The Pandemic Agreement: 
A Springboard for Urgent Progress or a Safety Net for Basic Commitments?
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Executive Summary

The Association of Schools of Public Health in the European Region (ASPHER) has contributed to discussions surrounding the pandemic treaty coming forward to the WHO World Health Assembly 2024.

ASPHER is the key independent European educational body dedicated to improving and protecting Public Health by strengthening the education and training of public health professionals for both practice and research.

ASPHER recognizes the critical importance of a robust and comprehensive global framework to address future health emergencies. We view this agreement as a potentially very positive development, with ample space for countries to go further in their commitments and actions.

Key Points of the ASPHER Statement:

Rapid progress in global pandemic preparedness:
Ensuring rapid progress in global pandemic preparedness is crucial. The constant global dialogue since the COVID-19 pandemic and recent discussions at the World Health Assembly (WHA) in May 2024 are leading to a proposal for a Pandemic Agreement, which aims to provide a framework for significant advancements by October 2026.

ASPHER advocates for strengthening national and global health systems to enhance preparedness, response, and resilience against future pandemics. This involves substantial investment in healthcare infrastructure, workforce training and resilience, and public health research. Timely implementation of measures is crucial to prevent and mitigate the impacts of future pandemics. Building and maintaining public trust through transparent communication and community engagement is fundamental. ASPHER underscores the role of public health institutions in fostering trust and compliance with health measures.

The agreement needs to be backed up by concrete Action. Complementarity with International Health Regulations and other WHO treaties is needed, for a cohesive approach to health emergencies. Countries may prioritize pandemic responses based on their needs. WHO provides support but does not override national laws. Member states must ensure their legislation supports pandemic efforts. Member states need to enhance equity and balance human rights in their pandemic response measures. The Pandemic Agreement could facilitate collaborative efforts during global health crises. Setting expectations and minimum standards is crucial to address lessons from COVID-19 and other outbreaks.

ASPHER advocates for the strengths of the Pandemic Agreement to address governance, prevention, and response deficits observed during COVID-19, aiming for higher global standards.

ASPHER collaborates with partners to improve future pandemic preparedness, based on lessons learned from COVID-19.

ASPHER supports building community trust and transparency to counteract misconceptions and misinformation.

ASPHER advocates for a well-staffed public health workforce focused on equity and the precautionary principle.

ASPHER is ready to collaborate with international partners to ensure the Pandemic Agreement incorporates these essential elements.
One Health Approach as a Foundation:

ASPHER recognises the need to learn from history, noting that most pandemics and public health emergencies of international concerns in the past two decades have been of zoonotic origin, including SARS CoV-1, swine flu, MERS, COVID-19, Mpox, Ebola, Zika virus, and now H5N1. Experts continue to identify potential candidates for the next pandemic, with the ‘Disease X’ scenario advocating for a flexible and resilient approach to unknown pathogens.

ASPHER advocates for a One Health approach in transforming agri-food systems, highlighting the interconnectedness of human, animal, and environmental health. This approach is essential for ensuring food safety, security, sustainable and equitable production and distribution. Public health measures underscore the importance of achieving global food safety and security, conserving natural resources, and improving health and health equity.

One Health also seeks to address the threats posed by disasters and transboundary diseases.

ASPHER promotes One Health approaches, emphasizing a multisectoral understanding of vulnerabilities and fostering information exchange among One Health partners. This collaborative and multidisciplinary strategy is essential for strategic coordination, research, capacity building, stakeholder engagement, and joint interagency activities. It supports high levels of health protection in all policies, enhances Health in All Policies (HiAP), and promotes a well-being-based economy. This approach aims to address social, environmental, and commercial determinants of health and health equity, fostering cross-sector collaboration to improve health and well-being within and across societies.

Integrating human, animal, and environmental health should be a critical foundation for the Pandemic Agreement. This holistic perspective is crucial for effective prevention and response strategies.

Universal Health Coverage (UHC) for Resilience:

Promoting Universal Health Coverage (UHC) should remain a central strategy for enhancing population resilience and the ability to respond to future pandemics. Access to quality health services for all is fundamental to global health security.

ASPHER stresses the importance of addressing inequities that have been exacerbated by the COVID-19 pandemic. The divide between universal healthcare and selective social care leads to avoidable harm and fosters distrust, especially during pandemics.

The agreement should ensure that vulnerable populations receive adequate protection and support during health crises.

Learning from COVID-19: To avoid the unpreparedness seen during COVID-19, particularly the race for PPE and diagnostics, ASPHER emphasizes the need for resilient primary care. Strengthening primary care systems builds sustainable, community-embedded services essential for managing acute and chronic conditions, early health risk detection, ongoing surveillance, and sustainable health financing.

ASPHER highlights the vital role of primary healthcare in pandemic prevention, preparedness, and control. Trusted relationships with patients and local populations are fundamental for effective healthcare management.

ASPHER advocates for policies that achieve UHC, addressing inequalities in access and outcomes of health care and serving socio-economically disadvantaged and vulnerable groups. Capacity building, education, and training are essential components of resilient health systems. Public health actions must align with UHC, supported by public investment and financing. Efforts are needed to sustain investment to build vaccine confidence and trust.
and restore high immunization coverage for routine immunisation programs. Development of new vaccines is vital for health security in response to new infectious diseases.

**Multisectoral Pandemic Prevention and National Plans:**

ASPHER emphasizes the importance of learning from past experiences to build more resilient public health systems. The association advocates for the inclusion of academic experts and community leaders in the process, encouraging them to provide independent advice and critically evaluate the adequacy of these national plans.

To better prepare for future health threats, ASPHER supports efforts to expand surveillance expertise and threat assessment capacities across countries. This enhancement is crucial for the timely identification and effective response to emerging pathogens and increased transmission rates.

ASPHER also highlights the need for National Pandemic Plans to include commitments for an extended follow-up period beyond the acute phases of pandemics. This longer-term approach is essential for:

- Comprehensive multisectoral pandemic prevention and public health surveillance national plans are needed.
- Collaboration across sectors is vital to address the complex challenges posed by pandemics.

**Recognizing Overlaps with Wider Emergencies:**

It is essential to acknowledge the overlaps between pandemics and other emergencies, such as conflicts, adverse weather events, and climate change; the so-called ‘all risks approach’ to emergency preparedness and planning.

ASPHER foresees a rise in disasters and emergencies in the coming years, particularly as the impacts of climate change escalate. This includes adverse weather events like floods and heatwaves, which may facilitate the survival and spread of pathogens, potentially establishing vectors in previously non-endemic areas. Deforestation and desertification also play a role by altering habitats and extending vector presence to densely populated areas, increasing contact between humans and wild species and disease transmission.

