



How do we navigate the complexities of PHSM implementation?

Developing guidance for proportional, equitable and balanced PHSM decision-making

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- ✓ Background on PHSM and complexities of PHSM decision-making
- ✓ IOA's critical contribution to PHSM decision-making
- ✓ Utilities and integration of PHSM tools and resources for the IOA Network
 - ✓ PHSM Decision-Navigator
 - ✓ PHSM Knowledge Hub
 - ✓ Global guidance on monitoring PHSM policies
 - ✓ PHSM study protocols





PHSM are life-saving interventions which are often the first and sometimes the only intervention available at the onset of an outbreak

PHSM:

- **nonpharmaceutical interventions**
- **reduce the risk and scale of infectious disease transmission**
- **operate by reducing transmission-relevant exposure or making exposure safer**
- **implemented by individuals, communities, institutions and all levels of government**



Vaccines,
therapeutics
--- **Medical countermeasure**



RCCE, infodemic management, etc.
--- **Enabling functions**

During the COVID-19 pandemic,



Active case-finding and contact identification measures

Active case-finding

- Screening for symptoms
- Test-based screening
- Contact tracing

Case-specific measures

- Isolation

Contact-specific measures

- Quarantine



Personal protection measures

Personal protective equipment

- Masks
- Gloves
- Face shields
- Bed nets
- Long or other protective clothing
- Barriers for safer sex
- Repellents

Personal hygiene measures

- Hand hygiene
- Respiratory hygiene and cough etiquette
- Food safety measures
- Safe handling of personal equipment and supplies
- Safe breastfeeding practices



Environmental measures

Physical infrastructure

- Physical barriers (e.g. Plexiglass or Perspex screens, room dividers)

Vector control

- Building and housing modifications (e.g. using window screens, closing eaves)
- Spraying (e.g. indoor residual or outdoor)
- Reservoir control (e.g. draining stagnant and standing water, covering water containers)

Water and sanitation safety

- Disinfecting drinking water
- Modification of access to safe drinking water
- Wastewater management
- Solid waste management

Surface cleaning

- Safe handling of equipment and supplies
- Surface cleaning and disinfection
- Surface decontamination

Indoor air quality

- Ventilation
- Air filtering
- Humidity control

Animal–human interface

- Culling
- Safe handling of carrion and infected livestock/animals
- Regulation of animal movement and products
- Livestock quarantine
- Livestock isolation
- Restriction of farming, fishing, hunting and/or selling of animals



Social measures

Social interactions and gatherings

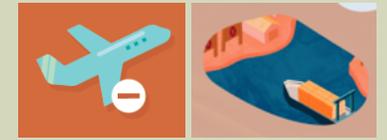
- Physical distancing
- Restrictions or modifications of private gatherings/mass gatherings
- Restrictions or modifications of public gatherings/mass gatherings

Domestic mobility

- Stay-at-home order or curfew
- Restrictions on public transport
- Restrictions on movements (e.g. maximum distance people can be away from their home)
- Entry restrictions (e.g. for districts, zones, settlements)
- Exit restrictions (e.g. for districts, zones, settlements)

Modifications to activities and services

- Modifications to access (e.g. closures of schools or businesses, restricting access to individuals with a vaccination certificate or individuals who test negative, extending holidays for schools)
- Modifications to types of activities (e.g. implementing distance or online learning or teleworking; providing services online or remotely; cancelling school meals)
- Safe burial practices



International travel and trade measures

Trade measures for imported goods

- Restriction
- Ban
- Inspection

Trade measures for exported goods

- Restriction
- Ban
- Inspection

Travel related screening or testing

- Exit or entry screening for symptoms, or both
- Exit or entry screening for vaccination or immunity, or both
- Exit or entry screening for travel or contact history, or both
- Exit or entry testing for infection, or both

