



**BUILDING BACK BETTER
STRENGTHENING HEALTH SYSTEMS**

THEME GUIDE

SHEFFWHO 2021 SIMULATION

19 - 21 MARCH 2021



Designed by Vrunda Soni

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We would also like to extend our deepest gratitude to our wonderful Theme Guide Co-Directors Willa Serling and Nguyen Thi Yen Chi, Mashkur Abdulhamid Isa, Yanina Borzykh and Aesha Soni who were directly involved in the development of this document. Your hard work and commitment to completing this document are greatly appreciated! Lastly, we would like to thank you, the delegates for being a part of SheffWHO 2021. We look forward to an interesting and exciting conference centred around addressing “Building Back Better: Strengthening Health Systems”.

MESSAGES FROM THE THEME GUIDE DIRECTORS



WILLA SERLING

My name is Willa Serling, and I am a public health master's student at the University of Sheffield. As a member of the Erasmus EuroPubHealth+ programme, I'll continue my studies at the School Of Public Health in France and Maastricht University in The Netherlands next year, specializing in leadership and governance in European public health. The prominent public health issues throughout the past few months made this conference all the more important as we navigated pertinent topics and converging approaches to mitigate health disparities through the lens of strengthening health care systems. I am thrilled to delve into the sub-themes and learn from everyone attending the conference this year.



NGUYEN THI YEN CHI

I'm Nguyen Thi Yen Chi, a master's student at the University of Sheffield under the Erasmus EuroPubHealth+ programme. As a part of the programme, I'll continue my training on public health leadership and governance at Maastricht University next year. Having prior training as an epidemiologist, my passion is in infectious diseases research and translating those findings into health policies. The year 2020 has shown the importance of investment in public health to make our systems stronger, better prepared to prevent and respond to the next, inevitable, pandemic. And at the heart of this is investing in universal health coverage to make health for all a reality. As your Theme Guide Co-Director, I hope SheffWHO 2021 will not only broaden your global view and knowledge of health systems and extend your professional and personal network, but also create a memorable experience for all delegations.

INTRODUCING SHEFFIELD WORLD HEALTH ORGANIZATION SIMULATION (SHEFFWHO) 2021



Model WHO events are educational simulations whereby participants recreate the process of the annual World Health Assembly (WHA) as held at the World Health Organization (WHO) Headquarters in Geneva. Here at SheffWHO, we will be offering students, alumni and professionals from all disciplines the opportunity to convene and engage with an important global health topic, embracing the role of delegates of the WHA. SheffWHO is an annual conference organised by a dedicated and passionate team of the University of Sheffield undergraduate and postgraduate students in public health and medicine. We are mostly international students, representing 9 countries, 4 continents, and regions of the WHO.

In its fourth edition, SheffWHO 2021 will explore the theme “Building Back Better: Strengthening Health Systems” from March 19-21, 2021. Delegates attending will represent as a WHO Member State (WHO Ambassador) or Non-Governmental Organization (I/NGO), whose role is to represent their country's interests throughout the simulation, especially during regional blocs and plenary. Member States collaborate with other Member States to form alliances and write collaborative resolution papers with seals of approval from NGOs. Throughout this event, delegates will discuss, cooperate, and negotiate with each other in order to produce resolution papers that address the simulation theme.

This simulation aims to address important questions across the weekend. Delegates can explore these questions over the course of the SheffWHO event, concluding with the development and approval of resolution papers with how to address this topic. Our aim is to transfer approved resolutions to WHO Headquarters to demonstrate the creative capacity of the next generation of global health leaders.

As delegates are not required to have any experience in health policy to participate, we welcome delegates from all disciplines to mingle and enrich debates on strengthening health systems in this 2021 conference. Whether you are studying journalism, politics, economics, computer science, pharmacy, public health or medicine, this diversity will ensure the creation of a variety of interventions to tackle global health issues. At the end of SheffWHO 2021, people will be equipped with the tools to become a more confident and competent global health actor and practitioner.

INTRODUCTION TO THE WORLD HEALTH ORGANIZATION



The history of WHO dates back to the end of World War II, when global leaders came together to lay the foundation for the United Nations and discuss the necessity of a global health organisation. WHO was officially established in 1948 as the Constitution came into force on April 7, thus marking the celebration of the World Health Day (WHO, 2020c). The Organisation's role of monitoring and coordination of international health covers various areas, including "health systems; health through the life-course; non-communicable and communicable diseases; preparedness, surveillance and response; and corporate services" (WHO, 2020a). WHO also plays a pivotal role in supporting governments and partners to form bilateral or multilateral agreements as well as enhancing the role of civil society organisations and the private sector in forming and implementing national health policies and strategies.

Some of the most significant contributions of the WHO include its global vaccination programme which led to the eradication of smallpox by 1980, and its leadership in combating the severe acute respiratory syndrome (SARS) epidemic in 2003 (WHO, 2016). The organization has the exclusive authority to declare global health emergencies (WHO, 2005), with its most recent declaration in January 2020 due to the outbreak of the COVID-19.

The WHA is the decision-making organ of the WHO, in which delegations from all WHO Member States attend and direct attention to a specific health agenda that has been formulated by the Executive Board. The WHA does not, however, only focus on this specific health agenda. It also takes on the following functions: determining the organization's politics; supervising the financial policies; reviewing and approving programme budgets that have been proposed; and appointing the Director-General to the WHO (WHO, 2020d). The World Health Assembly takes place annually in Geneva, Switzerland.

BUILDING BACK BETTER: STRENGTHENING HEALTH SYSTEMS



Dr. Gro Brundtland, former Director-General of the WHO stated:

"...The way health systems are designed, managed, and financed affects people's lives and livelihoods. The difference between a well-performing health system and one that is failing can be measured in death, disability, impoverishment, humiliation and despair"
(Zakus et al., 2007, p. 446)

According to the World Health Organization, Health systems comprise multiple layers of institutions/organisations, individuals and resources working together to improve and cater for the health needs of the populace (WHO, 2007). It thus involves a complex interplay between stakeholders in academia, industry, healthcare, public health, politics and economics. The World Health Report 2020 paved the way for worldwide debate on health systems, identifying their functions and goals (WHO, 2000).

These functions were broken down into six building blocks with their overall goal and outcomes forming the WHO Health Systems Framework (Figure 1). Strengthening health systems would hence involve enhancing these building blocks individually and collectively. Fragmentation and siloes are critical stumbling blocks in the drive towards health system strengthening.