The interconnected nature of pandemics and other significant disasters highlights the importance of enhancing resilience and preparedness. These interdependencies also illuminate the evolving skill sets needed in the public health workforce.

**Equitable Access to Pandemic-Related Health Products:**

It is imperative to ensure equitable and globally affordable access to pandemic-related health products, including Personal Protective Equipment (PPE), vaccines, drugs and medical equipment and information. No country should be left behind in accessing critical resources. Access to essential pandemic-related health products has crucial relevance for the control of pandemics.

Emergency access and R&D for pandemic products will require cooperative action and ensuring equitable access over and above commercial rights. Pandemic agreements and negotiations could ensure that inevitable government measures would predictably take place and use the leverage of public financing effectively. Furthermore, pandemic preparedness must include measures including and beyond addressing trade secrets and sustainable global production and business continuity practices to address the fragility of critical supply chains for essential pandemic products, such as diagnostics, vaccines, medicines, and PPE.

ASPHER supports further negotiations on pathogen access and benefit-sharing and calls for upholding equity at the core in institutionalising PABS to ensure fast control, response, and trust on pandemic measures, recognising the need for rules-based governance in contrast to market-based negotiations. Negotiations on access and R&D on pandemic-related products can use the leverage of public financing.
Global and Rapid Public Health Surveillance Systems:

The establishment of global and rapid public health surveillance systems is vital for early detection and response to health threats. Robust surveillance mechanisms for emerging pathogens and infectious diseases are key to safeguarding public health.

Collaborative efforts are essential, bringing together diverse stakeholders to improve public health intelligence and evidence-informed decision-making.

ASPHER recommends establishing integrated national and international surveillance systems with defined standards and procedures, enhancing reporting mechanisms, utilizing modern technology, and promoting data sharing to ensure rapid and comprehensive surveillance information globally. Legislative and regulatory support is also vital for the establishment and exchange of infectious disease surveillance data.

ASPHER calls for increased transparency and timely data sharing between nations. A standardized approach to data collection and dissemination is crucial for accurate surveillance, swift response, and informed decision-making.

Updating International Health Regulations:

The ongoing process to update the International Health Regulations (IHR) aligns with efforts to strengthen global health security, running parallel to the development of the pandemic agreement.

The updated IHR will introduce essential safeguards to protect travellers' rights and personal data. These measures ensure that standards of confidentiality and data protection align with best practices. They also require prior informed consent and a non-discriminatory approach to the application of health measures such as medical examination and vaccination. It will also enable WHO to establish an early warning system and issue public health alerts for events that may constitute public health emergencies of international concern, further enhancing global health security.

ASPHER stresses the need to update the International Health Regulations (IHR) promptly. Modernizing these regulations is crucial to reflect current realities and improve global health security.

Effective Global Governance and Accountability:

ASPHER emphasizes the necessity for unprecedented global cooperation and solidarity to effectively respond to and mitigate the impacts of pandemics. This includes equitable access to resources, vaccines, and treatments for all countries, regardless of economic status. It is important that the current negotiations are considered not as the end, but as a potential beginning for a framework agreement allowing a pandemic agreement, which can become adjusted on the ground of emerging needs, crises, and challenges.

Pandemic negotiations need to support and strengthen wider commitments concerning other international agreements striving towards the same goal as well as provide policy space for governments for effective pandemic control and response, which may be against commercial policy priorities. Pandemic negotiations under the WHO provide close linkage concerning IHR, which needs to be seen as complementary to the pandemic agreement. Effective global cooperation requires trust and accountability, which are at the core of pandemic negotiations. WHO oversight will also ensure a professional understanding of public health challenges, including commercialization and spread of disinformation.
ASPHER stands ready to collaborate with international partners to ensure that the WHO pandemic agreement incorporates these essential elements. Our commitment to advancing public health education and practice will continue to drive our efforts in contributing to a safer, healthier world for all.
Background

ASPHERS roles and interests in Pandemic Preparedness and Response

ASPHER’s COVID-19 Task Force met most weeks from March 2020 until 2023, when it became the ASPHER Public Health Emergencies Task Force. The COVID-19 Task Force rapidly mobilized a large panel of experts and younger professionals who analysed emerging threats and evaluated the evidence on early control measures and their practical implementation as the pandemic unfolded.

ASPHER plays a wide-ranging role across the World Health Organization’s European Region. Its responsibilities include supporting each of the Schools of Public Health (SoPH) that it represents and leveraging their expertise. This support extends to responding to emerging challenges such as pandemics and infectious disease threats, as well as addressing the increasing number of other public health emergencies.

Key roles and interests of ASPHER in pandemic preparedness and response include:

- Supporting Schools of Public Health (SoPH): ASPHER aids SoPH in developing modern curricula for public health academic courses, ensuring they are equipped to address contemporary public health challenges.
- Training Public Health Workforces: ASPHER advises on the training of public health professionals, ensuring they are prepared to respond effectively to health emergencies.
- Research and Development: ASPHER identifies research and development opportunities and expertise within its European partnership networks, fostering innovation and evidence-based practices in public health.
- Access to Expert Professionals: ASPHER supports access to expert public health professionals working at local, national, and international levels, facilitating knowledge exchange and collaboration.

ASPHER has recently published its own ‘lessons learned’ from the COVID-19 pandemic and will continue to monitor future emerging threats and promote pandemic preparedness.

Core Public Health Curriculum and Core Competencies

The pandemic has driven fresh thinking and innovation in public health workforces. Workforces, who are stronger and better capable of preventing and responding to such threats.

Building on ASPHER’s track record in the development of Core Competencies for Public Health Professionals with the publication of five editions of the ASPHER Core Competences for PH (2006-2018), the WHO-ASPHER Competency Framework for Public Health (2020) and updated Core Competencies for Applied ID Epidemiology (2022) for which ASPHER worked closely with ECDC. These will assist in Europe and wider to help our Schools of Public Health to standardise and be more comprehensively able to respond to future challenges.

The competency framework contains a list of 157 competencies grouped in six subject areas, all of which are strengths needed for pandemic handling:

1. Essential methods for applied infectious disease epidemiology.
2. Preparedness, surveillance, and response to infectious disease outbreaks
3. Communication and advocacy
4. Practice of infectious disease epidemiology
5. Contextual influences on infectious disease management
6. Leadership and management

ASPHER is currently undertaking an in-depth analysis of the Core Curriculum for PH. Working with member Schools and Institutes of PH, the curricular content of PH programmes has been collated into 36 subject areas in four domains. They are:

- Core Subject Areas for PH
- Subject-specific area for PH
- Cross-curricular subject areas in PH
- Interdisciplinary Professional Skills in PH

This is overseen by an Expert Consultative Group drawn from the ASPHER Executive Board and Task Forces on Climate Health, Digital PH, Emergencies, Professionalisation and War.

