

Swiss Learning
Health System

Improving the assessment of the performance of health systems in times of crisis

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List of abbreviations

EU	European Union
FOPH	Federal Office of Public Health
FSO	Federal Statistical Office
HSPA	Health System Performance Assessment
Obsan	Swiss Health Observatory (Observatoire suisse de la santé)
OECD	Organization for Economic Cooperation and Development
SLHS	Swiss Learning Health System
WHO	World Health Organization

Key Messages

Background and Context

Crises, such as environmental, financial, social, or health-related events, can severely disrupt health systems, impacting routine medical and public health services. The COVID-19 pandemic in Switzerland exemplified such a crisis, significantly challenging the Swiss health system with increased deaths, reduced hospital admissions, and intensified demands on intensive care. Assessing health system performance during crises is crucial but lacks a universally accepted method.

The Issue

One of the main tools currently used to assess the performance of a health system is the Health System Performance Assessment (HSPA) proposed by the WHO in 2012. It was recently updated for using it in times of crisis by including the notion of resilience. However, this kind of framework and new vision of integrating both notions of performance and resilience jointly are newly emerging and not widely used yet. In this sense, the assessment of the Swiss health system performance in times of crisis appeared not to be up to date with new developments and needs special attention to be developed within the context of a time of crisis.

Recommendations for action and implementation Considerations

	Recommendation 1: To consider <u>resilience</u> as an inherent notion of health system performance assessment to make it useful in times of crisis.	Recommendation 2: To adopt a standardized health system performance and resilience <u>framework</u> that is useful in times of crisis.	Recommendation 3: To consider resilience <u>indicators</u> when assessing the performance of a health system in times of crisis.	Recommendation 4: To facilitate health-related <u>data</u> collection and sharing.
Facilitators				
International level	Growing recognition of importance of the concept resilience	Promoting knowledge, and sharing best practices	Developing a common language and set of metrics	Financing and appropriate data collection
Swiss level	Relevance of considering resilience in the Swiss context	Investing in research	Integrating resilience assessments into routine health system performance monitoring processes and investing in research	Swiss population is willing to share anonymized health data
Barriers				
International level	Only a few governments have operationalized resilience as an integrated dimension of health system performance	Challenging to develop a one-size-fits-all framework	Unclear definition of health system resilience, costs, time-consuming, and lacking precision of indicators	Lack of budget, poor performance of managers, low data quality, and low stakeholders' interest/motivation
Swiss level	Discussions centered on reducing health care costs	Complexity of the Swiss health system	A set of performance and resilience indicators not available	Switzerland's highly decentralized health care system

Background and Context

Any type of crisis (environmental, financial, social or sanitary, for example) can profoundly impact health systems and the delivery of routine medical and public health services. A crisis (i.e. disruption) can be characterized by a period of difficulty, danger or uncertainty, usually caused by unexpected events that perturb the usual operational structures of healthcare facilities (1) and can be declined in four different phases: 1. Preparedness, 2. Shock onset and alert, 3. Shock impact and management, 4. Recovery and learning (2).

In Switzerland, as elsewhere, the recent COVID-19 pandemic and its consequences such as the lockdown have placed a considerable challenge on the entire health system (3,4). In 2020, there was a drop in hospital admissions (-5%), consequence of the obligation to forego non-emergency medical treatment and a decline in the number of elderly residents in nursing homes (-3% for long-stay admissions). At the same time, the number of deaths increased significantly in both hospitals (+8%) and nursing homes (+16%). The hospitalizations between March 16 and April 5 accounted for 51% more hours in intensive care than during the same period in previous years (5). Thus, the notion of health system performance has been highlighted and its evaluation in times of crisis has been subject to discussion (6–8).

The most widely used approach to evaluating a health system is to assess its performance. The World Health Organization (WHO) stated in 2007 that health system performance refers as how far health systems achieve their desired goals (9), such as: to improve the health of the population, to respond to the reasonable expectations of the population, and to provide financial protection against the costs of ill-health (9,10).

The Organization for Economic Cooperation and Development (OECD) emphasizes that tracking and monitoring health system performance is a crucial element for achieving well-performing, resilient, and people-centered health systems. The organization also highlights the importance of using up-to-date information on the functioning of the system as a prerequisite for measuring and improving resilience (11). While several approaches have been proposed to simplify the assessment of health system performance (12), there is currently no universally accepted method for assessing it in times of crisis.

