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POLICY BRIEF 59

Health system performance assessment

A renewed global framework for policy-making

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This policy brief is one of a new series to meet the needs of policy-makers and health system managers. The aim is to develop key messages to support evidence-informed policy-making and the editors will continue to strengthen the series by working with authors to improve the consideration given to policy options and implementation.

What is a Policy Brief?

A policy brief is a short publication specifically designed to provide policy makers with evidence on a policy question or priority. Policy briefs

- Bring together existing evidence and present it in an accessible format
- Use systematic methods and make these transparent so that users can have confidence in the material
- Tailor the way evidence is identified and synthesised to reflect the nature of the policy question and the evidence available
- Are underpinned by a formal and rigorous open peer review process to ensure the independence of the evidence presented.

Each brief has a one page key messages section; a two page executive summary giving a succinct overview of the findings; and a 20 page review setting out the evidence. The idea is to provide instant access to key information and additional detail for those involved in drafting, informing or advising on the policy issue.

Policy briefs provide evidence for policy-makers not policy advice. They do not seek to explain or advocate a policy position but to set out clearly what is known about it. They may outline the evidence on different prospective policy options and on implementation issues, but they do not promote a particular option or act as a manual for implementation.

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The European Observatory on Health Systems and Policies supports and promotes evidence-based health policymaking through comprehensive and rigorous analysis of health systems in Europe. It brings together a wide range of policy-makers, academics and practitioners to analyse trends in health reform, drawing on experience from across Europe to illuminate policy issues. The Observatory is a partnership, hosted by WHO/Europe, which includes other international organizations (the European Commission); national and regional governments (Austria, Belgium, Finland, Ireland, Kingdom of the Netherlands, Norway, Slovenia, Spain, Sweden, Switzerland, the United Kingdom and the Veneto Region of Italy (with Agenas)); other health system organizations (the French National Union of Health Insurance Funds (UNCAM), the Health Foundation); and academia (the London School of Economics and Political Science (LSE) and the London School of Hygiene & Tropical Medicine (LSHTM)). The Observatory has a secretariat in Brussels and it has hubs in London (at LSE and LSHTM) and at the Berlin University of Technology.

Key messages

Health systems performance assessment (HSPA) is about helping decision-makers to work through performance challenges in context, that is, in light of what drives their own health system and its outcomes, to make better informed choices about change.

- **The renewed global HSPA Framework is a tool that maps how health systems fit together and explains how they perform.** It enables policy-makers to:
  - **pinpoint the root causes of performance issues** and health system bottlenecks;
  - **design appropriate responses** that reflect where the issues sit in terms of health system functions and subfunctions, intermediate objectives and final goals;
  - **test planned policy actions by working through plausible pathways** from the roots of underperformance, through the feasibility of different policy actions to impacts and goals;
  - **identify and tackle policy areas to best strengthen health systems resilience**; and
  - put health system issues in a **wider socioeconomic and societal context**.
- **Health systems have porous boundaries but act on wider societal goals through a complex iteration of functions, intermediate objectives and goals.**
- **The global HSPA Framework is based on the consensus reached by a coalition of countries, key stakeholders and civil society coordinated by WHO** (UHC2030). It reflects a rigorous review of existing tools by the UHC2030 Technical Working Group on Health System Assessments, which included Member States, global health organizations, key players like the European Commission, the OECD and the World Bank, donors and academia, and agreed a harmonized approach to assessment.
- **The new elements of the framework are about learning from the pandemic** and bringing to the fore those existing elements that proved particularly policy-relevant. These include the following.
  - **Governance and multi-sectoral action**, because engaging all stakeholders (including the population and health professionals) and collaboration across sectors are critical to defining and achieving shared, goals.
  - **Patients and people** to recognize more explicitly how crucial the voice of patients and the public and of civil society are to decision-making processes.
  - **Health workforce** which was already a key part of resource generation but which is recognized as ever more important is ensuring service delivery supports final health system goals.
  - **Digital health**, which is pivotal in enhancing access and efficiency, patient-centered approaches, and timely, data-driven decision-making.
  - **Environmental considerations**, because climate change will be a major driver of health system utilization, while the health sector itself has a detrimental impact on the environment.
  - **Health security**, which is derived from the intricate network of performance and resilience links between the functions, and between the functions and goals.
  - **Resilience**, or the capacity to adapt and absorb shocks and bounce back.
- **The health system plays a significant role in contributing to larger societal objectives and to well-being**, for example by fostering cohesion and supporting economic development.
- **The global HSPA Framework chimes with the values and aims of the Tallinn conference.** It:
  - **underpins trust** providing a transparent map of where change is needed, what performance measurements mean and what the impacts of innovation will be;
  - **anchors transformation**, identifying what is not working, suggesting solutions and setting out a clear structure and plausible pathways for change; and
  - **is a practical tool for building resilience**, assessing vulnerabilities and guiding the development of remedial policy action.

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List of abbreviations

COVID-19	Coronavirus disease 2019
GDP	Gross domestic product
HAI	Health Action International
HFPM	Health Financing Progress Matrix
HiT	Health Systems in Transition
HAS	Health system assessment
HSPA	Health system performance assessment
NHPSP	National health policy/strategy/plan
NHWA	National Health Workforce Accounts
OECD	Organization for Economic Cooperation and Development
OOP	Out of pocket
PFM	Public financial management
PHCPI	Primary Health Care Performance Initiative
TWG	Technical Working Group
UHC	Universal Health Coverage
WHO	World Health Organization

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Executive summary

The renewed global Health System Performance Assessment (HSPA) framework is tool that gives policy-makers a clear sense of how a health system fits together, how its parts interact and what performance data mean in practice. It allows policy-makers to explain system blocks, identify levers for change and design and test the plausibility of policy options. It was updated to capture the lessons of the pandemic and to support decision-making in a post-COVID world.

The global COVID-19 pandemic serves as a stark reminder that a robust and resilient health system is one of the best defences against health threats. However, ensuring a strong system that can build on its strengths and overcome its shortcomings requires policy-makers to set the right (evidence-informed) priorities and concentrate resources in policy actions that best enhance performance and resilience. This in turn requires monitoring and regular assessment.

Assessments and monitoring efforts in countries too often take place in a piecemeal way with a narrow focus on issues like hospital performance monitoring or data collection on childhood vaccinations. These individual assessments often lose sight of big picture health system functioning. They ignore the pivotal linkages which shape the health system just as strongly as its individual components.

The new HSPA Framework overcomes this. It maps the system as a whole so that policy-makers can see what drives and shapes their health system and its outcomes and make informed choices about change. It allows them to interpret country health data to pinpoint the root causes of a health system bottleneck or to map out a policy intervention's impact

The renewal of the 2022 framework reflects the permacrisis and the myriad challenges facing governments from inflation to regional wars and refugees, climate change or loss of population trust. It brings to the fore concerns about environmental sustainability and highlights the need to leverage digital health, engage communities and respond to emerging issues. Above all, the updated HSPA Framework responds to the new call for resilience to shock.

The renewed HSPA Framework places a special emphasis on those policy areas that can strengthen health systems resilience

The global HSPA Framework gives a structured and comprehensive overview of a health system. It links the four functions and their subfunctions with intermediate objectives and final goals, highlighting the various interlinkages between them and placing everything within the wider socioeconomic and societal context. It is the strength and flexibility of the connections between different functions as well as the extent to which the functions contribute to system goals that determine the system's ability to withstand challenges and rebound from shock.

The renewed HSPA Framework captures these performance and resilience links, allowing policy-makers to assess health system resilience and shape action to strengthen it.

Governance and multisectoral action

The governance function, a cornerstone of the original framework, has been adapted to better reflect its essence: the centrality of all stakeholders, including the population, engaging constructively with each other to steer the sector towards stated, shared, goals. A new subfunction, multisectoral collaboration, captures the heightened need for collaboration across sectors to respond to pressing health system challenges such as antimicrobial resistance, emergency preparedness and food security.

There is a stronger emphasis on the imperative of active and systematic engagement not only with the population, communities, and civil society ("population and civil society participation sub) but also with diverse sectors and with crucial health stakeholders, such as health professionals.

Digital health

The realm of digital health has also been boosted and is explicitly shown across the renewed Framework. The use of digital health tools lies within service delivery and they are also linked to resources (as part of what a health system needs to operate). Digital health as an area, however, is a governance subfunction, reflecting its pivotal role in enhancing access and efficiency, catalysing patient-centred approaches and promoting timely and data-driven decision-making.

Environmental considerations

Environmental health is also emphasized in many places in the framework. Climate change is expected to be a major driver of health system utilization and the health sector demonstrably has a detrimental impact on the overall ecological footprint. Decision-makers must therefore integrate environmental considerations into their policies, strategies, and plans. The framework supports them in this and now incorporates the adaptation of health services to climate change, highlighting the efforts needed to reduce the environmental impact of delivering health services.

Health security and resilience

Health security encompasses all the final goals of the health system, because achieving the health system's overarching goals and having a high-performing system will ensure effective protection against health threats, and thus achieve health security.

Resilience, or the capacity to adapt, absorb shocks and bounce back, is distinct from but related to health security. The cohesion of a health system's various components and the effectiveness of the links that bring the different health system elements together lend resilience to the system.

The HSPA Framework (figure 1) disaggregates functions into subfunctions and links them to assessment areas.

The framework lays out a set of subfunctions for each function. Subfunctions represent what matters most for function-level performance and for the function's contribution to overall system performance. Assessment areas are specifically formulated topical areas that, if adequately appraised, assess function or subfunction performance. The assessment areas are not indicators in and of themselves and are ideally assessed through a mix of quantitative and qualitative measures.

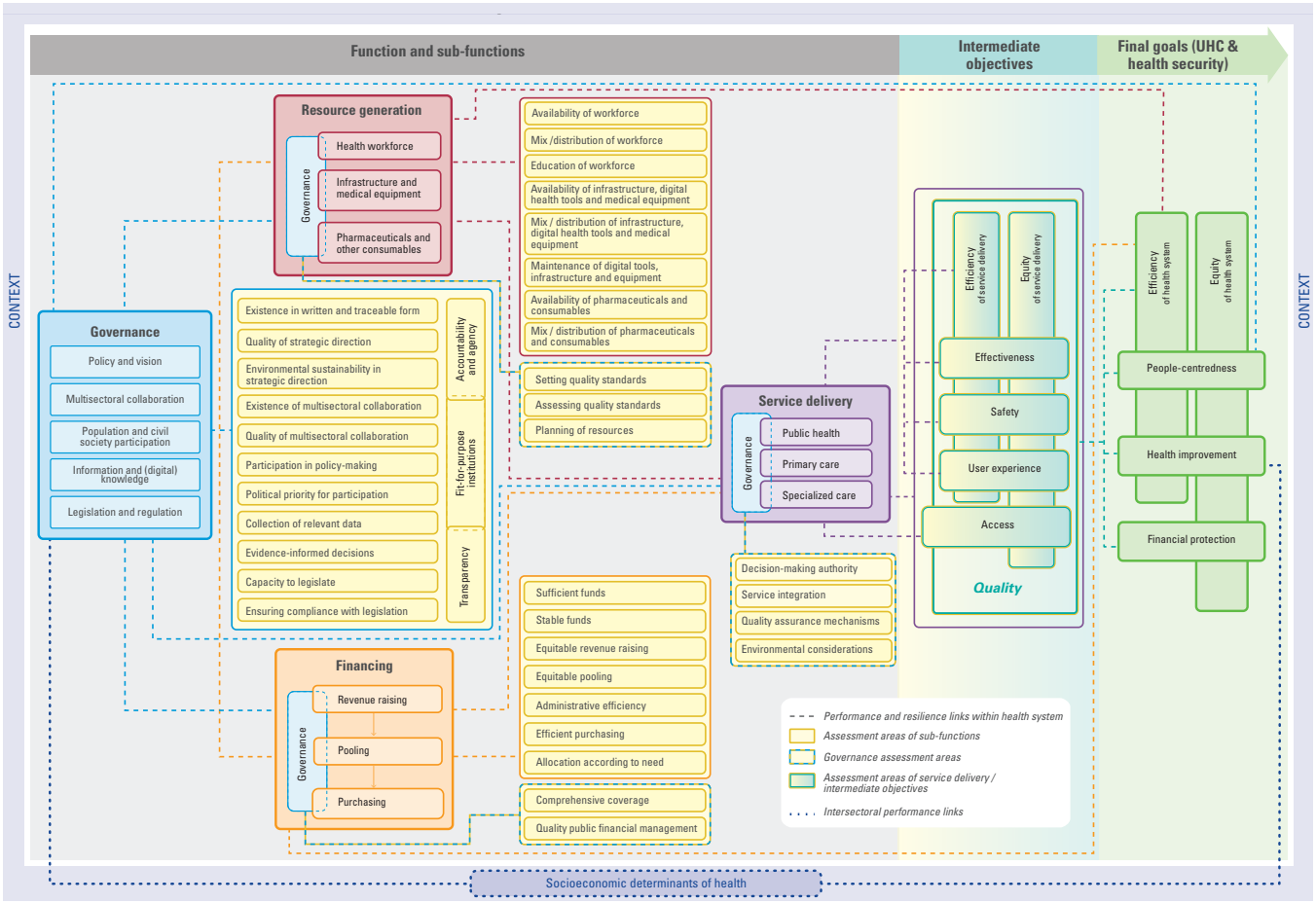
The five governance subfunctions are: policy and vision; multisectoral collaboration; population and civil society participation; (digital) information and knowledge; and regulation and legislation. They encompass the core actions of: steering the sector (policy and vision); working across sectors to address determinants of health (multisectoral collaboration); ensuring that all stakeholders are meaningfully included in policy decisions (population and civil society participation); fostering a culture of data-driven, evidence-based decision-making ((digital) information and knowledge); and leveraging legal frameworks to protect the population's health and progress on health system goals (legislation and regulation).

The resource generation function is carefully placed in the renewed HSPA Framework between governance and service delivery, indicating that the governance function enables the resource generation function, and resource generation feeds into, and enables, the service delivery function. Resource generation subfunctions are health workforce; infrastructure and medical equipment; and pharmaceuticals and other consumables. They represent the principal inputs that need to come together in the right mix, in the right place and at the right time within the service delivery function, underpinned by governance and financing.

The financing function includes the (well established) subfunctions of revenue raising, pooling and purchasing.

Service delivery is broken down into its subfunctions of public health, primary care and specialist care. Assessment areas of all service delivery subfunctions coincide with intermediate health system objectives and include aspects of quality (effectiveness, safety, user experience), efficiency and equity of service delivery, and access to services.

Figure A: The renewed global HSPA Framework



Note: HSPA, Health System Performance Assessment.

Source: Papanicolas et al. (2022).

The final goals remain health improvement, financial protection and people-centredness, with equity and efficiency placed here in relation to the system as a whole.

The renewed HSPA Framework brings a greater understanding of the health system's contributions to broader societal goals

The renewed global HSPA Framework recognizes the significant role of the health system in contributing to larger societal objectives.

A shift is underway towards holistic approaches centred around the concept of well-being, which includes factors beyond economic prosperity, such as health. Health systems, in their mission to achieve their own objectives, play an important role in assuring societal well-being by fostering social cohesion (for example, through population and civil society engagement), contributing to environmental sustainability (for example, by greening health infrastructure) and supporting economic development (for example, by keeping populations healthy and working).

The framework has been renewed to coincide with the Tallinn Charter 15th Anniversary Health Systems Conference: Trust and transformation – resilient and sustainable health systems for the future

This brief is an important contribution to the Tallinn Conference. Health systems sorely need to transform and while trust, investment and tools for change are all key, none of them can operate without a clear sense of how a system is put together and how its parts interact. The renewed framework is a navigation tool that orients individual reforms; explains performance blocks and levers for change; and flags the links between initiatives. It sets out, for example, how the key components of patients, workforce and digital are articulated so that it is clear what policies are trying to do and whether they succeed, and it shows too how health system efforts contribute to wider societal goals.

It also speaks to the core theme of trust by providing a degree of transparency: in how systems are understood, in how elements relate and in how measurement can be interpreted.

Policy brief

1. Introduction: Why renew the global Health System Performance Assessment Framework?

Health system performance assessment (HSPA) is the key to understanding how well a health system is functioning. The global HSPA framework is a policy tool that enables policy-makers to organize and makes sense of HSPA. It was the result of international effort and consensus and has been updated to capture the experience of the pandemic and to support policy makers in a post-COVID world.

The global COVID-19 pandemic serves as a stark reminder that a robust and resilient health system is one of the best defenses against health threats. However, ensuring a strong system that can build on its strengths and overcome its shortcomings is complex (Witter et al., 2019). It involves prioritizing and resourcing policy actions, drawing on the best available evidence which in turn requires monitoring and regular assessment.

Assessments and monitoring efforts in countries do take place but are all too often piecemeal. They focus on particular sub-areas of the health system, for example, hospital performance monitoring, or collection of data on childhood vaccinations and individual assessments often end up losing sight of big picture health system functioning. They ignore the pivotal linkages which shape the health system just as strongly as its individual components do. Regular assessments of the health system overall can offset this but they demand a solid conceptual framework to ensure that all of the various pieces of data and information collected across the system are analyzed holistically and in view of the myriad interconnections and linkages between the different system components.

The new HSPA framework offers this. It recognizes that performance assessment is ultimately about understanding what drives and shapes the health system and its outcomes so that policy-makers can make informed choices about change. It understands also the challenges around how to adequately interpret country health data to pinpoint the root causes of a health system bottleneck or clearly discern a policy intervention's impact. It therefore provides a clear anchoring structure and evidence-informed and plausible pathways of association, that enable decision-makers to take the right policy actions.

The framework in this brief updates the 2022 global framework in light of the 'perma-crisis' which sees health policy-makers steering their national health system while dealing with inflation, regional wars, large refugee influxes, climate change, loss of population trust, more frequent changes in government, and myriad other challenges. This new, unsettled reality has led to a greater policy emphasis on resilience to shock. It has also brought to the fore concerns about environmental sustainability and highlighted the need to leverage digital health, engage communities and respond to emerging issues. The updated 'HSPA framework' reflects all these very real and pressing policy concerns, signposting them, their placement and linkages.

A reminder of the origins of the global HSPA Framework: the UHC2030 Technical Working Group on Health Systems Assessment

UHC2030, was a multi-stakeholder coalition of countries, global health organizations, philanthropic foundations and civil society, housed at WHO headquarters. It aim was "improv[ing] coordination of health system strengthening efforts for UHC" (UHC2030, 2022). It used its coordination and harmonization mandate to develop an HSPA Framework with buy in from across the globe and from a range of key stakeholders.

