GLOBAL INNOVATION HUB
for Improving Value in Health

Leveraging Coordination & Promoting Equity:
Lessons for improving value across G20 health systems

BLAVATNIK SCHOOL OF GOVERNMENT
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This report was commissioned by the Global Innovation Hub for Improving Value in Health and produced by the Lemann Foundation Programme, a comparative research and engagement programme in the Blavatnik School of Government at the University of Oxford focused on improving the public sector in Brazil and comparator countries. Writer-Researcher João Pedro Caleiro authored the report, based on his research, under the guidance of Director Dr. Anna Petherick, Associate Professor at the Blavatnik School and Co-Principal Investigator of Oxford COVID-19 Government Response Tracker (OxCGRT).

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EXECUTIVE SUMMARY

By examining the health challenges of G20 nations through a value-based perspective, this new report identifies **coordination and equity** as two key focus areas that: (i) hold relevance for all G20 nations; (ii) have been challenged amid the COVID-19 pandemic; and (iii) play a significant role in advancing high-value health systems, by either laying the groundwork for its progress, or addressing some of its core components. Additionally, they stand as top priorities for health policymakers in Brazil.

These two key focus areas are explored through the lenses of two **value models**: the ten components of the HVHS (High-Value Health Systems) model and the four pillars of the European Union’s value model. The report draws connections between these models, the priorities outlined by the Brazil presidency and the G20+ at large, and outlines the experiences of various G20 countries, including Brazil.

❖ Coordination

Health system coordination is intimately related to technical and allocative dimensions of value, as well as a cornerstone in **health resilience frameworks and governance strategies** for pandemic response. This encompasses both horizontal coordination – between sectors, jurisdictions, and governmental and non-governmental actors – and vertical coordination – across municipal, state, and federal levels of government.

In Brazil, health system coordination is a significant area of concern and ongoing reflection, due to the collaborative nature of the SUS (Sistema Único de Saúde, or Unified Health System) and the shared responsibility for providing healthcare among the federal, state, and municipal governments. Efficient coordination is crucial for the system’s operation, as evidenced by the response to the COVID-19 pandemic. It remains important as policymakers strive to implement **regionalisation of health**, an organisational principle of SUS that has yet to be fully realised. By reflecting on the challenges and efforts towards successful regionalisation of healthcare in Brazil, the report argues that achieving a certain level of coordination is a prerequisite for advancing towards a high-value health system, particularly in terms of **integrating care networks** across different levels of government.

The report explores the case of **Argentina,** which shows the potential of conditional transfers and shared standards and structures to mitigate health-system fragmentation. Two other country cases focus on the integration of care. The segment on the **United Kingdom** discusses a recent reform of the National Health Service (NHS) that is aimed at enhancing coordination of the NHS with various care sectors, shedding light on trade-offs between flexibility and standardisation, and highlighting the nexus between legally mandated coordination and fostering a culture of collaboration. The case of **Saudi Arabia** then explores value propositions as a framework for health system reform, as evidenced by the country's Healthcare Transformation Program.

- **Equity**

Equity is a cross-cutting principle of Brazil's G20 presidency and a primary focus of health systems across the G20+ nations, with an understanding that achieving equity in health outcomes is also contingent upon addressing the social determinants of health. This section of the report unravels the **relationships between value and equity propositions**, with an emphasis on the societal value of health systems, and the role of fostering social trust (also known as "interpersonal trust"=, or trust in strangers in society) in building resilience against threats such as pandemics.

Moreover, we examine the evolving impacts of **technological progress and climate change** on equity in health, along with the relationship between equity in healthcare and **universal health coverage**, a sustainable development goal and a key theme in the G20 since the initial establishment of the Health Working Group.

Two country case studies in the report illustrate key points of these topics. A section focused on **Italy** delves into the potential for mechanisms that prioritise equity and establish frameworks for data collection, experience-sharing, benchmarking, and performance-enhancement, especially in decentralised health systems. The section about **Indonesia** then highlights the history of the country's commendable efforts on achieving universal health coverage, while noting the persisting challenges of financing, prioritisation, and measurement involved in aligning coverage expansion with healthcare-equity goals.

The report's policy recommendations underscore the necessity for countries to establish and enhance **coordination forums** with political backing and technical expertise. These forums should promote and streamline dialogue and decision-making among various levels of government, providers, and stakeholders. The report also recommends ensuring a **unified digital infrastructure** at the national level, aligned with standards established within the G20 sphere. Furthermore, it promotes efforts to integrate **health and healthcare equity metrics** across platforms for experience-sharing and planning within decentralised systems, to be advanced alongside the expansion of healthcare access.

This report is a knowledge product based on primary and secondary research as well as conversations with health stakeholders. Its content does not necessarily reflect the opinions of the Blavatnik School of Government, the University of Oxford, and the members of the Global Innovation Hub for Improving Value in Health.

POLICY RECOMMENDATIONS

1. Build, support, and strengthen national high-level health coordination forums

Countries should strive to facilitate and promote dialogue around care delivery, outcomes, and equity between different levels of government (local, regional, and national), providers (public and private), and other health stakeholders. This can be achieved with the creation and/or improvement of high-level health coordination forums with: (i) clear roles and mandates; (ii) frequent, inclusive, and organised meetings; (iii) adequate technical capacity; (iv) sufficient levels of financing and personnel; and (v) strong political backing. It is advisable that these forums strive to incorporate citizens' perspectives and engage with other care services, as well as with stakeholders with significant influence on the social determinants of health and whose activities and decisions impact health equity.

2. Ensure a unified digital health infrastructure at the national level aligned with WHO standards

Several aspects of the COVID-19 response were facilitated by digital infrastructure, including telemedicine, contact tracing, and infection-rate dashboards. Often, these systems were hastily implemented. Now, there is a window of opportunity to consolidate many aspects of this digital infrastructure, which could ensure a material basis for enhanced coordination, aligned with the four strategic objectives outlined by the WHO.

Digital health is a priority for the Brazilian G20 presidency, following the announcement of a Global Initiative on Digital Health during the India presidency in 2023. Countries can support each other in their digital health strategies by voluntarily sharing their own experiences and existing tools, while the G20 can contribute to the establishment of global standards and guidelines for infrastructure and data protection as recommended by the World Health Organisation.

This should facilitate measuring health outcomes over long periods of care, which is key for value-based care[1], while incorporating the potential of emerging tools such as artificial intelligence, at such a point as they are considered properly tested and robust.

Where appropriate, public-private partnerships can be leveraged to address capability and capacity gaps[2].

A well-functioning governance system for healthcare systems must be set in place for value to be incorporated and assessed appropriately, especially as new technologies and economic and social considerations arise. Some concerns merit special attention, including: (i) interoperability; (ii) data protection (due to the high sensitivity of health data); and (iii) digital inclusion (to ensure that segments of the population who are still offline are not left behind).

3. Develop health equity frameworks and targets to be monitored and advanced alongside more standard measures of access in every health organisation. In decentralised health systems, integrate health and healthcare equity metrics across national platforms for experience-sharing and learning

Unwarranted variation in health access and outcomes remains an underexplored issue in several contexts, and crude measures of access sometimes mask underlying exclusionary dynamics, be it in regressive spending or the passive neglect of marginalised groups with less societal voice.

Measurement of health and healthcare equity is not straightforward, and often there is insufficient data that clearly illuminates different equity dimensions. In a broader context, every health organisation should aim to encourage the development and institutionalisation of practices that address in a sustained manner health-equity concerns. In governments, establishing explicit health equity targets helps to differentiate between equality and equity, and to highlight efforts towards the latter.

Decentralised healthcare systems face an additional challenge in measuring and addressing health equity due to a lack of standardisation, and often rely on platforms built on “soft power”[1] and that allow for comparison and benchmarking across provinces or states.

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[1] Meaning informal authority, based on technical expertise and trust-based relationships, rather than on formal and coercive enforcing mechanisms.

There platforms are valuable and should be supported and improved upon, ensuring that dimensions of equity are featured front and centre as a policy goal, and that there is a “data to action” component that enables and supports worst performers to learn and improve.

4. Foster the inclusion of people’s perspectives across health stakeholders

Countries should galvanise health stakeholders to seek appropriate ways to track, understand, and analyse people’s preferences and perspectives at scale, while including “patient groups” in shared decision-making whenever possible. This is a key aspect of addressing “personal value” and making sure that health systems are responding to shifting societal demands. Special attention should be given to addressing the exclusion or marginalisation of the voices and perspectives of underprivileged groups.

5. Investing in and accounting for coordination and equity in national and international organisations, including into the organisational structure of health departments.

This report points to a few examples when governments and health departments explicitly give a theme prominence within their organisational charts. These include, for example, the regionalisation departments within the health secretariats in Brazilian states, and the new Office of Climate Change and Health Equity (OCCHE) in the United States, among others.

These actions by local and national leaders signal the prioritisation of those themes for all relevant stakeholders and guarantee a seat at the table for perspectives and issues that can often be dismissed. Health system governance systems should regularly reflect on such emerging considerations, and build them into future planning, potentially through organisational and coordination modifications, as these examples illustrate.

INTRODUCTION: HEALTH IN THE G20

The G20 has placed health in an increasingly prominent place in its agenda, most notably since 2015, with the adoption of the 2030 Agenda for Sustainable Development by all United Nations members[3] underscoring the interconnected nature of various global challenges, and in 2017, with the creation of the G20 Health Working Group by the German presidency[4]. Since then, all nations have been affected by the COVID-19 pandemic, leading the G20 to establish multiple initiatives in the area.

Though there is wide variation in how G20 countries organise their health systems, encompassing disparities in taxing structures, resource allocation, and management organisation, these systems can be broadly categorised within some major models. For example, some countries rely on the government acting as a single payer and supplier of services, while others subsidise private provision, or operate via insurance-based schemes that add up to universal coverage. There is no strong indication that any country or model consistently outperforms the others across all health outcomes[5]. Despite such differences, G20 nations face many of the same challenges in response to health needs.

One of the most significant is ageing populations, as the share of people of and above 60 years old worldwide is expected to double from 12% in 2015 to 22% in 2050. This demographic transition is notably accelerating in low- and middle-income countries, which are generally undergoing this process after wealthier nations[6]. Ageing is associated with a higher burden of non-communicable diseases (also known as chronic diseases), such as cancer, diabetes, and heart disease[7], which already account for 74% of the world's deaths[8].

Addressing this trend necessitates a dual focus: tackling risk factors for these diseases and ensuring health systems are equipped to provide long-term care for individuals with multiple chronic conditions rather than mostly focusing on single episodes of acute care[9]. Technological advancements have contributed further to health spending generally surpassing headline inflation[10]. The overuse of medical services is widespread[11]. Combined, these factors have led to health expenses taking ever-growing shares of government spending and representing a higher proportion in relation to GDP[12].

There is also a growing global recognition of the pivotal role played by the social determinants of health – including education, employment, internet access and housing – in determining health outcomes and equity. The acknowledged influence of these determinants highlights both the limits of what healthcare systems can do and the necessity of coordinating healthcare with other care sectors.

Health emergencies present an additional complicating element. The Ebola epidemic of 2014-2016 highlighted the profound impact that health issues can have in all areas of social life[13]. More recently, the COVID-19 pandemic, the most widely disruptive communicable disease event in a century, has profoundly upended health systems, societies, and economies worldwide in unprecedented ways. At the same time, health systems increasingly grapple with another disruptive force on a global scale: climate change.

Thus, there is a growing acknowledgement in global discussions, including in the G20 sphere, of the pivotal role that health can play across various domains, contributing to a capable workforce, and potentially leading to more equal and happier societies. As a result, there is a renewed emphasis on making health systems both robust (meaning strong enough to endure and recover from shocks), and resilient (not only strong, but capable of adaptation)[14].

- **A value-based approach: "value for money and value for many"**

A value-based health approach, by placing people at the heart of systems and emphasizing "value for money and value for many"[15], offers a considered response to the challenge of steering health systems towards increased robustness and resilience as outlined above.

The value-based approach has garnered increased attention from the G20 in recent years. This is exemplified by the 2020 Ministerial Declaration during the Saudi Presidency, when members' Health Ministers acknowledged *"the importance of accelerating learning and the adoption, measurement, and evaluation of different approaches to improve value in countries at all stages of development"*. The Global Innovation Hub for Improving Value in Health was established in this context, with a five-year mandate to hasten this transition globally through knowledge, experience, and collaboration. In

2021, the declaration of the G20 Health Ministers in Rome reiterated an intention to improve quality of care and patient safety *“through the achievement of a people-centred, gender-responsive and more resilient value-based health system”*[16].

Since the initial conceptualisation of a value-based approach to health by Michael Porter in 2006[17], various aspects of this perspective have been distinguished, emphasised, and acknowledged. The meaning of what constitutes value can look different depending on your standpoint in the system[18], be it as a provider, a national or local policymaker — or as a citizen. There have been several efforts to delineate the concept along the lines of those perspectives, shifting from a notion of cost-effectiveness to broader ideas of value in alignment with universal health coverage aspirations[19].

In 2019, the European Union expert panel on effective ways of investing in health articulated the four dimensions of values (in the plural): *“appropriate care to achieve patients’ personal goals (personal value), achievement of best possible outcomes with available resources (technical value), equitable resource distribution across all patient groups (allocative value) and contribution of healthcare to social participation and connectedness (societal value)”*[20].

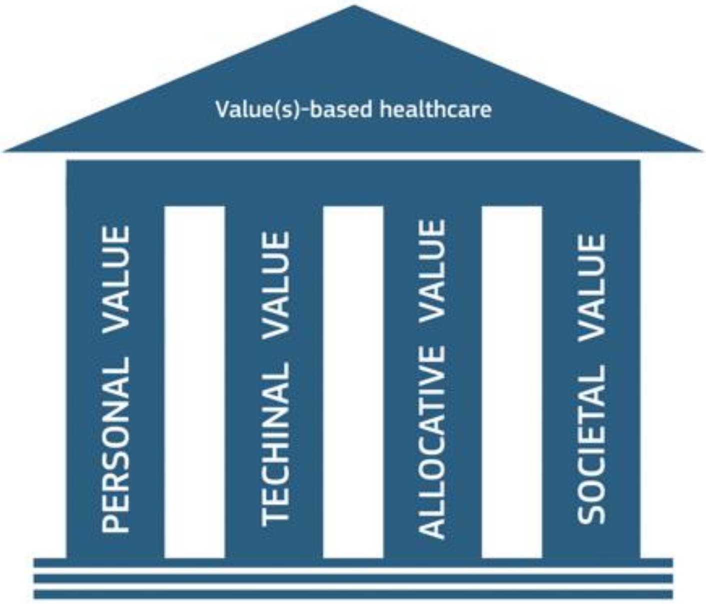


Figure 1: EU Value Model

More recently, the HVHS (High-Value Health Systems) model emphasised ten interdependent components: (I) digital data systems, (II) analytics, (III) cost measurement systems, (IV) outcomes measurement systems, (V) benchmarking, (VI) integrated care pathways with bundled services, (VII) value-based payment models, (VIII) value-based procurement, (IX) integrated provider networks, and (X) strategic change and innovation ecosystems. This model was developed by Professor Rifat Atun and the Harvard Health Systems Innovation Lab in partnership with the Global Innovation Hub for Improving Value in Health.

