

Day 4: Session 1: Frameworks and guidelines for pathogen surveillance and genomics

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Course roadmap

Sun 7 May
Introduction Day



Mon 8 May
Day 1
Capacity Building



Tue 9 May
Day 2
Specimen and Sequencing



Wed 10 May
Day 3
Data Tools and Pipelines

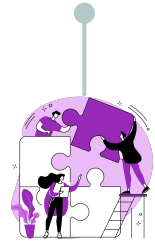


Thu 11 May
Day 4
Frameworks, Guidelines, and Decision-making

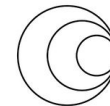
Fri 12 May
Day 5
Projects Review and Action Planning



Next steps and Beyond



Frameworks and guidelines for pathogen surveillance and genomics



wellcome
connecting
science



COVID-19
GENOMICS
GLOBAL TRAINING

Introduction: Module objectives and outcomes

- This session covers frameworks, guidelines and policies for pathogen genomics and surveillance
- At the end of this session attendees will be able to identify appropriate guidelines, frameworks and policies relevant for pathogen genomics at country, regional and global

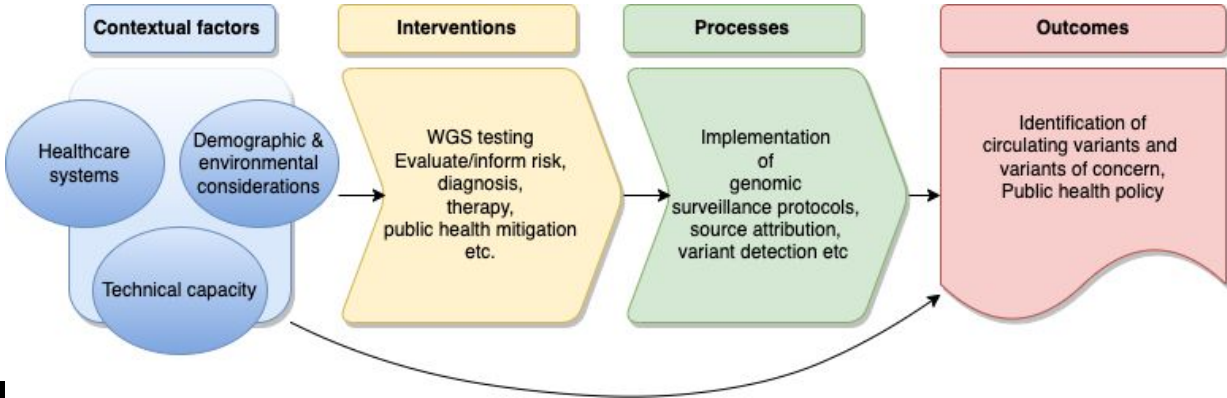
Frameworks for pathogen genomic surveillance

- **Framework**

- A set of beliefs, ideas or rules that is used as the basis for making judgements, decisions, etc. (*Oxford English Dictionary*)
- A tool that facilitates the organization and prioritization of health-related activities and interventions by offering a structured methodology for planning, implementing, and assessing such interventions

Frameworks for pathogen genomic surveillance

- **Example of a framework**
 - [Global genomic surveillance strategy for pathogens with pandemic and epidemic potential, 2022–2032](#)



Guidelines for pathogen genomic surveillance

- **Guideline**

- Provides recommendations for clinical practice or public health policy
- Informs decisions on whether, when and how to undertake specific e.g., clinical interventions, diagnostic tests or public health measures
- Guidelines help to achieve the best possible individual or collective health outcomes

Source (WHO)

Guidelines for pathogen genomic surveillance

- **Examples guidelines**

- [Guidance on tools for detection and surveillance of SARS CoV-2 Variants \(WHO\)](#)
- [Interim operational guidance on SARS-CoV-2 genomic surveillance in Africa: An updated guide \(Africa CDC\)](#)

Policies for pathogen genomic surveillance

- **Policy**

- a definite course or method of action selected from among alternatives and in light of given **conditions** to guide and determine present and future decisions (*Merriam-Webster*)
- high-level overall plan embracing the general goals and **acceptable** procedures especially of a governmental body (*Merriam-Webster*)

