses and results, with worse outcomes for those who are more disadvantaged. In studies of social norms during the

COVID-19 pandemic, higher trust in government was shown to be associated with lower COVID-19 infection rates (87, 88). High levels of corruption in government and associated social norms have been identified as factors contributing to lack of progress towards universal health coverage and undermining health sector legitimacy as advocates of health equity, undoubtedly affecting the ability of the health sector to undertake action on other determinants of health (89). The report of the WHO Eastern Mediterranean Commission on Social Determinants of Health highlighted the role of general corruption in undermining health equity (85). The digital determinants of health, including social media and communication technology, play an increasing role in influencing governance and social norms and values (90). Societal values regarding the importance of equity in health for societal well-being can be a strong force for bringing about change, given the demonstrable benefits across society that can be ascribed to health equity (91).

The welfare state, employment conditions and macroeconomics

The welfare state and employment conditions in societies (shaped by the underlying political and economic drivers) are intrinsic aspects to consider in undertaking action to tackle the structural social determinants of health and advance health equity (92–94). A key welfare state function is to oversee labour markets to ensure fair distribution of income and conditions for employment. The concept of the “well-being economy” offers promise for broader policy framing of the link between health equity, the welfare state and the economy in order to

Figure 4.8

Health and social impacts of income inequality

Index of:

- Life expectancy
- Maths & literacy
- Infant mortality
- Homicides
- Imprisonment
- Teenage births
- Trust
- Obesity
- Mental illness – incl. drugs & alcohol addiction
- Social mobility



Source: Wilkinson and Pickett (86).

achieve the transformation required by the Agenda for Sustainable Development. The concept can be viewed as a reinvigoration of the 1970s social indicators movement, whereby progress is examined through a wide lens encompassing the economy, the environment, human security, and individual health and well-being.

The welfare state is characterized by how it regulates labour markets, the generosity of the collective benefits offered (including the role of social protection over the life course), and its interface with broader social phenomena of globalization, urbanization, migration, technological change and climate change. Primary findings in the literature conclude that countries with broader, more generous welfare states, which have lower levels of dependency in trade, foreign investment and debt, have higher levels of health and lower levels of health inequality (94).

In many economies, employment conditions are governed by strategies, policies, laws and regulations pertaining to levels of employment; how unemployment and precarious and informal employment are addressed; and regulation of child labour, slavery and bonded labour. Employment conditions are thus fundamentally interrelated to the welfare state. The Employment Conditions Knowledge Network of the Commission on Social Determinants of Health advocated a combination of national-level and community-level policies to address the structural determinants of health inequities. Given the unequal power relations that characterize negotiations between labour and managers of corporations, the participation of unions, other workers' associations and workers in defining employment conditions needs to be supported and protected (20).

Many of the recommendations of the final report of the Commission on Social Determinants of Health refer to improving the coverage of income support during unemployment and paid sick leave, education coverage, return to work policies and other dimensions of social policies associated with the larger welfare state (Box 4.2) (20). The recommendations of the Commission on Social Determinants of Health also refer to broader macroeconomic policies such as the regulation of markets, fair taxation and macroeconomic responses to crises.

In describing a typology of employment-related interventions, Whitehead (92) identifies different actions to be taken at different levels of context: at the individual level, at the community level, at the organizational or institutional level, and at the macrosocial policy level. The umbrella review of the macroeconomic determinants of health and health inequalities by Naik et al. (95) also found evidence for the positive impacts on health equity resulting from supportive employment-related and market interventions in the context of a progressive welfare state. Box 4.4 provides an example of the importance of social protection as part of the response to the COVID-19 pandemic, but in so doing identifies the difficulty faced by many welfare states in dealing with crises as a consequence of pre-existing weaknesses (see Chapter 5 for further in-depth thematic examples related to social protection). Other descriptive studies have emphasized the importance of the interlinkages between trade and welfare policies when addressing different determinants using comprehensive strategies (96).

Box 4.4

Example of social protection policy used during COVID-19 to address inequities in the socioeconomic impacts of the pandemic

Welfare state employment conditions and social protection are important for ensuring income stability, reducing inequalities and promoting good conditions for health. The International Labour Organization (ILO) and the World Bank reported an upsurge in social protection measures in response to the COVID-19 pandemic. For example, in 2020, 153 of 200 countries were offering cash transfers (conditional and unconditional), and 94 countries were offering utility and financial obligation support (for example, moratoriums or reductions on paying electricity costs for vulnerable families and individuals). While this represented an enormous government-led response, COVID-19 infections and the pandemic's consequences continued to rise, often outpacing social protection needs.

The United Nations Special Rapporteur on extreme poverty and human rights found that while governments had adopted more than 1400 social protection measures since the outbreak of COVID-19, they were largely insufficient. In addition, World Bank data covering 113 countries showed that US\$ 589 billion had been pledged for social protection, representing about 0.4% of the world's GDP. However, the report concluded that those initiatives would fail to prevent people falling into poverty.

These examples of social protection illustrate how rapidly governments can act to protect livelihoods, while highlighting the pre-existing financial vulnerability of many welfare states and economies when dealing with crises. This points to the need for a greater focus on well-being in economies and greater attention to how the welfare state is built and financed.

Sources: Martin et al. (97); UN Issue-based Coalition for Social Protection in collaboration with the United Nations Development Coordination Office for Europe and Central Asia (98); Gentilini et al. (99); Special Rapporteur on extreme poverty and human rights (100); World Health Organization (16).

Intersectoral action

Intersectoral action was defined as coordination between health and other sectors for overall social development in the Declaration of Alma-Ata on Primary Health Care, 1978. Primary health care – described in the Alma-Ata Declaration as the first contact between a person and the national health system – can be considered a philosophy of health work that forms part of the overall social and economic development of the community (14). As a philosophy, it calls for a focus on appropriate technology to counteract the elitism of the medical profession, and on explicit linkages between health and social development.

In the movement towards health promotion that arose from the Alma-Ata Declaration and the Ottawa Charter for Health Promotion (first International Conference on Health Promotion, Ottawa, November 1986), specific types of policy were identified – legislation, fiscal measures, taxation and organizational change. The political nature of health promotion was highlighted by participants in the first International Conference on Health Promotion, who pledged to advocate a clear political commitment to health and equity in all sectors.

Intersectoral action is an essential aspect of working to address the social determinants of health. While intersectoral action (used here interchangeably with multisectoral action) may be used to refer to the scope of the policy areas to be included when addressing the social determinants of health and health equity, there is increasing recognition that it entails an understanding of enabling conditions for working across hierarchical organizations or structures, and the capacities and processes used to undertake collaborative, intersectoral, multidisciplinary work. For a long time, the key strategy for health equity in Scandinavia was to allow the development of the Nordic welfare model along key sectoral lines, with the assumption that an underpinning welfare model would be sufficient to achieve health equity. While comprehensive welfare state models are essential for improved social determinants of health, experience shows that there is still a need for explicit emphasis on intersectoral action to address the social determinants of health and advance health equity. Intersectoral action is also essential to build improved welfare models. Box 4.5 presents a case study on the Scandinavian experiences of tackling health inequalities at the municipal level, where most of the operationalization of policies addressing health equity have been located. According to the analysis, intersectoral action is required for equity advocacy; hence the proposal to strengthen capabilities in this domain.

Box 4.5

Improving future work on health equity at the municipal level: lessons on intersectoral action and a comprehensive approach from the Scandinavian experience

The comparative report *Governing health equity in Scandinavian municipalities: the inter-sectorial challenge* (101) reviews how Denmark, Norway and Sweden have recognized the need to strengthen intersectoral work for health at the municipal level. The report concludes that there is a need to emphasize equity at the core of an intersectoral Health in All Policies approach. A review of the Scandinavian experiences of tackling health inequalities locally (102) made 11 recommendations for future work centred on links to other sectors, based on a comparison of Scandinavian experiences:

1. adopt a comprehensive approach
2. ensure policies build on the premises of each sector
3. provide support with generic policies
4. build knowledge of cost-effectiveness
5. develop equity indicators linked to each sector
6. build policy-making skills
7. be aware that legislation matters
8. adopt a whole-of-society approach
9. involve all sectors early on equal terms
10. promote vertical collaboration and support
11. ensure long-term commitment.

Source: Scheele, Little and Diderichsen (101); Diderichsen, Scheele and Little (102).

Building on health promotion and social medicine philosophies regarding intersectoral action, Health in All Policies is a relatively new framing of an approach to public policies, whose main focus has been to articulate the practice needed by health actors to harness intersectoral action to address the social determinants of health through changing the policy environment. It envisages the use of multiple policies in a systematic effort to build intersectoral collaboration across sectors and to develop a common understanding of the importance of the determinants of health and drivers of observed patterns of health inequalities.

Health in All Policies is an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity. It improves accountability of policy-makers for health impacts at all levels of policy-making. It includes an emphasis on the consequences of public policies on health systems, determinants of health and well-being (103).

Collective action to reduce health inequalities through intersectoral collaboration as part of whole-of-government and whole-of-society approaches for health, known also as Health in All Policies approaches, can be supported by national action plans or specific institutional mechanisms that are developed for multisectoral governance for health and health equity. Providing a visible link of these functions to public health policies, strategies and planning, and thus a sustained provision of strategic health advice in the context of overall governance for health and health equity, is thus important. It is quite frequent that national health plans and planning processes do not refer to broader national human development objectives and their implications for health and health equity. Health planning processes can acknowledge the importance of and provide anchors for coalitions for social justice and social development through finding common interest with other governance, social, economic and environmental policies.

Social participation and empowerment

Social participation and empowerment (also see Chapter 3) are crucial to the success of interventions on social determinants. Mechanisms supporting participation of civil society and the empowerment of affected communities help protagonists to shape their own health determinants and can transfer decision-making power from elites to people in lower socioeconomic positions. Participation in policy-making in the work setting, given the important role of working conditions for health, is very important. The ILO's four core labour standards stress the implementation of free association, collective bargaining, elimination of economic discrimination by gender, and the elimination of forced labour in order

to empower workers to negotiate for better working conditions. Among these, coverage by collective bargaining mechanisms improves workers' power and is important for ensuring greater transparency in employer decision-making and the policies of companies and organizations affecting workers' control over their working conditions and health (104).

Mechanisms that enable populations that are disadvantaged to actively participate in policy-making processes are expected to improve empowerment, sense of control, and self-efficacy, and these improved psychological outcomes can be expected to improve mental health outcomes. Participation of women in groups that improve empowerment, for example, has been shown to considerably improve maternal and child health outcomes (105).

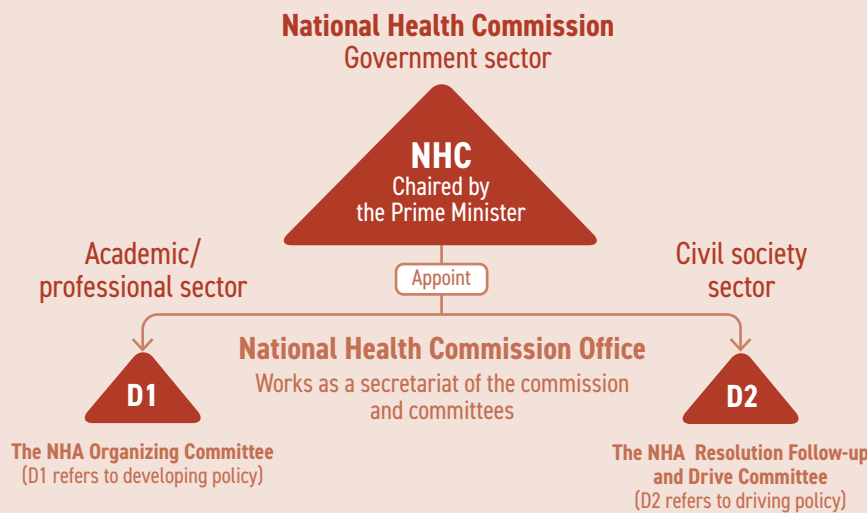
Participation of civil society in policy processes affects the priorities that are identified and resources allocated to address determinants of health. It also enables citizens to be informed about proposed government policies and projects that may influence their health and underlying determinants, for example related to housing, transport, education, and basic amenities (106). Involvement of citizens in core processes (such as budgeting) related to the policy cycle can also improve accountability of government and reduce corruption and waste of resources. Some studies at the subnational level have shown that counties with participatory budgeting policies have been more efficiently managed, gaining citizen trust, with less corruption than similar counties without participatory budgeting (107). With regard to social participation mechanisms in the health sector, mechanisms supporting public involvement in health decision-making processes have been shown to improve health behaviours, health consequences, self-efficacy, adherence, and perceived social support across various health conditions (108). Public participation has also been shown to influence choice of health technologies and prioritization of research (109).

While the primary responsibility for promoting health equity and human rights lies with governments, participation in decision-making processes by civil society groups and movements is vital in ensuring that people are able to exert some power and control in policy development and to hold government accountable. Social movements are also able to elevate the importance of health equity on political agendas (110). Empowering social participation provides both ethical legitimacy and a sustainable base to take forward the social determinants of health agenda. Health in All Policies approaches and other more top-down strategies for tackling health disadvantages, gaps and gradients can complement and build on social participation strategies.

Thailand's People's Health Assembly, described in Box 4.6, illustrates how a social movement has resulted in sustainable mechanisms for a whole-of-society approach, as well as increasing a whole-of-government (Health in All Policies) approach to health.

Social movement in Thailand and its mechanism for whole-of-society and Health in All Policies approaches

The National Health Commission in Thailand is established under the chairpersonship of the Prime Minister. Its composition involves three key stakeholder groups: the government, the knowledge sector and civil society. There are six core ministries representing the government in the Commission: the Ministry of Agriculture, Ministry of Public Health, Ministry of Industry, Ministry of Interior, Ministry of Natural Resources and Environment, and Ministry of Social Development and Human Security. The two subordinate committees are referred to as D1 and D2 respectively. D1 is responsible for developing policy proposals for resolution by the People's Health Assembly; D2 is responsible for driving the implementation of the adopted policy resolution.



Source: Government of South Australia and World Health Organization (111).

4.3 The role of health actors

4.3.1 Multilevel action and entry points

Despite divergent contexts for strategies and interventions to address the social determinants of health, the social determinants literature identifies common strategies employed by health actors across different contexts (112). They include:

- the use of multiple policy frames to appeal to a wide range of actors beyond health;
- the formation of broad coalitions beyond the health sector;
- moving the evidence and debate into more popular policy forums that are not health focused.

Multiple actions at a range of levels and entry points (for example, employment policy, institutional incentives, community trust, and working with different population groups) are needed to bring about changes in the patterns of health inequities observed across various

diseases. National initiatives or strategies to address the social determinants of health can therefore operate at different levels, including a focus on specific institutions themselves; in the health sector, for example, initiatives can recognize the role that hospital complexes play as employers, community actors, and educators.

The institution- and place-based focus of health promotion literature highlights the roles of many places, such as workplaces and schools, in providing opportunities for promoting health. Often these lenses focus on intermediate determinants and building social capital.

Ultimately, positive changes for equity are grounded in the changed realities of communities and people. In the process of implementation, it is important to construct learning as part of the transformation process (113). The specific identification of health inequities, and the formulation of actions to address them, has been increasingly mainstreamed into the field of health promotion and public health programmes, as elaborated in Chapter 5.

4.3.2 Monitoring health inequalities and the social determinants

Currently, there are growing numbers of institutions and countries that systematically monitor indicators of health inequalities (22); smaller (but still growing) numbers of institutions are also monitoring the social determinants of health.

The monitoring of health determinants can be thought of as a type of public health surveillance that focuses on upstream socioeconomic, environmental, and governance aspects determining population health and health equity. Public health surveillance is defined by the United States Centers for Disease Control and Prevention as “the ongoing, systematic collection, analysis, interpretation, and dissemination of data regarding a health-related event for use in public health action to reduce morbidity and mortality, and to improve health. Data disseminated by a public health surveillance system can be used for immediate public health action, program planning and evaluation, and formulating research hypotheses” (114).¹

In monitoring the social determinants of health and health equity, it is important to distinguish three broad categories of indicators: (a) indicators on equity-focused policies and governance actions; (b) indicators on the conditions in which people are living and working; and (c) indicators on health inequalities and equity outcomes related to health and health care, including the social and economic consequences (22, 115).

4.3.3 A new kind of leadership

Along with multilevel intersectoral and participatory strategies and strengthening social determinants of health focused monitoring, a key role of the health sector is to include health equity as a goal in health policy and other social policies (32). A key feature of the leadership role required for the health sector in implementation of strategies to address the social determinants of health, as described by Health in All Policies approaches, is engagement of others to lead actions beneficial to health beyond the health sector.

Thus, the specific new leadership functions of the health sector and other actors will focus on facilitating and supporting the actions of other sectors that contribute to health objectives through supporting the public value objectives of those sectors. Those engaged in this role are sometimes referred to as Health in All Policies or health equity “policy champions”. It is important to foster champions across the sectors and among different stakeholders. Health leaders will need to seek reconciliation where these are in conflict. Health leaders need to contribute to initiatives that build understanding of the underlying connections between society and the policy-making and decision-making realms, cognizant

of the value of health, human dignity, quality of life and sustainability. The core characteristics of this type of leadership are expressed in the Adelaide Statement on Health in All Policies (2010) (9):

- understand the political agendas and imperatives of other sectors;
- build the evidence base of policy options and strategies;
- assess comparative health consequences of policy options;
- create regular platforms for problem solving with other sectors;
- evaluate the effectiveness of intersectoral work;
- build capacity through better mechanisms, resources, agency support and skilled and dedicated staff;
- work with other arms of government to achieve their goals and in so doing advance health and well-being;
- improve coordination within the health sector.

Working for health equity in all policies requires knowledge of the social determinants of health, including policy-making processes, as well as “soft” skills and competencies related to transcultural and multidisciplinary communication. Reframing the evidence on the social determinants of health in the agenda of other sectors is particularly important (113), especially where broader stakeholders are involved, such as parliamentary officials (116). Several of the soft skills relevant to the Health in All Policies approach are discussed in the *Health in All Policies training manual* (8) (Boxes 4.7 and 4.8). These soft skills, which should be emphasized in Health in All Policies trainings, are particularly focused on the target audience of health leaders who are involved in shaping policy. They include negotiation, coalition building, social platform design, systems thinking, community mobilization, health diplomacy, networking, and interdisciplinary communication.

Similar skills and competencies are also cited in the One Health literature. One Health focuses on the Health in All Policies approach as applied to the convergence of human, animal, and environmental health, for example with regard to zoonoses and antimicrobial resistance. The One Health competency model refers to the following categories of skills: management, communication and informatics, values and ethics, leadership, teamwork and collaboration, roles and responsibilities, and systems thinking (117).

For action at the level of clinicians, the social determinants of health literature emphasizes the need for transcultural competencies in addition to an understanding of the social determinants of health (118). This is particularly important for understanding the values and beliefs intersecting with social disadvantage to affect the behaviours of individuals. Beyond their structural environment, the cultural heritage and social norms associated with culture underpin the expectations of people regarding their health and health treatment (58).

¹ www.cdc.gov/mmwr/preview/mmwrhtml/rr5013a1.htm.

Box 4.7**Reframing the evidence for implementing Health in All Policies**

Communication targets for improving understanding of the social determinants of health include:

- broadening what is understood by the term “health”;
- increasing understanding of the role of social determinants of health;
- increasing understanding of how social and economic inequalities drive health inequities;
- generating an understanding of the policy action needed to keep people healthy.

Source: Elwell-Sutton et al. (113).

Box 4.8**Health in All Policies training manual and resources****Health in All Policies training manual**

This manual is a training resource to increase understanding of the importance of Health in All Policies among health and other professionals. The material will form the basis of two- and three-day workshops, which will:

- build capacity to promote, implement and evaluate Health in All Policies;
- encourage engagement and collaboration across sectors;
- facilitate the exchange of experiences and lessons learned;
- promote regional and global collaboration on Health in All Policies;
- promote dissemination of skills to develop training courses for trainers.

Source: *Health in All Policies training manual* (8).

Health in All Policies slide deck

Health in All Policies slide decks have been developed to support the use of the WHO *Health in All Policies training manual* and the implementation of Health in All Policies training activities. The lecture slides aim to better equip trainers with materials for Health in All Policies training and offer users access to an editable content set when designing and delivering Health in All Policies workshops and courses.

Source: [https://www.who.int/publications/m/item/health-in-all-policies-\(hiap\)-training-slides-companion-material-to-support-hiap-training-activities](https://www.who.int/publications/m/item/health-in-all-policies-(hiap)-training-slides-companion-material-to-support-hiap-training-activities).

4.4 Concluding remarks

The general introduction to the social determinants of health literature contained in this chapter, with its emphasis on history, data and current policy, is most useful for trainings aimed at broader public health audiences. Such trainings are usually convened in Health in All Policies summer schools or short courses. The development of interactive education and training materials to cover the scope of this chapter will assist in strengthening the competencies and skills necessary for working across sectors. The Health in All Policies training manual provides suggestions for educational activities that can be undertaken.

Overall, Chapter 4 has provided a broad coverage of the theoretical background on the social determinants

of health. Along with Chapters 1–3, these introductory chapters aim to explain the scope of materials to cover for integrating social determinants of health and health equity into education and training curricula by outlining the main themes involved.

Chapters 5 and 6 of this publication have been oriented to present the basic theoretical concepts in a format that will assist preparation of learning materials for redesigned curricula. Chapter 5 has been designed around problem statements of different health issues and key points on the relationships between specific health issues and the social determinants of health, from the perspectives of public health programme leaders. Chapter 6 provides examples of existing courses that may inspire curriculum development as well as information on WHO normative standards regarding education and training of the health workforce.

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Chapter 4

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Chapter 5.

Preparing for action
in education and
daily practice



Putting the patient at the centre of the health system means addressing the concept of the whole – including the patient's family, job, community and unique situation – rather than just their health issue or medical diagnosis. In doing so, it is important to recognize that addressing the social determinants of health is a collective responsibility of health systems and of entire teams, not solely of individual practitioners. Equally, individual practitioners need to understand the impact that social determinants have on people's health. Health workers need to be prepared and willing to work across sectors to address social determinants of health. For example, a person's health needs might be best met, not only through the health sector, but by connecting the person with housing, food or other resources, or by advocating Health in All Policies in these sectors. The interface between health workers and local policy and politics is critical to creating and fostering the necessary collaboration and working relationships, which can promote health up through the various levels of the health system and other sectors via multiple programme channels. Health in All Policies is relevant and can be applied at national as well as local community and municipal levels.

Equity is not merely about increasing numbers but also entails identifying with the circumstances that have the capacity to transform people, their values and their life objectives. The effect that clinical care has on the health of populations is far smaller than is commonly thought. The health sector needs a broader remit from society so it can engage in prevention through work with other sectors. A study across communities in the United States of America showed that poor access to and quality of clinical care explained 20% of premature deaths (1). Factors accounting for the other 80% were social and economic determinants 40%, health behaviours 30%, and the physical environment 10%. However, both health behaviours and the social and physical environment are in turn shaped by social and economic factors. This means that about 80% of a population's health may be shaped by the circumstances in which people are born, grow, live, work and age through the social determinants of health. Social determinants of health are therefore important and should be factored into current and future health strategies (2). Social determinants have also been shown to amplify the impact of COVID-19 and to influence the public health measures adopted to control its spread (3).

Purpose

The aim of this chapter is to take learners through a set of specific health examples to identify how health inequalities arise from broader societal problems and how they can be addressed in practice. The preceding chapters examined the state of the literature on global governance of health systems, the social determinants of health, and generic practices for addressing structural determinants through the Health in All Policies approach and intersectoral action. Figure 5.1 provides a snapshot of how didactic elements may interact with the Sustainable

Development Goals (SDGs), global health goals, and contributing factors to inequalities, and the levels at which they operate in and impact society. It draws inspiration from some earlier and similar ideas discussed in Chapter 4 that are related to the interlinkages between the SDGs, Health in All Policies, types of determinants, and the levels of society where they have the most impact.

Figure 5.1 uses the three overarching recommendations of the final report of the WHO Commission on Social Determinants of Health to structure teaching and learning for:

- improving daily living conditions;
- tackling the inequitable distribution of power, money and resources;
- measuring and understanding the problem and assessing the impact of action.

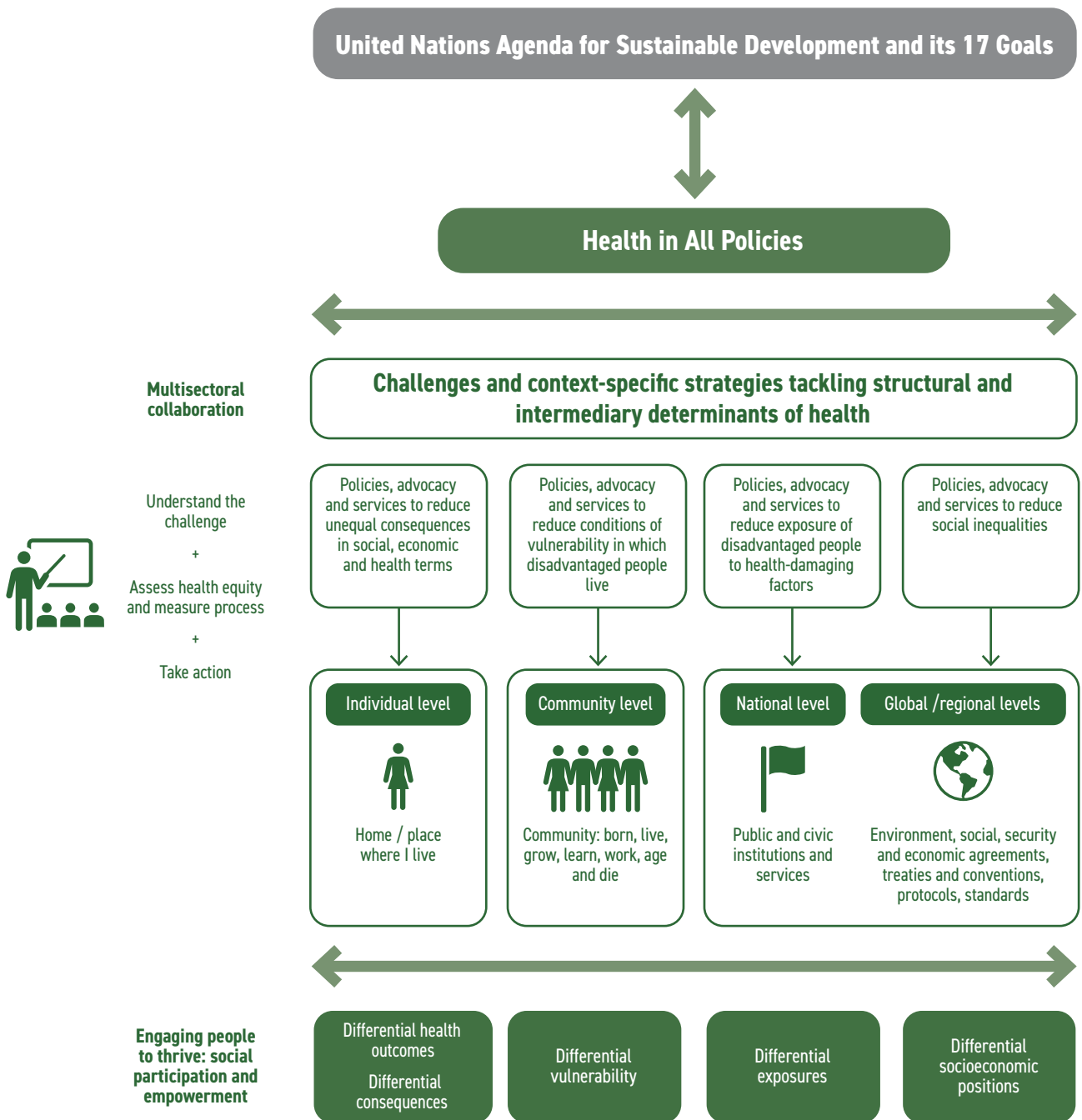
A reminder that each chapter provides specific content and focus as follows:

- United Nations 2030 Agenda for Sustainable Development and 17 SDGs: Chapter 2 introduces the structural, institutional and organizational aspects of the social determinants of health and their common guiding and organizational principles, as well as the need for multisectoral collaboration and cooperation in achieving international goals.
- Engaging people to thrive: Chapter 3 emphasizes the links between education and service, community orientation on the social determinants of health, and people-centred approaches.
- Challenges and context-specific strategies tackling structural and intermediary determinants of health: Chapter 4 expands on the domains of the social determinants of health and their relationship with Health in All Policies.
- Health workers, in addition to providing care, must be competent in measuring and understanding the social determinants and addressing them accordingly, whether at the individual, community, population or global level: Chapter 5 illustrates specific health programme examples and how health inequities can be addressed through action on the social determinants of health in education and practice.
- Chapter 6 recaps and outlines action steps for target audiences and other users.

The aim is to allow users to frame their targeted learning objectives in a manner that encompasses the key concepts of social determinants of health discussed in the previous chapters, with the hope that beneficiaries can, in turn, apply the outcomes of learning in actionable steps, and in a manner that is consistent across disease and health areas. As discussed in section 3.2 on systems thinking, this will allow educators and health workers to measure and understand the problems and challenges at individual, community, national and global levels, guided by a common SDG framework.

Figure 5.1

Integrating the social determinants of health in education and practice



Health examples

The health areas selected in this chapter represent a huge aggregate burden of disease, display wide disparities across and within populations, disproportionately affect certain populations or groups within populations, and are emerging or epidemic prone. The subsections follow the key principles presented in earlier chapters and provide a practical application for education and practice through:

- creating an evidence base that is equity focused;
- providing an equity-oriented rationale for urgent action;
- providing key directions and examples of information that could be used for orienting learning programmes.

The health themes selected cover the following themes:

- basic conditions for daily living and health:
 - food security, food safety and nutrition
 - housing

- early life: child, adolescent, and reproductive health:
 - family planning and reproductive health
 - maternal, newborn and child health
- infectious disease:
 - tuberculosis
- noncommunicable disease:
 - diabetes
 - mental health
 - oral health.
- elaborated information on:
 - the problems of key social determinants at play and their contribution to inequity, for example pathways, magnitude and social gradients;
 - opportunities for action;
 - key themes around which lectures can be prepared to highlight the link to equity;
 - case studies showing what has been tried and the lessons learned, which may also suggest ways to actively involve learners.