Roadmap for National Workforce Capacity

ASPHER has been active in the development of the World Health Organization’s Roadmap for National workforce capacity to implement the Essential Public Health Functions (EPHFs), including a focus on emergency preparedness and response. (1). ASPHER has contributed to the steering group, technical advisory groups and the Implementation group for the Global Competency and Outcomes framework, published in May 2024. (2,3). ASPHER members have been instrumental in developing the revised Essential Public Health functions (4).

Sources:


Navigating Uncertainties, Complexity, and Building Trust

Numerous uncertainties surround the timing of the next pandemic. In the following section, we advocate for adopting a One Health approach as the foundational principle. This collaborative and multidisciplinary strategy bridges the gaps between animal, human, and environmental health, and is essential for public health education, training, research, and practice.

Most pandemic pathogens emerge from the animal world and adapt or mutate to facilitate interspecies transmission while exploiting our lack of acquired immunity from direct exposure or from the protection of vaccines. While the specific geography, species, vectors, or pathogen of the next pandemic remains unknown, the concept of ‘disease x’ presents an adaptable approach to swiftly address emerging threats. Currently, there
is heightened concern regarding highly pathogenic influenza strains circulating in birds and other animals, which have the potential to mutate into more prevalent human strains. Despite these uncertainties, certainly, another pandemic will eventually emerge. It is imperative to recognize that such pathogens can spread rapidly due to the frequent movement of people across vast global distances. Respiratory viruses show no regard for borders, complacency, or overconfidence, naturally traversing rapidly continents and boundaries. Countries must cooperate, and ideally collaborate actively, in both pandemic preparedness and response efforts. There is no indication that WHO and the Pandemic Agreement would not and cannot undermine national sovereignty; rather, they would facilitate closer global cooperation, particularly among neighbouring nations.

ASPHER serves as a trusted advocate for international public health, addressing the various challenges that hinder preparedness. It aims not only to mitigate health impacts but also to address broader economic and social disruptions caused by pandemics. ASPHER’s voice is vital in combatting modern threats such as misinformation, disinformation, and vaccine hesitancy, advocating for the adoption of effective countermeasures. Additionally, ASPHER emphasizes the need to address health inequalities highlighted by the COVID-19 pandemic and strives for comprehensive access to high-quality Universal Health Coverage (UHC) and equitable distribution of pandemic vaccines and other diagnostic and therapeutic technologies.

An effective Pandemic Agreement is crucial to propel broader and timelier measures to achieve these goals.

Sources:


1. Rapid Progress in Global Pandemic Preparedness

Ensuring rapid progress in global pandemic preparedness is essential to safeguarding global health. The recent discussions at the World Health Assembly (WHA) in May 2024 have resulted in Pandemic Agreement proposals that, while not perfect, offer a framework for significant early progress over the next two years, until October 2026. This section will explore the importance of this agreement, its relationship with other international health regulations, and the roles and aspirations of ASPHER in promoting global health preparedness.

Key Points of the Pandemic Agreement

1. Achieving Concrete Action

Countries inevitably had to 'agree to disagree' on some points during the negotiations. However, the resulting Pandemic Agreement represents a foundational step towards more effective pandemic preparedness. ASPHER welcomes these proposals and sees them as a starting point for concrete actions that will enhance global health security.

2. Complementarity with International Health Regulations (IHR)

It is crucial that the Pandemic Agreement works in harmony with the International Health Regulations (IHR) and aligns with other WHO treaties and regulations. This synergy will ensure a cohesive approach to preparing for and managing health emergencies and disasters.

ASPHER's Role and Contributions

1. Promoting the Pandemic Agreement

ASPHER, in collaboration with other international public health bodies, strongly advocates for the strengths of the Pandemic Agreement. We aim to address the deficits in governance, prevention and responses observed in the COVID-19 pandemic and to establish higher global standards across Low- and Middle-Income Countries (LMICs) and High-Income Countries (HICs).

2. Lessons Learned from COVID-19

ASPHER has summarized key lessons learned from the COVID-19 pandemic. We will collaborate with partners who share concerns about past response shortcomings and work towards improving future pandemic preparedness.

3. Counteracting Misconceptions and Misinformation

It is vital to counteract misconceptions, misinformation, and oppositional forces that could undermine global pandemic preparedness efforts. ASPHER supports building community engagement, trust, and transparency at national, international, and WHO levels.

4. Supporting a Bottom-Up Approach

ASPHER advocates for a well-staffed public health workforce capable of providing high-quality advice and evidence-led interventions. This workforce should focus on equity and the precautionary principle, working with local communities, sub-national regions, national governments, WHO globally, and WHO Regional Offices.
Challenges and Autonomy of Individual Countries

ASPHER recognizes the challenges and autonomy of individual countries that can lead them to prioritize their pandemic responses to their population’s needs. This may involve using the International Health Regulations (IHRs) to restrict cross-border movements or forming partnerships with neighbouring countries to manage migration and reduce disease transmission.

1. National Prioritization of Pandemic Responses

Countries may prioritize their pandemic responses based on their population’s specific needs. ASPHER advocates for such partnerships to protect the sustainability of border communities and the health of migrant and cross-border workers.

2. WHO’s Role and Authority

It is crucial to understand that the WHO’s authority comes from its member states. While WHO can provide advice and support, the Pandemic Agreement does not grant WHO the power to amend national laws, impose vaccine mandates, non-pharmaceutical interventions (NPIs), or lockdowns. Article 19 of the WHO Constitution ensures that international treaties or agreements cannot override the democratic processes or the parliaments of WHA members who sign the Pandemic Agreement.

3. Legislative and Regulatory Support

Member states have to ensure their legislation and regulations support pandemic prevention, response, and recovery efforts. These measures should enhance equity and balance individual and collective human rights, including the right to health.

Towards an Enabling Framework

1. Framework for Collaborative Effort

The Pandemic Agreement may become an enabling framework that facilitates collaborative efforts during global health crises, rather than a binding treaty. An agreement setting minimum standards is urgently needed to address the lessons learned from the COVID-19 pandemic and other recent outbreaks like Mpox and Avian Influenza. As well as the wider global spread of established diseases like Dengue.

Conclusion

ASPHER stands ready to collaborate with international partners to ensure that the Pandemic Agreement incorporates these essential elements.