The "UHC2030 Technical Working Group on Health System Assessments" carried out the work on the framework (between 2017–2020) bringing together Member States, global health organizations, key players like the European Commission, the OECD and the World Bank, donors, academia and consultancies (Table 2, page 13), to harmonize and align the different HSA tools and approaches (Table 1, page 12). They included the "owners" of existing tools and those charged with implementation in countries and they sought to (a) enable more comparable results, (b) ensure policy relevance and (c) foster the actual use of the assessment results (see Box 1).

The Technical Working Group worked through the details of all existing tools to develop the harmonized conceptualization of system boundaries, component elements and goals. It built consensus around structures, inputs, outputs and outcomes. The resultant HSPA Framework was a comprehensive effort to use available evidence and expert appraisal to produce an optimal, harmonized solution. It is explained in depth in *Health System Performance Assessment: A Framework for Policy Analysis* (Papanicolas et al., 2022).

Box 1: Analyzing existing health system assessment tools in an attempt to unify them into one framework

Despite the great deal of overlap across existing health system assessment and performance assessment tools, a consensus on the basics of health system design is clear. Table 1 shows the various tools studied by the UHC2030 Health System Assessment Technical Working Group, with their respective health system goals, categorized by this Brief's authors. The table makes clear that slight differences across tools tend to play out in the level of prominence accorded to different health system areas, and importantly for purposes of the HSPA Framework, in the extent to which health system goals are explicitly emphasized.

The proposed framework presented here thus builds on existing tools and frameworks, bringing the basic elements together in one place with clear linkages. The elements themselves are not novel, as evidenced by Table 1. What is novel, however, is the way they are brought together (linkages) with a strong policy perspective and the joint emphasis placed on not only health system goals (outcomes) but also the inputs, or health system functions, detailed further in this Brief.

Table 1: Tools Studied by the UHC2030 Health System Assessment Technical Working Group

FRAMEWORK/TOOL	INTERMEDIATE GOALS	FINAL GOALS
WHO Performance Framework (2000)	• Access • Coverage • Quality • Safety	• Level and distribution of health • Level and distribution of responsiveness • Fairness in financing • Efficiency
Control Knobs Framework (2003)	• Efficiency • Quality • Access	• Health status • Citizen satisfaction • Risk protection
OECD HCQI Framework (2006)		• Improving health • Macroeconomic efficiency/sustainability • Microeconomic efficiency/value for money • Equity
HQSS High -Quality Health System Framework (2018)	Processes of care: • Competent care and systems • Positive user experience	• Quality impacts: • Better health • Confidence in system • Economic benefit
Health System Assessment Approach: A How-To Manual (USAID)	• Equity • Efficiency • Access • Quality • Sustainability	• Improved health • Responsiveness • Risk protection
Health System Performance Assessment (WHO/EURO)	• Equity • Efficiency	• Health improvement • Financial protection • Customer satisfaction
Health System Analysis for better health system strengthening (World Bank)	• Access • Quality • Efficiency	• Health status • Financial protection • Customer satisfaction
Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies (WHO) (2007)		• Improve health • Responsiveness • Social and financial protection • Improved efficiency
Health systems reviews (HiTs) (2019)		• Population health • Quality • Efficiency • Transparency and accountability

Source: Papanicolas et al. (2022).

Table 2: Composition of the UHC2030 Technical Working Group on Health System Assessments

INTERNATIONAL ORGANIZATIONS/DEVELOPMENT AGENCIES	COUNTRY REPRESENTATIVES	ACADEMIA/NGOS
Department for International Development (DFID), UK	Belgium	London School of Hygiene and Tropical Medicine (LSHTM)
European Commission	Chile	Family Health International
Gates Foundation	France	Global Health Advocates
The Vaccine Alliance (GAVI)	Gabon	African Institute for Health Policy & Health Systems Studies
German Agency for International Cooperation (GIZ)	Gabon	
Global Fund	Guinea	
The Organization for Economic Cooperation and Development (OECD)	Kenya	
United Nations Children's Fund (UNICEF)	Hungary	
United States Agency for International Aid (USAID)	India	
World Health Organization	Liberia, Tanzania, Thailand, Turkey	

The renewed HSPA Framework captures more clearly those policy areas that can strengthen health systems resilience

The global HSPA Framework gives a structured and comprehensive overview of a health system and how it works. It links the four functions and their sub-functions with intermediate objectives and final goals, highlighting the various interlinkages between them and placing everything within the wider socioeconomic and societal context. The renewed HSPA framework does all this but also bolsters the original emphasis on those policy areas that strengthen the resilience of health systems and includes the assessment of resilience itself.

Governance and multi-sectoral action

The governance function, a cornerstone in the original framework, has been adapted to better reflect its essence – how to ensure that all stakeholders, including the population, engage constructively with each other to steer the sector towards its stated, and hopefully shared, goals. The core governance elements remain, the sub-functions have been refocused in light of the experience of the pandemic and a new subfunction has been added – multisectoral collaboration. This captures the heightened need for collaboration across sectors to respond to today's pressing health system challenges – antimicrobial resistance, emergency preparedness, food security, to name but a few.

There is a stronger emphasis on the imperative of active and systematic engagement not only with the population, communities, and civil society ('population and civil society participation sub-function') but also with crucial health stakeholders, such as health professionals, as well as those from diverse sectors.

While this concept is straightforward in theory, its practical implementation poses significant challenges (Clark et al., 2021), and therefore needs to be regularly assessed. The renewed HSPA will support policy-makers as they grapple with the complexities of capturing people's voice in policy-making while also addressing interest groups, conflicts of interests, and stakeholders (health professionals, insurance funds, etc.) without whom the health system could not function.

Digital health

The realm of digital health has also been boosted and is explicitly shown in the renewed Framework. It actually appears in several places because digital health is pivotal in enhancing access and efficiency, catalysing patient-centered approaches, and promoting timely and data-driven

decision-making. Embracing digital technologies contributes to the resilience and adaptability of health systems in the rapidly evolving landscape of modern health systems (WHO, 2023). It is not only a governance sub-function (explained further in section 3 governance of digital data and information) but also linked to the basic resources a health system needs to operate, (explained further in section 4 digital data infrastructure) while the use of digital health tools lies within service delivery.

Environmental considerations

Environmental health is also emphasized in many places in the framework. In a world where climate change is anticipated to be a major driver of health system utilization, and where the health sector has a detrimental impact on the overall ecological footprint, decision-makers must integrate environmental considerations into all policies, strategies, and plans. The framework now incorporates the adaptation of health services to climate change and highlights the efforts needed by health system actors to reduce the environmental impact of delivering health services.

Health security

Health security is defined as encompassing all the final goals of the health system. In other words, achieving the health system's overarching goals and having a high-performing system will ensure effective protection against health threats, and so achieve health security. Much of health security comes from the intricate network of linkages between the functions, and between the functions and goals, as captured by (and throughout) the framework. These vital interconnections define the essence of the health system and are termed 'performance and resilience links' (shown by solid and dotted lines in the diagrams that follow).

Resilience, or the capacity to adapt and absorb shocks and bounce back, is distinct from but related to health security. It is a natural characteristic especially of the links that bring the different health system elements together, i.e. the cohesion among its various components lends resilience to the system. Put differently, the system's ability to withstand challenges and rebound relies on the strength and flexibility of the connections between different functions, as well as the extent to which the functions contribute to system goals. These concepts are currently being tested in a joint European Observatory – European Commission – OECD resilience testing initiative as elaborated upon in Box 2.

Box 2: Testing resilience in European Union countries

The COVID-19 pandemic has highlighted the importance of health system resilience, the ability of a health system to prepare for, manage and learn from a shock. Other recent adverse events, such as economic crises, conflict, migration and extreme weather have demonstrated how a wide range of shocks can challenge health systems. Health systems vary in their ability to respond to shocks and other challenges, mitigate adverse impacts, and learn from previous experience. While emergency preparedness and planning is a well-established component of health system governance in many countries, no methodology currently exists to systematically test the resilience of a health system to a broad range of shocks. Thus in 2022, the European Observatory on Health Systems and Policies together with OECD embarked on a 2-year project funded by the European Commission on developing a health system resilience testing methodology.

The project output is a handbook (Zimmermann et al, currently in review) containing a methodology for a mixed-method country-led exercise that draws on two conceptual frameworks: the Health System Performance Assessment Framework for Universal Health Coverage (Papanicolas et al, 2022) and the Shock Cycle Framework (Thomas et al, 2020). It builds on a specific shock scenario, chosen from a broad range of adverse events to hypothetically challenge a given health system to its limits. This highlights key structural strengths and weaknesses of the health system. The process culminates in a facilitated resilience test workshop that brings together policy makers, civil servants and other relevant experts. The test day is supported by an expert facilitator and research team, who provide background knowledge and structure the test day. Results of the resilience test include an understanding of the health system strengths and vulnerabilities specific to the shock. The test day may also anticipate spill-overs effects to other health system functions, and contribute towards a participatory approach to improve preparedness going forward.

The renewed HSPA Framework understands the health system's contributions to broader societal goals better

The renewed global HSPA Framework recognizes the significant role of the health system in contributing to larger societal objectives. While these societal goals aren't strictly evaluated within the framework, their incorporation underscores their significance for policymakers.

There is a growing recognition that traditional economic metrics like Gross Domestic Product (GDP) do not adequately assess the contributions of health systems to broader societal goals (Lessof et al, 2018). A shift is underway towards holistic approaches centered around the concept of well-being (Smith et al, 2020), which includes factors beyond economic prosperity, such as health, education, employment, housing, security, gender equality, and social connections. Health, especially mental health, significantly enhances individual and population well-being through its reciprocity with financial and social protection (Thomas, Cylus & Evetovits, 2019; Eurofound, 2018) leading to better health outcomes, impacting labor productivity, education, and poverty, (de Oliveira et al, 2023; Allen, Diamond-Myrsten & Rollins, 2018). Health systems, in their mission to achieve their own objectives, play an important role in assuring societal well-being by fostering social cohesion (for example, through population and civil society engagement), contributing to environmental sustainability (for example, by 'greening' of health infrastructure), and supporting economic development (for example, by keeping populations healthy and working).

The renewed HSPA Framework reminds policy-makers of precisely how critical the health system is in advancing the broader societal goals. That being said, boundaries of accountability between the health system and larger societal objectives are acknowledged and reflected upon below.

The framework has been renewed to coincide with the Tallinn Charter 15th Anniversary Health Systems Conference: 'Trust and transformation – resilient and sustainable health systems for the future'

This Brief is an important contribution to the Tallinn conference. Health systems sorely need to transform and while trust, investment and tools for change are all key none of them can operate without a clear sense of how a system is put together and how its parts interact. The renewed framework is a navigation tool that orients individual reforms, explains performance blocks and levers to unblock obstacles to change and a way of linking health system efforts to wider societal goals.

It offers a proper structure for the assessment and monitoring of progress and – together with the brief on tracer indicators – will enable policy-makers to see how their systems perform and how their efforts to transform affect performance.

It also speaks to the core theme of trust by providing a degree of transparency – in how systems are understood, in how elements relate and in how measurement can be interpreted. It can, for example make clear how the key components of patients, workforce and digital are linked, what policy initiatives are trying to do and whether they succeed.

The renewed framework provides the structure for this Brief which lays out functions, goals, and their linkages

The following sections 2–6 lay out the framework in detail, starting with a reflection on the boundaries of the health system and an explanation of its intermediate objectives (quality, access, health service equity, health service efficiency) and final goals (health improvement, people-centredness, financial protection, health system equity, health system efficiency). Then, each of the functions are introduced: governance, resource generation, financing, and service delivery. The specific sub-functions for each function are elaborated upon in detail before leading the reader into the full framework image and its myriad connections in section 7. A selection of indicators is given as examples for use to support evaluation of the assessment areas.

Sections 8 and 9 of this Brief is devoted to showing how the framework can be practically used to think through a policy question in relation to performance. It demonstrates how health system bottlenecks can be analyzed for policy purposes with the aid of the framework. Current policy concerns, reflected in the emphasis areas of the renewed HSPA framework as laid out in section 8, are taken as a starting point to lead policy-makers towards a better understanding of where to target investment to improve performance.

2. Understanding the core framework elements

2.1. Delineating health system boundaries

The HSPA Framework defines health system boundaries to include 'classical' health services as well as preventive care, promotive actions, and all that is encompassed within public health

For the HSPA Framework, the health system scope as per the Murray & Frenk (2000) definition of the health system: "health actions…whose primary intent is to improve or maintain health" was adopted, largely but not entirely staying within the traditional health care remit. "Improving and maintaining health" is seen as explicitly encompassing services that address preventive and promotive care, as well as public health. Besides being conceptualized as a sub-function of service delivery (public health), the Framework provides an in-depth exploration of the governance function as a lever to address broader issues which affect people's health, an aspect that has received comparatively less attention in previous attempts to conceptualize health systems.

The renewed HSPA Framework explicitly emphasizes the governance function as a powerful lever for addressing health determinants and fostering close collaborations outside of health, in view of maximizing the health system's contribution to societal well-being

In contrast to past approaches, the governance function takes centre stage in the renewed HSPA Framework, in recognition of its pivotal role in enabling the smooth functioning of not only the entire health system but also in contributing to broader societal objectives. For example, social cohesion as a meaningful aspect of well-being relies significantly on public trust and solidarity – areas where governance interventions can yield substantial benefits (Eurofound, 2018; Schiefer & Van der Noll, 2017; WHO, 2021)

The framework thus delineates governance sub-functions, assessment areas, and interconnections with other functions and goals, offering indicative measures to facilitate assessments. It therefore allows for a better understanding of those actions that health system actors can feasibly undertake to improve the state of population health and well-being, while explicitly acknowledging (but not necessarily directly assessing) the substantial impact on health of a range of socioeconomic determinants that lie outside the boundaries of the health system.

While not included within the health system and its goals, it is important for policy-makers to understand how the health system can contribute to broader societal goals

The health system does not operate in isolation. The enduring impacts of the COVID-19 pandemic has driven a shift in the thinking around the extent to which health systems contribute to larger societal goals through its interface with communities, the economy and the environment (British Academy, 2021). Achieving those societal goals will require efforts across a range of sectors, and the breadth of possible societal goals are likely best captured in the SDGs.

Acknowledging this, those societal goals to which the health system contributes are explicitly defined in the framework yet depicted outside of the health system. The overarching societal goal of societal wellbeing represents an aggregate measure of quality of life (discussed further in section 2.4) which is thus not directly assessed through this framework but acts as a shared understanding of value that embraces the health system in its entirety, including preventive services and other public health functions (Figueras and Siciliani, 2023).

The framework thus highlights that actions and interventions within the perimeters of the health system can demonstrably play a crucial role in the pursuit of the larger aim of societal wellbeing, contributing to economic development, social cohesion, and environmental sustainability. The mechanisms of these connections through comprehensive policy approaches are discussed below in section 2.4.

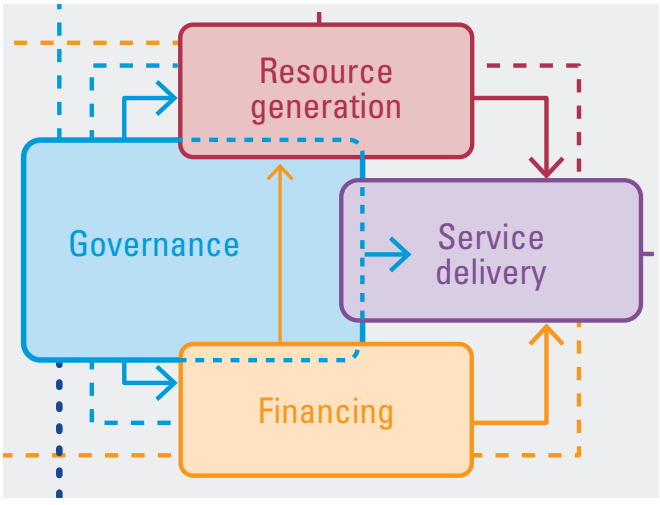
2.2. Health system functions, subfunctions and assessment areas

The HSPA Framework takes a functions approach to identifying health system components as they focus on actions the health system can undertake to perform well

Identifying and describing the structures and organizations that make up the health system is one of the key roles of health system frameworks. In the HSPA Framework, the four functions as introduced in the seminal World Health Report 2000 (WHO, 2000) are used. Their advantage for purposes of HSPA is that they are dynamic in the sense that they highlight what the system does, enabling a focus on the actions required within a health system to impact on performance.

The 4 functions are: governance, resource generation, financing, and service delivery. Governance, as per the WHO (2007) definition, is: "ensuring [that] strategic policy frameworks exist and are combined with effective oversight, coalition-building, regulation, attention to system design

Figure 1: Functions the system performs



and accountability". The different concepts expressed in that definition find themselves in the governance sub-functions and assessment areas, detailed in section 3. The governance function is strategically placed at the very left of the framework as a systemic enabler for all other health system functions.

Resource generation is the function that ensures that a health system has all the inputs it needs to operate. These inputs include health workers, medical devices, medical equipment, infrastructure, digital platforms, pharmaceuticals, vaccines, consumables and medical supplies. This function describes how inputs are produced, procured, made available or maintained at the systems level. The way the resources are brought together and used is reflected in the service delivery function.

Resource generation is carefully placed in the HSPA Framework between governance and service delivery (see Figure 7), indicating that the governance function enables the resource generation function, and resource generation feeds into, and enables, the service delivery function. Ultimately, the influence of resource generation on the intermediate and final health system goals works through service delivery, that is, its impacts on health system performance hinge on providing the right resources at the right time for optimal use within the service delivery function.

Financing constitutes an integral function of a health system: raising and spending money on health care. However, its remit is also in making funding available where needed and creating appropriate financial incentives for providers to deliver accessible and effective health services.

Financing is closely linked to other main functions, including through providing monetary resources for operational aspects of governance, resource generation and service delivery (Figure 8). It is also instrumental in achieving health system goals and is particularly closely linked to ensuring efficiency of health systems and (through service delivery) financial protection.

The service delivery function (Figure 9) is the most visible and tangible function for the population – it is where health services are provided and thus where the governance, resources, and financing come together. For this reason, it is placed to the right of the other 3 functions and can be seen as their collective outcome. The impact on system goals of actions and interventions taking place within governance, resource generation, or financing happen largely through the service delivery function, with the exception of some direct links between certain functions and certain goals, explained in section 6.