The content covered in this chapter addresses specific health topics. For each health example, the content covers:

- a short synopsis of the health and health equity problem and rationale for action, with key messages for orienting training and learning programmes;

This content illustrates the type of materials that can inform curriculum design for the social determinants of health to complement other courses being taught to students and health workers. A generic formulation of this approach is shown in Table 5.1, to which is added suggestions for linking the social determinants of health education and training to practice.

Table 5.1

Considerations for linking the social determinants of health education and training to practice

Level	Education and practice	
In developing training geared to the global, regional or national context, it is necessary to analyse and measure the socioeconomic and political environment (including national policies for sustainable development) and differential exposures and propose interventions at promising entry points	<ul style="list-style-type: none"> • Train Health in All Policies leaders and champions • Provide training on policy coherence for sustainable development for public health • Evaluate and address the inequitable distribution of power, money and resources (training for health equity) 	For example, national public health and other sectoral leaders, such as heads of social protection who direct the social care workforce, can intervene in particular on the policies prioritizing resources, income or rights for those in lower socioeconomic positions or for groups that experience discrimination. These actions will address the structure and consequences of poor daily living conditions that result in harmful exposure to physical and psychosocial risk factors and shape negative behaviours in the daily lives of disadvantaged people.
In developing training at the district or community level, it is necessary to analyse and measure health needs in, with and across communities, and develop interventions that enable and empower people	<ul style="list-style-type: none"> • Train administrators and managers, public health professionals, clinical actors and the social care workforce, and workers in non-health sectors • Evaluate and address the intermediary social determinants of health to improve daily living conditions, and support measures to address community-identified needs and strengthen community assets 	For example, public health professionals should analyse and measure the clustering phenomenon of multiple exposures in particular groups, for example overcrowded housing and poorly serviced neighbourhoods, and advocate better policies and interventions that provide local solutions.
In developing training at the individual level, it is necessary to analyse and assess the impact of interventions addressing the social determinants of health on health outcomes, including the consequences for particular individuals and families	<ul style="list-style-type: none"> • Train clinicians, social care workers, and community health workers, as well as workers in non-health sectors • Evaluate and address intermediary social determinants of health to improve daily living conditions and support integrated people-centred health services 	For example, the analysis and measurement of health outcomes and their consequences for particular individuals and families can inform the way a particular clinical curative or preventive service is delivered.

Critical pathways and organizing learning through critical questions

Critical pathways explain the causation of health inequalities. They can be an important tool for framing an education curriculum to address the social determinants of health and health equity. Critical pathways thinking can map and organize areas for analysis, intervention and measurement according to the structural and intermediary determinants of health. Specifically, the generic areas for investigation along this pathway go from the social and political context and how it influences social position, to differential exposures, differential vulnerability and differential health outcomes, and to health and socioeconomic consequences.

When undertaking analysis of health issues and programmes, the following issues should be reviewed:

- social determinants at play and their contribution to inequity, for example pathways, magnitude and social gradients;
- promising entry points for intervention;
- potential adverse side-effects of eventual change;
- possible sources of resistance to change;
- what has been tried and what were the lessons learned.

Considerations for implementation of interventions

Inequity is intrinsically related to power relations and control of resources. When presenting case studies of interventions, it will be useful to ask learners to take account of the following general considerations for implementing institutional and social change in their organizations or practice environments.

- **Replicability.** Can the intervention be implemented in different contexts and circumstances?
- **Sustainability.** Are there required human, technical and financial resources such that the interventions can be continued for long enough to have the desired lasting effect?
- **Scalability.** Can the interventions be expanded to the scale required to be meaningful?
- **Political feasibility.** Can the intervention be implemented in different political circumstances, for example with respect to timing, values and power structures?
- **Economic feasibility.** What are the required investments and are they reasonable? How can the necessary finances be made available? What are the opportunity costs for other sectors?
- **Technical feasibility.** Are there tools required to implement the intervention or can they be made available?

Box 5.1 presents the example of Innov8, a tool for reviewing national health programmes.

Taking action in the community

Local communities hold the key to addressing the social determinants, with community organizations and other platforms expressing community voice as important agents of change. Looking through a community lens can help health workers better understand and define the well-being of people and communities. Communities have their ways of viewing what constitutes desirable health and well-being outcomes. It is important for health workers to reflect on, understand and define approaches that are in synchrony with or relate to these often firmly held and unique ideas of health and well-being. The relationship-building and empathy skills that students learn in and with the community are fundamental to providing good health care and being able to work successfully with patients and families, irrespective of the work setting.

People are more likely to identify with a people-centred, local community approach that also addresses basic daily needs and has the added value of helping them to develop resilience strategies and achieve sustainable livelihoods. Community-based health work is less structured than formal professional health education or hospital-based work. Health workers taking action to address the social determinants of health in communities may spend a great deal of their time and energy on activities that are not traditionally valued by conventional health care but are key to building strong relationships with the community. It is recommended that community health programmes be embedded within community structures and values to ensure their acceptability and sustainability.

The *Innov8* approach for reviewing national health programmes to leave no one behind takes a formal approach to applying critical pathways thinking, analysis of intervention logic, and implementation considerations (4).

It guides users to respond to the practical question of how to move from discussions acknowledging inequities and other shortfalls in the realization of human rights and gender equity to making actual changes in programmes to tackle those challenges. It assists national health programmes to better address equity, gender, human rights and social determinants of health in a way that reflects their overlapping and evolving relationships with each other. The approach has the following aims:

- Enhance capacity through applied learning: use the ongoing programmatic work of health professionals to strengthen the capacity to understand and apply key concepts and underlying principles to ensure that no one is left behind.
- Identify entry points for action: through a guided analysis conducted by a national review team made up of different stakeholders, identify entry points in a programme so that no one is left behind.
- Sustained change, improved governance and accountability: improve ongoing planning, monitoring, review and evaluation cycles and accountability mechanisms in programmes by integrating measures to leave no one behind.

The tool consists of eight components for analysis of health programmes:

- Step 1. Complete the diagnostic checklist
- Step 2. Understand the programme theory
- Step 3. Identify who is being left out by the programme
- Step 4. Identify the barriers and facilitating factors that subpopulations experience
- Step 5. Identify mechanisms generating health inequities
- Step 6. Consider intersectoral action and social participation as central elements
- Step 7. Produce a redesign proposal to act on the review findings
- Step 8. Strengthen monitoring and evaluation

The tool can be used to develop specific practical trainings for students or learners in lifelong learning, assigning them tasks to analyse data, design programmes or services, and measure results in their communities, working with health leaders and actors from across the community.

5.1 Food security, food safety and nutrition

5.1.1 Synopsis

Recent estimates indicate that global hunger increased in 2016 and now affects 815 million people. The failure to reduce world hunger is closely associated with the increase in conflict and violence in several parts of the world. Some of the highest proportions of food-insecure and malnourished children are found in countries affected by conflict. Food insecurity is a major global public health problem with close links to inequity. Food insecurity and malnutrition, in turn, can increase susceptibility to foodborne pathogens.

The transformational vision of the 2030 Agenda for Sustainable Development calls on all countries and stakeholders to work together to end hunger and prevent all forms of malnutrition by 2030. This ambition can only be fulfilled if agriculture and food systems become sustainable, so that food supplies are stable, and all people have access to adequate nutrition and health. The safety of food systems and occupational health of people dealing with food is an important preventive measure linked to reducing the opportunity for viruses emanating from animals to infect humans, causing enormous social, health system and economic impacts, as witnessed in the unfolding of the COVID 19 pandemic.

Key messages for learners and educators

- **Message 1.** Health workers should be trained to develop and implement community-based nutrition interventions aiming at alleviating food insecurity and malnutrition, and through clinical assistance to patients with ailments compromising their immune system.
- **Message 2.** Partnerships should be encouraged to improve household food security with a specific focus on reducing differentials in access to nutritious and safe food.
- **Message 3.** Advocacy should be raised for strengthening food safety systems and standards to contribute to the availability of, and access to, safe food through sustainable food systems.

5.1.2 The problem

Double burden of malnutrition

Food insecurity may exist at national (or regional) level due to a variety of factors that affect food supply, such as food production–population imbalance; lack of employment; low national income; fluctuations in international food prices; natural disasters; blockage and disruption of transport routes; civil war and unrest; and environmental degradation. Food insecurity also exists at the household level, and the importance of sustained access to food within households is increasingly recognized.

The double burden of malnutrition is characterized by the coexistence of undernutrition along with overweight and obesity, or diet-related noncommunicable diseases, within individuals, households and populations, and across the life course. In 2016, more than 1.9 billion adults worldwide, 18 years and older, were overweight, of which 650 million were obese. In addition, over 340 million children and adolescents aged 5–19 years were overweight or obese (5). In 2014, 42 million children aged under 5 years were overweight or obese, but 156 million were affected by stunting (low height-for-age), while 50 million children were affected by wasting (low weight-for-height) (6). Poor nutrition continues to cause nearly half of deaths in children aged under 5 years, while low- and middle-income countries now witness a simultaneous rise in childhood overweight and obesity – increasing at a rate 30% faster than in richer nations.

This double burden of malnutrition can exist at the individual level (for example, obesity with deficiency of one or more vitamins and minerals, or overweight in an adult who was stunted during childhood); at the household level (for example, when a mother is overweight or anaemic and a child or grandparent is

underweight); and at the population level (for example, where there is a prevalence of both undernutrition and overweight in the same community, nation or region). The global food system is broken. Millions of people are not getting enough to eat, and millions of others are eating too much of the wrong foods. Many families cannot afford enough nutrient-rich foods such as fresh fruit and vegetables, beans, meat and milk, while foods and drinks high in fat, sugar and salt are cheap and readily available. Undernutrition and overweight are now problems affecting people within the same communities. Food insecurity and malnutrition, in turn, can increase reliance on and vulnerability to unsafe food.

Food safety and gender

Pregnant women may be at increased risk from certain foodborne pathogens, for example hepatitis E from contaminated water and listeriosis. Traditionally, women have the primary responsibility for daily household tasks and caring for the family. In this role, proper food handling and preparation of food is essential to food safety, and it has been recognized that mothers are usually the front line of defence against foodborne illnesses among their children; lack of access to safe water and sanitation can severely compromise this function.

Female heads of households constitute a particularly vulnerable group, due to higher rates of poverty, lack of economic opportunities and social marginalization. There is a positive relationship between female-headed households, poverty, illiteracy and ill-health (including diarrhoeal diseases) in poor urban and rural areas. Health inequalities are widespread. How much does child malnutrition vary across education subgroups within countries? Inequities in health outcomes result from the fact that children from poor households, relative to those from better-off families, are more likely to be exposed to disease-causing agents.

Once those children are exposed, they are more vulnerable due to lower resistance and low coverage of preventive interventions; and once they acquire a disease that requires medical treatment, they are less likely to have access to services, the quality of these services is likely to be lower, and lifesaving treatments are less readily available. Exceptions to this pattern are child obesity and inadequate breastfeeding practices, which are more prevalent among the rich than the poor.

Child health and nutrition

Because the physical and mental development of young children is still at an early stage and they depend on others to ensure their health, they are particularly susceptible to socioeconomic inequities that lead to marked differentials in morbidity and mortality. Child deaths are usually the result of several risk factors, which need to be taken into consideration when understanding their causes and planning their prevention.

5.1.3 Why act now?

Nutrition and the post-2015 sustainable development agenda

Explicit attention to nutrition is needed as the world seeks to accelerate and sustain recent gains in development, and to expand these to include places and people who have been left behind. Action is urgently needed, and transforming food systems has a prominent role across the SDGs. Nutrition is also, not least, a fundamental right of all of humanity. Without good nutrition, the mind and body cannot function well. When that happens, the foundations of economic, social and cultural life are undermined. The following SDGs are of particular relevance:

- SDG target 2.1, on improving food systems: By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.
- SDG target 2.2, on improving nutrition: By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.

SDG 2 – End hunger, achieve food security and improved nutrition and promote sustainable agriculture – recognizes the interlinkages among supporting sustainable agriculture, empowering small farmers, promoting gender equality, ending rural poverty, ensuring healthy lifestyles, tackling climate change, and other issues addressed within the set of 17 SDGs in the post-2015 development agenda. The United Nations Decade of Action on Nutrition 2016–2025 (7) is an important initiative to mobilize action to eradicate malnutrition. Sustained and coherent implementation of policies and programmes, following the commitments of the Framework for Action of the Second International Conference on Nutrition and the 2030 Agenda for Sustainable Development, will increase the visibility of nutrition problems and measure progress towards sustainable food systems and food and nutrition security for all.

Nutrition and food safety challenges of today are complex and often overlapping. People in the very same communities can suffer from hunger, food poisoning, micronutrient deficiencies, and obesity alongside one another. Ensuring access to essential health services for all children requires assignment of responsibility to various programmes and stakeholders, both within and outside the health sector, which can help address social determinants. Understanding the multiple levels of determinants of inequity is essential for improving the health and nutrition of children globally. Beyond adequate calorie intake, proper nutrition has other dimensions that deserve attention, including

micronutrient availability and healthy diets. Inadequate micronutrient intake of mothers and infants can have long-term developmental impacts. Unhealthy diets and lifestyles are closely linked to the growing incidence of noncommunicable diseases in both developed and developing countries.

Food systems and food safety

Unsafe food practices are linked to poor nutrition outcomes, poisoning, and foodborne diseases, including zoonotic-based outbreaks and epidemics. Unsafe food containing harmful bacteria, viruses, parasites or chemical substances causes more than 200 diseases, ranging from diarrhoea to cancers. An estimated 600 million – almost 1 in 10 people in the world – fall ill after eating contaminated food and 420 000 die every year, resulting in the loss of 33 million disability-adjusted life-years (DALYs). Children aged under 5 years carry 40% of the foodborne disease burden, with 125 000 deaths every year.

About two thirds of human pathogens are of zoonotic origin or are transmitted by vectors or food. Unsustainable husbandry practices and insufficient oversight and regulation of food supply and trade systems are at the root of many of these health problems. The SDGs call for greater alignment of actions to “ensure sustainable consumption and production patterns” (SDG 12) and “protect, restore and promote sustainable use of terrestrial ecosystems ... and halt biodiversity loss” (SDG 15).

A pathway analysis of the social determinants of health and health inequalities (Figure 5.2) elaborates on specific modes of food consumption, food handling and food production that need to be dealt with in order to reduce foodborne disease. Action in those areas can help mitigate differential exposures of different social groups to related health outcomes and other socioeconomic consequences.

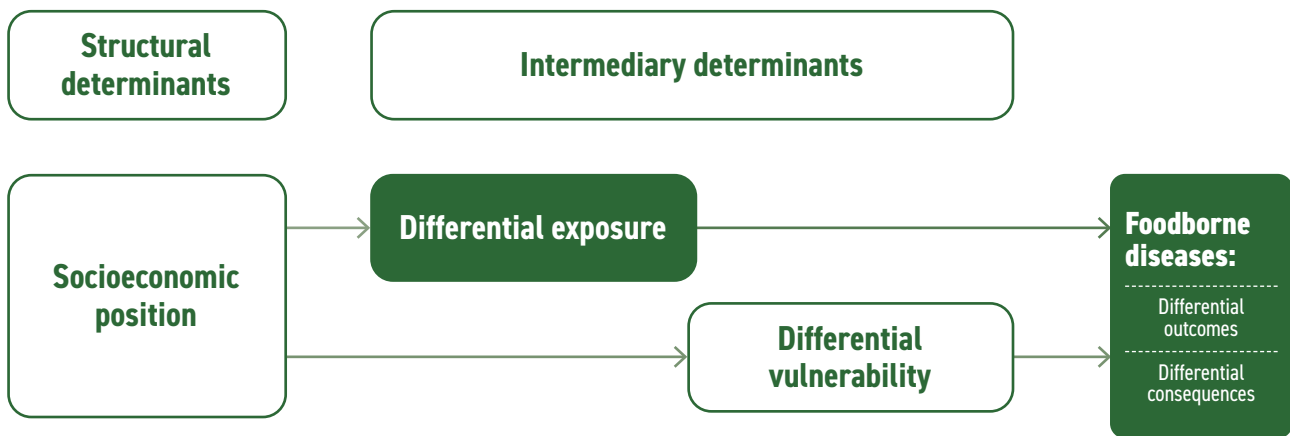
5.1.4 Specific teaching themes and case studies

Reflect on this chapter’s key messages and use critical pathways thinking to measure and understand food security, food safety and nutrition at (a) individual, (b) community, (c) national and (d) global levels. This should be guided by and oriented towards a common SDG framework.

Nutrition more than individual choice

Nutrition is influenced not only by individual attributes, but also by the social circumstances in which persons find themselves, their socioeconomic status, and the environment in which they live; these determinants interact with each other dynamically and may threaten, or protect, an individual’s health and well-being, with the

Figure 5.2 Social determinants of food safety



Manifested in:

- Poverty
- Education
- Ethnicity
- Gender
- Demographic factors
- Living and working conditions
e.g. urbanization, migration
- Trade

Resulting from such factors as:

- **Modes of food consumption**
[Lifestyles - Preferences - Behaviour - Psychological factors]
- **Modes of food handling**
[Poor hygiene - Improper practices - Inadequate environment - Lack of safe water and sanitation]
- **Modes of food production**
[Agricultural productions and practices]

- Physiological conditions**
- Food insecurity
- Malnutrition
- Co-morbidity

Source: Blas and Sivasankara Kurup (8).

positive and negative effects on their health and well-being accumulating over their life course. The effects are further amplified by a health system that is providing health services that are not appropriate to, or less effective for, certain population groups or disadvantaged people compared to others. The health system plays an important role in mediating the differential consequences of illnesses in people's lives. The primary health care system and people-centred, community-based services can play a critical role in preventing illness, promoting, maintaining and restoring health and well-being, and protecting individuals and communities from adverse social and economic consequences.

Nutrition and multisectoral action

In addressing nutrition challenges, there are many intervention entry points, providing room for different sectors to contribute. This does not imply that only solutions that involve multiple institutions and tackle all levels of determination are effective. Nevertheless, it suggests that actors involved in any given approach need to realize that their efforts constitute only part of the solution, and there is added value in supporting the work of those promoting complementary approaches (Table 5.2).

Table 5.2

Childhood health and nutrition: categories, factors and indicators

Category (level)		Relevant factors for child health/nutrition	Indicators
Socioeconomic context and position		Family income, assets	Assets index
		Parental education	Education among men Education among women
Differential exposure		Water, sanitation, handwashing	Water supply Sanitation Handwashing facility in household Sanitary disposal of childrens stools
		Crowding, housing, air pollution	Solid fuel cooking Crowding
		Disease vectors	Exposure to disease vectors
Differential vulnerability	Factors affecting incidence	Infant and young feeding	Timely initiation of breastfeeding Exclusive breastfeeding Bottle-feeding Timely complementary feeding
		Immunization	
		Antenatal and delivery care	Antenatal care Skilled delivery care Postnatal visit
		HIV prevention	
	Insecticide-treated mosquito nets	Use of bed net, insecticide-treated mosquito net	
	Factors affecting severity	Poor nutrition (breast-feeding, complementary feeding, micronutrients, vitamin A, zinc, iron, iodine)	Vitamin A intake Zinc supplementation Iron supplementation Use of iodized salt
		Case management (access to first-level and referral care) of diarrhoea, pneumonia, spesis, malaria (including intermittant preventive treatment measles, HIV, severe malnutrition, neonatal morbidity)	Care-seeking for acute respiratory infection Antibiotics for pneumonia Care-seeking for diarrhoea Oral rehydration therapy to treat diarrhoea Care-seeking for fever Antimalarial treatment Quality of care Referral care
Differential health and nutritional outcomes		Morbidity	Diahorrea prevelance Acute respiratory infection prevelance Fever prevelance
		Undernutrition, stunting, wasting, underweight	Anaemia Low birth rate Stunting Underweight Wasting
		Overweight, obesity	Overweight, obesity
		Mortality	Neonatal mortality Infant mortality Under-5 mortality Cause-specific mortality
Differential consequences		Disability	Prevelance of disabillity
		Human capital (height, reproductive performance, schooling, income)	Human capital
		Economic consequences to the family	Economic losses

Nutrition in the first 1000 days of human life

Adequate nutrition during the critical 1000 days from the beginning of pregnancy through a child's second birthday merits a particular focus. The Scaling Up Nutrition (SUN) movement (9) has made great progress since its creation five years ago in incorporating strategies that link nutrition to agriculture, clean water, sanitation, education, employment, social protection, health care and support for resilience. Extreme poverty and hunger are common rural problems, with smallholder farmers and their families making up a very significant proportion of the poor and hungry. Thus, eradicating poverty and hunger are integrally linked to boosting food production, agricultural productivity and rural incomes.

Growth assessment and stunting

A first step is to assess the nutrition situation, which is common practice in many household surveys. Growth assessment is the single measurement that best defines the health and nutritional status of children. Their nutritional status is the outcome of a wide range of factors, often related to poor diets and repeated infections. These conditions, in turn, are closely linked to the standard of living, environment and access to health care. Growth assessment thus not only serves as a means of evaluating the health and nutrition of children but also provides an indirect measure of the quality of life of entire populations.

Stunting is the impaired growth and development that children experience from poor nutrition, repeated infection and inadequate psychosocial stimulation. Children are defined as stunted if their height-for-age is more than two standard deviations below the WHO Child Growth Standards median. Impaired growth due to stunting in early life, particularly in the first 1000 days from conception until the age of 2 years, has adverse functional consequences for the child. Some of those consequences include poor cognition and educational performance, low adult wages, lost productivity and, when accompanied by excessive weight gain later in childhood, an increased risk of nutrition-related chronic diseases in adult life. Linear growth in early childhood is a strong marker of healthy growth, as studies have shown a correlation between that indicator and morbidity and mortality risk, noncommunicable diseases in later life, and learning capacity and productivity. It is also closely linked with child development in several domains, including cognitive, language and sensory motor capacities.

Nutrition education

Nutrition education programmes and interventions gives people the knowledge and skills to:

- feed themselves and their families well
- get the right foods at the right prices

- prepare healthy foods and meals that they enjoy
- recognize poor food choices and resist them
- teach their children and others about healthy eating.

Food safety basics: five keys to safer food

WHO promotes five key messages for safer food (10):

- keep clean
- separate raw and cooked
- cook thoroughly
- keep food at safe temperatures
- use safe water and raw materials.

WHO guidance (10) on the five keys highlights the need to prepare future policy-makers for the following roles. Policy-makers can:

- build and maintain adequate food systems and infrastructures (such as laboratories) to respond to and manage food safety risks along the entire food chain, including during emergencies;
- foster multisectoral collaboration among public health, animal health, agriculture and other sectors for better communication and joint action;
- integrate food safety into broader food policies and programmes (such as nutrition and food security);
- think globally and act locally to ensure that food produced domestically remains safe when imported internationally.

Examples of roles and actions in education and practice

Examples of roles and actions in education and practice for food security, food safety and nutrition are as follows.

- Training at the individual level should support addressing food safety and security issues for both patients and their families, cultural competencies (including food practices), and understanding of how changes in socioeconomic status can impact family food systems.
- Training at the community level should enable health workers to engage outside the health sector to ensure access to and availability of food that supports a nutritious diet, and advocate a local food economy that meets the needs of local communities rather than producing crops that are oriented to export.
- Training at the global, regional and national levels should examine food systems through Health in All Policies approaches, taking into account SDG 12 (consumption and production), with special attention to the food–energy–water nexus at a national level and interaction with SDG 3 (health).

Food safety, One Health and multisectoral collaboration

Taking a multisectoral, One Health approach to address zoonotic diseases is closely aligned with a social determinants of health approach, as it means considering policy action and practices to change the societal conditions for health in which people live using a multidisciplinary perspective. Conditions of daily life are influenced by factors such as politics, cultural norms, values and beliefs, the economy, the distribution of power, gender, and whether people live in an urban or rural community. These same factors influence zoonotic disease risks. The social context of zoonotic disease transmission, and its implications for the vulnerability of different groups of people, should also be considered. Health workers should be aware of the broader context within which foodborne disease caused by zoonotic transmission is prevented. Public and community health leaders should be trained to be sensitive to the social determinants of health in the context of zoonoses, benefiting from and contributing to:

- establishing partnerships and engaging with social scientists (sociologists, anthropologists and demographers, among others), in the planning, implementation and evaluation of policies, programmes, research and training;
- developing communication strategies that consider gender, indigenous and minority populations, and diverse social and cultural behaviours and practices;
- educating community health workers, programme managers and policy-makers about the most pressing social influences on zoonotic disease prevention and control within each country;
- considering gender in the development, implementation and evaluation of country plans and education and training programmes for zoonotic diseases;
- using available research to explore and understand social determinants of health in their country, and integrating knowledge and behaviour change into all aspects of zoonotic disease control.

Boxes 5.2, 5.3 and 5.4 present case studies relevant to food security, food safety and nutrition.

Box 5.2

Case study: fishing, employment and nutrition in Meru, Kenya

In Meru County, Kenya, the Government of Kenya implemented a set of programmes and strategies to support opportunities for sustainable development for its citizens' well-being. Among them, the intersectoral Economic Stimulus Programme was launched to address food insecurity and mitigate the effects of the 2007 post-election violence and the global economic and financial crisis. The programme called for the development of intersectoral projects aimed at providing citizens with needed services. Among the numerous intersectoral programmes introduced was fish farming or aquaculture. The focus of fish farming (aquaculture) was to improve food and nutrition and create over 120 000 employment and income-generating opportunities.

The key objectives of the Economic Stimulus Programme included boosting the country's economic recovery and returning it to the envisioned medium-term growth plan; investing in long-term solutions to the challenges of food security; expanding economic opportunities in rural areas for employment creation; and promoting regional development of equity and social stability. Some of the activities covered under the programme included expanding irrigation-based agriculture, building markets for wholesale and fresh produce, and developing fish ponds. The findings of a study showed increased food security and improved nutrition. The fish farming project also created employment and generated income for the participating households. Other findings revealed strengthened intersectoral collaboration and public-private partnerships in food security initiatives. One of the constituencies to benefit from these programmes was Imenti South, Meru County, upon which this case study is based.

Source: World Health Organization (11).

Box 5.3

Case study: hospitals and nutrition and the Boston Medical Center initiative

The American Hospital Association has published a series of briefings on the social determinants of health, including a briefing on the role of hospitals in ensuring food security in clinical practice and in the community (12). One of the examples focused on the community is described below.

Boston Medical Center initiative

Since its start in 2001, the on-site preventive food pantry at the Boston Medical Center has influenced many lives. Initially only for paediatric patients and pregnant mothers, the pantry took five years to expand and reach all other hospital departments. Funded solely by donations, the food pantry operates through aid from the Greater Boston Food Bank and donations from other community organizations. Patients are screened for food insecurity upon visit or admission and, if eligible, referred to the pantry with a prescription. These prescriptions help eliminate the stigma associated with food insecurity, as patients are directed to meals advised by doctors. Every month, the Boston Medical Center's food pantry gives access to more than 7000 patients and their family members, or 1600 to 1800 families.

Source: Health Research and Educational Trust (12).

Box 5.4

Case study: One Health collaboration to combat AMR in Malaysia

The present case study is extracted from *Taking a multisectoral, one health approach: a tripartite guide to addressing zoonotic diseases in countries* (13). The guide describes in detail the kinds of collaboration that can be supported by universities to further joint public health work to address food safety and combat antimicrobial resistance.

"In Malaysia, relevant governments and universities are partnering to improve collaboration on antimicrobial resistance (AMR). The Ministry of Health, the Department of Veterinary Services, the Department of Fisheries, and the Malaysia One Health University Network worked together to organize multisectoral AMR meetings, workshops, and seminars in 2017 and 2018 for government and non-governmental agencies, relevant professional bodies, academia, and the private sector. These meetings focused on AMR challenges, establishing the role of each institution, as well as drafting of the Integrated Surveillance Manual for Antibiotic Resistance and Consumption/Use. The workshop on manual development synergized partnership and collaboration across sectors, and the human, animal and food sectors reached consensus on the sampling, laboratory analyses and data collection/analyses methods to be adopted for the surveillance to ultimately enable uniform reporting to the National Antibiotic Resistance Committee."

Source: World Health Organization, Food and Agriculture Organization of the United Nations and World Organisation for Animal Health (13).

5.2 Housing

5.2.1 Synopsis

The quality and environmental context of housing has a profound impact on human health. Housing is of unique significance in people's lives, protecting them from physical, environmental and biological hazards and giving them a sense of "home". Exposures and health risks in the home environment are of crucial relevance due to the large amount of time people spend there. In high-income countries, around 70% of people's time is spent inside the home (14). However, housing

shortcomings can expose people to a number of health risks. For example, structurally deficient housing can increase the likelihood that people slip or fall, increasing the risk of injury. Poor accessibility and isolation put disabled and elderly people at risk of injury and stress.

Understanding housing as a key determinant of health opens up the possibility of interventions that improve both physical and mental health outcomes, with knock-on positive impacts on education and employment. Housing should also be considered as a policy element to adapt to climate change challenges, as it can significantly contribute to emission reductions and vector control mechanisms. Actions that can be taken to reduce the

risks posed by housing include renovating housing that is in poor condition, building housing for people that are homeless and living in crowded households, implementing policies that prioritize secure tenure, and ensuring that housing is located in environments that encourage physical activity.

Key messages for learners and educators

- **Message 1.** Housing is an upstream determinant of health; poor housing conditions are one of the mechanisms through which social and environmental inequality translates into health inequality, which further affects quality of life and well-being.
- **Message 2.** Interventions reducing health risks from poor housing include direct changes to the built environment and the introduction of loans and subsidies to support improvements in the structural housing environment.
- **Message 3.** Housing interventions represent a major opportunity to promote primary prevention through action across different sectors.

5.2.2 The problem

Housing that is difficult or expensive to heat can contribute to poor respiratory and cardiovascular outcomes, while high indoor temperatures increase the risk of cardiovascular mortality. Indoor air pollution, which is associated with a number of factors including mould and the use of solid fuels for cooking and heating, harms respiratory health and may trigger allergic reactions. Decrepit housing can increase exposure to vector-borne diseases such as malaria, dengue or Chagas disease.

Crowded housing increases the risk of exposure to infectious disease. Inadequate water supply and sanitation facilities affect food safety and personal hygiene. Urban design that discourages physical activity can contribute to poor mental and cardiovascular health. People living in slums or informal settlements are exposed to these risks, in addition to health risks such as poor sanitation, unsafe electrical connections or cooking facilities, and poorly constructed and maintained roads. Such settlements are sometimes in locations that expose occupants to hazards such as landslides, floods and industrial pollution. Residents may lack legal titles to their homes, which exposes them to the risk of forcible eviction. If they hold no property or official housing status, they often in turn have no health or social insurance.