International border measures

- Ban on entry
- Ban on exit
- Entry restriction
- Exit restriction

Quarantine upon arrival

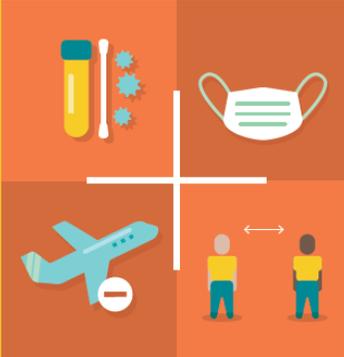
- Home quarantine
- Hotel/non-health care-facility/institutional quarantine
- Health care facility quarantine

Travel advice or warning

- Travel advice
- Travel warning

What can we do when vaccines and therapeutics are not yet available?

- PHSM HAVE MULTIPLE BENEFITS:**
- Reduce the number of infections
 - Reduce pressure on the healthcare system
 - Keep businesses and essential services open
 - Buy time to develop pharmaceuticals



- PHSM CAN HAVE UNINTENDED CONSEQUENCES:**
- Economic hardship
 - Decreased mental health and well-being
 - Exacerbated social, gender and health inequity
 - Slow progress of other public health programs
 - Disrupted education

What can governments, partners and communities do to mitigate the unintended negative consequences of PHSM?



What do we know about the effectiveness of PHSM?

Is there guidance on risk-based, evidence-informed decision-making for PHSM?

How do we balance the public health benefits and negative consequences of PHSM (e.g. interrupted learning, loss of income and food insecurity)?



- Community-sourced data
- Community engagement in decision-making
- Community-based mitigation measures
- Buy-in, uptake and adherence
- Behavioral and cultural insights
- Determinants of uptake and adherence



- Maximize public health benefits
- Mitigate unintended negative consequences
- Equitable, context-specific and balanced decision-making
- Multisectoral coordination
- Precautionary principle

PHSM
Decision Navigator



Risk-based, evidence-informed

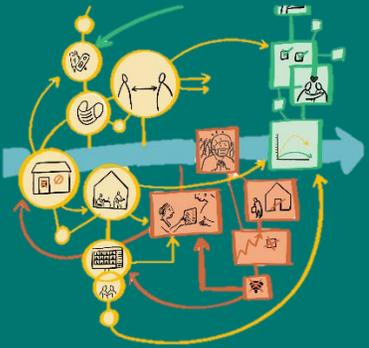
Feasibility, unintended negative consequences

Targeted combination of PHSM

Mitigation measures

+ enabling functions

Adjustment (scale up/down, phase out)