The Issue

One of the main tools currently used to assess the performance of a health system is the Health System Performance Assessment (HSPA) proposed by the WHO in 2012, which evaluates the health system as a whole, linking health outcomes to strategies or functions using a limited number of quantitative indicators (13). Although a crisis can have a major impact on the system itself, this tool has long been not adapted to a time of crisis, since it does not consider the components of a crisis.

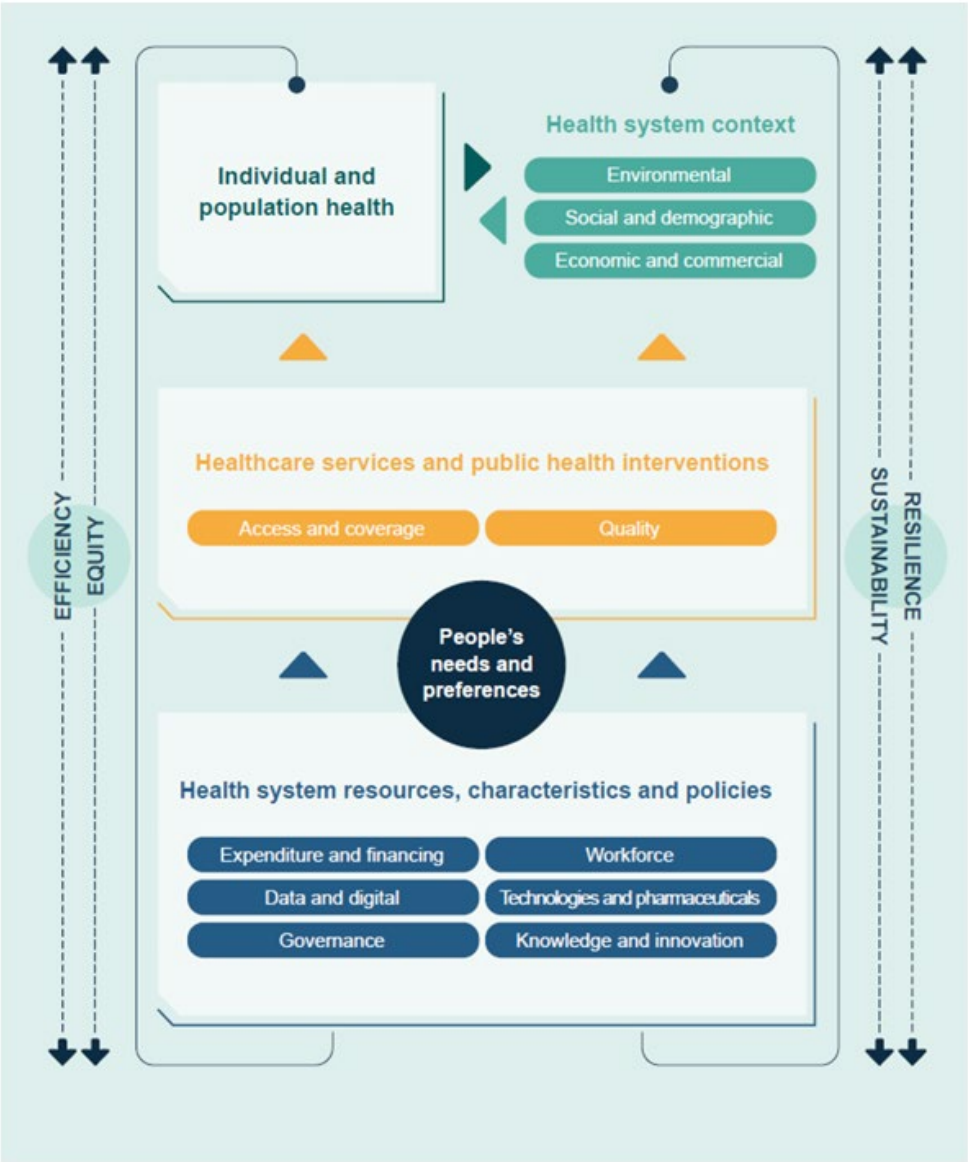


Figure 1: Renewed OECD Health System Performance Assessment Framework (8)

