Economic Evaluation of Public Health Response to Covid-19: Is Health Economics up to the Job?

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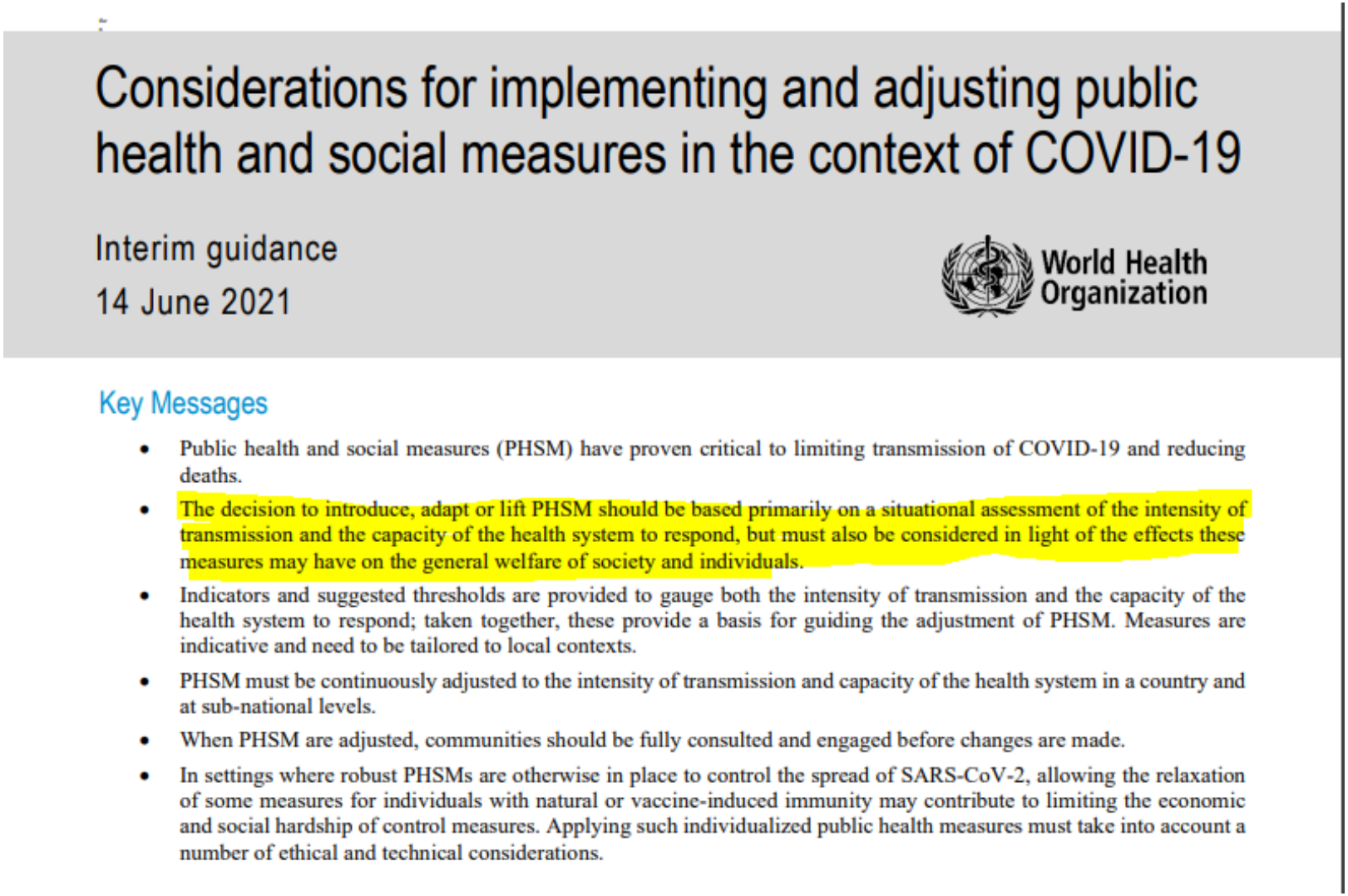
World Health Organization

Guidance on PHSM



Considerations for implementing and adjusting public health and social measures in the context of COVID-19