The etiology of the communicable and noncommunicable diseases related to housing is multifactorial; housing is one risk factor alongside other genetic, biological, psychological and social determinants. However, the disease burden related to housing appears to be inequitably distributed among the population; housing conditions are one of the mechanisms through which environmental and social inequality translates into health inequality. Across the globe, people with a low income are more likely to suffer from stressful tenure insecurity and live in housing that exposes them to increased health risks. This can be due to negative environmental exposures such as poor indoor air quality, toxic building materials, structural deficiencies, or the overall condition of the neighbourhood. In addition, socioeconomic factors influence whether residents are able to afford and maintain safe and healthy housing. Costs they may incur include the purchase of safe drinking-water and electricity or other fuel for heating the home (15). An increased health burden caused by unhealthy housing conditions, such as dampness and overcrowding, translates again into social inequalities such as decreased educational attainment or income generation due to higher absenteeism from school or work.

An understanding of social determinants is therefore crucial for illustrating the potential for primary prevention, indicating areas in which biological and psychological treatments can be enhanced by socioeconomic interventions and identifying target groups for prevention and care.

5.2.3 Why act now?

The *WHO housing and health guidelines (16)* bring together the most recent evidence to provide practical recommendations to reduce the health burden due to unsafe and substandard housing. Based on newly commissioned systematic reviews, the guidelines provide recommendations relevant to inadequate living space (crowding), low and high indoor temperatures, injury hazards in the home, and accessibility of housing for people with functional impairments. In addition, the guidelines identify and summarize existing WHO guidelines and recommendations related to housing, with respect to water quality, air quality, neighbourhood noise, asbestos, lead, tobacco smoke and radon.

The *WHO housing and health guidelines* take a comprehensive, intersectoral perspective on the issue of housing and health and highlight co-benefits of interventions addressing several risk factors at the same time. The guidelines aim at informing housing policies and regulations at the national, regional and local levels and are further relevant in the daily activities of implementing actors who are directly involved in the construction, maintenance and demolition of housing in ways that influence human health and safety.

The guidelines therefore emphasize the importance of collaboration between the health and other sectors and joint efforts across all government levels to promote healthy housing. Implementation of the guidelines at country level will in particular contribute to the achievement of the SDGs on health (SDG 3), clean energy (SDG 7) and sustainable cities (SDG 11). WHO will support countries in adapting the guidelines to national contexts and priorities to ensure safe and healthy housing for all.

5.2.4 Specific teaching themes and case studies

Reflect on this chapter's key messages and use critical pathways thinking to measure and understand housing at (a) individual, (b) community, (c) national and (d) global levels. This should be guided by and oriented towards a common SDG framework.

The primary health care system and people-centred community-based services play a critical role in preventing illness and promoting, maintaining and restoring health and well-being. Addressing health risks from poor housing conditions using a primary prevention focus enables a comprehensive and intersectoral approach to tackle the social determinants of health, including issues such as:

- noncommunicable diseases: asthma, chronic obstructive pulmonary disease and other respiratory diseases, cardiovascular disease and stroke, risk of cancer, obesity, injuries, well-being and mental health;
- communicable diseases: vector-borne diseases, waterborne diseases, airborne diseases;
- resilience of buildings to natural disasters.

Possible study areas include exploring what might be the role of the health worker, for example to alert colleagues about housing risks, and collecting information about behaviour and housing conditions, such as the level and quality of ventilation and indoor air pollution.

Tackling the structural and intermediary determinants requires intersectoral policy approaches

Choices of housing type, quality, size and location are shaped by a number of economic, social and demographic factors (17, 18). These factors affect the features that a house will provide for its occupants (such as durability, building materials and accessibility), and whether the occupants can afford the cost of operating and maintaining it. The cost of maintaining and operating a house is of importance to human health and safety, and includes the purchase of safe drinking-water and of electricity or other fuel for heating the home. Transport infrastructure can also be considered as an operational aspect of housing affordability, because it influences how much people need to pay to travel between their homes and work and other places. Globally, across low-, middle- and high-income countries, low-income earners are more likely to live

in housing that exposes them to health risks (19). For example, in Cambodia, toilet facilities are only available to 29% of households in the lowest income quintile, compared with 79% of households in the highest income quintile (20).

In Guatemala, 89% of the lowest income quintile have dirt floors, compared with 4% of the highest income quintile (16). In the United States of America, repeated hospitalizations for childhood asthma are correlated with residing in the census tract areas with the highest proportion of crowded housing conditions, the largest number of racial minorities and the highest neighbourhood-level poverty (21). This inequality in housing conditions goes beyond whether people are rich or poor. In some countries, certain groups, including indigenous people, minority populations, single-parent families, people with disabilities and women, are more likely to live in unsuitable housing (22–24).

Examples of roles and actions in education and practice

Examples of roles and actions in education and practice for housing are as follows.

- Training at the individual level should raise the understanding of clinicians, social care workers and community health workers of the impact that housing conditions have on patients. For example, a general practitioner could ask about the presence of dampness and mould in their patient's home when diagnosing a respiratory disease to ensure the origin of the disease is being addressed, instead of only focusing on the symptoms.
- Training at the community level should enable administrators, managers, public health professionals and clinical actors to develop and implement interventions to improve health through housing. For example, clinicians could be enabled to prescribe environmental health inspections of their patients' housing to remedy housing conditions that cause ill-health.
- Training at the global, regional and national levels needs to ensure that housing policies take health considerations into account. Decision-makers are required to have a multidisciplinary perspective on policy formulation and implementation and work together with actors outside their sector. For example, when planning a new social housing project, representatives from the health sector should be present to ensure it is not located on a road with dense traffic and high air pollution levels.

Poor health outcomes in turn can contribute to poor economic outcomes. Poor health can be expensive, because of the cost of treating illnesses. In addition, poor health can affect people's capacity to earn or save money. This creates a cycle between poor health and poor household, local and national economic outcomes. At the same time, housing that is expensive relative

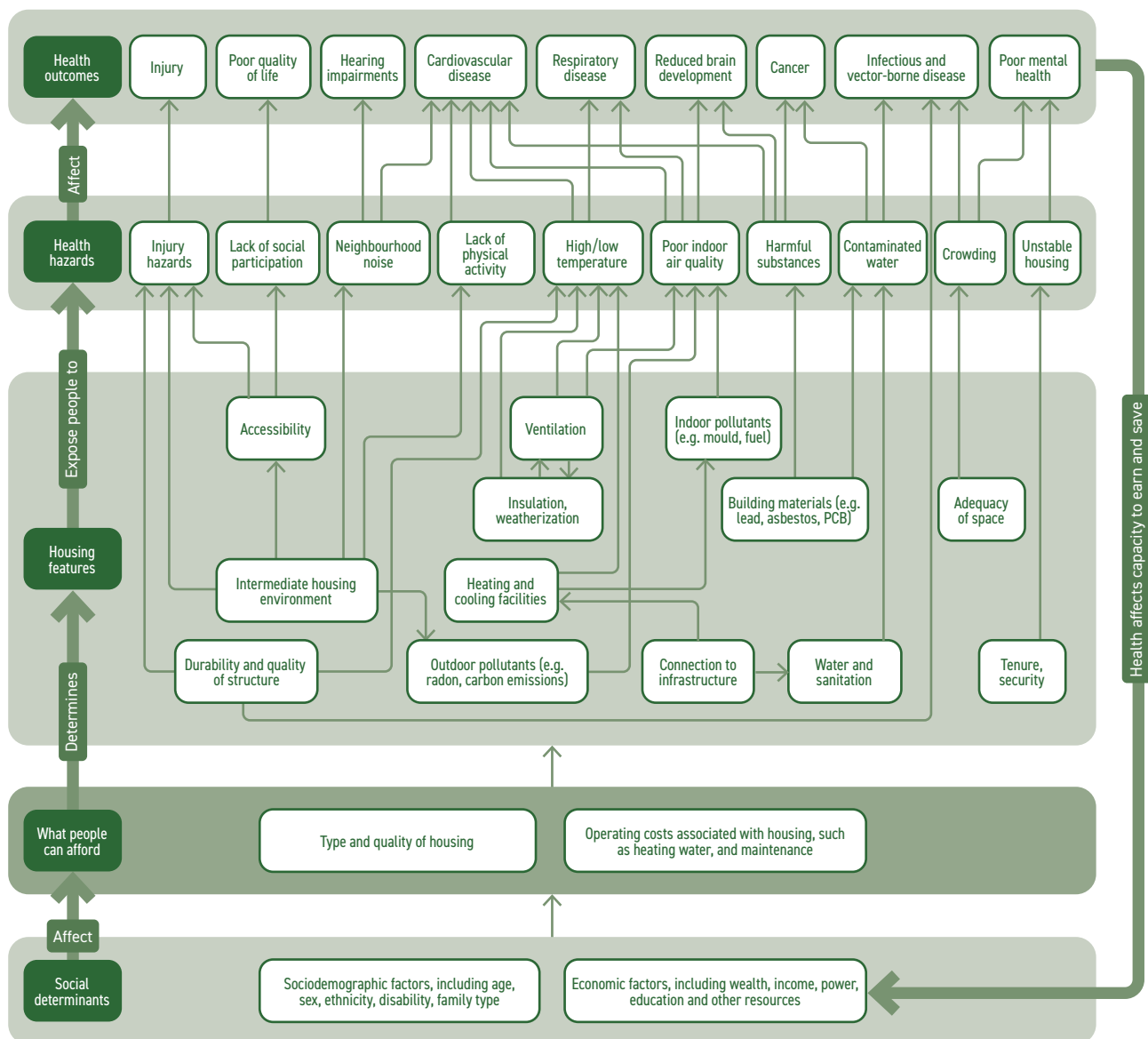
to income can affect health, in particular for people on low incomes. High housing costs can compel people to cut back on other essentials that are connected to health, including food, energy and health care. Difficulty with paying rent and mortgage costs exposes people to the risk of eviction and foreclosure, and increases the likelihood that people have to move often. These factors – eviction, foreclosure and residential mobility – have each been associated with adverse educational and economic effects and poor health outcomes.

Health workers can support interventions that create healthy homes, thus helping to break this cycle by improving health and broader social and economic outcomes, yielding important benefits for decades into the future. These housing-related interventions need to be

complemented by policy interventions relating to education, employment, transport, childcare, health systems, taxation, wages, benefit levels and job security. Each of these factors can affect incomes and thus affect people's ability to pay for housing that keeps them healthy. Providing affordable housing can help people to afford housing that fits their needs while improving their health. Affordable housing, such as public housing, can be promoted through funding a supply of affordable dwellings, or through providing subsidies, such as housing vouchers or tax mechanisms (for example, low-income housing tax credits).

The illustrative diagram presented in Figure 5.3 can be used to map and visualize housing and health in the local setting, while Box 5.5 provides a case study of government assistance in house improvements.

Figure 5.3 Housing and social determinants of health, pathways and entry points



Source: Philippa Howden-Chapman and the WHO Housing and Health Guideline Development Group (16).

Box 5.5

Case study: Arbed and Nest schemes as part of the Welsh Government's Warm Homes Programme

Living in cold homes and in fuel poverty (when more than 10% of a household's income is spent on energy costs) contributes to poor physical and mental health. People who struggle to heat their homes are usually in low-income households. Estimates show that approximately 291 000 households in Wales (United Kingdom) are living in fuel poverty – equivalent to 23% of households. In the Welsh Government's Warm Homes Programme, local authorities and communities, small and medium-sized enterprises, and civil society organizations play a key role in identifying opportunities to provide community benefits and ensuring their delivery.

The Arbed and Nest schemes are part of the Warm Homes Programme, which was developed by the Welsh Government to:

- help eradicate fuel poverty
- reduce carbon emissions
- accelerate economic development and regeneration in Wales.

Both schemes adopt a whole-house approach to home energy efficiency improvements to tackle fuel poverty. Although they have the same goal, the schemes are implemented in different ways. To benefit from the Arbed scheme, households need to:

- take part in a survey to assess the energy performance of the property, and receive an offer of assistance;
- if selected, book a technical survey with an appointed installer to prepare the works;
- arrange a final quality inspection to check the newly installed system.

To access the Nest scheme, households are expected to answer questions to assess their eligibility for free home energy efficiency improvements:

- if eligible, they can obtain a free package of energy efficiency measures, such as a new gas boiler, central heating system and insulation;
- if ineligible, they receive free advice on saving energy, money management and energy tariffs.

Source: World Health Organization Regional Office for Europe (25).

5.3 Reproductive health, including family planning

5.3.1 Synopsis

Poor sexual and reproductive health outcomes represent a third of the total global burden of disease for women aged 15–44 years. There are many disparities in terms of numbers and distribution of reproductive health mortality and morbidity across population groups and countries. In many countries of the world, there is poor access to the reproductive health services that may help reduce the inequities mentioned above. Family planning, for example, remains an essential investment in reproductive health, as well as in poverty reduction and national

development. However, despite the known health benefits and cost-effectiveness of family planning, large disparities exist in accessing modern contraceptive services and commodities. Social determinants play a key role in both unintended pregnancy and pregnancy outcomes.

It is important that countries ensure universal access to sexual and reproductive health care services, including family planning, in accordance with the objectives of the Programme of Action of the International Conference on Population and Development, and the goals and targets of the United Nations 2030 Agenda for Sustainable Development. Improved sexual and reproductive health is a key pillar of the overall health, empowerment, and human rights of individuals and of the sustainable and equitable development of societies.

Key messages for learners and educators

- **Message 1.** Emphasize quality of care through counselling by all health workers providing reproductive health care services.
- **Message 2.** Urge decision-makers to reduce inequity in the provision of reproductive health services to women by the health sector, particularly through equitable distribution of health care facilities and health care workers, taking account of social factors.
- **Message 3.** Convince decision-makers to provide adequate and sustainable funding of services that increase the quality and safety of reproductive health services, including family planning and contraceptive services.

5.3.2 The problem

Globally, there are still 295 000 maternal deaths (26), 2.6 million stillbirths and an estimated 2.7 million neonatal deaths every year (27). Around 218 million women of reproductive age have an unmet need for modern contraception (28), and roughly 121 million unintended pregnancies occurred each year between 2015 and 2019. Of these unintended pregnancies, 61% ended in abortion, translating to an estimated 73 million abortions per year (29).

Similarly, four curable sexually transmitted infections (of the eight responsible for the greatest incidence of sexually transmitted infection cases) constitute an estimated 357 million new cases annually. Over 90% of global DALYs caused by sexually transmitted diseases are experienced in low- and middle-income countries. Worldwide, 8% to 12% of couples may experience infertility at some point in their reproductive years, and it is estimated that one in four couples in developing countries experience infertility.

In addition, 266 000 cervical cancer deaths occur every year, with women in low-income countries having lower five-year survival rates for cancer of the cervix. Unsafe sex practices and violence against women are major risk factors for death and disability among women and girls in low- and middle-income countries and in marginalized groups in high-income countries. The many social consequences of unintended pregnancy include unsafe abortion, unwanted childbearing and limited social empowerment.

5.3.3 Why act now?

While there has been much improvement in the past few years in provision of sexual and reproductive health services, including family planning, challenges remain

daunting, and ill-health from causes related to sexuality and reproduction remains a major cause of preventable death, disability and suffering. Huge disparities exist in access to modern contraception, for women and girls, for other vulnerable groups, for those in hard-to-reach areas, and for those in countries with restrictive policies. Worldwide, an estimated 216 million couples have an unmet need for contraception. This need is the highest in areas where maternal mortality is greatest and where rates of HIV infection are also the highest. Despite significant improvements in the lives of women, high rates of unintended pregnancy continue to detrimentally impact women's and children's health and restrict opportunities for women. This document considers how health providers can be assisted to understand the impact that social determinants have on these specific outcomes.

It is time for countries to ensure universal access to sexual and reproductive health care services, including family planning, in accordance with the objectives of the Programme of Action of the International Conference on Population and Development and the goals and targets of the 2030 Agenda for Sustainable Development. There is a need to emphasize investment in women's and girls' empowerment, including promotion of their sexual and reproductive health and rights and of quality education for adolescents, as critical to harness the demographic dividend in societies. Improved sexual and reproductive health is a key pillar of the overall health, empowerment, and human rights of individuals and of the sustainable and equitable development of societies. Ill-health from causes related to sexual and reproductive health, including too many, too early and too frequent pregnancies, remains a major cause of death and disability among women and girls, particularly among the most vulnerable, marginalized and underserved. Poor sexual and reproductive health contributes significantly to poverty, thereby limiting socioeconomic development. Conversely, achieving sexual and reproductive health empowers individuals and communities to participate in economic development. The persistence of poor sexual and reproductive health outcomes, despite the availability of supplies and facilities, underscores the need to strengthen the quality of health systems.

Social activists and health analysts have highlighted the potential role that persistent inequities in health play in hindering progress towards achieving international and national development goals.

Reproductive health services provided to women by the health sector are often not equitably distributed and are determined by social factors. In theory, it should be within the power of the health care system to substantially reduce disparities. But in practice, an inadequate or inequitable health care system may only serve to widen these disparities. The means to greatly reduce unintended pregnancy and morbidity and mortality associated with pregnancy are well within

our knowledge and are not overly expensive. Because the burden falls so disproportionately on the poor and disadvantaged, it is impossible to make significant strides in improving overall rates without concentrating on reaching poorer women.

Control over fertility and access to safe maternity care are fundamental health and human rights and are strongly influenced by social determinants. Addressing unintended pregnancy and improving pregnancy outcomes will require interventions specifically designed to achieve equity in the availability of all related health services provided by trained and qualified health workers for contraception, especially targeting the poor and disadvantaged for access to contraceptive and skilled birth attendant services. Such efforts will be most effective when combined with addressing upstream determinants, such as improving education for women and the effective functioning of the health sector and of government services in general. Social activists and health analysts have highlighted the potential role that persistent inequities in health play in hindering progress towards achieving international and national development goals.

5.3.4 Specific teaching themes and case studies

Reflect on this chapter's key messages and use critical pathways thinking to measure and understand reproductive health, including family planning, at (a) individual, (b) community, (c) national and (d) global levels. This should be guided by and oriented towards a common SDG framework.

Reproductive health determinants and health promotion approaches

Reproductive health and well-being are influenced not only by individual attributes, but also by the social circumstances in which persons find themselves, their socioeconomic status, and the environment in which they live. These determinants interact with each other dynamically, and may threaten, or protect, an individual's state of health and well-being. The primary health care system and people-centred community-based services can play a critical role in preventing illness and promoting, maintaining and restoring health and well-being. Reproductive health determinants include housing and neighbourhood quality, consumption potential (such as financial means to buy contraceptives as needed), the physical work environment and associated psychosocial circumstances. The latter includes psychosocial stressors, stressful living circumstances and relationships, and social support and coping styles (or the lack thereof). Behavioural and biological factors include nutrition, physical activity, tobacco consumption and alcohol consumption, which are distributed differently among different social groups. Biological factors also include genetic factors and physical and mental health.

Health providers working in partnership can promote healthy lifestyles, prevent the onset or development of illness and health conditions through early identification and intervention, and manage quality and safety of pregnancy and delivery, and of family planning and contraceptive services. Community participation has been identified as a key component in ensuring easier uptake of services and continued patronage.

Examples of roles and actions in education and practice

Examples of roles and actions in education and practice for reproductive health are as follows.

- Training at the individual level should enable all health workers to provide essential counselling for reproductive health and to act with others to address factors that impact the quality of reproductive health care.
- Training at the community level should enable health administrators, managers, public health professionals and clinical actors to work with other sectors outside health to address inequity in access to and availability of reproductive health services for women, and ensure effective family planning and contraceptive services.
- Training at the global, regional and national levels should support health workers to promote policy coherence for reproductive health through Health in All Policies approaches and legislation for the promotion of gender equality and the empowerment of all women and girls at all levels, supported by adequate and sustainable funding of reproductive health services.

Abortion and its determinants

Women with an unintended pregnancy may be faced with a choice between terminating the pregnancy or an unwanted birth. Approximately 20% of pregnancies worldwide are voluntarily terminated, some under unsafe conditions.

WHO global and regional estimates of the incidence of unsafe abortion and associated mortality found that an estimated 21.6 million unsafe abortions took place worldwide in 2008, almost all in developing countries. Numbers of unsafe abortions have increased from 19.7 million in 2003, though the overall unsafe abortion rate remains unchanged at about 14 unsafe abortions per 1000 women aged 15–44 years, mainly due to the growing population of women of reproductive age. Unsafe abortion accounts for 13% of maternal deaths worldwide, and disadvantaged women are less likely to have access to safe abortion services and to proper care to treat complications. Vulnerability to unintended pregnancy is strongly influenced by access to and use of effective contraception and by exposure to unwanted sex through child marriage and sexual violence. These all have strong social determinants.

Women with an unwanted pregnancy are faced with a difficult decision. Deciding whether to terminate an unwanted pregnancy or have an unwanted child is influenced by many factors, including the availability and accessibility of induced safe abortion services; the social acceptability of childbearing and induced abortion; and support from social structures. Either choice has social, financial and health consequences that are not equally experienced among women. The principal social determinant of recourse to unsafe abortion is real or perceived legal restriction on safe abortion.

Consequences of unwanted pregnancy for women and children

Women who have an unwanted pregnancy are more likely to delay antenatal care or have fewer visits.

■ ■ Unwanted or unplanned childbearing detrimentally affects women and children.

Unwanted children are more likely to experience symptoms of illness, such as acute respiratory infection and diarrhoea; less likely to receive treatment or preventive care, such as vaccinations; less likely to be breastfed; and more likely to have lower nutritional status and fewer educational and development opportunities.

Unwanted childbearing negatively influences the mother–child relationship and maternal health. Unintended pregnancy is associated with maternal depression, anxiety and abuse. Unintended childbearing among adolescents is particularly detrimental, increasing vulnerability by truncating educational opportunities, increasing welfare dependence and increasing the probability of domestic violence.

Women with fewer social and financial assets may view unintended childbearing as less problematic than women with opportunities outside the home. Women faced with poor economic conditions, low self-esteem and lack of moral support may see motherhood as a means of escape.

Access to contraception

Unmet need for family planning and contraception is defined as the number of women who are fecund and sexually active, but are not using any method of contraception, and report not wanting any more children or wanting to delay the birth of their next child, expressed as a percentage of women of reproductive age who are married or in a union. Worldwide in 2015, 12% of married or in-union women were estimated to have had an unmet need for family planning and

contraception. The level was much higher, at 22%, in the least developed countries. Many of those countries are in sub-Saharan Africa, which is also the region where unmet need was highest, at 24%, double the world average in 2015.

Many countries have seen dramatic increases in contraceptive use, the primary means to avert unintended pregnancies. Evidence indicates that the demand for family planning is growing in many developing countries. Unintended pregnancy occurs even among contraceptive users, mainly through incorrect or inconsistent use.

There are large regional differences in the use of some types of contraception. For example, data from many countries indicate that contraceptive failure rates are higher among women from disadvantaged circumstances. This disparity is partially explained by differences in choice of contraceptive method, and by what is available. The poor, rural residents, adolescents, minorities and unmarried women are more likely to use temporary methods, such as condoms or injectables, which have higher rates of failure when in typical use. Some women may experience circumstances that are not conducive to consistent and successful contraceptive use, such as lack of funds for resupply of contraceptives, perceived adverse health outcomes or side-effects, lack of support from their partner, or geographical distance from distribution centres. Even in countries where contraceptives are provided for free, regularity of supply needs to be ensured so that women are able to access them as needed. A sizeable number of women become exposed to the risk of conception after discontinuation, usually due to dissatisfaction with use of the method, experience with side-effects, lack of access, and desire for pregnancy. Women who stop using an effective contraceptive method and do not immediately start or switch to a new one are at greater risk of unplanned pregnancy than women who switch contraceptives without a gap. Studies show that inequity in wealth is a hindrance to the use of contraception among poorer women, even if they have wanted to regulate their fertility (30–32). Women from disadvantaged social circumstances are more likely to experience an unintended pregnancy than women with greater financial and social resources. Women report that socioeconomic concerns are a primary consideration in deciding whether to seek an induced abortion. These disparities in unintended pregnancy and its consequences are the result of social, political and economic systems that do not provide access to correct knowledge of sexual and reproductive health and to necessary services.

Contraception helps couples and individuals realize their basic right to decide freely and responsibly if and when to have children, and how many children to have. Poor women also suffer disproportionate consequences of unwanted childbearing, including health and social

consequences for themselves and their children. Providing modern contraception to these groups of women (and men) with unmet need is thus an important health and socioeconomic strategy and intervention. Promoting and increasing use of contraceptive methods will result in improvements in health-related outcomes such as reduced maternal mortality and infant mortality, as well as improvements in schooling and economic outcomes, especially for girls and women.

Task-sharing of reproductive health services, including family planning

To help address these problems in the short term, along with other complementary measures, a more optimized distribution of tasks and responsibilities among professional groups of health workers can significantly improve both access to and cost-effectiveness of care.

This can be achieved, for example, by training and enabling mid-level and lay health workers to perform specific interventions otherwise provided only by cadres with longer (and sometimes more specialized) training. International and national strategies should be implemented to increase the number of competent health workers trained and enabled to provide family planning services, with specific focus on underserved areas and populations. Planned and regulated role substitution and delegation can have a range of benefits. They can ensure rational optimization of the available health workforce, address health system shortages of specialized health care professionals, improve equity in access to health care and increase the acceptability of health services for those receiving them.

Boxes 5.6 and 5.7 provide case studies of programmes that assist with family planning needs.

Box 5.6

Case study: Pakistan Lady Health Worker Programme

This case study (33) describes the rationale, implementation strategies, achievements and challenges of a programme that created a new cadre of female health workers in the Pakistan health system to address the unmet health needs of rural populations and slum dwellers. As part of the Government of Pakistan's National Programme for Family Planning and Primary Health Care, the Lady Health Worker Programme, started in 1994, aims to provide health education, promote healthy behaviours, supply family planning methods, and provide basic curative services. Among other duties, the programme participants – all females, and thus termed lady health workers – monitor the health of pregnant women, monitor the growth and immunization status of women, and promote family planning in their working communities.

Box 5.7

Case study: Ethiopia Health Extension Programme

The Ethiopia Health Extension Programme was started in 2003 as part of an investment package to aid health care centres by employing a cadre of health service extension workers to provide a package of basic health services to improve primary health principles at the family level, and to encourage preventive health care and healthy living in communities (34). Health extension workers are trained for one year in preventive, promotive and curative health services, and then work in the community they lived in previously to help empower communities, households and individuals to take care of their own health. As part of their preventive and promotive activities, health extension workers provide, among many other things, family planning resources and counselling and adolescent reproductive health services. Indeed, family planning is an integral part of the family health service component of their model. Among their many duties, health extension workers are responsible for a training module called "family packages", whereby they work with model families during a series of home visits and cover multiple topics, including the provision of family planning services and prenatal, natal, and postnatal care and counselling.

5.4 Maternal, newborn, child and adolescent health

5.4.1 Synopsis

Although widespread progress has been made in recent decades, far too many women, children and adolescents have little or no access to essential, good-quality health services, education, clean air and water, adequate sanitation and good nutrition. The global community affirmed its commitment to ending preventable maternal and child deaths and supporting positive development across a range of sectors with the adoption in 2015 of the 2030 Agenda for Sustainable Development.

The survival, health and well-being of women, children and adolescents are essential to ending extreme poverty. The United Nations Secretary-General's Global Strategy for Women's, Children's and Adolescents' Health (2016–2030), launched in September 2015, is one of several global accountability initiatives aiming to end preventable deaths and improve overall health and well-being by 2030 (35). Other past and present initiatives, including the Millennium Development Goals (2002–2015), the SDGs (2016–2030), the countdown to 2015 and now to 2030, and the Partnership for Maternal, Newborn and Child Health, recognize that health and well-being are interconnected at every stage of life and across generations. A continuum of care packages ensures that service delivery is integrated throughout the life course to reduce maternal, newborn and child deaths. These packages include interventions to be delivered before pregnancy, during pregnancy, at childbirth, postnatally, and during child development (36, 37).

Key messages for learners and educators

- **Message 1.** The survival, health and well-being of women, children and adolescents are essential to ending extreme poverty and promoting sustainable development and resilience to adversity.
- **Message 2.** We have the knowledge and the means to end preventable maternal, newborn and child deaths and stillbirths within one generation.
- **Message 3.** Investing in the health of women, children and adolescents has benefits that span the life course, affecting education, economic productivity, prevention of noncommunicable diseases, overall social stability and peace.
- **Message 4.** Adolescents are not simply “older children” or “younger adults”. All health workers who are in places that adolescents visit (such as hospitals, primary care facilities and pharmacies) should develop their competencies (knowledge, skills and attitudes) in adolescent-responsive health care, to be able to respond to their specific needs.

5.4.2 The problem

Although widespread progress has been made in recent decades, far too many women, children and adolescents have little or no access to essential, good-quality health services, education, clean air and water, adequate sanitation and good nutrition. They face violence and discrimination, are unable to participate fully in society, and encounter other barriers to realizing their human rights. As a result, the annual death toll in 2019 remained unacceptably high: 295 000 maternal deaths, 2.6 million stillbirths, 5.2 million deaths in children aged under 5 years (including 2.4 million newborn deaths), and 2.2 million deaths among older children, adolescents and young adults (aged 5–24 years). Most of these deaths are preventable. Many more women, children, adolescents and young adults suffer illness and disability and fail to reach their full potential, resulting in enormous loss and costs for countries both today and for future generations.

Health outcomes among women, children and adolescents are worse when they are marginalized or excluded from society, affected by discrimination, or live in underserved communities, especially among the poorest and least educated and in the most remote areas.

Children continue to face widespread regional disparities in their chances of survival. Sub-Saharan Africa remains the region with the highest under-5 mortality rate in the world. In 2019, the region had an average under-5 mortality rate of 76 deaths per 1000 live births. That is equivalent to 1 child in 13 dying before reaching age 5 years. This rate is 20 times higher than that of 1 in 264 in the region of Australia and New Zealand and two decades behind the world average, which achieved a 1 in 13 rate by 1999 (38). Societies also continue to fail women, most acutely in poor countries and among the poorest women in all settings. Evidence outlined below points clearly to this reality.