Sources:


2. One Health Approach as a Foundation

ASPHER contends that we must learn from history, especially the lessons of the 21st century. Various communicable diseases present serious global public health threats. The risks of 'spillover' (from animals to humans) and 'spillback' (from humans to animals) underscore the need for globally coordinated action. The SARS (SARS-CoV-1) epidemic in 2002 caused severe illness and death, prompting a global alert and action to minimise pandemic potential. Influenza H1N1 (Swine Flu) exposed the vulnerability of certain population groups, such as pregnant women people from minority ethnic groups, and people with fewer social and material resources, including those experiencing multimorbidity. Cases of human infection with Avian influenza (HxNx) also highlight the propensity for genetic adaptations that could facilitate human-to-human transmission, necessitating preparedness for such events.

Two Ebola outbreaks in West Africa and the Democratic Republic of the Congo demonstrated the need for robust countermeasures and partnerships with local communities to end outbreaks and prevent wider global spread. Recent Mpox outbreaks and new strains have vividly shown rapid international transmission, even in countries without zoonotic reservoirs, and the risks of failing to investigate potential routes of transmission systematically. This underscores the necessity for enhanced global scientific and public health collaboration.

Experts continue to identify potential candidates for the next pandemic. The 'Disease X' scenario promotes an agnostic approach that anticipates unknown pandemic pathogens while advocating for universal measures to ensure flexibility, resilience, preparedness, and innovation.

Additionally, the Food and Agriculture Organization (FAO) advocates for a One Health approach as part of agricultural food system transformation, emphasizing the interconnectedness of human, animal, and environmental health. This approach is essential for ensuring food safety, security, and sustainable food production.

Public health measures stress the importance of achieving global food safety and security, preserving natural resources, and improving health through safeguarding food safety. One Health aims to build a network focused on enhancing food safety, security, and sustainable agriculture while addressing the threats posed by disasters and transboundary diseases to food security.

There is a need to increase education and awareness among academics, producers, consumers, and government agencies about public health challenges to ensure access to safe, nutritious, and healthy food. Food safety and security involve the proper preparation, handling, distribution, and storage of food in accordance with established rules and practices.

ASPHER will persist in promoting One Health Approaches for a multisectoral understanding of vulnerabilities and fostering information exchange among One Health partners. This will be achieved through our efforts in public health curricula, competencies, and workforce development, and linking these to overall pandemic preparedness and response.
ASPHER believes that the One Health approach could serve as a 'primordial intervention design' to address broader determinants of health, such as biodiversity protection and soil health. This approach can ensure prominent levels of health protection in all policies and enhance Health in All Policies (HiAP) and a well-being-based economy for all. It aims to address the social, environmental, and commercial determinants of health and health equity, fostering positive action and collaboration across sectors to improve health and well-being within and across our societies.

ASPHER will support the establishment of an independent expert advisory system to guide the One Health Intergovernmental Work Group (OH IGWG).

Sources:


https://www.who.int/news-room/questions-and-answers/item/one-health, accessed May 22, 2024
Box 1. The evolving landscape of animal influenza is raising concerns about its potential to trigger a pandemic (see Annex 1 for Case Study on Avian influenza Alerts)

Outbreak of Avian Influenza A (H5N1)

With current knowledge, it is not possible to predict what the next pandemic will be or the specific characteristics it will take. However, it is possible to identify which microorganisms currently have pandemic potential.

One of the viruses with this potential is HPAI A(H5N1), with emphasis on clades 2.3.4.4b and 2.3.4.1c, (possibly with H5N6 and H6N8), as it has shown high mortality in humans.

The historical record of how influenza was capable of triggering pandemics is well known: 1918-20; 1957-58; 1968-69; 77, 2009-10 with different degrees of PSI. Probably 10 other influenza pandemics occurred before 1918.

HPAI A(H5N1) has made immense progress in the last 5 years in its adaptation to mammals, with currently around 40 species capable of being infected, some with high mortality. Among the contaminated mammal species are some that are remarkably close to living with humans, namely cows (especially dairy cows, with a high viral load in the milk of these animals), dogs and cats.

To date, there has been no record of transmission between humans, and the registered cases are almost restricted to those who work with animals, particularly birds.

The risk of the virus evolving into contagiousness among humans will depend on its adaptation to mammals carrying other influenza viruses that are the same or like those that cause influenza in humans. If the E627K, Q226L and G228S mutations occur, the risk increases enormously. Such mutations are present in other influenza viruses on farm animal species, as pigs.

Health authorities, namely WHO, ECDC and CDC, have given great emphasis to the issue, expressing concern about the risk of it developing into a pandemic and taking some risk mitigation measures, including:

1. monitor the industry for boosting the production of potential specific vaccines, to be incorporated into seasonal vaccination or to be administered isolated; identify effective antivirals against the virus and seek to ensure their production in adequate quantities if necessary.

2. implement the highest possible surveillance on new cases in humans, farm animals and wild animals, typifying the viruses and mapping risk areas.

3. Recommendation for distribution of PPE to workers who deal with at-risk animals and formation of PPE reserves (CDC).

4. Definition of demanding sanitary measures for places where contaminated animals were found.

5. Great cooperation between agencies that deal with animal health and human health, generating, for example, joint assessments.

The analysis and preparedness for a pandemic by HPAI A(N5H1) is a notable example of what the One Health strategy is all about the need for a fully integrated view of human health with animal health, be it domesticated or wild animals. Only with this type of fully integrated solution will it be possible to manage zoonotic. It also perfectly illustrates the costs of an emerging infection, already causing enormous losses for bird breeders, probably soon for cow breeders, as well as enormous damage to some wild species, particularly marine mammals.

HPAI A(N5H1) has enormous learning value for pandemic preparedness in general. The phase we are in allows governments, health authorities, scientific research structures, and the training of health professionals to act in advance, avoiding the errors and failures that existed during COVID-19.
There are many lessons to be learned from the last pandemic, as it was found that NFI measures were hugely successful in containing many respiratory infections, particularly influenza.

Another dimension in which the HPAI A(H5N1) infection distinguishes itself is the creation of a denialist narrative even before it is transmissible by humans, which is happening for the first time. Groups on social media are trying to rally populations against the possibility of it being necessary to be vaccinated, state authorities in the USA deny animal health professionals access to farms with infected animals and promote the devaluation of the WHO and other health entities in the pandemic preparation they can do. Developing organizational and HCP skills to deal with infodemics is therefore another basic need for pandemic preparedness.

Conclusion:
ASPHER supports research funding in vaccine development for an advanced better-prepared prevention, to respond to the current and future outbreaks of highly pathogenic avian influenza A (H5N1) and avian influenza viruses with pandemic potential A (H5Nx).

