



# Integrity and resilience of the Health Systems following the Covid-19 pandemic

**Opinion on  
the organisation of resilient health and social care  
following the COVID-19 pandemic**

**Expert Panel on Effective Ways of Investing in Health  
(EXPH)**



## Expert Panel on Investing in Health

The Expert Panel on effective ways of investing in health is an **interdisciplinary and independent group established by the European Commission to provide non-binding independent advice** on matters related to effective, accessible and resilient health systems. The Expert Panel aims to support DG Health and Food Safety in its efforts towards **evidence-based policy-making**, to inform national policy making in improving the quality and sustainability of health systems and to foster EU level cooperation to improve information, expertise and the exchange of best practices.

## Expert Panel members (2019-2022)

**Prof. Jan De MAESENEER (Chair)**  
**Dr Anna GARCIA-ALTES (Vice-Chair)**  
**Prof. Damien GRUSON**  
**Dr Dionne KRINGOS**  
**Prof. Lasse LEHTONEN**  
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**Prof. Sabina NUTI**  
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**Dr Dorothea STAHL**  
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**Dr Sergej ZACHAROV**  
**Dr Jelka ZALETEL**



Picture taken  
in pre-  
corona times

## Mandate: Questions for the Expert Panel

- What are the **building blocks to improve care organisation** (structures, processes, resources, interrelationships), and what criteria should be used for a continuous evaluation of the appropriateness of service delivery capacity of primary care, outpatient specialist and hospital care and social care?
- What are the elements and **conditions for capacity building** in primary care, outpatient specialist and hospital care and in social care that would strengthen their overall robustness to unpredictable events and capacity to ensure access to care and treatment continuity?

## Mandate: Questions for the Expert Panel

- How can **healthcare provision be sustained for vulnerable patient groups** with urgent needs for care/cure, like patients with rare conditions, cancer patients or patients on the transplant waiting list, frail elderly, disabled people, refugees, prison populations etc.?
- What would be the **criteria to resilience-test health systems** for unpredictable high-pressure scenarios, what methodologies and models can be used to carry out such resilience tests, and how can the results of these tests be translated into well-documented analytical approaches and practical guidelines?



# Drafting group

**Chair:** Prof. Jan DE MAESENEER

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The views in this presentation are those of the independent scientists who are members of the Expert Panel and do not necessarily reflect the opinion of the European Commission nor its services.

## Operational Definition of “Resilience”

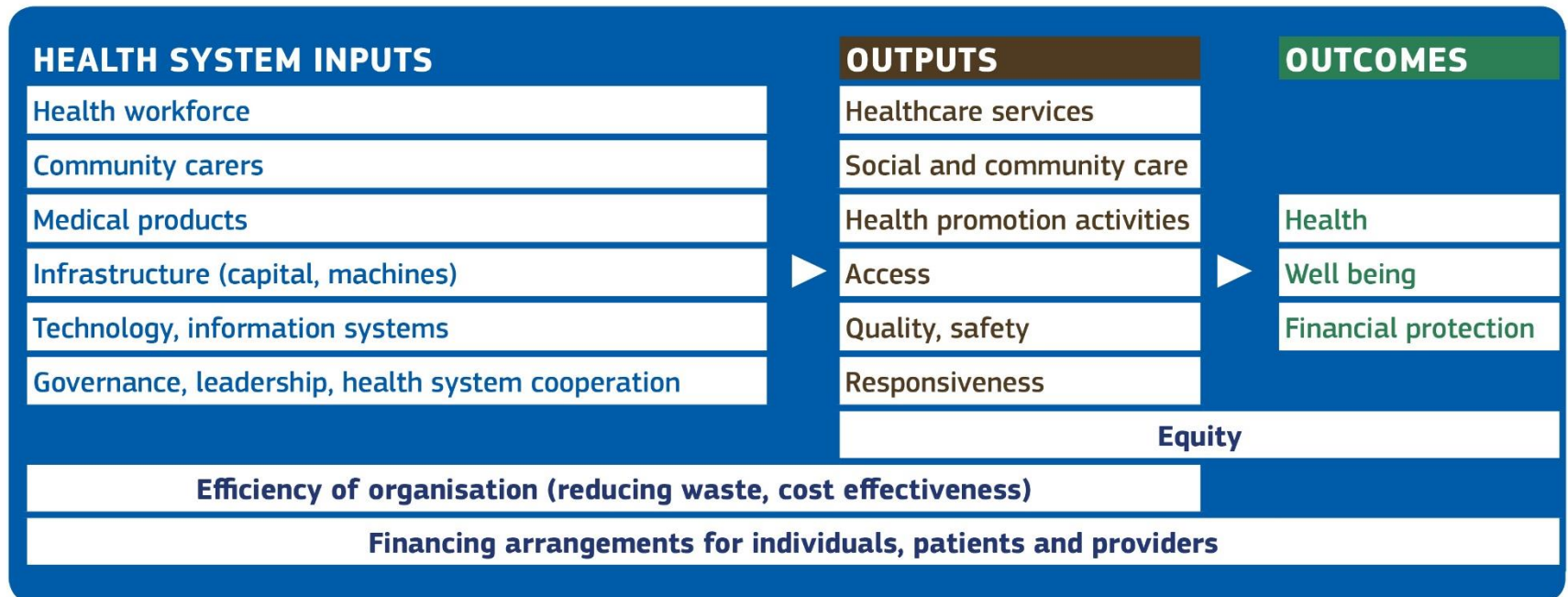
*“The capacity of a health system to (a) proactively **foresee**, (b) **absorb**, and (c) **adapt** to shocks and structural changes in a way that allows it to (i) **sustain** required operations, (ii) **resume** optimal performance as quickly as possible, (iii) **transform** its structure and functions to strengthen the system, and (possibly) (iv) **reduce its vulnerability** to similar shocks and structural changes in the future.”*

