



## Repository of existing supportive guidance and tools

Updated 22/02/2023

Current WHO global and regional strategic guidance for respiratory viruses of pandemic potential were reviewed together with other more specialized documents as part of the mosaic framework development and are listed below. A virtual repository of guidance can be found here and ensures access to the latest versions of any documents that will support countries to define and implement their respective surveillance mosaics.

### Global

- Public health surveillance for COVID-19: WHO interim guidance. Geneva: World Health Organization; 2022 (<https://www.who.int/publications/i/item/WHO-2019-nCoV-SurveillanceGuidance-2022.2>, accessed 21 January 2023).
- Strategic preparedness, readiness and response plan to end the global COVID-19 emergency in 2022. Geneva: World Health Organization; 2022 (<https://www.who.int/publications/i/item/WHO-WHE-SPP-2022.1>, accessed 21 January 2023).
- Surveillance for human infection with Middle East respiratory syndrome coronavirus (MERS-CoV): interim guidance. Geneva: World Health Organization; 2018 (<https://apps.who.int/iris/handle/10665/177869>, accessed 23 January 2023).
- Global influenza strategy, 2019-2030. Prevent. Control. Prepare. Geneva: World Health Organization; WHO; 2019 (<https://apps.who.int/iris/handle/10665/311184>, accessed 21 January 2022).
- WHO guidance for surveillance during an influenza pandemic. Geneva: World Health Organization; WHO; 2017 (<https://apps.who.int/iris/handle/10665/259886>, accessed 21 January 2023).
- Global epidemiological surveillance standards for influenza. Geneva: World Health Organization; 2013 (<https://www.who.int/publications/i/item/9789241506601>, accessed 21 January 2023).
- Global genomic surveillance strategy for pathogens with pandemic and epidemic potential, 2022–2032. Geneva: World Health Organization; 2022 (<https://www.who.int/publications/i/item/9789240046979>, accessed 21 January 2023).
- Global strategy for comprehensive vaccine-preventable disease surveillance. Geneva: World Health Organization; 2018 ([https://www.who.int/publications/m/item/global-strategy-for-comprehensive-vaccine-preventable-disease-\(vpd\)-surveillance](https://www.who.int/publications/m/item/global-strategy-for-comprehensive-vaccine-preventable-disease-(vpd)-surveillance), accessed 21 January 2023).



- Ethics in public health surveillance. Geneva: World Health Organization; 2017 (<https://apps.who.int/iris/bitstream/handle/10665/255721/9789241512657-eng.pdf>, accessed 21 January 2023).
- Global strategy for integrated surveillance for public health emergencies. Geneva: World Health Organization (*in development*).
- Global polio surveillance action plan 2022-2024. Geneva: World Health Organization; WHO, 2022 (<https://polioeradication.org/wp-content/uploads/2022/05/GPSAP-2022-2024-EN.pdf>, accessed 21 January 2023).

## Regional

- Operational considerations for respiratory virus surveillance in Europe. Copenhagen: WHO Regional Office for Europe and Stockholm: European Centre for Disease Prevention and Control; 2022 (<https://apps.who.int/iris/handle/10665/360349> or <https://www.ecdc.europa.eu/en/publications-data/operational-considerations-respiratory-virus-surveillance-europe>, accessed 21 January 2023).
- COVID-19 surveillance guidance. Transition from COVID-19 emergency surveillance to routine surveillance of respiratory pathogens. Stockholm European Centre for Disease Prevention and Control; 2021 (<https://www.ecdc.europa.eu/en/publications-data/covid-19-surveillance-guidance>, accessed 21 January 2023).
- Technical Guidelines for Integrated Disease Surveillance and Response in the African Region: Third edition. Brazzaville: WHO Regional Office for Africa; 2019 (<https://www.afro.who.int/publications/technical-guidelines-integrated-disease-surveillance-and-response-african-region-third>, accessed 21 January 2023).
- Final report. Ad hoc expert consultation in the Region of the Americas: Challenges, gaps and next steps in COVID 19 surveillance and its integration in to influenza and other respiratory viruses surveillance. Pan American Health Organization; 2022 (<https://www.paho.org/en/documents/final-report-ad-hoc-expert-consultation-region-americas-challenges-gaps-and-next-steps>, accessed 21 January 2023).
- Epidemic analysis for response decision-making: systematic organization of multi-source information to inform response decisions. Manila: World Health Organization Regional Office for the Western Pacific; 2020 (<https://apps.who.int/iris/bitstream/handle/10665/333046/9789290619161-eng.pdf?sequence=1&isAllowed=y>, accessed 21 January 2023).
- Regional operational guidelines for the integrated surveillance of respiratory viruses. Pan American Health Organization (*in development*).
- Integrated Surveillance for Influenza and Other Respiratory Viruses with Epidemic and Pandemic Potential in the Eastern Mediterranean Region – An Operational Framework. Cairo: World Health Organization Regional Office for the Eastern Mediterranean (*in development*).