Interim guidance

14 June 2021

World Health Organization

Key Messages

- Public health and social measures (PHSM) have proven critical to limiting transmission of COVID-19 and reducing deaths.
- The decision to introduce, adapt or lift PHSM should be based primarily on a situational assessment of the intensity of transmission and the capacity of the health system to respond, but must also be considered in light of the effects these measures may have on the general welfare of society and individuals.
- Indicators and suggested thresholds are provided to gauge both the intensity of transmission and the capacity of the health system to respond; taken together, these provide a basis for guiding the adjustment of PHSM. Measures are indicative and need to be tailored to local contexts.
- PHSM must be continuously adjusted to the intensity of transmission and capacity of the health system in a country and at sub-national levels.
- When PHSM are adjusted, communities should be fully consulted and engaged before changes are made.
- In settings where robust PHSMs are otherwise in place to control the spread of SARS-CoV-2, allowing the relaxation of some measures for individuals with natural or vaccine-induced immunity may contribute to limiting the economic and social hardship of control measures. Applying such individualized public health measures must take into account a number of ethical and technical considerations.

Situational assessment

- Develop a matrix of transmission intensity level and response capacity
- Proposed set of primary and additional indicators depending on surveillance capacity
- Proposed thresholds to be contextualized to lowest admin area
- Use of routine data, or modelling and qualitative data
- Assess and optimize adherence to existing public health measures
- Increase health system capacity for COVID-19 and other essential services, where possible
- Grading 0-4 to determine situational level

Transmission level	Response capacity		
	Adequate	Moderate	Limited
No cases	0	0	1
Imported/Sporadic cases	0	1	1
Clusters of cases	1	1	2
Community - CT1	1	2	2
Community - CT2	2	2	3
Community - CT3	2	3	3
Community - CT4	3	3	4

Source: Considerations for introducing or adjusting PHSM. Interim Guidance 4 November 2020. World Health Organization. https://www.who.int/publications/i/item/considerations-in-adjusting-public-health-and-social-measures-in-the-context-of-covid-19-interim-guidance

Health dimension

Situational level from transmission and response capacity matrix	Sub-classes of social and movement measures (illustrative)	Health Dimension (illustrative)		
		COVID-19 Health Impact	Non-COVID-19 Health Impact	Health System Impact
Level 3: Community transmission with limited additional capacity to respond and a risk that health services will be overwhelmed. More measures might have to be put in place to limit transmission, manage cases and ensure control of the pandemic.	Limit access to non-essential businesses.	Medium	Low	Medium
	Limit in-person teaching, and institute e-learning.	Medium	Low	Low
	Limit gatherings to ≤ 50 people.	Medium	Low	Low
Level 4. Uncontrolled epidemic with limited or no additional health system response capacity, thus requiring extensive measures to avoid overwhelming health services and substantial excess morbidity and mortality.	Close non-essential businesses.	High	Medium	High
	Close schools	High	Low	High
	Limit gatherings to ≤ 10 people.	High	High	High

- Extend the situational assessment
- Areas with situation level 3 or 4 may require more stringent social and movement measures to avoid overwhelming health services and excess burden from COVID-19
- Considerations of non-COVID health impact may also be relevant where continuity of other essential services is at risk

Non-Health dimensions

Situational level (indicative)	Sub-classes of social and movement measures (illustrative)	Health Dimension (illustrative)			Non-Health Dimensions *(illustrative)*			
		COVID-19 Health Impact	Non-COVID-19 Health Impact	Health System Impact	Implementation Cost	Economic Cost	Impact on Equity	Political Barriers
Level 3: Community transmission with limited additional capacity to respond and a risk that health services will be overwhelmed. More measures might have to be put in place to limit transmission, manage cases and ensure control of the pandemic.	Limit access to non-essential businesses.	Medium	Low	Medium	Medium	Medium	Medium	Medium
	Limit in-person teaching, and institute e-learning.	Medium	Low	Low	Medium	Low	High	Medium
	Limit gatherings to ≤ 50 people.	Medium	Low	Low	Low	Medium	Medium	Low
Level 4. Uncontrolled epidemic with limited or no additional health system response capacity, thus requiring extensive measures to avoid overwhelming health services and substantial excess morbidity and mortality.	Close non-essential businesses.	High	Medium	High	Medium	Low	High	High
	Close schools	High	Low	High	Low	Low	High	High
	Limit gatherings to ≤ 10 people.	High	High	High	High	Medium	Medium	Medium