The pandemic revealed that many health systems were underprepared and not as resilient as previously thought, leading to increased emphasis on assessing and building health system resilience to future shocks (14). Thus, in March 2024, the European Observatory on Health Systems and Policies (hosted by WHO) in collaboration with the OECD published a practical handbook for resilience testing (15), in which they proposed to adapt the HSPA framework for using it in times of crisis by including the notion of resilience. They defined health systems

resilience as “how well the key health system functions perform in the face of shocks, and therefore the extent to which the system as a whole can continue to meet its intermediate and final objectives”. They argue that the “HSPA Framework serves as a conceptual framework that allows for systematic assessment of resilience that considers each individual part of the health system”. The OECD although recently updated its HSPA framework to integrate new dimensions of performance such as resilience, people-centeredness, and environmental sustainability (Figure 1 (8)). Combining the notions of resilience and performance through a joint framework is one of the first steps to adapt the assessment of health system performance in times of crisis. However, these frameworks and new vision of integrating both notions together are newly emerging and not widely used yet.

COVID-19 has demonstrated that the European Union (EU) has a role to play in supporting member states in their efforts to enhance the performance of their respective health systems, particularly by strengthening cooperation and action with the EU to identify best practices in HSPA, facilitating cross-country learning, and developing common benchmark criteria for HSPA (16). In Switzerland, there are several comparative and analytical studies to assess performance of the Swiss health system relative to those of other countries, such as the OECD publication *Health at a Glance*, the Commonwealth Fund’s *International Health Policy Surveys*, and the European Observatory on Health Systems and Policies’s *Health Systems in Transition* series (new version for Switzerland in 2026) (17). However, none of these studies place a particular emphasis on a time of crisis.

Given that context, the assessment of the Swiss health system performance in times of crisis appeared not to be up to date with new developments from the WHO and the OECD, and needs special attention to be developed within the context of a time of crisis.

Recommendations

In order to respond to the issue of assessing the performance of the Swiss health system in times of crisis and based on a literature review, we present four recommendations that could be implemented in Switzerland. In an optimal scenario, all four recommendations would be implemented, but since it may not be possible to consider them all in real life due to available resources, it is important to first discuss the feasibility of each recommendation.

Recommendation 1: Considering resilience

As shown in figure 2, when a crisis (i.e disruption) impacts a health system (onset of disruption), its performance can decline as the system absorbs the crisis. The health system will then recover from the crisis, to reach pre-crisis performance level. When the system is in the process of adapting, its performance may increase since it has learned from the crisis.

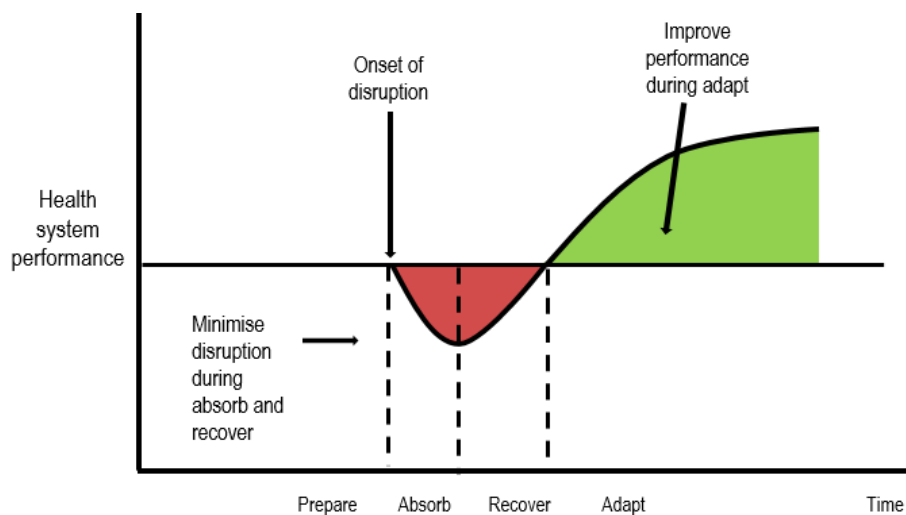


Figure 2: The four stages of a response over time (18,19)

The ability of a health system to anticipate, manage, adapt to and learn from sudden and severe disruptions (2) refers to its resilience. The term resilience was mainly used in fields such as psychology, ecology, engineering and materials science (20,21) and arose in health systems research following crises such as Ebola in West Africa in 2014 and the recently COVID-19 pandemic (14,22–24).