## Specific systems

- **Sentinel surveillance**

- End-to-end integration of SARS-CoV-2 and influenza sentinel surveillance: revised interim guidance. Geneva: World Health Organization; 2022 ([https://www.who.int/publications/i/item/WHO-2019-nCoV-Integrated\\_sentinel\\_surveillance-2022.1](https://www.who.int/publications/i/item/WHO-2019-nCoV-Integrated_sentinel_surveillance-2022.1), accessed 21 January 2023).
- Operational considerations for influenza surveillance in the WHO European Region during COVID-19: interim guidance. Stockholm: European Centre for Disease Prevention and Control; 2020 (<https://www.ecdc.europa.eu/en/publications-data/operational-considerations-influenza-surveillance-european-region-during-covid-19>, accessed 21 January 2023).
- Protocol for enhanced severe acute respiratory illness and influenza-like illness surveillance for COVID-19 in Africa. Addis Ababa: Africa Centers for Disease Control and Prevention; 2020. (<https://africacdc.org/download/protocol-for-enhanced-severe-acute-respiratory-illness-and-influenza-like-illness-surveillance-for-covid-19-in-africa/>, accessed 21 January 2023).
- Strategy for global respiratory syncytial virus (RSV) surveillance project based on the influenza platform. Geneva: World Health Organization; 2019 ([https://cdn.who.int/media/docs/default-source/influenza/rsv-surveillance/who-rsv-surveillance-strategy-phase-26mar2021.-final.pdf?sfvrsn=d8b1c36a\\_9](https://cdn.who.int/media/docs/default-source/influenza/rsv-surveillance/who-rsv-surveillance-strategy-phase-26mar2021.-final.pdf?sfvrsn=d8b1c36a_9), accessed 21 January 2023).
- Sampling strategy for RSV testing. Geneva: World Health Organization; 2019 (<https://www.who.int/teams/global-influenza-programme/global-respiratory-syncytial-virus-surveillance/sampling-strategy-for-rsv-testing>, accessed 21 January 2023).
- WHO Global clinical platform for COVID-19. Geneva: World Health Organization; 2023 (<https://www.who.int/teams/health-care-readiness/covid-19/data-platform>, accessed 21 January 2023).
- International severe acute respiratory and emerging infection consortium (ISARIC). 2023 (<https://isaric.org/>, accessed 21 January 2023).

- **Event-based surveillance**

- A guide to establishing event-based surveillance. Manila: World Health Organization Regional Office for the Western Pacific; 2008. (<https://apps.who.int/iris/handle/10665/207737>, accessed 21 January 2023).
- Epidemic Intelligence from Open Sources (EIOS). World Health Organization (video: [https://www.youtube.com/watch?v=NkIf3lOCTx0&t=3s&ab\\_channel=WorldHealthOrganization%28WHO%29](https://www.youtube.com/watch?v=NkIf3lOCTx0&t=3s&ab_channel=WorldHealthOrganization%28WHO%29), accessed 23 January 2023)