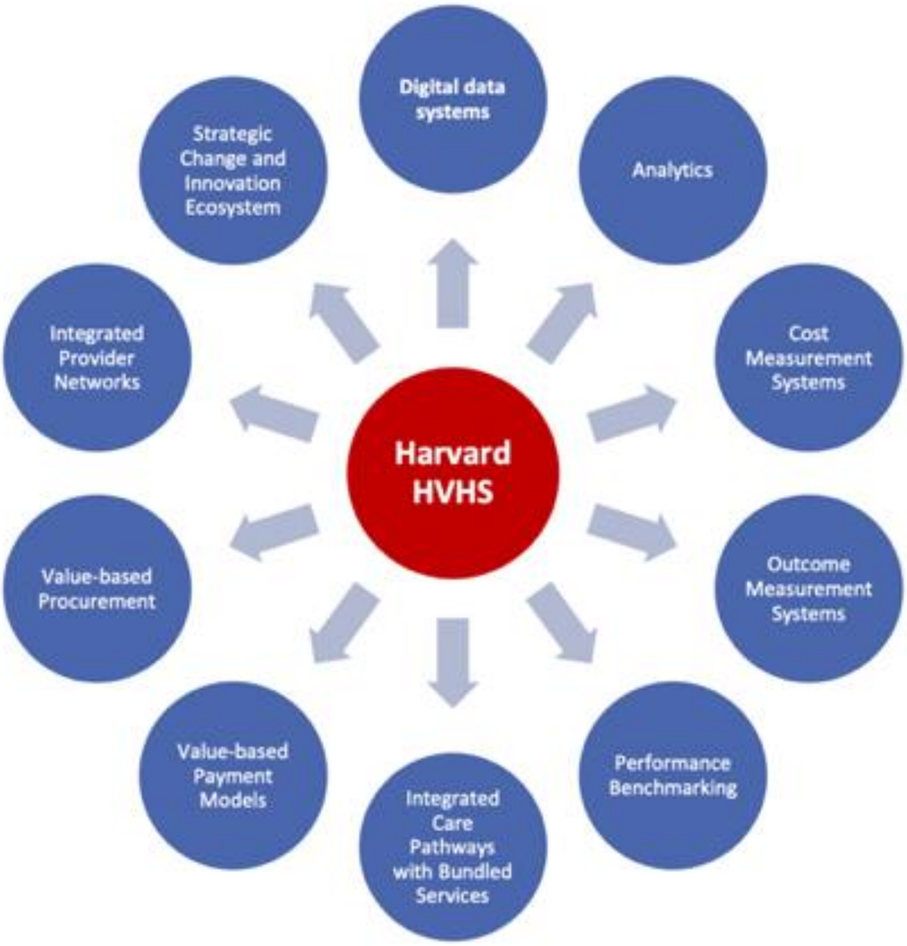


Figure 2: HVHS model

The HVHS and the EU models will be alternatively referenced throughout this document, as they are interconnected and mutually reinforcing. Together, they offer useful ways of contemplating the challenges and promoting the priorities of G20 nations and the Brazil presidency agenda in 2024.

The HVHS components, for example, speak to the underlying infrastructure and incentives necessary for the integration of care services, as recommended by the WHO. The EU model, on the other hand, speaks pointedly to equity concerns by incorporating the importance of societal value of health systems. The EU commission, in an accompanying work[21], states that improving value is “the single most important” means to guarantee the sustainability of universal health coverage, an issue of paramount concern in the G20 sphere.

Certain countries explicitly incorporate value propositions as key elements of their national health strategies. This is the case of Saudi Arabia, where enhancing value is placed as a central mission of the national agency responsible for health payments and serves as a guiding principle for several of the strategies and public policies outlined in its Health Transformation Plan[22].

More often, value-based initiatives originate from bottom up, grassroots efforts, with experimentation occurring on the local or departmental levels. There are numerous examples of this worldwide, ranging from value-based payment models across the United States[23] to outcome measurement and value-based procurement on the hospital-level in France[24]. A combination of these two approaches – top-down (government-led on the national level) and bottom-up (stakeholder or government-led, on the local level) – is often encouraged as the best way forward by value-based healthcare proponents.

Likewise, accelerated advancements in certain components of the HVHS model can be observed in various countries even when they appear differently framed[25]. In Brazil, value-based care has been cited as an inspiration for health managers and policy formulators in the country and incorporated into strategic documents by the Ministry of Health, particularly in relation to outcomes-based remuneration[26]. Notably, the guidelines for regionalisation of health published in 2011 by Brazil’s Ministry of Health introduced the concept of Health Attention Networks (RAS, in the Portuguese acronym)[27]. This came with associated financing guidelines to induce attention in some specific care areas[28], connecting the challenge of health system coordination in the country more closely to two components of the HVHS model: (VI) integrated care pathways with bundled services, and (IX) integrated provider networks. In 2019, a non-profit organisation IBRAVS (Brazilian Institute of Value in Health) was founded to promote discussion of value-based healthcare in Brazil, with a focus on consolidating and standardising patient outcomes[29].

❖ Coordination and equity: key focus areas for strengthening health systems in a post-pandemic context.

By viewing the health challenges of G20 nations through a value-based perspective, we have identified two key focus areas that: (i) hold relevance for all G20 nations; (ii) have been exacerbated by the COVID-19 pandemic; (iii) contribute to the transition to high-value health systems by either laying the groundwork for its progress or enhancing some of its core components; (iv) are interdependent and, in many instances, mutually reinforcing. Additionally, they stand as top priorities for health policymakers in Brazil.

The first of these areas is coordination, which is a persistent challenge in G20 health systems, with variation stemming from their unique political and institutional frameworks, as well as the way their health systems have evolved over time. The significance of this issue was magnified by the COVID-19 pandemic. Hence, coordination is a main pillar of health resilience frameworks[30,31] and one of the key governance strategies for pandemic response. It encompasses both horizontal forms – between sectors, jurisdictions, and governmental and non-governmental actors – and vertical forms – across municipal, state, and federal levels of government[32]. While international coordination of health is crucial and will be highlighted at specific moments, this report will primarily focus on coordination within national health systems.

Coordination is closely linked to the technical aspect of value (achievement of best possible outcomes with available resources), colloquially referred to as “value for money”. According to one estimation, about 20% of health expenditure on OECD countries makes little-to-no contribution to better health outcomes[33], a clear focal point for healthcare systems aiming for better financial balance.

Additionally, coordination pertains to the mechanics of ensuring equitable resource distribution across all patient groups, known as allocative value in the EU model[34]. Likewise, all components of the HVHS model are related to coordination in the sense that they require communication and alignment between different parts of the system to uphold the value premise. Improved coordination propositions are often framed through the lens of integration of care, particularly in countries such as Saudi Arabia[35] and the United States[36].

In the case of Brazil, health system coordination is a significant area of concern due to the inherently collaborative nature of the SUS (Sistema Único de Saúde, or Unified Health System) and the shared responsibility for health among the Union (i.e. federal government), states, and municipalities. Efficient coordination is crucial for the system's operation, as evidenced by Brazil's COVID-19 pandemic response, and remains essential as policymakers aim to implement regionalisation, an organisational principle of SUS that has not yet been fully realised.

The second area of key concern identified by this report is health equity. There has been consistent and growing support within the G20 sphere[37] for a broad transition to universal health coverage since its incorporation as a Sustainable Development Goal (SDG)[38], alongside a recognition that health equity is affected first and foremost by factors outside the immediate reach of the healthcare system.

The COVID-19 pandemic laid bare and exacerbated inequalities that reverberate to this day. At the national level, longer waiting times for many kinds of treatment, and increasing attention placed on the social determinants of health, make this clear. Internationally, it was most obvious in disparities in the availability of vaccines, further underscoring the centrality of this theme.

Health equity is also closely linked to the dimensions of personal value (appropriate care to achieve patients' personal goals) and societal value (contribution of healthcare to social participation and connectedness) of the EU model[39]. Value-based care approaches hold promise for enhancing equity in health when emphasising the idea of "value for many", encompassing the most marginalised in society, which aligns with the focus of the Brazil G20 presidency in 2024.

Equity is a principle of Brazil's national health system[40], and the right to health is enshrined in the 1988 Federal Constitution[41]. SUS stands as one of the largest examples of a Beveridgean system[42] globally and acts as an equalising force in one of the world's most unequal countries, providing valuable lessons on how universal health coverage can be a force for equity in developing countries[43].

❖ Alignment with the G20 health agenda in 2024

The core priorities set forth by the Brazilian presidency of the G20 in 2024 revolve around "fighting hunger, inequality and poverty" and the promotion of the "three dimensions of sustainable development (economic, social and environmental)"[44]. The overarching theme for the Health Working Group (HWG) in 2024 is "Building Resilient Health Systems"[45], followed by a series of four main priorities, shown in the box below.

Brazil's agenda for the HWG in 2024: "Building Resilient Health Systems"

(i) Pandemic Prevention, Preparedness and Response, focused on local and regional production of medicines, vaccines and strategic health supplies;

(ii) Digital health, for the expansion of telehealth, integration and analysis of data from national health systems;

(iii) Equity in the access to health innovations; and

(iv) Climate change and health, facilitating developing countries' access to technologies necessary to address the impacts of climate change on health.

The relative emphasis of the Brazilian presidency on local and regional production of medicines, vaccines and strategic health supplies speaks to Brazil's comparative advantage and regional leadership on this issue.

The digital health component of Brazil's priorities builds upon previous initiatives within the G20 and the World Health Organization and follows the announcement of a Global Initiative on Digital Health during the India presidency of the G20 in 2023[46]. Digital health is a critical aspect of health system coordination. This was underscored by the COVID-19 pandemic, which also brought about a greater understanding, as well as accelerated regulation, of telehealth's potential in addressing some of the health challenges arising during the pandemic.

The last two topics of the agenda introduce a stronger emphasis on equity, representing a natural extension of the overarching priorities set for the broader G20. In the area of health, Brazil presents an example for developing nations of the feasibility of establishing and sustaining a universal healthcare system despite financial limitations and political turbulence, while fostering coordination among key stakeholders of its system. This holds particular significance considering that Brazil's presidency coincides with the inaugural year of the African Union as a G20 member, which merits a stronger and more nuanced focus on the diversity of members from the Global South and their health challenges (noting the upcoming presidency of South Africa in 2025). It is also more widely resonant given that global progress towards universal health coverage had stalled even before the pandemic.

Health equity extends beyond universal health coverage and connects with emerging challenges such as the impacts of technological advancements and climate change on health systems, both themes addressed by the Brazil presidency, and which will be explored further in the report.

Underlying these priorities and the presence of the health agenda in the G20 as whole is the idea of a "global health duty" by developed nations. Though this duty may be justified by appeals to charity or justice, it ultimately rests on a recognition of the self-interest[47] and instrumental benefits of leveraging cooperation and providing support. Some health issues, such as infectious diseases with the potential to become pandemics, are global problems by nature.

Below you will find a table with the priorities outlined by each Presidency of the Health Working Group since its establishment, with colors indicating where priorities re-appear over the years. Occasionally, these are under slightly different framings:

G20 Host Country	**G20 Health Working Group Priorities**				
Germany (2017)	**Antimicrobial Resistance**	**Global Health Crisis Management**		**Health Systems Strengthening**	
Argentina (2018)	**Antimicrobial Resistance**	**Health system responsiveness to disasters, catastrophes, and pandemics**	Malnutrition: childhood overweight and obesity	**Health Systems Strengthening**	
Japan (2019)	**Antimicrobial Resistance**	Response to population aging	Management of health risk and health security	The Achievement of UHC	
Saudi Arabia (2020)	**Antimicrobial Resistance**	**Pandemic Preparedness and Response**	**Digital Health**	**Improving Value in Health**	Patient Safety
Italy (2021)	**Tools to counter the COVID-19 pandemic**	**Preventing, preparing, and responding to future pandemics**	The impact of COVID-19 on the sustainable development goals (SDG) of the 2030 Agenda		
Indonesia (2022)	Harmonizing Global Health Protocols	**Strengthening Global Health Architecture / Pandemic Prevention, Preparedness, and Response (PPR)**	Expanding Global Manufacturing and Research Hubs for pandemic PPR	**Building Global Health System Resilience**	
India (2023)	Strengthening Cooperation in the Pharmaceutical Sector with a focus on access and availability to safe, effective, quality, and affordable medical counter measures	**Health emergencies prevention, preparedness, and response with a focus on anti-microbial resistance and One Health framework**	**Digital Health innovations and solutions to aid universal health coverage and improve healthcare service delivery**		
Brazil (2024)	Climate Change & Health	**Prevention, Preparedness, and Response to Pandemics, with a focus on local and regional production of medicines, vaccines, and strategic health supplies**	**Digital Health, for the expansion of telehealth, integration, and analysis of data from national health systems**	Health Equity	

REPORT OUTLINE

The main section of the report, consolidating areas of shared learning between Brazil and the G20 towards a value-based care model, is structured as follows:

The first main area explored is coordination, with an initial discussion on how the concept relates to value, resilience, and coordinated care pathways. This is followed by a case study on Brazil, highlighting the potential and challenges of regionalisation of health. The following sections provide insights into how coordination challenges unfold in different political and institutional frameworks, along with key lessons from Argentina, the United Kingdom, and Saudi Arabia.

The second main area to be addressed is equity, with a focus on the measurement and implementation of universal health coverage, as well as discussions on the relationship between equity, value, technological innovation, and climate change. Individual country sections in this part of the report focus on Indonesia and Italy. The final segment of the report will bring forth a conclusion and a summary of policy recommendations for G20 nations.

COORDINATION

Every health system, regardless of its scale, nature, and political economy, comprises moving parts and sets of structures. It falls upon policymakers, managers, and citizens to ensure that these components operate cohesively towards the collective well-being, contributing to the best use of the available resources and the improvement of health outcomes. One important aspect of efficiency, and of promoting value both from the patient and the system perspectives, is **coordination**, defined here as *"the instruments and mechanisms that aim to enhance the voluntary or forced alignment of tasks and efforts of organizations within the public sector"*[48].

G20 countries have struggled with coordination problems in the health sector, both within and across nations, and with the related issue of extensive system fragmentation, both challenges that are also acknowledged in the T20 sphere[49]. These issues became more evident during the COVID-19 pandemic, during which coordination was identified as a crucial supporting factor in effective pandemic responses, as noted from analysis of some South Asian and African countries[50]. One of the major focuses during this period became coordination between functions related to population-level health promotion and protection, such as testing and surveillance, and health service delivery functions, such as care and treatment. In this manner, referral and reporting systems require alignment to break chains of transmission[51] and guarantee readiness on each side, increasing resilience.

Coordination in health is strongly related to the technical and allocative value pillars of the EU model[52]. Technical value, described as the optimal use of resources with a goal of efficiency[53], can only be achieved with coordination. The notion of allocative value, on the other hand, meaning an optimal distribution in patient populations[54], can only stem from a system-level understanding of the set of conditions and populations cared for, and of the steps required for their treatment.

Several components of the HVHS model rely on effective coordination, as well. For instance, two items – (VI) integrated care pathways with bundled services and (IX) integrated provider networks – emphasise integration, which is closely tied to effective coordination. Moreover, value-based care necessitates measuring outcomes and rewarding value over long periods of time across several facilities, presenting a significant challenge if the various parts of the health system lack interconnectedness.

The reverse side of coordination is fragmentation, a common fragility of health systems that is especially relevant to Latin American and Caribbean countries[55]. Fragmentation is defined as *"the division without coordination of functions"*[56] in a health system, and manifests either between public and private health systems or within public health systems, typically in aspects such as financing, governance arrangements, and information flows[57]. It can contribute to worsening inequalities over time[58]. During the COVID-19 pandemic, for example, health system fragmentation became evident in the challenge of consolidating epidemiological data or streamlining emergency response. Health system fragmentation also poses hurdles for the transition to high-value health systems via mechanisms that are worth exploring in detail within G20 countries.

Finally, coordination problems may also lead to citizens having vastly different experiences and outcomes when interacting with the health system. This goes against the expectation of equity in the health system, affecting the perceptions of coherence and fairness in the systems, and the personal and societal aspects of the EU value model.

