Objective 1: increase in seasonal vaccine use

**Flu hospitalizations for elderly highest ever recorded**
30 January 2015 / UPI
The hospitalization rate of elderly Americans for influenza this season is at the highest rate ever recorded by the U.S. Centers for Disease Control. The CDC warned the 2014-15 flu season would be a bad one and new numbers from the agency's weekly FluView report show the elderly, in particular are spending more time in the hospital because of it.

**UK, Canada add to bad news on this year's flu vaccine**
5 February 2015 / CIDRAP
Researchers brought more bad news today on the performance of this winter's flu vaccine—which does not match well with the dominant circulating strain—saying it has shown no significant effectiveness in preventing flu in the United Kingdom or in preventing flu-related hospitalizations in Canada.

**Why flu vaccines are underperforming this winter**
6 February 2015 / BBC
This year's flu vaccine is failing to adequately reduce the number of people contracting a prevalent strain of the virus, health officials have warned. Why is this? Sometimes, the answer to why things happen is just bad luck. That is certainly the case for Britain and the flu.

**Grippe : virus actif, vaccin poussif !**
12 February 2015 / lepoint
Déjà 1,5 million de personnes ont été touchées depuis le début de l'épidémie. Nombreuses sont celles qui, bien que vaccinées, tombent malades.

**Flu vaccine gives Hong Kong children moderate protection against H3N2: study**
12 February 2015 / Global Times
The effectiveness of this season's flu vaccine in Hong Kong offers moderate protection against hospitalization in children due to H3N2 virus infection, according to the University of Hong Kong which made the result public on Monday.

**Arab News: 1.2m receive flu vaccination in Saudi Arabia**
17 February 2015 / Arab News
Announced by Dr. Aisha Al-Shammari, director of the National Program for Immunization, at an event to mark the end of first phase of a campaign.

**H1N1: Lack of policy on vaccination raises concern**
23 February 2015 / Times of India
The state government may be sparing in the supply of anti-flu shots, but there are many who are making a killing of the public fear in the absence of a policy on vaccination.

**Impact of influenza vaccination on mortality in the French elderly population during the 2000-2009 period.**
25 February 2015 / Vaccine
An annual average of 2000 deaths is currently avoided through vaccination and a vaccine effectiveness was found of 35% against influenza-attributable deaths. Around 2650 vaccinations are needed to prevent a death among the elderly. Communicating these results should help restoring at-risk populations' confidence in influenza vaccination.

Health authorities in India have urged people not to panic amid a swine flu outbreak that has killed more than 900 people. At least 15,000 others have tested positive for the virus.

Faced with new data that conflict with older findings, the US Advisory Committee on Immunization Practices (ACIP) today voted to drop its advice that the nasal-spray influenza vaccine should be preferred over injectable vaccines for children from 2 through 8 years old.

Public-health officials are facing tough questions about the nation’s preparedness for seasonal flu in the wake of the poor match between this year’s vaccine and the strain of flu circulating most widely in the U.S.

Researchers at Mount Sinai Health System say a universal flu vaccine is currently in the works. While the vaccine has yet to prove it can protect humans, researchers say the science is sound and the vaccine may soon be a reality.

Antibodies that protect against H7N9 avian flu, which emerged in China in 2013 and sparked fears of a global pandemic, have been isolated in individuals who received seasonal flu vaccinations. These antibodies account for a small percentage of the total immune response, but appear to broadly neutralize H7 viruses and represent promising new targets for therapeautic development against a wide range of influenza strains.

We evaluated the immunogenicity, safety, and tolerability of different formulations of cell-derived MF59-adjuvanted and nonadjuvanted A/H1N1 influenza vaccine in children and adolescents.
Our findings support the immunogenicity and safety of the 3.75_halfMF59 (2 doses for children <12 months) and 7.5_fullMF59 vaccine formulations for use in children and adolescents aged 6 months to 17 years. The use of the 3.75_halfMF59 could have the benefit of antigen and adjuvant sparing, increasing the available vaccine doses allowing vaccination of more people.

