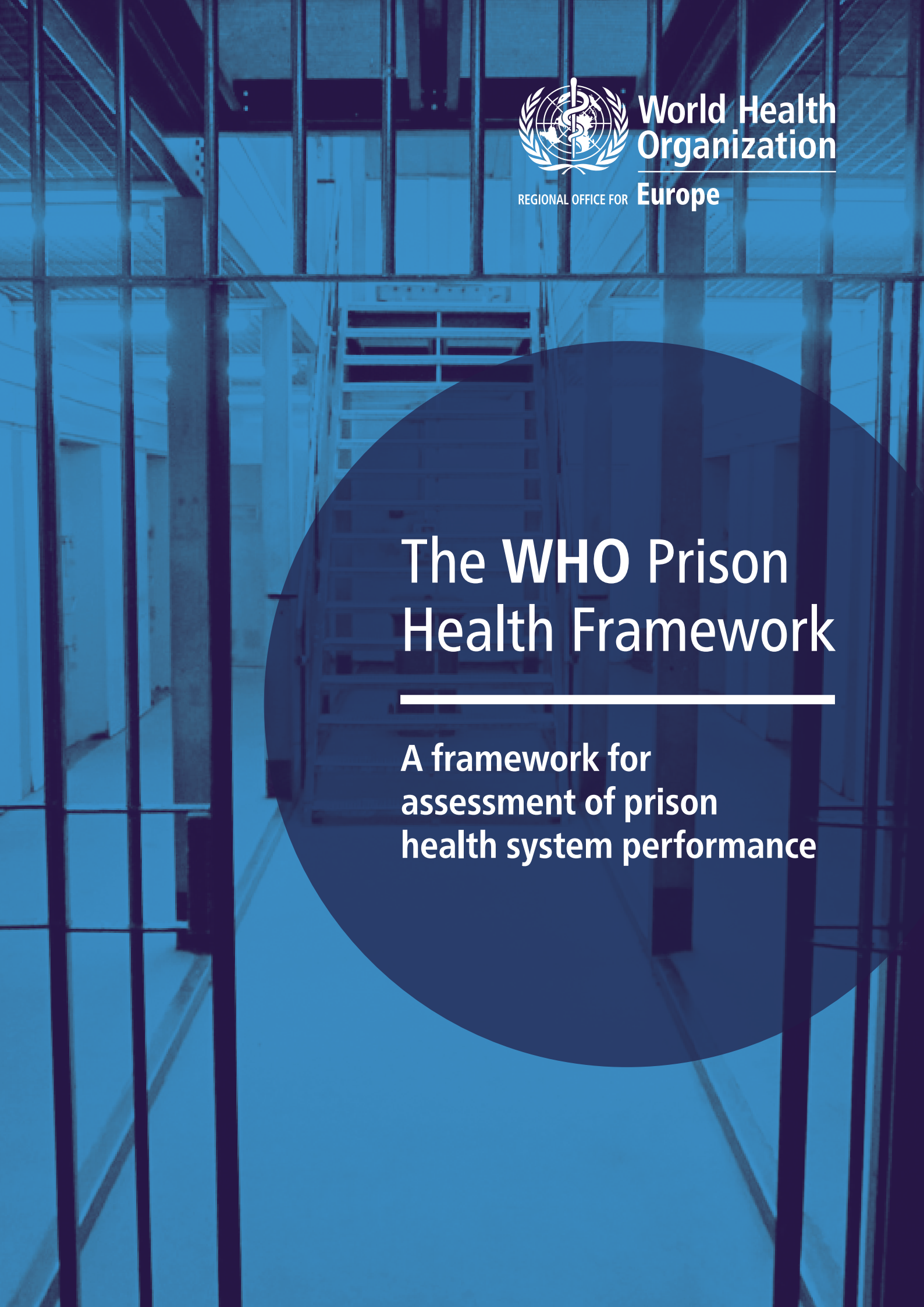

World Health Organization

REGIONAL OFFICE FOR Europe

The **WHO** Prison Health Framework

A framework for assessment of prison health system performance

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ABSTRACT

Health system frameworks support informed decision-making at the country level by providing a cohesive frame of reference for policy design and implementation. Inspired by existing frameworks devised by WHO and other entities to monitor and measure health-care delivery in a standardized way, the WHO Prison Health Framework has been developed to fully capture the specificities of prisons and other places of detention. This document describes the conceptualization, development and operationalization of the framework. The WHO Prison Health Framework will improve assessment of prison health system performance and the quality of data collected by the periodic Health In Prisons European Database (HIPED) surveys, which aim to inform progress in achieving equivalence of care for people living in prison.

Keywords
PRISONS
DELIVERY OF HEALTH CARE
HEALTH SERVICES ACCESSIBILITY
OUTCOME AND PROCESS ASSESSMENT

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CONTENTS

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ABBREVIATIONS

BMI	body mass index
CVD	cardiovascular disease
GPW 13	Thirteenth General Programme of Work
HBV	hepatitis B virus
HCV	hepatitis C virus
HIPED	Health in Prisons European Database
HIPP	Health in Prisons Programme
LGBTIQ	lesbian, gay, bisexual, transgender, intersex and queer
MDR-TB	multidrug-resistant tuberculosis
NCD	noncommunicable disease
PEP	post-exposure prophylaxis
PrEP	pre-exposure prophylaxis
STI	sexually transmitted infection
TB	tuberculosis
UHC	universal health coverage

INTRODUCTION

Introduction

Universal health coverage (UHC), central to better health and well-being for all, delivers gains across the 2030 Agenda for Sustainable Development and embodies the 2030 Agenda pledge to leave no one behind *(1).* The WHO Thirteenth General Programme of Work (GPW 13), adopted at the 2019 World Health Assembly, and the European Programme of Work, adopted in 2020, both reiterate the need to promote increased UHC and healthier populations. Indeed, the targets set to be met by 2023, which constitute the basis of GPW 13, ambitiously refer to the "triple billion target", which aspires to 1 billion more people benefiting from UHC, 1 billion more being better protected from health emergencies, and 1 billion more enjoying better health and well-being. For these targets to be met, no one can be left behind, including marginalized and vulnerable groups such as people in prison *(2)*; and to realize the ambitions of UHC and reduce health inequalities, we need the capacity to measure health-care design and delivery, which vary widely across regions.

The need to measure health system performance in order to obtain meaningful data to inform evidence-based policy decisions is well recognized. Various frameworks have been proposed by WHO *(3, 4, 5)* and other entities *(6, 7, 8)* to monitor and measure health-care delivery in a standardized way that allows comparisons to be made between Member States. Such comparisons are also important in assessing the effectiveness of different policy approaches and their impact on system performance in relation to the health outcomes of people deprived of their liberty. In addition, health system frameworks support informed decision-making at the country level by providing a cohesive frame of reference for policy design and implementation.

Frameworks for mapping health systems are commonly made up of domains that depict the main functions and components of such systems, describing inputs and processes, outputs, and impacts. The focus of these frameworks varies, as some focus on UHC while others focus on performance measures in the broad sense or, more specifically, on quality indicators. However, frameworks that aim to assess delivery at the population level are so broad in nature that they fail to capture the complex array of features that specifically characterize health-care delivery in settings such as prisons and other places of detention.

People in prison come from the community and, in most cases, return to the community, so a period of incarceration may be a suitable moment to address health inequalities and make health interventions in this population. Globally, it is estimated that about 11 million people live in prison, while more than 30 million people worldwide are thought to move between their communities and prisons annually *(9).* On any given day, more than 1.5 million people in the WHO European Region are incarcerated *(10).* The health profile of people in prison is one of complex, co-occurring physical and mental health conditions, and the poor health status of this population is typically set against a backdrop of entrenched and intergenerational social disadvantage. For this reason, it is necessary to address the social determinants of health as risk factors that frequently overlap with risk factors for incarceration, including (among others) lack of income and social protection, low educational attainment, unemployment and job insecurity, poor working-life conditions, food insecurity, poor housing, lack of basic amenities and exposure to unhealthy environments.