A resilient health system is essential to ensure continuity in the delivery of essential health services in the event of a crisis, and thus guarantee its performance (25). A resilient response to a shock implies the implementation of strategies that maintain the functioning of health systems and preserve overall performance (26).

As the notions of performance and resilience cannot be separated in times of crisis, it would be worth to combine both concepts, and assess them over time to understand how health systems resist to crises and help them cope adequately with future shocks. Moreover, aligning the concepts of performance and resilience for the assessment of health systems was recently supported by the WHO in their work in progress on “Improving the performance and resilience of

health systems” (16). Thus, the first recommendation addressed to decision-makers to improve the performance assessment of the Swiss health system would be to consider resilience as an inherent notion of health system performance assessment in times of crisis. For this purpose, a practical handbook for resilience testing has been published by the WHO (15) and could be used to test the resilience of the Swiss health system and improve its performance in a time of crisis.

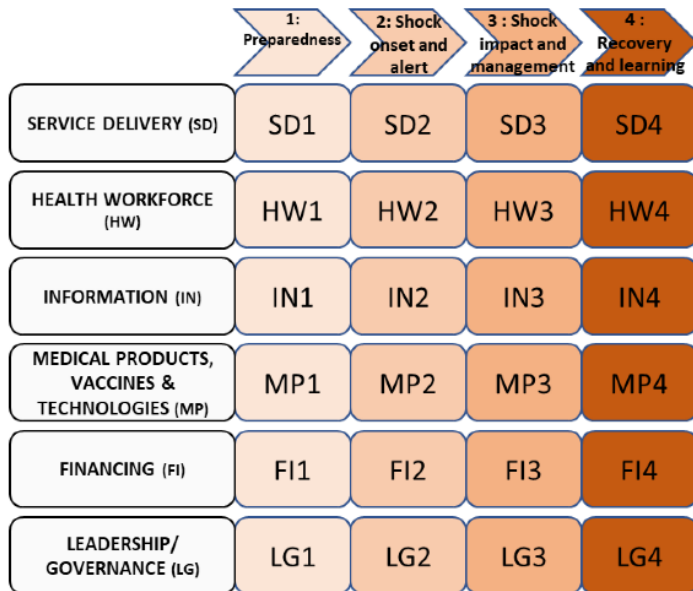
Recommendation 1:

To consider resilience as an inherent notion of health system performance assessment to make it useful in times of crisis.

Recommendation 2: Standardizing a framework that integrates the resilience

To develop the idea of the first recommendation further, we have already proposed an adapted framework that combines the two notions of performance and resilience (Figure 3) (27). This model is based on the well-known WHO performance model, the Six-Building Blocks model (including service delivery, health workforce, information, medical products, vaccines and technologies, financing, and leadership/ governance) (28) and the resilience model proposed by Thomas et al. (2), the latter conceptualizing the phases of a crisis. In this adapted framework, the six building- blocks are organized according to the four phases of a crisis (preparedness, shock onset and impact, shock management, and learning/recovery). In this way, the performance and resilience evaluation are adapted according to the phase of the crisis in which the system finds itself. More details and explanations about this framework can be found in this reference: (27).