Outbreak news

**WHO warns about influenza co-circulation, bird outbreaks**
26 February 2015 / CIDRAP
WHO sounds an alarm about a number of signals that suggest that influenza strains, especially avian ones, are co-circulating and swapping genetic material at an unprecedented level. The WHO said the world needs to be concerned about the diversity and spread of avian flu viruses in wild and domestic birds, factors that could give rise to more novel strains and threaten livelihoods, the food supply, and even human health. The group said it is also concerned about several phenomena occurring alongside avian flu detections in birds, including genetic drift in the seasonal H3N2 virus that may have rendered this year's Northern Hemisphere flu vaccine less effective, continuing H7N9 infections in China, and a spurt of H5N1 illnesses in Egypt. Against that backdrop, several countries in the past 3 days have reported more highly pathogenic avian influenza (HPAI) in wild birds and poultry to the World Organization for Animal Health (OIE). They include the United States, Taiwan, Hungary, Myanmar, and Vietnam, and the strains include H5N8, H5N1, H5N2, and H5N3.

**H5**

**WHO Confirms Second Human Infection with Bird Flu**
5 February 2015 / Guardian (Nigeria)
Worried about a possible epidemic of avian influenza A(H7N9) virus commonly called bird flu in the country, the World Health Organization (WHO) and the Lagos state ministry of health have alerted the public on measures against the virus even as the United Nation (UN) apex health body has confirmed the second laboratory case of human infection with virus.

**4 new cases found to be positive with bird flu in Egypt**
8 February 2015 / Ahram Online
Four new people identified as positive with bird flu in Egypt while three others recovered, the health ministry said on Sunday. A total of six people were killed by the virus since the beginning of 2015, while 11 people were killed throughout last year. Most cases of bird flu in Egypt have been identified in rural areas, where villagers, especially women, tend to raise poultry in their homes, increasing exposure to live or dead infected birds.

**Novel Eurasian Highly Pathogenic Influenza A H5 Viruses in Wild Birds, Washington, USA, 2014**
18 February 2015 / Emerging Infectious Diseases
Hon et al.
Novel Eurasian lineage avian influenza A(H5N8) virus has spread rapidly and globally since January 2014. In December 2014, H5N8 and reassortant H5N2 viruses were detected in wild birds in Washington, USA, and subsequently in backyard birds. When they infect commercial poultry, these highly pathogenic viruses pose substantial trade issues.
H7

**What You Need To Know About Avian Influenza H7N9**
1 February 2015 / Huffington Post (Canada)

Last week, Canadian public health officials announced the arrival of yet another potentially deadly virus. This time, the culprit was a form of influenza — avian influenza to be exact — known as H7N9. This marked the second time in a year a deadly influenza virus had traveled from the Far East to Canada. Last year, the potentially deadly H5N1 influenza came to Alberta and sadly took a life.

**2 more H7N9 cases in south China’s Guangdong**
3 February 2015 / Xinhua

The number of H7N9 human cases in south China’s Guangdong Province reached 32 since the start of the year with two more cases reported, local health authorities said Tuesday. A 56-year-old man in Guangzhou was confirmed infected of the bird flu on Monday, the first case in the provincial capital this year, the provincial health and family planning commission said in a statement. It added that the man is in critical condition.

**Six additional H7N9 cases reported in China**
23 February 2015 / Outbreak News Today (Canada)

The number of human cases of avian influenza A(H7N9) has risen to 583 after six new cases, five from Guangdong province and one from Jiangxi Province, were reported today, according to different media sources.

H9

**H9N2 influenza virus in China: a cause of concern**
January 2015 / Protein and Cell

Yipeng Sun et al.

The history, epidemiology, biological characteristics, and molecular determinants of H9N2 influenza virus are reviewed in this paper. The contribution of H9N2 genes, especially RNP genes, to the infection of humans needs to be investigated in the future.

H10

**Study: H10 evolution in China highlights threat to public health**
CIDRAP / 15 January 2015

Twelve years of surveillance of H10 avian flu viruses in poultry and migratory birds in southern China—tracing the origins of the H10N8 and H10N6 strains—demonstrate the severe threat to public health posed by the viruses as they reassort in the fertile influenza ecosystem of China, according to findings of a study in the Journal of Virology.