The link between economic status and unhealthy behaviours is well documented, and there are data suggesting that, for example, more than 60% of the homeless population have substance use disorders, including illegal drugs and alcohol *(11).* A large proportion of people with drug use problems are sentenced to prison for drug law offences and crimes committed to support their drug use *(12).* It has also been shown that recently released inmates often have few opportunities to find employment or accommodation, and this leaves them trapped in poverty and fuels recidivism *(13).* Incarceration and the process of transitioning back into the community following release are important in keeping society safe and providing an opportunity to reduce health inequities, and hence avoidable costs, that result from poor health status and recidivism.

In order to improve the health of people in prison, there needs to be an understanding of the current health systems in prisons and the health status of their populations. Responding to a lack of systematically collected and comparable data on the health of incarcerated people, the WHO Regional Office for Europe, in collaboration with the United Kingdom Collaborating Centre for the WHO Health in Prisons Programme (HIPP) and members of the HIPP Steering Group, developed the Health in Prisons European Database (HIPED). This database gathers information through periodic HIPED surveys to which Member States contribute by providing their most up-to-date data to support mapping of existing prison health systems in Europe, including the level of provision of different interventions and the quality of health care. Based on this information, HIPED provides Member States with guidance to improve their prison health systems. In the first HIPED data collection round, conducted in 2016, data were gathered for indicators covering eight prison health domains *(14).* Based on the experience gained in the first wave and informed by existing WHO frameworks for mapping health systems and assessing their performance, the underlying framework with indicator domains was redefined, to guide and optimize data collection in the second round of HIPED to be implemented during 2021.

This paper describes the conceptual development of the WHO Prison Health Framework – a new framework for assessing prison health system performance, building on a process initiated in 2016 through the creation of an open-access database where data collected from Member States could be consulted and inform policy changes. These data have also been compiled into a status report and a set of 38 country profiles *(14, 15).* The development of this framework will further contribute to the comprehensiveness and clarity of the assessment operationalized through the application of HIPED Member State surveys in the next two years in line with the HIPP Action Plan.


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1. CONCEPTUALIZATION AND DEVELOPMENT OF THE FRAMEWORK

1.1 Framework priorities

The WHO Prison Health Framework has been developed to support Member States in improving their prison health systems and enhancing their capacity to evaluate the impact of changing governance models or improving service provision and the impact that such initiatives will have on the health status of people in prison. To fully attain these goals, a number of priorities have been identified.

1) Strengthen prison information systems to enhance surveillance and response capacity
Support prison-based information systems so that they can store and generate reliable information on the health status of people in prison and the quality of health service provision in prison, including services provided in collaboration with partners from other sectors (such as nongovernmental organizations, other ministries and other agencies).

Work with countries, as allies in protecting against health emergencies, to develop and adapt their information systems so that they can be integrated into national health information systems, thereby allowing granularity of data that can inform resource allocation and timely and effective health surveillance.

2) Monitor health service provision in prison
Identify gaps in health service provision in prison or in the education and training of prison staff and compare them with services available in the community, so that the extent to which equivalent care is available can be identified. Evaluating the extent to which workforce standards are observed is another metric that can help to identify the need for capacity-building initiatives or for support in obtaining additional resources.

3) Track performance
Establish a set of core and additional health system metrics to track prison health system performance for use by countries and for benchmarking purposes; these metrics may ultimately be used to assess differential health outcomes achieved.

4) Obtain valid and reliable measures of the health status of people living in prison
Create a culture that encourages regular assessment of health outcomes of the prison population so that the needs of people in situations of vulnerability are better understood. Consider health in a broader sense to capture aspects of complete physical, psychological and social well-being. Strengthen the evaluation of noncommunicable diseases (NCDs) and their determinants, as a core function to accelerate transformation and country impact.

5) Conduct intersectoral work for better performance and outcomes
WHO has been advocating for health ministries to provide and be accountable for health-care services in prisons and to push for healthy prison conditions *(16)*. However, country case studies have shown that other models may also be put in place that effectively lead to good outcomes *(17)*, as long as intersectoral coordination and cooperation are achieved. It is crucial that the responsibilities of those involved are clearly defined if the best solution for each context is to be identified.

1.2 Framework conceptualization

The framework was developed using existing WHO frameworks as a starting point – most notably, the Health System Framework *(18)* and the framework for monitoring, evaluation and review of national health strategies *(4)*. The components of these frameworks, the extent of their relevance to the prison health context, and the areas that needed to be emphasized in order to capture the specificities of the prison health system context were all presented at an HIPP Steering Group meeting held in May 2020 and later discussed in greater detail at two meetings of the HIPED Technical Expert Group, in May and December 2020. The HIPP Steering Group includes experts from 27 institutions, including (among others) members with a ministerial role, advocacy groups, international organizations, nongovernmental organizations, and academics.[1] In addition, internal WHO divisions that were identified as strategic areas for the HIPP Action Plan were involved in the discussions; these included, within WHO/Europe, the Division of Communicable Diseases, the Division of Health Systems, and the European Centre for Primary Health Care. During the Steering Group meeting, 30 individual experts participated in the discussion. The Technical Expert Group is a more restricted group comprising 12 experts selected for their expertise in specific areas of prison health (such as mental health and infectious diseases) that may complement each other in supporting the technical development of HIPED. During the discussion with the Technical Expert Group, experts provided further feedback on the framework, leading to its final approval by both Steering Group and Technical Expert Group members.

1.3 Framework structure

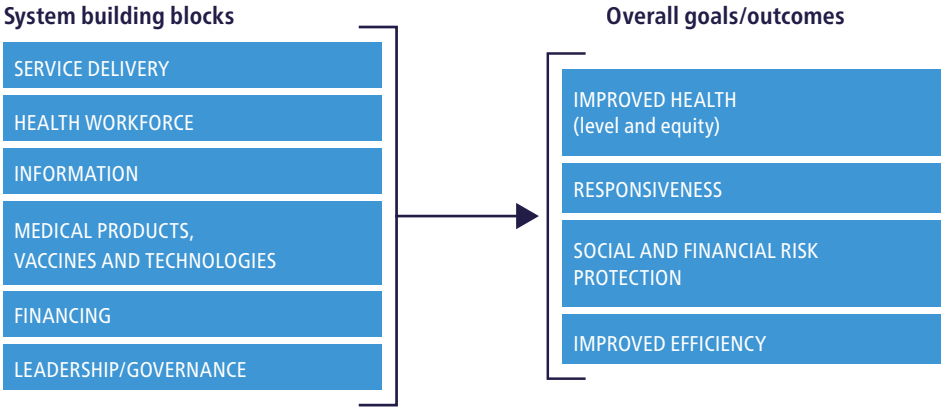
The first main building block in the WHO Prison Health Framework captures the system-level aspects of prison health care (or inputs); the second block captures provision/delivery aspects of prison health care (or outputs). These building blocks are in turn modified by two influencing factors. Ultimately, all these elements impact on the health outcomes block. Finally, there are two cross-cutting principles that, by definition, are associated with all these building blocks and influencing factors.

The WHO Health System Framework encompasses the following main domains, or building blocks *(18)*: 1) Service delivery; 2) Health workforce; 3) Information; 4) Medical products, vaccines and technologies; 5) Sustainable financing and social protection; and 6) Leadership and governance (Fig. 1). These are all reflected in the WHO Prison Health Framework, but they are sometimes referred to using different terminology and/or placed differently within the framework in order to better represent the specificities of prison health systems.