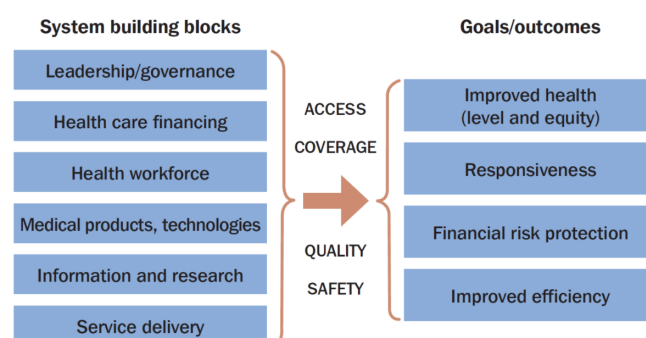


Figure 1.1: The WHO Health System Framework (WHO, 2013)

Globally, health systems are beset with a variety of challenges, from a lack of access to medicines and vaccines to emerging health inequalities and inadequate workforce. Therefore, there is a constant need for adjustment, planning, and learning in order to ensure that populations' health needs are met. It is crucial to continuously re-assess and critically evaluate the complex interaction within health systems and prioritise appropriate actions.

The Alma Ata declaration of 1978 identified Primary Health Care as a key ingredient towards attaining Health for All (WHO, 2000). Fast forward to the present day and the principles of primary health care remain ever constant with a new goal of achieving Universal Health Coverage.

Bearing in mind that a resolution was passed at the 62nd World Health Assembly on 'Primary Health Care, Including Health Systems Strengthening' (Resolution WHA62.12), we see that strong and resilient health systems are indeed a must-have to achieve 'Health for All'.

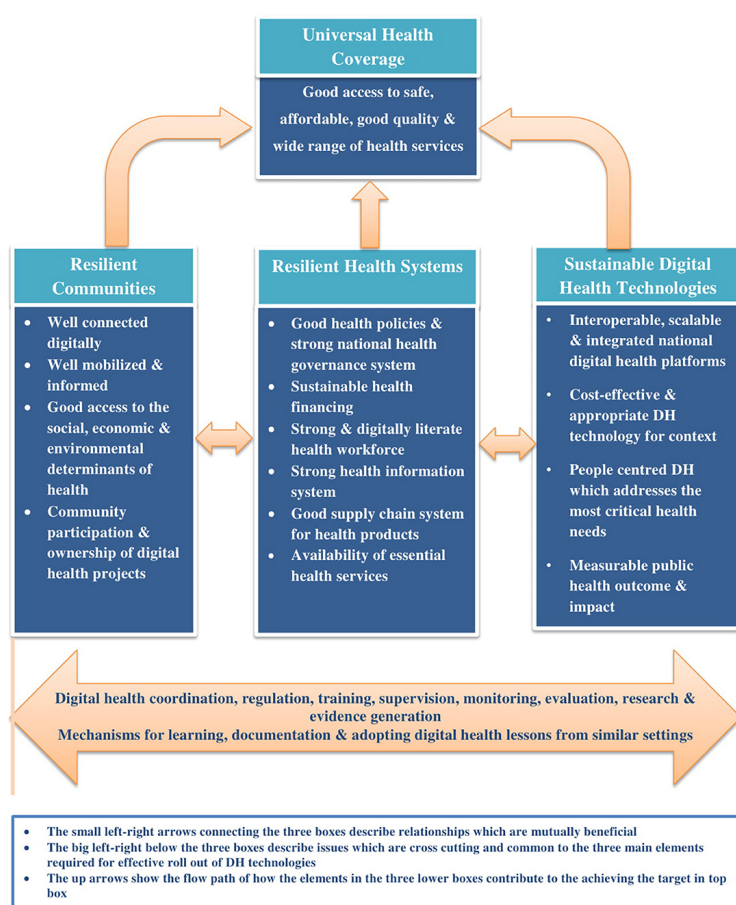


Figure 1.2: A proposed conceptual framework for rapid and effective scale-up of digital health technologies (Olu et al., 2019)

The theme of strengthening health systems is also directly related to the Sustainable Development Goals (SDGs) of the United Nations (UN) through Goal 3: Good Health and Wellbeing (UN, 2017).

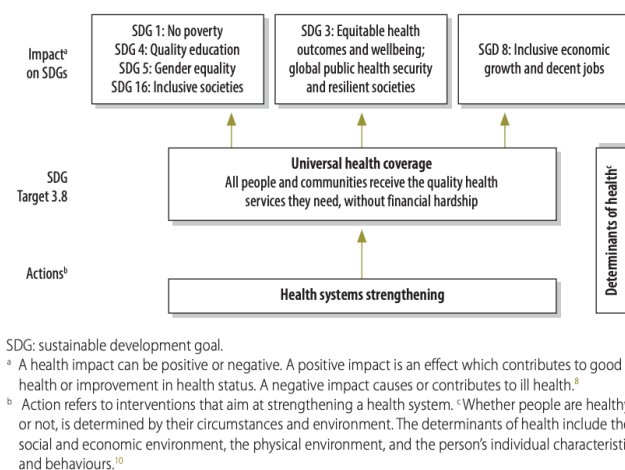


Figure 1.3: Health system strengthening contributes to SDGs through UHC (Kieny et al., 2019)

Health systems are one of several determinants of health, and high-performing health systems can improve the health of populations. Although there is no perfect health system, an understanding of the system in its current form allows us to gain a comprehensive picture of how it and its constituent parts contribute to maintaining health. This, then, helps in understanding the interactions required of its various components (Zakus, 2007).

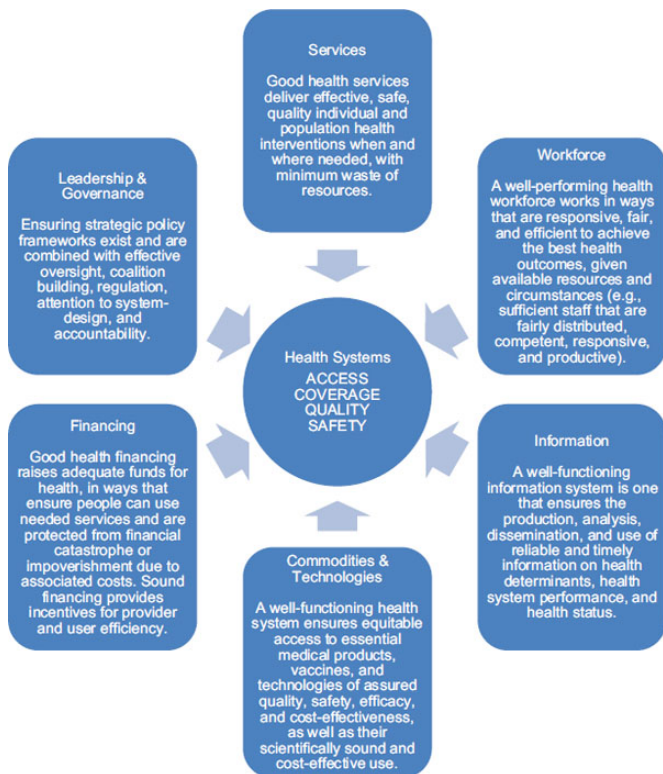


Figure 1.4: WHO's six building blocks for effective health systems (Adapted from IOM and NRC, 2010 and WHO, 2007)

- What makes for a strong health system?
- What makes a health system equitable and efficient?
- How do we determine health system performance?
- Is the health system sustainable and resilient?