The renewed HSPA Framework, as did its predecessor, disaggregates functions into sub-functions and links them to assessment areas. A selection of indicators are provided as examples to support the assessment areas.

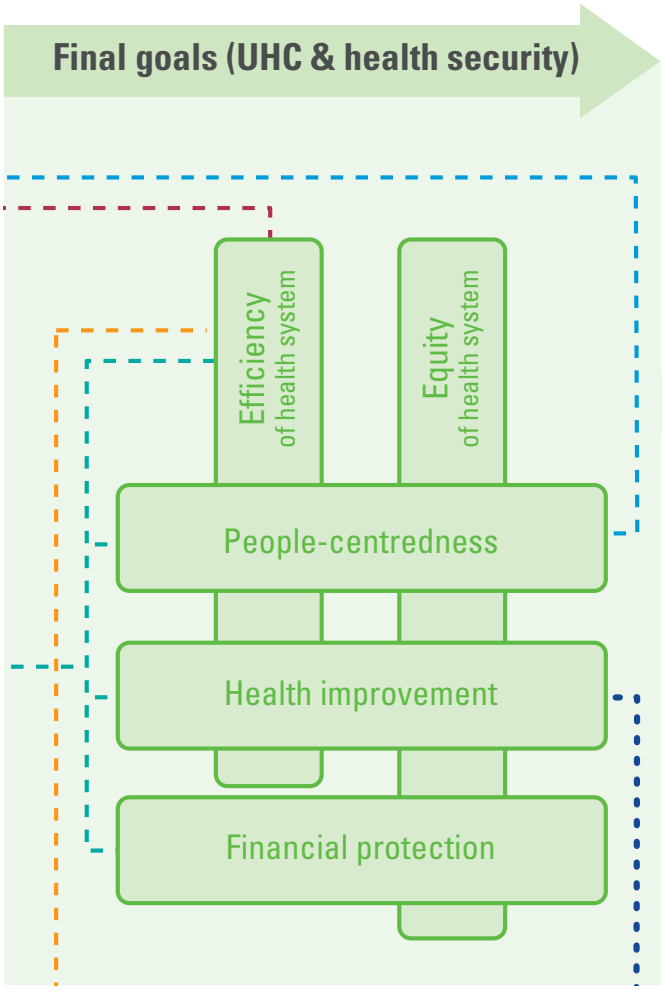
For purposes of the HSPA Framework, the health system functions as per the World Health Report 2000 were an obvious entry point for identifying the factors that influence performance (defined in terms of the intermediate objectives and final goals of the health system). The focus on functionality rather than structure or input provided a clear conceptualization of how actions taken within the health system can influence performance of the health system itself.

In the framework, each of the functions is further disaggregated into sub-functions (see below). The sub-functions aim to pinpoint more specific areas of action within a health system (see Box 2). Crucially, functions and sub-functions are linked to assessment areas – the key novel element that helps to outline and identify what can be done within a health system to improve its performance. Where possible, assessment areas are linked to a selection of indicators – non-exhaustive examples of high-level quantitative and/or qualitative indicators – which reflect the performance of that function or sub-function. The initial process of selecting sub-functions, assessment areas and indicative measures for each of the functions included literature reviews, TWG exchanges and expert consensus, further detailed in Papanicolas et al. (2022).

2.3. Defining health system goals

The renewed HSPA Framework defines the following final goals of the health system: health improvement, people-centredness, financial protection, systems-level equity and efficiency

Figure 2: The final health system goals as per the renewed global HSPA Framework



Health improvement remains one of the principal goals in the HSPA Framework; this goal as well as all other final health system goals – people-centredness, financial protection, efficiency, and equity – are embedded in the understanding of UHC and health security. Most of them were first presented in the World Health Report 2000, which served as the foundation for the original 2022 HSPA Framework. These final goals have been kept intact in the new version.

Health improvement is indisputably a fundamental goal of any health system, some argue that it is the most central goal. It encompasses the health of the population at different points in the life cycle and is measured through morbidity and mortality indicators as well as aggregate life expectancy.

People-centeredness is a concept aiming to capture the system's responsiveness to people's non-medical needs in their interaction with the health system. Here, the focus is on the broader population and responsiveness at the systems level – for example, whether human rights legislation is adhered to or assessing the population's confidence in the system overall. Conceptualizations which consider patients specifically and/or are aimed at the service delivery unit – for example, measuring patient satisfaction with health care services – belong as per the HSPA Framework under the 'user experience' dimension of quality, further explained in section 6.

Financial protection refers here to the health system's role in protecting the population against risk. The nature of this risk may vary, although most assessment tools single out financial risk protection from health costs specifically.

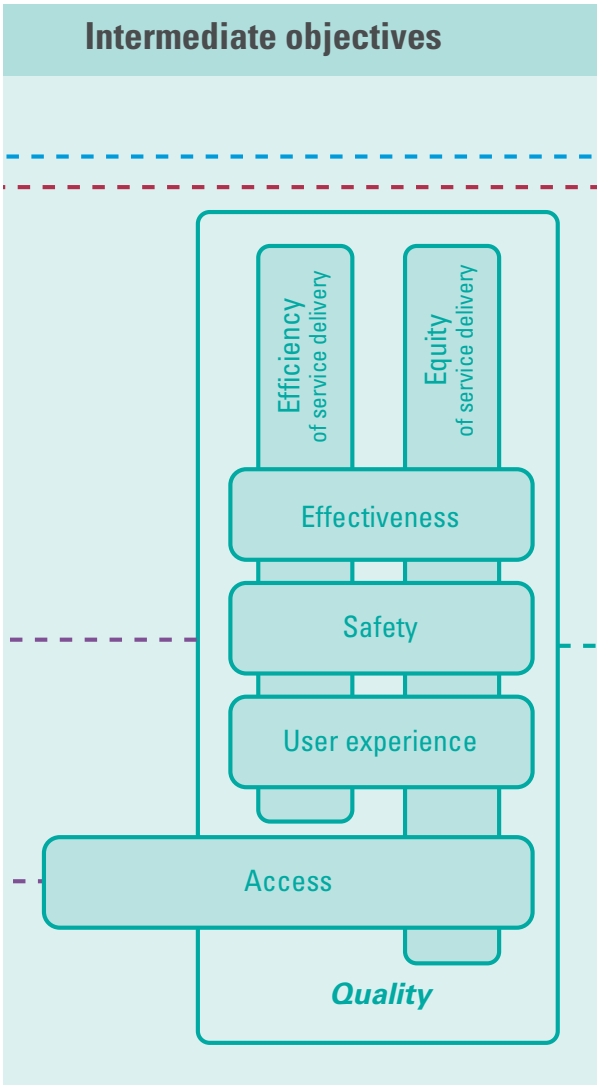
Efficiency and equity are crucial cross-cutting objectives which can be applied to either the entire system or to a particular sub-unit within the system (for example, a hospital, district, group of services, population group). The 2 transversal bars at the extreme right of the framework conceptualize the former while the same 2 bars in the middle, going through the intermediate objectives, depict the latter.

Intermediate objectives of the system are equal to the assessment areas of service delivery. They are access and quality.

Access and quality also feature prominently across frameworks and tools, often as intermediate objectives of the system.

Quality and access are distinguished as intermediate objectives, with quality broken down into effectiveness, safety, user experience, and environmental impact. Health service efficiency and health service equity are also emphasized as intermediate objectives.

Figure 3: The intermediate objectives as per the renewed global HSPA Framework



Universal health coverage and health security

The framework's 'final goals' title purposefully contains the add-on in brackets (UHC & health security). Regarding UHC, all of the final goals of the framework measure factors necessary for attaining universal health coverage as included in the definition widely used by health stakeholders, and which has been reinforced by the world's broad and repeated commitments to the UHC target at various global forums (UN, 2015, 2019), namely:

> "UHC means that all individuals and communities receive the health services they need without suffering financial hardship. It includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care across the life course,"
>
> (WHO, 2010a).

Health security is closely linked to resilience with some scholars seeing health system resilience as a "pre-requisite to maintaining health security" (Forsgren et al., 2022;

Binagwaho, Hirwe & Mathewos, 2022). Building on this notion, the (dotted and solid) lines in the HSPA Framework represent performance and resilience links, meaning that high-performing functions lead to the attainment of the health system's intermediate objectives and final goals, thereby providing health security for the population. The resilience notion is elaborated on further in section 2.5.

2.4. Defining societal goals

Unpacking societal well-being into the economic, social, and environmental domains of sustainability

Unpacking societal well-being leads to the paradigm of sustainability, which considers a balance of economic, social and environmental domains in pursuit of improved quality of life (Mebradtu, 1998). As demonstrated, sustainability should be understood as the ability to maintain and support processes like equity, stability, inclusiveness and viability throughout the lifespan within or across the economic, social and environmental domains (Gupta & Vegelin, 2016). Discussed below, 'economic' relates to sustainable economic development, 'social' to social cohesion and 'environment' to environmental sustainability. It is important to state here that the focus of societal wellbeing for this Brief is from the contribution of the health system – it is acknowledged that well-being is a broad concept which may encompass more than sustainability in other sectors.

Figure 4: Societal well-being unpacked

Economic development is a vital societal goal which enables higher living standards, job creation, and increased innovation which we discuss above in section 2.0, standard metrics fail to capture. For example, GDP fails to acknowledge the value of health systems' role in promoting better health, and contributing to equity, social protection and social cohesion (Smith et al. 2020).

Social cohesion, who's parameters are discussed above, are a subgoal within societal wellbeing to achieve collective commitment to unity, mutual support, and shared responsibility among individuals and communities to engage in the processes to act in the best interests of community wellbeing and uphold shared values and objectives (creating trust) (Berger-Schmidtt, 2000; Ballet, Bazin, Mahieu, 2020). This goal encompasses eliminating discrimination, reducing income inequality, and ensuring equal access to things like education, healthcare, and opportunities.

Finally, environmental sustainability refers to the interconnectedness of environmental concerns with broader sustainability objectives. It refers to a balanced and inclusive approach to economic growth that seeks to meet the needs of present and future generations without compromising natural resources and global ecosystems. There is a growing recognition that health systems do not only improve human health, but also paradoxically contribute to environment-related threats to health, such as through carbon emissions and other environmental impacts (Kühlein et al. 2023). It has been estimated in 2019 that, if healthcare was a country, it would be the fifth largest emitter of carbon emissions worldwide (Karliner et al., 2020). To comprehend environmental inequality, it's imperative to recognize its ties to social inequity (Pellow, 2000). Focusing solely on poverty or expecting economic growth to address all issues falls short. Inequity can have far-reaching consequences, disrupting social cohesion, spurring urbanization, escalating social violence, and impacting public health (Bayón & Saravi, 2013; Allen et al., 2017; Coburn, 2000). A sustainable environment is fundamental to well-being, economic stability, and social equity.

Each goal is important and relevant to health systems performance independently, and one goal alone is not enough to reflect or sustain the broader aims of society. Rather, it is the symbiotic nature of these goals which contribute most significantly. For example, in order for social cohesion to take place, society requires a level of social solidarity and trust in government to adopt health and pro-social behaviors (Han et al., 2023) and act as a precursor for economic development (Graeff & Svendsen, 2013). Social solidarity plays an important role in the beliefs and attitudes around climate mitigation strategies or conservation efforts (Goldberg et al, 2020). Environmental sustainability requires collective, community action. The intricate relationship between social and environmental factors underscores the need for a holistic approach (Schlosberg, 2007). Achieving equity necessitates active participation, a core principle of environmental justice movements (Schlosberg, 2007). Engaging communities in decision-making not only fosters fairness but also strengthens social cohesion and sustainability (Cuthill, 2010; Dempsey et al., 2011). Equity comprises both distributive justice and procedural justice facets within a society, emphasizing the interconnectedness of social and environmental well-being. More broadly, these three sub-goals relate to societal wellbeing as a proxy measure of quality of life within a resilient and healthy community.

Health system interventions and goals create co-benefits across sectors, thereby contributing to societal goals

The links between the impact of a well performing health system, health status and broader societal goals is undeniable (Bloom, Canning & Sevilla, 2002, Deaton, 2007; WHO, 2016; Kieny et al., 2017; Cylus, Permanand & Smith, 2018; Lessof et al., 2019) albeit complex. There is no precise formulation to determine how good health system performance contributes to the overarching societal goal of societal wellbeing. However, a core cluster of health system goals which are depicted in the HSPA Framework as 'final goals' have been linked to societal wellbeing (Smith et al., 2021).

Besides, through the attainment of health system goals, actions and interventions at the level of functions can contribute to or complement the goals of other sectors and beyond. Recently, the concept of co-benefits (see Box 3) has emerged as a compelling mechanism within the health system to catalyze positive impacts on various sectors (i.e., win-win solutions), ultimately linking these co-benefits as significant contributions to the attainment of large cross-cutting societal goals and the SDGs.

Box 3: The concept of co-benefits

A co-benefit is simply a benefit from one policy (e.g., better health through vaccinations) that contributes to the achievement of other policies, either within a sector or intersectorally. "Co-benefits of health come about in two ways: directly, through better health and health equity, and indirectly, through the impact of health systems and policy." (Greer et al, 2023)

Both the societal goals depicted in renewed HSPA framework and more traditionally the SDGs, can structure the way policy-makers think about co-benefit in practice (Greer et. al, 2023).

2.5. A brief glance at the renewed HSPA Framework in full

Going from functions to goals, and understanding the interlinkages in the renewed HSPA Framework

The HSPA Framework links the four functions and their sub-functions with intermediate objectives and final goals, highlighting the various interlinkages between them and placing everything within the wider socioeconomic and societal context.

In the framework, the sub-functions are laid out and indicated for each function (see figures 6–9). Sub-functions represent key topical areas which matter most for function-level performance and for the function's contribution to overall system performance. In addition, assessment areas linked to the (sub-) functions are construed – these are areas whose appraisal is needed to grasp function-level performance (see Box 4).

Finally, indicative measures are laid out in Tables 3–6 for each function. They are not meant to be exhaustive and are simply proposals for indicators drawn mostly from publicly available data sources.

Colour-coded links between different functions, and functions and outcomes, enable a visual association of the interlinkages within the health system. Further explanations for Figure 5 are given below. Any whole-of-sector assessment exercise should collect information on, and examine the performance of, both the functions and the extent to which system goals are achieved. Linking the two in practice rests on a solid understanding that high-performing functions are the basis for high-performing health systems.

Box 4: What is meant by sub-functions, assessment areas and selection of indicators?

Sub-functions are the core components within a function that determine function-level performance and influence the function's contribution to overall system performance.

Assessment areas are specifically formulated topical areas that need to be adequately appraised in order to assess function or sub-function performance. The assessment areas are not indicators in and of themselves.

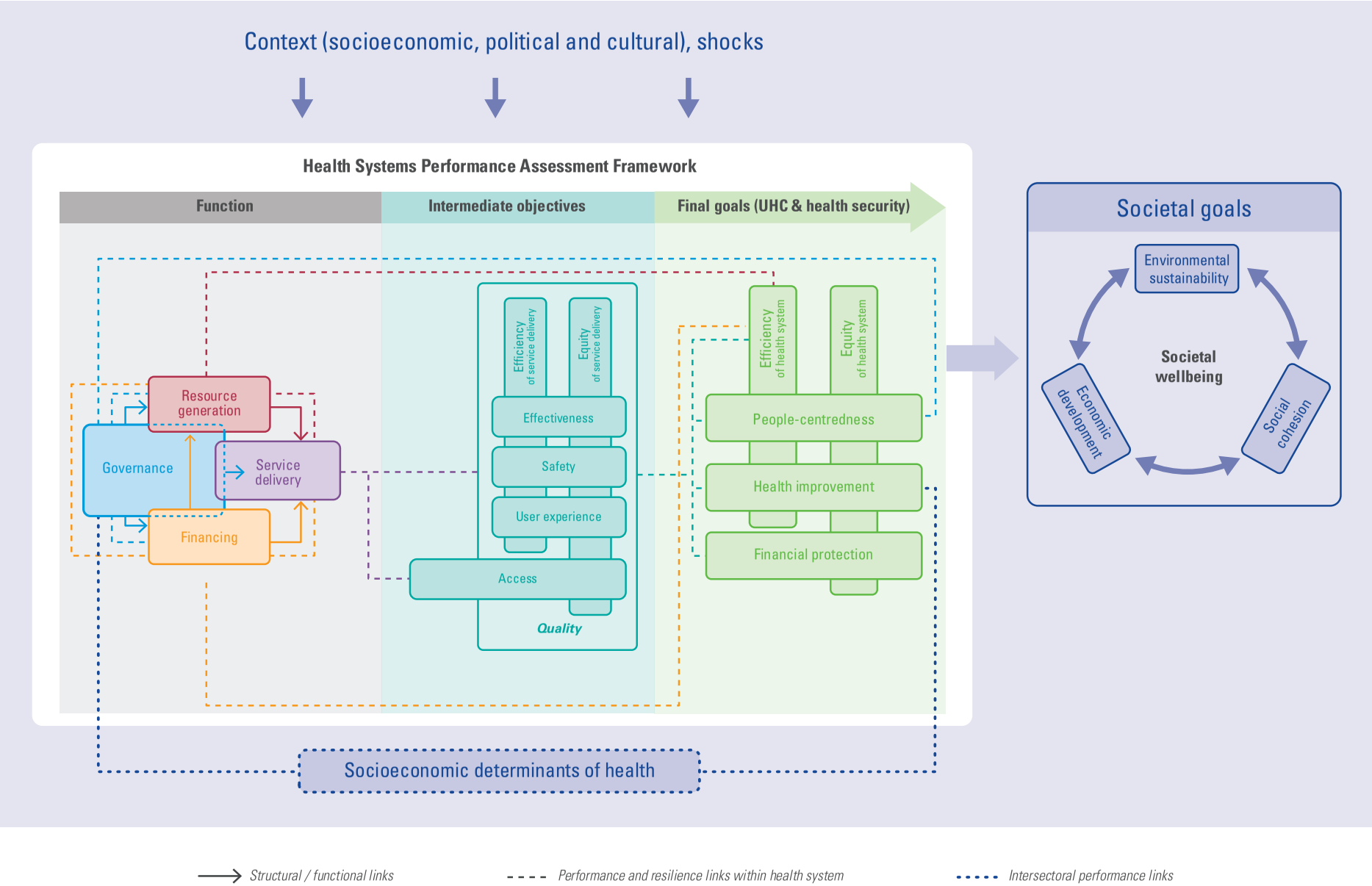
Selection of indicators are proposed indicators based on publicly available data sets and/or common health system assessment (qualitative) content. They do not necessarily provide the full picture of function or sub-function performance and may need to be complemented by additional information.