- Globally, the proportion of women of reproductive age (15–49 years) who have their need for family planning satisfied with modern contraceptive methods has continued to increase slowly, from 73.6% in 2000 to 76.8% in 2020. Yet, around 270 million women of reproductive age who want to stop or delay childbearing are not using any modern method of contraception (39).
- An estimated 52% of maternal deaths (in pregnancy, at or soon after childbirth) are attributable to three leading preventable causes – haemorrhage, sepsis and hypertensive disorders. It is estimated that about a quarter of maternal deaths could be prevented through emergency obstetric care. In addition, 28% of maternal mortality results from non-obstetric

causes such as malaria, HIV, diabetes, cardiovascular disease and obesity.

- Around 8% of maternal mortality is attributable to unsafe abortion, and at least 777 000 girls aged under 15 years give birth every year in low- and middle-income countries.
- Just over 300 000 women die of cervical cancer each year. Women also bear a significant burden of other noncommunicable diseases.
- Nearly 500 000 adolescents aged 10–19 years die every year, nearly all from preventable causes. The leading causes of death for females are maternal conditions, self-harm and road traffic injuries (40).
- Mental health conditions account for 16% of the global burden of disease and injury in people aged 10–19 years.

Gender-based discrimination leads to economic, social and health disadvantages for women, affecting their own and their families' well-being in complex ways throughout the life course and into the next generation.

■ The high rates of preventable death and poor health of newborns and children aged under 5 years are indicators of the uneven coverage of lifesaving interventions and, more broadly, of inadequate social and economic development.

Gender equality is vital to health and to development. Poverty, poor nutrition, limited access to information about pregnancy and childbirth, and insufficient access to clean water and sanitation are all harmful factors, as is insufficient access to quality health services.

An estimated 250 million children aged under 5 years in low- and middle-income countries are unable to realize their full development potential because of risk factors of extreme poverty and stunting (41). For their physical, cognitive, social and emotional development, children need good health, adequate nutrition, safety and security, early

learning opportunities and responsive caregiving, starting from pregnancy. Their caregivers need to be supported to provide nurturing care. The Nurturing Care Framework, launched by WHO, the United Nations Children's Fund (UNICEF) and the World Bank in 2018, is a roadmap for action on early childhood development (42). It supports good home care practices, disease prevention services (such as vaccination) and treatment of common childhood illnesses as essential inputs for children to thrive.

Globally, millions of adolescents die or become sick from preventable causes every year (43). Suicide, injuries and road traffic accidents are some of the causes, alongside anaemia, early pregnancy and HIV infection. Too few adolescents have access to information and counselling and to integrated youth-friendly services, especially sexual and reproductive health services, without facing discrimination or other obstacles. In many settings, adolescent girls and boys face numerous policy, social and legal barriers that harm their physical, mental and emotional health and well-being.

Child and adolescent health and development is a dynamic process. Progress or decline in one period is shaped by influences and events in preceding periods. Gains made in one stage of life can easily be lost if they are not well supported in the next stage. A life course approach to programming is therefore essential to reduce disease risk and promote health and well-being. It requires a package of universal health services and interventions that are available to all children and adolescents everywhere and to their parents or the members of the extended family or community legally responsible for the child. It also requires the institution of public health measures to promote and support health and well-being from before conception to 19 years of age. Programming should also include additional support for children with special developmental, health and security needs, such as children with disabilities or living in humanitarian settings. It is based on these principles that WHO and UNICEF developed the guidance *Investing in our future: a comprehensive agenda for the health and well-being of children and adolescents*, based on six domains in which action is required for children and adolescents to achieve their full potential (44) (Figure 5.4).

Figure 5.4

Six domains of action to support child and adolescent health and well-being



Good health



Adequate nutrition



Responsive relationships and connectedness



Security, safety and a supportive, clean environment



Opportunities for learning and education



Realization of personal autonomy and resilience

Source: World Health Organization and UNICEF (44).

5.4.3 Why act now?

The survival, health and well-being of women, children and adolescents are essential to ending extreme poverty and promoting development and resilience. The Global Strategy for Women's, Children's and Adolescents' Health (2016–2030) sets a roadmap for ending all preventable deaths in this group of people and improving overall health and well-being by 2030. With ambitious yet achievable targets, the Global Strategy seeks to move beyond mere reductions in mortality to a vision of health through the life course that recognizes the interconnectedness of maternal, newborn, child, and adolescent health, based on an understanding of how provision of the best care and support in early life can lead to healthy progression into adulthood (45). Countries implementing the Global Strategy should also put in place measures to reduce the effect of the COVID-19 pandemic on children (46). This involves designing comprehensive child and adolescent health programmes based on epidemiological and demographic profiles and affordable resource levels (45).

5.4.4 Specific teaching themes and case studies

Reflect on this chapter's key messages and use critical pathways thinking to measure and understand maternal, newborn, child and adolescent health at (a) individual, (b) community, (c) national and (d) global levels. This should be guided by and oriented towards a common SDG framework.

Actions for women's, children's and adolescents' health

Maternal, newborn, child and adolescent health and well-being are influenced not only by individual attributes, but also by the social circumstances in which persons find themselves, their socioeconomic status, and the environment in which they live. These determinants interact with each other dynamically, and may threaten or protect an individual's state of health and well-being. Significant gains in the health of women, children and adolescents can also result from investments across the life course in sectors outside health (47). These include interventions and policies in education, nutrition, water, sanitation and hygiene, social protection and poverty reduction, child protection, labour, transport and energy. The primary health care system and people-centred community-based services can play a critical role in preventing illness and promoting, maintaining and restoring health and well-being. Health workers working in partnership can promote healthy lifestyles, prevent the onset or development of illness and health conditions through early identification and intervention, and provide the highest possible quality of care, treating all women, children and adolescents with confidentiality and respect, without exception. Actions on the social

determinants of health spanning clinical and non-clinical services will aim to:

- provide safe and accessible water sources and ensure clean air in order to improve women's, children's and adolescents' health and well-being;
- improve infrastructure, such as access to roads, and ensure universal access to essential health interventions and lifesaving commodities;
- prioritize services for women, children and adolescents in primary health care investment and action plans towards achieving universal health coverage of essential interventions;
- invest in integrated services to support child and adolescent health and development and work across sectors in a coordinated way;
- promote women's empowerment through education and invest in women's health, which will benefit not only current but also future generations;
- protect women, children and adolescents from violence and discrimination, including through identifying the root causes of exclusion, discrimination and deprivation, such as inadequate civil registration and vital statistics systems;
- strengthen inclusive community action that recognizes the roles of different groups, involving community and political leaders and planners, civil society organizations, community and faith-based leaders, and traditional birth attendants in dialogue, participatory learning and action;
- ensure women and girls can fully participate in society by involving women, children and adolescents and the organizations that support them in decision-making on services and programmes that affect their health and well-being;
- promote supportive attitudes from health workers for engaging men and boys in services, including by providing space for male partners in health facilities, and involving men and boys in health promotion, planning and accountability.

Policies in the health system

Differences in exposure and vulnerability, and the social, economic and health consequences, may be further amplified by health systems providing services that are not appropriate to or less effective for certain population groups or disadvantaged people compared to others. It is beneficial to examine the health system, including the health sector (governance, financing, regulation and resources) and the delivery of health services and programmes aimed at improving the health, nutrition and development of the population. In doing so, the following questions may be asked:

- How might out-of-pocket payments impact the access to services and therefore the health outcomes of this mother and her child, and the social and economic consequences of ill-health?

- How might the quality of care delivered in health services motivate, or deter, clients from seeking care?
- How well do health care workers in health facilities coordinate with their colleagues in the community and is there a continuum of care?
- Is there a safe environment for health care workers without gender discrimination?
- How well are communities supported to establish clean, safe and secure environments, with clean water, adequate sanitation, clean air, and waste disposal facilities?
- What assets does the community have that can be used to support children's healthy growth and development, for example quality day care facilities for working women?
- Are there safe places for children and adolescents to play and recreate?

Appropriate strategies for maternal, newborn, child and adolescent health and well-being should address the social determinants of health alongside access to, quality of and coverage of essential interventions and services. It has been acknowledged that the wider social determinants of health play a significant role in the health and well-being of children and adolescents. Children and adolescents face numerous environmental, commercial and social challenges in their families, schools and communities, such as intentional and unintentional injury and exposure to second-hand smoke and indoor air pollution. Thus, the health sector alone is insufficient to provide the necessary support to ensure that they thrive (48).

Examples of roles and actions in education and practice

Examples of roles and actions in education and practice for maternal, newborn, child and adolescent health are as follows.

- Training at the individual level should enable health workers to play an active role in early childhood development, and to work with teachers (for example) to support health literacy in primary and secondary education.
- Training at the community level should be reoriented from an acute and episodic care model to a chronic and preventive care model, for example by building the capacity of health service providers to provide adolescent-friendly reproductive health services targeting adolescents in the community with known at-risk behaviours.
- Training at the global, regional and national levels should enable health workers to participate in multisectoral policy development that addresses poverty and hunger, education and lifelong opportunities for learning, and gender equality. For example, poverty reduction could be targeted through the use of child- and gender-sensitive cash transfer programmes designed with a health sector

input, and measures that prioritize enhanced food security in communities with a high mortality burden.

- Poor quality of care in health services is a major contributor to preventable global mortality across different age groups and conditions. Too few services provide integrated people-centred care that is of high quality and enables a positive client experience. Investing in national quality of care policies and systems and building local capabilities for continuous quality monitoring and improvement in health services is essential worldwide.

Tips for creating an adolescent-competent workforce

- Create a common understanding of the importance of investing in an adolescent-competent workforce among key players, such as ministries of health, education and youth, the national board of licensing and certification, curricular development agencies, professional associations, and civil society organizations.
- Define core competencies in adolescent health and development in line with WHO core competencies for adolescent health and development for primary care providers.
- Create and implement competency-based training programmes with an adolescent health component in pre-service and continuing professional education. To inform the development of such programmes, assess the structure, content and quality of the adolescent health component of existing pre-service curricula at key educational and training institutions. Identify opportunities to strengthen the adolescent health component. The WHO tool to assess the adolescent health and development component in pre-service education may inform this process.
- Establish a mechanism to consult health care providers on their training and education needs in adolescent health care, and make sure education and training programmes are aligned with those needs. Facilitate providers' access to online free-of-charge courses.
- Contribute to setting up a system for supportive supervision of adolescent health care, and provide collaborative learning opportunities as a key strategy to improve providers' performance.

Practical investigation of maternal and child health: steps to take in clinical practice

1. A woman attends your clinic with a child who you think exhibits signs of stunted growth. Which individual attributes, social circumstances and environmental factors could increase development complications? An entry point might be to consider the behavioural and biological factors, and their risk factors.
2. What are this woman's circumstances? and how might these present challenges to or prevent her participating in maternal, newborn, child and

adolescent health interventions or accessing other supportive programmes? Consider how these factors might increase her risk and her child's risk of adverse health outcomes later in life.

3. Are there other individuals and groups you know in the community who may be particularly susceptible to experiencing similar problems?
4. How can you act to address the differential exposure to the risks and hazards, and the differential vulnerabilities and capabilities, in avoiding or protecting against harms and risk from exposure,

and the differential consequences related to this woman and others like her in the community?

5. Refer to the sections in Chapter 4 on intermediary and structural determinants. Undertake an audit of clinical practice, providing information to track progress and ensure effective remedy at facility and community levels. Keep in mind that health inequity denotes differences in health outcomes that are systematic, avoidable and usually unjust.

Boxes 5.8, 5.9, 5.10 and 5.11 provide case studies to illustrate the points raised in this section.

Box 5.8

Case study: Sri Lankan primary health care approach and maternal health disparities

The Alawwa Health Project (11) was initiated with the goal of addressing health inequalities in Alawwa division, Sri Lanka, through coordinated action on social determinants of health and revitalization of the primary health care approach. Measures undertaken include:

- identifying the disparities and inequalities in health service delivery and utilization and health outcomes, particularly in relation to noncommunicable diseases, malnutrition, tobacco use and harmful use of alcohol;
- analysing the social determinants that have caused these disparities (income, education, gender, social exclusion), and determining the potential areas and pathways for intervention;
- introducing Health in All Policies in the primary health care model at policy and implementation levels in order to reduce and mitigate the inequalities caused by social determinants.

The project is located in the Alawwa divisional secretariat area of Kurunegala district in North Western Province, Sri Lanka. It is a rural area with an economy primarily based on agriculture, especially paddy and coconut cultivation. Poverty is a major problem in the area; despite land ownership by the community, there is little proper land development. Initially, 15 consenting villagers from each village are requested to attend a meeting with the area public health midwife, the fieldworker primarily in charge of maternal and child health, to form a committee that would coordinate health promotion activities in the village. Other villagers are also invited to join at any time if they so wish. This group then identifies problems they perceive as important. The problems are analysed and suitable solutions are worked out, considering the resources available and the advice of the medical office of health staff.

Village-level activities are spearheaded by the grama niladhari (village head), public health midwives, agriculture extension officers, teachers and religious leaders. At this level, emphasis is placed on the implementation of policies that support and promote health, and on the identification and resolution of health inequalities. Other elements of the project include home gardening (for income and nutrition) and first aid training for schoolchildren.

Box 5.9

Case study: Namibia programme to reduce maternal and child mortality

In 2013, WHO, in partnership with the Namibian Ministry of Health and Social Services and the European Union, launched the Programme for Accelerating the Reduction of Maternal and Child Mortality, building on earlier efforts to address maternal and child mortality in the country (49). Several measures were introduced by WHO, including the following.

- **Community mobilization.** This was carried out in all six targeted districts to improve awareness and skills in maternal, child and adolescent health and nutrition. This was achieved by training and deployment of health extension workers in the community, as well as through increased communication messages in the respective areas.
- **Capacity-building.** Health workers' capacity was also developed through training and capacity strengthening and the development of tools to guide planning and prioritization. The management teams and over 2000 health providers, including doctors, nurses and community providers, were beneficiaries of respective trainings in advanced midwifery, obstetric surgery, anaesthesia, sonography, emergency obstetric and neonatal care and lifesaving skills, and maternal, child and adolescent health and nutrition to improve care in health facilities and the community.

In 2019, a review of the data showed that the Programme for Accelerating the Reduction of Maternal and Child Mortality had contributed to a reduction in the maternal mortality ratio from 266 per 100 000 live births in 2010 to 195 in 2017 (50).

Box 5.10

Case study: baby-friendly hospitals boost breastfeeding in New Zealand

More than 8 out of 10 newborns in New Zealand today are exclusively breastfed, compared with just over half in 2000. This success is largely down to the country's efforts to ensure its maternity services are "baby friendly", using criteria set out in the WHO/UNICEF Baby-Friendly Hospital Initiative (51). Countries are called upon to fulfil the following responsibilities in line with the preferences of their health systems to provide good maternal and child health:

1. establish or strengthen a national breastfeeding coordination body;
2. integrate the ten steps of the Baby-Friendly Hospital Initiative into relevant national policy documents and professional standards of care;
3. ensure the competency of health professionals and managers in implementation of the ten steps;
4. utilize external assessment systems to regularly evaluate adherence to the ten steps;
5. develop and implement incentives for compliance with the ten steps;
6. provide technical assistance to facilities that are making changes to adopt the ten steps;
7. monitor implementation of the initiative;
8. promote the Baby-Friendly Hospital Initiative with relevant audiences;
9. identify and allocate sufficient resources to ensure the ongoing funding of the initiative.

Case study: data collection helps policy-makers devise prevention strategies to improve adolescent health in France

The Health Behaviour in School-aged Children (HBSC) is a WHO collaborative cross-national study of adolescent health and well-being. The survey, administered in schools, is undertaken every four years using a questionnaire for 11-, 13- and 15-year-olds. Recently, researchers working on adolescent health in France merged the HBSC with another survey – the European School Project on Alcohol and Other Drugs (ESPAD) – with the aim of improving the collection of public health data on young people and providing more accurate data on which to build policies (52). The new survey – called EnCLASS, according to its French acronym – will provide better information (in line with the original HBSC vision) at national, regional and international levels to:

- gain new insight into young people's health and well-being
- understand the social determinants of health
- inform policy and practice to improve young people's lives.

Results from EnCLASS have contributed to the government's national drug prevention plan for 2018–2022. The initiative is a testament to how collaborative data solutions can help streamline and improve evidence gathering for adolescent health.

5.5 Tuberculosis

5.5.1 Synopsis

Tuberculosis (TB) is the top infectious disease killer in the world. It is a disease of poverty that can also worsen poverty for the individual and the household while stifling economic growth.

The WHO End TB Strategy 2016–2035 has set very ambitious targets in line with the SDGs (53). It focuses attention on the social determinants of health and social protection. The main goal is to end the global TB epidemic.

5.5.2 The problem

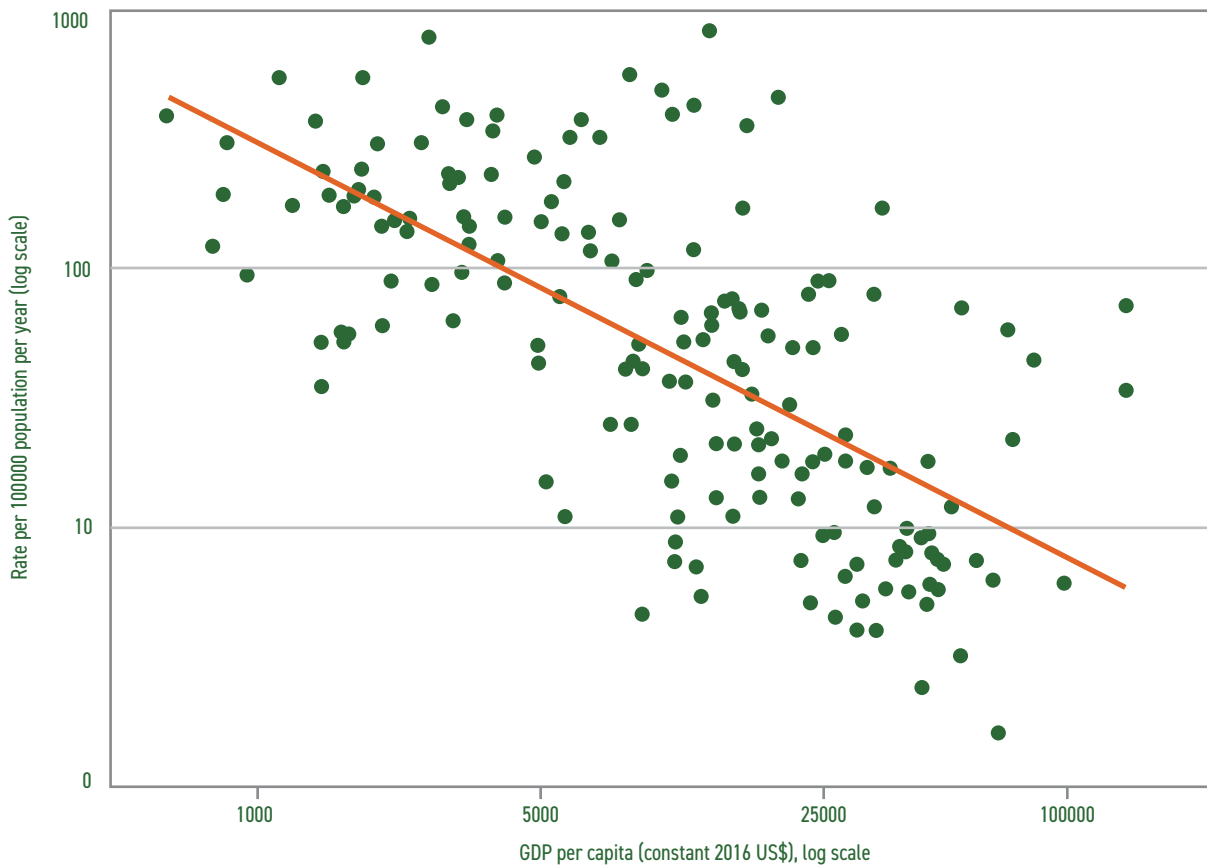
In 2016, an estimated 1.7 million people died from TB, or almost 4500 per day. TB is the fifth most common cause of death globally, and is the single infectious disease that kills the most people every year. Over 10 million people fall ill with TB annually. Many of them, and their families, experience social and economic devastation. TB is an infectious airborne disease caused by the bacterium *Mycobacterium tuberculosis*. But it is also a social disease. TB thrives in poverty. The national incidence of TB is strongly correlated with national income levels (Figure 5.5).

Key messages for learners and educators

TB is a social disease that thrives in poverty. It is essential to address underlying TB determinants in order to control and eliminate the disease. TB often leads to both physical suffering and social and economic hardship. Equitable access to good clinical care must be combined with social and sometimes financial support to patients. Health workers can take the actions summarized in the following key messages.

- **Message 1.** Understand the social context and identify TB risk factors as part of clinical management of the patient in front of you; tailor support to the patient's needs and help the patient navigate existing social protection schemes.
- **Message 2.** Help uncover access barriers and provide suggestions on how to address those.
- **Message 3.** Identify and communicate social determinants that need to be addressed through a whole-of-society approach.

Figure 5.5 Association between GDP per capita and TB incidence, for 170 countries



Source: Global tuberculosis report 2016 (54).

In all societies, the poor and vulnerable face particular risks along the whole disease continuum, including:

- risk of TB exposure and infection
- risk of developing active and severe TB disease
- risk of not accessing health services in time
- risk of falling out of TB treatment
- risk of death due to TB
- risk of long-term medical, social and economic consequences of TB.

Improved TB diagnosis and care has helped save 53 million lives since 2000. Early and effective cure of TB also helps reduce transmission. The global incidence of TB is declining, but very slowly, at about 1.5% annually. Economic development coupled with strengthened health systems and improved TB diagnosis and treatment has helped several countries to achieve a more rapid incidence decline.

■ The economic burden of TB for patients often worsens their socioeconomic situation and thus risks putting them and their families into a vicious circle that increases future risk of both TB and other diseases.

However, TB incidence is determined by several factors. About a quarter of the world’s population are already infected with TB bacilli. For these populations, it is essential to minimize the risk of progression to active TB (which happens on average for about 10% of those who are infected, while for persons with weak immune systems – for example, those with HIV/AIDS, undernourished persons or people with diabetes – the risk is much higher). Prevention of TB is thus a matter of both good clinical care for people with TB and addressing the underlying determinants for those at risk.

5.5.3 Why act now?

The WHO End TB Strategy has set very ambitious targets in line with the SDGs. The main goal is to end the global TB epidemic, defined as reaching a global TB incidence of less than 10 per 100 000, which is equivalent to a 90% reduction over the next 20 years. In effect, this target means bringing the global TB rates down to the level seen today in lowest-incidence countries (53).

The WHO End TB Strategy puts a very prominent focus on addressing social determinants. In doing so it is

directing the message of TB care and prevention to new audiences. The strategy is a platform to accelerate the progress made through the health-related Millennium Development Goals and puts women, children and adolescents at the heart of the new United Nations SDGs.

Dramatically improving equitable access to high-quality TB diagnosis, care and prevention is a centrepiece of the WHO End TB Strategy. This will require a massive effort on all fronts, particularly to address TB in the poorest and most vulnerable groups. However, better health care will not be enough. At the same time, the conditions that are causing poverty and vulnerability need to be addressed by dealing with the underlying social determinants. This responsibility is typically undertaken by ministries of health, national TB programmes and health workers. The WHO End TB Strategy, within the context of the 2030 Agenda for Sustainable Development, sets the stage for multisectoral action to end the global TB epidemic. This can be achieved through engagement of all government sectors, nongovernmental organizations and civil society – especially those that are engaged in social development.

The shortfall in TB funding remains one of the main reasons why progress is not fast enough to be on track to reach the targets of the End TB Strategy. The sustainable development agenda puts the onus of development on countries. More domestic funding is needed in middle-income countries, and more international donor support is needed to support low-income countries. Each country needs to own its agenda. For people providing care for TB patients, this means understanding the disease in its social context and mapping out the social conditions that put people at risk of developing diseases and having poor treatment results.

5.5.4 Specific teaching themes and case studies

Reflect on this chapter's key messages and use critical pathways thinking to measure and understand TB at (a) individual, (b) community, (c) national and (d) global levels. This should be guided by and oriented towards a common SDG framework.

Thinking upstream and defining a whole-of-society agenda

Societies that have experienced broad socioeconomic development have seen substantial reductions in TB rates. Poverty alleviation has historically made the main contribution to the reduction in TB rates in countries that now have a low TB burden. However, economic growth alone is not a guarantee of rapid decline in TB. Unequal wealth distribution, where large parts of the population are left behind, leaves fertile ground for a sustained TB burden. Also, not all economic development is of benefit to the fight against TB. Industrialization with rapid urbanization increases population density and is

often coupled with rapid growth of urban deprivation and overcrowded slums. Dramatic lifestyle changes in emerging economies, such as increasing smoking and alcohol use and changes in diet and exercise, can have a negative impact on TB rates via an increase in noncommunicable diseases, which act as risk factors for TB. In most societies, the poorest are the worst affected by these risk factors and diseases, which are sometimes erroneously labelled “welfare diseases”.

Society-level actions required for effective TB prevention, for which the government is ultimately responsible, include the following:

- economic growth with fair wealth distribution;
- universal health coverage, with equal access for all;
- universal social protection, including sickness insurance;
- environmental protection, especially in certain industries, such as mining;
- building codes for architectural design conducive to infection control (homes, schools, health facilities, prisons, institutions for elderly persons);
- good urban planning, with slum upgrading;
- effective and safe energy and cooking devices that minimize pollution;
- public health programmes that reduce diabetes, smoking, and harmful alcohol use.

Examples of roles and actions in education and practice

Examples of roles and actions in education and practice for TB are as follows.

- Training at the individual level should raise the understanding of clinicians, social care workers and community health workers of the barriers to TB treatment adherence and positive health outcomes and how these might be addressed, for example through social mobilization, awareness campaigns and community empowerment.
- Training at the community level should enable interdisciplinary teams to reduce access barriers to quality diagnosis and care for TB and TB co-morbidities and help provide patient support.
- Training at the global, regional and national levels should adopt a Health in All Policies approach in advocating consideration of TB when developing pro-poor social policies, for example in the areas of urban planning and public health.

Addressing the social determinants, treatment and care of people living with TB

Poverty is a powerful determinant of TB. The crowded and poorly ventilated living and working environments often associated with poverty constitute direct risk factors for TB transmission. Undernutrition is a major risk factor for developing active disease. Poverty is also associated with poor general health knowledge and a

lack of empowerment to act on health knowledge, which leads to risk of exposure to several TB risk factors, such as HIV, smoking and alcohol abuse.

Poverty alleviation reduces the risk of TB transmission and the risk of progression from infection to disease. It also helps to improve access to health services and adherence to recommended treatment. Actions on the determinants of ill-health through a Health in All Policies approach will immensely benefit TB care and prevention. Some of the actions are within reach for health workers, such as ensuring early diagnosis and good patient support. Other actions are the responsibility of sectors outside health, and the primary role of health workers is to act as advocates for patients and people at risk. This should be part of the job description for health workers.

“Health workers are the natural attorneys of the poor” – Rudolph Virchow

Definitions, facts and figures

TB is caused by a bacterium (*Mycobacterium tuberculosis*) that most often affects the lungs, and is spread from person to person through the air. The disease is curable and preventable. When people with lung TB cough, sneeze or spit, they propel the TB germs into the air. A person needs to inhale only a few of these germs to become infected. About one fourth of the world’s population has latent TB, which means people have been infected by TB bacteria but are not (yet) ill with the disease and cannot transmit the disease. People infected with TB bacteria have a 10% lifetime risk of falling ill with TB. However, persons with compromised immune systems, such as people living with HIV, malnutrition or diabetes, or people who use tobacco, have a much higher risk of falling ill.

Addressing the needs of vulnerable populations at risk of TB

The WHO End TB Strategy is a blueprint for countries to end the TB epidemic by driving down TB deaths and incidence and eliminating catastrophic costs. It outlines global impact targets to reduce TB deaths by 90%, to cut new cases by 80% between 2015 and 2030, and to ensure that no family is burdened with catastrophic costs due to TB. It sets interim milestones for 2020, 2025 and 2030.

“While the world has committed to ending the TB epidemic by 2030, actions and investments don’t match the political rhetoric. We need a dynamic, global, multisectoral approach” – Dr Tedros Adhanom Ghebreyesus, Director-General, WHO

Childhood TB

The full extent of the incidence of TB in children is not fully known. According to WHO estimates, 253 000 children died of TB in 2016, including 52 000 deaths among children who were HIV-positive, and 1 million children became ill with TB. However, the actual burden of TB in children is probably higher, given the challenge of diagnosing childhood TB.

World TB Day

Each year World TB Day is commemorated on 24 March to raise public awareness about the devastating health, social and economic impacts of TB and urge acceleration of efforts to end the global TB epidemic. Ending TB will only be achieved with greater collaboration within and across governments, and with partners from civil society, communities, research entities, the private sector and development agencies. This means taking a whole-of-society and multidisciplinary approach, in the context of universal health coverage.

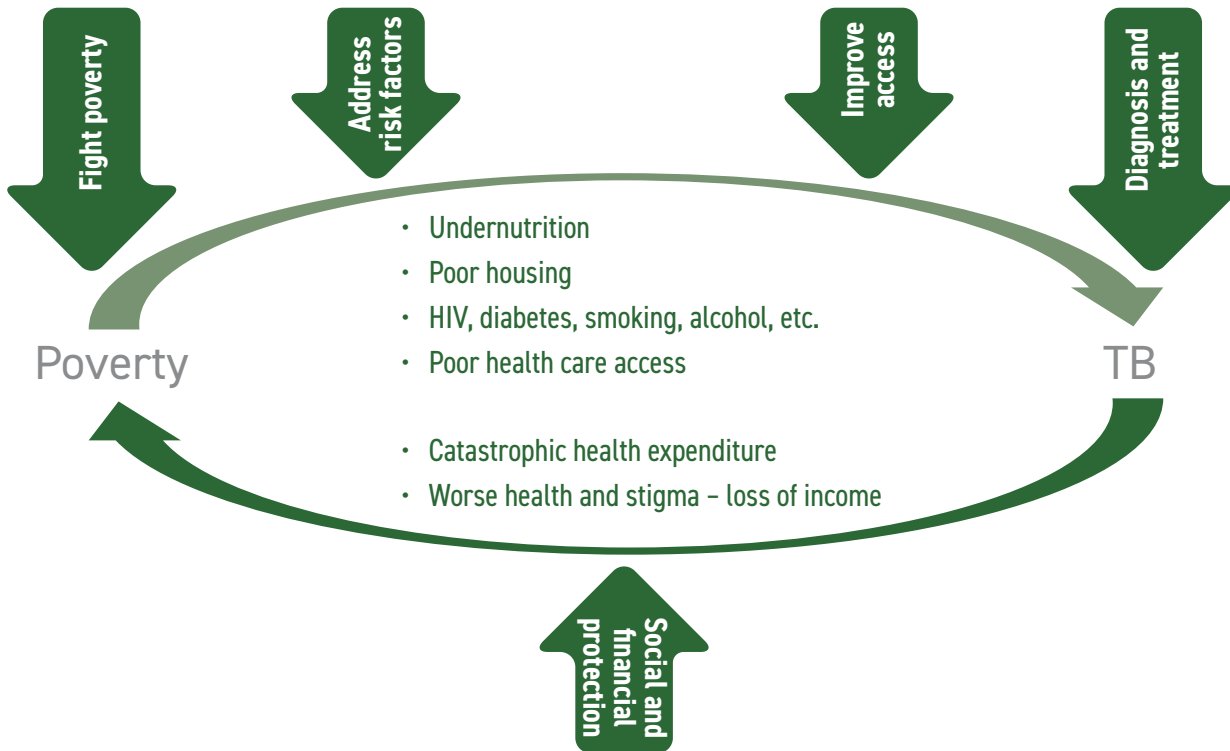
Several countries are strengthening the strategic agendas of their TB programmes by adopting newer tools, extending access to care and linking with other parts of government to reduce the financial costs borne by patients. Other countries are partnering with researchers to speed development of diagnostic tests, drugs and vaccines, and to improve delivery. Despite this progress formidable challenges remain, including fragile health systems, human resource and financial constraints, and the serious co-epidemics with HIV, diabetes and tobacco use.