Sources:

World Health Organization. Avian Influenza A(H5N1) - United States of America
https://www.who.int/emergencies/disease-outbreak-news/item/2024-DON512 ; accessed May 8, 2024


Joint FAO/WHO/WOAH preliminary assessment of recent influenza A(H5N1) viruses


ASPFER presentation by Professor. Henrique Lopes, May 8, 2024


3. Universal Health Coverage (UHC) for Resilience

Promoting Universal Health Coverage (UHC) is crucial for enhancing population resilience and improving the ability to respond to future pandemics. ASPHER supports the emphasis on ensuring better global access to high-standard healthcare systems, technologies, and workforces. We now understand that UHC is an essential component of pandemic preparedness and control. The arbitrary divide between universal healthcare and selective social care results in avoidable harm and fosters distrust, particularly in pandemic situations.

We aim to avoid a repeat of the 'unpreparedness' and 'disorderly race' for Personal Protective Equipment (PPE) and other clinical equipment, and diagnostics experienced during the initial stages of the COVID-19 pandemic.
Strengthening investment in resilient primary care is essential, aimed at building a more sustainable, and community-embedded service in light of the lessons learned from COVID-19. The crucial role of primary healthcare in pandemic prevention, preparedness, and control has been highlighted. Long-term, trusted relationships with patients and local populations are fundamental for the expert management of unselected acute and chronic conditions, early warning of health risk states, ongoing surveillance, and the sustainability of health systems financing.

ASPHER encourages innovative policy mechanisms to progressively achieve UHC, addressing the inverse care law, and serving socio-economically disadvantaged, stigmatized, and excluded population groups who are also the most vulnerable in a pandemic.

Primary care systems are the foundation of local resilience and play a critical role in understanding population health needs, they provide the foundation for local surveillance and early warning of health risk states when working in partnership with public health.

ASPHER wishes to further emphasize the importance of capacity building, education, and training as essential components of resilient health systems. It is crucial to ensure that public health action remains within the broader framework of universal health coverage, supported by public investment and financing of countermeasures.

We welcome the emphasis on rebuilding vaccine confidence and redesigning and restoring high population coverage in immunisation programs. This renewal should consider the significant mortality and morbidity reductions achieved globally over the past 60 years through the WHO-led Expanded Programme on Immunization (EPI) when undertaken in partnership with local professionals and communities. Sustaining investment and trust in routine immunisation programmes and responding to newly emerging infectious diseases are vital for future health security.

Sources:


World Health Organization News. Global immunization efforts have saved at least 154 million lives over the past 50 years. WHO. 2024 https://www.who.int/news/item/24-04-2024-global-immunization-efforts-have-saved-at-least-154-million-lives-over-the-past-50-years


Universal health coverage must be central to the pandemic accord. A statement from UHC2030’s co-chairs for the seventh INB meeting in November (6-10) and December (4-6) 2023. UHC30. https://www.uhc2030.org/news-and-events/news/universal-health-coverage-must-be-central-to-the-pandemic-accord/
4. Multisectoral Pandemic Prevention and National Pandemic Plans

ASPHER advocates for the development of robust national plans that incorporate lessons learned from their COVID-19 experiences, both strengths and weaknesses and global best practices.

The association encourages its academic members to participate in providing independent advice and evaluating the adequacy of these national plans.

ASPHER supports each country in expanding its surveillance expertise and threat assessment capacities to better identify and respond to emerging pathogens and increasing transmission. National Pandemic Plans should include commitments for a longer-term follow-up period after the acute phases of pandemics have subsided. This extended period is necessary to finalize lessons learned, fully assess all disability, morbidity, and mortality burdens, and address the avoidable inequalities and long-term impacts, especially on those already experiencing pre-pandemic health disparities.

5. Recognizing Overlaps with Wider Emergencies

Acknowledging the intersections with broader emergencies, including conflicts, adverse weather events, and climate change is imperative.

ASPHER anticipates an increase in the occurrence of disasters and emergencies in the years ahead, especially as the effects of climate change intensify. This includes adverse weather phenomena like floods and heatwaves, which may result in heightened survival and replication of pathogens, potentially causing vectors to establish themselves permanently in non-endemic areas. Deforestation also plays a role by altering habitats and extending vector presence to densely populated areas, increasing contact between humans and wild species, and contributing to the rise in zoonotic diseases. Additionally, forced migration pushes people deeper into forests, where they hunt wild animals like monkeys and rodents for food, increasing the risk of disease transmission.

Interconnected aspects between pandemics and other major disasters contribute to building resilience and preparedness. These aspects also inform the future competencies required in the public health workforce.

Public health countermeasures must receive adequate financial support, both within individual countries and internationally. Additionally, public health knowledge must be effectively utilized and more widely recognized in the planning, financing, and organization of countermeasures, as well as in pandemic preparedness and prevention efforts for the future.

ASPHER would appreciate the chance to engage in advancing emergency response efforts, such as collaborating with Health Emergency Preparedness and Response (HERA) within the European Union, as well as in broader collaborations across the European Region.

Sources:


6. Equitable Access to Pandemic-Related Health Products

Vaccines and other new technologies such as antiviral medications, new virus tests are all vital to be procured speedily and comprehensively. This implies minimal trade and commercial barriers to their manufacture and deployment worldwide. The major inequities experienced in the COVID-19 pandemic need to be avoided. This includes differences between HIC and LIC as well as within HIC. Ensuring equitable and globally affordable access to pandemic-related health products, including Personal Protective Equipment (PPE), vaccines, pharmaceuticals, technology, expertise, and information, is imperative. No country should be left behind in accessing critical resources. The COVID-19 pandemic brought up challenges across countries and regions in ensuring rapid and equitable access to pandemic-related health products. Access to essential pandemic-related health products is vital to minimise harm and for the control of pandemics.

If the same mistakes are to be avoided in future pandemics, there is the need to have safe stocks of PPE and other materials always used in epidemic/pandemic conditions in health facilities, readily available at state or national level, and industrial level that allow a quick response and without the overruns we saw from rich countries absorbing almost all production during the beginning of COVID-19. This does not even have a budgetary expression, only in the way in which stocks can be managed according to expiration dates and the availability of storage space. The same applies for installed industrial capacity. In critical production elements, there must be productive capacity that can be mobilized immediately without forcing other important productions to be sacrificed for example the production of vaccines, PPE, medical oxygen, antivirals, etc.

Emergency access and R&D for pandemic products will require cooperative action and ensuring equitable access over and above commercial rights. The benefits of R&D, technology and information sharing must be equitable and bilateral. We now have professionally led novel initiatives and prospects for cross-border sharing of vaccines, patent pools, joint procurement, sharing of expertise, capacity building, and equitable licensing and regulation. These must not be subject to industry capture. Part of the national stocks of these necessary products can be mobilized through international cooperation so that maximum force can be used in the initial phase of a potential pandemic outbreak, whatever the location on the planet. Everyone is strengthened by this cooperation, because even donors are protecting themselves from the possible spread of the threat.