In the WHO Prison Health Framework, **Leadership and governance** is replaced by the domains **Organization** and **Vision and strategy**. **Service delivery** is expanded to a building block named **Health service delivery** with several underlying domains (**Medical care**, **Preventive services** and **Rehabilitation**), to adequately capture the critical service delivery aspects of prison health systems. The **Health service delivery** building block also includes a **Performance** domain, comprising performance aspects of the health-care system **(Availability**, **Accessibility**, **Acceptability** and **Quality**). In the

1 For further details of partners in the Partnership for Health in the Criminal Justice System, see https://www.euro.who.int/en/health-topics/health-determinants/prisons-and-health/partners.

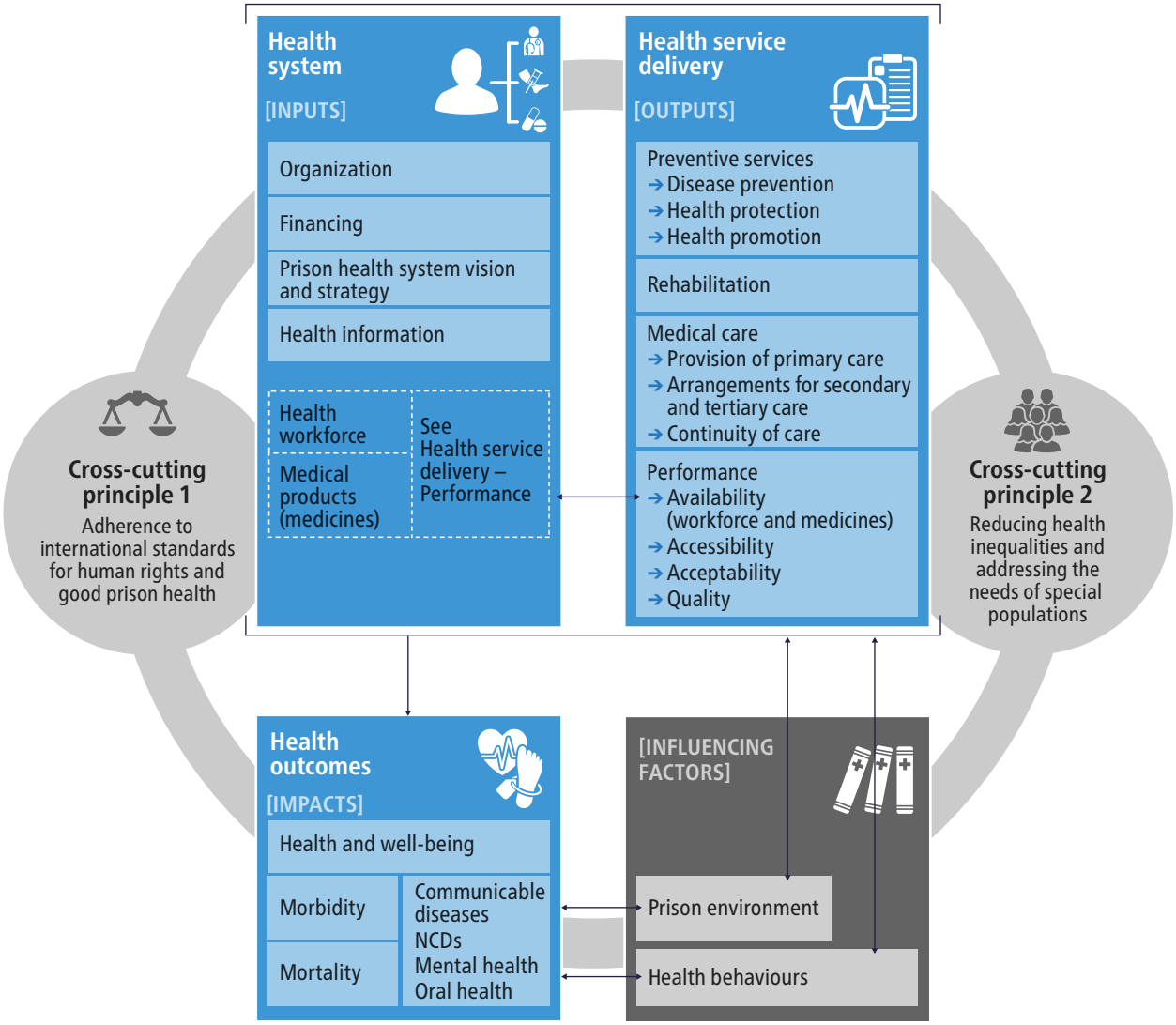
Fig. 1. The WHO Health System Framework



WHO Health System Framework, these aspects are treated as intermediate goals, while in the WHO framework for monitoring, evaluation and review of national health strategies *(4)*, they are listed as outputs. In the WHO Prison Health Framework, they are included in the **Health service delivery (outputs)** building block. This was done partly to keep the framework concise and simple, but also because performance aspects such as accessibility and quality are highly relevant to the prison health context and are therefore included as part of one of the main building blocks. Such is the importance of performance aspects that **Health workforce** and **Medical products (medicines)** are primarily linked to **Availability** as an element of performance in the WHO Prison Health Framework, rather than as separate domains in the **Health system delivery** building block. The role of health workforce and medicines as important health system inputs with direct impact on outputs and outcomes is also reflected in the framework by highlighting the bidirectional nature of these two elements.

To complete the WHO Prison Health Framework, the domains **Prison environment** and Health behaviours were added as two important influencing factors that modify the way the system's inputs and outputs translate into health outcomes. In addition to these major domains, there are two cross-cutting principles that have been identified as specific to the prison context and which influence all the major domains mentioned above. These principles are **Adherence to international standards for human rights and good prison health and Reducing health inequalities and addressing the needs of special populations** (Fig. 2).

Fig. 2. The WHO Prison Health Framework



As explained above, the various elements in the WHO Prison Health Framework are defined on the basis of their specific relevance to prison health systems. The rationale for their selection is explained in greater detail in the following sections.

1.4 Domains of the WHO Prison Health Framework

1.4.1 BUILDING BLOCK 1. HEALTH SYSTEM

The first main building block comprises inputs into the prison health system. These include health system organization, financing, and the resources, actors and institutions related to the organization and are described below *(3)*.

Organization

Prison health systems are very diverse, and there are no "universal blueprints", or unique structural mechanisms, to determine how to manage and deliver prison health care *(8)*. Information on how the system is organized therefore needs to be gathered to get a basic understanding of each system's specific context. Funding arrangements are also diverse *(14)* and comprise both the availability of adequate funding and the source(s) of funding (see next section). As described in the WHO Health System Framework *(18)*, **Leadership and governance** involves ensuring that strategic policy frameworks exist and are combined with effective oversight, coalition building, provision of appropriate regulations and incentives, attention to system design, and accountability. In the prison context, different governance arrangements may be in place, where the health, justice or interior ministries are commonly predominant, with implications for the organization, funding and strategic vision for prison health. A description of the organization of the prison health system and how it compares to the organization of the health system available to the general (non-prison) population is essential to judge the principle of equivalence of care and equity in provision.

Financing

Information on financing aspects is needed, including information on the extent to which people in prison are included in and covered by existing national health services or insurance schemes that are available to the general public. When a person is deprived of liberty, governments assume responsibility for individuals who are no longer able to seek work and support themselves financially. Broadly speaking, a good health financing system allocates adequate funds for health, in ways that ensure people can use the services they need and are protected from financial hardship or impoverishment associated with having to pay for them *(18)*. Many imprisoned individuals come from marginalized groups of society that may experience barriers in accessing the social care and protection mechanisms that should exist if every individual is to have the right and opportunity to use necessary health care. However, once behind bars, every individual becomes equal and should therefore be granted the financial protection to overcome these potential barriers to access.