- EIOS Initiative. World Health Organization (<https://www.who.int/initiatives/eios> accessed 21 January 2023).
- EIOS System. World Health Organization (<https://www.who.int/initiatives/eios/eios-technology>, accessed 21 January 2023).
- **Investigations and studies**
  - Protocol to investigate non-seasonal influenza and other emerging acute respiratory diseases. Geneva: World Health Organization; 2018 (<https://www.who.int/publications/i/item/WHO-WHE-IHM-GIP-2018.2>, accessed 21 January 2023).
  - Protocol for COVID-19 (10 protocols) early investigations and studies, for country use and adaptation. Geneva: World Health Organization; 2020-2022 (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/early-investigations>, accessed 21 January 2023).
  - Protocols for Pandemic Influenza Special Investigations & Studies (iPSS). Geneva: World Health Organization (*in development*) (<https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/pandemic-influenza-special-investigations-studies-pss#:~:text=The%20Pandemic%20Influenza%20Special%20Investigations,b y%20a%20novel%20influenza%20virus>, accessed 21 January 2023).
  - Pandemic influenza severity assessment (PISA): a WHO guide to assess the severity of influenza in seasonal epidemics and pandemics. Geneva: World Health Organization; 2017 ([https://www.who.int/publications/i/item/pandemic-influenza-severity-assessment-\(-pisa\)-a-who-guide-to-assess-the-severity-of-influenza-in-seasonal-epidemics-and-pandemics](https://www.who.int/publications/i/item/pandemic-influenza-severity-assessment-(-pisa)-a-who-guide-to-assess-the-severity-of-influenza-in-seasonal-epidemics-and-pandemics), accessed 21 January 2023).
  - A manual for estimating disease burden associated with seasonal influenza. Geneva: World Health Organization ([https://apps.who.int/iris/bitstream/handle/10665/178801/9789241549301\\_eng.pdf?sequence=1&isAllowed=y](https://apps.who.int/iris/bitstream/handle/10665/178801/9789241549301_eng.pdf?sequence=1&isAllowed=y), accessed 21 January 2023).
  - Seasonal influenza disease burden estimator (Pyramid Webtool) ([www.flutool.org](http://www.flutool.org), accessed 21 January 2023).
  - WHO Manual for estimating the economic burden of seasonal influenza. WHO. 2016. Cost burden. Geneva: World Health Organization; 2016 (<https://apps.who.int/iris/rest/bitstreams/1060971/retrieve>, accessed 21 January 2023).
  - Guidance on the economic evaluation of influenza vaccination. Geneva: World Health Organization; 2016



(<https://apps.who.int/iris/bitstream/handle/10665/250086/WHO-IVB-16.05-eng.pdf>, accessed 21 January 2023).

- Pebody R, Moyes J, Hirve S, Campbell H, Jackson S, Moen A, et al. Approaches to use the WHO respiratory syncytial virus surveillance platform to estimate disease burden. *Influenza Other Respi Viruses*. 2020;14:615–621 (<https://doi.org/10.1111/ir.v.12667>, accessed 21 January 2023).
- Consortium for the Standardization of Influenza Seroepidemiology (CONSISE) (<https://consise.tghn.org/protocols/>, accessed 21 January 2023).
- Middle East respiratory syndrome coronavirus (MERS-CoV)/Technical guidance/Outbreak Toolbox. Geneva: World Health Organization; 2022 (<https://www.who.int/emergencies/outbreak-toolkit/disease-outbreak-toolboxes/mers-outbreak-toolbox>, accessed 21 January 2023).

- **Animal-human interface surveillance**

- Taking a multisectoral, one health approach: a tripartite guide to addressing zoonotic diseases in countries. Geneva: World Health Organization; 2019 (<https://apps.who.int/iris/handle/10665/325620>, accessed 21 January 2023)
  - The Multisectoral Coordination Mechanism Operational Tool (MCM OT) (<https://www.who.int/initiatives/tripartite-zoonosis-guide/multisectoral-coordination-mechanism-operational-tool>, accessed 21 January 2023).
  - The Surveillance and Information Sharing Operational Tool (SISOT) (<https://www.who.int/initiatives/tripartite-zoonosis-guide/surveillance-and-information-sharing-operational-tool>, accessed 21 January 2023)
  - The Joint Risk Assessment Operational Tool (JRA OT) (<https://www.who.int/initiatives/tripartite-zoonosis-guide/joint-risk-assessment-operational-tool>, accessed 21 January 2023)
  - An *online training platform* is available to help countries navigate and implement the Tripartite Zoonosis Guidance.
- Zoonotic influenza outbreak toolbox. Geneva: World Health Organization (<https://www.who.int/emergencies/outbreak-toolkit/disease-outbreak-toolboxes/zoonotic-influenza-outbreak-toolbox>, accessed 21 January 2023).
- Summary of Key Information Practical to Countries Experiencing Outbreaks of A(H5N1) and Other Subtypes of Avian Influenza. Geneva: World Health Organization; 2016 (<https://www.who.int/publications/i/item/WHO-OHE-PED-GIP-EPI-2016.1>, accessed 21 January 2023; *revision in development*).