These and many more questions are areas of debate globally.

For this year's simulation, delegates will focus on five areas: leadership and governance, health financing, emergency management, data ethics and security, and health workforce. Each of these sub-themes individually and collectively provide a different perspective and impact on a health system.



HEALTH WORKFORCE

Contemporary health systems comprise a complex hierarchical workforce that serves a central and critical role in determining outcome measures. In recent years, extensive health research and technological advances have significantly improved health outcome measures.

Outcome measures: impact of healthcare service or intervention on the health status of the studied population. *E.g. The percentage of people who died from open-heart surgery in the United Kingdom from 2000-2017.*

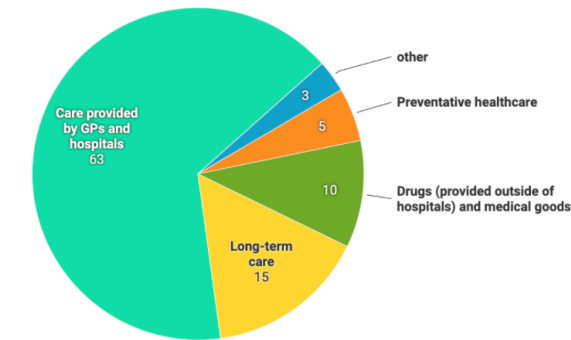
The improvement of outcome measures can further be attributed to the adaptation of multidisciplinary and interdisciplinary approaches to curating health workforce teams (Epstein, 2014). However, economical and social factors continue to challenge the health workforce reformation and configuration.

Multidisciplinary: this involves health professionals working independently to create discipline-specific care plans that are implemented simultaneously, but without regard to their interaction (Victoria State Government, no date).

Interdisciplinary: this involves health professionals from different disciplines working collaboratively, making decisions and sharing resources and responsibilities (Victoria State Government, no date)

The current COVID-19 pandemic has particularly illuminated the existing economic burden on health systems. Over the past several decades, governments throughout the world have battled the surge in healthcare costs; the largest constituent of healthcare costs in the workforce (Stanton, 2002).

Proportion of government healthcare expenditure (2015)



Source: ONS - Get the data

Figure 2.1. The proportion of government healthcare expenditures in the NHS (McIlroy, 2020).

However, several sectors of the health workforce are substantially underpaid and undervalued. For instance, nurses in the United Kingdom are the lowest paid among all healthcare professionals and are relatively more prone to budgetary cuts (McIlroy, 2020). Despite being branded as the heroes of the current pandemic, nurses continue to remain underpaid and overworked. In various low-income and high-income countries, nurses have conducted strikes to demand a wage increase, hazard pay and amplified workplace safety measures. Economic imbalances within health systems echo predominately through the workforce and consequently influences outcome measures, such as overall efficiency and quality of care.

"Hazard pay: additional income to regular wages given for performing work under dangerous conditions (i.e. nurses working during the COVID-19 pandemic)" (Oxford Learner's Dictionaries, no date).

Furthermore, rigid hierarchical components of the contemporary health workforce continue to influence outcome measures through social factors. Gender and racial inequality among certain sectors of the health workforce persist in LMIC and developed countries. Gender inequality within the healthcare workforce stems from the overall structure of the health systems. For example, women account for 89% of the total number of nurses within the National Health Service (NHS) in the United Kingdom, but they remain the minority in senior roles (NHS Digital, 2018).

Distribution of physicians and nurses by gender

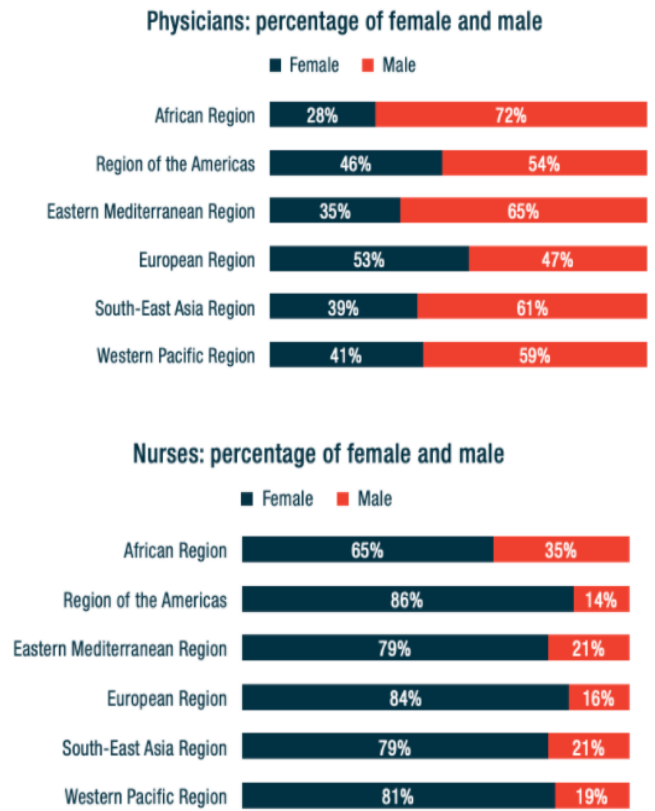
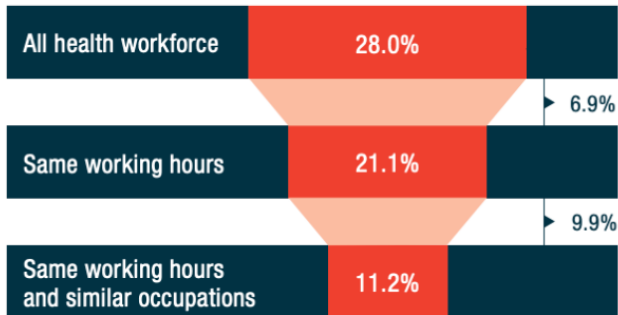


Figure 2.2. Distribution of physicians and nurses by gender (Boniol et al., 2019).

An analysis of health systems in 104 countries by the World Health Organisation (WHO) revealed that an average gender pay gap of 11% exists when accounting for occupation and working hours, as shown below in Figure 2.3.



Gender pay gap among health workers as a percentage of men's wages



Source: Data from LFS.