Understanding the vicious circle of TB and poverty

Underfunded or poorly organized health systems are often not equipped to ensure equitable access to high-quality TB diagnosis and treatment. The poorest and most vulnerable groups in any given society face the most severe barriers to access and adherence to diagnosis and treatment. They also have particularly high risk of suffering the severe financial and social consequences of TB. Households that are affected by TB often incur catastrophic costs due to the disease, especially in societies that also have weak social protection mechanisms.

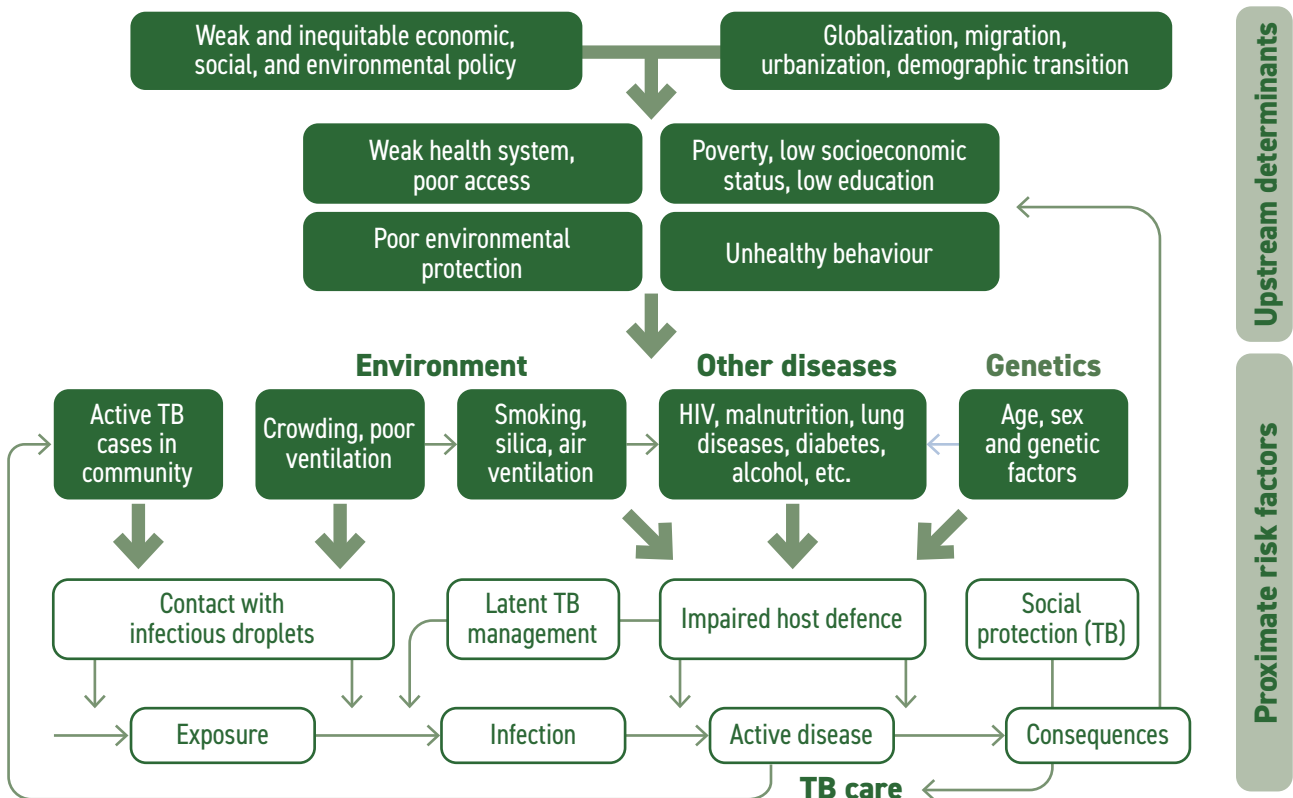
While poverty is a cause of TB, TB is also a cause of poverty. This vicious circle plays out at individual, household and community levels. As such, TB is a prime example of the devastating effects of the disease-poverty trap (Figure 5.6).

Figure 5.6 TB and poverty vicious circle, and how it can be broken



Source: World Health Organization own compilation.

Figure 5.7 Theoretical framework for upstream and downstream TB risk factors



Source: Lönnroth et al. (55).

The link between TB and poverty can be explained on many levels (Figure 5.7). For example, poor nutrition increases the risk of TB substantially. Poor living conditions, especially crowded and poorly ventilated dwellings and institutions, increase the risk of transmission of this airborne disease. Indoor air pollution from biomass fuel used in low-quality stoves damages airways and increases TB risk.

People working in certain unsafe occupational environments have high risk of TB, such as workers

in mines with poor dust control, or health workers in health facilities with poor infection control standards. A range of socially determined medical conditions and risky behaviours weaken people's immune systems and provide the opportunity for TB bacilli to cause severe disease, including HIV/AIDS, diabetes, silicosis, alcohol or substance abuse, and several lung conditions related to smoking, leading to possible death.

Box 5.12 presents a case study from Kenya on improving social care for TB patients.

Box 5.12

Case study: improving social care for TB patients by building on existing social protection policies in Kenya

The new Kenyan Constitution, adopted in 2010, guarantees social protection measures. In 2012, the Government of Kenya issued a new Social Protection Policy, and in 2014 created a National Social Protection Secretariat in its Ministry of Labour. A national conference on the theme was held in 2015 and a cash transfer system for specific groups was expanded. This momentum also impacted the health sector positively.

The Health Sector Strategy 2014–2018 explicitly addresses social protection, including removing financial barriers to health services. In 2015, the National Tuberculosis, Leprosy and Lung Disease Programme, aligning with these efforts and the End TB Strategy, finalized its next strategic plan, including actions to reduce the financial burden of TB care and the burden beyond medical costs, such as transport, lost income and nutritional needs. This work builds on underlying mapping and analysis of different forms of social support currently provided to some drug-sensitive TB patients, those determined to be moderately or severely malnourished, and drug-resistant TB patients.

Three innovations were planned to advance social protection for those affected by TB:

- formulating a proposal to support households affected by TB and leprosy through the cash transfer programme, given underlying disability and vulnerability;
- linking the TB data system and the single registry system of the National Social Protection Secretariat to ease application of wealth-related eligibility criteria in line with other social protection schemes;
- additional links with the World Food Programme system and hotline to further enable patient-responsive support.

5.6 Diabetes

5.6.1 Synopsis

Of the world's adult population, 8.5% has diabetes, a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. Over time, uncontrolled diabetes results in persistent hyperglycaemia or raised blood sugar, which leads to serious damage to many of the body's systems, especially the nerves and blood vessels. Other effects include an increased risk of blindness, renal failure, amputation and cardiovascular disease, with a possible reduction of average life expectancy of 10 or more years.

Addressing noncommunicable diseases, including diabetes, is an acknowledged priority for social development and investment in people. Actions to prevent and control noncommunicable diseases will need to address and take action on the underlying social

determinants. Health outcomes, including those for diabetes, cannot be achieved by taking action in the health sector alone. This offers an opportunity to work with other sectors as part of convergent and mutually reinforcing actions for diabetes prevention and management.

Key messages for learners and educators

- **Message 1.** Work with others in the health and social sector to provide a continuum of care needed for control of diabetes and its complications, and improve well-being and quality of life.
- **Message 2.** Improve food environments to promote healthy food options and engage in partnerships to change urban infrastructure to promote physical activity, and measure the health and economic impacts of these interventions.
- **Message 3.** Promote and adopt a cross-sectoral approach to advocate change in public policy, including transport and urban planning.

5.6.2 The problem

Types and incidence of diabetes

Currently, 70% of people with diabetes live in low- and middle-income countries, and while diabetes is increasing the world over, its greatest increase has occurred in those countries, more than doubling since 1980. There is strong social patterning in the incidence of type 2 diabetes, which accounts for over 90% of all diabetes. This arises through differential exposure to obesogenic environments, leading to lower levels of physical activity and the consumption of excess calories. The incidence of type 1 diabetes, the etiology of which is not well understood, is not socially patterned. The outcomes and consequences of both type 1 and type 2 diabetes tend to be worse in the poor in all countries. Figures from WHO show that the number of people with diabetes has grown steadily, nearly quadrupling from 108 million in 1980 to 422 million adults in 2014 (56), which is 1 in 11 adults around the world. The trend shows no sign of reversing or stopping, even though regular exercise and healthy eating, supposedly simple interventions, would attenuate the rise in diabetes.

Within low- and middle-income countries, but not in high-income countries, the prevalence of diabetes tends to be higher in urban than in rural areas, largely due to greater levels of obesity and physical inactivity in urban areas (57). There is also evidence from a variety of settings that the prevalence and incidence of type 2 diabetes is related to socioeconomic position within a country. In most high-income countries the prevalence and incidence are inversely related to socioeconomic position, with the highest prevalence in those of lowest socioeconomic position (58–64). Examples from low- and middle-income countries show a different picture, with a higher prevalence in groups of higher socioeconomic status (65, 66), though it is likely that the impact of diabetes is greatest in the groups of lower socioeconomic status. There is little evidence that the incidence of type 1 diabetes varies by socioeconomic status, and for this reason only type 2 diabetes is considered in examining the social determinants of the distribution of diabetes. However, for anyone who has diabetes, type 1 or type 2, its impact is strongly related to socioeconomic status, as the subsections on differential vulnerability and impact show.

Societal and environmental determinants of obesity and type 2 diabetes: economic development, urbanization and globalization

Human and economic development evolves at different rates in different countries and populations, but generally involves the same major themes:

- mechanization, urbanization and the way towns and cities are organized;

- changes in the type of work we do and the way we work;
- changes in the way we produce, process and consume our food.

Certain groups, such as people of South Asian origin, are more prone to type 2 diabetes given the same level of risk factors, and are therefore at increased risk when their way of life becomes more urbanized and mechanized, such as through migration or economic development. The changing living and physical activity patterns associated with urbanization and other aspects of globalization strongly promote other factors that directly contribute to the risk of obesity, diabetes and other noncommunicable diseases. The trend towards increased consumption of energy-dense foods, high in saturated fat, sugar and salt, that is associated with urbanization in the vast majority of low- and middle-income countries has been referred to as the “nutrition transition” (67, 68).

Figure 5.8 presents an overview of diabetes-related pathways.

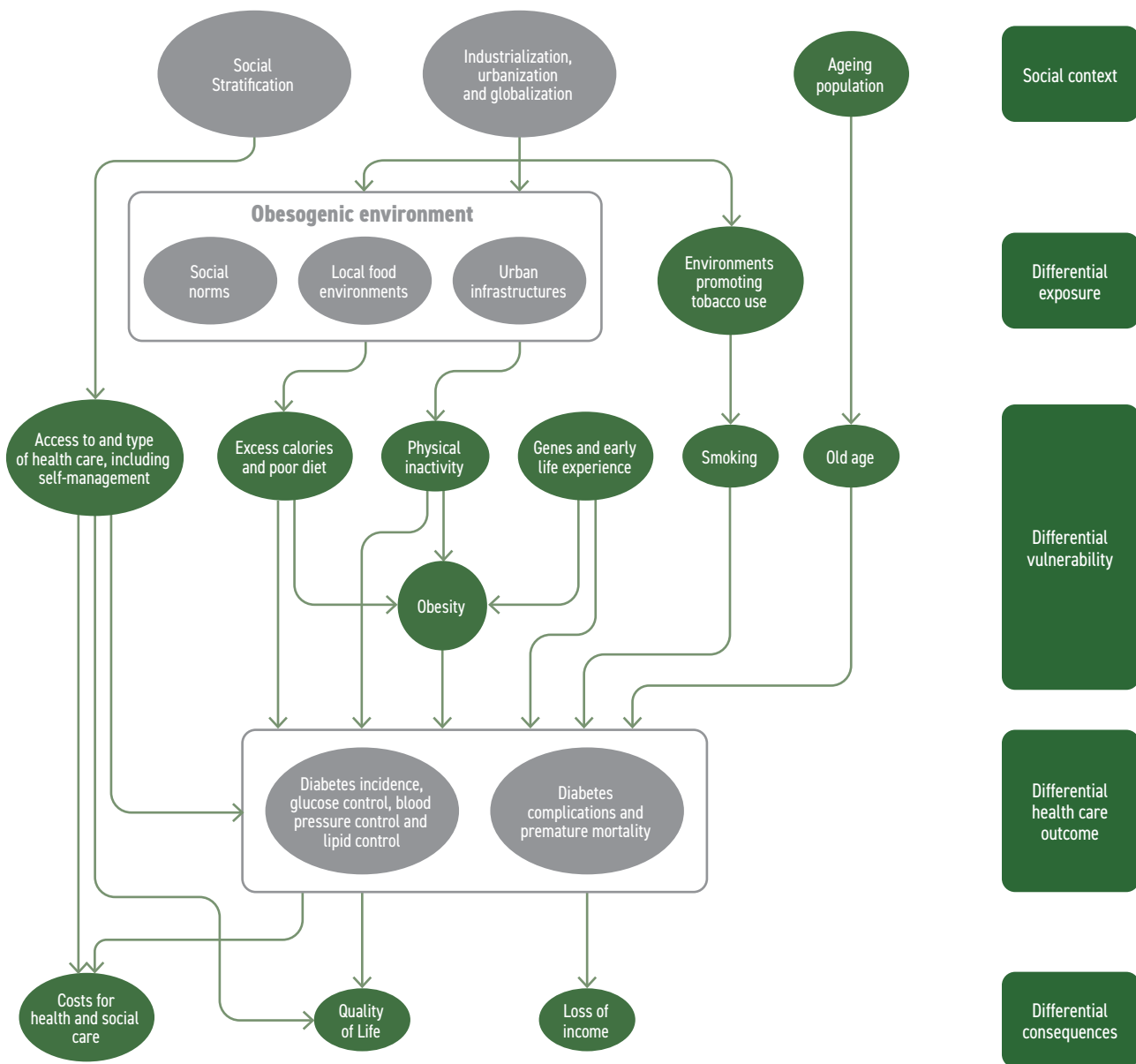
The evidence base for the prevention of type 2 diabetes and the prevention of complications in all types of diabetes is relatively strong. However, evidence on how to intervene to reduce socioeconomic inequalities in diabetes incidence, outcomes and consequences is much less comprehensive. For example, access to essential medicines and technologies appears to be a key obstacle to diabetes management, particularly in low- and middle-income countries. In many countries, lack of access to affordable insulin remains a key impediment to successful treatment and results in needless complications and premature deaths. The diabetes epidemic is rapidly increasing across the world, with the documented increase most dramatic in low- and middle-income countries. A large proportion of diabetes cases are preventable.

5.6.3 Why act now?

The 2030 Agenda for Sustainable Development, adopted at the United Nations Summit on Sustainable Development in 2015, recognizes noncommunicable diseases as a major challenge for sustainable development. Addressing noncommunicable diseases, including diabetes, is an acknowledged priority for social development and investment in people.

Actions to prevent and control noncommunicable diseases will need to address underlying social determinants. Health outcomes, including those for diabetes, cannot be achieved by taking action in the health sector alone. This offers an opportunity to work with other sectors as part of convergent and mutually reinforcing actions for diabetes prevention and management, and also supports the implementation

Figure 5.8 Overview of diabetes-related pathways



Source: Blas and Sivasankara Kurup (8).

of the 2030 Agenda for Sustainable Development as a whole. The Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020 (69) provides a roadmap and a menu of policy options for all Member States and other stakeholders to take coordinated and coherent action, at all levels, local to global, to attain the nine voluntary global targets, including that of a 25% relative reduction in premature mortality from cardiovascular diseases, cancer, diabetes and chronic respiratory diseases by 2025; and, by 2030, to reduce by one third premature mortality from noncommunicable diseases through prevention and treatment and promote mental health and well-being.

5.6.4 Specific teaching themes and case studies

Reflect on this chapter's key messages and use critical pathways thinking to measure and understand diabetes at (a) individual, (b) community, (c) national and (d) global levels. This should be guided by and oriented towards a common SDG framework.

Diabetes and the Sustainable Development Goals

Tackling diabetes is integral to the success of the overall response to noncommunicable diseases. In most countries, commitments made through the

SDGs to reduce premature noncommunicable disease mortality by a third by 2030 and to achieve universal health coverage will require focused attention on diabetes prevention and management. Guidance for effective diabetes prevention and control is set out in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020, and a reaffirmation of national commitments to address diabetes is found in the 2011 Political Declaration of the United Nations High-Level Meeting on the Prevention and Control of Noncommunicable Diseases (70) and the 2014 *Outcome document of the high-level meeting of the General Assembly on the comprehensive review and assessment of the progress achieved in the prevention and control of noncommunicable diseases* (71). The WHO Global Action Plan notes that noncommunicable diseases and their risk factors also have strategic links to health systems and universal health coverage, environmental, occupational and social determinants of health, communicable diseases, maternal, child and adolescent health, reproductive health and ageing. Strategies to address noncommunicable diseases need to deal with health inequities that arise from the societal conditions in which people are born, grow, live and work and to mitigate barriers to childhood development, education, economic status, employment, housing and environment. Upstream policy formulation and multisectoral action to address these social determinants of health will be critical for achieving sustained progress in prevention and control of noncommunicable diseases.

Addressing and taking action on the social determinants of health is prominent in the objectives of the Global Action Plan, as follows:

- Objective 3: To reduce modifiable risk factors for noncommunicable diseases and underlying social determinants through creation of health-promoting environments.
- Objective 4: To strengthen and orient health systems to address the prevention and control of noncommunicable diseases and the underlying social determinants through people-centred primary health care and universal health coverage.

A strengthened health system directed towards addressing noncommunicable diseases should aim to improve prevention, early detection, treatment and sustained management of people with or at high risk for cardiovascular disease, cancer, chronic respiratory disease, diabetes and other noncommunicable diseases, in order to prevent complications, reduce the need for hospitalization and costly high-technology interventions, and prevent premature deaths. Health systems also need to collaborate with other sectors and work in partnership to ensure social determinants are considered in service planning and provision within communities.

The 2016 *Global report on diabetes* (72) notes that “as the prevalence and numbers of people with diabetes

continue to rise as a result of changes in the way people eat, move and live, and an ageing global population, the already-large health and economic impacts of diabetes will grow”. These impacts can be reduced through effective actions. With sufficient lifelong management and regular follow-up, people with all types of diabetes can live longer and healthier lives. The occurrence of type 2 diabetes can be reduced through population-based and individual preventive measures that target key risk factors. Tackling diabetes is integral to the success of the overall response to noncommunicable diseases. In most countries, commitments made through the SDGs to reduce premature mortality from noncommunicable diseases by a third by 2030 and to achieve universal health coverage will require focused attention on diabetes prevention and management. Addressing noncommunicable diseases, including diabetes, is an acknowledged priority for social development and investment in people. Scaling up action for diabetes prevention and management within a wider response to noncommunicable diseases requires high-level political commitment, resources, and effective leadership and advocacy, both nationally and internationally.

Examples of roles and actions in education and practice

Examples of roles and actions in education and practice for diabetes are as follows.

- Training at the individual level should raise understanding of how race, place and poverty converge in a dynamic way to influence health, and how the intersection of these contextual influences needs to be taken into account in preventing diabetes.
- Training at the community level should strengthen social support and cohesion for better glycaemic control and improved quality of life, for example targeting historical redlining and zoning policies that are a root cause of the absence of supermarkets and fresh food markets in minority and lower-income neighbourhoods.
- Training at the global, regional and national levels should foster educational experiences encompassing multisectoral partnerships (for example, housing, education and justice) to promote diabetes health equity.

Role of actors in addressing the determinants of diabetes

The risk of acquiring type 2 diabetes and the management of diabetes are influenced not only by individual attributes, but also by the social circumstances in which persons find themselves, their socioeconomic status, and the environment in which they live. These determinants interact with each other dynamically, and may threaten or protect an individual's state of health and well-being. Health workers working in partnership can promote healthy lifestyles and prevent the onset or development of illness through early identification of and interventions for diabetes,

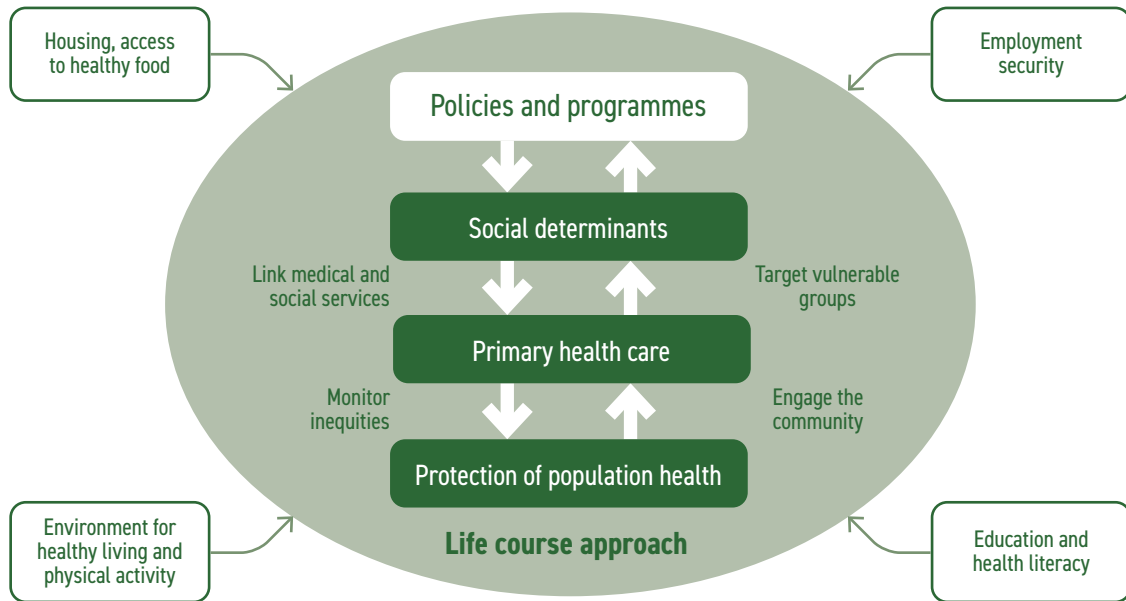
thus ensuring the quality and safety of treatment and management of diabetes.

Everyone has a role to play – governments, health care providers, people with diabetes and those who care for them, civil society, food producers, and manufacturers and suppliers of medicines and technology are all

stakeholders. Collectively, they can all make a significant contribution to halt the rise in diabetes and improve the lives of those living with the disease.

Figure 5.9 shows a public health model for the prevention and control of noncommunicable diseases, while Boxes 5.13 and 5.14 present relevant case studies.

Figure 5.9 Prevention and control of noncommunicable diseases: public health model



Source: Blas and Sivasankara Kurup (8).

Box 5.13 Case study: overcoming barriers to managing health in Caldwell County, Texas, United States

The Community Health Coalition was established in 2004 to improve access to and coordination of medical care for uninsured and low-income residents of Caldwell County, Texas, where nearly half of the population were living at or below the federal poverty level. The coalition was formed to address the county’s high rate of chronic preventable diseases, and diabetes in particular. Initially, the coalition focused on disease self-management, helping residents access prescription drug assistance programmes and bringing in primary care providers to alleviate gaps in health care access. However, the coalition shifted its focus from direct services to working on systemic, structural and environmental changes.

The coalition was aware of the social determinants that affected residents’ ability to manage their health. For example, it addressed transportation barriers by arranging home care visits, tackling those barriers on an individual rather than a systemic basis. The coalition organized a workshop that included exercises that helped clarify the root causes of poor health and disparities, while providing new tools for engagement and conversations about inequity in Caldwell County.

Source: American Public Health Association (73).

ProMedica, a large non-profit health care organization serving counties in north-western Ohio and south-eastern Michigan, collaborates with local and statewide organizations to source high-quality and efficient anti-hunger programmes for the community, raise awareness about food insecurity and combat hunger-related health issues.

ProMedica's collaboration in developing the "Come to the Table" advocacy initiative recognized the significant link between food insecurity, obesity and diabetes. This was made possible by the establishment of nutrition programmes and improved access to affordable food choices, in response to the priority health concerns identified in its continued community health needs assessment (74).

5.7 Mental health

5.7.1 Synopsis

Mental health and many common mental disorders are shaped to a great extent by the social, economic and physical environments in which people live. Half of all mental health conditions start by 14 years of age, but most cases are undetected and untreated (75). There is a considerable need to raise the priority given to the prevention of mental illnesses and promotion of mental health through action on the social determinants of health.

Action needs to be taken across the whole of society. While comprehensive action across the life course is needed, there is considerable scientific consensus that giving every child the best possible start will generate the greatest societal and mental health benefits. Effective actions to reduce risk of mental disorders throughout the life course, at the community level and at the country level, should include environmental, structural and local interventions. Actions aimed at enhancing protective factors and reducing risk factors will not only prevent mental disorders but are also likely to promote mental health in the population. Additionally, neurological disorders are an important cause of morbidity and mortality globally, and many neurological disorders are preventable. There are numerous shared social determinants that impact both brain and mental health, including access to perinatal care and to formal education, and exposure to social adversity, environmental pollutants, infections and traumatic injuries.

5.7.2 The problem

■ A state of mental health well-being is defined as a state in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.

Key messages for learners and educators

- **Message 1.** Mental health disorders are shaped by the social, economic and physical environments in which people live. Taking action to improve the conditions of daily life from before birth, during early childhood, at school age, during family building and working ages, and at older ages provides opportunities both to improve population mental health and to reduce the risk of mental disorders that are associated with social inequalities.
- **Message 2.** Information about social, economic and environmental stressors can be gained through the evidence base on social determinants and on mental health and brain health (76). Where evidence for a given context may be lacking, structured community engagement, including asking community members to identify sources of psychological distress in their neighbourhoods, can be considered. Participatory processes at the local level enable residents to identify solutions.
- **Message 3.** Neurological disorders include intellectual disorders, autism spectrum disorders, epilepsy, cerebrovascular diseases, headache disorders, Alzheimer disease and other dementias, and neuroinfections. Addressing social determinants is a valuable opportunity to promote brain health and prevent neurological disorders.

Mental disorders constitute a variety of presentations. Priority conditions have been identified by WHO on the basis of their prevalence and impact in low-resource settings and their capacity for intervention by non-specialist providers. Such conditions include depression, psychosis (including schizophrenia and bipolar disorder), epilepsy, childhood emotional disorders, dementia, alcohol use disorders, drug use disorders, self-harm and suicide (77). Globally, depression – a common mental disorder, with anxiety disorders also falling into

this category – affects an estimated 264 million people. An estimated 65 million persons experience psychosis (including schizophrenia and bipolar disorders). Over 700 000 people die by suicide globally every year, and the global age-standardized suicide rate was 9.0 per 100 000 population in 2019 (78).

Contributors to mental disorders are multifaceted, and multiple social, psychological and biological factors determine the level of mental health of a person at any point of time (Figure 5.10). Determinants of mental health and mental disorders include social, cultural, economic, political and environmental factors, including national policies, social protection, standards of living, working conditions and community support. Stress, genetics, nutrition, perinatal infections and exposure to environmental hazards are also contributing factors to mental disorders (79). Violence, financial pressure and unemployment are well recognized risks for mental health, in addition to rapid social change, stressful work

conditions, discrimination, social exclusion, unhealthy lifestyles, physical ill-health and human rights violations.

In turn, unaddressed mental disorders affect people in multiple domains of life, including individual well-being, physical health, relationships and employment. Importantly, stigma associated with mental disorders can result in (a) poor help-seeking behaviour; and, critically, (b) discrimination, human rights abuse, victimization and social exclusion. Many do not get access to the help, support and care that they could benefit from; they simply suffer in silence, or even in chains. This is compounded by the substantial treatment gap for mental disorders, whereby in low- and middle-income countries 76–85% of individuals with mental disorders do not receive treatment, and less than 2% of health budgets are allocated to mental health in countries, with the majority of funding in lower-resourced settings attributed to tertiary care.

Figure 5.10

Mental illness and the social determinants in a reinforcing cycle



Source: World Health Organization (80).

Mental disorders are inequitably distributed; people who are socially and economically disadvantaged bear a disproportionate burden of mental disorders and their adverse consequences. In countries around the world, a shift of emphasis is needed towards preventing common mental disorders such as anxiety and depression via action on the social determinants of health, as well as improving access to interventions through investment in service development and innovations such as digital mental health. Action is required since many of the causes of and triggers for mental disorder lie in social, economic and political spheres – in the conditions of daily life.