PHSM Decision Navigator



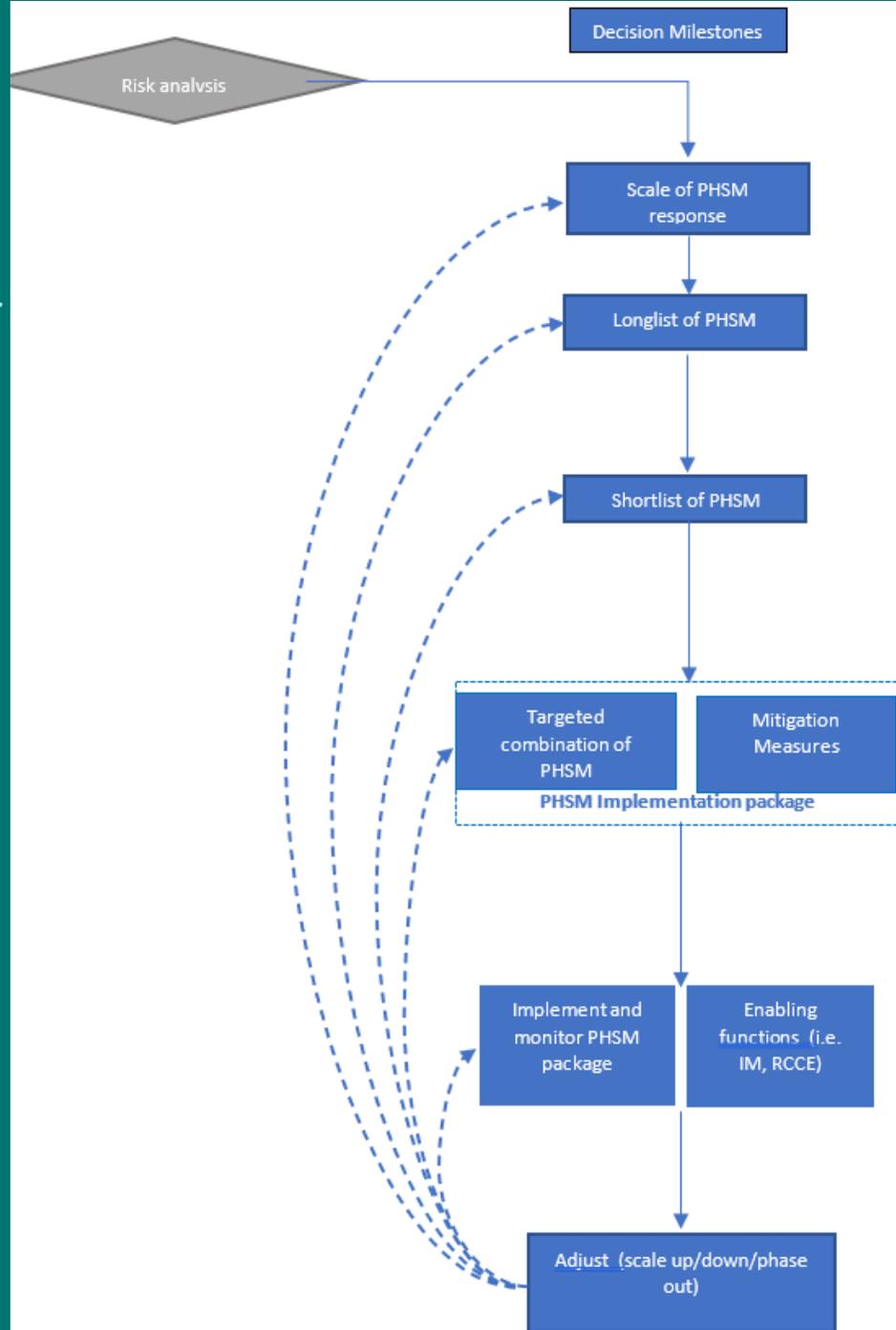
Policy guidance for navigating complex and evolving health emergencies with proportional, equitable and effective PHSM implementation under dynamic contexts and uncertainties

- A multihazard, pathogen-agnostic decision framework for PHSM
- Grounded in the best available evidence
 - WHO guidelines and guidance
 - Systematic reviews and other evidence syntheses
 - Risk assessments and situational assessments
- To be followed by disease-, setting- and/or population specific modules.





PHSM Decision Navigator



Decision Steps

1. Determine the scale of PHSM response needed based on risk analysis /situational assessment and aim of PHSM based on epidemiological data (transmissibility, severity), health system capacity and MCM availability/ population immunity).

2. Develop a list of PHSM that reflect the characteristics and level of risk and scale of PHSM response by using the catalogue of recommendations and advice on PHSM based on WHO guidelines and guidance documents (PHSM menu)

3. Fine-tune the list by i) iteratively balancing feasibility, unintended negative consequences of PHSM and corresponding mitigation measures to address those consequences, and ii) considering alternative PHSM options to achieve high feasibility and low unintended negative consequences. The best available evidence, matrices, indicators, probing questions and data sources will guide assessment.