The linkages depicted by dotted lines represent both health system performance and resilience links

The framework can be used to understand how real-life events affect health system performance – events such as health emergencies, or shocks, which will clearly impact on the performance and resilience of the health system. Health system resilience is defined as the ability to prepare for, manage (absorb, adapt and transform) and learn from shocks, whereby a shock is defined as a sudden and extreme change that impacts on a health system (Thomas et al., 2020). A quintessential example is the COVID-19 pandemic.

In terms of the HSPA Framework, the central resilience questions are: how well can adaptations happen within the health system functions in order to continue to perform? To what extent can the overall system continue to meet its goals while the shock is on-going? How well can the system bounce back to normal, or even improve afterwards, having learned from the shock situation (Gerkens et al., 2024, in press)? The answer to these questions lies in the strength of the linkages between the functions, and between the functions and goals, as those linkages are what brings the different actions and elements together where needed within the system to remain high-performing and absorb the shock impact. The dotted lines are therefore named 'performance and resilience links. A practical example of this is described in section 8.3.

Figure 5: Placing the HSPA framework in a wider context



Source: WHO/European Observatory on Health Systems and Policies/UHC2030 HSA TWG.

3. The governance function

The governance function is a systemic enabler for all other health system functions

As previously noted, there is consensus within the health community regarding the pivotal role of governance in achieving a high-performing health system. However, its conceptualization for health system performance has thus far been relatively underdeveloped in a realm dominated by experts accustomed to quantitative measurements. The challenge lies in the qualitative nature of governance measurement, which does not necessarily conform to the traditional quantitative approaches used in HSPA. The renewed HSPA Framework is a direct response to the challenge at hand, representing a concerted effort to address governance comprehensively within the performance paradigm.

To start with, the framework differentiates overall health system governance from governance actions that are specifically linked to the governance of the other three functions. For example, the "governance of financing" includes specific governance actions relating to financing activities, such as public financial management and decisions linked to benefit package coverage. The "governance of resource generation" would include activities such as health workforce planning and management of procurement systems. The "governance of service delivery" relates to management and decision-making within units of service delivery (health centre, district, primary health care service network), service integration and quality assurance mechanisms. In this brief, governance-related assessment areas are described here, not only under the system-level governance function, but also under each of the other three system-level functions.

The salient point here is that when assessing the governance function (see Figure 6), both overall system-wide governance, as well as the governance issues relating to the other three functions (financing, resource generation and service delivery), need to be examined to comprehend whether the governance function is performing well and is also enabling the system to perform well.

The renewed HSPA Framework outlines five sub-functions for the assessment of the overall governance function: policy and vision, multisectoral collaboration, population and civil society engagement, (digital) information and knowledge, and legislation and regulation

Adaptations made to the governance function reflect the vital role of governance in addressing the challenges of the 21st century.

The first adaptation involves the sub-functions of governance, where 'multisectoral collaboration' has become a standalone, additional sub-function, and the remaining two have been slightly re-worded to align with the perspectives, policy concerns, and evolving challenges in a world characterized by ongoing crises. 'Stakeholder voice' is now 'population & civil society participation' while 'information & intelligence' has become 'information & (digital) knowledge'.

The re-naming of 'stakeholder voice' to 'population & civil society participation' aligns with the global emphasis and recognition, especially during periods of crisis, of the need for governments to work more formally and collaboratively with the public and civil society towards common goals. The term 'civil society' is used broadly here to include professional associations, non-profit coalitions formed by private sector groups, and others.

Digital health is explicitly shown in the renewed Framework as a governance sub-function ((digital) knowledge & information) – here, the focus is on the governance of digital data and information as explained further in the following sections. The word 'digital' is placed in brackets to indicate that not all knowledge and information has a digital component, despite the dramatic upward trend to digitalization in recent decades.

Policy and vision sub-function

The policy and vision sub-function centres on the capability and resourced capacity to provide a clearly articulated strategic vision for the health sector to achieve universal health coverage and health security. This strategic vision should include a recognition of the impact of the health system on wider societal goals, including its impact on environmental sustainability, an area which receives greater attention in this new Framework.

Assessment areas for this sub-function thus seek to identify whether the strategic vision is available in a written and traceable form, as well as the quality of the strategic vision. A strategic vision can be articulated within a single document (a national health strategic plan), or in a set of policies, laws and/or guidelines, to which governments can be held accountable. The final assessment area examines whether environmental considerations, such as health system adaptation to climate change or the systematic monitoring of the health system's ecological impact, are included in the strategic vision.

Multisectoral collaboration sub-function

Multisectoral collaboration is a core element of effective health system governance. It relates to the ability to collaborate with different government sectors (e.g., education, environment, finance etc.) and actors, including private entities, to achieve common policy outcomes beneficial for health, the environment and sustainable development. Multisectoral collaboration initiatives can identify co-benefits for all sectors involved and ensure effective joint implementation. The existence and quality of multisectoral collaboration is a key focus of assessment (WHO, 2023).

This sub-function's boundaries to the next sub-function are slightly blurred as sectors are composed of actors and collaboration inevitably involves different people working together. The distinction for purposes of assessment is mainly the following: the multisectoral sub-function focuses principally on bringing in those working in non-health

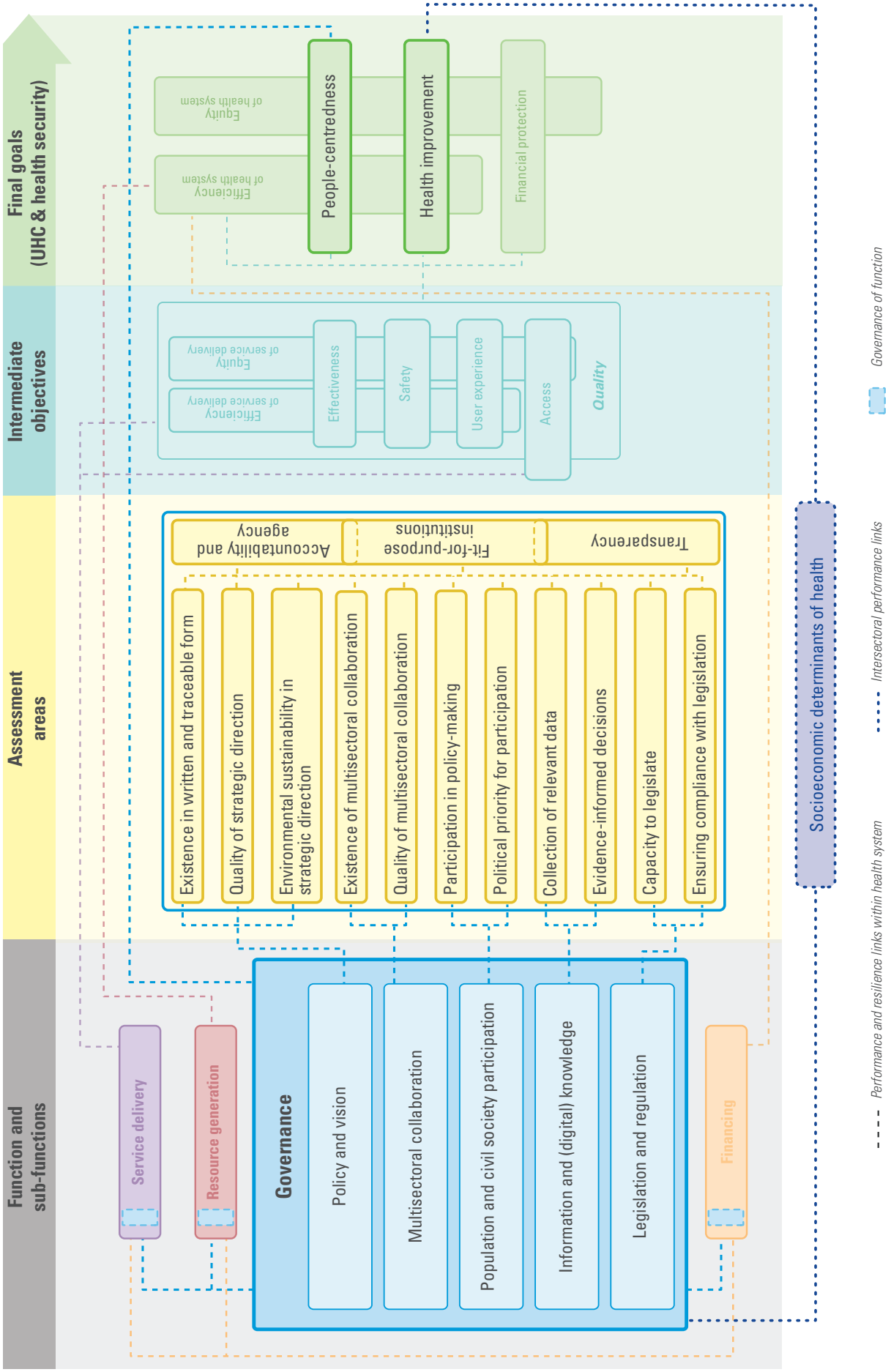


Figure 6: Assessing governance in the HSPA Framework.

Source: WHO/European Observatory on Health Systems and Policies/UHC2030 HSA TWG.

spheres with the health sphere. The following sub-function is about stakeholder participation but has a specific emphasis on bringing in the voice of those whose voices are generally less heard into health policy-making, explained in further detail below.

Population and civil society participation sub-function

This sub-function revolves around the possibility for key stakeholders – such as civil society organizations, vulnerable and marginalized communities, the public, academia, health provider associations – to contribute meaningfully to health policy decisions (assessment area "participation in policy-making"). This sub-function therefore requires solid government capacity to initiate, steer and sustain long-term participatory processes for purposes of engaging the population, communities and civil society as part of the regular health sector modus operandi (assessment area "participation as a government priority"). For this sub-function to perform well, policy-makers need skills to interact with influential stakeholder groups such as health professional associations, parliamentarians, health insurance funds, etc. but also specific capacities to address those who are less powerful such as different community groups and the public. The latter also implies a collective responsibility to invest in health literacy, including digital health literacy, as well as civil society capacity-building to empower people to play a more active role in health policy-making.

Information and (digital) knowledge sub-function

The (digital) information and knowledge sub-function is essentially about data governance and evidence-informed decision-making. It involves the managerial culture and political will needed to support an environment where evidence generation and use are the norm, where changes within the health system and their effects on systems performance are constantly monitored, learned from and acted upon (assessment area "collection of relevant data"). A well-functioning information system that is accessible for a wide range of health system stakeholders is therefore crucial for data-driven decision-making (assessment area "evidence-informed decisions").

The last 2 decades, and especially the Covid-19 pandemic, has hastened the digital era into the health sector, bringing with it enormous possibilities for boosting health system performance. This sub-function, with its assessment areas, reflect the need for these digital avenues to be adequately governed and steered in service of health system goals.

Legislation and regulation sub-function

Legislation and regulation are powerful levers for the achievement of health system goals. For example, rights-based health laws or regulatory frameworks for private sector service provision can have a profound enabling effect on the performance of further health system functions, and subsequently on health system outcomes.

Health system stewards require a specialized skill set to effectively collaborate with lawmakers and other stakeholders, ensuring that laws and regulatory frameworks not only align with health policies and interventions but also serve the broader system objectives. This involves safeguarding against the undue influence of interest groups and well-financed lobbies to promote policies that genuinely benefit the health system and the public at large. Furthermore, in addition to their design, these well-structured legal frameworks must also be effectively enforced and have mechanisms in place to ensure their enforceability. Assessment areas here are thus "capacity to legislate" and "ensuring compliance with legislation".

Table 3: Functions, sub-functions and assessment areas: governance

FUNCTION	SUBFUNCTION	ASSESSMENT AREAS	INDICATIVE MEASURES
GOVERNANCE	**Policy and Vision**	**Assessment area #1:** Whether a **strategic vision** exists in **written and traceable form** (through documents, directives, regulations, guidelines, etc.)	• Does your country have a comprehensive set of policies, laws and/or guidelines that give a strategic vision to the sector?
		Assessment area #2: Whether the **strategic vision** is of **good quality** viewed in terms of implementability	• Does your national health policy, strategy, or plan (NHPSP) and/or comprehensive set of policies/laws/guidelines have elements of universal health coverage (UHC) as its central tenet? • In the national development plan/strategy/policy (or equivalent), does the health section encompass strategies to advance both UHC and health security as interrelated goals? • Does your NHPSP and/or comprehensive set of policies/laws/guidelines indicate how the sector will be monitored and evaluated?
		Assessment area #3: Whether the strategic vision considers wider societal goals, such as environmental sustainability	• Does your NHPSP and/or set of policies/laws/guidelines lay out how it contributes to environmental sustainability? • Does your NHPSP and/or set of policies/laws/guidelines specify how environmental sustainability will be monitored and evaluated?
	Multisectoral collaboration	**Assessment area #1:** Whether multisectoral collaboration exists	• The number of national policies for health and well-being that address at least two priority determinants of health, and involve at least two sectors, in target populations
		Assessment area #2: Quality of multisectoral collaboration	• The composite index combining four assessed aspects of Health in All Policies in a country: whether a country has (a) favourable conditions for Health in All Policies development; (b) policy implementation; (c) monitoring and evaluation and (d) training and capacity building
	Population and civil society participation	**Assessment area #1:** Whether national health policies, strategies, plans, guidelines, or laws are developed with the broad participation of the population and civil society	• Which stakeholders are involved in national health planning and review processes? • Civil society organizations and advocacy groups • Community groups and grassroots organizations, including those that represent vulnerable, marginalized and excluded populations • The general public • Members of parliamentary health committee • Patient groups • Health insurance bodies • Academia • Provider organizations/associations
		Assessment area #2: Whether population and civil society participation is a priority for the government in general (whether an enabling environment exists for participation)	• Which mechanisms and dialogue platforms are in place to ensure participation of population and civil society in decision-making processes that affect people's health and well-being?

continued on next page

Table 3 *continued*

FUNCTION	SUBFUNCTION	ASSESSMENT AREAS	INDICATIVE MEASURES
GOVERNANCE	**(Digital) Information and knowledge**	**Assessment area #1:** Whether a government is committed to collecting relevant health data for decision-making	• Are relevant data collection database available, such as health surveys, birth and death registration, census, health facility reporting, health system resource tracking?
		Assessment area #2: Whether decisions are largely data-driven and evidence-informed	• Does the country have a health sector monitoring and evaluation plan (M&E) or a documented methodology for monitoring health sector outputs and outcomes? • Does the country have a Health Information System Policy and/or strategic plan? • Does the country have a set of core health indicators (updated yearly)?
	Legislation & Regulation	**Assessment area #1:** Whether the capacity exists to develop and enforce laws and regulations to govern the behavior of actors towards protecting and improving public health	• Are existing health laws aligned with the government's health policies and plans? • Do national human rights laws prohibit discrimination on the basis of gender, gender identity, disability status, race/ethnicity, and sexual orientation in areas such as education, employment, and housing?
		Assessment area #2: Whether compliance with those rules, laws, and regulations is ensured	• To what extent are measures taken to effectively implement and enforce health legislation? • To what extent are executive and judicial actors resourced to implement and enforce health legislation?

Source: Adapted from Papanicolas et al. (2022).

4. The resource generation function

Resource generation's sub-functions and assessment areas emphasize the tangible human and material inputs into the system, underscoring the need for them to be equitably distributed and maintained.

The HSPA Framework distinguishes three sub- functions of the resource generation function: health workforce, infrastructure and medical equipment, and pharmaceuticals and other consumables. Governance of resource generation is an additional sub-function through which resource generation can be assessed.

Health workforce

For the HSPA Framework, the broad 2009 definition by WHO of the health workforce: "all persons engaged in actions whose primary intent is to enhance health" (WHO, 2006) is used. This interpretation explicitly values both formal and informal activities undertaken in the health sector, and expands on the World Health Report 2000 definition, which focused more on formally contracted health workers (WHO, 2000). This sub-function therefore explicitly includes informal care as a critical aspect of its impact on performance.

The assessment areas are similar across the resource generation sub-functions: availability, mix/distribution and a measure of upkeep, that is, education in the case of the health workforce. Availability and mix/distribution are essentially about human resources who are made available at the right place and right time, thereby enabling the service delivery function.

Infrastructure and medical equipment

Infrastructure and medical equipment are physical resources that give health providers, and users, the tools needed to provide effective and efficient health services. Resource generation achieves its maximum performance through the interplay of a large, qualified health workforce, equipped with drugs and consumables, working in adequately built and equipped health facilities. The latter increasingly includes digital information system solutions and devices which both the workforce and the population need to be literate in, and which serves as the bedrock to collect relevant data for evidence-informed decision making.

The World Health Report 2000 refers to infrastructure and medical equipment as "physical capital", one of the two health system inputs that define physical resources (WHO, 2000). Rather than adopting terminology that emphasizes the economic value of assets, here the perspective of functionality and systems performance is taken, and this sub-function is thus renamed: infrastructure and medical equipment.

Infrastructure and medical equipment are characterized by the large capital investments required to build health infrastructure, such as health facilities or electronic health information systems, and to equip health facilities with medical equipment, such as magnetic resonance imaging scanners. Another common characteristic is the recurrent costs for maintenance until depreciation reaches an obsolete, or non-functional, status. These two characteristics differentiate the infrastructure and medical equipment sub-function from the consumables and pharmaceutical's sub-function – because the latter does not require a large initial investment or ongoing maintenance because these are one-off or disposable items.

The assessment areas for infrastructure and medical equipment are, again, 'availability of infrastructure, digital health tools and medical equipment' and their mix/distribution. In addition, the measure of upkeep is maintenance, a pivotal area in terms of impact on function performance (assessment areas "availability, mix/distribution, and maintenance of infrastructure, digital health tools and medical equipment"). A key addition in the updated HSPA Framework is the more explicit inclusion of digital health tools by naming them in the assessment area.

Pharmaceuticals and other consumables

WHO defines the characteristics of pharmaceuticals as products that should be "safe, effective, and of good quality" as well as "prescribed and used rationally" (WHO, 2021). Consumables are described in the World Health Report 2000 as an umbrella term that includes pharmaceutical products (WHO, 2000).