- **Environmental surveillance**
  - Environmental surveillance for SARS-COV-2 to complement public health surveillance – Interim Guidance. Geneva: World Health Organization; 2022. (<https://www.who.int/publications/i/item/WHO-HEP-ECH-WSH-2022.1>, accessed 21 January 2023).
- **Participatory surveillance**
  - Best practices for the design, implementation, analysis and reporting of participatory surveillance for influenza-like illness. Geneva: World Health Organization (*in development*).
- **Surveillance in specific population**
  - Prevention and Control of COVID-19 in long-term care facilities. Stockholm: European Centre for Disease Prevention and Control; 2022. (<https://www.ecdc.europa.eu/en/all-topics-z/coronavirus/threats-and-outbreaks/covid-19/prevention-and-control/LTCF>, accessed 21 January 2023).
  - Considerations for COVID-19 surveillance for vulnerable populations. Manila: World Health Organization Regional Office for the Western Pacific; 2021 (<https://apps.who.int/iris/handle/10665/345250>, accessed 21 January 2023).
  - Surveillance protocol for SARS-CoV-2 infection among health workers. Geneva: World Health Organization; 2020 ([https://www.who.int/publications/i/item/WHO-2019-nCoV-HCW\\_Surveillance\\_Protocol-2020.1](https://www.who.int/publications/i/item/WHO-2019-nCoV-HCW_Surveillance_Protocol-2020.1), accessed 21 January 2023).
- **Evaluation of surveillance systems**
  - Overview of evaluation surveillance systems. Atlanta, GA: Centers for Disease Control and Prevention; 2013 ([https://www.cdc.gov/globalhealth/healthprotection/fetp/training\\_modules/12/eval-surv-sys\\_fieldg\\_final\\_09262013.pdf](https://www.cdc.gov/globalhealth/healthprotection/fetp/training_modules/12/eval-surv-sys_fieldg_final_09262013.pdf), accessed 21 January 2023).
  - Centers for Disease Control and Prevention. Guidelines for evaluating surveillance systems. Prepared by Douglas N. Klauke, James W. Buehler, Stephen B. Thacker, R. Gibson Parrish, Frederick L. Trowbridge, Ruth L. Berkelman, and the Surveillance Coordination Group. MMWR Morb Mortal Wkly Rep 1988; 37(S-5);1-18. (<https://www.cdc.gov/mmwr/preview/mmwrhtml/00001769.htm>, accessed 21 January 2023).
  - Data quality monitoring and surveillance system evaluation: A handbook of methods and applications. Stockholm: European Centre for Disease Control and Prevention; 2014 (<https://www.ecdc.europa.eu/en/publications-data/data->



quality-monitoring-and-surveillance-system-evaluation-handbook-methods-and, accessed 21 January 2023).

## Overarching

- How global research can end this pandemic and tackle future ones. Building a resilient research architecture and capability to protect us all. R&D blueprint. Geneva: World Health Organization; 2022 ([https://cdn.who.int/media/docs/default-source/blue-print/final-report-of-the-global-research-and-innovation-forum-2022.pdf?sfvrsn=4a59021f\\_5&download=true](https://cdn.who.int/media/docs/default-source/blue-print/final-report-of-the-global-research-and-innovation-forum-2022.pdf?sfvrsn=4a59021f_5&download=true), accessed 21 January 2023).

## Others

- Tool for Influenza Pandemic Risk Assessment (TIPRA). Geneva: World Health Organization; 2016 (<https://apps.who.int/iris/handle/10665/250130>, accessed 21 January 2023).
- **IOA partnership**
  - IOA terms of reference: <https://drive.google.com/file/d/1FRnw7jfWSkT2frt5J9JKDuxHKl3VGr3F/view>, accessed 21 January 2023.
  - Google Drive resources (case studies developed mostly in the Democratic Republic of the Congo): [https://drive.google.com/drive/u/0/folders/1p8ERJxmbGwFfm\\_bXgGhWbxJnxSxGT2WQ](https://drive.google.com/drive/u/0/folders/1p8ERJxmbGwFfm_bXgGhWbxJnxSxGT2WQ), accessed 21 January 2023.
  - YouTube Channel: <https://www.youtube.com/channel/UCORuiEZmQl71nrv-C27cNnQ>, accessed 21 January 2023.
  - Global Outbreak and Response Network (GOARN) webpage: <https://goarn.who.int/>, accessed 21 January 2023.
- **EWARN/EWARS**
  - EWARS in emergencies and EWARS in a box (<https://www.who.int/emergencies/surveillance/early-warning-alert-and-response-system-ewars>, accessed 21 January 2023).
  - World Health Organization. Early warning alert and response in emergencies: an operational guide. World Health Organization. 2022. (<https://apps.who.int/iris/handle/10665/365730>, accessed 15 Feb 2023).
- **Preparedness for a high-impact respiratory pathogen pandemic.** Baltimore, MD: Johns Hopkins Center for Health Security report commissioned for the Global Preparedness

“Crafting the Mosaic”:

A framework for resilient surveillance for respiratory viruses of epidemic and pandemic potential



Monitoring Board. 2019 (<https://www.gpmb.org/annual-reports/overview/item/preparedness-for-a-high-impact-respiratory-pathogen-pandemic>, accessed 21 January 2023).