❖ Dimensions of coordination

It is crucial to make a few distinctions about coordination. The first is that it is both the processes by which decisions are aligned and the outcomes of that process[59]. Here, we will be focusing on the processes of coordination.

The second distinction is that coordination could be of several different types. Many countries, for example, have coordination challenges emanating from coexisting public and private systems, with technical or managerial difficulties and perverse incentives embedded in the interactions between the two systems. One example of the latter, in Brazil, is that private health spending can be deducted from income tax, indirectly benefiting individuals with higher income, who are those more likely to contract private health provision[60].

The third distinction is that coordination should be perceived as a continuum[61], ranging from a notion of minimum coordination (such as improved communication between departments to avoid obvious redundancies and gaps) to a substantive form of coordination (characterised by policy co-design and shared decision-making structures). Generally, as one moves across this continuum, the balance between the costs and benefits associated with enhanced coordination changes, although how it changes may not follow simple rules of thumb.

Enhanced coordination might entail creating new managerial processes and multiplying the number of stakeholders involved in a policy, for example. This incurs costs, in the form of the time and effort devoted to coordination, which may not always exceed the benefits. However, when dealing with policy problems that are complex and intricate in nature[62], coordination becomes imperative and is likely to entail significant returns. In other words, the optimal level of coordination to be sought is context-specific and will vary according to the marginal costs and benefits associated with promoting coordination in the policymaking and implementation process.

It is also vital to recognise that in the health realm, there are separate yet interconnected value perspectives from which coordination can be assessed. From the patient's view, there is coordination of care across different providers aimed at a smoother, more seamless journey through their receipt of care. This is particularly true for people with chronic conditions who will require many moments of interaction with service delivery over time. On the other hand, from the manager's perspective, there is coordination of decision-making across different entities, to ensure a well-functioning health system.

In the following section, we will explore the features of the first type of care coordination, followed by other examples that are more closely related to national coordination on the political level.

❖ The emerging model of coordinated care pathways

Care pathways can be defined as *"the mutually agreed frameworks for the decision-making and organization of healthcare processes for a group of patients during a given period"*[63]. In this framework, the care process is coordinated among the multidisciplinary care team, the patients, and their relatives, and there is clarity in the sequencing of activities[64].

Some of the goals of care pathways are enhanced coordination and continuity of care[65], and they are meant to decrease unnecessary practice variation, a goal for which there is evidence of success[66]. Care pathways have also been associated with reduced in-hospital complications and enhanced documentation, with no negative impact on costs and length of stay[67]. Conversely, inadequate care coordination is a major contributor to clinical errors that result in avoidable patient harm[68], a critical area of global health action[69].

Care pathways are intimately related to value propositions by being patient-centred, ensuring that the patient's values are incorporated into all clinical decisions[70]. Hence, they are listed as one of the components of the HVHS model. Some countries have embraced integrated care pathways as a structural element of their health delivery system. These experiences are unfolding in different cultural settings with varying levels of maturity and blending public and private elements, as well as in contexts with different governance structures.

These examples will be explored further in this section. Now, we will examine examples from countries that have made progress in value-based care by improving coordination in their health systems.

Coordination in Brazil: Health management under cooperative federalism

Population Health Indicator	Country Data (2009 vs. 2019)	
	2009	**2019**
Total Population (millions)	194.5	211.8
Population ages 65 and above (% of total population)	7%	9%
Mortality Rate, under-5 (per 1,000 live births) (Male/Female)	Male: 22 Female: 17	Male: 17 Female: 13
Current Health Expenditure (% of GDP)	8.39	9.61
Healthy Life Expectancy (HALE) (Male/Female)	Male: 62 Female: 65.9	Male: 63.4 Female: 67.4
Gini Coefficient of lifespan inequality (Male/Female)	Male: 0.14 Female: 0.11	Male: 0.13 Female: 0.10
UHC Service Coverage Index	76	81
Top 3 leading causes of disability-adjusted life years (DALYs) (Male/Female)	Male 1. Interpersonal violence 2. Road injury 3. Ischemic heart disease	Male 1. Interpersonal violence 2. Ischemic heart disease 3. Road injury
	Female 1. Neonatal conditions 2. Stroke 3. Ischemic heart disease	Female 1. Ischemic heart disease 2. Stroke 3. Diabetes mellitus

MAIN TAKEWAYS

- **Coordination in health is a result of a multiplicity of factors including institutional and financing arrangements, as well as the political and cultural context in which health stakeholders operate**
- **Operationalising regionalisation of healthcare requires a certain degree of public management and planning capacity, as well as organisational focus within government structures, that is not currently in place in most Brazilian states**
- **Regional governance structures that facilitate regionalisation of healthcare are being consolidated across the country but still face limitations, particularly due to the fragility of their management prerogatives**
- **The decision by the central government to not seek greater coordination during the COVID-19 pandemic revealed how decentralised governance mechanisms make space for alternative strategies to uphold system resilience, as well as the key importance of coordinating institutional actors, such as CONASS**

Brazil boasts one of the largest healthcare systems in the world that is free at the point of use. In recent decades, it has achieved noteworthy advancements that serve as international benchmarks for developing countries in areas like immunisation, family health, HIV policy, tobacco use, infant mortality reduction, and transplants. Yet its health landscape remains marked by significant contrasts and inequities.

In many ways, Brazil's health challenges mirror those of developed nations: it has undergone demographic and urban transitions and faces an increasing burden of non-communicable diseases. However, Brazil also contends with health issues more typical of tropical countries, with infectious diseases, particularly mosquito-borne illnesses like dengue, chikungunya, and Zika, having substantial impact and disproportionally affecting the poorest. And there are specific local demands placed on the health system, as well. Interpersonal violence, for example, is a major factor on morbidity and mortality[71] overall, while social determinants of health such as race[72], income, and education are highly influential[73].

Although SUS acts as an equalising force in one of the most unequal countries of the world by guaranteeing care for the poorest, 25% of Brazilian citizens primarily rely on private insurance[74]. In fact, private insurance accounts for the majority of the nation’s total health expenditure (58%) despite serving a minority of users. This makes Brazil an outlier among Beveridgean systems, like the United Kingdom, Spain, and New Zealand, among which the share of health private spending is typically below 30%[75].

❖ Coordination in the Brazilian public health system

Health coordination entails managing processes, institutions, and relationships. In the case of Brazil, the focus of this section will be on *coordination among federative units*. Healthcare competency in Brazil is shared among the three units of the federation. The Union (through its Health Ministry) is responsible for most of the financing, as well as designing standards and formulating national policies; the states (through their state health secretaries) are responsible for coordinating and organising healthcare on the state level; and the municipalities (also through their health secretaries) are ultimately responsible for administering and executing health actions and services[76].

What distinguishes Brazil from other federations is that each of the three levels of the federation enjoys full political, fiscal, and administrative autonomy under a model of cooperative federalism[77]. In the health sector in particular, there is significant jurisdictional centralisation, with the central government capable of setting and enforcing national standards and regulations to a degree[78]. The SUS (Unified Health System), as well as other universal and egalitarian policies on the national level, benefits from centralised and enduring rules on revenue raising and budget transfers.

In the realm of governance, negotiation and agreements on health policy in Brazil primarily occur horizontally in two forums: the Comissão Intergestores Tripartite (between Union, states, and municipalities) and the Comissão Intergestores Bipartite (between states and municipalities), with a third structure for the regional level (Comissão Intergestores Regional – CIR) created at a later stage. Additional mechanisms and entities for dialogue and agreement include the National Health Council (CNS), their equivalents at the state and municipal levels, as well as CONASS (an entity that gathers the state health secretaries and their legal substitutes from the 26 states and the Federal District) and CONASEMS (the equivalent for the municipal health secretaries)[79].

Despite the existence of these coordinating institutions, frictions, gaps in coordination, and uncertainties regarding roles and responsibilities persist. This ambiguity around who responds to healthcare delivery shortcomings can contribute to what is sometimes described as a "mutual pact of non-accountability" among the various levels of government[80].

One of the organisational principles guiding the health system in Brazil according to the 1988 Constitution is regionalisation of health[81]. While there is no single internationally accepted definition of the concept[82], it is often linked to the simultaneous processes of decentralisation and integration of healthcare services within regional structures in countries like Canada, Italy, and Spain[83]. In Brazil, it can be defined as **"***the structuring axis which organises the decentralisation of health services and actions in the country*".

The early years of SUS were characterised by a strong emphasis on decentralisation of health services to the municipalities. This shift materialised quickly[84] and led to welcome improvements in management capability and the consolidation of governance structures[85], in a period of significant advancement in measures of health access and outcomes[86]. At this initial stage, municipalities were executing more and more services that were enabled by federal sources, but over time, municipalities took over a larger burden of the health financing, as well. Between 2004 and 2019, the federal level's contribution to total public expenditure on health decreased by seven percentage points, from 49% to 42%. In contrast, municipal spending increased from 24.8% to 31.4%, while the states' share remained constant at 26%[87].

Although there is a general lack of research on the comprehensive impact of decentralisation on health systems over time, one review notes that leadership, governance, and financing aspects are key determinants of the success of the process[88] internationally. These areas will be examined, with respect to the Brazilian context, in subsequent sections of this report. Some of the ideas and insights mentioned emerged during a two-day workshop with high-level health policymakers, secretaries, and specialists on regionalisation, run by the Lemann Foundation Programme in September 2023, and will be noted accordingly.

- **Municipal cooperation and competition**

Brazil has 5,570 municipalities, of which approximately two-thirds have less than 20,000 inhabitants[89]. As these smaller municipalities assumed more functions related to health provision and decision-making during the 1990s, they have encountered challenges in terms of technical expertise and in meeting the demand for medium- and high-complexity health services[90], particularly due to the lack of scale. In fact, the efficiency of health expenditures in Brazil is negatively correlated with the size of the municipality[91].

These challenges – coordination, fragmentation, and capacity – have become increasingly evident over time, alongside the persistence of large inequalities. The challenge of ensuring coordination to avoid excessive fragmentation is not unique to Brazil, with international evidence revealing that processes of healthcare decentralisation in different countries often hinder economies of scale, thus constraining the advantages of coordination between local units and reinforcing pre-existing inequalities[92].

To address these challenges, municipalities in Brazil have frequently chosen to organise themselves into health consortiums. These are voluntary, cooperative associations with varying scopes and sizes, and they are heterogeneously distributed in the national territory[93]. These consortiums often enable municipalities to pool resources to collectively acquire inputs such as medications, and to jointly offer some essential services. In 2015, approximately half of all municipalities declared participation in a health consortium[94], and research suggests that such participation is associated with an increased supply of health services[95].

Internationally, the evidence suggests that willingness to partake in intermunicipal cooperation (IMC) is influenced by several factors, notably the existence of symmetric federal rules, and stringency in transfers (i.e. funding with “strings attached”). In the case of health in Brazil, these factors are coupled with multilevel cooperation forums (such as the SUS commissions mentioned before) that generate a greater "participation spillover" across cooperation arrangements[96]. Municipalities with smaller local economies, fewer civil servants, and less fiscal autonomy are significantly more likely to take part in an IMC[97].

From a policy perspective, this means that the municipalities more likely to engage in cooperation are those that need it the most, because they are smaller and/or struggle with lower capacity, thereby benefiting more from gains of scale. Though there are clear benefits from consortiums, such as improved health access, they present governance challenges[98], may struggle with ensuring coordination within referral systems[99,] and may misalign with broader regionalisation strategies.

Conversely, these consortia – mostly municipal, but sometimes involving the state level – are of a voluntary nature and are thus less useful when there are competitive dynamics between municipalities, particularly where there is size and power asymmetry. Larger municipalities, where large hospitals tend to be located, may lack obvious incentives to collaborate with smaller, neighbouring municipalities in the region, especially when they can independently serve the needs of their own population. This results in commonplace conflicts between "importing" municipalities — those that aid their own population and receive patients from other areas— and "exporting" municipalities, which predominantly send residents to receive care in facilities located beyond their borders[100]. Furthermore, there is a lack of enforcement of previously agreed cooperation arrangements, and, sometimes as a result, some municipalities restrict access to their own residents[101,102]**.**

These challenges are exacerbated by the high level of partisan fragmentation in Brazil which is mirrored within health regions. Research indicates that partisan misalignment negatively influences the flow of care[103]. For instance, there is a greater likelihood of a municipality referring patients to a neighbouring municipality if both are governed by the same party, underscoring how political affiliations influence decision-making in healthcare[104]. Increased opportunities for political interference and corruption have been reported as risks of health decentralisation internationally[105].

There are further perverse incentives arising from the fact that health is a particularly salient topic in Brazilian electoral politics and campaigning. It ranks high on the list of concerns for the Brazilian population, with 26% of citizens considering it a top priority, just above issues of corruption and education[106]. In this context, some mayors may be incentivised to host large-scale hospitals providing complex treatments, even if they are not a cost-effective use of the public purse, and not aligned with regionalisation strategies among municipalities, and are unsustainable from a technical perspective.

Approximately 55% of hospitals in Brazil have fewer than 50 beds, operating with high fixed costs and low occupancy rates – averaging 45% for all SUS hospitals, significantly below the OECD average of 71% hospital-bed occupancy. Notably, beds in hospitals offering complex procedures have a utilisation rate of 37%[107]. Even though this might lead to poorer health outcomes, overall, within the system, due to the inefficient use of resources, there is local political resistance to actions that may diminish municipal autonomy[108].

Nonetheless, there are indications of an increasingly more regionalised flow of hospital care in Brazil, as evidenced by a reduction in admissions in small-scale hospitals in the municipalities of the patients’ origin. This is compensated by an increase in admissions in larger hospitals within the regions, indicating gains of scale[109]. In other words, these patterns suggest a trend towards more efficient use of resources among groups of neighbouring municipalities.

Regionalisation as a strategy

In the 2000-2010 period, federal guidelines and regulations and state-led initiatives resumed efforts to induce greater coordination between groups of municipalities and state governments[110] and improve the robustness of the health system. This entailed a renewed focus on regionalisation, which was more precisely defined as *“a strategy to correct the inequalities in access and fragmentation of health services in the country, by functionally organising SUS, with a definition of the responsibilities of the federative units and the reference flows to guarantee access for the population residing in the area covered by each regional space”*[111].

It is worth noting that health regions, within Brazil’s regionalisation policy, currently lack formal management prerogatives and administrative structures[112]. Therefore, to successfully implement a regionalisation strategy, one key action is to bolster the capacity of state structures[113] to coordinate the process through their regional bureaus.

Currently, state health secretaries face a high turnover, with them often remaining in post for a few months or a year or two, which is disruptive to the institutionalisation of daily operations, policy continuity, learning curves and the process of stakeholder trustbuilding[114]. There is also considerable diversity in how state health secretaries' offices are structured, with some operating with relatively large and ornate setups[115], and with varying degrees of clarity of responsibilities within these, which can hinder coordination both within and across government structures.

In 2006, a third governance structure was introduced in the institutional architecture of SUS to aid the regionalisation process: CIR - Regional Intergovernmental Commission (Conselho Intergestores Regionais). These commissions involved the active engagement of municipal health secretaries from each region and the regional representatives of the state executive, among other stakeholders[116]. The implementation and consolidation of these structures has been uneven throughout the country, however, with significant disparities in terms of available resources, effectiveness, and stakeholder engagement[117]. Additionally, there is a lack of involvement of organised civil society in many instances[118].

These structures may face limitations in various contexts with differing needs and constraints, ranging from metropolitan areas, border-adjacent regions, protected and indigenous reserves, among others[119]. They may also, occasionally, reproduce the electoral, clientelist, and corporate interests that may be prevalent in municipal politics[120]. In some instances, SUS managers have reported that intervention plans agreed upon in all governance structures are disregarded in implementation due to local political priorities. Political alignment between state and municipal leaders may result in more resources, equipment, and staff time being given to realising regionalisation, though the evidence on this is mixed[121,122].