In line with the WHO approach, pharmaceuticals and consumables are treated in the same way, as both are used and consumed once – or when used more than once, they are disposable – and neither requires capital investment or maintenance. Single-use medical devices are considered to be consumables, because they are also intended for one- time, or temporary, use. For the same reason, vaccines would also fall under this category.

In the literature, policy documents and assessment tools, terms such as pharmaceutical system, pharmaceutical management system, pharmaceutical supply system and pharmaceutical sector are used interchangeably. All of these labels suggest that pharmaceuticals are part of an ecosystem that ensures safety, efficacy and quality. This spectrum includes medicines research and development, management, manufacturing, procurement, supply and use. Many of these actions are, for the purposes of the HSPA Framework, part of other health system functions or sub-functions. For instance, pharmaceutical management would be governance of resource generation; pharmaceutical use would be part of service delivery; and domestic manufacturing would be part of the pharmaceuticals sub-function of resource generation because it involves making drugs available for use in the country at a very macro level.

In short, the sub-function labelled pharmaceuticals and consumables focuses on the manufacturing and procurement processes needed to ensure that these products are available where and when they are needed.

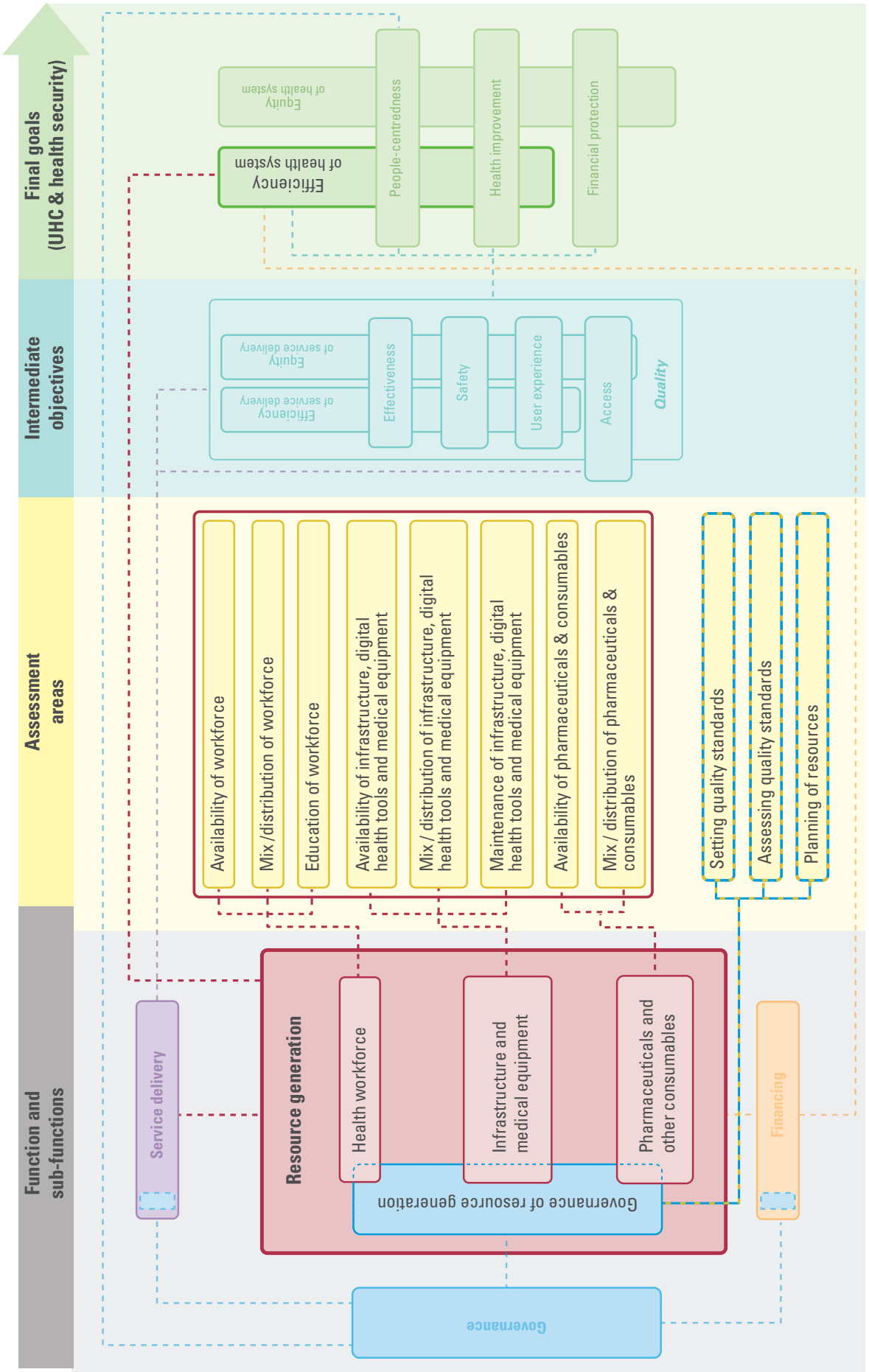


Figure 7: Assessing resource generation in the HSPA Framework

Source: WHO/European Observatory on Health Systems and Policies/UHC2030 HSA TWG.

Procurement can be differentiated from purchasing, which is a sub-function of financing and focuses on purchasing services. A health service brings together several inputs, including pharmaceuticals, whereas procurement is concerned with procuring a good input into the health service.

The assessment areas are only availability and mix/ distribution as there is no upkeep for one-off use or disposable items.

Governance of resource generation

The point of intersection between governance and resource generation is called the governance of resource generation. This intersection includes governance matters that are specific to resource generation, as opposed to those involved with the overall system governance functions. The governance-of elements of resource generation centre on a wide range of tasks associated with planning for resources. These include health workforce planning and forecasting; setting quality standards, such as self-regulation of health providers by professional associations; and monitoring those standards, through regular inventory management of large medical equipment, for example. It also includes ensuring data interoperability and standardization efforts of various health information systems used by both public and private providers, a key vehicle to reach health system goals. This sub-function is complex and far-reaching in terms of the performance of the resource generation function because it involves many parties, including patients, health providers, manufacturers and salespeople; can have serious consequences, at worst death, if not done well; and requires more than informal controls to be effective (Management Sciences for Health, 2012).

Table 4: Functions, sub-functions and assessment areas: resource generation

FUNCTION	SUBFUNCTION	ASSESSMENT AREAS	INDICATIVE MEASURES
RESOURCE GENERATION	**Health workforce**	**Assessment area #1:** Health workforce availability, i.e., health workforce stock and density	• Health worker density per 10,000 population at national level • Health worker density per 10,000 population at sub-national level
		Assessment area #2: Health workforce **mix/distribution**, i.e., by geography, gender, facility type, age group, etc.	• Existence of advanced nursing roles • Density of family medicine practitioners per 100,000 population • Health worker distribution by age group • Percentage of female health workers in the active health workforce
		Assessment area #3: Education, including pre-service and in-service training as well as continuing education	• The existence of national systems for continuing professional development (Yes/ No/Partly) • Existence of in-service training as an element of national education plans for the health workforce
	Infrastructure and medical equipment	**Assessment area #1:** Availability of infrastructure, digital health tools and medical equipment in terms of inventory stock	• Health facility density • Medical equipment density (selection of priority medical equipment of high cost and high complexity) • Percentage of facilities with electronic health management information system
		Assessment area #2: Infrastructure, digital health tools and medical equipment distribution/mix, i.e., by geography, facility type, etc.	• Health facility distribution • Hospital bed density and distribution • Medical equipment distribution (selection of priority medical equipment of high cost and high complexity)
		Assessment area #3: Infrastructure, digital health tools and medical equipment maintenance and repair	• Percentage of facilities with evidence of systems for maintenance and repair for buildings and grounds • Percentage of facilities with evidence of systems for maintenance and repair for medical equipment

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Table 4 *continued*

FUNCTION	SUBFUNCTION	ASSESSMENT AREAS	INDICATIVE MEASURES
RESOURCE GENERATION	**Pharmaceuticals and consumables**	**Assessment area #1:** Pharmaceutical & other consumable availability, i.e., availability of unexpired drugs or consumables available for ready use	• Unexpired essential medicines in medicine outlets are available • Percentage of medicine outlets in which the medicine was found on the day of data collection
		Assessment area #2: Pharmaceutical & other consumable distribution/mix in terms of treatment sites receiving pharmaceutical & other consumable orders in full and on time	• Percentage of treatment sites that received all orders in full and on time during a defined period • Percentage of households more than 5/10/20 km from a health facility/pharmacy that is expected to dispense essential medicines
	Governance of resource generation	**Assessment area #1: Setting quality standards:** whether realistic and effective quality standards for health workforce, infrastructure & medical equipment, and pharmaceuticals & consumables are in place	• Existence of national and/or sub-national mechanisms for accreditation of health workforce education and training institutions and their programmes (Yes/No/Partly) • Existence of a medical device nomenclature system • The existence, comprehensiveness, and flexibility of pharmaceutical policy, legislation and regulation.
		Assessment area #2: Resource planning: whether forward planning and projections for the health workforce, infrastructure & medical equipment, and pharmaceuticals & consumables is undertaken regularly	• Existence of mechanisms and models for health workforce planning (Yes/No/Partly) • Existence of an eHealth strategy or policy • Existence of health technology (medical device) policy • Existence of lists of approved medical devices for public procurement or reimbursement • Existence of List of National Essential Medicines
		Assessment area #3: Assessing quality standards: whether functional monitoring & evaluation processes check existing quality of resources against standards	• Unit in the Ministry of Health responsible for developing and monitoring policies and plans on health workforce (Yes/No/Partly) • Ministry of Health responsibility for health technology policy implementation • Are pharmaceuticals and other consumables monitored for quality?

Source: Papanicolas et al. (2022).

5. The financing function

The HSPA Framework identifies three financing sub-functions (revenue raising, pooling and purchasing), as well as governance of financing, as the key components through which financing can be assessed (Cylus et al., 2022)

Revenue raising

Revenue raising refers to the ways in which money is brought into the health system. A well-performing revenue raising sub-function should ensure that the health system has sufficient resources to meet the health care needs of the population; that those resources are stable, predictable, and able to cope with shocks; and that they are collected in an equitable manner to ensure the burden of health system financing does not fall on the poor or sick.

Pooling

Pooling refers to the accumulation of prepaid funds, which can be used to purchase goods and services on behalf of a population. The pooling function is largely intended to ensure that resources are distributed in an equitable way and also to enable efficiency through economies of scale.

Purchasing

Purchasing refers to payers using funds to pay for health care on behalf of a population. It is mainly concerned with getting resources to those who need them most and doing this efficiently by minimizing costs. As a result, purchasing can have a major impact on intermediate objectives such as quality and, ultimately, health outcomes.

Governance of financing

The governance of financing sub-function covers choices and factors that determine if the flow of funds in the health system is fit for purpose and performs adequately. The key aspects of governance of financing are policies relating to benefits design and service coverage, as well as Public Financial Management.

Benefit design and coverage policies determine who is covered, what services are covered, and any restrictions or conditions of access. Public Financial Management is the set of rules that govern the allocation, use and accountability of public funds. In a health system, Public Financial Management plays a key role in the budgetary formulations that determine the level and allocation of public funding for health; the execution of that budget in terms of effectiveness and targeting of spending; and financial monitoring and transparency.

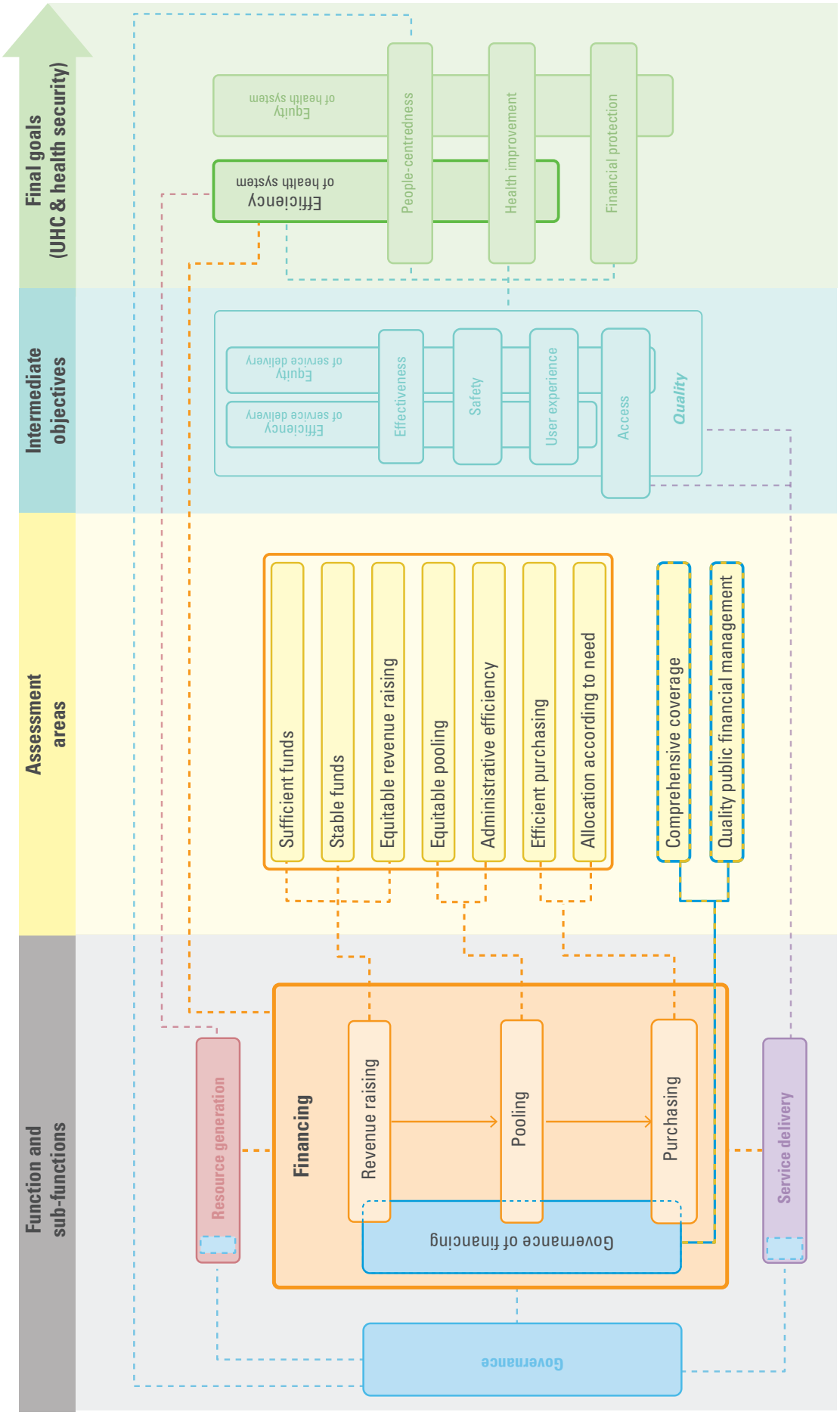

Figure 8: Assessing financing in the HSPA Framework

Source: WHO/European Observatory on Health Systems and Policies/UHC2030 HSA TWG.

Table 5: Functions, sub-functions and assessment areas: financing

FUNCTION	SUBFUNCTION	ASSESSMENT AREAS	INDICATIVE MEASURES

FINANCING	**Revenue raising**	**Assessment area #1:** Whether **funds** are **sufficient** to achieve policy objectives	• National Health Accounts measures
			  ○ CHE as % of GDP
			  ○ GGHE-D as % of GDP
			  ○ GGHE-D as % of CHE
			  ○ GGHE-D as % of GGE
			  ○ OOP as % of CHE
			  ○ EXT as % of CHE
			  ○ PVT-D as % of CHE
			  ○ VHI as % of CHE
			• Depending on context: excessive waiting times, benefits package

		Assessment area #2: Whether **funding flows** are **stable** and predictable	• Above National Health Accounts measures over time • Historic economic fluctuations such as variations in unemployment rates or demographic changes, and any links between these variables and changes in revenues from particular sources
		Assessment area #3: Whether **revenue raising** is **equitable** in terms of distribution of revenue sources among different population groups	• OOP expenditure as a total of health expenditure • OOP expenditure as a total of household consumption • Kakwani indices: a measure of progressivity that can be calculated for each source of financing. The progressivity of the entire financing system can be subsequently established by weighting the progressivity (using the macro-weights) of the finance sources.
	Pooling of resources	**Assessment area #1:** Whether pooling is equitable in terms of the distribution of financial risk across population groups	• Per person expenditure, by pool • Population coverage, by pool
		Assessment area #2: Whether **administrative efficiency** is in place in terms of limiting fragmentation of funding pools	• Spending on administration, total and by pool • Ratio of voluntary health insurance coverage as a percentage of the population, to voluntary health insurance expressed as a percentage of current health expenditure • Does your country's strategy for pooling revenues reflect international experience and evidence? • Are multiple revenue sources and funding streams organized in a complementary manner, in support of a common set of benefits?
	Purchasing goods and services	**Assessment area #1:** Whether **resources** are **allocated according to health need**	• Descriptive information about how different types of care is paid for • To what extent is the payment of providers driven by information on the health needs of the population they serve? • Are provider payments harmonized within and across purchasers to ensure coherent incentives for providers? • Do purchasing arrangements promote quality of care?
		Assessment area #2: Whether **purchasing** is **strategic** and creates efficiency incentives	• The extent to which health systems are able to choose who to purchase from, what to purchase, and at what price • Data on prices paid for certain services, ideally used for comparison

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Table 5 *continued*

FUNCTION	SUBFUNCTION	ASSESSMENT AREAS	INDICATIVE MEASURES
FINANCING	**Governance of Financing**	**Assessment area #1:** Whether **coverage** is **comprehensive** in terms of benefit packages	• OOP spending as share of current health spending OR as a share of household consumption • Catastrophic health spending incidence • Impoverishing health spending incidence • Co-payment design • Is there a set of explicitly defined benefits for the entire population? To what extent are population entitlements and conditions of access defined explicitly and in easy-to-understand terms?
		Assessment area #2: Whether **public financial management** is of **quality** in terms of PFM processes and mechanisms enabling effective health spending	• Public Expenditure and Financial Accountability tool (e.g., the ability to conduct multi-year planning and forecasting is an important component of PFM which influences, among other things, the predictability of revenues over time.

Source: Papanicolas et al. (2022).