Pandemic agreements and negotiations could ensure that inevitable government measures would happen in a predictable way and use the leverage of public financing effectively. Furthermore, pandemic preparedness must include measures including and beyond addressing trade secrets. They must assure sustainable global production and business continuity practices to address the current fragility of critical supply chains for essential pandemic products, such as diagnostics, vaccines, medicines, and PPE. Part of the national stocks of these necessary products can be mobilized through international cooperation so that maximum force can be used in the initial
phase of a potential pandemic outbreak, whatever the location on the planet. Everyone is strengthened by this cooperation, because even donors are protecting themselves from the possible spread of the threat.

ASPHER’s position is influenced by experiences during the COVID-19 pandemic and the global vaccine inequities observed, particularly affecting Low- and Middle-Income countries (LMIC). During the COVID-19 pandemic, we have learned that support for creating surveillance asset infrastructure is paramount to prevent future pandemics. The pandemic measures should/need to enable the parties, especially from LICs and LMICs, to set up/upgrade lab infrastructures for advanced genome sequencing for surveillance, epidemiological forecasting, and clinical diagnosis.

At the core of knowledge transfer across countries are trust, equity, and accountability. We now have the means for fast access through sharing of pathogens across countries. This will have consequences not only for access to products but more crucially for testing and control within and across countries. However, the conflicting interests posed by high-income countries, developing countries and the pharmaceutical industry have made the Pathogen Access and Benefit Sharing (PABS) a contentious issue in the Pandemic Agreement. Furthermore, substance-based negotiations will allow negotiations towards more clearly defined legal obligations and principles which could settle both the need for fast sharing of pathogens as well as shared financing to ensure equitable access to products and to ensure groundwork for knowledge transfer and capacity building in R&D, in particular, across LMIC.

Negotiating rules and obligations concerning both pathogen sharing and access to pandemic products - both in relation to control and response - are necessary. Access also matters for control. Cooperation across countries can only take place on the grounds of trust and accountability. Governments are the main source for financing on control and response to pandemics. We now have novel initiatives and prospects for cross-border sharing of vaccines, joint procurement, and equitable licensing. Governments can and need to leverage the power of public financing to enhance pandemic preparedness, control, and response. The pandemic agreement will provide clarity and predictability for the pharmaceutical industry, as well as what can be expected to ensure equity.

**Conclusion:** ASPHER supports further negotiations on pathogen access and benefit-sharing and calls for upholding equity at the core in institutionalising PABS to ensure rapid control, response, and trust on pandemic measures, recognising the need for rules-based governance in contrast to market-based negotiations. Negotiations on access and R&D on pandemic-related products can use the leverage of public financing.

**Sources:**


https://www.nature.com/articles/d41586-023-02904-y
https://www.nature.com/articles/d41586-022-03529-3

7. Global and Rapid Public Health Surveillance Systems

Global and rapid public health surveillance systems are indispensable. The global deficiencies in health surveillance networks hindered the effective exchange of health data both between and within countries during the COVID-19 pandemic.

Despite advances in public health medicine and innovative technologies, communicable disease pathogens, particularly viral diseases, remain the most pressing threats to humanity in the 21st century. Diseases previously thought to be eradicated or under control are re-emerging, while new and devastating viruses like COVID-19 continue to emerge.

Therefore, it is crucial to establish a reliable and effective public health surveillance system capable of providing essential information for assessing public health risks, including infectious diseases, potential pathogens, and emerging virus threats. It’s also important to recognize that some pathogens spread more slowly around the world, often exacerbated by the consequences of the climate crisis. These can lead to significant outbreaks in regions where competent vectors exist, as currently seen with Dengue in South and Central America.

WHO defines public health surveillance as "the ongoing, systematic collection, analysis, and interpretation of health-related data essential to the planning, implementation, and evaluation of public health practice, as well as the dissemination of data pertinent to public health." WHO and governments are increasingly recognizing the usefulness of data from effective surveillance systems in targeting resources and evaluating programs.

Collaborative surveillance efforts will enhance capacity and collaboration among diverse stakeholders, both within and beyond the health sector, ultimately improving public health intelligence and evidence-informed decision-making (See Annex 2 for definitions).

**ASPHER recommends the following:**

- Establishing national and international surveillance systems integrated into a global network, with increased capacity, defined standards, and agreed-upon procedures.
- Implementing an updated comprehensive mechanism for immediate reporting of suspected or confirmed cases of infectious diseases to enhance global public health surveillance.
- Enhancing the utilization of computerized records and internet transmission and reporting within the global network of public health surveillance systems.
- Promoting early detection, risk assessment, and monitoring of evolving risks through timely public health alerts within the global surveillance network.
- Strengthening international public health surveillance with data sharing and benefits to ensure rapid, accurate, and comprehensive surveillance information.
- Ensuring the necessary legislation is in place for the establishment and exchange of modernized infectious disease surveillance data.

Sources:


World Health Organization. Outbreaks and emergencies: Surveillance; Surveillance in Emergencies. WHO. https://www.who.int/westernpacific/emergencies/surveillance


8. Updating International Health Regulations

The International Health Regulations (IHR) require prompt updating, which is in process in parallel to the pandemic agreement.

Established by the World Health Organization (WHO), the International Health Regulations (IHR-2005) serve as a legally binding international instrument ratified by 196 States Parties, including all 194 Member States of the WHO. These regulations were introduced in response to the lessons learned from the 2002 SARS international outbreak, revealing weaknesses in regulatory approaches, and highlighting the need for enhanced WHO global oversight and coordination.

The primary objective of the IHR is to prevent, control, and respond to the international spread of disease while minimizing interference with international traffic and trade. Following the experience of the COVID-19 pandemic,
the WHO Executive Board conducted a review of the IHR-2005 in 2022, proposing targeted amendments to enhance its effectiveness in addressing public health emergencies of international concern.

Recognizing that pandemics can occur at any time, crossing international borders and affecting all countries and continents, there is an urgent need for updated International Health Regulations to provide a comprehensive legal framework defining countries' rights and obligations in managing public health events and emergencies with cross-border implications.

The current IHR-2005 is a legally binding instrument applicable to 196 countries, outlining countries' obligations, including reporting public health emergency events, and establishing national focal points for communication with WHO. Additionally, the regulations address international travel and transport requirements, such as health documentation.