Vision and strategic approach

The identification of a vision and strategic approach to prison health and the existence of a strategic plan for prisons or prison health policy that is embedded in national documents are needed to understand the relevance attached to prison health and the investment that governments make in it. Accountability is an important aspect of health system management, requiring authorities to answer questions about their decisions and/or actions *(19).* This ensures transparency and quality assurance of health-care services, which is especially important in a closed environment such as a prison. Health strategies play an essential role in defining a vision and strategic direction for a health system such that it ensures the health of its population *(20)* – something that is no less applicable in the context of prison health care. Setting overarching outcomes for the health system is one of the most crucial aspects associated with its accountability mechanisms *(21).* For this reason, the third domain within the health system building block of the WHO Prison Health Framework is related to the availability and implementation of prison health system strategies.

Health information

The final domain within the health system building block is related to health information. A well-functioning health information system is one that ensures the production, analysis, dissemination and use of reliable and timely information on health determinants, health system performance and health status *(18).* The Helsinki Conclusions underline the centrality of evidence in improving policy and practice, stating that it is critical to sustain efforts to improve surveillance, to create prison health datasets at national or subnational level, to provide research that can inform decision-making, to conduct systematic evaluations, and to document best practices *(2).* Health information systems in prisons that are not integrated into the national health information system are a cause for concern – it may simply mean that there are different jurisdictional arrangements, often constitutional and hard to change, but it may also suggest that prison health systems are considered outside the wider health system. Whatever the explanation, this lack of integration has implications for prison health services in relation to integrated provision and continuity of care during and after release. For most people, the experience of custody is of short duration, and many may then find themselves caught in a cycle of disadvantage, crime and imprisonment. In most countries, very few people serve life sentences, so the great majority of people in prison must be prepared for release back into the community, which includes addressing their health conditions and managing their health-related information in a manner that transcends system barriers.

1.4.2 BUILDING BLOCK 2. HEALTH SERVICE DELIVERY

Health service delivery constitutes the second main building block of the WHO Prison Health Framework. In line with WHO's definition of health, health services may be described as any set of activities whose primary intent is to achieve a state of complete physical, mental and social well-being *(22).* This includes, but is not limited to, services that are aimed at preventing and treating disease.

As stated in the WHO Health System Framework, good health services are those that deliver effective, safe, high-quality personal and non-personal health interventions to those that need them, when and where needed, with minimum waste of resources *(18).* Progress in strengthening health systems has been advocated in three main domains, one of which is the range of benefits offered to the population. These benefits may include programmes, interventions (pharmaceutical and non-pharmaceutical), goods and services. As described in the Alma Ata Declaration *(23)*, investment in **primary health care** brings clear benefits in terms of health promotion, disease prevention and use of appropriate technology. These should constitute the base of a pyramid in which all individuals are included and have recourse, whenever possible, to primary care as the first point of contact. However, despite the critical importance of primary care, linkages to **secondary and tertiary care** for more specialized treatment must also be in place. The main elements of health service provision in prisons are essentially the same – namely, primary care, supported by secondary care, together with preventive services (considered as part of primary care in the sense of first point of contact). The core of medical care provision in the prison health system sits in the area of primary care, which includes preventive and curative care for general conditions. Prison health services must also have good access to specialized care to ensure that sick people in prison get the specialist treatment they require and can be transferred to appropriate institutions when needed *(24).* In addition to point-of-care testing and general health assessment that belong in primary care, specialized diagnostic procedures also need to be available, for confirmation of certain medical conditions.

Continuity of care is a crucial element of a sustainable prison health service. Arrangements should be made for continuous access to care at point of admission, transfer and release, and this should be facilitated by prison management. Continuity of care between prisons and the outside community requires that close structural relations are established between health and social services in prisons and in the community *(2, 24).*

The provision of **preventive services** is a key function of prison health systems, just as it is in community care, as described in the Alma Ata Declaration *(23).* Such services include disease prevention, health protection and health promotion.

The idea of **disease prevention** is quite clear and includes primary and secondary prevention *(25).* "Primary prevention means averting the occurrence of disease", while "secondary prevention means halting the progression of a disease from its early unrecognized stage to a more severe one" *(26).* Disease prevention therefore includes screening programmes for infectious diseases, including HIV, viral hepatitis (HBV and HCV), tuberculosis (TB), and sexually transmitted diseases such as chlamydia and syphilis; it includes screening for NCDs and their risk factors, including alcohol consumption, smoking habits, sedentarism and eating behaviour; and it also includes immunization against vaccine-preventable diseases.

Health protection involves reducing hazards in the environment, which in the prison context may relate to (for instance) the existence of smoke-free cells (or prisons) or drug-free units. It also involves having products available to reduce hazards, including (for instance) harm reduction services, and may also apply to the food systems in place and the alternative foods offered. **Health promotion** involves assessing the attitudes of people in prison to health and helping them to change unhealthy behaviours such as tobacco use, substance abuse and alcohol abuse *(24).*

Considering health, in its broadest meaning, as "a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity" *(22)*, it is important also to consider – in the case of people deprived of liberty – **rehabilitation** *(27).* Rehabilitation is crucial in achieving mental and social well-being, and reducing reoffending through rehabilitation programmes is a central goal of the correctional system. These include a broad array of programmes such as mental health, substance abuse, educational services *(28)* and employment skills development. Rehabilitation is related to health resilience and can be an important part of the resettlement process. A focus on rehabilitation is an element of the whole-prison approach, which prisons should adopt to create the best conditions for good health and effective health care *(24).* Although rehabilitation as a whole may not, in most health systems, be considered a health service per se, certain aspects overlap, and alongside health behaviours and the prison environment, it will ultimately influence health outcomes. The issue of rehabilitation in prison health reflects an understanding of the wider determinants of health *(29)*, which include education, training, employment opportunities and social relationships. In the prison context, it involves developing a sense of community and developing/maintaining relationships with those outside prison *(30).*

The final domain within the **Health service delivery** building block comprises aspects of health system **performance**. While the other domains in this building block tell us something about what health services are being delivered, this domain tells us something about how they are being delivered, and whether this meets existing standards and/or expectations. Measuring health system performance is a key component of accountability mechanisms in health systems (alongside having a health strategy) *(21).* Four main aspects of prison health system performance can be identified: availability, accessibility, acceptability and quality.

Availability involves having sufficient facilities, services and goods and having adequate personnel resources to deliver the services required. The ability of systems to respond and have the necessary care available to those who need it is highly dependent on workforce issues. Workforce is traditionally measured as full-time equivalents (FTEs), a metric that considers settings where service providers may frequently not be contracted full-time, as is the case in prisons. This measure then needs to be put in context, taking account of the population to be served (per 1000 inhabitants or, in this case, per 1000 people in prison). A well-performing health workforce is one that works in ways that are responsive, fair and efficient to achieve the best health outcomes possible, given available resources and circumstances – in other words, there are sufficient staff numbers and an adequate range of skills, fairly distributed; they are competent, responsive and productive *(18).* The health workforce in the general population relies mostly on physicians and nurses, and these are the main professions considered when health systems are compared. However, in the prison setting, there are specific professions, in addition to physicians and nurses, that are considered essential; these include dentists and specialists in certain areas of medicine (such as psychiatry), depending on the profile of the prison population. Considerations of the quality of the workforce, in terms of accreditation and compliance with continuous professional development requirements, are addressed in another domain of the framework, as these are considered a cross-cutting theme (**Adherence to international standards**).

Accessibility is a matter of these facilities, services and goods, including health-related information, being physically and economically accessible without discrimination, especially to vulnerable or marginalized populations. **Acceptability** addresses the extent to which the facilities, services and goods respect medical ethics, confidentiality, and the principles of beneficence and non-maleficence to the recipient of care. It also considers the extent to which these services are acceptable to the population benefiting from them and is thus embedded in the principles of autonomy and person-centred care. Finally, **quality** considers the scientific and medical appropriateness of facilities, services and goods in terms of quality standards *(16, 31)*. High-quality health services embrace a person-centred approach; prison health services must be person-centred and person-informed to meet the needs of justice-involved individuals *(2)*.