6. The service delivery function

The service delivery function is the most proximal function to health systems intermediate objectives

Delivering health services is a core function of the health system. This is influenced by the other functions (governance, financing and resource generation). Therefore, on the HSPA Framework, it is placed closest to the intermediate objectives (Figure 5). Service delivery is conceptualized through an evolution of existing definitions, that is, the combination of inputs into a production process that leads to the delivery of a series of interventions (Murray & Frenk, 2000), but also acknowledging the performance aspect through highlighting the need to ensure access, quality, safety and continuity of care in the process (WHO, 2007). Service delivery directly impacts on intermediate health system objectives and, ultimately, the achievement of the final health system goals.

Service delivery is therefore a broad concept and difficult to separate into discrete sub-functions that match organizational structures (for example, levels – primary, secondary, tertiary; purpose – preventive, curative, rehabilitative, long-term care; platforms – primary care centre, hospital, etc; modes – outpatient, inpatient, day care, home care) of health systems globally. Instead, the framework broadly distinguishes the sub-functions of public health, primary care and specialist care, allowing specific services to be attributed to those sub-functions according to the specific country context (Nolte et al., 2022). Assessment areas of all service delivery sub-functions coincide with intermediate health system objectives and include aspects of quality (effectiveness, safety, user experience, as well as efficiency and equity of service delivery) and access to services. As with other functions, governance of service delivery also plays an important role across the three sub-functions, providing service delivery with the basis to operate.

The HSPA Framework identifies three sub-functions of the service delivery function: public health, primary care and specialist care, in addition to the governance of service delivery

Public health

The public health sub-function aims to fulfil the preventive care needs of the population, although where the boundaries lie between prevention and care is often blurred. This sub-function has enjoyed a renewed policy focus since the Covid-19 crisis, especially in countries where public health activities had been de-prioritized for decades, and where the pandemic underscored its crucial significance.

Considerable variation can be seen in this sub-function in terms of the operational areas and activities covered, ranging from disease prevention, health promotion, community care, emergency preparedness, social participation and communication. This may reflect differences in perspectives on what constitutes public health, particularly in relation to universal health coverage and to what degree health care should be considered a public health operation. Nevertheless, this sub-function can be a significant lever to address a range of health determinants and work at an operational level with stakeholders from other sectors.

Primary care

Primary care represents the first point of contact for unspecified and common health problems. Here also, however, boundaries can vary widely between the other service delivery sub-functions, depending on setting, organizational history and approach. For example, services that fulfil a wider public health function are often provided in primary care settings (for example, vaccination, family planning), whereas in some countries primary care entities may host specialized care practitioners.

Nevertheless, this sub-function is the one where the vast majority of health problems should be addressed in health systems aiming towards universal health coverage. A key catalyst for achieving the UHC goal is the reorientation of the health system toward primary health care (Rajan et al., 2024 *(in press)*).

Specialist care

Specialist care is care that is provided beyond the first contact triage and generally requires specialist skills. In many countries, specialist care may be distinguished into secondary care (often provided in local hospitals) and tertiary care (often provided in highly specialized centres). The expansion of medical technologies and e-health solutions has blurred the boundaries between the service delivery sub-functions further, bringing specialized diagnostic and therapeutic interventions closer to patients into ambulatory settings or even people's homes. The rising burden of chronic disease has also led to models of care with some specialist care in the community, leading the way to increased accessibility of services, enhanced continuity of care and improved service responsiveness (WHO, 2016).

Governance of service delivery

Governance of service delivery relates to planning and decision-making for health services, including ensuring health service integration, quality assurance mechanisms in service provision and environmental considerations. The delineation towards overall systems governance lies in the specificity of the decision-making – when it is for the delivery of health services, and not for the system as a whole, then it would be part of the governance of service delivery. For example, population and civil society participation in national health planning processes is part of the governance function while the engagement of communities, patients and caregivers in the co-design of services is part of governance of service delivery. The latter increasingly includes the use of digital health tools to improve patient-centred care.

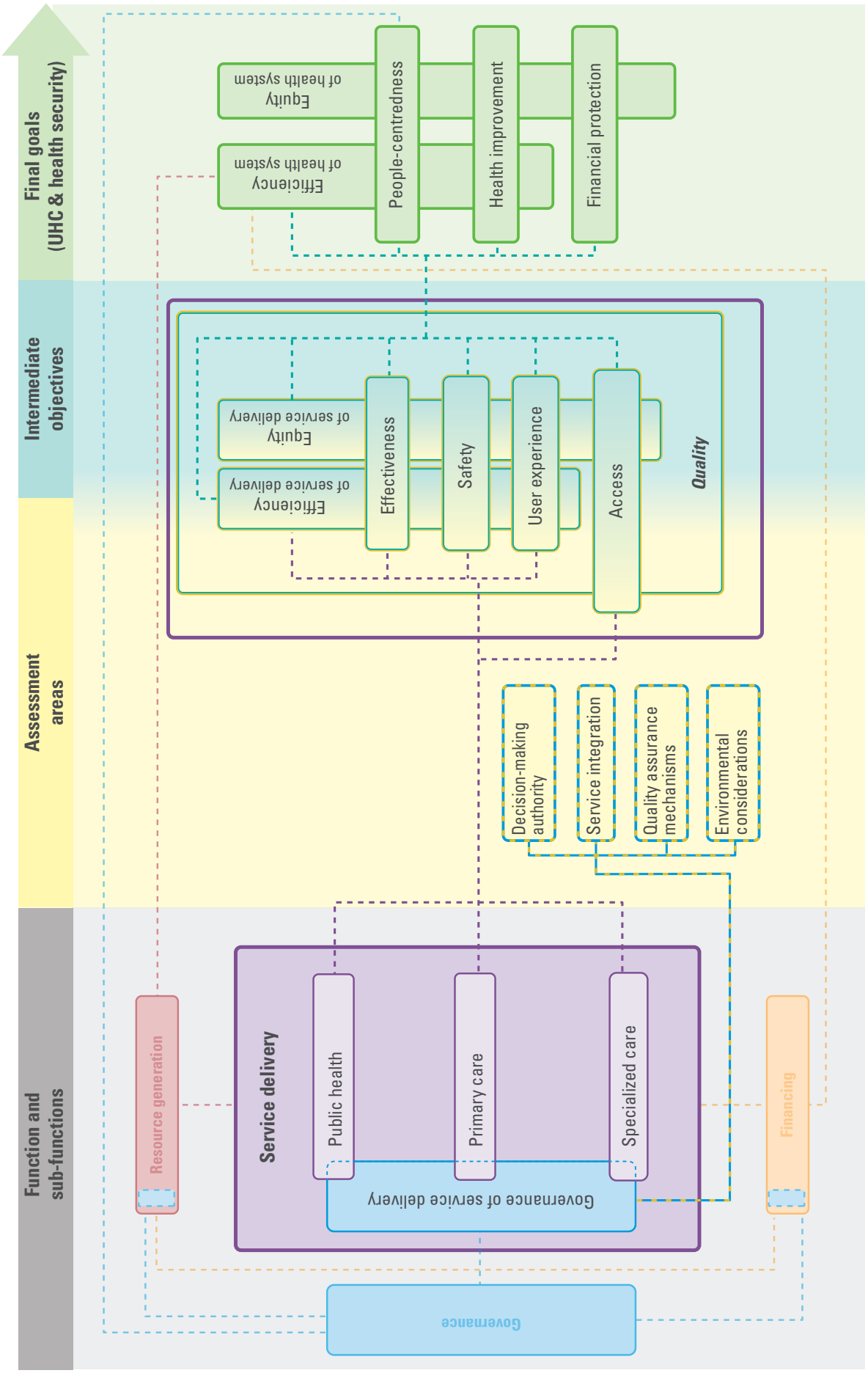

Figure 9: Assessing service delivery through the intermediate objectives

Source: WHO/European Observatory on Health Systems and Policies/UHC2030 HSA TWG.

The assessment areas linked to the governance of service delivery are decision-making authority, service integration, quality assurance mechanisms, and environmental considerations. Decision-making authority refers to the degree of autonomy accorded to the service delivery unit to make decisions at local level in response to population needs. Service integration here refers to the governance and leadership needed to ensure horizontal and vertical integration of services – between preventive and curative care, community-based and facility-based care, health and social care, private and public sector services, etc. Quality assurance mechanisms relies on governance actors nurturing a culture of high quality of care by fostering regular quality monitoring and acting on monitoring results.

Table 6: Functions, sub-functions and assessment areas: service delivery

FUNCTION	SUBFUNCTION	ASSESSMENT AREAS	INDICATIVE MEASURES
SERVICE DELIVERY	**Public health**	• **Effectiveness**, or the ability of an intervention to have a meaningful effect on patients in normal clinical conditions • **Safety**, or the prevention of errors and adverse effects associated with health services • **User experience**, i.e., users' beliefs, preferences, perceptions, responses, and behaviors that occur before, during and after health service utilization • **Access**, i.e., the opportunity or ease with which individuals or communities are able to use appropriate health services • **Equity**, i.e., the distribution of health service outcomes across population groups • **Efficiency**, or the ratio of inputs to outcomes	• Preventable mortality (includes road traffic death rate; mortality from selected infectious diseases such as tuberculosis, cholera, malaria, HIV/AIDS, influenza). • Where preventable mortality is not available as an aggregate measure, mortality from traffic injuries, selected infectious diseases etc. could be used instead) • Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services) • Prevalence of populations using unsafe or unimproved water sources

	Primary care	• **Effectiveness**, or the ability of an intervention to have a meaningful effect on patients in normal clinical conditions
		• **Safety**, or the prevention of errors and adverse effects associated with health services
		• **User experience**, i.e., users' beliefs, preferences, perceptions, responses, and behaviors that occur before, during and after health service utilization
		• **Access**, i.e., the opportunity or ease with which individuals or communities are able to use appropriate health services
		• **Equity**, i.e., the distribution of health service outcomes across population groups
		• **Efficiency**, or the ratio of inputs to outcomes
			• Amenable mortality (deaths that should have been prevented by timely and good quality care)
			• Adherence to clinical guidelines for five clinical cases:
			  ○ acute diarrhoea
			  ○ pneumonia
			  ○ diabetes mellitus
			  ○ pulmonary tuberculosis
			  ○ malaria with anaemia

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Table 6 *continued*

FUNCTION	SUBFUNCTION	ASSESSMENT AREAS	INDICATIVE MEASURES
	Specialized care	**Assessment area #1:** Effectiveness	• In-hospital mortality rate within 30 days of admission for acute myocardial infarction or stroke • Perioperative mortality rate
		Assessment area #2: Safety	• Proportion of the population without access to safe, affordable surgery and anaesthesia
		Assessment area #3: User Experience	• Estimated percentage of seriously injured patients transported by ambulance
		Assessment area #4: Access	• Proportion of the population without access to surgery • Access to radiotherapy services
		Assessment area #5: Equity	• Above indicators of effectiveness at subnational level/ by population subgroup (for example, urban–rural, socioeconomic status)
		Assessment area #6: Efficiency	• Hospital admission rate for people aged 15+ for: ○ hypertension ○ asthma ○ COPD ○ diabetes complications
	Governance of service delivery	**Assessment area #1:** Whether the level of autonomy and decision-making authority is accorded to service delivery bodies responsible for organizing service delivery at the national/regional/local level	• What degree of autonomy does the service delivery entity (facility, district, provider network, region) have to take operational, tactical and strategic decisions?
		Assessment area #2: Whether services are integrated, i.e., people receive a continuum of care over time and across different service delivery levels and specializations	• Existence of national-level strategy/plan/policy to promote integrated service delivery
		Assessment area #3: Quality assurance mechanisms, i.e., monitoring & evaluation mechanisms to ensure that health service quality is upheld	• Existence of national approaches for quality assurance of health services
		Assessment area #4: Environmental considerations, i.e., ensuring that health services are adapted to the realities of climate change while also monitoring and reducing the environmental consequences of providing services	

Source: Papanicolas et al. (2022).

7. Bringing it all together: an in-depth look at the entire renewed HSPA Framework

Most of the time, health system functions impact on health system goals indirectly, through service delivery

Figure 10 shows the full HSPA Framework with all the sub-functions and assessment areas depicted in one image. The links in the framework are represented by dotted lines; they show how each of the functions is connected to the others, and to the intermediate objectives and final health system goals.

The functions may affect any one or several of the final goals directly or indirectly. For the most part, as highlighted throughout this brief, the way health system functions impact on goals is largely through the service delivery function with its assessment areas being equal to the intermediate objectives of the system. However, some direct links between the activities within the functions and the attainment of health system outcomes are important for policy-makers to understand in order to fully leverage health system interventions at their disposal. In addition, the interaction between the functions, notably governance's interplay with all other functions, represents a far-reaching lever to impact on system objectives.

Health system functions can in some cases also have a direct impact on specific intermediate objectives and final goals

The HSPA Framework depicts a small number of direct links between specific functions and specific goals. These links are purposefully labelled as 'performance and resilience links'; along with high-performing functions, it is the strength of the linkages – between functions, intermediate objectives, and goals – that not only fosters synergies across the system for high system-level performance, but those linkages lend resilience to the system as well.

The governance function has a direct link via a dotted line, which exits the health system and travels through the social and economic determinants of health to impact on health improvement. This direct link acknowledges the potential of the governance function to influence overall population health by collaborating with other sectors and making the case for the co-benefits of addressing health determinants.

A second direct link from the governance function goes to people-centredness. As a goal which captures how far the health system adequately addresses people's non-medical health needs, it is heavily influenced by the way the health system is designed, a core action within the governance function. This design includes a system that involves people in the decision-making process (stakeholder voice sub- function of governance), thereby being more "people-centred", that is, responsive to people's needs (WHO, 2016).

The resource generation function has a single direct link to the final goal of health system efficiency. More specifically, the availability, mix, distribution and quality of inputs, all created by the resource generation function, will directly influence how efficient the overall system is able to be, regardless of whether and how those inputs are used in the service delivery function. The efficiency of the health system refers to maximizing health system objectives given the resources available. In essence, the absolute numbers of the different types of resources available are pre-set in the resource generation function, which can increase or decrease efficiency.

A direct performance link towards health system efficiency can also be seen from the financing function. Financing affects the valuation of the resources available, for example, by determining the cost and prices of inputs, directly influencing the efficiency of the system.

The influence of service delivery on the intermediate objectives of the health system, namely quality and access, can also be seen as a direct link, given that the intermediate objectives and service delivery assessment areas are one and the same. Quality is assessed through service delivery effectiveness, safety, and user satisfaction, but increasingly should also be evaluated as well against its environmental impact (Hensher & McGain, 2020). The health system's intermediate objectives influence, in turn, all final goals.

The framework acknowledges the centrality of broader societal goals within the health systems performance paradigm

Finally, in Figure 5, the contributions of the health system to broader societal goals are depicted with a linking arrow, although they fall outside the boundaries of the main framework, which focuses on what can be assessed within the remit of an HSPA. Nevertheless, although HSPA does not aim to measure the health system's impact on societal goals, their presence in Figure 5 is meant to remind policy analysts and practitioners that the relationships of the health system to broader societal goals cannot be ignored when assessing health system performance and drawing policy implications.

Health actors can leverage the Health in All Policies (Merkur et al., 2012) approach to bridge the gap between health systems performance and broader societal objectives. As emphasized previously, this involves leveraging the governance function to collaborate with other sectors, conducting policy impact assessments, sharing data, advocating for health integration, building capacity, ensuring policy coherence, monitoring policies, and engaging the public and civil society to align health goals with broader societal well-being. This emphasizes the importance of viewing health as intertwined with other policy domains, contributing to a more comprehensive public policy approach.

However, indirectly, the health systems contribution to broader societal goals in only part of the equation and emphasis on the interconnection between health and other sectors can be made through the concept of Health for All Policies (Greer et al, 2023). These policies highlight win–win solutions across sectors, emphasizing health co-benefits, both direct and indirect. Prioritizing health co-benefits offers a tangible path to advancing societal goals, particularly in the context of post-COVID-19 recovery, showcasing the interconnectedness of sectors.

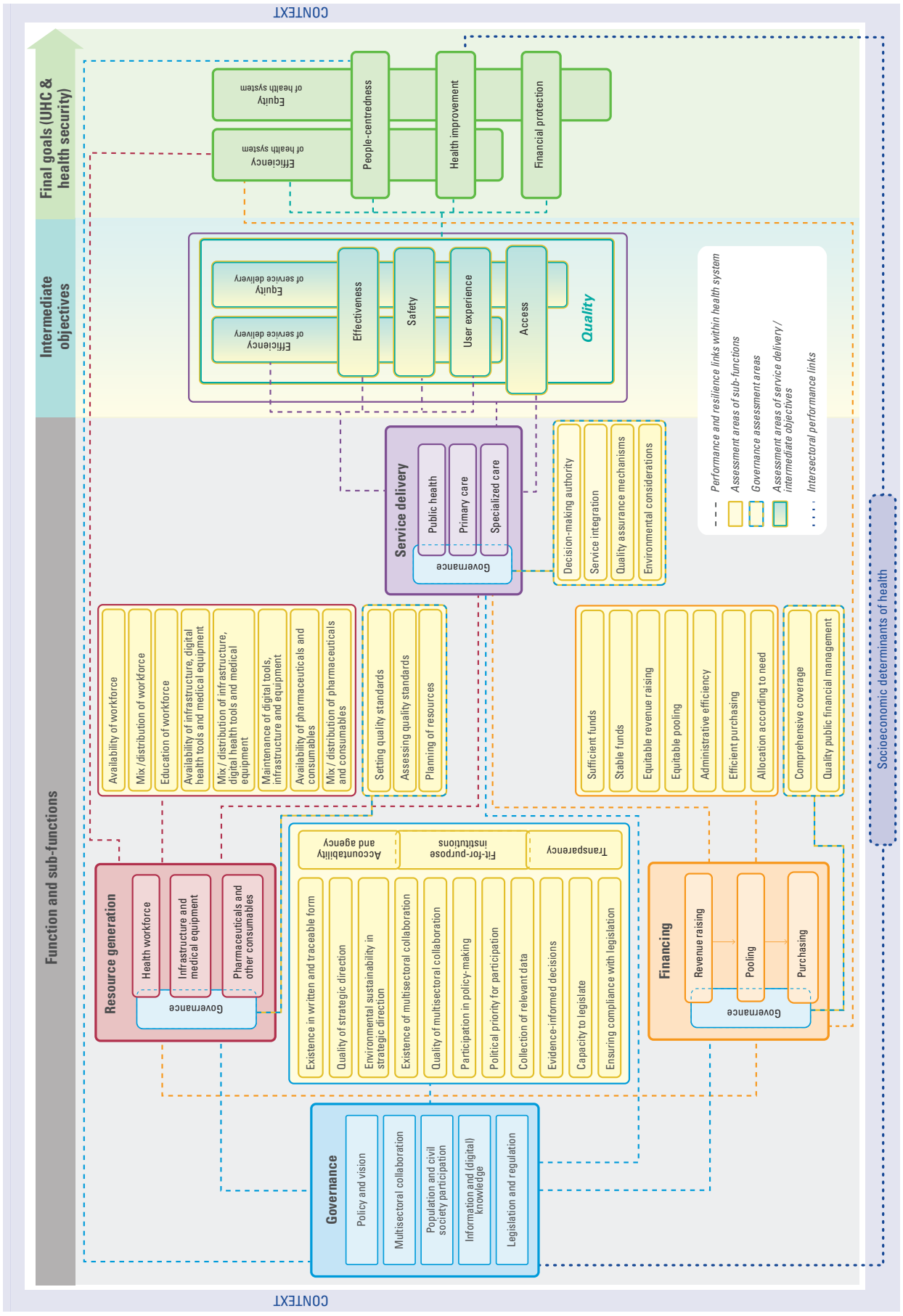

Figure 10: The renewed global HSPA Framework with all sub-functions and assessment areas

Source: WHO/European Observatory on Health Systems and Policies/UHC2030 HSA TWG.

