How COVID-19 surveillance data is presented

Source: COVID-19 Weekly Epidemiological Update; Data retrieved 11 Feb 2023. Minor deviation from online dashboard due to different data starting point.
COVID-19 as experienced

Decisions faced during emergencies

- Do we need lock-down?
- Pathogen characteristics?
- how many cases and deaths did we have today?
- are our facilities coping?
- Rapid containment?
- Human-to-human transmission?
- Is this a true outbreak?
- Vaccine effectiveness?
- New variant?
- Treatment failures?
- Can we lift PHSM?
- How to transition?

No single surveillance system able to respond to all the information needs of decision makers
Are our surveillance and epidemic intelligence capabilities ready?
Growing trend of innovative activities in public health intelligence

Research on methods, technologies, tools in surveillance and epidemic intelligence
2000-22, PubMed

230,000+ Github repositories on COVID-19
Jan 2020 – Feb 2023
Forming the new Division

September 2021
Evolution of the WHO Health Emergencies Programme
Evolution of the WHO Health Emergencies Programme
Evolution of the WHO Health Emergencies Programme

WHO Health Emergencies Programme

EXD

ADG Preparedness

ADG Surveillance

ADG Response
WSE formed concurrent to a rapidly changing landscape

IHR revision, INB WHO CA+ & other instruments

National Investment Plans & Financing for sustainable PPR (FIF +++)

- Surveillance
- Lab
- Workforce

Health Emergency Preparedness, Response & Resilience (HEPR) Framework

Strengthening WHO preparedness for and response to health emergencies
Prepared for amendments to the International Health Regulations (IHR)

Zero draft of the WHO CA+ for the consideration of the Intergovernmental Negotiating Body at its fourth meeting

Strengthening global health emergency preparedness, response and resilience (HEPR)

IFC, THE WORLD BANK, IDB, Gavi, European Investment Bank, Global Fund, AFD, ADB, AIIB, Infrastructure Investment Bank

Strengthening health emergency prevention, preparedness, response and resilience
WSE’s strategy: Collaborative Surveillance part of HEPR framework

300+ recommendations from COVID-19 and recent major emergencies

5 interconnected components

Collaborative surveillance

The systematic strengthening of capacity and collaboration among diverse stakeholders, both within and beyond the health sector, with the ultimate goal of enhancing public health intelligence and improving evidence for decision making.
Development of capabilities for Collaborative Surveillance

**Obj. 1**
Strengthened national integrated disease, threat & vulnerability surveillance

**Obj. 2**
Increased diagnostics and lab capacity for pathogen and genomic surveillance

**Obj. 3**
Collaborative approaches for event detection, risk assessment and response monitoring

Better decisions

Underpinned by:
- **Enablers** (governance, sustainable financing, culture of trust, workforce)
- Detailed sets of capabilities
Focusing on **collaboration** in addition to capabilities for Collaborative Surveillance
A strategic framework to deliver

**Vision**
A world where collaborative surveillance empowers countries and communities to minimise the impacts of pandemic and epidemic threats

**Mission**
We catalyse transformation in collaborative surveillance across all levels and serve countries by connecting, innovating, and strengthening capabilities to produce better data, analytics, and decisions

**Roles**

**Connect**
- Radically improve collaboration, trust in data sharing, and cocreation within surveillance systems
- Drive global agreement on priorities for research, funding, and action
- Catalyse new solutions through communities of practice

**Innovate**
- Incubate cutting-edge initiatives that drive step changes in surveillance outcomes
- Transform academic research into pioneering new tools and approaches that fit country and regional contexts

**Strengthen**
- Shape surveillance workforce of the future and coordinate capacity building to realise it
- Empower countries to plan & mobilise resources to drive down inequality in surveillance capacity
- Create a living repository of global standards for surveillance data and procedures
WSE has mapped its portfolio to its 3 core strategic objectives

<table>
<thead>
<tr>
<th>WSE Objectives</th>
<th>WSE Strategic initiatives</th>
<th>WSE Initiatives as mapped against the strategic initiatives</th>
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<tbody>
<tr>
<td>1. Actors aligned</td>
<td>1.1 Set global priorities</td>
<td>EIOS</td>
</tr>
<tr>
<td></td>
<td>1.2 Mobilize political, financial, and technical support</td>
<td>IPSN</td>
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<tr>
<td>2. Effective solutions introduced and adapted</td>
<td>2.1 Improve the analysis and sharing of intelligence by catalysing tools and incentives</td>
<td>Decision Support Simulator</td>
</tr>
<tr>
<td></td>
<td>2.2 Enhance decision making through the integration of information by innovative approaches</td>
<td>EWAR</td>
</tr>
<tr>
<td>3. Successful solutions scaled up</td>
<td>3.1. Modernize and develop global standards</td>
<td>EIOS (Techn.)</td>
</tr>
<tr>
<td></td>
<td>3.2. Develop instruments and provide guidance to tailor and modernize surveillance systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.3. Support countries to develop field epidemiology capacity</td>
<td>COHFE</td>
</tr>
</tbody>
</table>
Portfolio Highlights
1. Working with Member States to strengthen NPHAs