Currently, in many countries, there is a risk of disconnect between the IHR focal point function and the dual role of local port health teams. These teams, composed of environmental health, public health, and infectious disease specialists, work alongside multi-agency colleagues, including transport carriers, to conduct initial investigations of persons with established and novel infections. Resourcing the full implementation of the EU Healthy Gateways' guidance for all infections would be a helpful start and evidence of a commitment to a collaborative approach to the IHR. This would increase protection for travellers, workers, and populations across borders.

The updated IHR will introduce essential safeguards to protect travellers' rights and personal data, ensuring informed consent and non-discrimination in the application of health measures under the regulations.

**Conclusion:**

ASPHER supports WHO's proposed amendments to the IHR 2005, which serves as a cornerstone of global health security. These amendments will enhance the international community's capacity to detect and respond to future pandemic threats effectively.

During the COVID-19 pandemic, ASPHER expressed concerns about the depletion of public health workforces and emphasized the importance of each country maintaining adequate capacity to fulfil its IHR obligations. This includes the ability to deploy personnel to investigate suspected cases and outbreaks, as well as to support urgent measures such as assessment and testing at border points, even under significant workload pressures.

The proposed amendments to the IHR will permit WHO to establish an early warning system and issue public health alerts for events that may constitute public health emergencies of international concern (PHEIC) or not yet classified as such but warrant early warning.

**Sources:**


World Health Organization. International Health Regulations. WHO. 2024. [https://www.who.int/health-topics/international-health-regulations#tab=tab_1](https://www.who.int/health-topics/international-health-regulations#tab=tab_1); accessed May 8, 2024

9. Effective Global Governance and Accountability

The scale of avoidable harm and inequity experienced globally during COVID-19 underscores the need for a Pandemic Agreement that addresses gaps in global governance and the ability of Member States to hold each other and corporate entities accountable according to national and international standards. To reduce the risk of future global or regional pandemics, the Pandemic Agreement must require Member States to accept binding commitments to work collaboratively on the underlying causes of pandemics, identify and address policy incoherence, and enhance pandemic prevention, preparedness, response, and recovery. The Pandemic Agreement should complement and support the International Health Regulations (IHR).

Current proposals outline minimum standards no Member State should fall, whether due to lack of sustainable capacity and resources, deliberate actions, or inactions. For example, austerity measures and other political decisions to cut spending on essential services have led many countries, regardless of income level, to underinvest in public health and social protection infrastructures, hindering progress toward SDG 3 and the right to health. This includes measures directly related to pandemic prevention, preparedness, and response. Many countries lack the capacity and expertise to routinely implement existing port health measures, resulting in avoidable harm and increasing the risk of preventable outbreaks and exposures. This significantly reduces the ability to identify novel or known organisms with pandemic potential early. At a minimum, Member States must resource and staff their commitments to their populations and neighbours with whom they share ecosystems, borders, and services.

A framework for Member States to hold each other accountable through active and ongoing reporting is essential. Annual and public reporting to the World Health Assembly, along with a biennial Conference of Parties, is the minimum required. The deliberations, decisions, and work of supporting committees and specific work packages should be transparent, published, accessible, and protected from direct lobbying and indirect influence by vested interests. Global cooperation requires resources, adequate capacities, and national and international structures to enable this. The Pandemic Agreement can provide a groundwork for such cooperation and engagement.

The Framework Convention for Tobacco Control (FCTC) has proven to be a valuable tool for supporting public health measures against substantial corporate lobbying and presence. Pandemic control and response measures at the country level could diminish inappropriate corporate practices and ensure improved and faster access to pandemic products and services, providing backing and clarity for governments to impose national measures against corporate interests. The role of the Pandemic Agreement must be understood in the context of safeguarding public interest and public health priorities for all countries.

Some Member States managed to avoid corporate capture of their pandemic preparedness and response functions and/or limit vaccine inequity. These provide valuable lessons for the development and monitoring of good global practices. Similarly, there must be a commitment to long-term government investment in pandemic prevention, preparedness, response, and recovery across all departments and sectors of society.

Monitoring should also enable Member States to support each other to stand firm against organizations that seek to reduce accountability, and transparency, de-professionalize the workforce, disenfranchise populations, and spread disinformation to serve their own political or profit-related motives. Those who seek to reduce government investment in health and social protections have no long-term interest in pandemic prevention, preparedness, and response and should play no part in COVID-19 recovery and future capacity-building initiatives. Surveillance and monitoring are essential elements for pandemic prevention and preparedness, but they must be carried out by actors and institutions that can provide accountable and reliable information. Recognizing conflicts
of interest in pandemic preparedness and response is crucial, both in relation to corporate involvement and ideological opposition to public regulatory measures.

An improved balance between public health measures, response-focused medical countermeasures, and long-term investment in health systems, social protection, and public health institutions and capacity building is needed across countries. Pandemics disrupt business and economic development, requiring swift government action. Therefore, industries need a predictable and balanced pandemic framework that does not prioritize the privileges of one industry over the needs of wider society and other industries. The Pandemic Agreement can provide a supporting base and understanding for cooperation and sharing of benefits and costs.

Furthermore, pandemics and crises are particularly costly for governments, which are responsible for countermeasures. Global mechanisms must recognize this as part of international solidarity, reflected in sustained funding for WHO, regional, and national institutional cooperation, as well as wider health and social protection systems and intersectoral capacities.

The COVID-19 pandemic has shown the flaws in relying on charity as the main framework for global solidarity, highlighting the need for a more predictable and coherent approach to solidarity and equity. This includes redressing the balance between trade and commercial policy and public health and health equity.

Organized disinformation has undermined trust in Member States and WHO, complicating efforts to reduce vaccine inequity and support information and sample sharing. Lessons from the Ebola outbreaks in West Africa in 2014 must be implemented, focusing on local infrastructure weaknesses, information and tissue governance, and health technology assessment. Diagnostic testing, including whole genome sequencing, must be fit for purpose in the field and support local staff and communities. Any resultant databases or discoveries should be held in public trust for Member States and their populations, not for the interests of international donors or corporations.

While challenging, much of the work required by Member States and global bodies to meet these standards is not new. Many actions are already outlined in other agreements, frameworks, and treaties under WHO or other UN bodies, such as IGWG, WHO-PIP, the Sendai Framework, the Convention on Biological Diversity and its Nagoya Protocol, the Aarhus Convention, the UNESCO Convention for the Safeguarding of Intangible Cultural Heritage, and the UN Agreement on Marine Biodiversity Beyond National Jurisdiction. A multisectoral approach is needed to bring these commitments together and align them with the Pandemic Agreement and its implementation plan.

Sources:

Street, A & Kelly, AH 2023, 'Tolerable tests: Regulating diagnostic innovation in a global health emergency, lessons from Ebola', Science, Technology, & Human Values (ST&HV)

10. Summary

ASPHER welcomes the Pandemic Agreement that, while not perfect in several ways, should allow stronger preparedness for the next pandemic.