Figure 2.3. Gender pay gap among health workers as a percentage of men's wages (Boniol et al., 2019).

The analysis also reports that women are less likely to be employed in full-time positions (Boniol et al., 2019). In addition, racial inequality within the health workforce persists among all healthcare professions. Historically, people of colour have held direct and reproductive care positions. Women of colour experience the largest wage penalties in comparison to their Caucasian counterparts in these occupations (Dill and Hodges, 2019). Although certain health systems have recognised such gender and racial inequalities, a unified movement to create and execute transformative policies regarding gender and race-based discrimination is necessary.





HEALTH FINANCING

Health financing refers to how financial resources are used to ensure that the health system can adequately cover the collective health needs of every person. It is a foundational component that impacts the entire health systems' performance, including the delivery and accessibility of primary health care (Primary Health Care Performance Initiative, 2020). Additionally, it provides health workers' salaries, medical supplies provision, health promotion and prevention campaigns etc.

Health financing consists of specific functions and policies - revenue collection, pooling of funds, purchasing of services, and policy on benefit entitlements and patient cost-sharing obligations (WHO, 2020b):

- Revenue collection is how health systems raise and mobilize money from different resources
- Pooling deals with the accumulation and management on behalf of a community/ population
- Purchasing refers to the mechanisms used to purchase services or interventions from health providers.

These financing functions are generally embodied in the following three stylized health financing models (Schieber et al., 2006):

- National health service (NHS): healthcare expenses are covered by tax revenues. It usually aims to cover large populations and makes health services universal.
- Social health insurance: employees and employers contribute to either public or private non-profit insurance funds to cover a defined packaged of services.
- Private health insurance: employer-based or individual use healthcare insurance from private organizations.

Globally, millions of people don't have access to healthcare services due to the high medical expenses or lack of affordable insurance, many others receive poor quality of services even when they pay out-of-pocket (World Health Organization, 2020). Thus, health financing policies need to be carefully designed and implemented in order to improve effective coverage and financial protection.

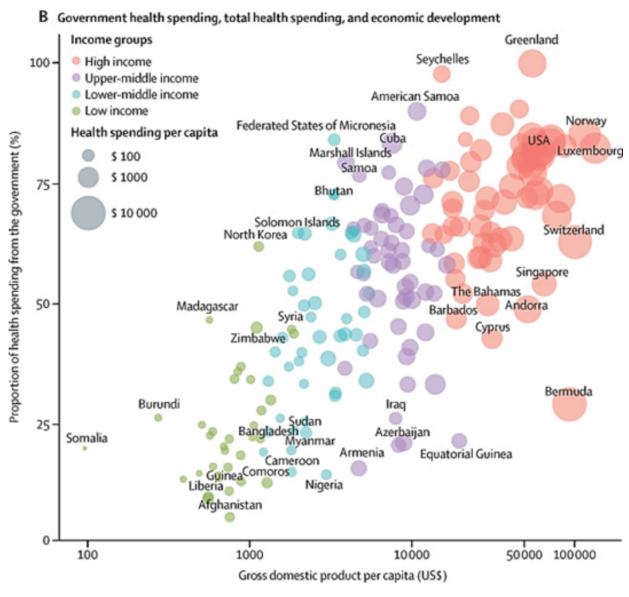


Figure 3.1. Economic development and the proportion of health spending from the government in 2016 (Global Burden of Disease Health Financing Collaborator Network, 2019)

Despite the increasing investment from governments globally, the gap in health spending between countries remains considerably large. From 2000 to 2016, expenditure per head roughly doubled from \$130 to \$270 in upper middle-income countries and from \$30 to \$58 in lower middle-income countries (Schäferhoff et al., 2019; WHO, 2018). In low-income countries, average government spending per head increased from \$7 in 2000 to just \$9 in 2016 (Schäferhoff et al., 2019; WHO, 2018). In many countries, health spending is not highly prioritized, and remains too low to achieve universal health coverage. Given the context of COVID-19 pandemic and a looming global economic recession, many of these countries are vulnerable to emerging diseases if they do not have assistance from private funders.

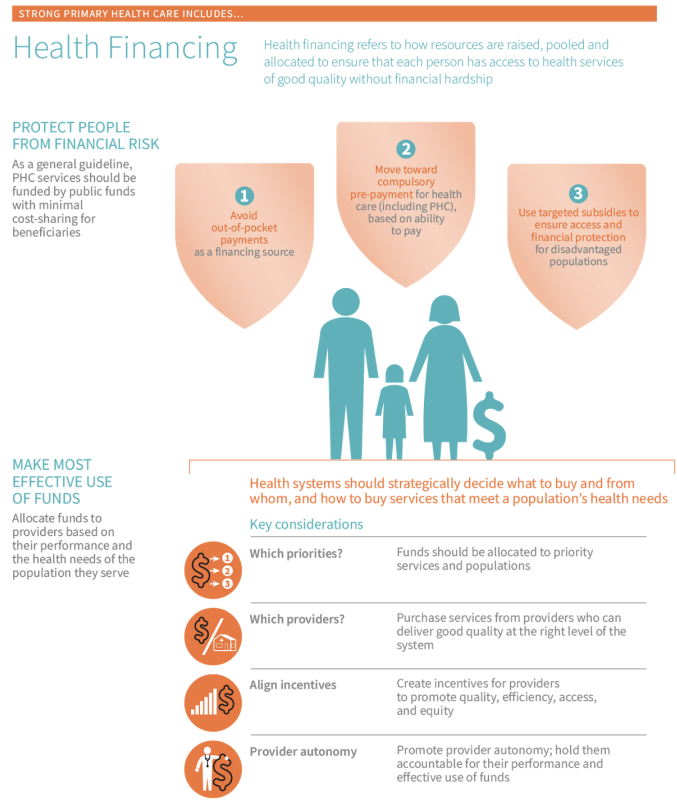


Figure 3.2: Health Financing brief summary (PHCPI, 2020b)

Health financing for UHC

According to WHO, **Universal Health Coverage** means that individuals and communities are able to receive and/or use the health services they need, of sufficient quality to be effective, without fear of financial hardship (WHO, 2010)

Therefore, effective health financing is invaluable to moving towards Universal Health Coverage.