1.4.3 BUILDING BLOCK 3. HEALTH OUTCOMES

The third building block translates the investments made in the health system (block 1) and the delivery of health services (block 2) into health outcomes; it is also affected (as are blocks 1 and 2) by two influencing factors – **Prison environment** (1.4.4) and **Health behaviours** (1.4.5).

The health outcomes block comprises three domains: **Health and well-being**, **Morbidity** (disease) and **Mortality** (death). **Health and well-being** are concepts that arise from the WHO definition of health *(27)* but which have been slow to be taken up in comparison with more "traditional approaches" (epidemiological ones that focus primarily on the presence or absence of disease). Particularly in settings where people are in a condition of dependence and may potentially become victims of abuse, a person's own assessment or perception of their health and well-being is an important consideration. The inclusion of a domain capturing these aspects of health is therefore included in the framework primarily to motivate the adoption of this developing concept.

Morbidity and mortality are important measures to assess the health status of a population. In the prison context, they are also important domains to evaluate the health system's performance in offering equal opportunities for those incarcerated compared to those in the outside community (and they thus also provide a feedback loop to inform organizational and planning processes).

Morbidity indicators are traditionally divided into two major groups – infectious (or communicable) diseases and NCDs, although certain morbidity indicators, such as injuries and oral health problems, do not readily fit into these categories and may be grouped under "other". The most significant infectious diseases in prison are sexually transmitted diseases, including chlamydia and syphilis; bloodborne diseases, including HIV and hepatitis (mostly HBV and HCV); and tuberculosis, where TB–HIV coinfection and multidrug-resistant TB (MDR-TB) are particular concerns. NCDs represent a vast group of conditions, but various studies suggest that, in the prison context, the most prevalent NCDs are broadly aligned with those in the general population – namely, cardiovascular disease (CVD), diabetes, cancer and respiratory conditions – although the burden among people in prison is considerably higher *(32–34)*. Alongside these two larger groups, mental health and oral health are areas that require specific attention within prison health systems *(24)*. Rates of psychotic disorders and major

depression among people in prison are two to four times higher than in the general population, rates of antisocial personality disorder are around 10 times higher, and suicide is believed to account for around 50% of all prison deaths *(35),* clearly showing the importance of mental health in the prison context *(36).* Accordingly, in the **Morbidity** domain, operationalization should focus on these four disease categories.

Mortality is also an important outcome that reflects the impact of the prison environment and of care received during imprisonment. In most studies, suicide is reported to be the most important cause of death in prison, occurring at a rate seven times higher than that in the general population *(37).* HIV and CVD are also described as common causes of death in prison *(38).* In the period following incarceration, delinquent youth, among whom homicide is considerable *(39)*, have higher mortality rates than the general population. However, the **Mortality** domain is one that in a sense extends beyond the period of incarceration because its conceptualization should reflect the ultimate impact that the incarceration experience has on this outcome, and this may only be possible to determine following release. Increased all-cause mortality following release has been documented in many countries *(35)*, and it seems to be particularly high in the first month after release, with a significant fraction attributable to drug overdose *(40, 41).*

1.4.4 INFLUENCING FACTOR 1. PRISON ENVIRONMENT

The environment, both physical and social, in which people in prison live is an important determinant of health. Important aspects of a healthy environment include accommodation that offers enough space, light and fresh air; good hygiene and clean sanitary facilities; clothing and heating suitable for the climate; and adequate nutrition adapted to individual needs *(16).* Issues such as overcrowding and violence are part of the physical environment and are common problems in prisons *(24).* Environmental aspects are reflected directly in this influencing factor and may be operationalized through various indicators, including overcrowding. Overcrowding – exceeding the official capacity of a prison – has an impact on several other domains of the framework. It leads to each person having insufficient living space, thereby contravening international regulations that stipulate the minimum space for individual and multi-occupation cells *(42, 43),* and undermines the capacity of health systems to meet demand or to provide all the care required with available resources. This has a knock-on effect on the outcomes block, as insufficient prevention and treatment of disease negatively affects the health of those in prison, particularly so in the case of infectious diseases (such as typhus and most recently COVID-19) that have amplified transmission in damp and poorly ventilated areas.

Focusing on a healthy environment is part of a whole-prison approach. To achieve this, all staff working in prisons should have further training in health issues so that they have a better understanding of what the health team is doing and can support those efforts through their duties as they affect the prison environment and regime *(24).*

1.4.5 INFLUENCING FACTOR 2. HEALTH BEHAVIOURS

Unhealthy behaviours are an important aspect of prison health. Most people in prison come from disadvantaged backgrounds. Around one fifth of people are incarcerated for drug law offences *(9)*. Drug use among people in prison is disproportionately high compared to the general population *(24, 44)*, as is the prevalence of alcohol use *(45)*. Alcohol use is often associated with various types of violent behaviour, including domestic violence, assault and other offences, so it frequently results in incarceration *(46)*. Smoking prevalence in prisons is more than three times higher than in the general population *(32, 35)*. All of this testifies to the fact that the prison environment can be conducive to the development or aggravation of unhealthy behaviours.

Even though these behaviours may be aggravated by the adverse environment experienced during incarceration, a prison stay may also present an opportunity to adopt a healthier lifestyle when a health-promoting environment exists. For example, legislation banning smoking in public spaces is increasingly being extended to prisons, with some countries having already made all their prisons smoke-free *(47)*.

This influencing factor of the framework is essential in capturing the effect of the services that are available, including health promotion activities, and of the prison environment in the adoption of healthy behaviours, which may change over the course of the incarceration period and will have an impact on the **Health outcomes** domain of the framework. Nutrition and physical activity are also important health issues for people in prison and may be influenced by the rehabilitation programmes that are available; these may educate, train and motivate people in prison (for example) to grow their own food, leading them in the long term to adopt healthier options and thus having a positive impact on health outcomes.

1.4.6 CROSS-CUTTING PRINCIPLE 1. ADHERENCE TO INTERNATIONAL STANDARDS FOR HUMAN RIGHTS AND GOOD PRISON HEALTH

Internationally agreed principles on the treatment of people in prison play an important role in prison health. Governments are expected to give a degree of priority to health in prisons to meet their duty of care for those deprived of their liberty, as mandated by the United Nations Standard Minimum Rules for the Treatment of Prisoners (the Nelson Mandela Rules), adopted in 2015 *(48)*, and the United Nations Rules for the Treatment of Women Prisoners and Non-Custodial Measures for Women Offenders (the Bangkok Rules), adopted in 2010 *(49)*, among other landmark standards for the assurance of human rights.

These rules and standards concern respect for human dignity and fundamental human rights that include having the right to live in an environment where there is adequate sanitation, space and light. Providing people with minimum living standards and ensuring that they are not exposed to torture or any other form of degrading treatment are core principles. Deprivation of liberty is itself the punishment for crime; respect for human dignity and fundamental human rights, including equal standards for prison and community health care and clinical independence of health-care staff, must always be observed during imprisonment.

The principle of equivalence embraces the idea that health-care services in prisons should be of the same scope and quality as health-care services in the outside community. Rule 24 of the Mandela Rules states: "The provision of health care for prisoners is a State responsibility. Prisoners should enjoy the same standards of health care that are available in the community" *(48).* In consideration of Rule 4, which states that "services should be delivered in line with the individual treatment needs of prisoners", the principle of equivalence requires that health-care services in prisons should be based on and respond to the assessed health needs of the population, as is the case for integrated services in the outside community. The importance of the principle of equivalence – that people in detention are entitled to the same standard of health care as members of the public, without discrimination – is widely recognized, in the Mandela Rules and elsewhere. The concept of equivalence is closely linked to the issue of equity, not only in terms of access to health and related social services, but also in terms of the health status of people in prison.