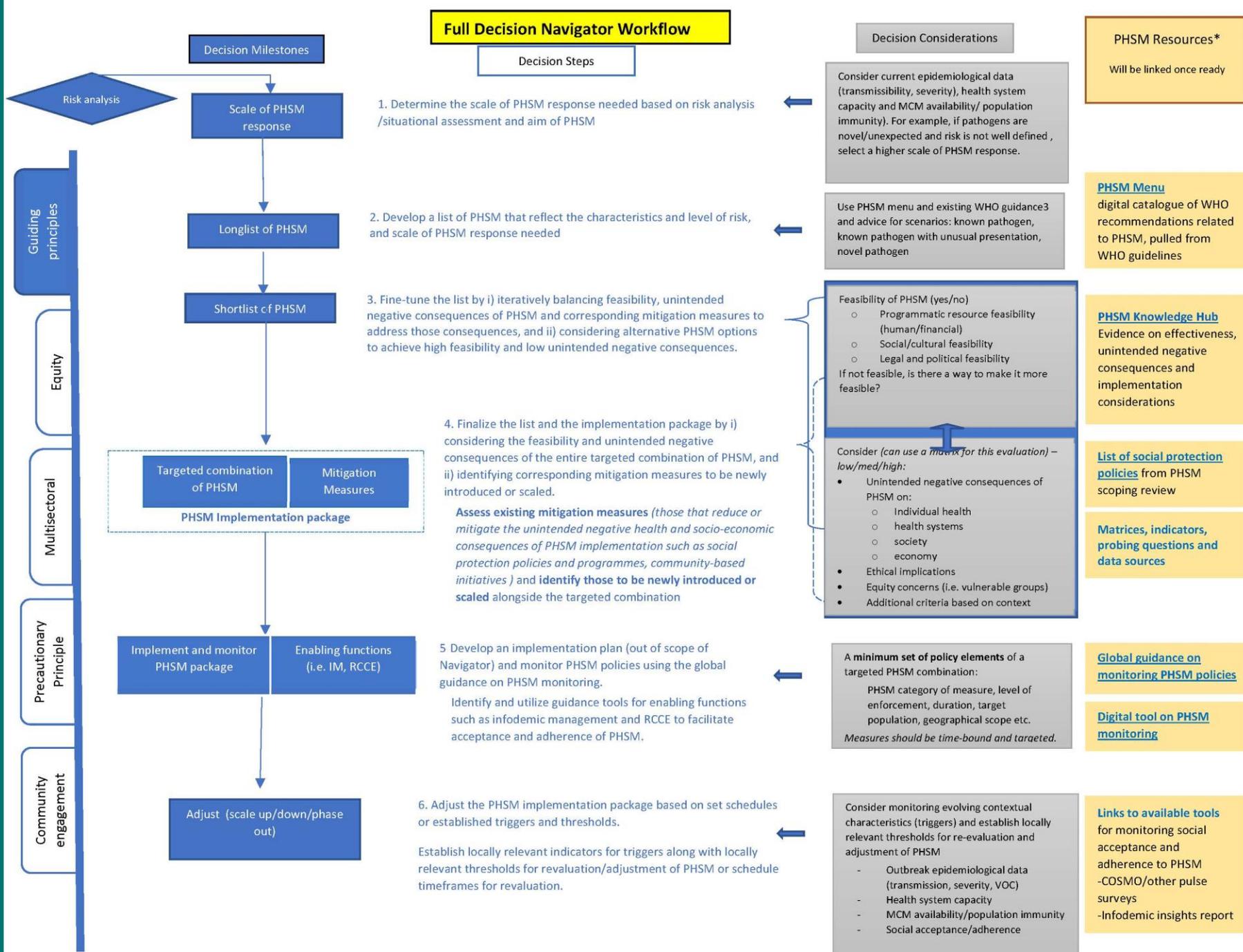
4. Finalize the list and the implementation package by i) considering the feasibility and unintended negative consequences of the entire targeted combination of PHSM, and ii) identifying corresponding mitigation measures to be newly introduced or scaled. A list of social protection policies and community-based initiatives. In addition to matrices, indicators, probing questions and data sources will be provided to guide assessment.