Challenges to regionalisation and insights from the Lemann Foundation Programme policymaker workshop

The coordination of health service delivery in Brazil through a focus on regionalisation faces significant constraints due to several challenges, some of which are specific to the health sector. In response to these challenges, health policymakers gathered by the Lemann Foundation Programme in the workshop in September 2023 entertained comprehensive modifications to federal guidelines and regulations for specialised care to induce regionalisation, which would increasingly align existent health funding to a robust integrated regional plan, created by states[123], among other reforms.

Below is a summary of some of the most prominent challenges to regionalisation and possible avenues to address them:

Institutional design

Even though regionalisation is a principle of SUS, strengthening the health region as the main nexus of the system is perceived as low on the priority list within the current health political agenda on the federal level, along with a lack of federal guidelines and regulations that encompass the vastly different realities in the country[124]. Attempts by states to allow regions to formulate their own resource-deployment pacts have failed in the past. This has been pinned on both municipalities and the Union failing to adopt an aligned logic in the assignment of their respective resources[125].

Positive efforts to establish new forms of governance and shared responsibility between the three levels of the federation to promote regionalisation, such as Pacto pela Saúde in 2006 and the Contrato Organizativo da Ação Pública da Saúde (COAP) in 2011, resulted in progress in many areas. However, they lacked the requisite mechanisms and alignment between all accountability instruments to effectively enforce the agreements[126].

Currently, there is little visible discussion of regionalisation in the Ministry of Health, and a lack of clarity as to where the theme sits within its structure, even though the federal level holds a pivotal coordination position due to the cross-border nature of regionalisation and national equity concerns[127]. According to IPEA, an independent federal government think tank, the state branches of the Ministry of Health have weakened over time, and the same is true for the health regional directories within states (with some exceptions)[128].

A recent survey conducted with strategic actors involved in the regionalisation process[129] revealed a significant divide on whether new institutional structures and federal norms are necessary for advancing the process. In other words, there is a debate about whether institutional design still requires improvement for the implementation and successful ongoing realisation of regionalisation. Most respondents to the survey supported the proposal to create a new actor in the institutional architecture of SUS: the regional sanitary authority[130], which would be a collegiate body of municipalities under the guidance of the state health secretariats.

Broadly speaking, this authority would expand upon the current roles of the CIRs, granting them stronger executive decision-making prerogatives, their own staff, planning instruments, and some autonomy on budget allocation, although opinions diverge on the extent of this autonomy[131]. The creation of this new authority could be tied to increased federal funding and the allocation of additional physical and human resources[132].

Public management

On the management front, there is a lack of a planning culture[133]. Additional challenges include high turnover in municipal management (as with the aforementioned state-health secretary turnover), the absence of feedback loops between the planning and managing arms of SUS, and deficiencies in existing digital data systems, one of the ten components of high-value health systems[134]. Despite having one of the largest centralised health databases in the world (DataSUS), there were 54 national health information systems simultaneously in use until 2018, illustrating the struggles health managers face in terms of fragmentation and in using data appropriately to inform decision-making[135].

Adding friction to these coordination challenges is an acknowledged lack of understanding by control bodies external to the health system, which are autonomous and powerful in Brazil, about the functioning of the “fourth entity” of the federation (the region), leading to municipal managers being held accountable for collective decisions, and an excessive burden of management procedures[136]. There was a consensus, among the health policymakers in the workshop, that the functions of health management and health provider in the system need to be more clearly delineated and coordinated[137].

Financing

According to the health policymakers gathered in the September 2023 workshop, the current public health financing model in Brazil does not induce the organisation of an integrated service network, which would mean the previously mentioned thematic “Health Attention Networks”[138]. The lack of such networks hinders the development of components of high-value health systems, including integrated care pathways with bundled services and integrated provider networks. The “payment for procedure” model, predominant in specialised care, exacerbates fragmentation and would present an additional challenge to transitioning to a value-based payment system.

One underlying issue is that SUS has been consistently underfunded since its establishment, with levels of public funding (in per capita terms and by share of GDP) significantly below countries with comparable public health systems[139]. This poses a barrier to regionalisation in the sense that the health networks must be improved, expanded, and redesigned in a context of resource constraints, exacerbating disputes over their management[140].

There is currently no federal program aimed at addressing the existence of areas with no assistance, nor are there legally constituted, specifically regional funds. As a result, budget transfers from the federal level, a significant portion of overall health financing, can only flow to states and municipalities and not to regions, which are completely lacking budget autonomy. Despite this limitation, the mechanism of fund-to-fund transfers in the Brazilian public health system is well-established and the level of flows can be easily adjusted, a feature of adaptability that is resilience-enhancing. This was evidenced during the COVID-19 pandemic[141], with the transfer of additional resources allowing municipalities to quickly scale up and improve their capacity and response[142].

Regarding financing fragmentation, another obstacle for greater coordination is the multitude of requirements to access funds linked to federal policies from the Ministry of Health, which poses challenges in aligning these resources with the specific needs of municipalities.[143] Another issue is the rising share of individual parliamentary amendments in total national public health spending, increasing from 3% in 2014 to 11% in 2022[144] and accounting for about 39% of federal health investment[145]. Despite counting towards the constitutional minimum expenditure in health, these earmarked resources are often driven by parliamentarians' patronage motivations, disconnected from long-term planning[146], and they often support unsustainable policies[147].

To neutralise fragmentation resulting from (mis)allocation by parliamentary amendments, some workshop attendees suggested implementing new criteria (such as adhesion to regional plans) for these investments[148]. However, this presents both technical and political challenges, given the significant influence of amendments for local politicians in resource allocation[149]. Moreover, simply altering general criteria may not be sufficient to enhance allocation on the granular level, due to a lack of fine accountability mechanisms guaranteeing consistent alignment with the plans[150].

Regarding general funding, Brazilian health experts at the workshop have suggested transitioning to a model only partly reliant on a fee per procedure, and also requiring per-capita funding, i.e. according to the population served. States and municipalities can still independently advance regionalisation by subordinating their own budget allocation to regional planning and by meeting set targets.

- **Value-based care and regionalisation**

The challenge of structuring a health financing system that encourages or enables greater integration of services is common to many countries. The notion of transitioning away from a purely "fee for service" model to another related to outcome-oriented results, or "from volume to value"[151], strongly aligns with a central component of the HVHS model, which is (VII) value-based payment models.

While there is no literature to the best of our knowledge connecting other aspects of regionalisation of health in Brazil to value-based care, there are strong reasons to conclude that regionalisation, when done well, speaks to some, if not all, dimensions of value-based care in both the HVHS and the EU frameworks referenced previously.

When discussing the avoidance of duplication of services on a region, we emphasise the fundamental principle of allocative value and waste prevention. Addressing gaps in assistance by guaranteeing health service delivery on the regional level underscores the importance of equity. Regionalisation also encourages federal units to align their procedures and measures, thereby linking it to value-based practices which emphasise benchmarking and care integration to avoid unwarranted variation. Finally, the significance of regionalisation for the effective functioning and long-term viability of SUS connects it directly to the discussion around the societal value of health systems.

❖ Coordination under COVID-19

The COVID-19 pandemic presented new challenges for the coordination of public health in Brazil. The federal government failed to pursue nationwide coordination, especially regarding non-pharmaceutical interventions (NPIs), such as social distancing. Some parts of the federal government consistently opposed local regulations that sought to put in place higher policy stringency[152], spread misinformation, and promoted the use of certain COVID-19 medications without evidence[153].

Scientific advice was often disregarded[154] by influential actors in the federal government, even regarding simple measures such as mask-wearing[155], and the accumulated knowledge of the scientific community from previous health crisis was not utilised[156]. Key strategies for COVID-19 containment such as mass testing and contact tracing[157] were not pursued. Policy inconsistency over time and over territories led to the reduced effectiveness of stringency measures[158].

Amid the vacuum of federal-level coordination, collective and largely impromptu efforts by subnational actors emerged. The leadership of states was particularly relevant. State governors issued decrees for social distancing and other regulations, and state administrations oversaw structures for complex treatment provision, assisting municipalities in their actions, consolidating data collection efforts[159], and managing knowledge broker structures[160].

Coordination among the states was also evident, facilitated by newly created institutions such as Consórcio Nordeste, a gathering of the Northeastern state administrations, and pre-existing forums like CONASS (bringing together all state health secretaries). CONASS issued statements endorsing specific measures, provided technical support to states, established its own COVID-19 dashboard (after the federal government ceased to consolidate epidemiological data), and served as a relevant forum for mutual learning and experience-sharing[161].

Although there is no evidence of consistent horizontal coordination for implementing stringency measures[162] across Brazilian states[163,164], there is ample anecdotal evidence of solidarity, transfers of patients, and exchanges of supplies, particularly in some of the more dramatic moments of the COVID-19 pandemic such as the oxygen shortage in the state of Amazonas[165].

Brazil endured a significant impact from the COVID-19 pandemic according to several absolute and relative measures: it ranks second globally in the number of absolute deaths, 16th in deaths relative to population[166], and 31st in excess deaths per capita[167,168]. Nonetheless, the pandemic also garnered increased public support for SUS, and fostered dialogue and cooperation to an extent previously deemed inconceivable, underscoring that the resilience of the Brazilian public health system is highly dependent on effective collaborative governance[169].

Confronted with a common enemy in the form of the pandemic, combined with external pressures from the federal government, states and municipalities across many parts of the country entered into a “political truce”, putting aside minor concerns in the name of coordination. This empowered state structures to act as coordinators of the public health system. They then demonstrated significant agility and responsiveness in their capacity to respond[170].

These recent developments hold promise for future coordination efforts, especially in advancing the regionalisation agenda. However, taking this forward will require society participation and greater strategic planning. Comparative international experience suggests that more decentralised health systems bolster both community participation and information exchange — positive impacts that could be more fully realised in the Brazilian system and others of the same nature[171]. One possible idea to bring new momentum to regionalisation is the establishment of a national ten-year plan for health, modelled after Brazil’s ten-year plans for education[172], which would seek to address assistance gaps through the deployment of new resources, and would have an explicit focus on regionalisation.

The Brazil case provides some relevant lessons for other countries. First, it demonstrates how a robust, decentralised, and sophisticated governance system of healthcare provision, with a multiplicity of relevant institutional actors and coordination forums, can support an important degree of resilience and responsiveness in the face of a health emergency.

Second, it shows that striking the optimal balance between decentralisation of health services, decision-making, and integration of care is an ongoing, dynamic process, requiring an alignment and refining of political, financing, and institutional features. Regionalisation of healthcare particularly relies on organisational focus on the state level; the complementary force of enforceable mechanisms, ideally mandated in law; and a culture of collaboration that is continually attended to and renewed when necessary.

Coordination in Argentina: Addressing health system fragmentation

Population Health Indicator	Country Data (2009 vs. 2019)	
	2009	**2019**
Total Population (millions)	40.7	44.9
Population ages 65 and above (% of total population)	10%	12%
Mortality Rate, under-5 (per 1,000 live births) (Male/Female)	Male: 17 Female: 13	Male: 10 Female: 7
Current Health Expenditure (% of GDP)	9.46	10.04
Healthy Life Expectancy (HALE) (Male/Female)	Male: 64.6 Female: 68.2	Male: 65.4 Female: 68.8
Gini Coefficient of lifespan inequality (Male/Female)	Male: 0.12 Female: 0.11	Male: 0.12 Female: 0.10
UHC Service Coverage Index	76	78
Top 3 leading causes of disability-adjusted life years (DALYs) (Male/Female)	Male 1. Heart disease 2. Lower respiratory infections 3. Road injury	Male 1. Heart disease 2. Lower respiratory infections 3. Road injury
	Female 1. Heart disease 2. Stroke 3. Road injury	Female 1. Heart disease 2. Lower respiratory infections 3. Stroke

MAIN TAKEAWAYS

- **Argentina illustrates how the political, fiscal, and institutional drivers of healthcare-system fragmentation operate, and how path dependency makes reform difficult**
- **The path to greater integration and coordination in health can be challenging when there are few available policy levers, and the central government has limited ability to influence local policy and outcomes**
- **The case of Plan Sumar highlights how coordination can be gradually fostered over time with the use of conditional transfers and the creation of shared administrative structures**

Argentinians enjoy a constitutional right to health. While the country has achieved universal coverage in *nominal* terms, meaning that all citizens are theoretically enrolled, there is no *effective* universal coverage. In other words, despite their *de jure* rights, people do not necessarily receive the healthcare they need, in a timely way, and free at the point of use[173]. One of the reasons for this is the high degree of vertical health system fragmentation (across different levels of government) as well as horizontal fragmentation (across a multitude of independent insurance systems)[174]. This fragmentation results in lack of transparency, inefficiency, and exclusion of poorer and marginalised groups, among other challenges[175]. It has long been identified as a priority area for health system reform in the country[176].

Health coverage in Argentina is roughly divided into three subsectors: insurance-based, public, and private. While there is monitoring of usage to ensure reimbursement (when a privately insured person uses the public system, for example), there is a notable lack of explicit mechanisms for coordination between the systems, particularly in areas like health risks or management[177].

The most prominent of the subsectors is the social insurance, comprising approximately 300 “Obras Sociales” (OS) responsible for coverage of around 60% of the population. These non-profit schemes vary in size[178], but 70% serve less than 30,000 beneficiaries. The small scale of most schemes leads to concern over their long-term financial viability, contributes to inefficiency, through high, fixed administrative costs, and leads to small and unstable risk pools of beneficiaries[179].

The majority of OSs are organised through branches of economic activities, with eligibility restricted to the respective workers and their families. They contribute to their plans with a compulsory rate of their salaries[180], sometimes supplemented by public funds, and then a federal redistribution fund transfers money from the poorer to the wealthier OSs. The management of these schemes is usually overseen by trade unions, with a minority of OSs managed by governments on the provincial and federal levels. These government OSs provide coverage for public sector employees and their dependants. The elderly and retired have a program of their own[181]. In general, schemes commonly subcontract private services[182].

The private health sector is composed of those individuals who either purchase private insurance or supplementary plans to complement their OS plan[183]. These people comprise 13% of the population. Both the national OSs and the private insurance plans are regulated by a health services oversight authority, which establishes a minimum mandatory basket of services that should be available to each user. The public health sector in Argentina, meanwhile, offers care to anyone who seeks it, but in practice it caters mostly to the third of the population that does not have insurance through an OS or a private plan[184]. The public health sector is financed by taxes, with the vast majority of its hospitals and care network owned and managed by local governments, predominantly at the provincial level.

❖ Provinces as the key actors of public health in Argentina

Argentina, like Brazil, experienced a process of decentralisation of health services in the post-democratisation period of the 1980s and 1990s. In contrast to Brazil, where the process was primarily focused on municipalities, in Argentina the services and responsibilities were transferred from the national to the provincial level[185], which has the autonomy to determine health strategies and implementation approaches[186]. Smaller provinces like Tierra del Fuego, with less than 200,000 inhabitants, lack the scale to provide highly complex treatments on their own, and therefore often send their patients to other localities. Meanwhile, the metropolitan area of Buenos Aires, which includes the city and the suburban municipalities belonging to the Buenos Aires province, with about 15 million people[187], has more resources, and thus is more self-sufficient and able to provide higher standards of care.