Equivalence has been defined as "the principle by which the statutory, strategic and ethical objectives are met by the health and justice organizations (with responsibility for commissioning and delivering services within a secure setting) with the aim of ensuring that people detained in secure environments are afforded provision of or access to appropriate services or treatment (based on assessed need and in line with current national or evidence-based guidelines) and that this is considered to be at least consistent in range and quality (availability, accessibility and acceptability) with those available to the wider community in order to achieve equitable health outcomes" *(50).* It is also intimately associated with the ability to pay for care or receiving care without risking financial hardship. Funding, therefore, which is an aspect addressed in the health system building block (1.4.1), is obviously cross-cut by the principle of equivalence and other international standards. Governments have a duty to provide individuals who are deprived of their liberty with health care of the same quality as they would receive in the outside community and without putting them at risk of any financial hardship.

Another important concept is clinical independence, which involves health-care staff having the freedom to exercise their professional judgement in the care and treatment of their patients without undue or inappropriate influence by outside parties or individuals. It is an essential component of high-quality medical care and a trustful patient–caregiver relationship and a core element of professionalism.

Assessing the extent to which prison health systems adhere to these principles is therefore an important measure of the functioning and quality of these systems. **Adherence to internationally agreed principles** is a cross-cutting principle that relates to all other elements in the framework. For example, standards on specific aspects of (good) governance include the principle that the management and coordination of all relevant agencies and resources contributing to the health and well-being of people in prison should be a whole-of-government responsibility and the principle that health ministries should provide and be accountable for health-care services in prisons and advocate for healthy prison conditions *(16).* Furthermore, internationally agreed principles also relate to actual care provision. For example, the United Nations Body of Principles for the Protection of all Persons under any Form of Detention or Imprisonment states that all imprisoned people must be offered a proper medical examination as promptly as possible after admission *(51).* And the Mandela Rules include, among other things, rules that sick people in prison who require specialist treatment should be transferred to specialized institutions or to civil hospitals, that the services of a qualified dental officer should be available to every prisoner, and that the medical officer should see all sick people in prison daily *(48).* Finally, the internationally agreed standards also relate to health outcomes, and

this holds true for the key principle of equivalence, which does not relate only to access to health and related social services in the outside community but to the health status of people in prison as well.

1.4.7 CROSS-CUTTING PRINCIPLE 2. REDUCING HEALTH INEQUALITIES AND ADDRESSING THE NEEDS OF SPECIAL POPULATIONS

The second cross-cutting theme deals with inequalities and the needs of special populations, mostly those that may be victims of discrimination. Reducing health inequalities by addressing the health needs of special populations, including young, elderly and disabled people, and people who are lesbian, gay, bisexual, transgender, intersex and queer (LGBTIQ), as well as foreign nationals and non-native speakers, should be one of the priority areas for prison health care *(24).* Whether or not and how the needs of special populations receive specific attention is an element of prison health governance. The United Nations Economic and Social Council has indicated that one of the core obligations for states related to the right to the highest attainable standard of health is "to adopt and implement a national public health strategy and plan of action [which] … shall give particular attention to all vulnerable or marginalized groups" *(24, 31).*

Addressing the needs of special populations is also an element that is required of health service provision. This involves ensuring that health services are culturally appropriate and that health-care staff are trained to recognize and respond to the specific needs of vulnerable or marginalized groups *(31).* The need to tailor interventions to special populations may also have a role in this area. For example, women are housed in separate prisons, often far from their homes, which are generally set up for the needs of men and thus not well adapted to their needs *(52).* The proportion of women in prison has increased in recent years, varying in Europe between 0% for Liechtenstein and 11.1% for Andorra *(35, 53).* Having a female prison also affects workforce organization, as women have the right to demand a female physician and/or nurse to examine them *(49).* There are also basic needs and specific services that need to be available in female prisons, including reproductive health planning and availability of sanitary towels or tampons. Women in prison have marked excess alcohol dependence and are more prone to obesity or overweight when compared to the general population *(54, 55),* which suggests that one of the priorities for intervention in female prisons should be a focus on nutrition and exercise, coupled with alcohol interventions. Finally, to assess whether the needs of special populations have indeed been met, it is important to look at the health outcomes for these specific groups. For this reason, in the framework, addressing the needs of special populations is a cross-cutting principle that underlies governance, health services and health outcomes.

2. OPERATIONALIZATION OF THE WHO PRISON HEALTH FRAMEWORK

2.1 Mapping the indicators for the second HIPED survey against the WHO Prison Health Framework

Conscious that there was a lack of information about the health system in prisons, in 2016 the WHO Regional Office for Europe launched an initiative with two main aims: (1) to raise awareness among Member States of the need to collect and monitor information about the prison health-care system and the health of people living in prison; and (2) to observe patterns of care in this context and raise hypotheses on their relationship with policy approaches to the management, financing and delivery of health in prisons.

This exercise was extensive and involved the efforts of various HIPP partners. The result was a report that captured the actual status of prison health in Europe in 2016, based on information gathered from 38 countries of the WHO European Region *(14);* it also led to the publication of country profiles of the Member States involved, in the form of 38 fact sheets *(15).*

The indicators that were used in the first round of data collection were mapped against the domains of the WHO Prison Health Framework, and new indicators were added for domains that were not adequately covered. Some indicators from the first round were dropped or combined to make sure that the total list of indicators would not become too long or too unbalanced. The indicators drawn up in this way will be used in the second iteration of the survey, which is being prepared at the time of writing. This indicator list is presented below. Each indicator has been assigned primarily to one domain, so each indicator appears in the list only once. However, it is important to note that some indicators can inform more than one domain. For example, the indicator "Out-of-pocket payments for services or health-related products" has been assigned to the **Performance** domain (accessibility), but it is also relevant to the **Financing** domain. Another example is the indicator "Inspection of prison hygiene, nutrition and living conditions", which has been assigned to the **Organization** domain but is also relevant to the **Prison environment** domain. These kinds of interlinkages increase the usability of the indicator set and allow comparisons to be made from various perspectives.

2.1.1 BUILDING BLOCK 1. HEALTH SYSTEM

1) Organization

- ➔ Prison health-care governance: agency/ministry responsible; level of governance (national, subnational or regional)
- ➔ Community health-care governance
- ➔ Inspection of prison hygiene, nutrition and living conditions

2) Financing

- ➔ Health-care finance: agency/ministry responsible
- ➔ Coverage of prison health care by national health insurance programme (including national health service, if applicable)
- ➔ Coverage of community health care by national health insurance programme (including national health service, if applicable)

3) Vision and strategy

- Existence of prison health strategy
- Implementation of prison health strategy
- Evidence of use of prison health data for planning purposes

4) Health information

- Existence of a system for recording deaths in custody and parameters included (e.g. cause of death)
- Existence of systems for notification of infectious diseases
- Completeness of reporting systems
- Education and training for health-care providers responsible for coding (e.g. diagnosis or causes of death)
- Existence of health records in prisons
- Exhaustiveness of data captured in health information records in prisons
- Capacity of systems for timely reporting of surveillance data (e.g. COVID-19)
- Integration of prison information in the national health information system and systems in place for transferring information to national system