The framework is principally a conceptual tool for analysing existing information and data to understand health systems bottlenecks, their origins and impacts on health system performance

The framework is meant to be applied as a conceptual lens for analysing information and data collected within the context of a system-wide assessment, thereby facilitating a more nuanced understanding of how inputs and structures contribute to system performance, or vice versa, in order to pinpoint areas for improvement.

A health system bottleneck can be traced backwards to explore possible origins (areas to be targeted for improvement), or traced forwards to understand potential influences on health system performance. Doing so may not provide all the answers sought; however, it can serve as a solid basis for in-depth analysis. The framework is designed so that the starting point can be any health system function, sub-function, assessment area, indicative measure, etc. (see Table 3). Importantly, the framework has been designed with existing HSA and HSPA tools in mind, so that performance indicators from other sources that are already collected can be easily mapped onto it.

The framework is therefore meant to be applied as a conceptual lens for analysing information and data collected within the context of a system-wide assessment, thereby facilitating a more nuanced understanding of how inputs and structures contribute to system performance, or vice versa, that is, how system performance has been influenced by inputs and structures.

That being said, three important issues should be considered while applying the framework:

- The framework is meant to be used in conjunction with a whole-of-system appraisal exercise, including both qualitative and quantitative data collection and analysis. Such exercises are usually linked to an in-country process where information is contextualized and interpreted with local knowledge and expertise.
- The assessment areas are not indicators in and of themselves. They simply offer a specifically formulated topical area that needs to be adequately appraised in order to assess function or sub-function performance.
- Indicative measures as displayed in Table 3–6 are examples for a particular context. Indicators may not necessarily provide the full picture of function or sub-function performance but rather feed into their appraisal when complemented by contextual information normally provided within the health system assessment process.

8. Applying the renewed HSPA framework to key priority areas: performance pathways

At heart the new HSPA framework is about helping decision-makers to work through performance challenges in their own context, that is in light of what drives their health system and its outcomes, and then to make better informed choices.

It goes well beyond its initial more conceptual mapping of health systems and offers a policy tool that decision-makers can use to

- Interpret their country health data so that it pinpoints the root causes of health system bottlenecks
- Locate and respond to a policy concern in terms of where it sits in terms of health system functions and sub-functions
- Follow the links from the policy area (and response) to intermediate objectives and final goals to assess the impact of a given policy intervention
- Identify and tackle those policy areas that best strengthen health systems resilience, and
- Place the health system issues in wider socioeconomic and societal context.

The global HSPA framework is in effect an anchoring device that allows policy-makers to test possible solutions to performance challenges by working through plausible pathways from the roots of underperformance, through the feasibility of different policy actions to impacts and goals.

There are a series of 'worked examples' below that follow a set of issues – workforce, digital health, environmental sustainability and resilience – through the plausible pathways captured by the HSPA framework. They demonstrate how HSPA pathways will support evidence informed policy-making.

The choice of these examples draws on (and chimes with) the Tallinn conference agenda which focuses on trust and transformation and on how to build resilient and sustainable health systems for the future.

Trust is central to transformation whether it is between patients and clinicians, or of health and care workers in the system, or on the part of policy makers that the system will deliver on investment. The global HSPA framework underpins trust by providing a transparent map of where change is needed and what the impacts of innovation will be.

Transformation – real system change – depends on understanding what is not working, identifying solutions and then resourcing and supporting implementation. Again the HSPA framework offers a clear structure and plausible pathways for change that all stakeholders can understand and trust.

The choice of 'worked examples' illustrates how the framework does this. They tackle the central triangle of digital health, workforce and patients / people and they demonstrate the wider applications of the framework in looking beyond the health system (at its impact on the environment) and at resilience overall. They show how in practice policy-makers, health professionals and patients can understand the same things about how a system performs, how its parts interact and therefore, how best to transform it.

A second Tallinn brief explores tracer indicators and will be particularly relevant in taking the HSPA framework project forward. The brief tests how to populate the HSPA framework with a really sparse but telling set of indicators which will work for policy-making. The proof of concept will lead on to a policy dashboard that will highlight what matters most and where the most promising actions lie.

8.1 People-centredness

The figure is an illustration of some possible performance linkages (dotted lines). Directions of arrows could go either or both ways, depending on the starting point of an assessment, and more (or fewer) boxes could be activated depending on a specific policy question. Colours of the boxes represent their original designation in the HSPA framework.

Where in HSPA is it?

People-centredness is one of the final health system goals, which means that the degree of attainment of people-centredness reflects on performance of the entire system and contributes to the achievement of other goals, such as equity and health improvement (Figure 11, Boxes 1). It is influenced by all intermediate objectives, but particularly by user experience and access (Figure 11, Boxes 2). At the same time, a people-centred health system means that people can access care when they need it in a way that meets their expectations (hence in this example the arrow points in their direction).

How it relates to health system functions?

Access and user experience are intermediate objectives and at the same time assessment areas of service delivery (Figure 11, Box 3). Lack of access (even when services are affordable and physically available) can signify lack of another important dimension of access – acceptability (i.e. extent to which users consider care to be appropriate). Issues with user experience mean that the patient's perspective is not valued or considered in service provision. One possible pathway could be lack of quality assurance embedded in the governance of service delivery (Figure 11, Boxes 4), or weaknesses in setting and assessing standards in governance of resource generation (Figure 11, Boxes 5). Another could be a reflection of gaps in education and training of health workforce (Figure 11, Box 6).

People-centredness is also linked with health system governance both through service delivery (Figure 11, Box 7), but also more specifically degree of people-centredness is a marker of population and civil society participation sub-function. The latter can also be assessed through a degree of participation in policy making, which is influenced by the overall transparency and accountability of the system (Boxes 8).

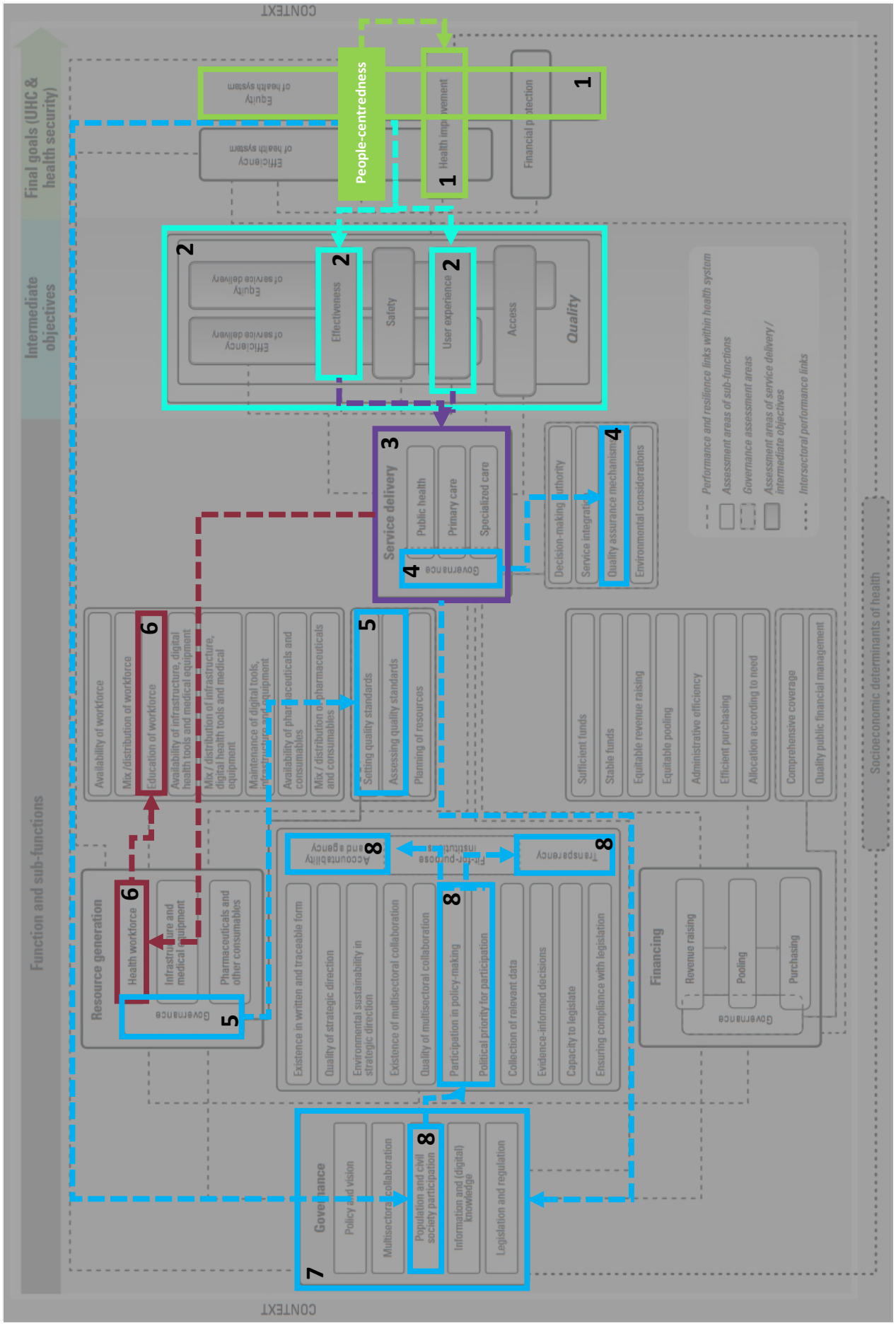

Figure 11: How people-centredness contributes to the performance of the system

Source: WHO/European Observatory on Health Systems and Policies/UHC2030 HSA TWG.

8.2. Health workforce

Where in HSPA is it?

Health workforce is a sub-function within resource generation function. In Figure 12, Box 1 shows its assessment areas – availability, mix and distribution, as well as education of workforce. These assessment areas determine performance of workforce sub-function, or, vice versa, a well-performing workforce sub-function means that it has adequate availability, mis and distribution of health care workers and good quality education (hence in this example the arrow goes in their direction). The assessment areas can be measured using specific indicators, some of which are described in this section.

In Figure 12, Box 2 highlights a related sub-function – governance of resource generation, which has a workforce component embedded in it (i.e., governance of workforce). Its assessment area – planning of resources – evaluates whether there are mechanisms that ensure health workforce remains adequate in the future and is crucial given the amount of both time and funding it takes to ensure presence of well-qualified health care workforce.

How is it linked with other functions?

As demonstrated in Figure 12, health workforce subfunction is enabled by health system governance (Boxes 3) and financing (Boxes 4) functions. While all sub-functions of health system governance are relevant for health workforce, assessment areas that evaluate quality of strategic direction (determines whether workforce is a strategic priority), participation in policy making (ensures policies incorporate voices of health care workers) and capacity to legislate (addresses ability to regulate workforce) are among the most important in ensuring good performance of workforce. Financing function provides monetary resources for health workforce first through revenue raising (by ensuring there are sufficient funds in the system to invest in workforce), and through purchasing (paying health care workers while ensuring efficient purchasing and allocating of funds according to need).

How does it relate to health system goals?

Health workforce enables delivery of all health care services (Box 5). It is therefore through service delivery that it impacts all intermediate health system objectives. Namely, effectiveness and safety of health care services depend on health care workers education and training, as well as them adhering to quality standards and protocols. Access and equity depend on availability and distribution of health care workers. User experience reflects the quality of interaction of health care users with health professionals. Efficiency of service delivery reflects the level of skill mix. Intermediate objectives in turn are linked with the final goals, where health care workforce is an important contributor to health improvement (through effectiveness and safety), people-centredness (though user experience), efficiency and equity.

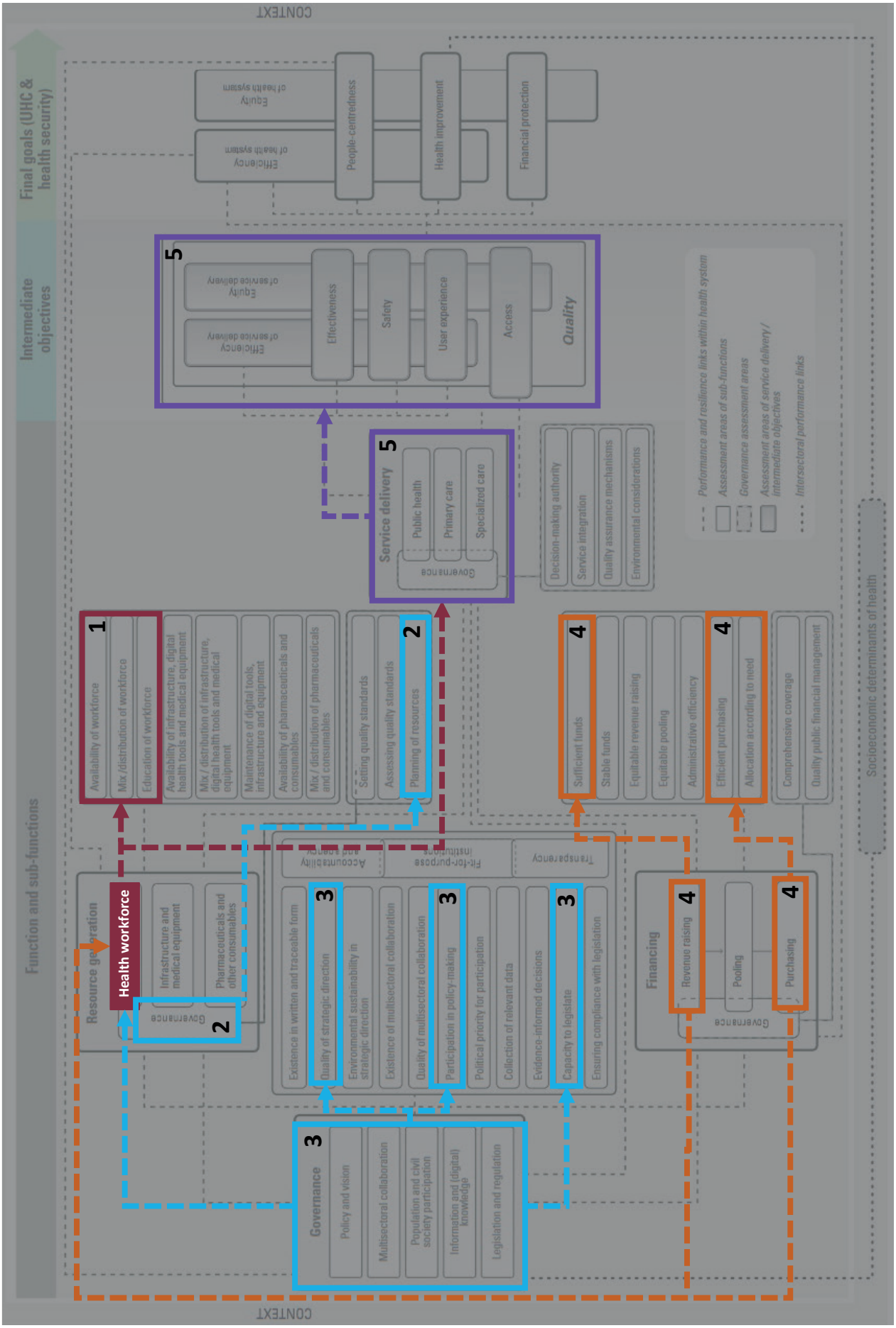

Figure 12: How health workforce contributes to the performance of the system

Source: WHO/European Observatory on Health Systems and Policies/UHC2030 HSA TWG.

8.3. Digital health

Where in HSPA is it?

Digital health does not limit itself to any one function, rather it is a broad area incorporating governance, information, tools and service, therefore it is located across multiple functions. In the figure, it is placed primarily in governance, resource generation and service delivery. In health system governance (blue boxes) it sits in information and (digital) knowledge as well as in policy and vision, but it also extends to governance of resource generation and governance of service delivery, each with own assessment areas. Infrastructure-related elements of digital health are in resource generation function (red boxes), with assessment areas being availability, distribution and maintenance of digital infrastructure. Finally, entire service delivery (purple box) is highlighted as certain services can be delivered digitally (e.g., via tele-medicine).

How is it linked with other functions?

Given the many possible locations for digital health, links will depend on which element of digital health is being assessed. Dotted arrows show some of the possible linkages. For example, there is an element of digital health in purchasing that enables generation of digital infrastructure, and in service delivery, which enables provision of telemedicine. On the other hand, there is an arrow from information and (digital) knowledge to policy and vision, suggestion that collection of relevant data across all functions and ability to make evidence-based decisions impact policy formulation.

How it relates to health system goals?

Delivery of digital services, enabled through other functions, impacts on many intermediate goals, e.g., access and equity (ability to access telemedicine services or booking systems, albeit with implications for equity as not all population groups are able to access or use digital tools), efficiency (where services that do not need physical presence can be delivered remotely), and user experience. These, in turn, contribute to the final goals. On the other hand, information collected through assessing intermediate goals feeds back to inform better functioning of the health system (hence an arrow from intermediate goals to information and knowledge sub-function of health system governance).