The high level of provincial autonomy in Argentina can be traced back to the Constitution of 1853, which founded modern Argentina as a unification of the previously existing provinces[188], and is reinforced by institutional features of the Argentinian electoral system and its representation rules. Gender representation is notably high due to mandated "zipper" quotas[189], which constraint the order of candidates of different genders on the party lists. Provincial deputies are elected every two years. Reforms to the electoral system used to select provincial deputies introduced majoritarian biases[190], such as high electoral thresholds, that tend to favour winning parties[191]. This results in a "federalism of executives" with governors as the main political force[192], and health funds subject to unstable bargains between provinces and the national government.

Health-system decentralisation in Argentina was initially driven by the rationale of fiscal adjustment[193], with devolution of responsibilities not matched by an associated capacity to raise revenues. This resulted in a "vertical imbalance" between the expected levels of responsibility of each government and the resources they could mobilise — an imbalance that persists to this day. On average, provinces execute half of the country's total expenditure while mobilising only 20% of fiscal revenue, with numbers ranging from 10% to 90%, with the national government left to fill the gap[194]. Although these intergovernmental transfers are a common feature of federal systems, the vertical imbalance in Argentina is high by international standards and subject to complex and contentious mechanisms[195].

Under this imbalance, wealthier provinces were able to develop capacity in a way that poorer provinces did not, and vast inequities remain among provinces in terms of health infrastructure, available workforce, and health outcomes[196]. The lack of stronger mechanisms for coordination within the system also results in inequities perpetuating and deepening. From the user's point of view, this means highly different standards of access and quality across the country[197]. From a system perspective, it means a high level of inefficiency in resource allocation[198].

In contrast to Brazil, however, where the Ministry of Health has demonstrated significant influence in establishing specific national policies and reducing inequalities, the Ministry of Health in Argentina has more limited policy levers to effect change, as well as lacks substantial legislative and regulatory power in the health sector[199] due to the features of the federal structure[200] (as well as the fact that it only controls 7.5% of total health spending in the country[201]).

National health policy coordination is the responsibility of COFESA (Federal Council for Healthcare), created in 1981[202] and presided over by the Ministry of Health. Among its responsibilities, it is supposed to coordinate the development of the health sector's various parts, by identifying common problems, recommending courses of action, and ensuring compatibility in programs[203]. However, it has little decision-making power[204] and agreements are not binding to provinces. COFESA has gained prominence only intermittently and for brief periods, including during the COVID-19 pandemic and in 2002[205] when Argentina experienced a major economic crisis, which became an opportunity to build more consensus.

Argentina's handling of the COVID-19 pandemic presents a stark contrast to the Brazilian case. From the beginning, there was strong willingness to promote coordination from the federal level with a more collaborative approach with the provincial level than was seen in Brazil. This effort was led by new and pre-existing institutions, with a focus on vertical coordination through COFESA, as well as horizontal cooperation initiatives across provinces[206]. However, once restrictive COVID-19-policy fatigue set in among the population, the political consensus faltered, and the government lost support. Less observance of social distancing and other stringency measures contributed to infection rates spiking. The process highlighted that the mechanisms for coordination were highly dependent on the political will of a few key actors and were poorly institutionalised[207].

❖ The potential of conditional transfers

Health system reform in Argentina in the 1990s emphasised competition in the insurance sector and giving workers the freedom to choose the Obra Social to which they would subscribe[208]. This effort was weakly regulated and came to a halt as the country plunged into a deep economic crisis in 2001[209], leading to widespread unemployment and many losing their formal coverage.

This opened the way for conditional health transfers from the federal level to become a way of building cooperation and enforcing standards. From 2004 onwards, a new federal health program was introduced to improve care for the uninsured population. A key component of this was Plan Nacer (later renamed Sumar), a results-based financing program involving additional federal funding allocated to provinces to purchase a package of health services from public providers. It was contingent upon meeting some targets[210]. The focus was on maternal and child health, given that 65% of children lacked health coverage at the time. Due to their stronger fiscal position, the richer provinces were more reluctant than the poorer ones to agree[211].

This was the first national program in Argentina to introduce a package of public health insurance at the provincial level[212]. Plan Sumar has been associated with positive health outcomes, enhanced coordination between the federal and provincial governments, improved stewardship functions of the Ministry of Health, and facilitated harmonisation across various nationally managed programs[213].

From 2018 onward, efforts were made to use this programme as a platform for bolstering public insurance schemes in the provinces through targeted subsidies in priority areas, aimed at reducing disparities, harmonising standards, and enhancing primary care[214], eventually reaching 16 million people in areas including sexual health, cancer prevention, and non-communicable diseases[215]. Capacity building in the local level and creating a robust auditing scheme were pointed to as relevant aspects of success[216].

In short, over time the Ministry of Health has become more able to impact provincial policy and expand effective universal health coverage[217] with the use of conditional extra transfers[218]. The extent to which it has mitigated overall fragmentation is unclear and there are ongoing challenges related to maintaining commitment and compliance among all relevant stakeholders[219]. However, what is clear is that even when starting from a position of fragmentation, conditional transfers and the construction of shared goals and processes and administrative structures can be improved on over time and contribute to better health outcomes.

❖ Value-based care in Argentina

Plan Sumar is a step towards value-based payment models[220] in linking financing to results explicitly and encouraging inter-system learning with the best performers[221]. Argentina also has a digital strategy in place with a stated goal of interoperability and unification of electronic health records[222], a promising step forward in the development of digital data systems.

Until 2020[223] new technologies could be incorporated into the list of covered and financed services without benefit evaluation[224], posing a challenge to the transition to high-value health systems. In 2018, CONETEC (National Commission for the Evaluation of Health Technologies and Clinical Excellence) was created[225]. Its role is to consider "ethical, medical, economic and social" dimensions in evaluating technologies that are used in the health system, and it can make binding requirements, representing a potential tool to be used in the direction of higher-value health systems[226].

In a broader sense, the high fragmentation of the Argentinian health system is expected to present significant challenges for scaling up components of high-value health system models, including integrated care pathways with bundled services, value-based payment models, value-based procurement, and integrated provider networks.

Coordination in the United Kingdom: The challenge of integrating health and other care sectors

Population Health Indicator	Country Data (2009 vs. 2019)	
	2009	**2019**
Total Population (millions)	62.3	66.8
Population ages 65 and above (% of total population)	16%	19%
Mortality Rate, under-5 (per 1,000 live births) (Male/Female)	Male: 6 Female: 5	Male: 5 Female: 4
Current Health Expenditure (% of GDP)	10.05	9.96
Healthy Life Expectancy (HALE) (Male/Female)	Male: 68.7 Female: 70.2	Male: 69.6 Female: 70.6
Gini Coefficient of lifespan inequality (Male/Female)	Male: 0.10 Female: 0.09	Male: 0.10 Female: 0.08
UHC Service Coverage Index	83	87
Top 3 leading causes of disability-adjusted life years (DALYs) (Male/Female)	Male 1. Ischemic heart disease 2. Trachea, bronchus, lung cancers 3. Chronic obstructive pulmonary disease	Male 1. Ischemic heart disease 2. Alzheimer disease and other dementias 3. Chronic obstructive pulmonary disease
	Female 1. Ischemic heart disease 2. Stroke 3. Back and neck pain	Female 1. Alzheimer disease and other dementias 2. Back and neck pain 3. Chronic obstructive pulmonary disease

MAIN TAKEAWAYS

- **The United Kingdom case shows that the key importance of social determinants of health, such as living conditions and education, requires coordination of healthcare with other areas to ensure better health outcomes and improved equity**

- **An NHS reform called the "Health and Care Act", seeking greater integration between healthcare and other sectors, illustrates the challenges of measuring outcomes and aligning incentives when organisations with different public purposes are seeking to collaborate**

- **This NHS reform also points to the different, complementary components that facilitate coordination, such as a culture of cooperation and legal instruments for enforcement and accountability**

The National Health Service (NHS) in the United Kingdom is an example of a Beveridgean system that has undergone several reforms over the years. In July 2022, a significant change in health service delivery[227] was inaugurated with the legal establishment of 42 integrated care systems (ICSs) in England. These systems, each covering populations from around 500,000 to 3 million, were legally mandated[228], formalising and expanding an arrangement that had existed since 2016[229], primarily operating through "soft power" mechanisms[230]. The latter phrase conveys that up until now, system leaders relied more on their personal and informal authority, built through longstanding relationships of trust, rather than on formal and coercive enforcement mechanisms[231].

The primary goal of these ICSs is to direct health and care organisations towards a long-term strategy that is focused on reducing inequalities by targeting the most deprived areas, enhancing value in healthcare provision, and aiding the NHS in supporting broader development[232]. Though these objectives are not new and there have been multiple NHS reforms in this direction, the ICSs proposition is deemed to be the largest overhaul of the system in a decade and reorientates the NHS away from a recent emphasis on competition towards one of collaboration[233]. The aim of the reform is to improve coordination and health outcomes.

A dual structure supports the ICSs in their function**.** On a lower level, the integrated care boards (ICBs) are responsible for the planning and execution of health services in a particular area, managing the NHS budget and working with the local providers, and are accountable to NHS England. At a higher level within the same area, committees called integrated care partnerships (ICPs) are responsible for the strategy, bringing together all partners who contribute to health outcomes and well-being in that area, such as fire services and those related to housing, policing, education, and others.

The anticipated benefits of this reform will require time to materialise. One overarching question concerns the limits of the law as a tool for enforcing coordination[234]. Although institutional coordination is incentivised and legally mandated, the outcomes of the reform will largely rest on building a culture of collaboration and trust, as had been the case under the former system, though the intention now is for that trust to be more of an institutional than individual form.

The reform also hinges largely on local implementation[235], which is influenced by material factors beyond the disposition and ability to coordinate. These include the number of organisations operating in a certain area and differences in the way they operate. Managing a high number of organisations operating in very different ways is likely to make implementation slower and more complex[236]. Additionally, there is huge variation in health needs and in available resources, such as staff and infrastructure, across different ICSs[237].

Flexibility is central to the reform and variation is expected, as different ICSs have different starting points and levels of maturity. However, there is concern around how this variation could entail a trade-off with accountability[238], both toward local partners and with national bodies[239]. In other words, one concern is ensuring that flexibility does not entail weakened standards for transparency and accountability.

The nature of this reform also harks back to the discussion on the relative costs and benefits of coordination previously mentioned in this report. There are concerns regarding the capacity and appetite to steer the NHS towards collaborative efforts and alternative ways of working[240] in a moment when it is facing significant pressure in resources, funding and capacity[241], and waiting lists for patients are near historic highs[242] (in part due to backlogs in elective procedures that were paralysed during the COVID-19 pandemic).

The ICSs reform highlights the longstanding challenge in the NHS of promoting and enforcing coordination between public health and different care sectors to address equity and the social determinants of health. Consolidating, formalising, and expanding successful bottom-up experiences involves tensions between flexibility and standardisation, as well as questions on how law-mandated incentives and a culture of coordination can be mutually reinforcing instead of self-defeating. Finally, contextual differences between ICSs – organisational, historical, and health-related - should mean different levels of expectation for performance[243], with additional targeted support likely necessary to ensure that health inequities are addressed[244].

❖ Value-based care in the United Kingdom

The NHS in the United Kingdom has adopted the language of value-based care in several documents and programs since the early 2000s[245], with Wales in particular placing a significant focus on value as part of their health strategy[246]. However, there is not a single agreed definition and method across all ICSs, with implementation often sporadic and with a narrow view of cost-saving and productivity[247].

A series of Atlases of Variation have been published by NHS England to stimulate debate on unwarranted variation of care activity and outcomes for patients[248]. The Rightcare Program from NHS England, in place since 2009, has focused on supporting evidence-based interventions to securing value[249] by identifying reasons for variation, designing better care pathways[250] and guaranteeing that unnecessary treatments are not offered to patients[251].

According to the Economist Intelligence Unit report, the UK demonstrates high alignment with value-based healthcare. There is, overall, a moderate evolution in all aspects of value-based healthcare that the report covers, apart from measuring outcomes. This is despite the existence of the Quality and Outcomes Framework (QOF) system, covering a series of aspects such as patient experience and chronic management, and rewarding GP practices for higher quality care. Finally, this report notes that even though some of these new approaches are driven mainly by the pressure to cut costs, they enjoy broad support from health stakeholders[252].

The white paper that laid the groundwork for the ICS's policy focused on "improving outcomes and value for citizens"[253] and on the creation of population-based systems (for example, a system for people with type 2 diabetes). The program thus has the potential to propel the NHS towards a high-value health system in certain aspects of the framework, such as the digital data systems component. There are requirement and support mechanisms, for example, to ensure that organisations on a given ICS reach a certain level of digital capability and are connected to a shared care record[254], which is relevant considering that in the UK, digitalisation of social care service significantly lags health.

The program also seeks to introduce mandatory reporting of outcomes on the level of Places (this is the middle tier on the three-tiered model organising ICSs and covers populations of around 250,000 to 500,000 people, where partnerships between health and other care organisations happen)[255]. This is a promising avenue towards the outcomes measurement systems component of the high-value health system framework.

However, identifying the measures and methods appropriate for reaching these outcomes is one of the biggest reform challenges[256], as there is an incentive for organisations to focus on their own, often process-focused, KPIs[257]. One emerging approach to bridge this gap is the development of shared outcomes frameworks that explicitly link priorities on the Place level with those on the System level (the top tier on the model, covering populations of around 500,000 to 3 million people), demonstrating how process measures influence outcome measures, and the role of each institution in achieving them[258].

Coordination in Saudi Arabia: Health system reform under value propositions

Population Health Indicator	Country Data (2009 vs. 2019)	
	2009	**2019**
Total Population (millions)	28.5	35.8
Population ages 65 and above (% of total population)	2%	2%
Mortality Rate, under-5 (per 1,000 live births) (Male/Female)	Male: 13 Female: 13	Male: 8 Female: 7
Current Health Expenditure (% of GDP)	4.29	5.47
Healthy Life Expectancy (HALE) (Male/Female)	Male: 61.9 Female: 62.6	Male: 63.8 Female: 64.4
Gini Coefficient of lifespan inequality (Male/Female)	Male: 0.10 Female: 0.10	Male: 0.10 Female: 0.09
UHC Service Coverage Index	69	72
Top 3 leading causes of disability-adjusted life years (DALYs) (Male/Female)	Male 1. Ischemic heart disease 2. Falls 3. Road Injury	Male 1. Ischemic heart disease 2. Road injury 3. Falls
	Female 1. Ischemic heart disease 2. Stroke 3. Neonatal conditions	Female 1. Ischemic heart disease 2. Stroke 3. Gynecological diseases

MAIN TAKEAWAYS

- **Saudi Arabia is a unique example of a country attempting to promote a major reform of its healthcare system along value-based guidelines, with a focus on private provision**
- **The Saudi process illustrates the potential as well as the shortcomings in improving value in health by using a centrally led, national approach**
- **There are state capacity, stakeholder buy-in, incentives, and coordination challenges involved in trying to rapidly improve value in health systems**

Saudi Arabia is currently undergoing a massive reform of its healthcare system, known as the Healthcare Transformation Program, using value-based care as its guiding principle. Since there was a paucity of independent assessments covering the reform by the time of this report, this section relies heavily on testimony from actors familiar with the system and working within it.

In 2021, Saudi Arabia announced a plan to consolidate networks of health providers into around 20 clusters geographically defined around the Kingdom, each one with one to two million residents[259]. The clusters aim to integrate all levels of care and organise service delivery and budgets by the segmentation of populations in need (such as people with a certain type of diabetes, people with back pain, and so on). The goal is two-fold: to make allocative value trade-offs explicit within clusters, and to better assess performance comparatively between clusters[260].

This initiative is part of Vision 2030, a long-term, comprehensive strategy announced in 2016 by Saudi Arabia to enhance government performance while promoting economic growth and diversification. The Healthcare Transformation Plan places a strong focus on privatisation[261], with an explicit goal of increasing the private share of spending on healthcare from 40% to 65% by 2030[262] and promoting Public-Private Partnerships (PPPs). In 2019, a law was passed opening the health market to fully foreign-owned businesses[263]. Although it is still early to evaluate the strategy, it is likely to be assessed by both the progress of economic metrics and the improvement of health outcomes.