Procedural considerations

- **Complexity**
  - interactions between the health sector and the economy
  - non-linearity of the impact over time
  - deciding on measures but also on mitigation strategies
- **Uncertainty**
  - novelty of illness, continuous new evidence, need to adjust strategies
  - behavioral responses, depending on risk perception, motivation and state of livelihoods
- **Multiple layers of decision making**
  - Whole-of-government approach and multisectoral stakeholders, and civil society
- **Urgency**
  - devastating health and economic impacts
  - when to introduce? when to ease or lift measures?
- **Uneven distribution of impacts**
  - Everyone is affected, often in different ways
  - Most vulnerable, in health or socioeconomic terms suffer the most

5-Step Decision Framework

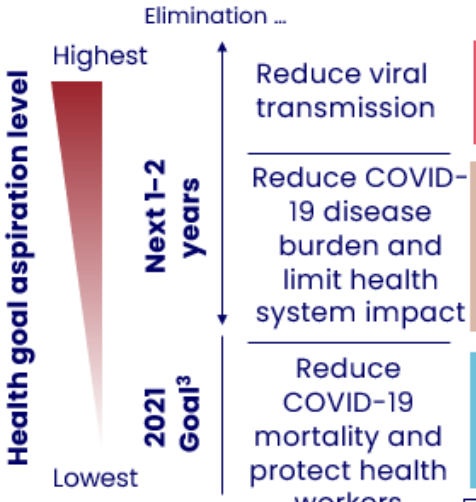
1. Assess the situational level and optimize health system response
2. Identify possible social and movement measures for each context and possible calibration options, and assess their health impacts
3. Develop and populate an “extended assessment matrix” of important non-health dimensions
4. Establish dialogue and a decision-making process
5. Monitor, adapt and communicate regularly throughout steps 1–4.

Global COVID-19 vaccination strategy

- calls for urgent actions required by the global community to take a stepwise and coordinated approach to Vaccinate 70% of the world's population against COIVD-19 by mid-2022
- The Strategy urges that all countries should establish updated national COVID-19 vaccination targets and plans defining dose requirements and financial and programmatic resource needs.

