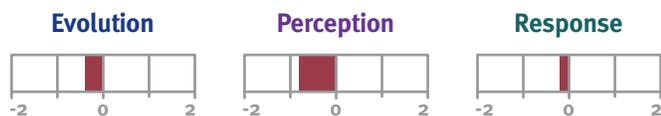


Wednesday, July 15, 2009

H1N1/09 AGE DISTRIBUTION TRENDS

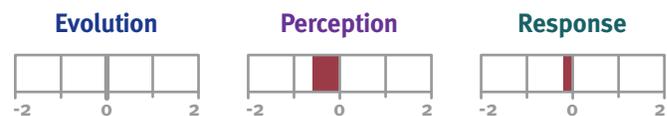
The U.K. Royal College of General Practitioners reported today that its number of confirmed H1N1/09 cases increased by 42% last week. In some northern areas of the country there was nearly a six fold increase in the number of cases compared to the week before. The incidence rate in the five to 14 age group remains the highest at 160 per 100,000, followed by the under five and 14 to 44 ages groups at 114 and 89.4 per 100,000 respectively. The chairman of the Royal College expressed that, "GPs are saying that they are coming under a lot of pressure from patients who have it, and many GPs say that the publicity surrounding the death of six-year-old London schoolgirl Chloe Buckley has increased demand and made people more anxious."¹

Also today, Australia's Health Minister confirmed today that the country now has over 10,000 confirmed cases of the virus, but that she expects the true number of infections to be much higher than the total of confirmed cases. She also said the country is very concerned about the high incidence rate of serious cases it is witnessing in young people stating, "We do see that there are some people who are young and otherwise healthy who have the rapidly deteriorating disease ... it's obviously concerning."²



AUSTRALIA AND NEW ZEALAND HEALTH SYSTEMS STRAINING

Health officials in both Australia and New Zealand are becoming very concerned about their country's health infrastructures as the H1N1/09 virus continues to spread and their systems have already starting to show signs of becoming overwhelmed. Australia is reporting that two major hospitals in South Wales have postponed non-urgent surgeries in order to help deal with the amount of patients coming in with the virus. New Zealand's Health Minister said that people can expect non-urgent surgeries to be canceled and intensive care units to reach capacity over the next few weeks as the flu season comes to a peak. Australia's Chief Medical Officer also expects his country's health infrastructure to see increased pressure in August as flu season peaks.³



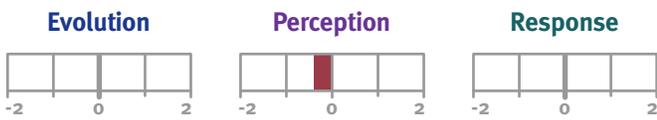
SURVEY SHOWS PHYSICIANS' CONCERNS SLOWLY RISING

A recent survey of 695 U.S. physicians conducted by HCD Research shows that physicians are becoming much more concerned about the H1N1/09 pandemic. The latest results are part of a series of studies that began in April attempting to monitor physicians' professional and personal perceptions toward H1N1/09. Results show that 48% of the participating physicians are concerned there is a somewhat to extremely high risk the H1N1/09 could

This document has been prepared by bio-era as a part of the "Thinking Ahead" service, designed to support commercial decision-making in response to the anticipated commercial and economic impacts of novel H1N1 pandemic influenza. The service seeks to monitor and evaluate current developments based on their significance with respect to three criteria: the significance of the news item for (1) the evolution of the physical disease event; (2) its effects on perceptions of threat (i.e., fear); and (3) examples of reaction or response to (1) and (2) above. To the extent possible, bio-era seeks to integrate an understanding of the particular news items identified as leading indicators or signposts within a broader bio-era scenario-based decision-support framework. To learn more about the service, the scenarios framework, or to enroll, please visit www.bio-era.net.

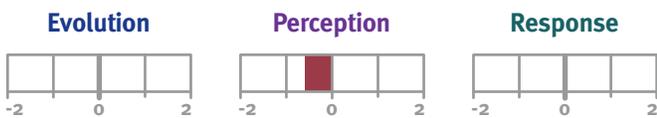
result in a catastrophic pandemic event, while 48% also are somewhat to extremely concerned the pandemic will impact them and their family.⁴

Compared to the previous survey completed on June 29, the number of physicians concerned there is an extremely high risk of a catastrophic pandemic event has risen 5%. At the same time the number of physicians extremely concerned H1N1/09 will have an impact on their families has risen 4%.⁵



PERUVIAN DOCTORS CALLING FOR MORE ACTION

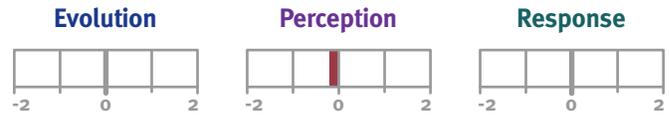
Today, over 15,000 doctors in Peru are calling for a nationwide protest in response to what they feel are inadequate preventative measures being implemented against the H1N1/09 virus. The Peruvian Medical Association's president said, "We demand addressing adequately the needs of hospitals in order to prevent further mistakes in the treatment of swine flu and to avoid more deaths."⁶



H1N1/09 VACCINE UPDATES:

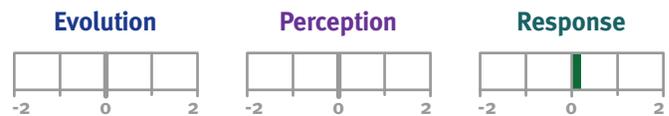
WHO Announcement

Today, the WHO's chief announced that they expect H1N1/09 vaccines to be at least a few months away from becoming readily available. In an interview she told a British newspaper, "There's no vaccine. One should be available soon, in August. But having a vaccine available is not the same as having a vaccine that has proven safe," also adding that clinical trial results would not become available for at least two to three months.⁷



Research Announcement

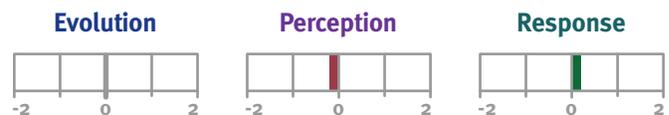
Monday July 13, Inovio Biomedical Corporation announced that the company's two dose H1N1/09 DNA vaccines achieved responses against the virus in 100% of pigs injected with the immunization. Inovio's universal flu vaccine program has technology which it hopes will enable it to design DNA vaccines to protect against a wide range of sub-type and pathogen strains.⁸



SOUTH KOREA IMPLEMENTS PREVENTATIVE MEASURES

South Korea has announced that it is canceling an international youth festival scheduled to take place next week. The three day festival hosted in the southern city of Yeosu, was expected to attract thousands of people, including hundreds of people from over 50 foreign countries. Officials have also canceled an international percussion instruments festival and international tea bowls exhibition scheduled to take place.

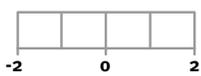
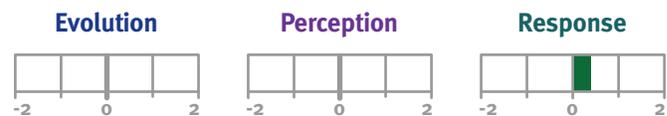
On Sunday a world choir contest taking place in the province was shutdown half way through the proceedings when six Indonesian choir participants tested positive for H1N1/09. Officials have told over 2,000 Vietnamese students from the province of South Gyeongsang who attended to take time off from school in order to mitigate additional spreading of the disease.⁹



SWEDEN SHIFTING H1N1/09 STRATEGY

Swedish health officials have announced they will start shifting their focus and resources from preventing major outbreaks, to minimizing the effects of the spreading H1N1/09 pandemic. In shifting from a preventative to mitigation type strategy, health officials will be directing the country's testing and preventative measures towards those people in the most at risk groups. They characterized these groups as people with underlying conditions,

pregnant women, children under 2, and those people caring for these patients. Health officials are also recommending becoming much more restrictive in the distributions of antiviral drugs, such as Tamiflu and Relenza, in order to prevent an antiviral resistant strain from developing. They only want people categorized in their most at risk groups to receive the antiviral treatments.¹⁰



Bio-era's judgement regarding the extent to which a development is positive or negative for: (1) the physical evolution of the disease, (2) perceptions of the disease, and (3) future disease event impacts.

	-2	0	2
Physical Evolution How significant is the development with respect to the evolution, transmissability, and virulence of the disease?	Indicates or portends higher transmission, transmissability, and/or virulence of the disease	No Net Change	Indicates or portends lower transmission, transmissability, and/or virulence of the disease
Perception How significant is the development with respect to perceptions of threat (i.e., fears of the disease)?	Indicates or promotes heightened fear of the disease	No Net Effect	Indicates or promotes lower fear of the disease
Response/Reaction To what degree does the response help or hinder the effort to mitigate the impacts the disease?	Expected to exacerbate disease impacts	No Net Impact	Expected to mitigate disease impacts

- 1 Guardian.co.uk. "Swine flu cases soared sixfold last week, NHS figures reveal." July 15, 2009. See: <http://www.guardian.co.uk/world/2009/jul/15/swine-flu-cases-sixfold-increase>
- 2 *The Age*. "Flu vaccine 'not ready for months,' WHO chief warns." July 15, 2009. See: <http://news.theage.com.au/breaking-news-world/flu-vaccine-not-ready-for-months-who-chief-warns-20090716-dloo.html>
- 3 WHO. "New Zealand, Australia warn Pandemic (H1N1) 2009 will stretch health system." July 15, 2009. See: <http://www.reliefweb.int/rw/rwb.nsf/db900sid/PSLG-7TYCAS?OpenDocument&emid=EP-2009-000084-MEX>
- 4 HCD Research. "Physicians' Level of Concern for H1N1 Swine Flu Pandemic Highest Since April." July 14, 2009. See: <http://www.hcdi.net/News/MediacurvesRelease.cfm?M=334>
- 5 HCD Research. See: [i].
- 6 AFP. "WHO chief doubts speedy swine flu vaccinations." July 15, 2009. See: <http://www.google.com/hostednews/afp/article/ALeqM5ilsEel1c0HlnTqzEjOxRWDBsGA-w>
- 7 AFP. See: [vii].
- 8 Inovio. "Inovio Biomedical H1N1 Influnza DNA Vaccines Demonstrate 100% Responses Against Swine Flu in Vaccinated Pigs." July 13, 2009. See: <http://ir.inovio.com/phoenix.zhtml?c=105128&p=irol-newsArticle&ID=1306709&highlight=>
- 9 *Straits Times*. "S. Korea Scraps Festivals." July 15, 2009. See: http://www.straitstimes.com/Breaking%2BNews/Asia/Story/STIStory_403465.html
- 10 *The Local*. "Pandemic fears prompt new flu guidelines." July 15, 2009. See: <http://www.thelocal.se/20674/20090715/>