Source: The Expert Group on Health System Performance Assessment (HPSA), Opinion, to be published at [https://ec.europa.eu/health/systems\\_performance\\_assessment/priority\\_areas\\_en](https://ec.europa.eu/health/systems_performance_assessment/priority_areas_en)

# Health system framework and building blocks



# Framework and building blocks





# Conditions for capacity building of resilient health and social care



# Integrating and using different forms of information for actionable decision-making

- Access to appropriate data (measurement capacity)
  - *Data on health determinants and vulnerable populations*
  - *Information on and beyond the health system*
  - *Cross-country standardized information*
  - *Public and patient reported data*
- The system to manage information (information governance capacity)
- The ability to deliver knowledge for its use (data use capacity)
  - *Need for independent trusted advisory structures*
  - *Actionable public-facing information platforms*

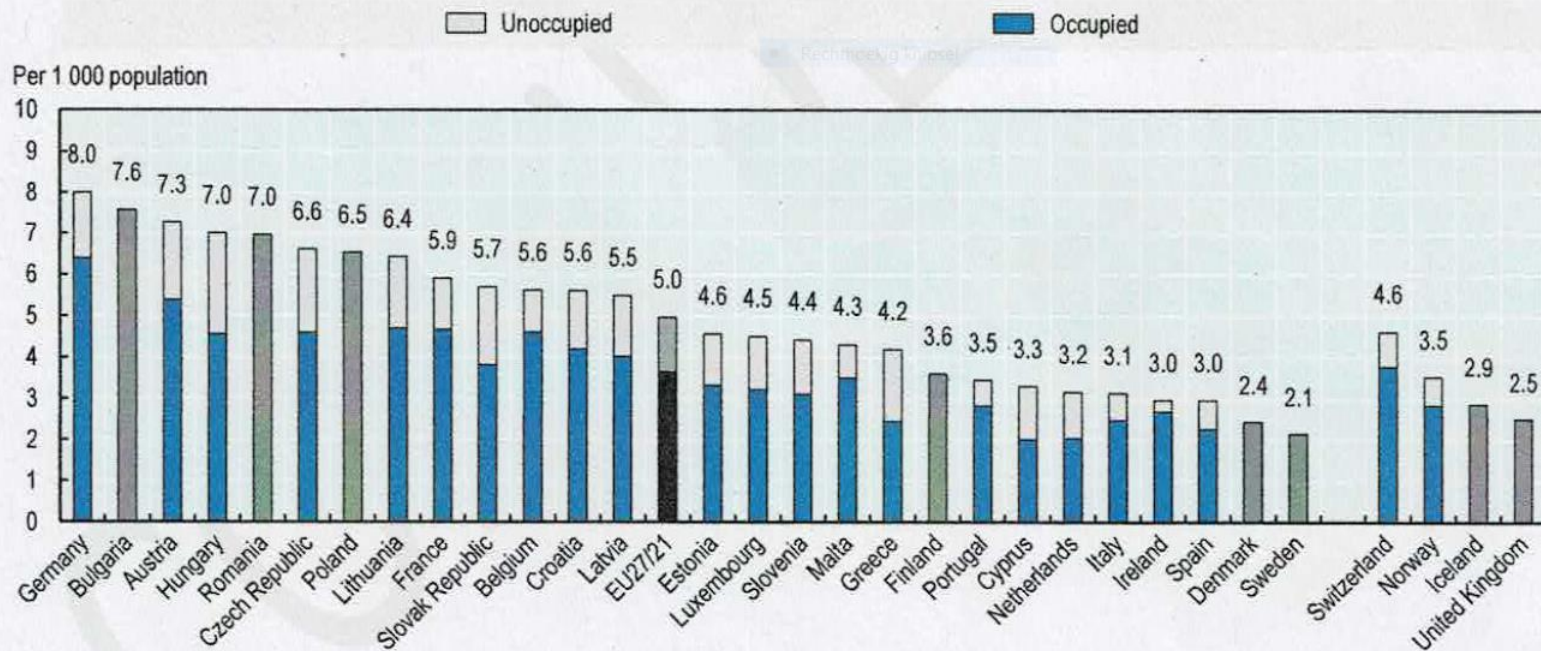
## Disseminating knowledge and good practice