The Healthcare Transformation Plan is explicitly guided by a value-based approach[264], standing out for its strong focus on the "strategic change and innovation ecosystem" component of the high-value health systems framework[265]. Improving value (by containing costs and improving outcomes) is one of the three main goals of the Plan, along with improving health (length and quality of life) and healthcare (service quality, performance, and accountability)[266]. While its value approach is informed by frameworks articulated by researchers in Harvard Business School, the University of Oxford, and the World Economic Forum, the Plan also developed and incorporated its own definition of value, which emphasises population in addition to individual health, as well as the effect of clinical and health outcomes on family and community relationships[267].

Official documents for the Plan have a notable emphasis on the integration between primary and specialised care[268], with clusters intended to facilitate a comprehensive view of health from the provider's point of view in addition to a better experience for the user[269]. Additionally, there is mention of fostering a culture of stewardship[270], a key feature in some value-centric models.

The Healthcare Transformation Plan is still primarily in the planning and pilot implementation stages, with ten of its 14 PPP projects in the "upcoming" phase of the pipeline[271]. A major initial focus of the reform has been organisational, with a new Center for National Health Insurance intended to play a pivotal role developing a benefit package, which is aimed at ensuring the clinical and cost effectiveness of interventions and serving as a new public health payer[272]. The Ministry of Health's role has been more clearly defined than under the previous system as a regulator, with its provision functions redirected to alternative entities.

Another initial area of focus is the adoption of digital technologies in the health system, with recent advancement particularly focused on the digitalisation of patient records. The young profile of the Saudi population and a high level of digital literacy facilitates widespread adoption of digital solutions at the population-level, though interoperability issues persist on the provider and system-levels[273].

Challenges for implementation of the Plan are compounded by pre-existing issues in the Saudi health system, such as the shortage of healthcare workers[274]. The standardisation and integration of care pathways, for example, is being advanced in tandem with day-to-day operations. However, there is an understanding that establishing quality improvement cycles, crucial to improving value, will require a new set of incentives for frontline clinical staff that could catalyse a shift in attitudes, moving from a focus on compliance to one centred on impact.

The high proportion of medical staff from abroad (about two thirds of nurses and one third of doctors are immigrants), along with their high turnover, could also present a significant obstacle to institutionalising new practices through routinisation, and to fostering systemic, long-term culture change without consistent and ongoing efforts. In general, the top-down approach taken by the Plan highlights the complementary importance of engagement, local buy-in, and relationship management[275].

It should be noted that unlike in other countries, the relatively high interest and openness to the value in health reforms in Saudi Arabia is shaped by the specific structure of its health market, which is composed of a small number of large private providers and insurers. These organisations have the necessary scale to implement complex regulatory reforms and envision opportunities for cost-saving and cost-shifting that increases their profitability. Seeking coordination might be easier when few actors are involved. The expectation of continuous growth is another driver of private interest; 8,200 hospital beds are expected to be added to the currently existing 78,000 beds by 2030, with a further 20,000 anticipated to be needed by 2035[276].

In general terms, the Saudi Arabia case illustrates the possibility of exploring a definition of value appropriate to a specific country context and using it as a lens for system transformation, while paying attention to sequencing in a way that each step of the value reform makes easier the next. It also highlights the importance of stakeholder buy-in and of aligning incentives in the direction of higher value; resistance or incomprehension of the reform could be prejudicial[277], as well as lack of technical capacity for implementation. It remains uncertain the extent and speed to which early efforts can be sustained as they scale, particularly as some of these initial initiatives rely on external consultants[278].

Finally, this case highlights the complicated coordination challenges involved in steering a health system towards increased private participation under a shared goal, and highlights that pursuing several goals at once (such as increasing private participation and improving health outcomes) might entail trade-offs during implementation. PPPs in healthcare generally require careful risk monitoring[279], and previous international experiences with health privatisation recommend caution against potential cost increases, due to a shift towards a more profit-driven logic in the system[280].

EQUITY

Health equity is defined by the WHO as *"the absence of avoidable, unfair, or remediable differences among groups of people due to their social, economic, demographic or geographic circumstances"*[281]. In other words, health equity is *"achieved when everyone can attain their full potential for health and well-being"*[282].

The extent to which health equity is not a reality – that is, of the extent of health inequities – is unfortunately easy to illustrate. The life expectancy of a child in South Asia, for example, rose 13 years between 1970 and 2000 — yet during the same period, life expectancy rose a mere 4 months for a child in sub-Saharan Africa. Such inequities can be pronounced even within strict geographical boundaries[283]. The gap in life expectancy between citizens can run close to 20 years inside a single borough in London or within the city limits of Baltimore, in the United States[284]. These differences are largely determined by factors that lie outside the healthcare system. One health equity framework, for example, highlights the impact of five main policy areas: health services, income security and social protection, living conditions, social and human capital, and working conditions[285].

❖ Health equity and equality

Health equity is different from health equality in two respects. While health inequalities can be identified objectively with data, health inequities are less straightforwardly measurable, as they pertain to the existence of avoidable injustice. Thus, by assessing health inequalities, analysts can pick up traces of likely inequity. On the level of policy, overlooking disparities means running the risk of exacerbating them[286]. Addressing health inequities points toward not only providing equal healthcare access but also devoting specific resources and attention to marginalised groups, both within healthcare provision and within other sectors that impact health outcomes, with the objective of effectively levelling them[287]. The "Health in All Policies (HiAP)" approach is supported by the World Health Organization[288] and is garnering increased attention across G20 countries. In essence, HiAP uses a health lens to decision-making across all sectors and policy areas, seeking synergies between them, and ensuring that they all promote better health outcomes and health equity[289,290].

Focusing on equity can sometimes present frictions with equality objectives. In the case of COVID-19 vaccines, for example, initially some distribution proposals were purely based on population numbers (that is to say, emphasising equality among citizens), which received pushback for not incorporating equity concerns[291], i.e. older people's greater vulnerability[292]. What may be viewed as "unfair" treatment from a perspective that emphasises equality can be argued to be "just" from an equity point of view.

Equity is to some degree a concern of every health system, and several G20 countries have outlined programs and strategies aimed at tackling health equity in its different dimensions. The National Health Plan 2030 (HP2030) for the Republic of Korea, for example, has established specific health equity improvement goals by income and region[293,294]. In Mexico, reproductive health initiatives have been a policy priority with the aim of improving gender equity[295] in health. The relative emphasis of each social care and health system on equity outcomes vis-à-vis other concerns such as cost and efficiency[296] depends on the values and features of each society[297], pertaining to shared local conceptions of justice, and sources of historical and ongoing group-level injustices. These affect need and available support for redistributive policies[298,299].

This section presents the goal of achieving greater equity as a core moral and strategic proposition for health systems, intrinsically linked to other major discussions in public health, including value, climate change, and innovation, and the achievement of G20 health priorities, including universal health coverage. Equity is one of the main axes of the Brazilian health agenda for the G20: according to the Brazilian Minister of Health, Nísia Trindade, *"it is a cross-cutting priority to all of the others; more than a priority, it is a principle"*[300].

- **Equity and value**

Though value can be interpreted in a narrow way with a focus on "bang for buck," value propositions have always emphasised that appropriate focus is on the population in need rather than, more narrowly, on the patients being treated. A narrow perspective on only economic value also misses the dimensions of personal and societal value emphasised in the EU framework.

In this section, we expand on these aspects of value, and discuss their balance with economic value propositions and universal health coverage goals. The incorporation of social values in health pricing mechanisms gives rise to scepticism that they are hard to measure and thus vulnerable to *ad hoc* consideration, which is often the case. Contemporary philosophers of public policy agree that this should not reduce their importance[301].

Personal value

The dimension of personal value in the EU framework emphasises that care is appropriate when it achieves patients' own personal goals. This entails shared decision-making based on a clear understanding of the harms and benefits involved in each treatment option, including no treatment[302].

Here, a potential tension could arise between personal and allocative value, since a marginal health gain or small increase in lifespan might be desirable on an individual level but may be less so on a society level, because of trade-offs involved in health budget allocation (whereby funds could be deployed to provide many more healthy years of life to others)[303]. That said, tensions do not always arise, as patients who are more involved in clinical decision-making do not always choose the most expensive treatments[304] and are thus not always a driver of cost.

Another potential tension concerns equity: if personal value is defined in purely subjective terms, it will reflect individual preferences and expectations that are likely shaped by the societal group in which the individual is situated. Some groups of people will have grown to expect more than others, with often those already better off expecting more. Thus, personal value can erode equity when serving individual preferences to the same extent and may further entrench socioeconomic hierarchies through divergent levels of care. The primacy of personal value is also challenged by epistemic injustice in healthcare, or the notion that the testimony of some subgroups of sick people are systematically undervalued and affected by negative stereotyping[305].

However, these concerns carefully considered, health system managers are broadly encouraged to value the patient perspective, as citizens often struggle to navigate the different and often uncoordinated parts of the health system during a single course of treatment, as noted earlier in this report.

Societal value

The role of societal value, defined as the contribution of healthcare to social participation and connectedness, was obvious during the COVID-19 pandemic. The salience of health increased during that period, as well as the perspective that health is both an “intrinsic” value (a good in itself) and an “extrinsic” value (considered good because it enables the attainment of other values). 1

The link between societal value and trust is a key one to explore in this context. According to studies of the pandemic period, countries with a high degree of interpersonal trust (that is, trust between strangers, sometimes also referred to as “generalised trust”) had more consistent adherence to protective measures over time and required tough behavioural restrictions for a shorter period[306]. Countries in the highest quartile of interpersonal trust experienced 30% less time subjected to strong restrictions (a stringency index exceeding 70 on the OxCGRT measures), and had half as many deaths per capita, when compared to countries in the bottom quartile[307].

Social trust appears to matter substantially in the pandemic context because people seeing a purpose to enduring the costs of physical isolation logically requires them to believe that these efforts will help to deal with disease spread, which, in turn, requires trusting that others in your country or community will also stay at home. Social trust is a largely unrecognised, yet nonetheless important element of pandemic preparedness, because it lowers barriers to solving the collective action problem, and in the case of a pandemic, makes it easier to create the public good of a lower infection rate.

Emphasising the societal value of health, particularly by encouraging equity-promotion through health systems, holds promise for growing social trust and a feeling of connectedness among citizens. These factors, in turn, bolster not only pandemic preparedness but other forms of societal robustness relevant to overcoming problems associated with the social determinants of health. These insights into how societies faired during the COVID-19 pandemic demonstrate that intangible aspects of value-based care are frequently critical for policymakers to understand and work towards.

❖ Equity and UHC

Equity is a distinct concept from universal health coverage, defined by the WHO as people having *"access to the full range of quality health services they need, when and where they need them, without financial hardship"*[308]. Eliminating the risk of health bankruptcy is not only a worthy policy goal in its own right, but also a factor in improving health equity and outcomes. Indeed, there is evidence that the stress of medical debt and associated financial risks negatively affect health in several ways – from higher blood pressure, and chronic stress, to people not seeking additional care for all manner of health problems, for fear of adding to their financial burden[309].

However, it must be emphasised that health equity outcomes will also be significantly influenced by factors beyond the immediate reach of healthcare systems, including employment, housing, educational attainment, gender, race, and others, known as the social determinants of health. That being considered, having a Universal Health Coverage (UHC) system is still largely beneficial for health outcomes[310] and often a critical step towards making substantive progress towards healthcare equity[311,312].

Specifics of UHC design and implementation matter in this respect, as noted in the coordination section. Brazil, for example, holds one of the largest universal healthcare systems in the world and yet approximately 27 million people, or 12% of the population, reside in the 2,775 municipalities with little or no ambulatory or hospital assistance available[313]. The health infrastructure is heavily concentrated in a few major capitals and larger cities, resulting in an average distance of 72 kilometres for medical care and 150 kilometres for surgeries or other procedures[314].

There is vast unwanted and unjustifiable variation in care across Brazil, characterised by both overuse and underuse, at least some of which cannot be attributed to patient preferences or factors outside the healthcare system[315]. Civil society reports indicate that national guidelines for cancer treatment, for example, are often not followed, resulting in unequal levels of care across different jurisdictions[316]. Similar disparities exist in the United Kingdom and other countries with universal healthcare systems, in which there are vastly documented inequities in access and quality[317]. The level of low-value care represents a challenge to the sustainability of universal healthcare systems[318], in the sense that limited resources under pressure from various sides remain committed to interventions that are not producing desired outcomes. The vastly documented overuse of medical services, often harmful, contributes to the sustainability problem[319] while also playing a part in widening health inequities[320].

Progress towards UHC

Reaching universal health coverage by 2030 is one of targets outlined in goal 3.8 of the Sustainable Development Goals (SDGs)[321] and has been a prominent theme in the G20 since the establishment of the HWG[322]. However, progress has been slow and is not on track to meet the target. The official service coverage measure (combining 14 coverage metrics into a single summary)[323] rose from 45 to 68 between 2000 and 2018, with its establishment as an SDG providing a common framework[324], combined with factors such as increased domestic funding[325] and societal demand connected to democratisation[326]. However, most of this progress occurred before 2015, and there have been no significant gains since 2019[327], coinciding with the period in which COVID-19 stressed health systems globally and made expanding coverage even more challenging[328]. As of 2021, approximately 57% of the world population was not fully covered by health services[329].

Political commitment is key to advancing UHC, but even in countries dedicated to this goal, the process can be protracted[330]. There is a lack of consensus on how to organise and sequence reforms in that direction, with some countries pursuing several strategies at once[331]. Similarly, many countries are not merely seeking to emulate pre-existing models of either the Beveridge or insurance-based type, but rather creating new, hybrid models.

Extending health coverage to poorer and marginalised groups typically necessitates a blend of political leadership and social mobilisation. While the COVID-19 pandemic has disrupted health systems around the world, and in many cases paused reforms while systems have struggled to cope, it has also presented an opportunity by raising the salience of health on the political agenda. Indeed, significant commitments to UHC and reforms in this direction are often embraced in moments of crisis[332]. This was the case of post-war systems in Japan, France, and the United Kingdom, and UHC-oriented reforms in Rwanda after the 1994 genocide[333]. In Brazil, the origins of SUS can be traced back to Brazilian Sanitary Reform Movement (MRSB), which emerged amidst the struggle against dictatorship in the 1970s and successfully advocated for the inclusion of the right to health in the 1988 Constitution. Countries like Thailand and Indonesia have also moved in the direction of UHC following the Asian economic crisis of the late 1990s.

Here, it is worth highlighting that advancements in equitable access may obscure underlying dynamics that run counter to equity objectives. If limited government resources are initially allocated to provide health coverage for individuals in higher income brackets, who were already paying for such services, this approach could reduce the equity of government expenditure, before poorer groups are added[334]. These tensions emphasise the importance of promoting equity as a conscious and deliberate choice by politicians and policymakers.

This could involve revaluating how progress is gauged by introducing “stepping stone” targets alongside UHC goals; such additional targets may focus on reducing inequality in mortality rates among specific income groups at the bottom or top of the distribution, incentivising efforts to ensure that UHC initiatives promote equity over time[335]. Prioritising primary care is sensible, as this area offers significant returns on improving equitable health outcomes[336], something that the experience of Brazil with SUS illustrates. In all cases, political commitment to advancing UHC and equity in a harmonised and integrated manner is key.

When the policy focus is on increasing coverage, value can fall down the priority list, yet this is precisely where it can offer an important guide. Focusing on “outcomes that matter the most”, a key component of value-based healthcare, is advisable particularly when there are tough prioritisation choices. This means segmenting populations, understanding their preferences in terms of treatments and outcomes[337,338].