Countries should set goals

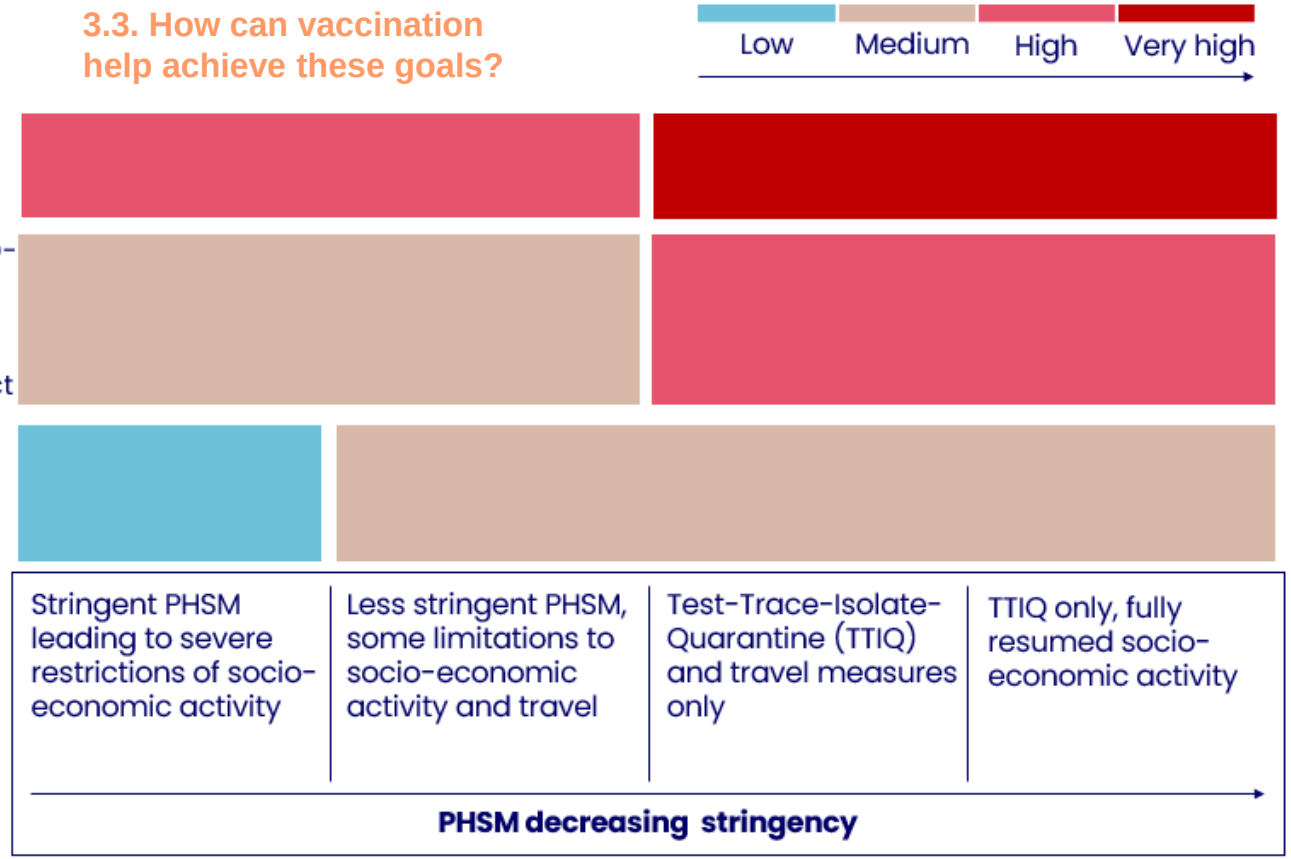
3.1. Health dimension



The framework is <u>not</u> intended to represent a WHO endorsement for any specific combination of goals and targets.

3.2. Socioeconomic dimension

3.3. How can vaccination help achieve these goals?



Along the socioeconomic goal continuum, it is assumed that <u>routine public health measures are in place</u> (e.g., testing, contact tracing, and isolation/quarantine, with intensity and scope calibrated to epidemiological setting

How can countries make decisions on goals and targets?

Step-by-step guidance

Step 1

Conduct a situational assessment including current levels of vaccination and PHSM in the country. Review country-specific health and socioeconomic goals if they have already been defined.

Step 2

Identify barriers to the acquisition and deployment of COVID-19 vaccines as well as knowledge gaps.

Step 3

Prepare different options of goals and targets for consideration. Gather evidence, assess and compare trade-offs between different options in terms of expected health and non-health outcomes.

Step 4

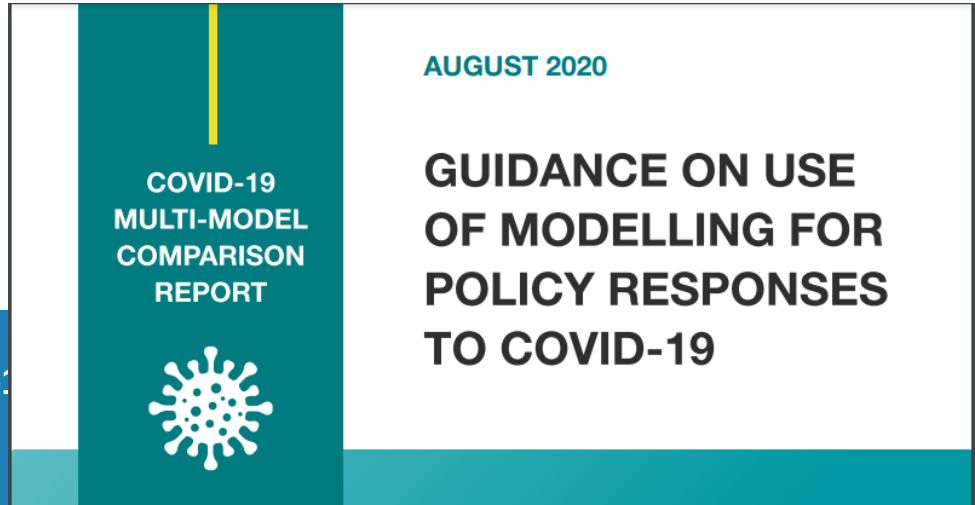
Define health and socioeconomic goals for the upcoming year. Confirm or adjust the existing goals if they have already been defined. Determine optimal vaccination targets, in combination with PHSM targets, needed to achieve the goals.

Step 5

Continue to monitor the situation and re-adjust the goals and targets accordingly as part of an iterative decision-making process.

Proof-of-concept project

- Bring together health, economic and other disciplines to support policy making
- Support the development and use of integrated epidemiological – economic modelling to countries requesting TA
  - Projections using existing integrated models
  - Support for local integration of existing models
- Anchor in policy questions: COVID 19 control, pandemic preparedness
- WHO, OECD, World Bank and a multidisciplinary technical working group will provide guidance throughout the process
- Assesses the usefulness of integrated modelling, and identify additional considerations (e.g., uncertainty)
- Outputs: technical report on integrated modelling and guidance on use for policy making



Thank you!

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