- Newly emerging evidence on reducing transmission risk, treatment infected patients, addressing psychosocial context of COVID-19 at individual and community level
- Translation evidence from research into clinical practice
- Lack of international mechanism to exchange scientific knowledge among all relevant disciplines
- Insight in process of evidence translation and sharing between specialities and across countries



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Figure 5. General hospital capacity – hospital beds and average share occupied before the COVID-19 crisis, 2018 (or nearest year)



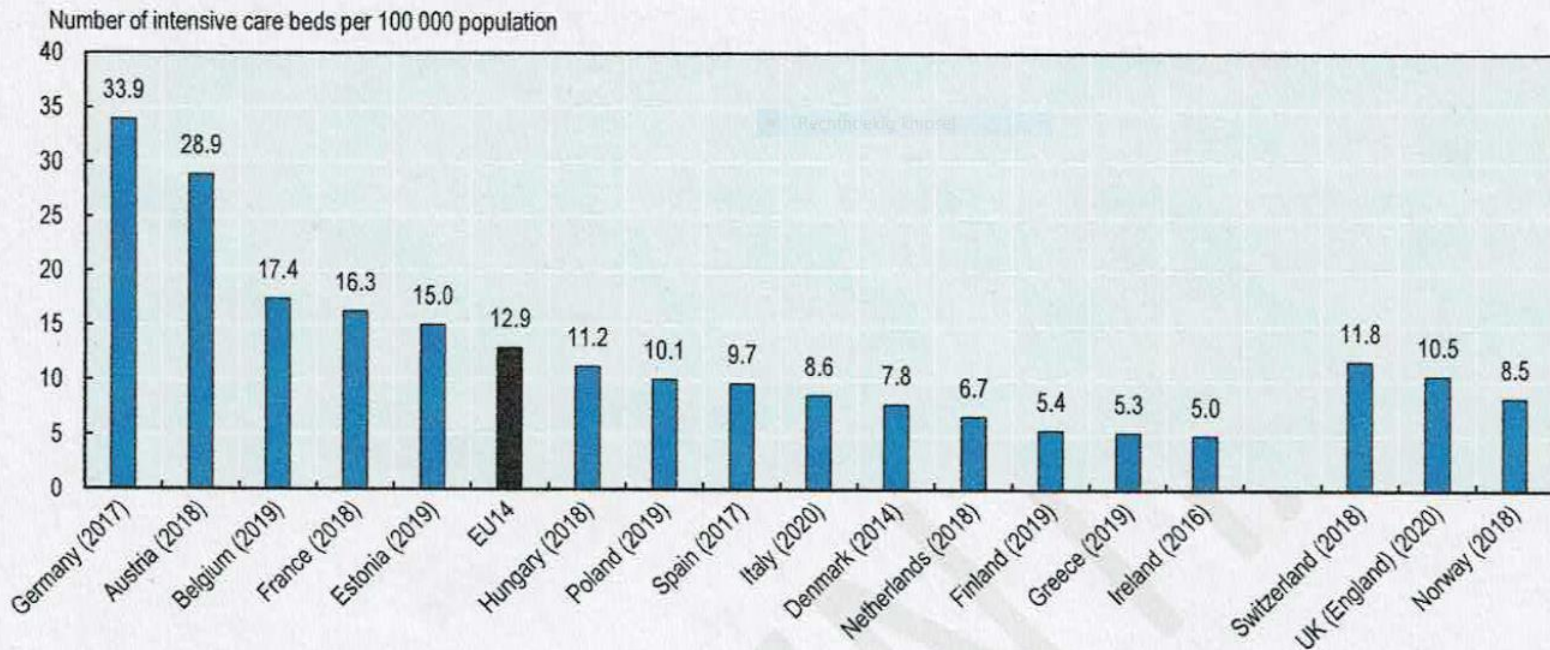
Note: The EU average is unweighted. Hospital beds include all beds regularly maintained and staffed within general hospitals, mental health and substance abuse hospitals, and other speciality hospitals. Beds in residential long-term care facilities are excluded. Note that occupancy rates are calculated on the basis of curative (acute) care beds – within which, intensive care beds are a small sub-category.