ASPHER stresses that the lessons learned from COVID-19 are still being highlighted in national and international inquiries and reviews, and these should inform the Pandemic Agreement programs for 2024-2026.

ASPHER underscores the need to address key issues that are not sufficiently articulated in the Pandemic Agreement draft, ensuring they are not overlooked before the lessons learned from COVID-19 fade into oblivion or are disregarded before the next pandemic emerges. These crucial issues include:

- Supporting WHO as an independent coordinator for global pandemic governance and control, encompassing science communication and distributive justice.
- Preventing the recurrence of injustices and closing inequality gaps.
- Ensuring equitable access to vaccines and fostering collaboration with local scientists.
- Promoting greater equity in the distribution of pandemic countermeasures.
- Enhancing responsiveness through real-time data sharing and pull purchase mechanisms.
- Accelerating the development of resilient health systems in Primary Care and Universal Health Coverage (UHC).
- Strengthening public health competencies.
- Advocating for cross-border cooperation.
- Bolstering the overall capacity and capability of the public health workforce, particularly in pandemic expertise.
Annex 1: Case Study on Avian Influenza Alerts

On April 1, 2024, the CDC-USA, IHR National Focal Point (NFP) notified the World Health Organization (WHO) of a laboratory-confirmed case of human infection with Influenza A (H5N1). The patient had a history of exposure to dairy cattle, marking the first presumed human infection with A (H5N1) from this source. The CDC and WHO assess the public health risk to the general population as low, while the risk for occupationally exposed persons is considered low-to-moderate.

The World Organization for Animal Health (WOAH) confirmed outbreaks in domestic birds and mammals, which have had devastating consequences for the poultry industry due to mandatory culling policies. These outbreaks have significantly impacted farmers' livelihoods, international trade, and the health of wild birds, resulting in substantial economic losses. Dr Keith Hamilton, Head of the WOAH Preparedness and Resilience Department, emphasized the severe economic repercussions of avian influenza, highlighting the potential death of entire bird flocks.

From a virological aspect, there are 18 different hemagglutinin subtypes and 11 different neuraminidase subtypes, with two dominant clades of A (H5N1): 2.3.4.4 in Europe and 2.3.4.1 in Asia. According to the ECDC, as of February 27, 2023, there have been 873 cases of human infection with avian influenza A (H5N1) reported across 22 countries, resulting in 458 deaths. These countries include Azerbaijan, Bangladesh, Cambodia, Canada, China, Djibouti, Ecuador, Egypt, Indonesia, India, Iraq, Laos, Myanmar, Nepal, Nigeria, Pakistan, Spain, Thailand, Turkey, Vietnam, the United Kingdom, and the United States.

To date, no human-to-human transmission has been detected, and mortality rates in Europe are significantly lower than in Asia. Jeremy Farrar, Chief Scientist of WHO, expressed concern about H5N1 as a potential pandemic threat. He noted that antiviral drugs are commonly used to treat H5N1 infections, and some countries have used these antivirals preventively for high-risk individuals or those near infected persons. Rapid advancements are being made toward future vaccine solutions that could protect against H5N1.

On May 8, 2024, during a virtual press conference on global health issues, WHO reiterated that, based on available information, the public health risk posed by H5N1 avian influenza remains low for the general population and low-to-moderate for those exposed to infected animals. In recent years, H5N1 has spread widely among wild birds, poultry, land, and marine mammals, and now among dairy cattle.
Annex 2: Surveillance Definitions

Objectives of Surveillance Systems

Public health surveillance provides the scientific and factual database essential to informed decision-making and appropriate public health action, to guide successful interventions, therefore, the surveillance system provides rapid early warning information typically from health professionals, clinical services, and laboratories. Other more recent developments include genomic surveillance of the total SARS-CoV-2 virus genome to show the rapid virus genetic evolution and patients informing online databases directly, supported by home testing kits.

The questions facing us in surveillance include when or how often public health action needs to be taken, what other information is needed to take action or monitor the controls in action, and when or how frequently the information is needed, that should be determined by the type of surveillance to be applied.

Box 2: Definitions, Basic Concepts of Public Health Surveillance

<table>
<thead>
<tr>
<th><strong>Indicator:</strong></th>
<th>A measurable factor that allows decision makers to estimate objectively the size of a health problem and monitor the processes, the products, or the effects of an intervention on the population.</th>
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<tbody>
<tr>
<td><strong>Active surveillance:</strong></td>
<td>A system employing staff members to regularly contact health care providers or the population to seek information about health conditions. Active surveillance provides the most accurate and timely information, but it is also expensive.</td>
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<tr>
<td><strong>Passive surveillance:</strong></td>
<td>A system by which health care receives reports submitted from hospitals, clinics, public health units, laboratories, and other sources. Passive surveillance is inexpensive.</td>
</tr>
<tr>
<td>Routine health information and management system:</td>
<td>A passive system in which regular reports about diseases and programs are completed by public health staff members, hospitals, and clinics.</td>
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<tr>
<td>Integrated surveillance:</td>
<td>A combination of active and passive systems using a single infrastructure that gathers information about multiple diseases or behaviours of interest to several intervention programs.</td>
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<tr>
<td><strong>Syndromic surveillance:</strong></td>
<td>An active or passive system that uses case definitions that are based entirely on clinical features without any clinical or laboratory diagnosis, such as influenza-like illness.</td>
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<tr>
<td>Behavioural risk factor surveillance system (BRFSS):</td>
<td>An active system of repeated surveys that measure behaviours that are known to cause disease or injury.</td>
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<tr>
<td>Other surveillance terms can include:</td>
<td>Serological surveillance using blood tests for antibodies to check immunity levels and sentinel surveillance that looks at samples of clinical reporting sites that can act as an early warning system.</td>
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Box 3: Core Functions of Public Health Surveillance

**Prevention effectiveness:** Closely linked to public health policy, this provides important economic information that aids decision-makers in selecting the most cost-effective solutions and disease mitigation strategies.

**Health informatics:** This involves the methods used for collecting, compiling, and preserving health records.

**Laboratories:** Labs support public health efforts by performing tests that confirm viruses and diseases, and by performing research.

**Epidemiology:** This involves the study of diseases, how they originate, how they are spread, which population groups are most affected, and how they can be prevented.

Risk factor identification and study of wider determinants: This phase seeks to determine the cause of the problem. It also addresses if certain demographic characteristics are associated with greater susceptibility than others and can help reduce health inequalities and reduce racial and ethnic disparities in health care outcomes.

**Intervention evaluation:** This phase seeks to determine what solution can be introduced that will resolve the problem.