Health System building blocks and their evolution during a crisis



Outcomes/ Goals and their evolution during a crisis

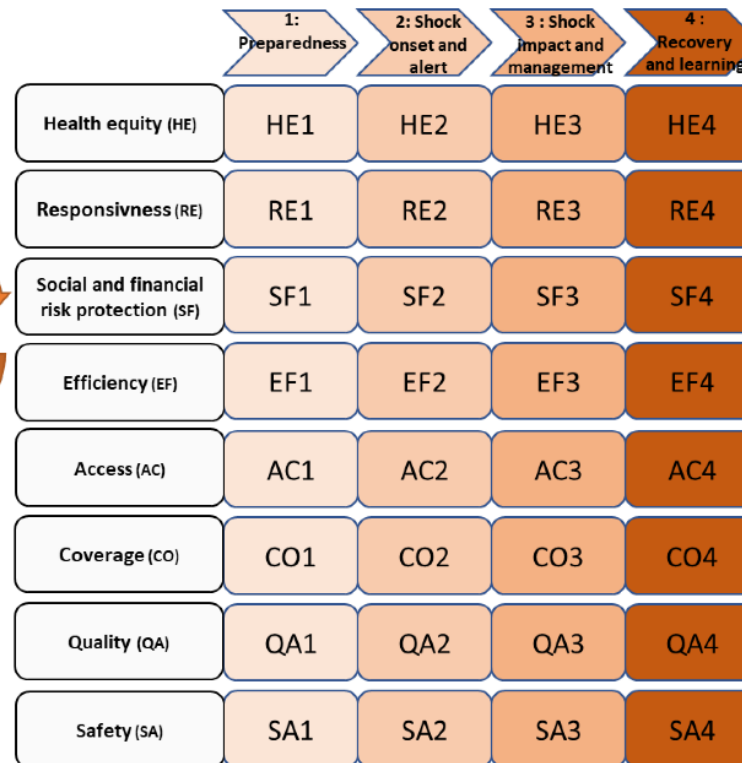


Figure 3: Health system performance and resilience framework (27)

Adapted conceptual frameworks, such as the ones from the European Observatory on Health Systems and Policies (15) and the OECD (8) or the one from our recent work (figure 2) (27), enable a common language, systemic analysis of health system functions and more useful performance evaluation results in times of crisis for policy-makers. The adoption of one of these frameworks combining the notion of performance and resilience as one's standard could enable the policy makers to find reliable systematic and standardized information on the design and functioning of a health system and comparable information on other countries' health systems in times of crisis. Moreover, it can enhance understanding of the Swiss health system characteristics, strengths and limitations in times of crisis for evaluators, researchers, and public health practitioners (29).

Recommendation 2

To adopt a standardized health system performance and resilience framework that is useful in times of crisis

Recommendation 3: Considering resilience indicators

In order to have a framework that is practical and to develop the idea of recommendations 1 and 2 further, it is important to consider resilience indicators. A systematic review on health system resilience metrics and indicators in high-income countries revealed that the measurement of health system resilience is essential for understanding and building resilient health systems (30). The consideration of indicators measuring the impact of challenges/crisis is necessary in all health system performance frameworks to ensure that the perspective of health system resilience is taken into account. This means to monitor and analyze the evolution of specific indicators regarding the performance and the resilience jointly. Therefore, a list of indicators regarding the performance and the resilience should be proposed, which should be based on an adapted framework as the one proposed in our recent work (27). For example, on one hand, unmet healthcare needs and avoidable mortality could be two high-level indicators among others to assess the performance of a health system (31). On the other hand, emergency workforce planning and emergency funds could be part of a resilience assessment (15).

To put this into practice, here are some key steps suggested by the WHO for establishing a list of essential indicators (Figure 4, (13)): 1. Identify sources for indicator inventory, 2. Inventory potential indicators, 3. Pre-select indicators according selection criteria defined before, 4. Draft concise indicator passports (document in which each indicator is described in detail), and 5. Convene an expert panel to develop consensus on set of indicators. Non-health-related indicators such as restrictive measures during the COVID-19 pandemic (for example, the restriction of personal mobility) or socio-economic indicators can also influence the performance and the resilience of a health system in times of crisis. These kinds of indicators should also be taken into account in a second step.

- A. Define on methodology, including A1 , A2, A3
- A.1. Identify sources for indicator inventory
- A.2. Agree on selection criteria at different stages
- A.3. Elaborate structure of indicator passports (concise and detailed versions)

