

Forum: Economic and Social Council II

Issue: Preventing outbreaks and the spread of H1N1

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Introduction

Influenza A (H1N1) is a new influenza virus strain responsible for the 2009 outbreak of H1N1. Influenza A (H1N1) has never been circulated among humans before, thus is unrelated to any other seasonal flu strains. H1N1 is spread only through human-human transmission, with symptoms similar to the normal seasonal flu.

Seasonal influenza occurs and mutates every year. Some countries use the seasonal influenza vaccine to prevent outbreaks and spread of seasonal influenza strains, though most people develop a certain degree of immunity to seasonal influenza strains. However, H1N1 is an entirely new influenza virus strain leaving many people with little or no immunity to H1N1. This poses the risk of greater infection and virulence rates among the human population.

The World Health Organization (WHO), the directing and coordinating authority for health within the United Nations system, has since been releasing situation reports and guiding the deployment of the H1N1 vaccines to state governments.

Definition of Key Terms

Special Note on Nomenclature:

The official WHO designation is Pandemic (H1N1) 2009. Other forms include H1N1/09 in order to differentiate the 1918 H1N1 pandemic (Spanish Flu) and novel H1N1, referring to "novel" used in its adjective form, meaning "new", to distinguish the virus as an entirely new strain. Swine flu is the common media name, referring to its swine origin.

Global Alert and Response (GAR)

A WHO integrated global alert and response system for epidemics and other public health emergencies based on strong national public health systems and capacity and an effective international system for coordinated response.

Influenza

A viral infection that affects mainly the nose, throat, bronchi and, occasionally, lungs. Infection usually lasts for about a week, and is characterized by sudden onset of high fever, aching muscles, headache and severe malaise, non-productive cough, sore throat and rhinitis.

International Health Regulations 2005 (IHR)

An international legal instrument that is binding on 194 countries across the globe, including all the Member States of WHO. Their aim is to help the international community prevent and respond to acute public health risks that have the potential to cross borders and threaten people worldwide.

World Health Organization (WHO)

The directing and coordinating authority for health within the United Nations system.

Pandemic (H1N1) 2009

A new influenza virus that has never circulated among humans before. After outbreaks in North America early in 2009, the virus spread rapidly around the world. Pandemic influenza is transmitted like seasonal influenza but people have virtually no immunity to it. Mitigating its effects is a public health priority.

General Overview

International response

The WHO has been the primary oversight body in addressing the prevention of outbreaks and the spread of H1N1. While the WHO continues to monitor and provide recommendations to state governments, the WHO cannot dictate contingency plans to prevent outbreaks and the spread of H1N1. The IHR is one such exception as the IHR is a legally binding agreement among all UN member states.

Contingency plans for controlling disease epidemics

Many states have their own contingency plans to deal with disease epidemics. A major challenge is to have formalized contingency plans that can be easily implemented and followed through by all states. One example, the Epidemic Preparedness and Response (EPR) unit of the WHO, provides support to countries in order to strengthen national preparedness and response plans in dealing with disease epidemics.

Pandemic (H1N1) 2009 vaccines

Vaccination is the most effective way to prevent outbreaks and the spread of H1N1. States grant regulatory approval to license H1N1 vaccines and are responsible for vaccine distribution. Currently, the WHO estimates a worldwide capacity of three billion doses a year.

Vaccination priority

Initial demand will be greater than supply, but production will eventually meet demand in the near future. First priority goes to healthcare workers in order to maintain healthcare facilities in the event of pandemic. Other priority groups, such as person's with existing health conditions, should also be given priority. One challenge is to address the demand for priority groups within a state before making the H1N1 vaccine readily available to the general population.

Vaccination distribution

One of the biggest concerns of vaccination distribution is providing sufficient doses to LEDCs (less economically developed country) and developing countries. The WHO has secured donations from other countries for approximately 200 million doses to 95 developing countries. However, goals of equitable distribution of H1N1 vaccines to vaccinate 10% of a developing nation's population remain far from achieving complete coverage for all people.

Timeline of Events

The European Centre for Disease Prevention and Control (ECDC) has reported 12 121 confirmed deaths as of 22 December 2009. Both the ECDC and CDC have stopped counting infected cases. The following Timeline of Events outlines the progression of worldwide government response to the virus.

Date	Description of event
March 17, 2009	First case of H1N1 identified in Veracruz, Mexico
April 24, 2009	WHO releases first Disease Outbreak Notice on H1N1
April 25, 2009	WHO Emergency Committee convenes under IHR, declaring a "public health emergency of international concern"
June 11, 2009	WHO raises Pandemic Alert Level to Phase 6, signaling a major worldwide pandemic, the highest Pandemic Alert Level
September 30, 2009	Sinovac Biotech Ltd. of China produces world's first H1N1 vaccine
October 5, 2009	UN advises that rich countries should make more H1N1 vaccines available to poorer nations
November 27, 2009	WHO cautions against H1N1 mutations and Tamiflu (oseltamivir) resistance in at least 75 cases

UN Involvement, Relevant Resolutions, Treaties and Events

Nearly all UN involvement is directed through the WHO which coordinates all H1N1 activities through the GAR system. Alert and response operations include (1) epidemic intelligence and systematic event detection, (2) event verification, (3) information management and dissemination, (4) real time alert, (5) coordinated rapid outbreak response and (6) outbreak response logistics.

- International Health Regulations 2005 (IHR)

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