Countries that are not pursuing a transition to UHC as a goal can still strive for greater health equity in various other ways. These include addressing social determinants of health, investing in free primary care services such as immunisation, and improving healthcare infrastructure and information-sharing mechanisms. The next section of this report contextualises health equity further by examining its relationship with innovation and climate change, two prominent phenomena in the G20 agenda.

❖ Rising challenges to health equity

Innovation

The Brazilian presidency of the G20 has outlined “equity in the access to health innovations” as one of its key health priorities. This is timely, in part because of the vast inequities in this area observed during the COVID-19 pandemic, which different regions of the world, and different social groups within each region, experienced in dramatically different ways.

Early containment errors in a small number of countries, mostly wealthy, led to the virus spreading more rapidly to all regions of the planet[339], necessitating more stringent policies than would have been otherwise required. When vaccines were initially approved and supply was scarce, distribution heavily favoured wealthier countries. While 73% of the world population overall has received at least one dose of the vaccine, only 33% of people in low-income countries have, as of December 2023[340]. Innovations such as the COVID-19 vaccines can impact equity and value propositions in profound ways. Policymakers may wish to consider three main aspects of the interaction between innovation and equity.

The first aspect to consider is that citizen access to technology and health innovation will increasingly shape health outcomes, a central component of value propositions. Internet access has been identified as a “super determinant of health” [341], with a much larger role in health outcomes than many other factors. Some of the effects are direct, with digital exclusion keeping people from accessing health information, for example, and some are indirect, by making it more difficult for those without internet to seek and find work, for example, which is generally beneficial for health. Over a third of the world population was still offline in 2021[342], and this digital divide will remain playing a major impact on health.

The second aspect to consider is that even when access to innovation is equitable, its impact can vary significantly among different groups. For instance, during the COVID-19 pandemic, devices for measuring blood oxygen were shown to be less accurate for certain minority groups, affecting their diagnosis and subsequent treatment referrals[343].

Clinical trials often lack diversity in racial representation, leading to outcomes that are not always straightforwardly generalisable to minority populations[344].

Moreover, racial biases have been detected in algorithms used by healthcare systems, resulting in systematic discrimination against people of colour[345], a problem that is likely to be exacerbated with the growing centrality of artificial intelligence systems[346]. Creating diverse teams, enhancing legal frameworks, upholding ethical standards, and promoting greater data transparency are strategies for mitigating this issue[347].

The third consideration revolves around the financial implications of adopting new technologies. New medical innovations are often expensive and may challenge the financial sustainability of health systems. Technology has been a strong driver of health spending, which has outpaced headline inflation since at least the 2008 financial crisis[348]. Health Technology Assessment (HTA) frameworks can help to ensure that new technologies only are introduced when they add value[349]. However, technology can also yield cost-saving benefits. The use of telemedicine expanded during to the COVID-19 pandemic[350], breaking through previous resistance. These countries included Brazil, where the regulation process was accelerated[351]. Yet the trend is evident globally, and digital healthcare solutions in general gained traction during the pandemic[352].

Digital data systems are one of the ten components of high-value health systems, and a necessary condition for measuring and consolidating outcomes[353], which are in turn a necessary condition for other components of the framework. Digital health is a priority of the Brazilian presidency and a major focus in the G20, with strategic objectives outlined around transfer of knowledge, implementation of national strategies, governance at different administrative levels, and advocacy of people-centred approaches[354].

Climate change

As the impacts of climate change become ever clearer and the issue gains prominence in the international discourse, there has been a surge in scholarly research and political initiatives examining the relationship between climate change and health. Some assert that climate change represents the foremost threat to global health worldwide[355]. The United Nations Framework Convention on Climate Change (UNFCCC) negotiations during COP26 in 2021 promoted a health programme for the first time. Agreements between parties were made with respect to making health systems climate resilient, more sustainable, and less carbon intensive[356].

Here, it's worth recalling our initial point on enhanced coordination being a key element on making health systems both robust (able to endure and recover from shocks) and resilient (not only strong, but adaptable)[357]. The World Health Organization's climate resilience framework emphasises that rather than any health system component in isolation, resilience to climate change will be defined precisely by the "coordinated function of all components"[358].

The health implications of climate change are multifaceted. Rising temperatures directly contribute to heat-related deaths, while poorer air quality impacts respiratory health. Extreme weather events result in deaths and increase the prevalence of waterborne diseases and water contamination. Additionally, climate change leads to the loss of health infrastructure and disrupts access to healthcare, among a series of direct and indirect consequences[359].

These impacts are not distributed in an equitable manner across populations. In the same way that small, island nations are some of the most vulnerable to rising sea levels, marginalised communities inside countries are typically more exposed to climate-related health risks, including racial minorities, immigrants, and indigenous communities[360]. This is due to factors such as geographical segregation and structural inequalities that make these groups less able to access resources[361] and more exposed to vulnerability factors, such as poor housing[362] and being more likely to work vulnerable jobs. Older people and children are also at a higher risk due to age-related reasons that make them more sensitive to environment changes related to heat or extreme weather.

In short, the impacts of climate change should make the implications around health equity and value previously outlined in this report more complex and prominent going forward, prompting a rethinking of ways to measuring and addressing their impacts. Examples are emerging of countries incorporating these concerns in an integrated manner into their administrative structures. In 2021, for example, the United States established an Office of Climate Change and Health Equity[363] with this objective.

Changes in temperature and precipitation patterns also affect the habitats, prevalence, and distribution of vector animals, which are a risk factor for several diseases. This is highlighted by the "One Health" perspective, recognising the interdependence of the health of humans, plants, animals, and the wider environment and the need to balance and address them on an integrated way[364]. Though initially proposed in the context of the SARS and H5N1 diseases in 2003-2004[365], the One Health approach gained prominence more recently due to COVID-19 pandemic. There is a One Health Joint Plan of Action by the Quadripartite Organizations (FAO, UNEP, WOAH, and WHO) which is in place for the period 2022-2026[366] outlining six action tracks in areas such as zoonotic epidemics, antimicrobial resistance, and food safety.

Brazil has recently made "One Health" day official[367], celebrated on 3 November, and has features that make it an obvious nexus for the topic: its extensive biodiversity, particularly in the Amazon region, and the associated need to manage and monitor diseases with zoonotic potential[368]. Positively, there is a legacy of training and physical infrastructure associated with the genomic monitoring of COVID-19 in Brazil that can be leveraged for this purpose[369]. However, the One Health approach is explicitly holistic and thus requires a high level of coordination among government agencies that is not well established in Brazil, especially in the relationship between the health and environmental ministries[370] (as well as across health departments in the decentralised system, parallel to the challenges outlined in the first section).

One focus of attention is coordination between the health system focused on vigilance of health threats and that responsible for direct care, which historically have frequently been siloed. Their enhanced coordination will be necessary to respond quicker and more effectively to new threats, in the case of Brazil and elsewhere.

It should be noted that the healthcare sector contributes with about 4% of carbon emissions worldwide, and more than double that figure in industrialised nations[371]. Initiatives to tackle this impact and make health systems more sustainable are important in the wider transition to less carbon intensive societies. They have strong potential to be harmonised with efforts to reduce waste and increase value.

The next section explores two country examples that illustrate many of the equity concerns so far outlined: Indonesia, a large developing country that is moving rapidly towards UHC; and Italy, a country where regionalisation of health has played a strong part but that remains challenged by persisting inequalities.

Health Equity in Indonesia: Aligning equity targets with health coverage expansion

Population Health Indicator	Country Data (2009 vs. 2019)	
	2009	**2019**
Total Population (millions)	240.9	269.6
Population ages 65 and above (% of total population)	6%	7%
Mortality Rate, under-5 (per 1,000 live births) (Male/Female)	Male: 38 Female: 32	Male: 26 Female: 21
Current Health Expenditure (% of GDP)	2.62	2.88
Healthy Life Expectancy (HALE) (Male/Female)	Male: 60.4 Female: 62	Male: 61.9 Female: 63.8
Gini Coefficient of lifespan inequality (Male/Female)	Male: 0.15 Female: 0.14	Male: 0.14 Female: 0.13
UHC Service Coverage Index	42	56
Top 3 leading causes of disability-adjusted life years (DALYs) (Male/Female)	Male 1. Neonatal conditions 2. Tuberculosis 3. Stroke	Male 1. Stroke 2. Ischemic heart disease 3. Tuberculosis
	Female 1. Stroke 2. Neonatal conditions 3. Tuberculosis	Female 1. Stoke 2. Ischemic heart disease 3. Tuberculosis

MAIN TAKEAWAYS

- **Indonesia has achieved remarkable progress towards universal health coverage but faces dilemmas and challenges common to countries undergoing that process**
- **Local experimentation and greater societal involvement can provide helpful insights in the improvement of healthcare system**
- **Expanding infrastructure, availability of health personnel, citizen awareness of available services, and other factors, will be key to coverage expansion and to better health outcomes beyond enrollment**
- **Equity goals can be incorporated into Indonesia's UHC in conjunction with the measurement of expansion of health coverage, and will be important for delivering better outcomes for the most vulnerable populations**

Indonesia, the world's fourth most populous country, has been cited as a "textbook case" of the expansion of health coverage, boasting the fastest growing and now the largest health insurance program in the world[372]. While there have been mentions of the right to health in Indonesia since the 1945 Constitution, efforts toward UHC can be traced to the years around the turn of the millennium, when increased social protection for the poorest was provided in response to the consequences of the Asian Economic Crisis of 1997, and a process of decentralising many state responsibilities was initiated in 2001[373], including healthcare provision, from the central government to the district level.

Decentralisation occurred gradually and in the context of democratisation, enabling a more open societal demand for health. At the same time, local experimentation with policy design led to a multitude of approaches, converging on an emerging consensus on expanded health schemes as both viable and politically popular[374]. Starting in 2005, the national government created a national health scheme that established a basic package of services, though districts were responsible for service provision[375].

Indonesia opted for a single coverage approach rather than separate programs for different populations, with purchases and services coming from both private and public providers[376]. In 2011, legislation was enacted to merge and consolidate five pre-existing risk pools[377], culminating with the launch of the National Health Insurance program in 2014. The scheme made it mandatory for all citizens to register and aimed to reach universal health coverage by 2019[378], though the goal was later delayed to 2024[379].

The road to UHC encompasses several challenges in Indonesia and elsewhere, including coordination between different levels of government[380] as outlined in the previous section, with financing a major issue. Indonesia does not request co-payments for services at the point of care from its citizens[381] and has funded the expansion of coverage mainly from contributions from employees, employers, their family members, and retirees, while the poorest 40% do not contribute and have their insurance subsidised through taxation[382]. In 2009, a new law mandated a minimum health spending of 5% in the national budget and 10% in local budgets, but only about half of districts met this requirement in 2020[383].

Equity is a declared goal of the new healthcare system[384], and early analysis does show healthcare-equity improvements across groups, across regions, and between formal and informal workers[385]. The largest gains were felt among the poorest and vulnerable groups[386]. The share of out-of-pocket health expenditures dropped from 45% in 2000 to 31.8% in 2020[387], with health issues becoming less likely to lead to poverty. Only 3.62% of the population in Indonesia currently spends over 10% of their income on health services[388], the threshold considered “catastrophic” by the WHO, far below the global and Asian average.

However, disparities persist, with the young, the rural, and the less educated citizens less likely to have insurance[389]. One equity analysis found that benefits still disproportionately favour high-income people because health infrastructure is concentrated in high-income areas where health need is lower[390]. Similarly, the overall financing of the system is mildly regressive due in part to financing through indirect taxes, such as sales tax, which disproportionately affect the poor[391].

Despite great progress, Indonesia illustrates that equitable access to healthcare also depends on addressing several related issues, including the availability of medical personnel. Indonesia has 0.6 doctors per 1,000 people, less than half of the global average of 1.5[392], yet recent laws making it easier to attract foreign doctors have been met with protests from the medical sector[393]. There is also a lack of population awareness about available services that hampers early screening and detection for conditions like cancer and tuberculosis[394], contributing to "insurance literacy" issues where the poorest may not access health services available to them due to a lack of awareness[395].

Challenges in expanding UHC also involve balancing preventative and curative approaches to the emerging health system. Despite a relatively young population, with a median age of 28.8 years[396], Indonesia faces high rates of smoking and alcohol consumption, unhealthy diets[397], and insufficient levels of physical activity[398]. Poor sanitation exacerbates a health burden which combines infectious, noncommunicable, and tropical diseases[399]. Interventions in the areas of health promotion, lifestyle, and specific behaviours like exercise[400] are lacking, underscoring that its UHC strategy could benefit from a more holistic approach to health.

The case of Indonesia spotlights how the three aspects of the UHC framework – who is covered, how much of the costs are covered, and what is covered – interact with equity, and how countries may concomitantly incorporate equity metrics alongside the more traditional UHC measures in areas like financing. Effectively targeting the most vulnerable groups to ensure equity is an ongoing challenge in all health systems that becomes even more relevant when resources are scarce.

The laudable decision of Indonesia to pursue UHC also illustrates the role of democratisation and societal pressure in creating public support for expanded coverage, with the support of active bureaucracies. It also points to the benefits of local experimentation and innovation in fostering models of care that can be later adopted and improved by national governments[401].

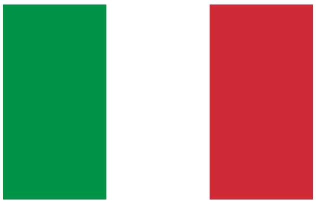
In Indonesia, some districts initially focused on just the poor while others aimed for UHC right away, and the financing models differed[402]. The decision by the government of Jembrana, one of Indonesia's poorest regions, to pay for outpatient services for the poor at any registered provider, for example, quickly improved health outcomes such as child mortality, and would influence the push for the national government to use the same model only two years later[403].

- **Value-based care in Indonesia**

Indonesia has made significant strides in several aspects of the high-value health system framework, particularly on digital health, cost and outcome measurement, benchmarking systems, and in fostering integration among providers to streamline service delivery in the care continuum[404]. However, there are no coordinated care pathways at the national level in five therapy areas reviewed by the EIU[405].

Pay for performance models have been established in the areas of maternal and neonatal care since 2016[406], and the recent law on performance-based budgeting system (PBBS) represents a new advancement towards a value-based approach, departing from the earlier model of single, mandatory spending. However, fuller implementation will require information systems and performance metrics that are currently not in place, and incompletely developing these could, in turn, end up disadvantaging less-developed places and facilities.[407] The widespread adoption of electronic health records also remains a challenge across the country[408].