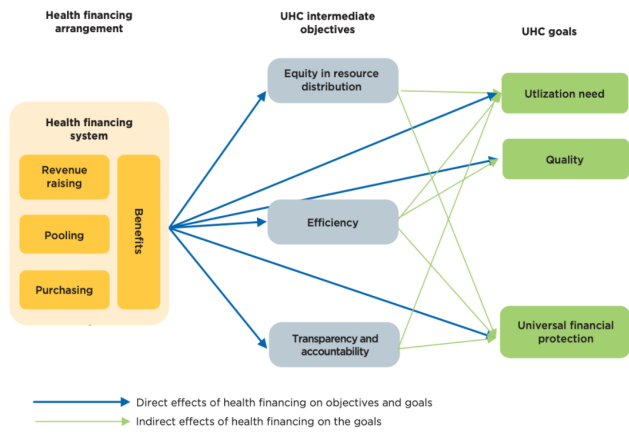


Figure 3.3: Intermediate objectives and final goals of UHC (Kutzin, 2013)

Health financing is closely connected with 3 main UHC goals - ensuring equity, quality and financial protection, therefore attention has to be focused on how financing systems affect these (WHO, 2019). For instance, directing funding towards reducing out-of-pocket payments and strengthening labour market and occupational health can significantly reduce poverty. Ensuring well-funded maternal and child health and immunization programmes increases human potential from early stages for years to come (World Bank Group, 2019).

It is a fair concern that low and middle income countries (LMICs) would not be able to afford to fund UHC without external support at initial stages. Therefore, achieving equity of health for all is the global objective. In fact, external aid has almost doubled since 2000. However, it seems with the increase of financial aid, priority for health financing decreases (WHO, 2020e). Despite making progress towards UHC since 2000, LMICs have fallen behind in achieving their health goals (e.g. essential service coverage and spendings on health remain low).

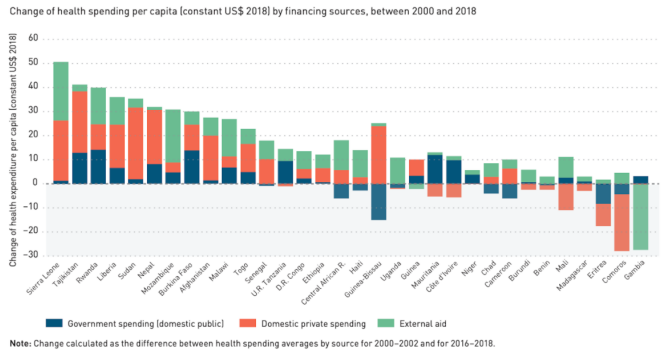


Figure 3.4: Health spending growth was driven by private domestic and external aid in most of the lower income countries (WHO, 2020e)

“Just over a decade out from the SDG deadline of 2030, 3.6 billion people do not receive the most essential health services they need, and 100 million are pushed into poverty from paying out-of-pocket for health services.
(World Bank Group, 2019, p. 3)”



EMERGENCY MANAGEMENT

Public health systems play an integral role in preparing communities to respond to and recover from emergencies.

The public health consequences of disasters and emergencies initially affect local jurisdictions. During the initial response, people and communities that are impacted must rely on local community resources. As a result, local, state, national, and global emergency response stakeholders must be prepared to coordinate, cooperate, and collaborate with cross-sector partners and organizations at all governmental levels when emergencies occur, regardless of the type, scale, or severity.

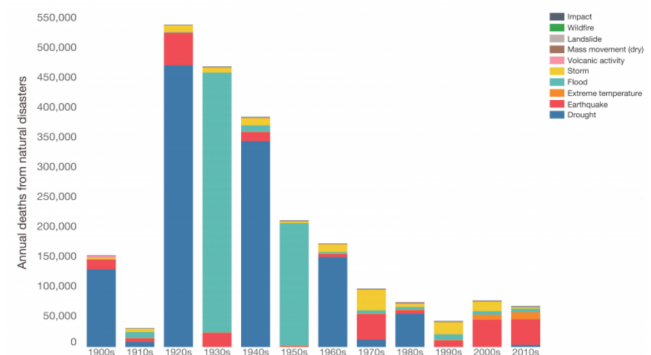
“Prevention and preparedness is the heart of public health. Risk management is our bread and butter.” - Dr Margaret Chan, WHO Director-General, 2012.

Throughout history, humanity has faced numerous epidemics, pandemics and natural disasters that resulted in thousands of lives and livelihoods lost, economies collapsed and political orders disturbed (Figure 1).

Global annual deaths from natural disasters, by decade

Absolute number of global deaths from natural disasters, per year.

This is given as the annual average per decade (by decade 1900s to 2000s; and then six years from 2010-2015).



Source: EM-DAT (2017), OFDA/RED International Disaster Database, Université catholique de Louvain - Brussels - Belgium. The data visualization is available at OurWorldInData.org. There you find research and more visualizations on this topic. Licensed under CC-BY-SA by the authors Hannah Ritchie and Max Roser.

Figure 4.1: Global annual death from natural disasters (Ritchie & Roser, 2019)

"Disaster - a serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources". (ReliefWeb Project, 2008, p. 22).

"Emergencies are situations that arise out of disasters, in which the affected community's ability to cope has been overwhelmed, and where rapid and effective action is required to prevent further loss of life and livelihood." (Wisner & Adams, 2002, p.4)

Emergencies vary by cause (chemical, biological, natural, system failure etc.), scale (major, mass or catastrophic) and can lead to humanitarian crisis and even complex humanitarian emergencies (CHE). Disaster becomes an international matter if it requires international involvement, rather than just when crossing countries borders.

Complex Humanitarian Emergency - the special type that requires a larger extent of emergency response.

Main features: civil conflict, deterioration of authority, mass population movement, affected economy and food insecurity. CHE often become a cause of large numbers of refugees and internally displaced people, which brings new challenges to emergency management planning (Coppola, 2015).

“Emergency management seeks to promote safer, less vulnerable communities with the capacity to cope with hazards and disasters.”

FEMA’s Emergency Management Higher Education Project (2007, p. 4).

Public health system preparedness is crucial for effective health emergency management. In order to ensure an appropriate emergency response, agencies have to be ready for complex and efficient coordination within and across different sectors, be open to multidisciplinary cooperation with multiple stakeholders and the public as well as combining efforts of both public and private sectors.

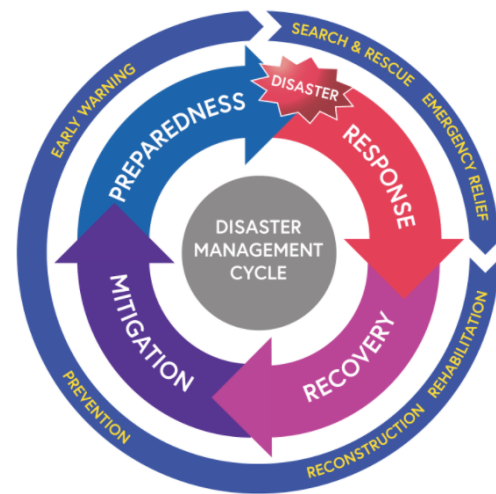


Figure 4.2: Disaster Management Cycle (Coventry University, 2020)

A well-established disaster management framework offers a 4-phase approach, which has to be seen in a continuum rather than as separate stages of the process. Coppola (2015) discusses 4 stages as:

1. **Mitigation** actions are aimed to control the hazard and decrease the risk of it developing into the disaster.
2. **Preparedness** of those who are likely to be affected by the disaster, as well as training those who would be able to support the response.
3. **Response** involves a complex combination of actions focused on reducing the impact of the disaster, which can decrease further human and economic losses.
4. **Recovery** brings community's lives back to where they once were and can potentially take days, months and years.