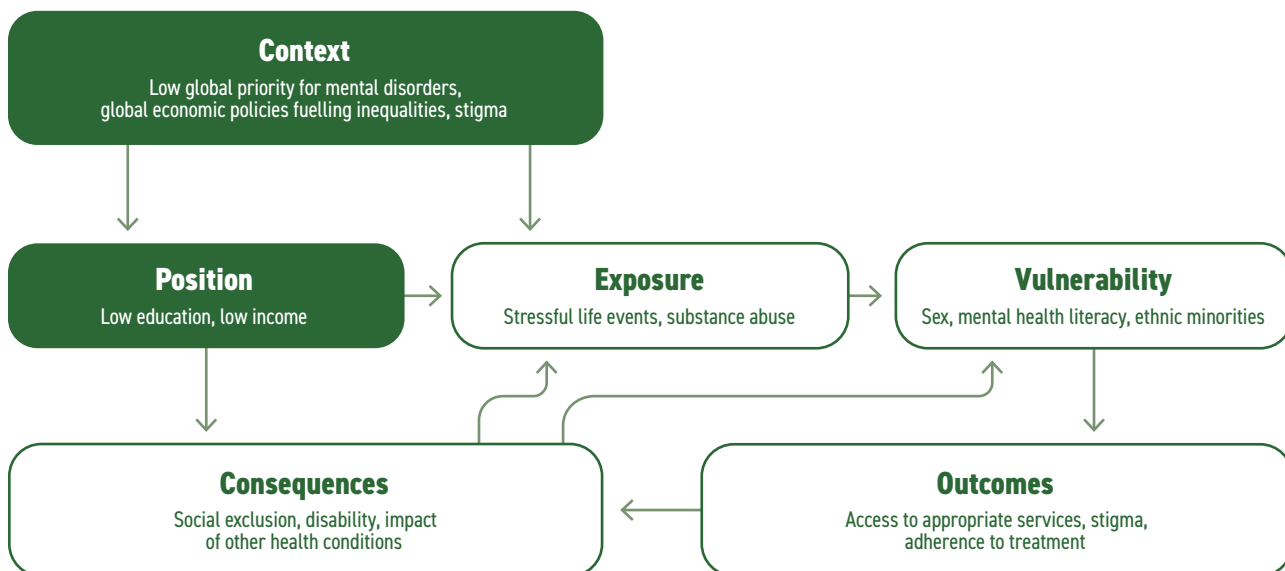
An understanding of social determinants is important for illustrating the potential for primary prevention, indicating areas in which biological and psychological treatments can be enhanced by interventions that address social determinants, such as socioeconomic interventions (81, 82); access to employment, for example, vocational support programmes (77); violence prevention, for example, gender-based violence programmes that target violence reduction (83); reducing work-related stress (84); banning highly harmful pesticides to reduce suicide mortality (85); and identifying target groups for prevention and care. Mental disorders and social determinants are considered to interact in a negative cycle. Using poverty as an example, not only is the risk of mental health conditions among

people who live in poverty higher, but so too is the likelihood that those individuals will drift into or remain in poverty. The same argument applies to discrimination, human rights abuse, violent victimization and social exclusion, which are far more likely to be experienced by people with mental health problems than those in the general population.

Accordingly, socially excluded populations, as well as people with mental disorders, constitute vulnerable groups requiring targeted social and financial protection or assistance. Figure 5.11 depicts the processes by which social determinants play such an important role in mental health.

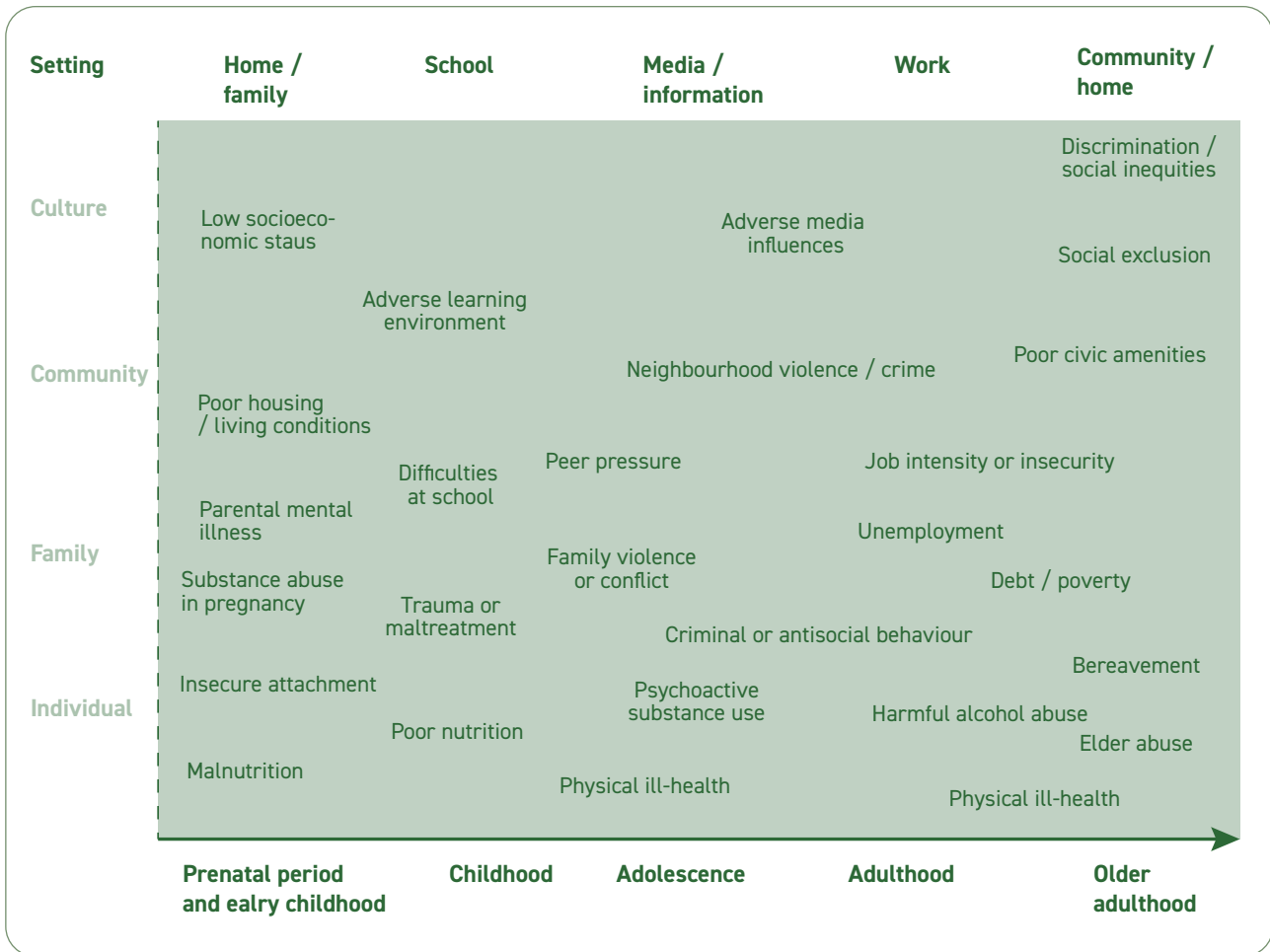
Analysis of exposure over the life course to social determinants shows that exposure to negative and positive determinants and processes accumulates over time, influencing epigenetic, psychosocial, physiological and behavioural attributes among individuals as well as social conditions in families, communities, and social groups, including gender dimensions (Figure 5.12). This accumulation of advantageous and disadvantageous determinants leads to social and economic inequities and consequently to inequitable mental and physical health outcomes. These processes are dynamic, in the sense that the accumulation of positive and negative influences takes place throughout life.

Figure 5.11 Interacting determinants, outcomes and consequences of mental health disorders



Source: Blas and Sivasankara Kurup (8).

Figure 5.12 Life course perspective on the social determinants of mental health



Source: World Health Organization and World Organization of Family Doctors (86).

5.7.3 Why act now?

Globalization in the economic, political, social, cultural, environmental and technological spheres has led to rapid changes in the configuration of societies, particularly in poorer countries, which have the weakest social welfare and public health systems. These rapid changes have led to a great increase in the number of people suffering from depression and anxiety (from 413 million in 1990 to 615 million in 2013). Furthermore, certain population subgroups are at higher risk of mental disorders because of greater exposure and vulnerability to unfavourable social, economic and environmental circumstances, interrelated with gender. Disadvantage starts before birth and accumulates throughout life. A significant body of work now exists that emphasizes the need for a life course approach to understanding and tackling mental and physical health inequalities. A life course approach proposes actions to improve the conditions in which people are born, grow, live, work and age.

5.7.4 Specific teaching themes and case studies

Reflect on this chapter's key messages and use critical pathways thinking to measure and understand mental health at (a) individual, (b) community, (c) national and (d) global levels. This should be guided by and oriented towards a common SDG framework.

Mental health in the United Nations Sustainable Development Goals

Within SDG 3, two targets are directly related to mental health and substance abuse:

- 3.4: By 2030, reduce by one third premature mortality from noncommunicable diseases through prevention and treatment and promote mental health and well-being;
- 3.5: Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

Community-level action

Action to support mental health at the community level provides a platform to develop and improve social norms, values and practices, while encouraging community empowerment and participation. Central to several community-based approaches is the realization of how change within a community is best achieved through engaging people of the community (Figure 5.13).

This change is brought about by efforts to improve key determinants of mental health, including a socially inclusive community, freedom from discrimination and violence, and access to economic resources. Country-level strategies are likely to have a significant impact on reducing mental health inequalities and have the greatest potential to reach large populations. A wide range of actions at the country level, including the alleviation of poverty and effective social protection across the life course, reduction of inequalities and discrimination, prevention of war and violent conflict, and promoting access to employment, health care, housing, and education, can have positive benefits for mental health. In formulating interventions, particular emphasis

should be given to policies in areas that have strong associations with mental disorders and have a clear social class gradient:

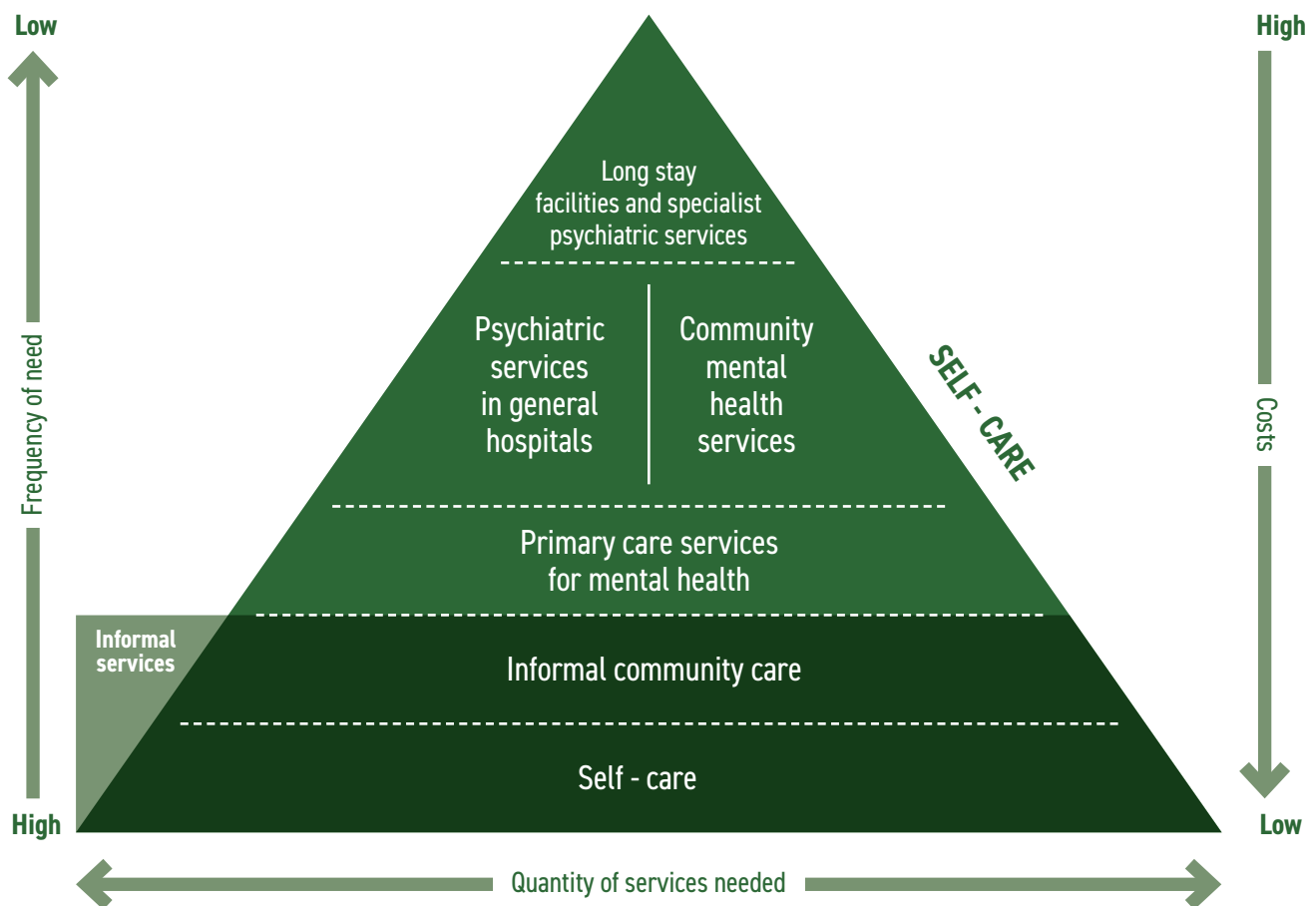
- treatment of maternal depression;
- early childhood development;
- targeting families that contain people with mental disorders in poverty alleviation programmes;
- social welfare for the unemployed;
- alcohol policies.

Examples of roles and actions in education and practice

Examples of roles and actions in education and practice for mental health are as follows.

- Training at the individual level can raise understanding of how environmental factors affect mental health and intergenerational transmission of inequity. Possible interventions include breaking the association between parental and child status through working with social care workers and teachers in children's early development programmes.

Figure 5.13 Community-based approaches



Source: World Health Organization (87).

- Training at the community level should involve community members in identifying and remedying sources of psychological distress in their neighbourhoods, for example through improvements in housing to reduce depression and stress, and better access to the natural environment and outdoor spaces.
- Training at the global, regional and national levels should promote protection of human rights and prevent discrimination against people with mental illness and psychosocial disability, and facilitate the re-employment of people who have been made unemployed or have been unemployed for a long period of time.

Mental Health Action Plan 2013–2020

The four major objectives of the Mental Health Action Plan 2013–2020 (87) are to:

- strengthen effective leadership and governance for mental health;
- provide comprehensive, integrated and responsive mental health and social care services in community-based settings;
- implement strategies for promotion and prevention in mental health;
- strengthen information systems, evidence and research for mental health.

Over 700 000 people die by suicide every year – that's one person every 40 seconds.

Neurology and public health

Brain health encompasses neural development, plasticity, functioning, and recovery across the life course. Good brain health is a state in which every individual can realize their own abilities and optimize their cognitive, emotional, psychological and behavioural functioning to cope with life situations (88).

Neurological disorders were the second leading cause of mortality and leading cause of morbidity (as measured by DALYs) in 2015 (89). The most common neurological disorders are headache disorders, Alzheimer disease and other dementias. Other neurological disorders include intellectual disorders, autism spectrum disorders, epilepsy, cerebrovascular diseases and neuroinfections. Many neurological disorders are preventable. In 2020, the Seventy-third World Health Assembly endorsed resolution WHA73.10 on global actions on epilepsy and other neurological disorders (90), which requested the WHO Director-General to develop an intersectoral global action plan on epilepsy and other neurological disorders in consultation with Member States. As an important part

of its strategic objectives, this forthcoming global action plan will aim to address promotion of brain health and prevention of neurological disorders (91). Prevention of neurological disorders and promotion of brain health across the life course require addressing numerous interconnected determinants that can impact both brain and mental health, including perinatal factors, exposure to social advantage or disadvantage, environmental factors, infections, and traumatic injuries (8).

Relationship between social adversity, brain development, and health

Our brains develop rapidly in early life, with 80% of our brains developing by the age of 3 years (92), making early intervention critical (93). Exposure to socioeconomic adversities in childhood, particularly multiple adversities (giving rise to “toxic stress”), has been shown to affect brain architecture, which has lifelong implications for a person’s vulnerability to stress-related health conditions (94, 95). Additionally, exposure to socioeconomic adversities in adulthood is known to impact the brain and stress physiology (96), leading to adverse health outcomes (97, 98).

Maternal mental health

Worldwide about 10% of pregnant women and 13% of women who have just given birth experience a mental disorder, primarily depression. In developing countries these figures are higher – 15.6% during pregnancy and 19.8% after childbirth. In many instances the affected mothers cannot function properly, with negative consequences for children’s growth and development. Maternal mental disorders are treatable. Effective interventions can also be delivered by competent non-associate-level health care workers to increase pregnant women’s access to services (99).

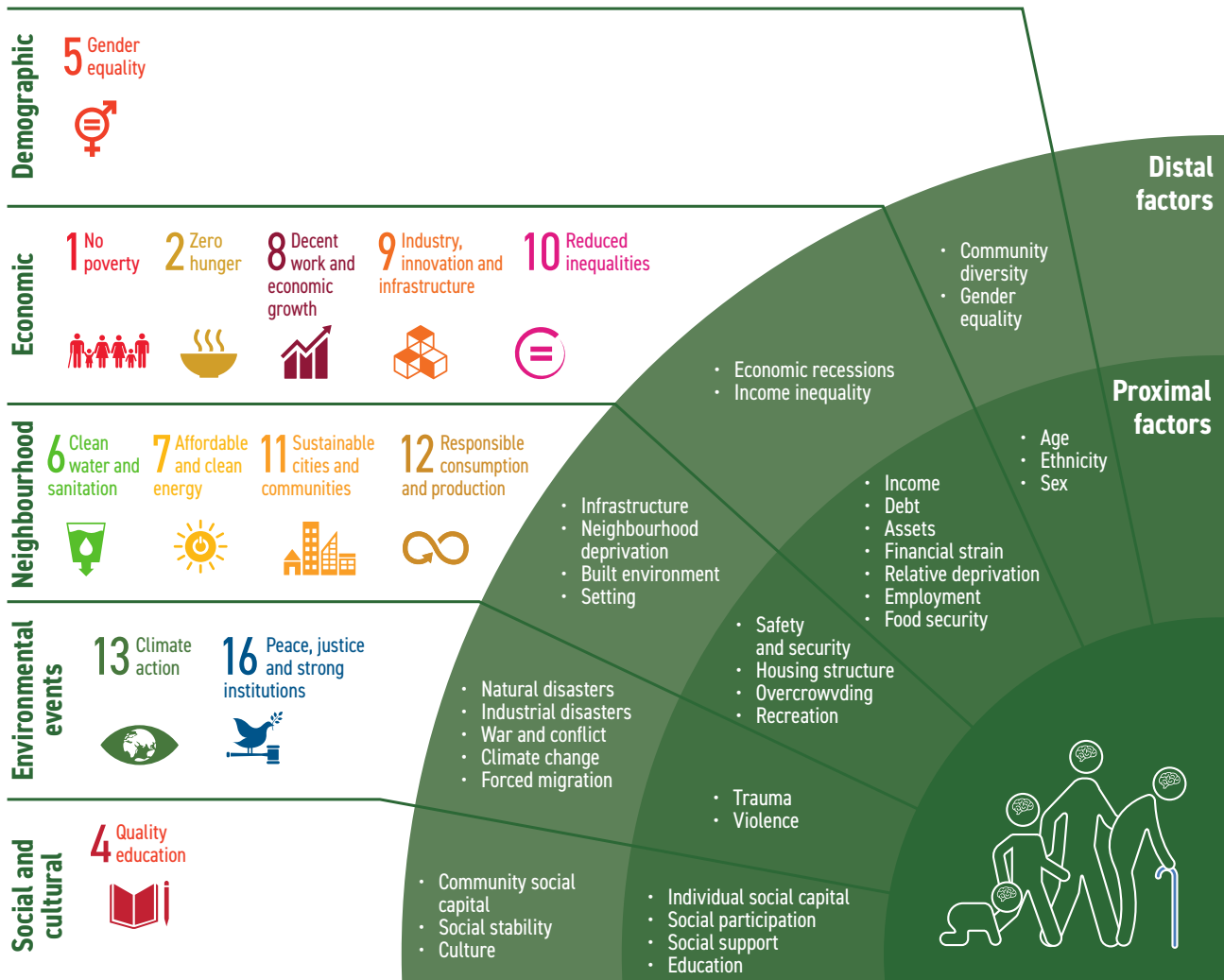
Mental health determinants and the role of health systems

The health system plays an important role in mediating the differential consequences of illnesses in people’s lives. Primary health care workers can help promote healthy lifestyles, prevent the onset or development of mental health problems through early identification and intervention, and manage priority disorders such as depression, epilepsy, psychosis, developmental and behavioural disorders in children and adolescents, dementia, alcohol and drug use disorders, self-harm or suicide, and other emotional or medically unexplained complaints. Health workers can also play a role in assessing the determinants surrounding the health of people and making necessary referrals or linkages, for instance to livelihood programmes.

Figure 5.14 gives a diagrammatic representation of the social determinants of mental health and their links to the SDGs (97), while Boxes 5.15–5.18 present relevant case studies and other information.

Figure 5.14

Social determinants of mental health and the SDGs



Source: Patel et al. (100).

Box 5.15

Case study: the Banyan

The Banyan is a mental health charity based in Chennai, India. It works to spread knowledge about mental health and encourage its practice in all sections of society. Through rural and urban mental health programmes, the Banyan provides a range of mental health services to mostly poor populations and marginalized groups. Although the programmes employ a largely biopsychosocial approach, they incorporate care options that allow for greater integration with family, connections to job opportunities and other social benefits, and access to support groups.

Source: The Banyan: <https://www.mhinnovation.net/organisations/banyan>.

Box 5.16

Case study: the NALAM project

The NALAM project is a multidimensional mental health programme in India that provides social and clinical mental care services, moving beyond traditional approaches to include addressing the social determinants. Largely driven by lay workers, a key strength of the programme is its community focus. It recruits community mobilizers to build relationships among community members suffering from mental disorders to enhance their well-being. The social arm of its services also positions it to address social determinants, including by facilitating rights and welfare entitlements, strengthening links to wider community resources and facilitating access to livelihood opportunities.

Source: The NALAM study: <https://www.mhinnovation.net/innovations/nalam-study-village-workers-promoting-mental-health>.

Box 5.17

Mental health and COVID-19

Not only is the COVID-19 pandemic a threat to physical health, it also affects mental health. Adversity is a risk factor for short-term and long-term mental health problems. Fear of the virus is spreading faster than the virus itself, and is inducing mental health and psychosocial consequences among those affected directly and those who are following the news. Fear, depression and anxiety are common reactions in all affected countries. For some these reactions are prolonged, severe and disabling, thereby leading to an increase in mental health conditions among adult males and females, girls and boys. Concerns about health, beloved older relatives and financial stability and feelings of helplessness are common emotions reported around the world across all age groups and genders. Physical distancing, self-isolation, quarantine, and working from home are triggering reactions of isolation, loneliness, and loss of social contacts among large numbers of people worldwide. To minimize the mental health consequences of the COVID-19 pandemic, governments and agencies should urgently implement the following recommended actions (101).

- Apply a whole-of-society approach to promote, protect and care for mental health: mental health actions need to be considered essential components of the national response to COVID-19.
- Ensure widespread availability of emergency mental health and psychosocial support: mental health and psychosocial support must be available in any emergency as a cross-cutting issue of relevance to all sectors and clusters.
- support recovery from COVID-19 by building mental health services for the future: use the current interest in mental health to invest in and catalyse mental health reforms.

Box 5.18

Links to essential resources on mental health and COVID-19

The following resources are of relevance to mental health and COVID-19.

- United Nations policy brief on COVID-19 and the need for action on mental health: <https://unsdg.un.org/sites/default/files/2020-05/UN-Policy-Brief-COVID-19-and-mental-health.pdf> (101).
- Inter-Agency Standing Committee webpage on resources for COVID-19 and mental health and psychosocial support: <https://interagencystandingcommittee.org/mental-health-and-psychosocial-support-resources-covid-19> (102).
- WHO webpage on COVID-19 and mental health: <https://www.who.int/teams/mental-health-and-substance-use/covid-19> (103).
- WHO report by the Director-General to the Executive Board on mental health preparedness and response for the COVID-19 pandemic: https://apps.who.int/gb/ebwha/pdf_files/EB148/B148_20-en.pdf (104).

5.8 Oral health

5.8.1 Synopsis

A consistent stepwise social gradient exists for oral diseases. Oral health tends to be worse as one moves down the social hierarchy. This social gradient in oral disease is a universal phenomenon found across the life course, affecting different oral diseases and different populations around the world. Action to combat oral health inequalities needs to address the underlying causes of this problem, the social determinants of health.

Oral diseases are now widely recognized as a global public health priority. Oral conditions are highly prevalent, have a significant impact on quality of life, and are costly to both the individuals affected and the wider health system. The unequal distribution of these determining factors accounts for the social gradients in oral health. Ignoring these broader factors and only focusing action at the individual level can constitute “victim blaming” and is largely ineffective.

Key messages for learners and educators

- **Message 1.** Oral diseases, despite being largely preventable, are very common conditions that have a significant adverse impact on quality of life. However, they disproportionately affect those from more socially disadvantaged backgrounds, resulting in stark oral health inequalities. As oral diseases share common risks with other noncommunicable diseases, an integrated preventive approach is needed.
- **Message 2.** As with general health, oral diseases are directly associated with socioeconomic status. Oral health inequalities exist across the life course from early childhood to older age. The negative impacts of oral disease are also socially patterned and indeed contribute to broader social inequalities in society. For example, absence from school, poor educational performance, time off work, poor self-esteem and social isolation are all negative societal consequences of oral diseases. Community-level action to tackle oral health inequalities requires effective partnership and engagement with local communities.
- **Message 3.** Upstream action is needed to address the underlying social and commercial determinants of oral health inequalities. Healthy public policies, creating supportive environments, and community action are all effective oral health improvement strategies required to promote oral health equity.

5.8.2 The problem

Incidence and cost of oral diseases

Oral diseases – namely tooth decay (dental caries), gum (periodontal) disease, oral cancers and other oral health conditions – are a significant global public health problem. They are very common and have a major impact on quality of life, but are largely preventable. The Global Burden of Disease Study 2017 estimated that oral diseases affect approximately 3.5 billion people worldwide, with dental caries of the permanent teeth being the most prevalent of all conditions assessed. Globally, it is estimated that 2.3 billion people suffer from dental caries of permanent teeth (78).

Oral diseases are chronic conditions that affect people across the life course from early childhood through to older age. Oral diseases have a significant impact at individual, family, community and societal levels. They affect quality of life and well-being in a wide range of different ways. Tooth decay causes pain and discomfort and can result in difficulties in eating, sleeping and talking, and in severe cases adversely affects child growth and development.

It is also a major cause of school absence, leading to poor educational performance (105) and loss of income for a parent or adult attending with the child for dental treatment. In adults, oral diseases and their treatment can lead to a significant amount of time off work with potential loss of earnings. In many low- and middle-income countries the costs of dental treatment are prohibitively high, beyond the reach of large segments of the population (106). In many countries dental treatment is associated with significant out-of-pocket expenses (107). Oral cancer, a devastating but common condition in certain regions of the world, is associated with a very high mortality rate.

Oral diseases also have a significant economic cost to the individuals affected, the health care system and wider society. WHO estimates that oral diseases are one of the most expensive conditions to treat. Across the European Union it has been estimated that the treatment of oral diseases costs approximately 79 billion euros annually, the third highest total among noncommunicable diseases, behind diabetes and cardiovascular diseases (108).

Policies for oral health systems

Oral diseases are recognized as noncommunicable diseases, and thus share common risks with other noncommunicable diseases. Diets high in free sugars, poor oral hygiene, lack of exposure to fluoride, and tobacco and alcohol use are the principal causes of oral diseases, and indeed of other noncommunicable diseases. These behavioural risks are important, but it is essential that attention is focused on the broader social determinants, the underlying drivers of health inequalities.

As with general health, oral diseases are socially patterned conditions, socioeconomic status being directly associated with levels of disease. Stark oral health inequalities exist for different clinical and subjective oral health outcomes (109). Evidence on oral health inequalities exists in different populations around the world, across the entire life course (110). Indeed, oral health inequalities are a useful marker of broader health inequalities, as the patterns of disease are very similar for both oral and general health, but oral diseases are often much easier to assess and document.

As found in general population health, a consistent stepwise social gradient exists for oral diseases – oral health is steadily worse as one moves down the social hierarchy (111). This social gradient in oral disease is a universal phenomenon found across the life course, affecting different oral diseases and different populations around the world. Action to combat oral health inequalities needs to address the underlying causes of this problem – the social determinants (Figure 5.15). Addressing the prevention and control of oral diseases, in common with other noncommunicable diseases, requires a strong focus on universal health coverage, multisectoral action, and the social determinants of

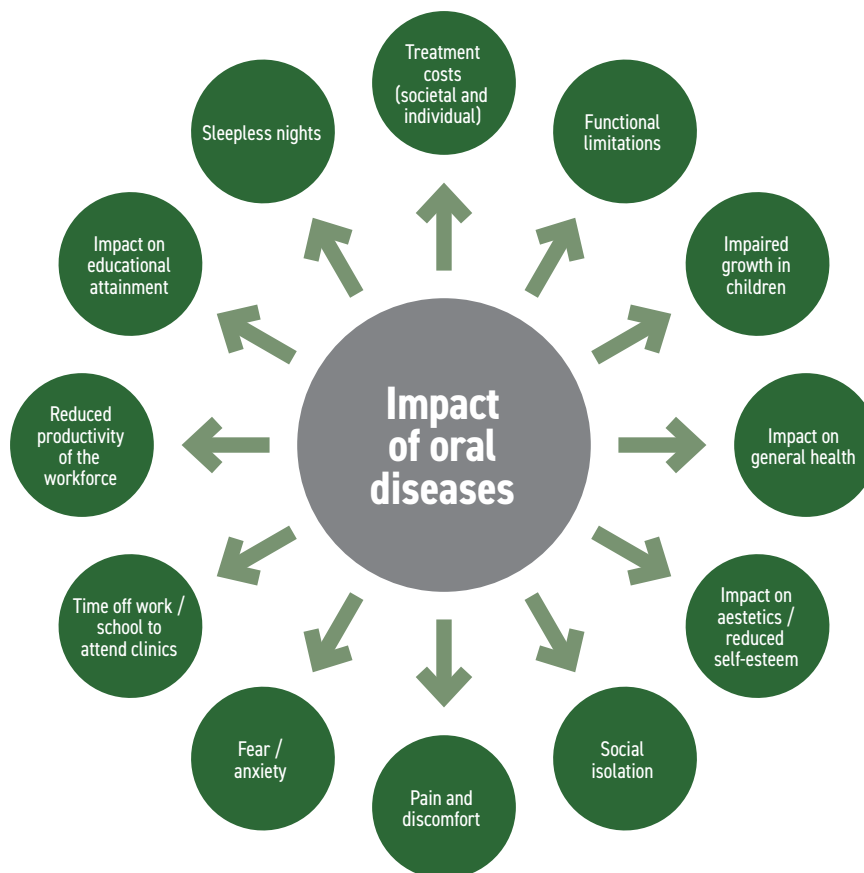
health, supported by adoption of life-course and people-centred approaches.