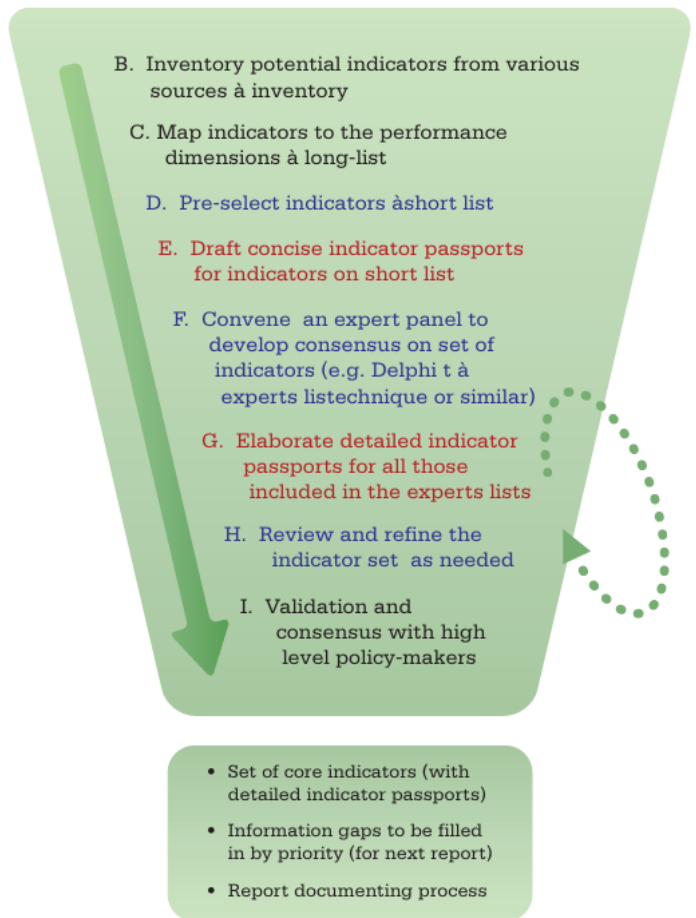


Figure 4: Process for selecting a core set of indicators (WHO 2012 (13))

In Switzerland, the Federal Office of Public Health (FOPH) and the Federal Statistical Office (FSO) work conjointly with the Swiss Health Observatory (Obsan) on health indicators. One of the goal of the Obsan, a Swiss national institution, is to produce and update a series of indicators on health and the healthcare system, for the following themes: population health, mental health, age and long-term care, health care system, healthcare professionals, and costs and financing (32). Thus, it would be valuable to encourage the Swiss authorities to work on resilience indicators.

Recommendation 3

To consider resilience indicators when assessing the performance of a health system in times of crisis

Recommendation 4: Greater availability of health-related data

Encouraging stakeholders to collect and share their data is key when health system performance and resilience assessment in times of crisis is desired. A robust health system performance assessment is inextricably linked to data availability. Health-related data from various sources,

such as registers, surveys, hospital data, and medical records, can provide valuable input for assessing health systems and contribute to public well-being (33). While measures of health inputs such as number of facilities may be broadly available across countries, quality metrics and patient-reported outcomes are not (34).

To be used in the best possible way, health-related data needs to be collected as widely as possible, so as to have a very large data set. In addition, the dataset should be uniform so that they can be used in combination. This implies a strong involvement of all partners (health institutions for example) and stakeholders (politicians, doctors, population/patients etc...) in data collection.

The recommendation to encourage stakeholders to collect and share their data in a similar way for better health system performance and resilience assessment in times of crisis is essential for understanding, measuring, and improving the resilience of health systems, ultimately contributing to the delivery of high-performing and performant healthcare. Furthermore, in order for data to be shared and used appropriately, there needs to be strong data protection laws and practices that respect ethics committees.

In Switzerland, in 2016, the State Secretariat for Education, Research, and Innovation (SEFRI) and the FOPH launched the Swiss Personalized Health Network (SPHN) initiative to support and promote personalized health in Switzerland. It focused on establishing a nationally coordinated data infrastructure, facilitating harmonized data exchange between various hospitals and research institutions (35). In 2021, the SERI has recognized the need to strengthen the institutional dialogue between the public actors of clinical research, including the perspective of public health. It has mandated the Swiss Academy of Medical Sciences to set up and manage a national coordination platform for clinical research (CPCR) to help define concerted priority action areas for publicly funded clinical research. Although these two initiatives were a good starting point, we need to develop this idea even further with greater availability of health-related data. That is why in fall 2022, the national multidisciplinary public health sciences community of SSPH+ and the national society of public health professionals—the Swiss Society for Public Health published a white paper in which they argued that a Swiss Cohort and Biobank will strengthen the development of population health sciences and of public health surveillance in Switzerland (36).

Recommendation 4

To facilitate health-related data collection and sharing

Implementation Considerations

The implementation of these four recommendations could enable a clear and sensitive assessment of the performance and the resilience of the Swiss health system, particularly in time of crisis. To effectively implement these recommendations, governments must be prepared to allocate more resources. Cantonal and the national government must also have the capacity to take short-term and longer-term management decisions according to this assessment and follow-up actions based on the data analysis.