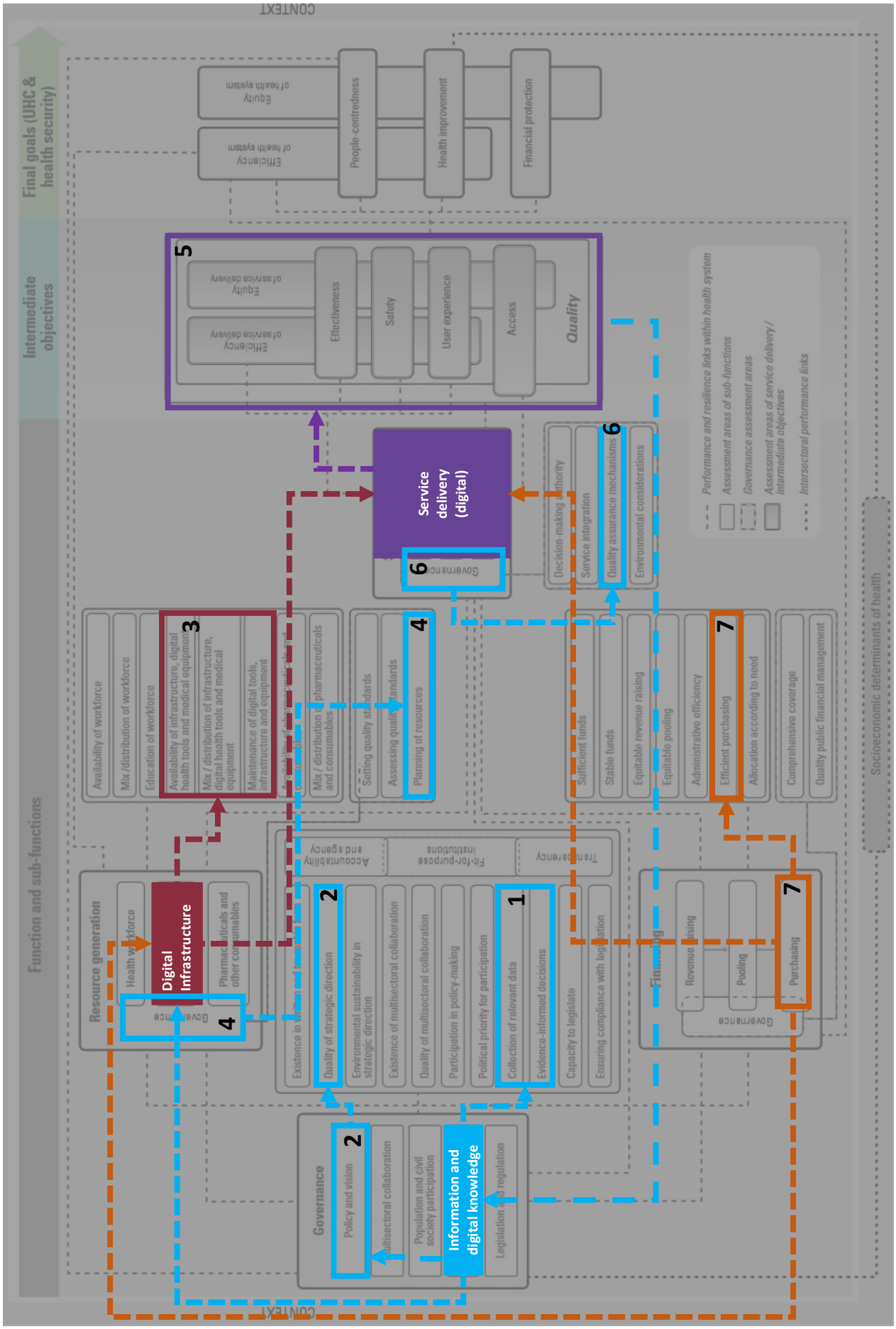

Figure 13: How digital health contributes to the performance of the system

Source: WHO/European Observatory on Health Systems and Policies/UHC2030 HSA TWG.

8.4. Environmental sustainability

Where in HSPA is it?

Environmental sustainability in strategic direction is an assessment area of the governance function. In Figure 14, Box 1 shows how it relates to the governance of the health system. Environmental sustainability in the governance of the overall health system has an impact on the governance of resource generation (Figure 14, Box 2) and the governance of service delivery (Figure 14, Box 4). Box 3 highlights the sub-functions of resource generation that are most relevant to environmental sustainability – infrastructure and medical equipment, as well as pharmaceuticals and other consumables, which in turn affect the environmental sustainability of service delivery. Environmental considerations are an assessment area of the governance of service delivery.

How is it linked to health system functions?

Environmental sustainability in strategic direction is most directly related to the functions of resource generation and service delivery. It has an impact on how far environmental considerations are part of the governance of service delivery (Box 4) and the governance of resource generation (Figure 14, Box 2), as well as on the environmental sustainability of service delivery as a whole (Figure 14, Box 5).

How does it relate to health system and societal goals?

The environmental sustainability in strategic direction and in the governance of resource generation and service delivery will affect final health system goals via intermediate objectives of the health system and improving the response of the health system to climate change and environmental degradation (Box 6), as well as directly, by reducing the harmful impact of the health system on human health and contributing to health improvement (Figure 14, Box 7). They will also have a major impact on the societal goal of environmental sustainability (not shown in the graph).

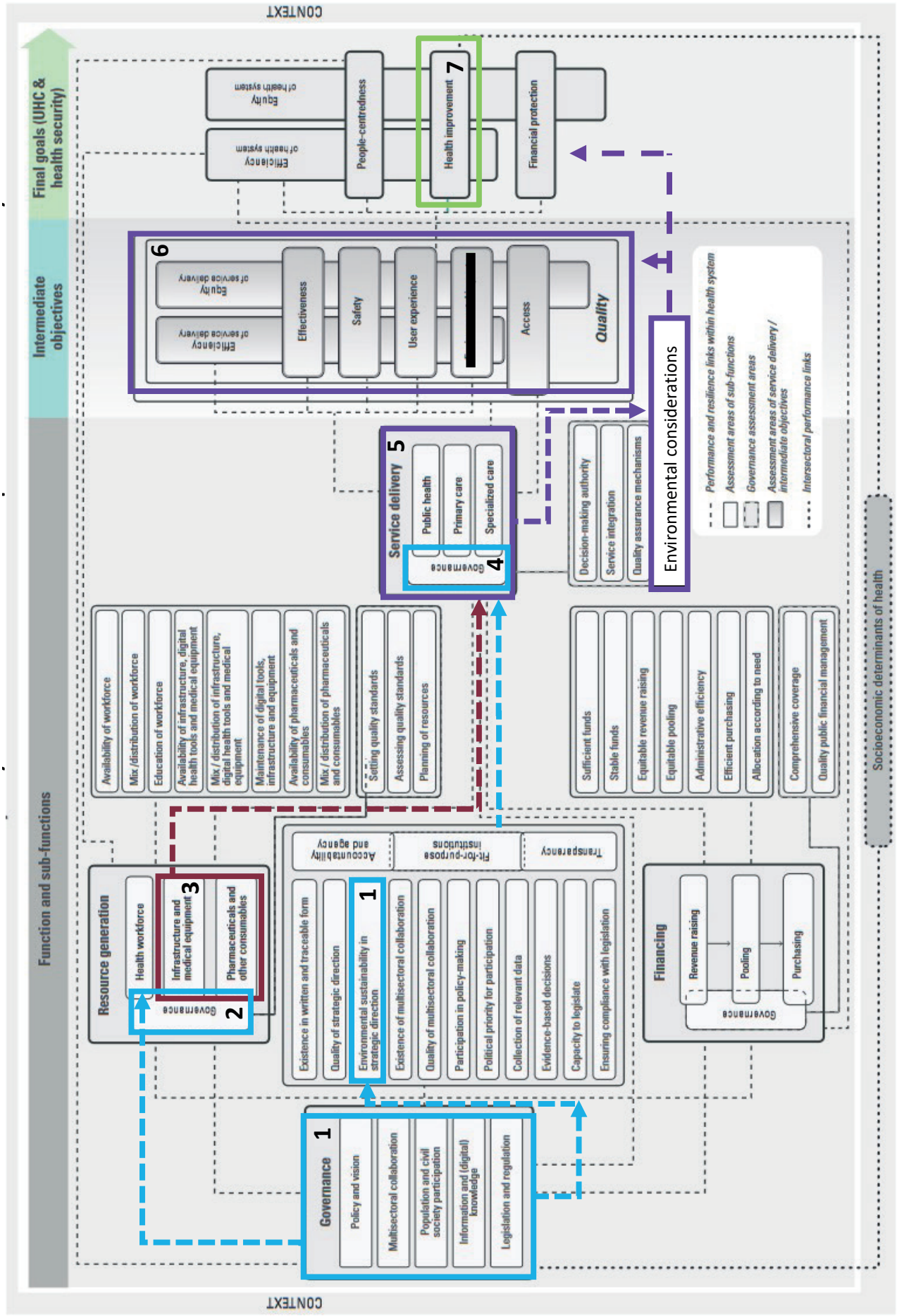

Figure 14: How environmental sustainability contributes to the performance of the system

Source: WHO/European Observatory on Health Systems and Policies/UHC2030 HSA TWG.

8.5. Resilience

Where is HSPA in it?

This graph illustrates how some health system functions, objectives and goals come under strain in the event of a shock, such as the COVID-19 pandemic. In the given (hypothetical) example, access is the area most affected by the shock, exhibiting the lowest level of resilience (Figure 13, Box 1). Access is a key intermediate health system objective, and also an assessment area of service delivery.

In this example, a pathway is offered to explain why access was so badly affected in this example which elucidates on resilience weaknesses in the system. By strengthening those areas which affected access, health system resilience can thus be improved, and emergency preparedness achieved.

How does it relate to health system functions?

In the given example, challenges during the COVID-19 pandemic in accessing health services can be traced back to challenges in the health functions of resource generation, in particular the availability of health workers (Figure 13, Boxes 2), and financing, in particular the availability of sufficient funding (Figure 13, Boxes 3). This could point to weaknesses in the governance of these two health system functions (Figure 13, Boxes 4 and 5). In terms of the governance of resource generation, the planning of resources might have been suboptimal (Figure 13, Box 4), while in terms of the governance of financing, decisions on coverage might have resulted in insufficient funding (Figure 13, Box 5). The governance of health system functions hinges on the governance of the health system as a whole, in particular with regard to policy and vision and the quality of strategic direction (Figure 13, Boxes 6).

In order to better understand the underlying challenges in accessibility, more nuanced indicators reflecting specific assessment areas of service delivery would need to be used, such as the tracer indicator of unmet need for health care. This indicator allows to distinguish whether lack of access to care stems from health system factors (e.g. user charges, waiting lists, lack of services in the area), and identify socio-economic groups with the highest level of unmet need (indicating that these lack health coverage).

Turning to final health system goals, challenges in accessibility during a health system shock such as the COVID-19 pandemic impact on several of these goals, in particular health improvement, but also financial protection and equity (Figure 13, Boxes 7).

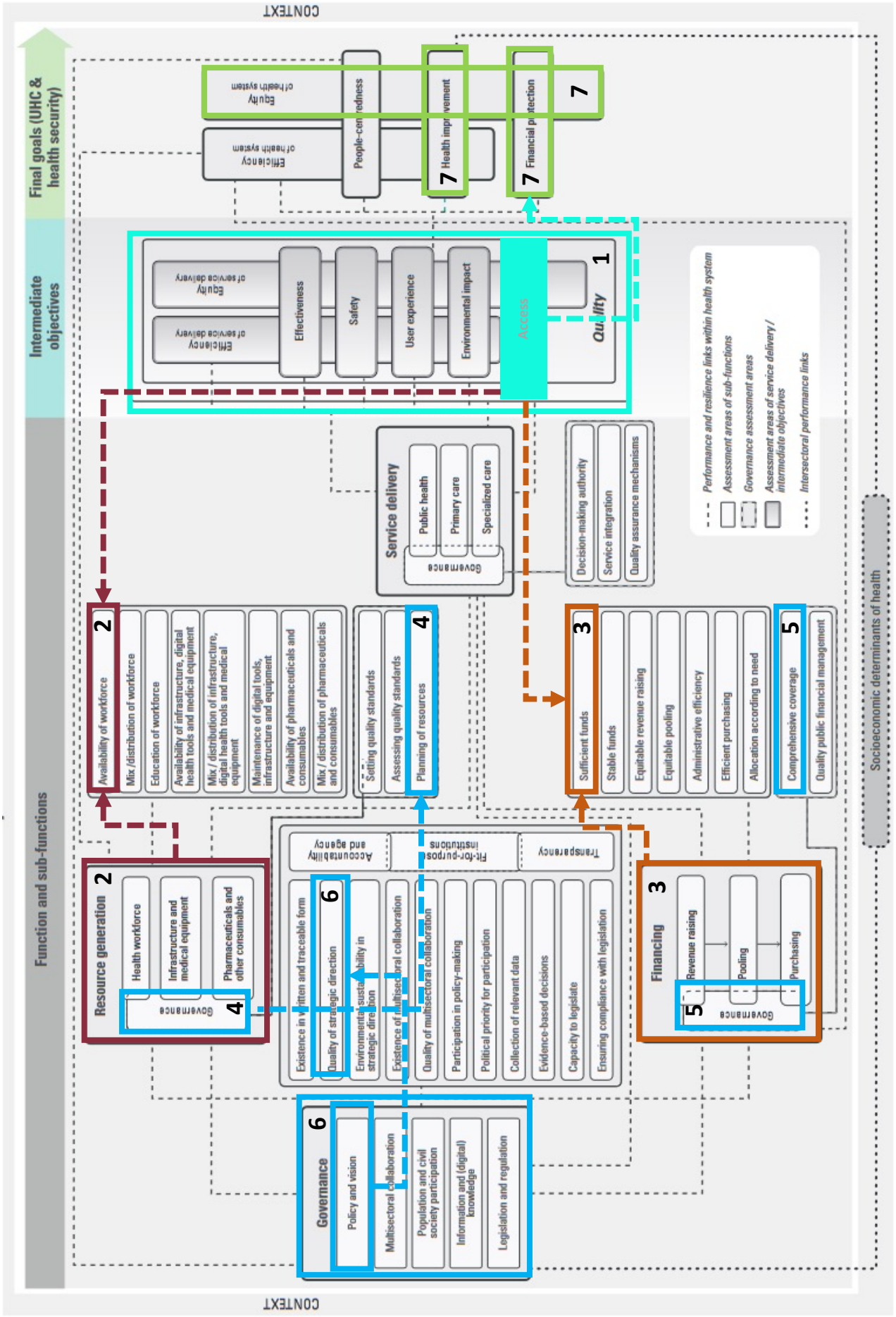

Figure 13: Resilience and performance: how one affects the other and vice versa

Source: WHO/European Observatory on Health Systems and Policies/UHC2030 HSA TWG.

9. Policy implications of the renewed HSPA framework

A number of crucial policy implications arise from the conceptual work on health system performance as presented in this brief, as well as from potential applications.

The renewed HSPA Framework offers a holistic approach to assessing health systems performance and identifying challenges, acknowledging the various interlinkages within health systems functions and goals

Using the framework as an orientation for data and information analysis reminds us that the health system needs to be examined holistically. Policy-makers and practitioners alike can easily become pre-occupied with the details of a particular policy challenge or implementation bottleneck.

Yet, long-lasting solutions, rather than stopgap measures, come about when placing the challenge or bottleneck within the context of a larger whole to better understand the upstream influencing factors and downstream impact.

Put differently, the framework strongly orients its user towards in-depth reflection on both what goes into the system and its outcomes; that is, both the means to achieve final system goals as well as the goals themselves. There may be situations where the balance of assessment information collected is skewed towards either the input or the outcome side – applying the HSPA Framework will nevertheless bring its user back to the reality that system functions shape system performance and resilience, and vice versa.

Understanding the linkages between functions and goals also helps to identify those responsible for remedial action, thus promoting accountability

The framework meticulously outlines the myriad connections between functions, and between functions and goals, within the health system and beyond. The profound interconnectedness of all elements within the health system is what lends the system its huge potential to achieve its stated goals.

This interconnectedness is significant because it means that the root cause of a bottleneck in the health system might actually lie within a different function or sub-function vis à vis where the problem is. This provides greater clarity on where remedial action should be directed, contributing to maintaining system performance while enhancing accountability. Regarding the latter, the Framework can help pinpoint which person, group or institution should and can take responsibility for remedial, or any type of, action, information which is clearly a paramount part of a solution.

Understanding the linkages between functions and goals also helps to identify those responsible for remedial action, thus promoting accountability

Making such links while analysing health system assessment information not only helps to identify challenges that require remedial action but also assists in pinpointing which person, group or institution should and can take responsibility for that action – thereby promoting accountability and providing a basis to address the health system challenge.

The concepts of health system performance and resilience are closely related

Thinking through health system performance provides the foundation for understanding resilience. The resilience example in section 8.3 shows that absorbing the effects of a shock boils down to whether health system functions and sub-functions remain high-performing (resilient) or not, and whether the linkages between the different functions and goals are durable (resilient) in all types of circumstances.

Health system performance and the concept of value in health

Value in the health sector is fundamentally about whether a policy intervention explicitly act as levers to catalyse achievement of health system goals. Creating value can therefore be seen as actions that provide the crucial push towards improved system performance. Examples include interventions that make health service purchasing more strategic and less passive; incentives that motivate health workers to provide more patient-centred care; the selection of a health benefit package through a health technology assessment mechanism; and many more (Smith et al., 2020).

Further work on the framework includes developing tracer indicators for the different assessment areas in real world situations and within specific country settings

The next phase of work in this area will continue on-going efforts to test assessment areas and validate linkages, the aim being to better understand which quantitative indicators and/or qualitative question sets give users a more accurate sense of sub-function, function, or overall system performance. One part of that task is moving towards a dashboard of tracer indicators which countries agree are feasible and realistic to access or collect on a regular basis.

The number of indicators need to be kept to a bare minimum as the HSPA tracers are only meant to detect something irregular at a very macro level of the system. The idea here is to gain a broad insight into the health system based on a good breadth of data and information rather than go in-depth in analyzing one sub-section of it through a large number of specialized indicators. For example, the policy brief #xyz by Karanikolos et al. offers an initial set of high-level tracer indicators to help detect major systemic weak points which serve to explain low health system performance. This kind of work can help operationalize the Framework moving forward, allowing feedback from such exercises to fine-tune, adapt, and update it over the following years as needed.

In addition, verifying how the different assessment areas and sub-functions play out in different national settings will feed into regular framework updates and more implementation-focused health system performance research.

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