There is an abundance of agreements, policies and documents developed by international agencies to support disaster and emergency management.

The Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework), developed with the aim to reduce disaster risk and guide the UN Member States in their disaster preparedness and response, sets 4 priorities to be considered when designing disaster response programmes.



Priority 1: Understanding disaster risk :

- Collection, analysis and interpretation of topical data related to potential hazards with an emphasis on using local experience and knowledge
- Comprehensive needs assessment
- Dissemination of information & effective communication with both those affected (general public) and those in leadership roles (decision-makers)
- Continuous risk assessment
- Shared experience and information at all levels
- Strengthening public education, awareness and involvement
- Involvement of all available technology and expertise

- Engage public and private stakeholders, governments and NGOs.

Priority 2: Strengthening disaster risk governance to manage disaster risk:

- Adoption and implementation of local, national and international disaster risk reduction strategies
- Continuous management capacity assessment
- Ensuring high levels of compliance with laws and regulations from all parties involved
- Clear roles and responsibilities distribution
- Empowering local authorities
- Effective budget allocationFostering intra-regional collaboration

Priority 3: Investing in disaster risk reduction for resilience:

- Involving both private and public investments
- Appropriate allocation of resources at all levels
- Development of appropriate financial security, social safety and supply chain mechanisms
- Constructing resilient key infrastructure (e.g., schools, hospitals, buildings of cultural value, places of worship)
- Building up the resilience and expanding the capacity of national healthcare systems
- Appropriate environmental and natural resource management, tourism protection

Priority 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction:

- Review and update of disaster management programmes
- Build up the resilience of existing systems (communication, technology, water & food supply, education and healthcare etc.)
- Training of workforce and volunteers

For the full text of Sendai Framework see [here](#).

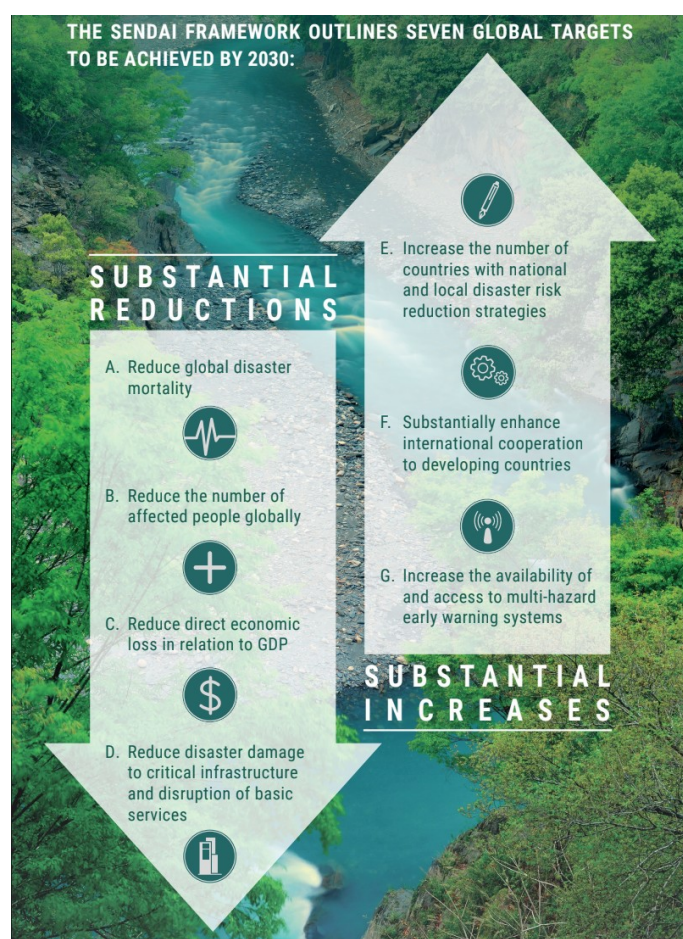


Figure 4.3: The Sendai Framework Seven Global Targets (UNDRR, 2015).

Centers for Disease Control and Prevention (CDC) has also proposed 14 capabilities that are designed to support emergency response. These include:

- Community Preparedness
- Community recovery
- Emergency Operations Coordination
- Emergency Public Information and Warning
- Fatality Management
- Information Sharing
- Mass Care
- Medical Countermeasure
- Dispensing and Administration
- Medical Materiel Management and Distribution
- Medical Surge
- Nonpharmaceutical Interventions
- Public Health Laboratory Testing
- Public Health Surveillance and Epidemiological Investigation
- Responder Safety and Health

Want to learn more about CDC Capability Standards?

Read the full text of Public Health Emergency Preparedness and Response Capabilities: National Standards for State, Local, Tribal, and Territorial Public Health available [here](#).



COMMUNICABLE DISEASES IN THE CONTEXT OF EMERGENCIES

***Strong health systems are our best
defence to prevent disease outbreaks
from becoming epidemics.”***

**Dr Tedros Adhanom Ghebreyesus,
WHO Director-General**

Communicable diseases are the leading cause of mortality in complex emergencies (Connolly et. al, 2004). These include, but are not limited to, diarrhoeal diseases, acute respiratory infections, measles, malaria, meningitis, tuberculosis and HIV/AIDS. Children under the age of 5 are at particular risk - up to 80% of diarrhoeal diseases are among those under 2 years old. Unimmunised children are also at high risk of measles and meningitis. In 2004, 17, 000 cases of diarrhoeal disease were recorded following flooding in Bangladesh (Qadri et al, 2004). Outbreaks of diarrhoeal diseases were also recorded in the US following hurricanes Allison and Katrina (WHO, 2006).

Outbreaks of measles and meningitis are often observed in refugee camps across countries and continents (Connolly et. al, 2004).

Communicable diseases during emergencies are commonly categorised in:

- Infections due to contaminated food and water (e.g. diarrhoeal diseases, Hepatitis A, Hepatitis E)
- Respiratory infections
- Vector and insect-borne diseases (e.g. malaria)
- Infections due to wounds and injuries (Jafari et al., 2011)





DATA ETHICS AND SECURITY

"Data ethics is a branch of ethics that evaluates data practices with the potential to adversely impact on people and society, directly or indirectly. It has to be addressed at all stages, including stewarding data, creating information from the data and deciding what to do with it." (Open Data Institute, 2020, p.1)

Big data analytics raises a number of ethical concerns, especially when it has been used publicly for purposes other than those for which the data was originally collected. The current ethical framework has been challenged by the size and complexity with which analytics can be carried out today and needed to be modified to fit for the digital age.