Health Equity in Italy: Addressing inequities through measurement and learning in a decentralised health system



Population Health Indicator	Country Data (2009 vs. 2019)	
	2009	**2019**
Total Population (millions)	59.1	59.7
Population ages 65 and above (% of total population)	20%	23%
Mortality Rate, under-5 (per 1,000 live births) (Male/Female)	Male: 4 Female: 4	Male: 3 Female: 3
Current Health Expenditure (% of GDP)	8.95	8.66
Healthy Life Expectancy (HALE) (Male/Female)	Male: 70 Female: 72.2	Male: 71.2 Female: 72.6
Gini Coefficient of lifespan inequality (Male/Female)	Male: 0.09 Female: 0.07	Male: 0.09 Female: 0.07
UHC Service Coverage Index	80	85
Top 3 leading causes of disability-adjusted life years (DALYs) (Male/Female)	Male 1. Ischemic heart disease 2. Trachea, bronchus, lung cancers 3. Diabetes mellitus	Male 1. Ischemic heart disease 2. Trachea, bronchus, lung cancers 3. Diabetes mellitus
	Female 1. Ischemic heart disease 2. Stroke 3. Diabetes mellitus	Female 1. Ischemic heart disease 2. Alzheimer disease and other dementias 3. Stroke

MAIN TAKEAWAYS

- **The case of Italy underscores that decentralisation of a health system can exacerbate health inequities over time, especially in the context of strong, regional socioeconomic inequalities**
- **Some of the benefits of decentralisation of health care materialise in the form of increased innovation and experimentation at the local level, and these benefits can be leveraged to spread best practices**
- **Efforts towards continuous improvements in learning and equity, within and across regions, rely on careful measurement and processing of data to assess value from different perspectives, and to build resilience**

Since 1978, Italy has adopted a universal, largely tax-funded healthcare system named Servizio Sanitario Nazionale, or SSN. Starting from 1992, SSN has been increasingly decentralised to the country's regional governments, encompassing 20 regions, of which five have a special status with particular conditions of autonomy. These regional entities were given responsibility for developing their own health strategies[409] and for service supply, while the central government remained responsible for framework legislation. One of the broader insights from the case of Italy is that realising the potential gains from regionalisation depends on both a context-informed design, and on continuous reflection on the performance of the implementation process, so that adaptations can be made.

One area of concern since the onset of the regionalisation process in Italy was that decentralisation could impact health equity by exacerbating historical inequalities between the affluent Northern regions of the country and the poorer Southern regions. Indeed, the evidence indicates that inequality between North and South rose in the decade between 1999 and 2009[410] with increasing gaps in patient satisfaction levels with their own regional systems, widening health budget deficits, and increases in the numbers of patients travelling for treatment. There has been a growth in the flow of

Southern residents seeking medical treatment in the North, compared with the flow in the opposite direction. This continues to this day[411], even though healthcare in the South has incrementally improved on various health indicators over time[412.] Most of the Southern regions continue to perform considerably worse than the Northern regions across dimensions of health provision, health status and lifestyles[413].

The Italian system offered a relevant window into how decentralised systems respond to an emergency like the COVID-19 pandemic, as the North of Italy was one of the first regions in Europe to be severely hit. The comparatively less successful response of Lombardy compared to neighbouring Veneto has been attributed to the different strategies of the two regions under decentralisation[414]. Analysts have pointed to Veneto's historical emphasis and greater investment in community medicine, laying the ground for a stronger public response, as well as for more rapid implementation in service integration. Whereas Lombardy's approach has centred on hospital care and creating the conditions for public-private competition[415].

❖ Measuring and improving health regional equity

Italy had been making several efforts with the explicit goal of improving health equity before the COVID-19 pandemic hit. In 2018, the country led the Joint Action Health Equity Europe (JAHEE) with other 24 countries to promote cooperation and tangible actions to reduce health inequities[416]. Work under the JAHEE led to the establishment of a national Italian Committee for Health Inequities and mandated Health Equity Audits (HEAs) for the regions[417]. HEAs are assessments led by public health professionals to identify and address inequities in health access, outcomes, and social determinants[418].

It is national policy for the regional plans to include preventative medicine and promotion of health, and to use qualitative and quantitative methods to assess health inequities across all programmes[419]. Capacity building efforts are in place to assist regions in meeting the new requirement[420]. Each region is also equipped with an equity board and action plan, as well as a representative who serves as a connection between regional and national policy[421].

A number of specific strategies are underway. There are ongoing efforts on better collection and processing of data – specifically with the eHealth record (Fascicolo

Sanitario Elettronico 2.0) that aims to provide a national data repository, and within the National Telemedicine Platform, which will provide the same standards for all telemedicine services at the local level. There are also promising developments in assessment metrics, developed to evaluate the performance of the health system on equity and other dimensions. One of these is IRPES, a timely, publicly available, and voluntary-based governance index of 400 indicators. The system was implemented in 2008 by the MeS Lab of Sant'Anna School of Advanced Studies and has been adhered to by 12 of the 20 regions. Regional representatives meet regularly to analyse the data and are thus able to identify and spread best practices[422]. The platform adopts the language of value-based health care and includes indicators based on patient's perspectives[423].

Since the latter half of 2020, with the advent of the COVID-19 pandemic, 63 indicators have also been introduced into the IRPES to measure resilience in a pragmatic and regional basis, integrating it with the more traditional elements of equity, sustainability, and others[424]. The fact that the system connects equity, resilience, value, and benchmarking in an accessible way makes it a case study that may inspire other countries seeking to implement high-value health systems.

Furthermore, in 2015, the National Agency for Regional Healthcare Systems (AGENAS) started a National Outcomes Evaluation Program (Programma Nazionale Esiti - PNE), comparing 184 indicators of care by providers in nine clinical areas[425], on a national scale. The PNE measures efficiency, appropriateness, and safety of services, as well as equity in access along dimensions of gender, region, and educational attainment[426]. It also provides information on patient travel for treatment within and across regions. The PNE is shown to have subsequently improved performance in several critical clinical areas[427], in line with international evidence showing the positive effect of data collection and transparency on care through improved accountability[428].

A recent study identifies that over three years after being informed of their low scores on the PNE, about half of the worst-performing hospitals were able to significantly enhance performance[429], highlighting the potential of this tool as a motivator, as well as the need to further improve support for regions that wish to turn data into action. The PNE is continually updated and improved, alongside the quality and availability of underlying data. It is also a source of indicators for the National System of Guarantee

(NSG), the framework used by the central government to monitor regional health performance, which incorporates a financial feedback element[430].

The case of Italy highlights how, in decentralised health systems, mechanisms can be established to connect the central and the local levels of administration that create structures of data collection and experience-sharing, and that these can go beyond equality to acknowledge equity as a main concern. It also demonstrates the potential of creating spaces for experience sharing and helping all stakeholders to comprehend what is happening, and then working to ensure that lowest performers understand their position and are given the tools to improve.

The case of Italy also clearly demonstrates the importance of working with government departments in policy areas other than health to improve health outcomes. According to the national Italian Health Equity Status Report, variation in the extent and quality of healthcare services is accountable for only 9% of health inequities in Italy, with insecure income and social protection accountable for 43%, and living conditions, 22%. Interpersonal trust and trust in institutions are also identified as major shortcomings that contribute to widening health inequalities. These numbers make clear that other policy areas in Italy could contribute to addressing health inequities by establishing clear goals and plans that go beyond equality to impact equity, in line with what has developed in the health sector[431].

- **Value-based care in Italy**

The importance of mechanisms to encourage cross-learning by comparing results between Italian regions was recently emphasised in the Harvard/Hub report on high-value health systems[432]. Italy has made strides in various components of high-value health systems. It has improved cost measurement systems by requiring healthcare providers in their care pathways to collect cost data[433]. Additionally, outcome measurement practices have been enhanced by mandating major payers to report adjusted outcomes by patient risk. Value-based procurement practices have also been implemented by major payers[434].

In support of value-based care, as of September 2023, a National Strategy for Health Technology Assessment (Programme Nazionale HTA – PNHTA) has been released[435] promoting collaboration between the Ministry of Health, AGENAS, and the Italian Regions and Autonomous Provinces. Its objective is to develop and implement HTA-based tools for medical devices, supporting decision-making processes and governance systems. By identifying the devices that best meet health needs and evaluating their potential benefits, the strategy allows for better planning and resource allocation on the SSN. However, there is more opportunity to enhance the digital data systems component in the HVHS framework, especially as part of an ongoing primary care reform[436].

CONCLUSION

This report has emphasised how robustness and resilience can be advanced through improved coordination and more equitable healthcare systems, and explained how several countries are advancing in these areas. One helpful framing for all these experiences is improving value in health, which although a rising issue in the G20 agenda, does not refer to a single concept or model.

Some value perspectives emphasise the cost-reducing component. But value in health can also be focused on the improvement of health outcomes for the population. From the perspective of healthcare systems, value can be a particularly useful framework to address both waste (assisting in the sustainability of health systems under increasing pressures) and unwarranted variation (contributing to greater equity), though recognising that value will always look different depending on your perspective on the system.

A national policymaker might look at value as a framework for achieving improvements for certain population segments, given budgetary and other forms of constraint. A clinician, on the other hand, might see value from the perspective of a clinical intervention for a patient, considering the different impacts on wellbeing and the likelihood of disease progression, and on prognosis. For a citizen, alternatively, a lack of value can be most glaring when struggling to navigate different parts of a health system that is not coherent, leading to confusion, stress, and wasted time.

This multiplicity of perspectives became more evident as the salience of health increased on international discussions. This report comes little more than a year after the WHO announced the end of the COVID-19 pandemic, which was a pivotal moment in recent global history. Governments around the world grappled with the fact that health issues can have far-reaching, incalculable impacts across borders and become the top policy focus overnight. Domestically, policymakers were reminded that healthcare systems benefit from agility, responsiveness, and adaptability - like a bridge, they must be sturdy but with a degree of flexibility to withstand stress without collapsing. In short, healthcare systems should strive to be robust and resilient.

Policymakers also recognised during the pandemic, more than ever, that many factors influencing health equity and outcomes extend beyond their direct control, from social norms to employment, social security, and lifestyle choices. COVID-19 made this particularly evident along several dimensions: from the role of disinformation in shaping social distancing and vaccination attitudes; to the vastly different impacts of the pandemic on social groups; to the crucial relationship between interpersonal, or social, trust and pandemic mortality outcomes.

Moving forward, other health emergencies are not only possible but likely and will not remain limited to pandemics. The health implications of climate change loom large, presenting monumental and multifaceted challenges. The array of healthcare-system stressors is not limited to external emergencies, either; the associated burdens of ageing populations and non-communicable diseases continue to mount. Combined with rising healthcare costs and shifting societal demands, the threat of future emergencies poses a significant challenge to policymakers and politicians in the G20 and beyond to ensure the sustainability and effectiveness of healthcare systems.

Policymakers thus have a daunting task, which is to ensure that health systems are greater than the sum of their parts. This can only be achieved through better coordination both within the healthcare system and with other care sectors. Highlighting the societal importance of healthcare, especially by promoting health equity, has the potential to foster social trust and a sense of unity among citizens that could, in turn, enhance pandemic resilience.

This report shines a light on the potential as well as the tensions of value propositions in health, thereby providing policymakers with a better foundation for their utilisation, and a clearer notion of when value propositions can be most relevant to them. The multiplicity of possible value propositions that this report outlines is not intended to perplex, but rather to articulate positive flexibility: that countries can benefit from thinking clearly about and investing in the kinds of value that work best for their contexts, from making explicit the trade-offs between different kinds of value, and from developing their own value frameworks that can be used as reference for achieving the outcomes that matter most to health stakeholders and to society at large.

Summary: Policy Recommendations

1. Build, support, and strengthen national high-level health coordination forums

Countries should facilitate and promote dialogue between levels of government, providers, and other health stakeholders with the creation and/or improvement of coordination forums with: (i) clear roles and mandates; (ii) frequent, inclusive, and organised meetings; (iii) adequate technical capacity; (iv) sufficient levels of financing and personnel; and (v) political backing. It is advisable that these forums strive to incorporate citizens' perspectives and engage with other care services and stakeholders with influence on the social determinants of health and health equity.

2. Ensure a unified digital health infrastructure at the national level aligned with WHO standards

Digital health is a priority for the Brazilian G20 presidency, following the announcement of a Global Initiative on Digital Health during the India presidency in 2023. The G20 can contribute to global standards and guidelines as recommended by the World Health Organisation. This should facilitate measuring health outcomes, which is key for value-based care[437] and ensure the material basis for enhanced coordination. A well-functioning governance system must be set in place with attention to: (i) interoperability; (ii) data protection (due to the high sensitivity of health data); and (iii) digital inclusion (to ensure those offline are not left behind).

3. Develop health equity frameworks and targets alongside standard measures of access. In decentralised health systems, integrate health equity metrics across national platforms for experience-sharing and learning

Measurement of health and healthcare equity is not straightforward, and often there is insufficient data that clearly illuminates different equity dimensions. In a broader context, every health organisation should aim to encourage the development and institutionalisation of practices that address in a sustained manner health-equity concerns. In governments, establishing explicit health equity targets helps to differentiate between equality and equity, and to highlight efforts towards the latter.

Decentralised healthcare systems face an additional challenge in measuring and addressing health equity due to a lack of standardisation, and often rely on platforms that allow for comparison and benchmarking across provinces or states, which should be improved upon with equity as an explicit goal.

4. Foster the inclusion of people's perspectives across health stakeholders

Countries should seek appropriate ways to track, understand, and analyse people's preferences and perspectives at scale, while including "patient groups" in shared decision-making whenever possible, a key aspect of addressing "personal value" and making sure that health systems are responding to shifting societal demands. Special attention should be given to addressing the exclusion or marginalisation of underprivileged groups.

5. Investing in and accounting for coordination and equity in national and international organisations, including into the organisational structure of health departments.

This report points to a few examples when governments and health departments explicitly gave a theme prominence in their organisational charts. These actions by local and national leaders signal the prioritisation of those themes for all relevant stakeholders and guarantee a seat at the table for perspectives and issues that can often be dismissed.

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APPENDIX – COUNTRY DATA DETAILS

Note: Data from 2019 has been utilised to ensure consistency across all countries and data points, while minimising distortions during peak pandemic years. Readers are encouraged to consult national sources for the most up-to-date information as it becomes available.

Total population by country: *Total population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship. The values shown are midyear estimates.*

Source: https://data.worldbank.org/indicator/SP.POP.TOTL

Population ages 65 and above (% of total population) by country: *Total population 65 years of age or older. Population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship*

Source: https://data.worldbank.org/indicator/SP.POP.65UP.TO.Z

Mortality rate, under-5 (per 1,000 live births) (male/female) by country: *Under-five mortality rate is the probability per 1,000 that a newborn baby will die before reaching age five, if subject to age-specific mortality rates of the specified year.*

Sources:

Male: https://data.worldbank.org/indicator/SH.DYN.MORT.MA

Female: https://data.worldbank.org/indicator/SH.DYN.MORT.FE

Current health expenditure (% of GDP): *Level of Current Health Expenditure expressed as a percentage of Gross Domestic Product*

Source: https://www.who.int/data/gho/data/indicators/indicator-details/GHO/current-health-expenditure-(che)-as-percentage-of-gross-domestic-product-(gdp)-(-)

Top 03 leading causes of DALYs (disability-adjusted life year) by country (male/female): *The burden of disease is calculated using the disability-adjusted life year (DALY). One DALY represents the loss of the equivalent of one year of full health. DALYs for a disease or health condition are the sum of years of life lost due to premature mortality (YLLs) and years of healthy life lost due to disability (YLDs) due to prevalent cases of the disease or health condition in a population.*

Source: https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/global-health-estimates-leading-causes-of-dalys

Healthy life expectancy (HALE) by country (male/female): *Average number of years that a person can expect to live in "full health" by taking into account years lived in less than full health due to disease and/or injury.*

Source: https://apps.who.int/gho/data/view.main.HALEXv

Gini coefficient of lifespan inequality by country (male/female): *The level of inequality in lifespans within a country, measured between 0 and 1. A higher Gini coefficient indicates greater inequality in ages of death.*

Source:

Female https://ourworldindata.org/grapher/gini-coefficient-of-lifespan-inequality-in-females

Male https://ourworldindata.org/grapher/gini-coefficient-of-lifespan-inequality-in-males

UHC service coverage index by country: *Two indicators chosen to monitor target 3.8 within the SDG framework: 3.8.1 is for health service coverage and 3.8.2 for health expenditures in relation to a household’s budget to identify financial hardship caused by direct health care payments. Taken together, they are meant to capture the service coverage and financial protection dimensions, respectively, of target 3.8.*

Source: https://data.who.int/indicators/i/9A706FD

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