Source: OECD Health Statistics 2020; Eurostat Database.



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Figure 6. Intensive care capacity – ICU beds before the COVID-19 crisis, latest available year



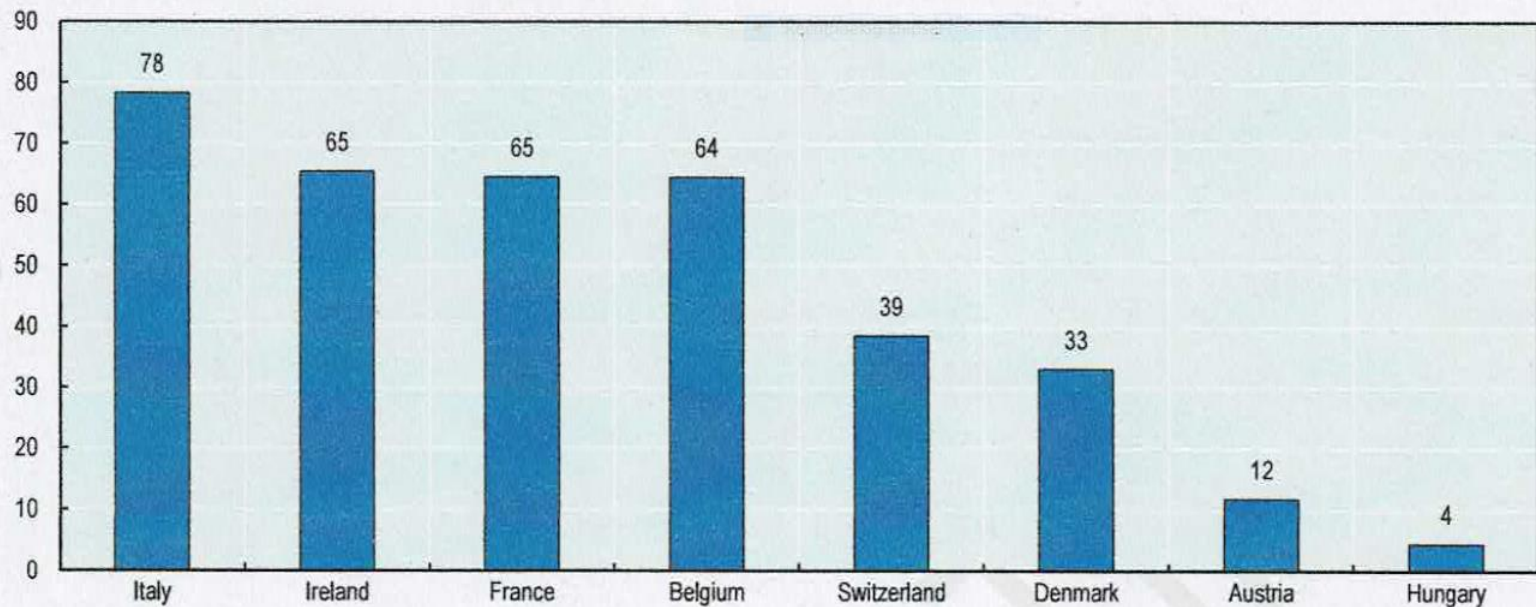
Note: There may be differences in the notion of intensive care affecting the comparability of the data. Data refers to adults only in Belgium and Ireland; to all ages in Germany, England and Spain. Data in France includes "lits de réanimation adulte" (except severe burns) and "lits de soins intensifs" (except neonatology) but excludes "lits de surveillance continue adulte et enfants" and "lits de réanimation enfants".