Personal data - any information that relates to an identified or identifiable living individual, such as name, date of birth, identification card number (European Commission, 2016b).

Nowadays, data can be collected from anywhere – social media platforms, wearable health devices, smartphone apps, phone calls, financial transactions, you name it. However, little attention has been given to the conversation of data ethics and how an individual should be consented to share their data not only for research but also for

industrial usage. In general, informed consent is often not required for studies that access anonymized and pooled data, as in theory, it cannot trace back to an individual. However, recently, researchers have found that it is possible to re-identify people from anonymized and aggregated data sets (Nature Editorials, 2019; Rocher et al., 2019).

Informed consent - a process of an individual consenting to any procedure, intervention, treatment or participation in research. It has to be given voluntarily, after receiving a full range of information needed (often inc. possible risks and side effects) and given by the person in decision-making capacity or by an appointed representative (e.g. parent or carer).

If the person refuses treatment or wishes to withdraw from the study, their decision has to be respected. (NHS, 2019)

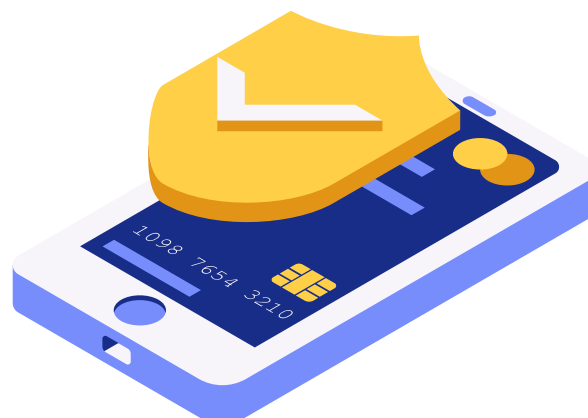
Under the 1947 Nuremberg code and the subsequent 1964 Declaration of Helsinki, researchers must obtain valid informed consent which must be given voluntarily with sufficient information by legally competent individuals (Anon, 1996a, 1996b).

With the growth of big data, the conversation of data consent is happening. It is agreed that an individual should have a transparent view of how his/her data is being used, and the ability to manage the flow of private information across massive, third-party analytical systems. However, the legislation to assess the safety of big data usage needs to be established urgently, with lead from companies that collect the data, as well as ethicists, human-rights organizations, national science academies and researchers who carry out studies using digital data. (Nature Editorials, 2019)

Legal requirements - EU General Data Protection Regulation (GDPR)

In 2016, the European Union adopted its regulation on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (European Commission, 2016a). The GDPR became enforceable in May 2018. By collecting and/or handling personal data, researchers are thereby required to follow a number of principles including:

- Transparency - processing personal data "lawfully, fairly and in a transparent manner"
- Data Minimization - data use shall be limited to the purpose of the respective research
- Accuracy - inaccurate data must be "erased or rectified without delay" Integrity and
- Confidentiality - data must be protected by appropriate security measures (technical and organizational)



GDPR provides a legal framework for data protection inside the EU, as well as for the export of these data outside its borders. As for the collection of personal data, the GDPR includes an exemption for research:

- if it concerns "the public interest, scientific or historical research purposes or statistical purposes" (Art. 5.1 2016/679/EU); or
- if "the data subject has given consent to the processing of his or her personal data for one or more specific purposes" (Art. 6.1 2016/679/EU).

"Reliable and timely health information is an essential foundation of public health action and health systems strengthening, both nationally and internationally."

Health Metrics Network Framework and Standards for Country Health Information Systems, WHO, 2012, p.1.



HEALTH INFORMATION SYSTEM

Health information systems (HIS) are tools designed to process health data.

They provide *“the underpinnings for decision-making and have four key functions: data generation, compilation, analysis and synthesis, and communication and use”*. (WHO, 2008, p.2)

HIS serve multiple purposes and, when providing reliable data, informs a better decision making on all levels of practice from individual to populational, that further leads to better health outcomes.

Strengthening HIS is crucial on all stages, inc. data collection, analysis, dissemination and use. For instance, appropriately gathered data can inform public health decisions and research, as well as support evidence-based medical practice.

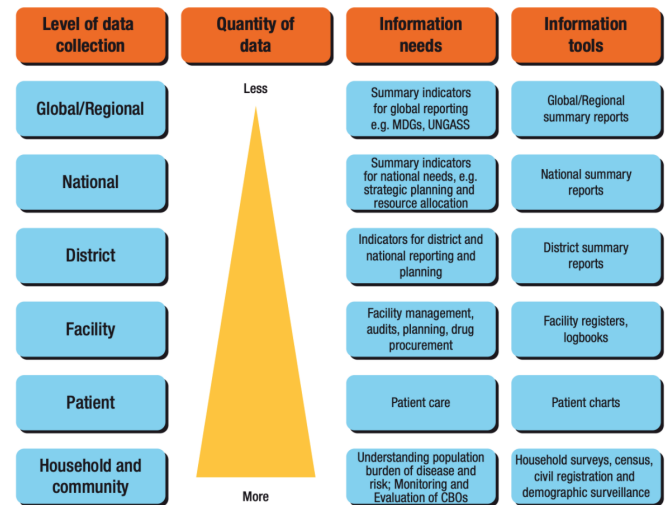


Figure 5: This figure shows need and tools for information collection on different levels. Source - WHO, 2012, p.11.

After information was gathered, it is crucial to correctly analyse and interpret the findings, as only then it would be possible to make sense of the data and reveal the situation, and to share them further with agencies, professionals, the general public and the global community.



LEADERSHIP AND GOVERNANCE

Leadership and governance is one of the predominant influences of health outcomes, a complex yet critical building block of any health system. According to the WHO, it “involves ensuring strategic policy frameworks exist and are combined with effective oversight, coalition building, regulation, attention to system design and accountability” (WHO, 2007). It therefore entails the stewardship role of ministries of health and governments in overseeing and managing the health system including relationships with global health actors

Leadership and governance is central to health systems globally and serves as an integral link between the building blocks.