Making progress towards universal health coverage requires governments to have mechanisms to effectively manage oral health workforce planning, and to commit to mobilizing and sustaining adequate public funding for oral health, including budgetary resources for phasing down dental amalgam (113). Evidence supports strengthening the integration of oral health into efforts to attain universal health coverage (114). Oral disease can start as young as 18 months and can present at any stage of the life course.

Dental treatment costs are high because of the dominance of a restorative treatment approach that requires expensive technology and materials and highly trained clinical personnel. Therefore, treatment is often beyond the resources of many. Dental treatment alone, however, will have a small effect on reducing oral health inequalities. This situation is compounded by the unequal distribution of oral health personnel and the absence of appropriate facilities in many countries, as a consequence of which disadvantaged communities have limited or no access to primary oral health care (115).

Figure 5.15

Impact of oral diseases: social inequalities in oral health



Source: Daly et al. (112)

The implementation of the Minamata Convention on Mercury and its provision for dental amalgam (as one of the restorative materials commonly used to treat dental caries) can catalyse the shift away from the restorative model of care and the use of mechanically retained filling materials, such as dental amalgam, towards preventive and minimal intervention dentistry that predominantly uses adhesive dental materials. Implementation will also provide an opportunity to strengthen oral health promotion and oral disease prevention within an integrated people-centred model of health services. The phase-down of the use of dental amalgam can help renew and revitalize dentistry and tackle the health, social and economic burden of oral disease by prioritizing oral health as part of the global health agenda (116).

5.8.3 Why act now?

Oral diseases are now widely recognized as a global public health priority. Oral conditions are highly prevalent, have a significant impact on quality of life, and are costly to both the individuals affected and the wider health care system. High relative risk of oral disease relates to sociocultural determinants such as poor living conditions; low education; and lack of traditions, beliefs and culture in support of oral health. Moreover, control of oral disease depends on availability and accessibility of oral health systems, but reduction of risks to disease is only possible if services are oriented towards primary health care and prevention.

Action to promote population oral health fits well with the broader noncommunicable disease agenda and the SDGs. Priority is given to diseases linked by common, preventable and lifestyle-related risk factors (such as unhealthy diet or tobacco use), including oral health. Key socioenvironmental factors are involved in the promotion of oral health.

5.8.4 Specific teaching themes and case studies

Reflect on this chapter's key messages and use critical pathways thinking to measure and understand oral health at (a) individual, (b) community, (c) national and (d) global levels. This should be guided by and oriented towards a common SDG framework.

Action on reducing oral health inequalities

Action to reduce oral health inequalities needs to tackle the broader social determinants (Figure 5.16). Clinical and behavioural approaches alone will have limited success in achieving sustainable improvements in oral health, and indeed may widen inequalities. Based upon the common risk agenda, an integrated approach is needed to tackle the shared underlying causes of oral and other noncommunicable diseases. Integrated action

should be focused at different levels to strengthen the ability and capacity of individuals, families, communities and society to achieve better oral health. Of importance is action in early childhood to provide the best possible start in life and establish the foundations of future good oral health.

A range of complementary downstream, midstream and upstream interventions need to be delivered. At the individual level it is essential that dental professionals provide evidence-based prevention to their patients. This requires provision of appropriate training and supporting materials to the relevant professional groups. Midstream interventions include actions to create healthy settings in local communities.

In many countries, preventive toolkits have been disseminated across the dental professions to develop their capacity to deliver effective preventive support. Other health, education and social care professionals also need to be equipped with up-to-date knowledge about oral health. A good example of this is incorporating oral health into the health-promoting schools agenda. Most importantly, upstream interventions aim to create supportive environments and conditions for good health through legislation, regulation and fiscal measures. These can be implemented at local, regional, national and international levels. For example, in many countries concerns over the public health impact of high free sugar consumption has led to the adoption of fiscal action – increasing the costs of items such as sugar-sweetened beverages and subsidizing the costs of healthier choices such as fresh fruits.

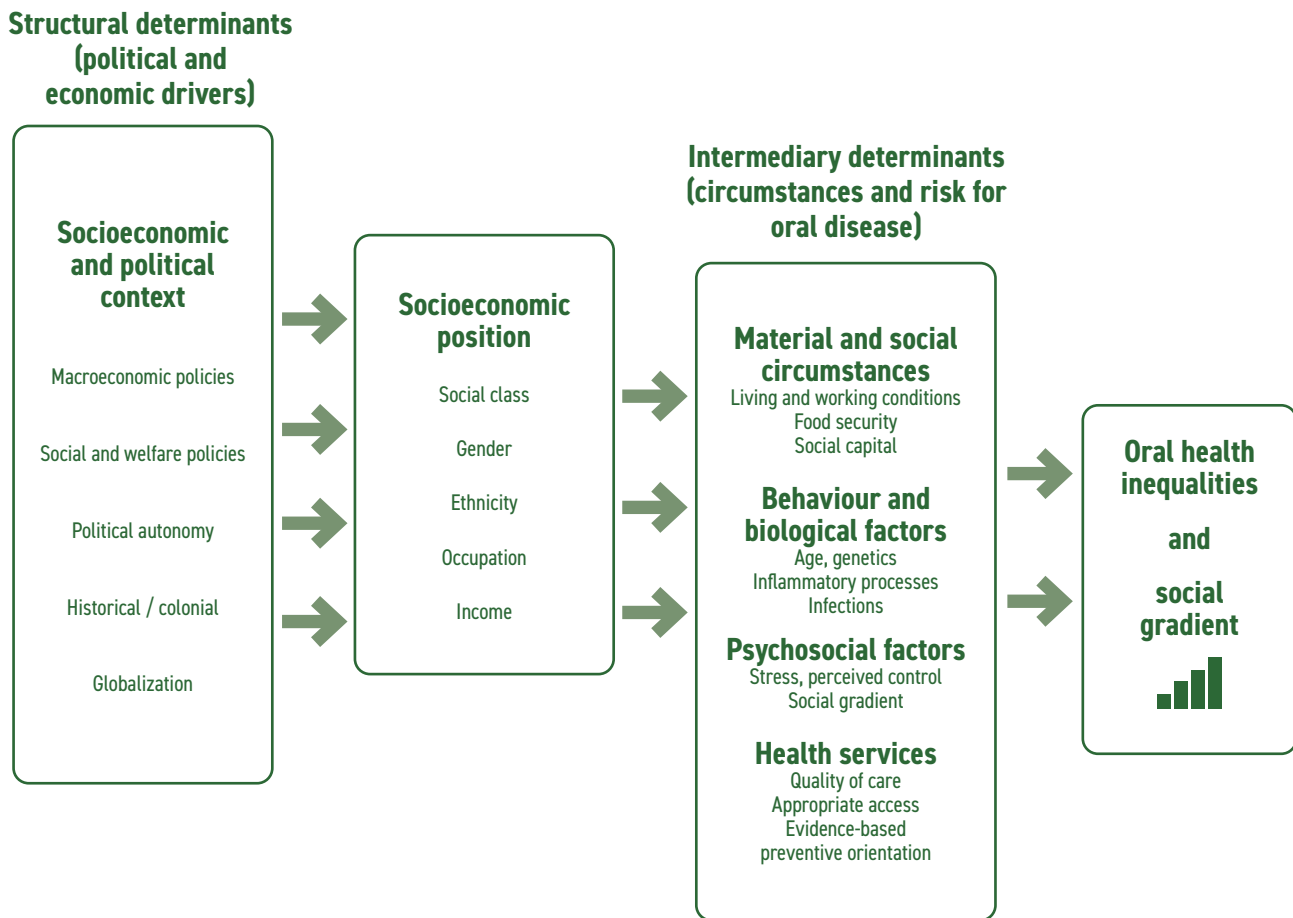
Working in partnership across agencies and the broader community is essential. Dental professionals have an important role to play as oral health advocates in their local communities, highlighting the broader significance of oral diseases and the different actions needed to promote oral health equity. Sustainable improvements in oral health and a reduction in oral health inequalities can only be achieved when local communities are fully engaged and involved in the development and implementation of different strategies.

Examples of roles and actions in education and practice

Examples of roles and actions in education and practice for oral health are as follows.

- Training at the individual level of clinicians and community health workers should promote and enable interventions through a life course approach – from gestation and childbirth to healthy ageing – that addresses shared risk factors, for example engaging with teachers to support their role in oral health promotion and education.
- Training at the community level should foster and promote schools, workplaces and communities as strategic platforms for delivering preventive health

Figure 5.16 Conceptual model for oral health inequalities



Source: Daly et al. (112)

care services. These services are considered as an extended arm of primary health care, for example promoting the oral health care of functionally dependent elderly people by addressing ageism, which often intersects and interacts with other forms of stereotyping, prejudice and discrimination.

- Training at the global, regional and national levels should frame oral health within the 17 SDGs, recognizing the intersections between oral health (SDG 3) and other Sustainable Development Goals, for example SDG 12 (consumption and production), with regard to food and nutrition labelling, consumer education, and fiscal policies targeting foods and beverages that are high in free sugars.

Oral health determinants, critical pathways and approaches

Mechanisms and pathways related to oral health are complex and interlinked, with economic, psychosocial and behavioural factors all playing a role, as well as

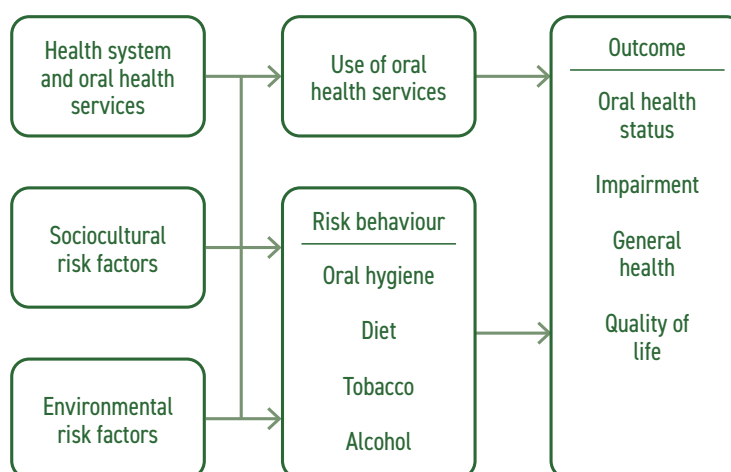
more specific factors such as access to oral health services, provision of safe water and sanitation facilities, optimal exposure to fluoride, availability of oral health products and healthy food supply. Risk factors for oral disease are also relevant to general health and, equally, social determinants of other diseases and conditions have oral health significance. Intervention strategies that acknowledge the socioeconomic context and related risk factors offer most potential for promotion of oral health throughout the whole population.

Prevention of oral diseases through public health interventions can be effective; oral health personnel are scarce in low- and middle-income countries, and primary health workers and specially trained ancillary personnel can make valuable contributions to the control of oral disease and the promotion of oral health for all.

Figure 5.17 presents the risk factor approach in promotion of oral health.

Figure 5.17

The risk factor approach in promotion of oral health



Source: Petersen (117).

Promoting the oral health of children through school

The most common oral diseases among children are gingivitis and dental caries. Pain from teeth or the mouth can compromise their concentration and their participation in school, not only hampering their play and development but also denying them the full benefit of schooling. The WHO Oral Health Programme conducted a survey on oral health promotion through schools to show the broad spectrum of interventions applied around the globe under various economic, organizational, political

and cultural situations (118). The national economic situation, tradition and culture of dealing with oral health, oral health policies, organization and financing of the public sector, nutritional and demographic transitions, and change of oral disease patterns are some of the many factors influencing how and to what extent national school oral health is approached. There is a need to explore ways to exchange experiences and locate best practices within the wider school health community, especially in low- and middle-income countries. Box 5.19 presents a case study on a child oral health programme in Scotland.

Box 5.19

Case study: Childsmile Scotland

Childsmile is a national programme designed to improve the oral health of children in Scotland and reduce inequalities in both dental health and access to dental services. It is funded by the Scottish Government. It commenced as pilots in 2006, and since 2011 has been delivered as an integrated programme in all health board areas throughout Scotland (119).

Childsmile is a complex public health intervention that adopts a common risk factor approach, recognizing the importance of multidisciplinary engagement in multiple settings, and integrating oral health with other groups and agencies. It combines targeted and universal elements, adopting a proportionate universalism approach that aims to provide a comprehensive pathway of care, with the intensity of support related to needs at the individual and community levels. Childsmile attempts to address the social determinants of health using a combination of upstream, midstream and downstream interventions. The programme also follows the principles of the national approach in Scotland for supporting the well-being of children and young people and improving outcomes by offering the "right help at the right time from the right people". Childsmile supports young people and their families to work in partnership with the services that can help them.

Oral health for older people

As a result of decreased fertility and increased life expectancy, the populations of most countries have aged rapidly. However, health services generally have not aligned with this change. New approaches are needed to foster healthy ageing. Moreover, one crucial and often neglected area of healthy ageing is oral health. Social determinants can influence the oral health situation, access to health care and oral health behaviour. For instance, experiences of oral problems among older people in low-income countries often coexist with poor access to health care, particularly in rural areas.

Although tooth brushing is the most popular oral hygiene practice across the world, regular tooth brushing appears less common among older people than among the population at large. Health promotion programmes targeting older people are rare, and this reflects the lack of oral health policies. It is highly recommended that countries establish oral health programmes to meet the needs of the elderly.

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Chapter 5

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Chapter 6.

Bringing about
change



6.1 Integrating the social determinants of health into health workforce education and training

Ensuring health employment and economic growth that is consistent with addressing the social determinants of health requires instructional and institutional reforms that are underpinned by two essential factors – transformative learning and interdependence of education, health and broader socioeconomic sectors. Institutional reforms that embody interaction between stakeholders, not just in the education and health sectors, but across other sectors of

society, can result in strengthened cooperation to deliver intersectoral programmes and actions for improving health. Transformational education involves three fundamental shifts:

- from isolated education to health systems and learning pathways;
- from single institutions to partnerships and networks;
- from internal preoccupations to notions of globally oriented educational content and resources.

These reforms will not be achieved without the fulfilment of enabling actions, which are listed in Table 6.1.

Table 6.1

Enabling actions for instructional and institutional reforms

Instructional reforms	Institutional reforms	Enabling actions
Adopt competency-driven approaches to instructional design	<p>Establish joint education and health planning mechanisms in every country that take into account dimensions such as social origin, age distribution and gender composition of the health workforce</p> <p>Promote innovative expansion of faculty through the recruitment of community-based clinicians and health workers as educators</p>	Leadership – both from within the academic and professional communities, and by political leaders in government
Adapt these competencies to changing local conditions, drawing on global resources	<p>Expand academic centres to academic systems, encompassing networks of primary care centres and hospitals, schools, and youth and adult community training institutions</p> <p>Implement policies for mandatory faculty development programmes that are relevant to the evolving health care needs of the communities that institutions serve</p> <p>Engage and empower communities in curricular development</p> <p>Develop and implement targeted admissions policies to increase the socioeconomic, ethnic and geographical diversity of students</p>	Regulation and accreditation, including the adoption of national accreditation systems that are based on standards, supported by a legislative or legal instrument, independent and transparent, not-for-profit and accountable, and representative of but independent from all major stakeholders
Promote interprofessional and transprofessional education that breaks down or creates bridges between professional silos	<p>Link together through global partnerships, networks, alliances, consortiums, multistakeholder governance, and joint planning and accountability mechanisms</p> <p>Implement interprofessional education in and across undergraduate and postgraduate programmes</p>	<p>Governance – to ensure maximum results for any level of investment</p> <p>National qualifications framework as an enabler of effective education, training and employment policies, and a strategy for strengthening the governance of labour market and qualification systems</p>

Instructional reforms	Institutional reforms	Enabling actions
Enhance collaborative and non-hierarchical relationships in effective teams	Nurture a culture of critical inquiry that is free of blame but encourages learning	Evaluation – to build a reliable global knowledge base for shared learning, focusing on quality as well as competence
Exploit the power of information technology for learning	Invest in institutional platforms for data sharing while observing ethical principles in the management of data	Harness the power of cost-effective information and communication technologies to enhance health education, people-centred health services and health information systems
Strengthen educational resources, with special emphasis on faculty development	Develop mechanisms for sharing intellectual property across networks of universities and practitioners while protecting public interest Design and implement continuous professional development programmes for faculty and teaching staff relevant to the evolving health care needs of the communities they serve	Review of education subsystem curricula to understand where there is duplication and where there are gaps, and where resources could be easily adapted and provided across subsystems
According to national health priorities and needs, promote a new professionalism that uses competencies as the objective criteria for classification of health professionals and that develops a common set of values around social accountability	Mainstream social accountability for health across teaching curricula	National Health Workforce Accounts (NHWA) data collection from health workforce education and training institutions with an emphasis on indicators in modules 3 and 9 (see section 6.3 of this chapter)
Commit adequate budgetary resources to investment in developing social determinants of health resources and support health workforce and systems research on social determinants of health	Identify funding sources and commit adequate budgetary resources to investment in transformative education, skills and job creation	Raise adequate funding from domestic and international sources, public and private where appropriate, and consider broad-based health financing reform where needed, to invest in the right skills, decent working conditions and an appropriate number of health workers

6.2 Merging the social determinants of health in training curricula

Reducing health inequity requires professionals and decision-makers to be aware of the impact of the social determinants on health. The inclusion of training in the social determinants of health workforce curricula is therefore indispensable to enable the health sector to steer intersectoral action.

Professional associations, such as the World Medical Association, have increasingly called for the doctors' profession to play a greater social role for health and health equity (Box 6.1). The World Innovation Summit for Health has recently released the report *Nurses for health equity: guidelines for tackling the social determinants of health (1)*, following the International Year of the Nurse and the Midwife (2020). This report outlines the important role of nurses and midwives in the health of communities. It highlights practical

measures to reduce inequalities, offering clear areas where actions need to be taken by nurses themselves and identifying where investments need to be made

in order to develop effective nursing leaders who can advocate change as valued members of multisectoral and multidisciplinary teams (1).

Box 6.1

World Medical Association envisages a new role for doctors

In 2015, the World Medical Association prioritized addressing the social determinants of health as central to health improvement and tackling health inequity through the Declaration of Oslo on Social Determinants of Health (2). The World Medical Association affirmed that doctors working at all levels could make a significant impact on health inequity through action on the social determinants of health, for example through social prescribing, designing services to meet the needs of marginalized communities, partnering with community leaders and organizations, working to ensure that the health service provides good-quality work, and promoting a basic income. The World Medical Association highlighted the following key areas through which doctors can promote health equity (3):

- the education and training of doctors, to inspire and equip doctors with the necessary skills to improve social determinants for individuals and at national level;
- effective monitoring and evaluation of programmes, to better understand the impact of the social determinants of health at the local and national levels, to evaluate impact of actions and policies and, importantly, to provide an imperative for action;
- working with individuals and communities, re-evaluating the patient–physician relationship and the relationship of doctors with the community, so that health services can be better designed to meet the needs of those most in need;
- tackling inequity within the health system, a large source of employment the world over, by setting an example as a provider of good-quality work to everyone it employs and considering the broader social impact of procurement by the health service;
- working in partnership to ensure that community organizations, other sectors and the health and public health services are effectively taking action on social determinants;
- extending doctors' responsibility to engage in advocacy on the social determinants on behalf of patients and communities, at national level and at international level.

Source: Institute of Health Equity and World Medical Association (3).

The work of professionals from sectors such as urban planning, transport, housing, education and energy is also central to addressing the social determinants of health. This has been made clear by the work of the Commission on Social Determinants of Health, which recommended that the social determinants of health be made a standard and compulsory part of training of medical and health professionals (4). This should also include offering training courses on the implementation of and the associated skills related to Health in All Policies and related concepts at institutions such as national public health institutes, universities and collaborating centres. The *Health in All Policies training manual* (5), developed by WHO, serves to highlight specific practical skills related to advocacy. Many of these skills may be covered in typical advocacy training for health promotion (6), but the focus is on bringing them to bear on the policy-making cycle. Box 6.2 provides further information on the use of practical examples during education and training.

This chapter discusses crucial elements of such training and provides real-life examples from an open call for submissions jointly issued with UNESCO.

6.2.1 Training for clinicians

Every health professional training course should include material relevant to the social determinants of health. This includes training for practitioners in medicine, nursing, physiotherapy, occupational therapy, dietetics and public health, as well as for community health workers. A challenge in developing such material is ensuring that its contents are complementary to biomedical approaches, which is the focus of most health professional training (except for occupational health personnel and occupational therapists, which is typically underpinned by a more social view of health). Ideally, consideration of the social determinants of health should not be a stand-alone topic (although this is helpful), but should also be woven throughout the curriculum so that students adopt an outlook that combines a biomedical and a social health lens. Students also need to see the value of interdisciplinary care and treatment and to learn to work in (interdisciplinary) teams, with a focus on providing comprehensive primary health care. This can be taught using locally relevant examples of health problems modelled on a comprehensive approach, as illustrated in Table 6.2.

Box 6.2

The use of practical examples during education and training

The use of stories and specific examples in training is very important to make action on the social determinants tangible to actors that are operating at the front line of medicine, nursing and public health. Chapter 5 provides specific advice and key messages for applying the knowledge on the social determinants of health to particular common health themes, with which the health workforce generally has some familiarity. Increasingly, national and global networks are compiling examples of how social determinants are being addressed by health actors. These compilations may be useful to peruse for further selection of examples. They may also inspire national health professional organizations to create opportunities for sharing at national professional conferences on such themes. For example, the American Public Health Association publication *Better health through equity: case studies in reframing public health work (7)* presents examples from different states of the United States covering the following cross-cutting themes:

- shifting the discussion, applying a new lens (Multnomah County, Oregon)
- harnessing the power of cross-sectoral collaboration (Menominee Indian Tribe, Wisconsin)
- making health equity a community affair (Virginia)
- integrate and operationalize: recognizing equity every day (Colorado)
- transforming the work of community health (Texas).

Source: American Public Health Association (7).

Table 6.2

Comprehensive primary health care approach

Illness	Curative	Rehabilitative	Preventive	Promotive
Injury	Repair damage from injury	Recovery and restore normal function	Advice on falls, accident prevention and occupational safety Road safety legislation, e.g. mandatory seat-belts, helmets, gun control legislation	Product safety legislation Road design
Diabetes	Treat diabetes	Self-care and dietary advice for ongoing management	Weight reduction programmes Health education on healthy diets across the life cycle	Healthy fresh food supply Sugar tax Restrict import and sale of high-fat, high-sugar foods Clean air
Respiratory illness	Treat asthma, cancers, etc.	Stop smoking advice	Reduce air pollution Tobacco control Occupational health and safety Safe fuels for indoor cooking and heating	Clean air legislation Tobacco-free world Respiratory safe workplaces

Illness	Curative	Rehabilitative	Preventive	Promotive
Diarrhoea	Oral rehydration therapy Nutrition support		Education for personal and food hygiene Breastfeeding Vaccination	Clean water and sanitation Enforce food safety legislation Healthy and secure food supply

Source: Based on analysis in Baum (8).

Multidisciplinary education should be conducted wherever possible so that students of health professions are taught together, thus developing a mutual appreciation of their complementary skills and enabling them to see their patients within a family and social context. Box 6.3 provides an example of how students of various medical professions can be trained in addressing the social determinants of health alongside

each other. The health equity training and education in the University of Lausanne strives to increase the competence of health workers to deal with the social determinants of health. Their programme combines an emphasis on social determinants of health and transcultural competencies that include communication competencies (see Box 6.4) (9).

Box 6.3

The Family Van: training the next generation of culturally competent health care professionals through practice-based learning and community engagement

The Family Van, a programme of the Harvard Medical School, has been providing free health screening, education and referrals, including assistance with addressing the social determinants of health, such as housing, food insecurity, and unemployment, to Boston's most underserved communities for more than 25 years. The programme aims at increasing health equity at the local level by eliminating common barriers to health care access.

The mobile clinic is operated by community health workers, medical and public health students and volunteers. The elective programme facilitates practical, multidisciplinary training of volunteers from different medical professions, educators and counsellors. In addition to offering volunteer experiences to students of all levels, the Harvard Medical School provides a month-long course on community engagement to third- and fourth-year Harvard medical students.

Source: Example provided by Dr Mollie Williams, Harvard Medical School, United States.

In addition, social determinants can be built into the curriculum in the following ways.

Research methods. Examples used in the teaching of research methods should include social determinant as well as clinical examples. These could include the use of social epidemiology to study the walkability of suburbs; the use of document analysis to study the extent to which policy includes social determinants; and the use of qualitative data to examine the ways in which structural features of people's lives encourage or discourage the adoption of healthy behaviours.

Clinical cases. These cases should always be set in the family, social and economic context of the individual, and should recognize the implications of this context for their treatment, ability to comply with treatment and the barriers to healing.

Problem-based learning. Where this method is used, the curriculum should include two cases that start with whole populations in addition to those that focus on a single clinical case. For example, consideration could be given to a population exposed to air pollution and the health consequences that follow, or the impact of alcohol advertising on a population.

Skills. This could include the role of health workers in instances where clinicians and others have been effective advocates, as in the following examples:

- neurosurgeons arguing for legislation to mandate seat-belt use, in relation to head injury resulting from motor vehicle accidents;
- dietitians pointing to the harm caused by advertising fast food to children;
- public health physicians arguing for a restriction in the supply of alcohol through unit pricing;
- respiratory physicians and nurses pointing out the harm caused by smoking and advocating supply reduction;
- sleep physicians in relation to the ways in which insecure and gig economy work and welfare conditionality may adversely affect people's sleep;
- primary health care physicians pointing to the importance of social security systems in providing people with good living conditions, including safe and healthy housing and healthy food;

- psychiatrists pointing to the health impacts of loneliness and arguing for more convivial living environments brought about through good urban planning.

Where possible, the examples used in teaching should refer to local circumstances, making them more meaningful to students. The importance of civil society action in promoting population health should also be taught.

Ensuring that clinicians take account of the social and economic circumstances of patients (and introducing the concept of a social health screening tool) is an important way of bringing the social determinants of health to students in a way that they can absorb the information along with their clinical education. Box 6.4 illustrates how such training on the determinants of health can be integrated in clinicians' continuous professional development.

Box 6.4

Defining the social context: teaching the social determinants of health as part of holistic continuous professional development for physicians

The course "Defining the social context" was established almost 20 years ago and is integrated in an overall programme on transcultural clinical skills at the Centre of Primary Care and Public Health, Lausanne. The social determinants of health course is the second of four courses. The other components of the programme address language and literacy barriers; beliefs, stereotypes and unconscious biases; and engaging in negotiation with patients.

Participants acquire knowledge, competencies and skills enabling them to better integrate aspects of social determinants into their daily clinical practice, including through the provision of tools and resources in the clinical context to help address the social and environmental factors impacting patients' health.

This training programme aims to engage health workers at different levels of public service (policy and front-line managers and clinicians) and to strengthen interdisciplinary academic formal and informal networks. As such, it provides a practical link between clinical practice and broader Health in All Policies capacity development and advocacy. The role of advocacy is extremely important for ensuring the engagement of clinicians in civic movements for fairer societies with essential conditions for health equity.

To ensure the continuous education programme is relevant to physicians, a range of teaching methods is used, including the use of audiovisual aids, the use of vignettes describing situations confronting clinicians when treating patients as regards the social determinants of health, and the use of simulation (10) as well as the study of real clinical cases.

A five-day international summer school that provides a comprehensive overview of the social determinants of health ("Health equity in chaotic times") is also run by the University of Lausanne.

Source: Example provided by Professor Patrick Bodenmann, Centre of Primary Care and Public Health, Lausanne, Switzerland.

6.2.2 Public health training

The importance of public health training as a necessity for all health workers has been spotlighted by the COVID-19 pandemic. Public health training needs to ensure that a holistic and integrated approach is taken in the design and implementation of curricula. In a highly interdependent and interconnected world, public health professionals require multifaceted skills that support action on the social determinants of health and contribute to the circumstances in which people can be healthy.

Degree certification for public health training has traditionally been issued in the form of a Master of Public Health, but is increasingly now offered as an undergraduate degree. These qualifications range from a Bachelor of Public Health to variously named degrees with substantial public health content. Curricula and learning content for these courses should be shaped by a social determinants approach to understanding health equity. Universities vary in the design and volume of learning content in constituent subjects, so curricula in one or more subjects could at a minimum comprise the following learning objectives:

- introduction to the various frameworks for understanding social determinants, especially the Whitehead model and the Commission on Social Determinants of Health/Pan American Health Organization (PAHO) models;
- discussion of the applicability of these frameworks to different cultures and indigenous peoples and consideration of emerging culturally safe frameworks;
- the history and potential of human rights approaches to health, including critical analyses of international organizations, conventions and NGOs;
- consideration of how structural determinants (including commercial determinants) shape everyday living conditions;
- consideration of how social determinants shape vulnerability to pandemics and epidemics and ways in which public health policies can be adapted to reduce the vulnerabilities;
- examination of the ways in which free trade treaties affect health, as a good demonstration of the impact of upstream factors;
- consideration of the global and national distribution of wealth and how this has changed over time;
- the distinctive contributions of critical theory and social epidemiology to understanding and acting on the social gradient in health;
- the impact of wars, conflict and the rise of populist and national agendas on the ability of nation states to take action to promote health equity;
- the compounding of inequity, and new health problems, created by climate change, and analysis of how frameworks should change to include an ecological gaze;

- how decolonizing and participatory approaches to public health challenge the ways in which public health traditionally frames global and indigenous health;
- examination of the health impacts of everyday living conditions and opportunities, including education (with special attention to gender and early childhood development), housing, urban planning, and employment and the quality of work;
- examination of countries that punch above their weight in terms of life expectancy compared with GDP as a good way of highlighting the role of social determinants and encouraging discussion on the factors that account for this;
- the responsibilities of health systems in relation to social determinants;
- examining the leadership and stewardship responsibilities of the health system;
- knowledge and advocacy skills to argue for the importance of comprehensive primary health care as the basis of health systems in the face of powerful interests advocating selective primary health care or primary care;
- how the public health workforce can engage with and support social movements to achieve health gain and reduce health inequities;
- leadership, advocacy (policy champions) and partnership skills related to Health in All Policies and working with other sectors, including values, attitudes and soft skills for collaboration, negotiation, and communication across sectors;
- appreciation of research designs that address power differentials between researchers and communities and contribute to changing the daily conditions of living.