Source: German Federal Statistical Office, Austrian Ministry of Health, Belgian Ministry of Health, French Ministry of Health, Hungarian National Health Insurance Fund, NHS England, Polish Ministry of Health, Spanish Ministry of Health, Italy: (Remuzzi and Remuzzi, 2020<sup>[38]</sup>), Norwegian Health Ministry, Danish Society of Anesthesiology and Intensive Medicine, Dutch Intensive Care Society, Irish Department of Health.



Figure 7 Estimated ICUs capacity to cope with the surge in Covid-19 patients during the first peak of the outbreak in 2020 (selected countries)

Share of ICU beds occupied by Covid-19 patients at height of outbreak, %



Note: Values are based on when the number of Covid-19 patients in ICU beds was at its highest, and relates this to the total number of regular ICU beds, for each country. Therefore this is an estimation only, as additional temporary ICU beds are not included in calculations.

Source: European Centre for Disease Prevention and Control (ECDC).for number of Covid-19 patients occupying ICU beds, national sources detailed in Figure 6 for number of ICU beds.

# Anticipating, coping with uncertainties/unplanned events

- Capacity and ability to **anticipate and cope** with uncertainties and unplanned events is part of the adaptive resilience of the system
- Determined by the degree system has **necessary resources** and can organize itself both prior to and during times of need
- Strong **primary care** systems form the foundation of any emergency response
- **Strategic planning**, maintaining a degree of redundancy of key resources in the public health response chain, ability to deploy resources and staff rapidly, and effective coordination of responses



## Managing interdependence and cooperation of actors

- Response to an emergency requires a **wide range of actors** to undertake a complex mix of functions, working in a coordinated manner: soft systems approach
- Each sub-system (within a system) should be connected by **clear lines of communication and accountability**, as well as data flows
- Call for calls for close working with those who must deliver within the different subsystems, drawing on principles of:
  - coproduction
  - scenario analyses
  - tracing critical pathways



## Legitimate, socially accepted institutions, measures & norms

- Partnership between government and the public
- Most measures seek to bring behavioural changes
- Political leaders must earn and work to retain trust
- The public has right to expect decisions based on best available evidence: decisions need to be logically coherent
- Information should be given by those who are trusted
- Application of policies needs to be consistent

# Procuring and distributing the necessary resources

- Emergency planning includes provisions for emergency procurement
- The Directive on public procurement includes provisions to set aside some of the usual requirements & the Joint Procurement Agreement (JPA) sets out practical arrangements
- Suspension of conventional procedures pose a risk of abuse
- Establish anti-corruption and governance tools focused on transparency, oversight, and accountability
- OECD proposed a series of short-term measures to minimise the risk of procurement failures in an emergency



# Protecting mental health of population and health workers

- Emergency response measures may profoundly impact mental health
- Public health priority requiring behavioural strategies
- Health workers affected are at significant risk of long-term mental illness, especially if they are unable to obtain appropriate support
- (personalised) Recovery plans:
  - written and verbal thanks with psychological support info
  - supervisors speaking about mental health
  - monitoring those exposed, proactive case finding at risk for mental illness
  - mechanisms for mutual support (E.g. group discussions)



# Retain, prepare, distribute and flexibly increase staff capacity

- **Invest** in adequate (level and distribution), locally trained, motivated and well-supported health and care work force
- **Strong primary care** is central in addressing a population crisis
- Needed to respond to sudden events while buying time to increase capacity and providing the necessary flexibility, and **to avoid disruptions** in access to and continuity of regular care
- Short-term and long-term strategies to **increase workforce capacity** that require a supporting legal framework

## **Spreading the load across facilities**

- Recent efforts to exploit the potential in spreading the load across different types of facilities
- Concerted European action needed to stimulate novel forms of public-private partnerships to respond to nationwide demand in case of crisis and trigger solutions involving both primary care and hospital players

## **Separating patients at risk and infected from other patient while assuring care continuity**

- Facility design
- Telemedicine

## Recommendations

- **Adaptive surge capacity and resilience of local health workforce;**
- **Research and development for innovative medicines;**
- **Tackling disinformation;**
- **Linking databases across systems and sectors;**
- **Investments in primary care and mental health and strengthen the integration of these systems;**