Figure 6.1: Leadership and governance (WHO, 2007)

Governance, which “refers to making, changing, monitoring and enforcing the rules that govern the demand and supply of health services” (Abimbola et al. 2017, p. 1337), obtains considerable responsibility within a health system. The people and policies that govern demand and supply of healthcare indirectly determine health outcomes. The concept of leadership and governance identifies six functions/sub-domains (WHO, 2007, p.23):



- **Policy Guidance and Vision:** Formulating sector strategies and also specific technical policies; defining goals, directions and spending priorities across services; identifying the roles of public, private and voluntary actors and the role of civil society.
- **System design:** Ensuring a fit between strategy and structure and reducing duplication and fragmentation.
- **Regulation/Management:** Designing regulations and incentives and ensuring they are fairly enforced.
- **Accountability and Transparency:** Ensuring all health system actors are held publicly accountable. Transparency is required to achieve real accountability.
- **Intelligence and oversight:** Ensuring generation, analysis and use of intelligence on trends and differentials in inputs, service access, coverage, safety; on responsiveness, financial protection and health outcomes; especially for vulnerable groups, on the effects of policies and reforms; on the political environment and opportunities for action; and on policy options.
- **Collaboration and coalition building** across sectors in government and with actors outside government, including civil society, to influence action on key determinants of health and access to health services; to generate support for public policies, and to keep the different parts connected - so called ‘joined up government’



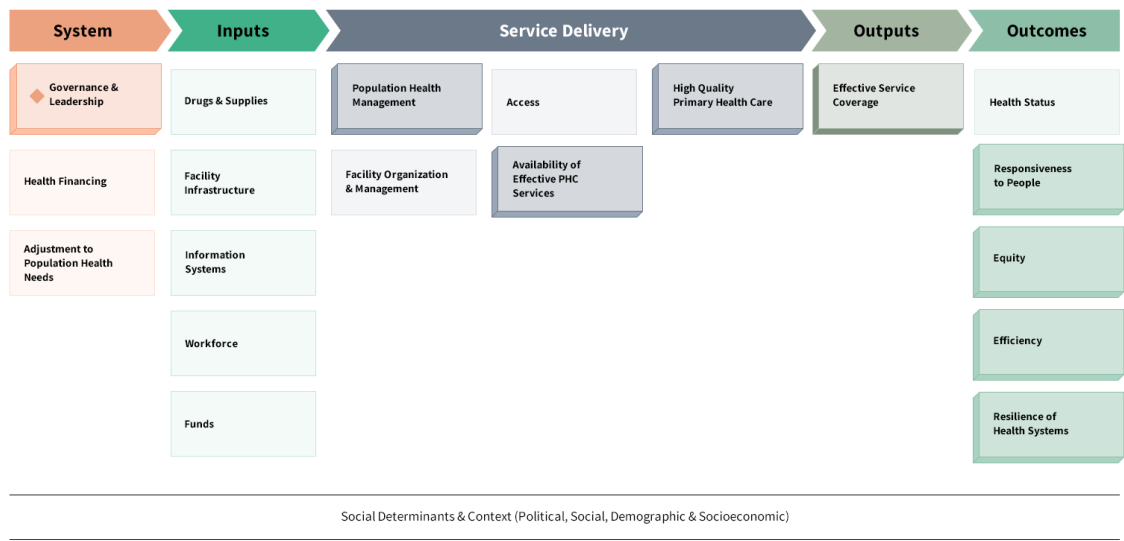


Figure 6.2: Potential effects of leadership and governance (PHCPI, 2020a)

The influence of leadership and governance on health systems between countries is imperative to consider when discussing how to strengthen health systems. A clear sense of vision and strategic policies contribute to improved health systems outcome. Improved leadership and governance contribute to equitable and efficient health systems that are resilient (Figure 6.2).

The coronavirus pandemic serves as a useful case study for the variety of leadership and governance in coordinating interventions around the world. The federalist public health system in the United States led to over 2000 different authoritative bodies of power across the nation, which resulted in disjointed interventions and this country to have the

most coronavirus cases in the world (Gordon, 2020; Johns Hopkins University, 2021). In Spain, however, the Ministry of Health deemed control over all publicly funded health authorities - a centralised effort in mitigating the outbreak (The Observatory, 2020). The Eurohealth analysis of coronavirus responses around the world argued that “centralisation is not enough” and “more robust coordination mechanisms, grounded in clear law and political agreements” are warranted for moving forward in continued pandemic response efforts and future health care system structures (The Observatory, 2020, p. 103). The role of leadership and governance in countries, as shown in COVID-19 responses, is directly linked to health systems and requires further discussion in the SheffWHO simulation.

CONCLUSION

Strengthening health systems is a complex feat that involves many key actors. The consideration of leadership and governance, health workforce, health financing, emergency management, and data ethics and security comprise merely a handful of components that influence health systems. Fragmentation of the building blocks and formation of siloes are crucial areas to be addressed to ensure a stronger health system.

Now that you have a general overview of the problem you will be tackling with this Spring, you have quite some preparation to do! We highly recommend you to do as much research as you possibly can before the conference, as you will need data, facts, and information to debate, write a position paper and a draft resolution!



RELEVANT WHA AGENDAS AND RESOLUTIONS TO NOTE

- WPR/RC59.R4 HEALTH SYSTEMS STRENGTHENING AND PRIMARY HEALTH CARE
- A62/8 Primary health care, including health system strengthening
- Strengthening the capacity of governments to constructively engage the private sector in providing essential health-care service
- WHA62.12 Primary health care, including health system strengthening
- A64/12 Health system strengthening
- A64/13 Health system strengthening
- EB128.R8 Sustainable Health Financing Structures and Universal Coverage
- EB128.R9 Health workforce strengthening
- EB128.R10 Strengthening national health emergency and disaster management capacities and resilience of health systems
- EB128.R12 Strengthening national policy dialogue to build more robust health policies, strategies and plans
- (Draft) A64/59 Fourth report of Committee A
- A68/31 Strengthening emergency and essential surgical care and anaesthesia as a component of universal health coverage
- A71/20 mHealth - Use of appropriate digital technologies for public health
- A72/12 Universal health coverage - Primary health care towards universal health coverage
- A72/14 Preparation for the high-level meeting of the United Nations General Assembly on universal health coverage
- A72/24 Human resources for health - Global strategy on human resources for health: workforce 2030
- A72/31 Emergency and trauma care - Emergency care systems for universal health coverage: ensuring timely care for the acutely ill and injured
- (Draft) A72/70 Second report of Committee A
- A/RES/74/2 Political declaration of the high-level meeting on universal health coverage
- A/RES/74/20 Global health and foreign policy: an inclusive approach to strengthening health systems
- EB146/6 Follow-up to the high-level meetings of the UNGA on health-related issues - Universal health coverage: moving together to build a healthier world
- EB146/5 Primary health care
- EB146.R10 Strengthening preparedness for health emergencies: implementation of the International Health Regulations (2005)
- WHA73.8 Strengthening preparedness for health emergencies: implementation of the International Health Regulations (2005)

All documents contain hyperlinks - please click to be directed to the relevant document.

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