Policies for pathogen genomic surveillance

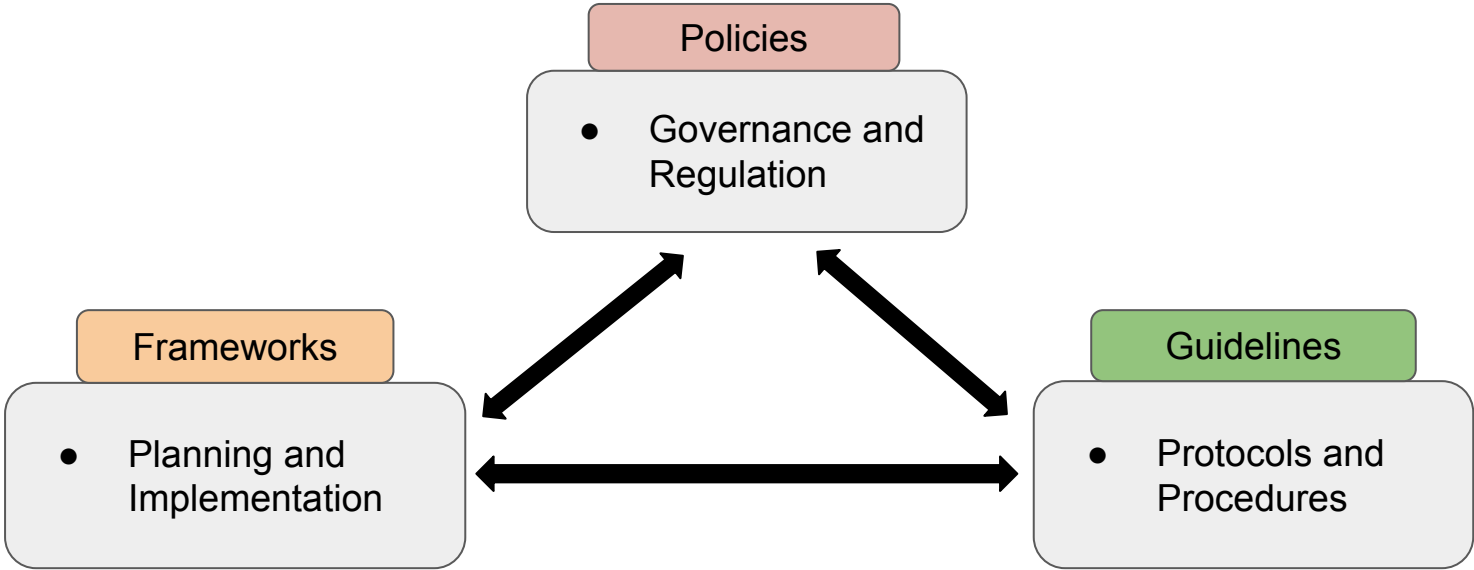
- **Examples of a policy (1)**
 - The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity is an international agreement which aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way. It entered into force on 12 October 2014, 90 days after the date of deposit of the fiftieth instrument of ratification.
 - About the Nagoya Protocol: <https://www.cbd.int/abs/>
 - Public Health implications of the Nagoya protocol: https://apps.who.int/gb/ebwha/pdf_files/EB148/B148_21-en.pdf

Policies for pathogen genomic surveillance

- **Examples of a policy (2)**

- WHO policy recommendation: seasonal malaria chemoprevention (SMC) for plasmodium falciparum malaria control in highly seasonal transmission areas of the Sahel sub-region in Africa
- <https://apps.who.int/iris/bitstream/handle/10665/337978/WHO-HTM-GMP-2012.02-eng.pdf?sequence=1&isAllowed=y>
- WHO policy brief for the implementation of intermittent preventive treatment of malaria in pregnancy using sulfadoxine-pyrimethamine (IPTp-SP)
- <https://www.who.int/publications/i/item/WHO-HTM-GMP-2014.4>

Importance of frameworks, guidelines and policies for genomic surveillance



Group activity

- You have been tasked to develop a pathogen genomic surveillance programme
- In groups of 5:
 - Group 1 - SARS-CoV-2
 - Group 2 - Ebola virus
 - Group 3 - Malaria
 - Group 4 - Cholera
 - Group 5 - Salmonella
- List frameworks, guidelines and policies applicable to the group assigned pathogens
- Give a reason for each of the listed framework, guideline and policy