## Recommendations

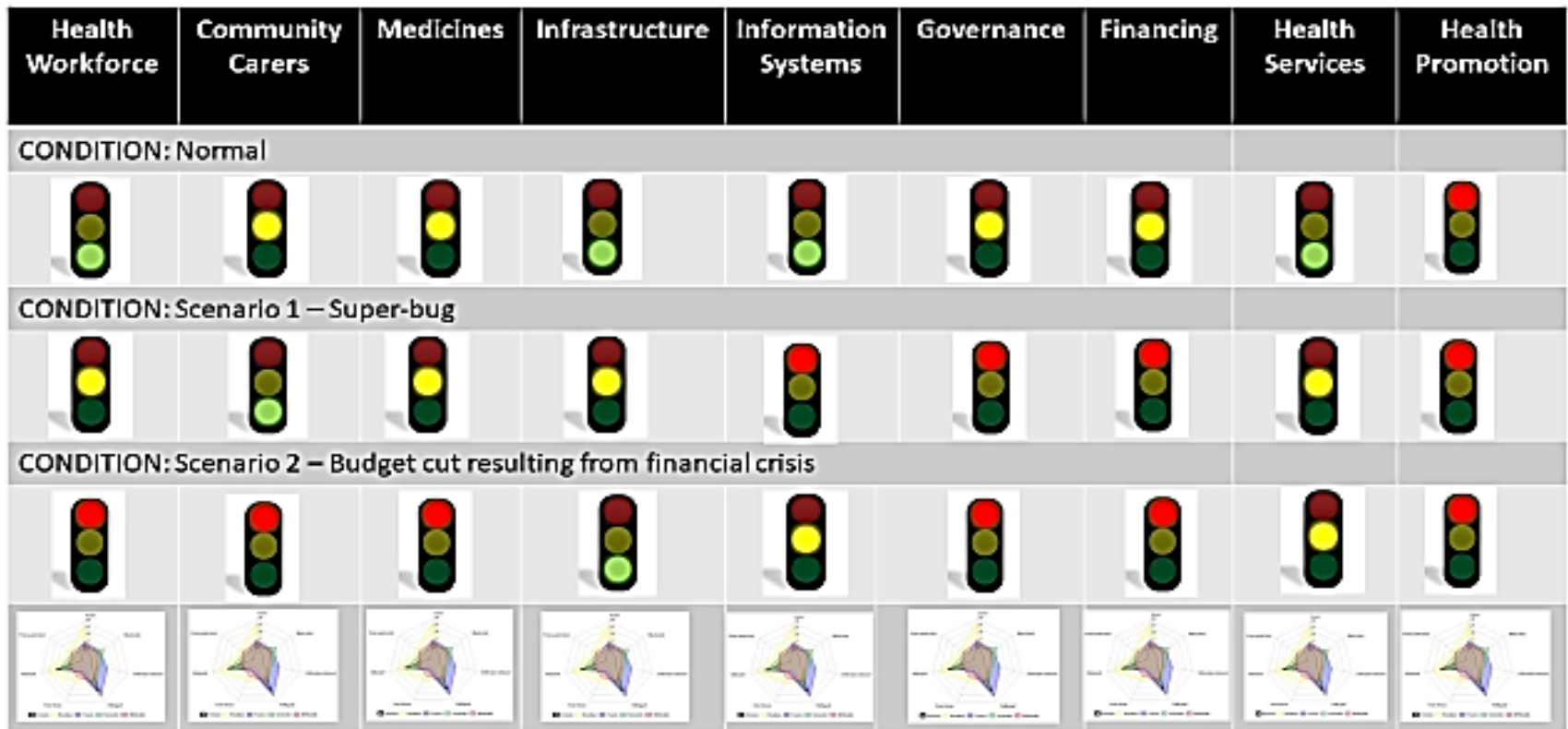
- **Equity-driven decision-making;**
- **Health promotion, lifestyle programs and inter-sectoral collaborative actions;**
- **Trainings focusing on vulnerable groups;**
- **Creation of learning communities.**



# Resilience Testing of Health Care Systems

# An Example Outcome of the Resilience Test

Sample Scorecard for a Resilience Test of a Health System





## Recommendations

- **Adaptive surge capacity and resilience of local health workforce**
- **Research and development for innovative medicines**
- **Tackling disinformation**
- **Linking databases across systems and sectors**
- **Investments in primary care and mental health and strengthen the integration of these systems**



## Recommendations

- **Equity-driven decision-making**
- **Health promotion, lifestyle programs and inter-sectoral collaborative actions**
- **Trainings focusing on vulnerable groups**
- **Resilience test toolkit and implementation methodology**
- **Creation of learning communities**