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| **PANDEMIC INFLUENZA** |
| **DEFINITION:**  An influenza pandemic is a global epidemic caused by a new influenza virus to which there is little or no pre-existing immunity in the human population (World Health Organization 2019).  **REFERENCE:**  World Health Organization (2019). Pandemic Influenza. Available at [www.euro.who.int/en/health-topics/communicable-diseases/influenza/pandemic-influenza](http://www.euro.who.int/en/health-topics/communicable-diseases/influenza/pandemic-influenza). Accessed on 19 November 2019. |
| **ANNOTATIONS:**  **Synonym(s):** pan flu  **Additional scientific description:**  The constant evolving nature of influenza virus makes influenza among the top few infectious hazards with significant impact. There will be another influenza pandemic. A pandemic occurs when an influenza virus emerges to which there is little or no immunity in the global human population and which can transmit efficiently among people. The pandemic virus can be a virus strain jumping directly from animals or reassorted from animal viruses with or without human seasonal viruses.  Three influenza pandemics occurred at intervals of several decades during the 20th century, the most severe of which was the so-called ‘Spanish Flu’ (caused by an A(H1N1) virus), estimated to have caused 20–50 million deaths in 1918–19. Milder pandemics occurred subsequently in 1957–58 (the ‘Asian Flu’ caused by an A(H2N2) virus) and in 1968 (the ‘Hong Kong Flu’ caused by an A(H3N2) virus), which were estimated to have caused 1–4 million deaths each. The most recent pandemic was caused by the A(H1N1) virus in 2009.  The current status of knowledge and technology means that prediction of the next influenza pandemic – when, where, which virus strain, how severe – is impossible. Consequently, pandemic vaccines cannot be developed before the pandemic virus emerges. Innovative research (e.g. at [www.who.int/influenza/resources/research/en/](http://www.who.int/influenza/resources/research/en/)) is key to inform and advance pandemic influenza preparedness. Meanwhile, global influenza surveillance, through the WHO Global Influenza Surveillance and Response System (GISRS), timely sharing or viruses and associated information, and national capacity building via seasonal influenza programs are critical to mitigate the impact of inevitable next pandemic.  **Metrics and numeric limits:**  The most recent pandemic occurred in 2009 and was caused by an influenza A (H1N1) virus. It is estimated to have caused between 100,000 and 400,000 deaths globally in the first year alone. Children and young adults were disproportionately affected in comparison to seasonal influenza, which causes severe disease mainly in the elderly, persons with chronic conditions and pregnant women (World Health Organization Europe 2019).  **Key relevant UN convention/multilateral treaty:**   * International Health Regulations (2005). (World Health Organization 2016).   **Examples of drivers, outcomes and risk management:**   * Influenza pandemics, whether mild, moderate or severe, affect a large proportion of the population, which puts significant strains on health and other essential services and may result in significant economic losses (World Health Organization Europe 2019). * Timely detection, characterization and sharing of the pandemic virus impacts directly the outcome of all downstream response. The WHO Global Influenza Surveillance and Response System (GISRS) is the foundation of such operation. * In an influenza pandemic, the virus is likely to spread rapidly. Rapid development, production and deployment of vaccines is critical to limit the potential impact on populations and essential services (World Health Organization 2019). * Access to the appropriate vaccine in the early phases of a pandemic is greatly influenced by global production capacity and the lead-time required to produce influenza vaccines (World Health Organization 2019). * As an influenza pandemic may last months or even years, it may require a sustained response in the health sector but also in other sectors providing essential services, such as energy and food production (World Health Organization 2019).   **REFERENCES:**   * World Health Organization (2016). International Health Regulations (2005), 3rd ed. Available at [www.who.int/ihr/publications/9789241580496/en/](https://www.who.int/ihr/publications/9789241580496/en/). Accessed on 19 November 2019. * World Health Organization (2017). How can I avoid getting the flu? Available at: [www.who.int/features/qa/seasonal-influenza/en/](http://www.who.int/features/qa/seasonal-influenza/en/). Accessed on 19 November 2019. * World Health Organization (2019). Pandemic Influenza Preparedness. Available at [www.who.int/influenza/preparedness/en/](http://www.who.int/influenza/preparedness/en/). Accessed on 19 November 2019. * World Health Organization (2019). Pandemic Influenza. Available at [www.euro.who.int/en/health-topics/communicable-diseases/influenza/pandemic-influenza](http://www.euro.who.int/en/health-topics/communicable-diseases/influenza/pandemic-influenza). Accessed on 19 November 2019. |
| **Coordinating Agency or Organisation:**  World Health Organization |
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