2.1.2 BUILDING BLOCK 2. HEALTH SERVICE DELIVERY

1) Preventive services: disease prevention

- Existence of urgent health needs assessments at prison admission
- Existence of a detailed review of health needs subsequently conducted
- Health problems evaluated in such assessments
  - Behaviour issues (alcohol use, drug use, injection drug use, smoking status)
  - Screening for mental health disorders
  - Evaluation of NCDs and their control (assessment of blood pressure, calculation of body mass index (BMI), assessment of respiratory problems)
  - Assessment of oral health problems
  - Assessment of signs and symptoms of infectious diseases, including availability of screening (TB, MDR-TB, HIV, HCV, HBV, STIs)
  - Availability of screening for selected cancers (cervical cancer, colon cancer, breast cancer), including evaluation of methods and inclusion criteria in comparison to the community
  - Access to HBV vaccination
  - Provision of other immunization services against vaccine-preventable diseases in line with national vaccination plan

2) Preventive services: health protection

- Cleaning products availability (e.g. bleach)
- Sexual/reproductive health products availability (e.g. condoms, tampons)
- Needle/syringe availability
- COVID-19 protective material (e.g. hand sanitizer, face masks)

3) Preventive services: health promotion

- Availability of information on safe tattooing practices
- Availability of therapeutic spaces for people with drug use problems
- Smoke-free policies implemented
- Policies in place for promotion of physical activity

4) Rehabilitation

- Availability of user-driven treatment and recovery plans
- Availability of educational and employment training programmes

5) Medical care: provision of primary care

- Infectious disease outbreak preparedness
- Access to diagnostic tests
- Provision of primary care for infectious diseases, including access to and completion of treatment
  - TB: access to and completion of treatment
  - MDR-TB: access to and completion of treatment
  - HIV: access to and continuity of treatment
  - STI: access to and completion of treatment
  - HBV: access to treatment
- Provision of primary care for mental health disorders
  - Mental health assessment and access to treatment
  - Substance use disorders and access to pharmacological treatment
- Provision of primary care for oral health disorders
  - Oral health visits
- Provision of primary care for NCDs
  - Diabetes routine visits and access to pharmacological treatment
  - Ophthalmology routine visits
  - CVD routine visits and access to pharmacological treatment
  - Access to hypertension pharmacological treatment
  - Access to cancer treatment

6) Medical care: arrangements for secondary and tertiary care

- Diversion to specialized treatment for mental health disorders
- Diversion to specialized cancer treatment

7) Medical care: continuity of care

- Registration with a general practitioner
- Protocols for continuity of care, including establishment of shared care plans
- Medication reconciliation at admission
- Supply of medication upon release
- Availability of testing for COVID-19 ahead of release

8) Health system performance: availability

- Workforce
  - Number of health-care staff
  - Number of physicians
  - Number of psychiatrists
  - Number of dentists
- Supply continuity for vaccines and other medicines
- Availability of additional preventive services, such as post-exposure prophylaxis (PEP), pre-exposure prophylaxis (PrEP), and needle and syringe exchange programme (NSEP)

9) Health system performance: accessibility

- Out-of-pocket payments for services or health-related products

10) Health system performance: acceptability

- Prison health-care delivery
- Consent for health tests, assessments and interventions

11) Health system performance: quality of care

- Assessments of the availability of essential medicines *(56)*
- Standardized procedure for reporting medication errors
- Standardized procedure for notifying adverse drug reactions
- Standardized procedure for identifying people at risk of suicide/self-harm
- Mechanism for ensuring patient involvement in health-care planning and reform

2.1.3 BUILDING BLOCK 3. HEALTH OUTCOMES

1) Health and well-being

- Self-reported health status and well-being
- Access to mental health counsellors
- Availability of contacts with family and social networks outside prison

2) Morbidity

- Mental disorder cases, including psychotic disorder cases, and suicide attempts
- NCD cases, including hypertension, CVD, diabetes and cancer
- Infectious disease cases, including TB, MDR-TB, HIV, HCV, HBV, STIs and COVID-19
- People with oral health problems

3) Mortality

- Number of deaths in prison by any cause (all-cause mortality)
- Number of suicides in prison
- Number of drug-related overdose deaths in prison (and following release)
- Number of COVID-19-related deaths (specific indicator developed for 2020/2021)

2.1.4 INFLUENCING FACTOR 1. PRISON ENVIRONMENT

- Overcrowding (official capacity and prison population)
- Solitary confinement
- Availability of basic and improved sanitation
- Availability of facilities and procedures to allow physical activity
- Access to outdoor green space
- Nutritional options aligned with cultural and gender needs (food systems in place)

2.1.5 INFLUENCING FACTOR 2. HEALTH BEHAVIOURS

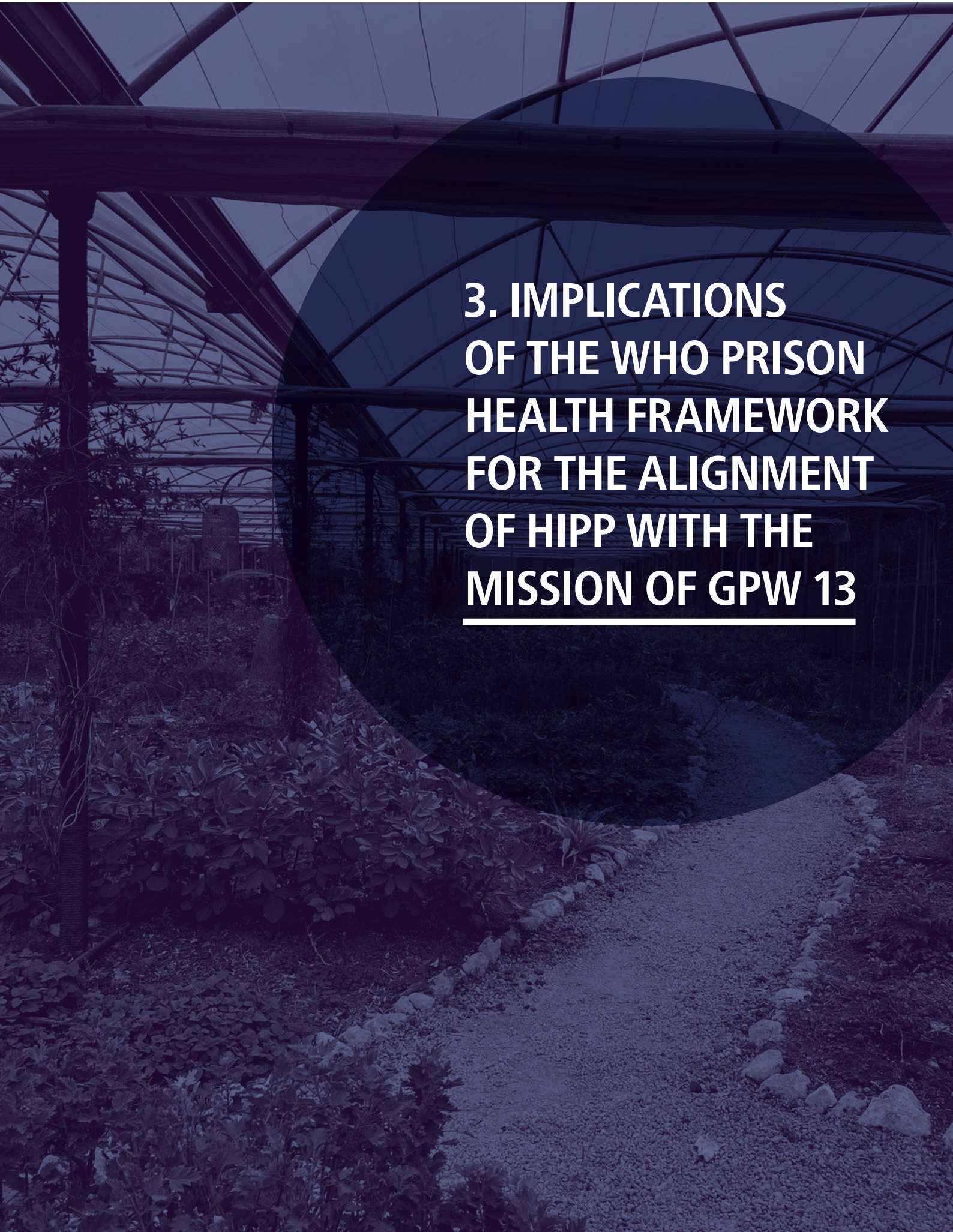
- Overweight and obesity
- Tobacco use
- Alcohol use
- Drug use
- Injection drug use
- Physical activity (exercise routines)