5. Develop an implementation plan (out of scope of Navigator) and monitor PHSM policies using the WHO global guidance on PHSM policy monitoring as well as guidance tools for infodemic management and RCCE.

6. Adjust the PHSM implementation package based on set schedules or established triggers and thresholds, considering epidemiological trends (transmissibility, severity, VOC, etc.), health system capacity, MCM availability/ population immunity and social acceptance/adherence to PHSM.

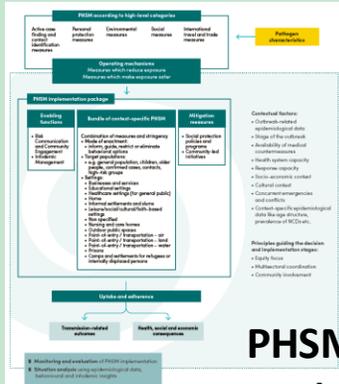


PHSM Decision Navigator



Strengthening PHSM research methodology

...so that countries can conduct and contribute research using a harmonized conceptual understanding of PHSM and are supported in addressing the methodological, legal, ethical and political challenges of PHSM research



PHSM conceptual framework

- A framework for a harmonized conceptual understanding and standardized language (first-level categories of interventions, contextual factors, outcomes, unintended consequences, etc.)



Global PHSM research priorities 2021-2030

- Outlining priority research themes and research questions
- Urgent COVID-19 research priorities for PHSM (published)
- Medium- to long-term research priorities for multihazard PHSM



Study protocols to measure the effectiveness of PHSM

- A set of protocol adaptable templates for study protocols comparing two interventions across four hazard-based disease groups (respiratory, water-/food-borne, anthropod and direct contact)
- Protocol implementation guidance

Global monitoring and reviews of PHSM data and research

...so that countries can access and use multidisciplinary and context-specific knowledge about PHSM to strengthen understanding of PHSM effectiveness, unintended negative and positive consequences and implementation strategies



Global evidence reviews

- Umbrella Review (soon to be published) a review of systematic reviews on the effectiveness and impact of PHSM during COVID-19
- Scoping review on social protection policies (soon to be published)
- Determinants of uptake and adherence of PHSM



Monitoring PHSM policy and implementation

- Global guidance and digital tool for tracking PHSM policy (to be published in Q1)
- to harmonize monitoring procedures, categories and data architecture for robust and comparable PHSM data



PHSM research and resources

- PHSM Knowledge Hub (launch in Q1) a free global gateway to research and resources on PHSM relevant to 23 priority infectious diseases consisting of:
 - 1) Bibliographic Library
 - 2) Living systematic review
 - 3) Research Atlas

PHSM Knowledge Hub: Evidence and tools for assessing the impact of Public Health and Social Measures during health emergencies.

PHSM Knowledge Hub: *research at your fingertips*

PHSM Knowledge Hub



WHO launched the ***PHSM Bibliographic Library***, a repository of multilingual, multidisciplinary, multisectoral research articles on PHSM, opening access to over 100,000 research articles for 23 diseases from the last 34 years.

Let us take you through the Hub





AA

ephsn.who.int



World Health Organization

PHSM

HOME

ABOUT

LIBRARY

ATLAS

LIVING
REVIEWS

PHSM Knowledge Hub: Evidence and tools for assessing the impact of Public Health and Social Measures during health emergencies.