For Master of Public Health courses, in addition to social determinants, there should be elective offerings that enable students to gain additional competence in relevant methods (for example, social epidemiology) and topics (for example, political economy of health, public policy and social determinants, commercial determinants of health, the climate crisis and social determinants, and social and economic influences in early life). Boxes 6.5 and 6.6 describe examples of how the social determinants of health can be included in the continuous professional development of public health professionals and health service managers, while Box 6.7 provides information on the WHO Academy training courses.

The effective implementation of the essential public health functions is directly linked to reducing the risk of exposure of individuals and populations to the social determinants of health. Decision-makers and educators needing policy frameworks or structures to establish competent professional groups in providing the essential public health functions now have a roadmap to do so. The WHO roadmap (11) features three action areas: defining the functions and services; competency-based

education; and mapping and measurement of occupations. These action areas are articulated for realization at country level through a progress matrix using three stepwise levels of benchmarking,

improvement, and implementation. Technical resources for the three action areas will continue to be developed or enhanced by WHO and its partners to support the roadmap targets in countries.

Box 6.5

Gaining comprehensive insights into the mechanisms and impacts of the social determinants of health through a five-day summer school

The five-day summer school on the social determinants of health is organized by the Department of Epidemiology and Public Health at University College London, with the Institute of Health Equity of University College London.

The non-residential summer school is designed for those who already work in the field of public health and want to refresh their knowledge of population health with a focus on social determinants, and those who are considering a career in public health or related research such as social epidemiology and health policy (national and global).

The course is multidisciplinary and covers a broad range of topics, including social stratification, social-biological translation, early child development, work and health, life course epidemiology, mental health, oral health, disability, inequality and human rights, political transition and health, tackling health inequalities, public health ethics, public health policy and equity, global governance, sustainable development and health policy.

Source: Example provided by Dr Ruth Bell, Department of Epidemiology and Public Health, University College London.

Box 6.6

Integrating the social determinants of health in the formulation and work of health programmes through a formative evaluation process

This course at the Facultad Latinoamericana de Ciencias Sociales Chile is part of the formative evaluation process, and adopts a social determinant, equity, gender and human rights focus on health programmes experiencing an increase in inequality gaps or not observing the expected progress based on the original design. The course's main outcome is a proposal for redesigning or changing the programme under evaluation.

The course aims at strengthening and developing competencies and skills to promote the implementation of the social determinants and Health in All Policies approaches in the usual work of the programmes, contributing to the reduction of health inequities. A learning by doing approach ensures that the knowledge of participants is the starting point for a process of change in the programme. The emphasis is on a transformative change of the programme and on the development of concrete solutions for the problems identified, whether in its design or implementation.

Applied methodology includes journal clubs, group work and problem-solving cases. Groups consist of various professions and programmes of the health services and primary care teams. Further teaching methods comprise case analysis through videos, readings and news, and support through an online platform.

Source: Example provided by Dr Orielle Solar Hormazabal, Facultad Latinoamericana de Ciencias Sociales, Chile.

Box 6.7**The WHO Academy training courses**

The WHO Academy aims to massively build, enhance and maintain competencies through lifelong learning to accelerate the development and adoption of evidence-based policy, practice and research for better health. Its objectives are to transition WHO to a learning organization and strengthen the competencies of all its staff to advance the WHO triple billion goals by 2030. It also has a target to train learners outside the Organization through digital and hybrid learning on its platforms.

The Academy supports a strong gender, equity and human rights focus in the development of all its courses. In addition, a specific course on social determinants of health, as well as gender, equity, and human rights (with linkages to social determinants of health), is being produced for WHO staff, national and subnational health authorities, civil society organizations, nongovernmental organizations, academia, communities and other development partners.

Source: Example provided by Gender, Equity and Human Rights team with the Department of Social Determinants of Health, WHO.

6.2.3 Training for professionals working beyond the health sector

Addressing the social determinants of health requires action across sectors, so it is important to also embed appropriate social determinants learning objectives in the curricula of professionals outside the health sector. For example, engineers can make a sizeable contribution to public health through their skills in providing clean water systems in low-income countries. Urban planners can significantly contribute to ensuring equal distribution of income levels across the city by providing affordable housing in all areas. Other sectors influencing population

health include architecture, education, agriculture and trade. Given their potential to act on the social determinants of health, professionals outside the health sector need to understand the relationships and the consequences their actions can have on health. Early interdisciplinary training in study programmes builds the basis for mutual understanding and future intersectoral collaboration. This can take the form of adding social determinants training to the curricula of other professions (Box 6.8), educating health and non-health students together in one course to facilitate exchange and reciprocal learning (Box 6.9), or engaging in lifelong learning (Box 6.10).

Box 6.8**Teaching urban planning students about health: an Australian example**

The “Planning for healthy cities” course was established as an undergraduate and postgraduate elective for urban and regional planning students in 2012 by the University of South Australia. The following year it also became a compulsory topic for third-year Bachelor of Health Science students, and in 2019 became a compulsory topic for postgraduate urban and regional planning students and an elective for second-year Master of Architecture students.

The basic proposition in the course is that alongside public health, with its focus on prevention and its essentially salutogenic approach to health, good urban planning, urban design and architecture can contribute to the likelihood of people increasing their physical activity, improving nutritious food consumption, having greater contact with nature and strengthening social interactions – all of which are known to promote health. The course also asks what planning and urban design can do about the incidence of chronic physical and mental health issues, given the broader social determinants of health.

This course provides participants with in-depth exposure to research findings, concepts, models and practical land use planning and urban design-led approaches to creating built environments that are supportive of active living across home, work and recreational domains.

The course offers a balanced mix of theory and practice through the use of lectures, including by guest lecturers from the public and private sectors, and the use of site visits that expose students to good design in a range of settings, such as master planned communities and large-scale urban regeneration projects.

Source: Example provided by Dr Johannes Pieters, School of Art, Architecture and Design, University of South Australia.

Box 6.9

Linking health, well-being and environment: an example from New Zealand on how to foster interdisciplinary learning

Drawing on the premise that human health and well-being are profoundly shaped by the environments in which we live, this course from the College of Science, University of Canterbury, New Zealand, examines the influence of the physical, built and social aspects of the environment on health and well-being. In addition to gaining increased understanding of health–environment interactions, students are expected to develop skills in tracking environmental exposures and in presenting research findings in both written and oral formats.

Launched in 2011, the course sets out to train geography and health science undergraduate students together in understanding the impact the built environment has on lifestyle, diet, physical activity, health inequalities, income and obesity. More specifically, the course – with a workload of 40 hours of supervised time and 110 hours of self-study – is a geography option and a core course for public health and environmental health Bachelor of Health Science (BHSc) majors, and is optional for the BHSc society and policy majors. Taught by an interdisciplinary faculty, students learn how to critically appraise key theoretical frameworks in the geography of health and apply geographical data and methods associated with the study of health and place.

Source: Example provided by Professor Simon Kingham, College of Science, University of Canterbury, New Zealand.

Box 6.10

Lifelong learning: a key enabler for addressing social determinants of health and taking action for planetary health

The 2.5-month advanced module on the social determinants of health and planetary health, including designing interventions for sustainable livelihoods, is organized each year by the Institute of Tropical Medicine and International Health (Berlin), which is part of TropEd, an international network of member institutions of international and global health from Europe, Africa, Asia, Australia and Latin America.

The module is action orientated, and encourages participants to translate and apply knowledge to real-world scenarios. It aims to reinforce the interdependent and inseparable nature of concepts such as planetary health and the conditions in which people are born, live, work, grow and age – that is, the social determinants of health.

Issues of power and the wider set of forces and systems shaping the conditions of daily life are used to discuss and reflect on the different perspectives of social participation, including participation from a human rights perspective, as well as the concepts and practice of citizen-led accountability. The course of study describes Health in All Policies approaches at all levels, particularly the need for active and meaningful engagement in policy development as well as implementation in and by communities. The hybrid format of learning allows community members in low- and middle-income countries to share their projects and experiences, and interact with the course participants.

The module places an emphasis on lifelong learning as a key enabler for promoting health equity through action on the social determinants of health and the social determinants of lifelong learning. Participants are encouraged to keep a lifelong learning diary to document their own learning journey, and learning experiences with and from others.

The module is establishing an extensive network of alumni who are able to provide support and mentoring and return as teachers in subsequent courses.

Source: Example provided by Julian Fisher, Institute of Tropical Medicine and International Health: Charité – Universitätsmedizin Berlin, Berlin, Germany.

6.3 Assessing education on the social determinants of health

6.3.1 Evidence to policy feedback loop

The evidence to policy feedback loop is an essential feature of robust and resilient health systems, defined as those with the capacity to learn from experience and adapt according to changing needs. International organizations such as the ILO, OECD and WHO have a key role to play in establishing comprehensive and harmonized metrics, which are necessary to monitor trends in the health labour market and to strengthen intersectoral collaboration, governance and accountability in implementing interventions.

Improved and openly available data on changes in the health workforce, at national level and aggregated across countries, will provide opportunities to deepen analysis and increase the evidence base on the global health labour market. The strength of the data architecture and the evidence base depends on the active engagement of communities, health workers, employers, education and training institutions, and professional and regulatory bodies, and on the interoperability of data across the education, health and labour sectors. The 2030 Agenda for Sustainable Development, with its holistic vision beyond the 17 SDGs, forms the foundation for future action. This will include increased capacity, including in the areas of data gathering and evidence-informed analysis, to interpret the implications of the 2030 Agenda at all levels of decision-making over the ascribed period.

6.3.2 Health policy and systems research

Health policy and systems research is an emerging field that seeks to understand and improve how societies organize themselves in achieving collective health goals, and how different actors interact in the policy and implementation processes to contribute to policy outcomes. It seeks to draw a comprehensive picture of how health systems respond and adapt to health policies, and how health policies can shape and be shaped by health systems and the broader determinants of health. It will be important to strengthen this area of research to inform health workforce development.

Further evaluative research will be necessary to assess how well transformation of education and training is progressing as regards integrating the social determinants of health in education. The indicators shown in the tables in Annex 2 are extracted from the National Health Workforce Accounts (NHWA) and are important resources for research information.

6.3.3 Using established frameworks

The *World health report 2006: working together for health (12)* alludes to a pipeline model for generating and recruiting a fit-for-purpose health workforce, noting the critical importance of having a pool of eligible candidates to select from. A significant bottleneck in this pipeline is the low proportion of students attaining upper secondary education and the concomitant shortage of qualified teachers for the upper secondary group, particularly in low-income countries. This conventional model is oriented towards formal pre-service health workforce education and training and has limited alignment and integration with in-service training, continuing education and professional development. A rigid and narrowing pipeline model will be unable to adequately expand, enhance or diversify the health workforce sufficiently to meet future demands with respect to workforce quantity, quality and relevance.

WHO's NHWA is a system by which countries progressively improve the availability, quality, and use of data on the health workforce through monitoring a set of indicators to support achievement of universal health coverage, the health-related SDGs and other health objectives.

The purpose of the NHWA is to facilitate the standardization of health workforce information systems for interoperability – the ability to exchange health workforce data within broader subnational or national health information systems, as well as within international information systems. The NHWA can serve as a guidance and supporting tool for countries to inform national evidence-based health workforce policy decisions and can support labour market analysis, aimed at informing specific policy design and examining the causal impact of policy change. The NHWA performs these functions by:

- creating a harmonized, integrated approach for annual and timely collection of health workforce information;
- improving the information architecture and interoperability;
- defining core indicators in support of strategic workforce planning and global monitoring.

The NHWA includes two key indicators that are pertinent to monitoring and evaluating progress in the integration of social determinants of health into health workforce education and training (see tables in Annex 2 for more details):

- Module 3: Education and training regulation and accreditation
Indicator 3-05: Standards for social determinants of health
- Module 9: Governance and health workforce policies
Indicator 9-01: Mechanisms to coordinate an intersectoral health workforce agenda.

A third important indicator to assess when health plans are oriented to address the social determinants of health equity is:

Indicator 9-04: Education plans aligned with national health plan.

A more comprehensive list of indicators for assessing the social determinants of health would also include those for interprofessional education and social accountability. Section 2.5.2 in the second chapter of this book sets out the rationale for a systematic approach to developing accreditation standards for interprofessional education, social determinants of health and social accountability.

An evaluation of policy outcomes using the indicators described above can assess whether student enrolment is considering or reflecting social accountability measures. Where social accountability policies are effective, there should be increased numbers of health workers in primary health care and in public health as a result.

Defining standards for equipping the health workforce to address the social determinants is a critical enabler in the context of achieving the SDGs. Gathering disaggregated data on the health workforce can help address the social determinants of health, with reinforced positive outcomes for education and training, productivity and performance. Institutional mechanisms are required to coordinate the integrated data sources and analysis needed to report on progress made in achieving the SDGs. This necessitates the strengthening of intersectoral collaboration, and building a greater sense of shared accountability between the ministries responsible for health and education and other related ministries. These efforts will be crucial as governments and other key stakeholders make efforts to transform the health workforce for attainment of the SDGs.

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Chapter 6

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Annex 1.

Information on definitions and terminology

1. Health inequality

Health inequality refers to observable differences in health between subgroups within a population. Any measurable aspect of health that varies across individuals or subgroups can be called a health inequality. Observable differences between subgroups within a population can be measured and monitored and serve as a means of evaluating health inequity.

Health inequality is sometimes used interchangeably with the term *health inequity*. For example, in England the term *inequalities* is often used to refer to *inequities*. Also, in the United States of America, the term *health disparities* is used to include the concept of health equity or inequity. The important issue is to understand the concept behind equity: social disadvantage between different social groups should not lead to worse health for groups that are more disadvantaged as regards the determinants of health.

The term health equality is not commonly used. *Equality of health opportunities, or equal opportunities to be healthy*, are phrases that are used to denote the outcome of good policies that promote health equity.

Explanatory notes

- Absent from the first definition of health inequality is any moral judgement on whether observed differences are fair or just.
- In contrast, health inequity is a normative judgement regarding health inequality that is unjust because the health differences are associated with social disadvantages.

Example observable difference

Health differences between two individuals in the same social class can arise because of differences in biology and real-life choices. These may be considered health inequalities but not necessarily health inequities. Conversely, health differences arising from being associated with a lower social class are measurable health inequalities and considered to be health inequities. Health differences based on age are another example where differences may have nothing to do with social class or social advantages or disadvantages but are rather related to natural ageing processes that are largely unavoidable. However, not making efforts to redress differences in the functional health of older groups when it is possible to do so is an inequity – for example, not providing age-friendly access to buildings and thereby redressing the mobility aspect of health is an age-related health inequity.

Source

World Health Organization. Handbook on health inequality monitoring with a special focus on low- and middle-income countries. Geneva: WHO; 2013 (<https://apps.who.int/iris/handle/10665/85345>).

2. Health equity/ health inequity

Health equity is the absence of unfair and avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically or geographically, or by other means of stratification.

Health equity implies that everyone should have a fair opportunity to attain their full health and that no one should be disadvantaged from achieving this potential. Inequities in health are fundamentally influenced by the *social determinants of health*.

“Health equity is the absence of systematic disparities in health (or its social determinants) between more and less advantaged social groups” (Braveman and Gruskin 2003).

Promoting health equity means ensuring that everyone has an equal and fair opportunity to reach their full health potential and are not disadvantaged by social, economic and environmental conditions.

This requires removing obstacles to health, as outlined in the determinants of health, including poverty, discrimination, and deep power imbalances and their consequences, such as lack of access to meaningful employment with fair pay, quality education and housing, safe environments, and health care.

Explanatory notes

- Health equity is the ethical and human rights principle motivating efforts to eliminate or reduce health inequalities.
- Health equity can be viewed both as a *process* (the process of reducing systematic differences in health and its determinants) and as an *outcome* (the ultimate goal: the elimination or reduction of systematic differences in health and its determinants).
- Health equity is related to human rights through the role that human rights standards play in endorsing norms for society. WHO states that “equity is the absence of avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically”. Health inequities therefore involve more than inequality – whether in health determinants or outcomes, or in access to the resources needed to improve and maintain health – but also a failure to avoid or overcome such inequality that infringes human rights norms or is otherwise unfair.
- Approaches to address the social determinants of health and approaches in health promotion have a consistent and sustained focus on health equity and social justice.

Example health equity/inequity

In Country X, infant mortality rates are nearly three times higher for non-Hispanic blacks versus whites. The difference in infant mortality would be considered a health inequity. Differences in infant mortality rates among ethnic groups in Country X are attributable to structural racism and preventable differences in education, and access to health and prenatal care. Policies and programmes that address discrimination and improve access to education and health and prenatal care for ethnic groups could reduce unjust differences in infant health outcomes and promote health equity.

Sources

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3. Vulnerability

Vulnerability refers to the enhancement of the negative effects of exposures and causes of disease for a particular social group relative to another.

Conceptually, different exposures (causes) are unevenly distributed across different population groups (differential exposure) and play a mediation role in causing health inequities. The *effect* of these exposures may be worsened (through an interaction at the biological level) if some groups are exposed to multiple causes at the same time, if they have pre-existing diseases that make them more susceptible to the negative effect of exposure, or if natural life course events render them more susceptible (for example, pregnancy, childhood, old age). These latter factors are known as *differential vulnerability* and may exacerbate health inequities.

Explanatory notes

- *Vulnerability* is a contentious term when applied to populations and people who are underserved or overexposed to poor social determinants because it evokes a focus on the individual's attributes, characterizing them as weaker, rather than pointing out the societal factors leading to exposures that

compromise health. The word *vulnerable* has been criticized as situating problems internally; the term *underserved* is said to better call attention to systemic issues that result in unmet needs. There is concern that actions focused purely on vulnerability may fall short of what is needed to reduce differential harmful exposures.

- In some social epidemiological frameworks, the term *susceptibility* is used interchangeably with vulnerability.
- One can refer to the living circumstances of disadvantaged populations that enhance vulnerability.
- Differential susceptibility and vulnerability is one part of the assessment that affects the choice of preventive strategies to promote health equity.

Example vulnerability

Children, whose immune systems are in development, may react differently to medical treatments owing to biological vulnerability. Also, we know that the same life incidence experienced by children, compared with adults, may have a larger detrimental effect on the mental health of the future adult, owing to the timing of the incidence and the vulnerability of their neurology and immunology at that earlier time.

Sources

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Diderichsen F, Hallqvist J, Whitehead M. Differential vulnerability and susceptibility: how to make use of recent development in our understanding of mediation and interaction to tackle health inequalities. *International Journal of Epidemiology*. 2019;48(1):268–74 (<https://academic.oup.com/ije/article-abstract/48/1/268/5066378>).

4. Social determinants of health

The *social determinants of health* are the non-medical factors that influence health outcomes (WHO). They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems.

The conditions in which people are born, grow, live, work, and age, and the inequities in power, decision-

making, money and resources that give rise to these conditions of daily life, include a person's education; income; access to social protection (such as affordable child services, sickness pay, unemployment protection, and pensions); access to quality health services and good nutrition; access to healthy housing and clean air; and access to financial and judicial services.

WHO Regional Office for Europe: The social determinants of health are the political, social, economic, institutional and environmental factors which shape the conditions of daily life.

Sources

World Health Organization. Social determinants of health. Geneva: WHO (https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1).

World Health Organization Regional Office for Europe. Healthy, prosperous lives for all: the European health equity status report. Copenhagen: 2019 (<https://www.euro.who.int/en/publications/abstracts/health-equity-status-report-2019>).

5. Other definitions (from the perspective of social determinants of health and equity)

Commercial determinants. Factors that influence health which stem from the profit motive (West and Marteau 2013); strategies and approaches used by the private sector to promote products and choices that are detrimental to health (Kickbusch, Allen and Franz 2016).

Corporate determinants. The unseen influence of corporations on health exerted through defining the dominant narrative; setting the rules by which society, especially trade, operates; commodifying knowledge; and undermining political, social, and economic rights (McKee and Stuckler 2018).

Economic determinants. Economic determinants of health refer largely to the macroeconomy and its influence on health and encompass both the corporate and commercial determinants of health (Naik et al. 2019).

Global political determinants of health. The norms, policies, and practices that arise from global political interaction across all sectors that affect health are what we call global political determinants of health (Ottersen et al. 2014).

Social factors. Social factors include economic factors and refer to economic and social opportunities and resources and living and working conditions in homes and communities (Braveman, Egerter and Williams 2011).

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6. Health in All Policies and multisectoral approaches

Health in All Policies is an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity.

As a concept, the Health in All Policies approach reflects the principles of legitimacy, accountability, transparency and access to information, participation, sustainability, and collaboration across public policy sectors and levels of government. Health in All Policies is a horizontal and multilevel policy strategy that improves the accountability of policy-makers for health impacts at all levels of policy-making. It includes an emphasis on the consequences of public policies for health systems, determinants of health and well-being.

A Health in All Policies approach has been advocated as a practical response to the multisectoral requirements of the Agenda for Sustainable Development, and as an important strategy for achieving universal health coverage and health for all.

Governance is very important in the practice of Health in All Policies. Other terms related to multisectoral action or approaches are used to describe cross-sectoral policy work. The intermediate output of Health in All Policies is often described as “healthy public policy”, and is so labelled in the Ottawa Charter. This is commonly understood as policy that increases the health and well-being of individuals and communities that are affected by the policy.

Multisectoral action or approaches for health

Type of action	Definition
Multisectoral	Involving different governmental sectors, such as health, agriculture, education, finance, transport, trade
Multisectoral action or collaboration for health	A recognized relationship between parts of different sectors of the government, which has been formed to respond to a multicausal problem that requires action beyond one single sector in order to improve population health and health equity, or to address the determinants of health
Multisectoral approaches for health	All activities of government agencies involving two or more non-health sectors that can potentially improve population health and health equity or address the determinants of health
Multistakeholder collaboration	A recognized relationship between parts of different sectors of the government with other stakeholders (non-state actors), which has been formed to take action to achieve particular national objectives

Sources

Kickbusch I, Buckett K, editors. *Implementing Health in All Policies*: Adelaide 2010. Adelaide: Government of South Australia; 2010.

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Annex 2.

National Health Workforce Accounts indicators

Table A2.1 Key indicator 1: Standards for social determinants of health

Module 3: Education and training regulation and accreditation

Indicator 3-05: Standards for social determinants of health

Indicator number	3-05
Dimension	Accreditation
Abbreviated name	Standards for social determinants of health
Indicator name	Existence of national and/or subnational standards for the social determinants of health in accreditation mechanisms
Numerator	Not applicable
Denominator	Not applicable
Disaggregation	By health workforce education and training programme
Definition	<p>Existence of national and/or subnational standards for the social determinants of health in accreditation mechanisms.</p> <p>Valid values: yes/no/partly</p> <p>In order to answer this question please consider the following supporting questions as guidance:</p> <ul style="list-style-type: none"> • Are the social determinants of health included within national standards? • Are the social determinants of health reflected within subnational standards? <p>In countries with subnational structures responsible for the health workforce, the answer at national level should be "yes", if the units exist in more than 50% of the regions.</p> <p>Source: WHO Commission (2008).</p>

Glossary	<ul style="list-style-type: none"> • Accreditation mechanisms • Accreditation standards • Health workforce education and training programme • Occupation • Social determinants of health
Data reporting frequency	Every three years
Potential data sources	<ul style="list-style-type: none"> • Ministries of health, higher education or similar • National accreditation authorities • Professional bodies or associations • Legitimate bodies, statutory corporations
Further information and related links	<p>WHO Commission of the Social Determinants of Health and its report: Closing the gap in a generation (2008) (https://apps.who.int/iris/bitstream/handle/10665/43943/9789241563703_eng.pdf).</p> <p>WHO Global Strategy on Human Resources for Health (2015) (https://apps.who.int/iris/bitstream/handle/10665/250368/9789241511131-eng.pdf).</p> <p>High Level Commission on Health Employment and Economic Growth (2016) (https://apps.who.int/iris/handle/10665/250040).</p>
Additional references	<p>WHO Framework for Integrated People-Centred Health Services (2016) (https://apps.who.int/iris/handle/10665/252698).</p> <p>WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases (2013) (https://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf?ua=1).</p> <p>WHO Twelfth General Programme of Work (2014) (https://apps.who.int/iris/handle/10665/112792).</p>

Table A2.2 Key indicator 2: Mechanisms to coordinate an intersectoral health workforce agenda

Module 9: Governance and health workforce policies

Indicator 9-01: Mechanisms to coordinate an intersectoral health workforce agenda

Indicator number	9-01
Abbreviated name	Mechanisms to coordinate an intersectoral health workforce agenda
Dimension	Governance
Indicator name	Existence of institutional mechanisms or bodies to coordinate an intersectoral health workforce agenda
Numerator	Not applicable
Denominator	Not applicable
Disaggregation	Not applicable

Definition	<p>Existence of institutional mechanisms to coordinate an intersectoral health workforce agenda (Global Strategy on Human Resources for Health: Global Milestones 2020, Milestone 1).</p> <p>Valid values: yes/no/partly</p> <p>These mechanisms may rely on a national coordination committee, involving for example interministerial SDG committees, sector skills councils or similar high-level bodies with a leadership function for coordinating, developing and monitoring policies and plans on the health workforce and negotiating intersectoral relationships with other line ministries, government agencies and other stakeholders.</p> <p>In order to answer this question please consider the following supporting questions as guidance:</p> <ul style="list-style-type: none"> • Is there a coordinating mechanism or body in place for this task? • Are various stakeholders (ministries, public, private, nongovernmental, international bodies) involved in the coordination process? • Has an agenda been formulated? • Has the agenda been approved at interministerial level (ministries of education, finance, public service, health)? <p>In countries with subnational substructures responsible for the health workforce, the answer at national level should be "yes", if the mechanism exists in more than 50% of the regions.</p> <p><i>Sources:</i> WHO Global Strategy on Human Resources for Health: Workforce 2030 (2016).</p> <p>WHO survey on national HWF planning unit: WHO (2010) Annex 1: Survey on national HWF planning – 1. Partnership (http://apps.who.int/iris/bitstream/10665/44263/1/9789241599016_eng.pdf).</p>
Glossary	None
Data reporting frequency	Every three years
Potential data sources	<ul style="list-style-type: none"> • Ministries of health • Subnational-level ministries of health • Institutions or units responsible for policies on health workforce • Relevant ministries according to the national government structure and constitutional arrangements/level of devolution

Further information and related links	<p>WHO Global Strategy on Human Resources for Health: Workforce 2030 (2016) (https://apps.who.int/iris/bitstream/handle/10665/250368/9789241511131-eng.pdf).</p> <p>WHO: Models and tools for health workforce planning and projections. Human Resources for Health Observer, Issue No. 3 (2010) (http://apps.who.int/iris/bitstream/10665/44263/1/9789241599016_eng.pdf).</p> <p>EU: Joint Action on Health Workforce Planning and Forecasting. Handbook on health workforce planning methodologies across EU countries (2015) (https://healthworkforce.eu/wp-content/uploads/2015/11/150306_WP5_D052-Handbook-on-HWF-Planning-Methodologies-across-EU-Countries_Release-1_Final-version.pdf).</p>
Additional references	<p>WHO: Policies and practices of countries that are experiencing a crisis in human resources for health: tracking survey. Human Resources for Health Observer, Issue No. 6 (2010) (http://apps.who.int/iris/bitstream/10665/44480/1/9789241500821_eng.pdf).</p> <p>WHO: Strategizing national health in the 21st century: a handbook (2016) (https://apps.who.int/iris/handle/10665/250221).</p> <p>WHO: Global monitoring of action on the social determinants of health: a proposed framework and basket of core indicators (2016) (https://www.who.int/news-room/events/detail/2016/11/15/default-calendar/global-monitoring-of-action-on-the-social-determinants-of-health-a-proposed-framework-and-basket-of-core-indicators).</p>

Table A2.3 Supplementary indicator: Education plans aligned with national health plan

Module 9: Governance and health workforce policies

Indicator 9-04: Education plans aligned with national health plan

Indicator number	9-04
Abbreviated name	Education plans aligned with national health plan
Dimension	Health workforce policies
Indicator name	Existence of national education plans for the health workforce, aligned with the national health plan and the national health workforce strategy/plan
Numerator	Not applicable
Denominator	Not applicable
Disaggregation	Not applicable

Definition	<p>Existence of national education plans for the health workforce aligned with the national health plan to ensure that all health workers have the skills that match the needs of the population and can work to their full potential.</p> <p>Valid values: yes/no/partly</p> <p>In order to answer this question please consider the following supporting questions as guidance:</p> <ul style="list-style-type: none"> • Is there a national education plan for the health workforce? • Do education plans for the health workforce match health worker competencies with population, health system, and health labour market needs? • Are national education plans for the health workforce coherent and aligned with the national health strategy or plan and the national health workforce strategy or plan? • Are there collaboration efforts between the stakeholders involved in education plan development? • Does the plan take into account efforts to scale up transformative education and training? • Are recognized institutes, such as national public health institutes, universities and collaborating centres, offering training courses on the implementation and monitoring of Health in All Policies and related concepts? • Are strategic steps taken in considering and taking into account the workforce market needs and absorptive capacities for development of the education plan? • Have accreditation mechanisms for health workforce education and training institutions been established? <p>In countries where health workforce education and training is organized at subnational level, the answer at national level should be “yes”, if the mechanism exists for more than 50% of the regions.</p> <p>Sources: WHO (2013), ILO/OECD/WHO (2016).</p>
Glossary	<ul style="list-style-type: none"> • Education plan
Data reporting frequency	Every three years
Potential data sources	<ul style="list-style-type: none"> • Ministry of health, ministry of education, ministry of labour • Regional ministries of health, regional ministries of education • Institutions or units responsible for policies on health workforce • Educational institutions
Further information and related links	<p>WHO: World Health Assembly resolution WHA66.23: Transforming health workforce education in support of universal health coverage (2013) (http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R23-en.pdf).</p> <p>WHO: Leadership and governance in monitoring the building blocks of health systems (2010) (https://apps.who.int/iris/bitstream/handle/10665/258734/9789241564052-eng.pdf).</p> <p>WHO: Strategizing national health in the 21st century: a handbook (2016) (https://apps.who.int/iris/handle/10665/250221).</p>

Contact information:

<https://www.who.int/health-topics/social-determinants-of-health>