Assessing the performance and resilience of a health system during a crisis is only worthwhile when subsequent steps are taken to analyze the data and feed the resulting information into decision-making processes, not only at the international level but also at the national level, and at lower levels, such as cantons, or municipalities – where it can alert authorities to problems that need to be addressed, and to find appropriate solutions. Only then can it help to improve performance and resilience of delivering health services. The current literature allowed to identify some facilitators and barriers to the implementation of each recommendation, which will be discussed during a stakeholder dialogue, later on:

Facilitators and barriers to the implementation

Table 1: Facilitators and barriers to the implementation of the recommendation “considering the resilience”

Level	Facilitators	Barriers
International level	Growing recognition of importance of the resilience in health system performance assessment at the international level (OECD and WHO, for example (8,15))	A survey of European countries (Switzerland not included) found that only a few governments have operationalized resilience as a standalone dimension of health system performance (37)
Swiss level	Relevance of considering resilience in the Swiss context since assessing resilience can help identify weaknesses and vulnerabilities of the Swiss health system, which could inform strategies to improve preparedness and response capabilities in times of crisis	Traditionally, discussions about the Swiss health system have centered on reducing health care costs, which may overshadow the importance of resilience indicators (38)

Table 2: Facilitators and barriers to the implementation of the recommendation “Standardizing a framework that integrates the resilience”

Level	Facilitators	Barriers
International level	Promoting knowledge, and sharing best practices among countries (39) to accelerate the adoption of an existing adapted frameworks such as the ones from the WHO (15) or OECD (8), or the one proposed in our recent work (27)	Health systems vary significantly across countries, making it challenging to develop a one-size-fits-all framework that is applicable in all settings (40)

Swiss level	Investing in research to refine conceptual frameworks that would fit the Swiss health system	The complexity of the Swiss health system and its interactions within the health system and with the non-health system factors make it difficult to validate a unique and standardize framework
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Table 3: Facilitators and barriers to the implementation of the recommendation “Considering resilience indicators”

Level	Facilitators	Barriers
International level	Developing a common language and set of metrics for discussing and measuring health system resilience (30)	There is a lack of consensus on the exact scope and definition of health system resilience (20), which complicates development of resilience indicators. Moreover, many indicators are costly to collect, take time and are not sufficiently precise (make difficult to have SMART indicators)
Swiss level	Integrating resilience assessments into routine health system performance monitoring processes and investing in research to develop empirically validated indicators of health system resilience (could be made by the Obsan for example)	A set of performance and resilience indicators covering all domains of a health system, with specific targets for different time phases, is still needed and not available yet (27).

Table 4: Facilitators and barriers to the implementation of the recommendation “Greater availability of health-related data”

Level	Facilitators	Barriers
International level	Financing and appropriate data collection (41)	Lack of budget, poor performance of managers, low data quality, and low stakeholders’ interest/motivation (41)
Swiss level	Swiss population (71%) is willing to share anonymized health data, given that some key concerns are addressed such as data privacy and transparent data usage (42)	Switzerland’s highly decentralized health care system, where private service providers and insurers play important roles, may complicate the implementation of uniform data collection (38)

Policy Briefs and Stakeholder Dialogues of the Swiss Learning Health System

The Swiss Learning Health System (SLHS) was established as a nationwide project in 2017, involving academic partners across Switzerland. One of its overarching objectives is to bridge research, policy, and practice by providing an infrastructure that supports learning cycles.

Learning cycles enable the continuous integration of evidence into policy and practice by:

- continuously identifying issues relevant to the health system,
- systemizing relevant evidence,
- presenting potential courses of action, and
- if necessary, revising and reshaping responses.

Key features of learning cycles in the SLHS include the development of **Policy Briefs** that serve as a basis for **Stakeholder Dialogues**.

A **Policy Brief** describes the issue at stake by explaining the relevant contextual factors. It formulates a number of recommendations to address the issue (evidence-informed recommendations, when available), and for each possible recommendation, it explains relevant aspects and potential barriers and facilitators to their implementation.

Policy Briefs serve as standalone products to inform interested audiences on potential courses of actions to address the issue, as well as input for Stakeholder Dialogues.

A **Stakeholder Dialogue** is a structured interaction where a variety of key stakeholders are brought together for the purpose of defining a common ground and to identify areas of agreement and disagreement on how to solve issues in the Swiss health system. Based on a Policy Brief, stakeholders discuss the issue, recommendations, and barriers and facilitators, and work collaboratively towards a common understanding of the issue and the best course of action. The dialogue takes the form of a deliberation to ensure that stakeholders work together to develop an understanding and solutions that are acceptable to all parties.

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