PHSM Knowledge Hub

Study protocols to assess the effectiveness of PHSM during health emergencies

Towards an initial set of PHSM study protocols

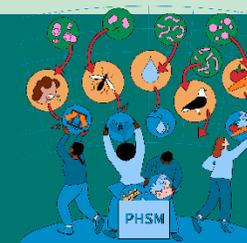


The idea:

- Develop templates that can be adapted to specific disease outbreaks and contexts
- **Pre-approval/review by WHO's ERC** to accelerate national ethical review
- Ensure **comparable, timely and high-quality data collection on PHSM effectiveness** to inform decision-making during health emergencies
- Complemented by a **facilitation guide** considering ethical, logistical and resource challenges
- Variety of protocols will be expanded over time
- Initial focus on effectiveness, **focus on social and behavioral insights to follow**

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- High applicability, direct relevance for decision-making
- No time to establish complex data and research infrastructures
- Situation changes in unpredictable and often unknown ways
- Study design that does not need complex data and assumptions
- Pragmatic and novel trial design features
- All protocols follow same structure
- Aligned with SPIRIT
- Are intended to be modular – users can adapt specific parts and also combine different protocols
- Illustrate design options maintaining flexibility

Global guidance on monitoring PHSM policies

Global guidance on monitoring public health and social measures policies during health emergencies

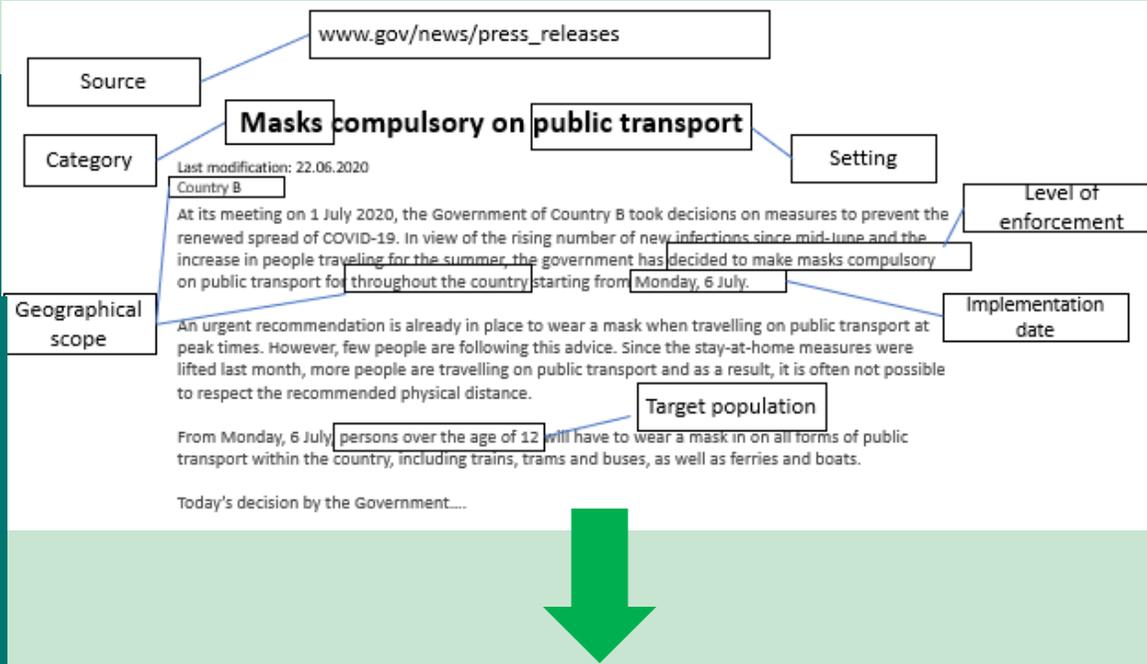


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To be published very soon...



A centralized digital monitoring system in development...



Example database entry using Fig. 1

Description of measure Face masks are now compulsory on public transportation in Country B

Category (see Annexes 2 and 3)

First-level category – Personal protection measures

Second-level category – 4: Personal protective equipment

High-level indicator – 4.1: Masks

Level of enforcement 4: Eliminate options

Setting Points of entry for transportation by land

Geographical scope 1: national

Target population 1: general

Country, territory or area Country B

Date of Implementation 6 July 2020



**Public Health and Social
Measures (PHSM)
during Health
Emergencies**