- Define and deliver on core emergency preparedness and response functions
- Document and disseminate different governance, policy, regulatory and financing structures
- Build networks and facilitate peer-to-peer learning opportunities
- Identify sustainable financing modalities
- Strengthen workforce development including surge capacity
- Develop need-specific tools, such as normative guidance on quality standards for new tools, systems and other innovations
2. Scaling Epidemic Intelligence from Open Sources (EIOS)
# 3. Developing the International Pathogen Surveillance Network (IPSN)

**Vision:** Every country has equitable access to sustained capacity for genomic sequencing and analytics as part of its public health surveillance system.

**Mission:** Create a mutually supportive global network of genomic surveillance actors that amplifies and accelerates the work of its members to improve access and equity.

### What is IPSN?
- A network of pathogen genomic actors (human and animal health), including:
  - National and international lab networks & disease programs
  - Public and veterinary health systems
  - Academic groups
  - Private sector
  - Philanthropy & civil society
  - International standard organizations
  - Platform providers

### What does IPSN do?
- Communities of practice to solve common challenges
- Country scale-up accelerator to align efforts & enable South-South exchange
- Grant funding to enable equity and power IPSN projects
- High-level advocacy & comms to keep PGS on the agenda
- Global partner forum for genomic surveillance

### What will IPSN deliver?
- Increased harmonization and innovation in pathogen genomics
- Increased scale and efficiency of country capacity building efforts
- Increased political attention and financing efficiency
- Stronger national and international surveillance system better able to detect and characterize new threats and reduce endemic burdens

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[World Health Organization logo]
4. Developing the Global Field Epidemiology Partnership

A network of national, regional and global health partners to actively champion the development of operational epidemiology capacities, professionalise this workforce, and strengthen relevant institutions.

Launch of GFEP (18 October 2023)
A world where interconnected pandemic and epidemic intelligence communities collaboratively and rapidly respond with enhanced data, better analysis and actionable insights.

5. A new Collaboratory

Building a digital environment facilitating exchange of data, analysis, and insights

- Enable collaboration on tools and analysis
- Linking and finding data and insights
- Provide library for tools and resources
- Access to analytic platform

Using the convening power of WHO to connect, build and strengthen communities

- Enhance and strengthen collaboration
- Enable connection and exchange between experts
- Share information and lessons learned
- Co-create analysis and tools
6. A Pandemic Simulator

Vision statement

Enable better and more equitable health emergency policy outcomes with novel, transparent, best-in-class digital decision aids.

Solution elements

Key value-added solutions from the user perspective – providing and enabling next-generation:

- Novel ability to simulate compounding impact of multiple interventions
- Equitable access to simulation capabilities across geographies, user types and experience levels
- Shared modeling and data baseline as well as visualization tool to enable collaborative standardized approach and language to pandemic and epidemic simulation
- Flexible exploration of what if scenarios through completely customizable pathogen characteristics
- Simplified, rapid translation of epidemic insight into the policymaking process

Solutions that bring impact

PDS tool support technical experts as well as public health experts and governmental policy makers by aiding their decision-making in pandemic situations.

- Understanding of realistic scenarios
- Evidence-based intervention planning
- Data-driven trade-offs
Socialising the Division, the WHO Hub and Collaborative Surveillance

>380 stakeholder engagements*

42 Member States across 6 WHO Regions

191 institutions

*Defined as unique engagements at ADG- and Director-level with institutions. Does not include attendance at conferences or WHO-internal meetings.
FUTURE: Accelerate delivery with Regional Offices, Member States and partners

- Support countries and regions to implement collaborative surveillance
- Strengthen core capacities for emergency preparedness and response for NPHAs
- Provide technical expertise on high-level policy discussions on surveillance
- Link decision makers with technical experts
- Work towards data preparedness
- Explore and foster analytics and tech solutions
- Create and mobilize communities of practice
Thank you