2.1.6 CROSS-CUTTING PRINCIPLE 1. ADHERENCE TO INTERNATIONAL STANDARDS FOR HUMAN RIGHTS AND GOOD PRISON HEALTH

- Scope and standard of health services in prison and their equivalence with the outside community
- Workforce accreditation, professional and ethical standards, and their equivalence with the outside community
- Incorporation of international prison law into national law
- Clinical independence
- Publicly available inspection reports of prison hygiene, nutrition and living conditions
- Existence of complaints system
- Consideration of prisons in health prevention plans (including vaccination)

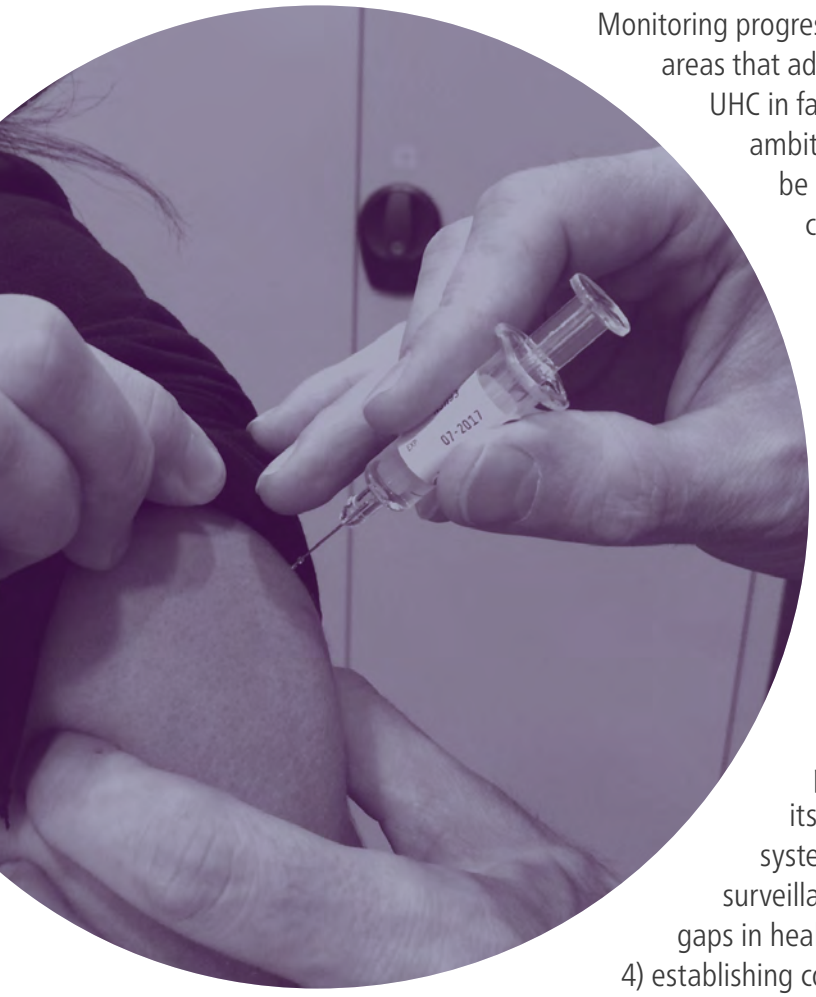
2.1.7 CROSS-CUTTING PRINCIPLE 2. REDUCING HEALTH INEQUALITIES AND ADDRESSING THE NEEDS OF SPECIAL POPULATIONS

- National standards to meet the health needs of vulnerable people (women, children and youth, LGBTIQ, foreign nationals, ethnic minorities, people who use drugs, elderly, people with disabilities)
- Meeting distinctive needs of foreign and migrant people in prison: availability of information in multiple languages
- Meeting the needs of women in prison: female health-care staff
- Meeting the needs of women in prison: pregnancy tests offered
- Meeting the needs of women in prison: deliveries (births) in prison



3. IMPLICATIONS OF THE WHO PRISON HEALTH FRAMEWORK FOR THE ALIGNMENT OF HIPP WITH THE MISSION OF GPW 13

Evaluation plays a critical role in improving performance, increasing accountability for results, and promoting organizational learning. Establishment of robust metrics is a prerequisite for any assessment, and to that end, selecting the most appropriate indicators is crucial. Indicators ought to be sensitive to change so that progress may be captured and used to inform evidence-informed policy.



Monitoring progress in achieving UHC should be based on the service areas that address the needs of major population groups. UHC in fact means leaving no one behind, and for such ambitious targets to be met, the prison population must be included in all assessments made. Nevertheless, currently, in many Member States, health systems are not inclusive of marginalized populations and health-care provision is often unmeasured. Strong political and financial commitment is therefore needed from Member States to include prison health in the wider public health agenda not only by ensuring UHC service coverage but also by including equity considerations such as financial protection for vulnerable groups.

The proposed WHO Prison Health Framework has been developed to support Member States in their efforts to achieve UHC by measuring and comparing progress in improving health-care provision for the incarcerated population through its key objectives: 1) supporting prison information systems; 2) developing or strengthening country prison surveillance and response capacity systems; 3) identifying gaps in health service provision or in education of prison staff; 4) establishing core metrics to track system performance; 5) creating a culture of regular assessment to obtain reliable measures of the prison population; and 6) supporting intersectoral work and collaboration in the area of prison health.

The previous HIPED survey revealed that Member States may experience difficulties in reporting certain indicators, particularly health outcomes or their determinants, because of poorly functioning prison health information systems, which are often still paper-based and have limited or no interoperability with the national system. Nevertheless, we have opted to retain such indicators to raise awareness of the importance of improving information systems. Further work has also been done to simplify and clarify these indicators, by carefully defining numerators and denominators and by adding international classification systems to ease data collection.

Over recent decades, WHO has developed various classifications and indicators that should be used as much as possible across the domains of the framework to promote consistency and allow comparisons to be made between Member States and over time. For example, the International Classification of Diseases, used in over 100 countries, enables all countries to use a common standard for reporting diseases and identifying health trends. Also, the WHO Essential Medicines List, which guides countries on the key

medicines required by a national health system, should be used as guidance to evaluate quality of care. The WHO Prison Health Framework applies these classifications and lists whenever relevant.

In addition to tracking countries' own progress, the WHO Prison Health Framework allows comparisons to be made between countries. In line with the requirements of UHC and GPW 13, the framework incorporates many important elements to ensure equity considerations are included in the assessment of prison health system performance. These include financial risk protection and assessment of prison health financing; this considers not only availability of sufficient funding but also the source of funding, the extent to which people in prison are covered by national health services or insurance schemes, and the extent to which out-of-pocket payments are demanded from people in prison or their families. Other important components of the framework are the level to which people in prison are included in the Immunization Agenda (another flagship of the GPW 13) and the level of preparedness to protect people in prison from health emergencies such as the current COVID-19 pandemic.

It is extremely important that data are collected in a harmonized way at international level to allow comparisons between countries and exchange of best practices. The United Nations Common Position on Incarceration recognizes WHO leadership in the area of prison health and establishes HIPED as the main hub for health-related data on incarceration.

To conclude, we hope that the WHO Prison Health Framework will support Member States in systematically measuring and documenting the health status of their prison populations and the performance of their prison health systems at country level, thereby helping to ensure that all people in prison enjoy the highest standard of health, regardless of race, religion, political belief, or economic and social condition.

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