

## **Vaccines: The Week in Review**

**29 August 2011** [covering 9-29 August 2011]

### **Center for Vaccine Ethics & Policy (CVEP)**

<http://centerforvaccineethicsandpolicy.wordpress.com/>

A program of

- Center for Bioethics, University of Pennsylvania

<http://www.bioethics.upenn.edu/>

- The Wistar Institute Vaccine Center

<http://www.wistar.org/vaccinecenter/default.html>

- Children's Hospital of Philadelphia, Vaccine Education Center

<http://www.chop.edu/consumer/jsp/microsite/microsite.jsp>

*This weekly summary targets news and events in global vaccines ethics and policy gathered from key governmental, NGO and industry sources, key journals and other sources. This summary supports ongoing initiatives of the Center for Vaccine Ethics & Policy, and is not intended to be exhaustive in its coverage. Vaccines: The Week in Review is now also posted in pdf form and as a set of blog posts at <http://centerforvaccineethicsandpolicy.wordpress.com/>. This blog allows full-texting searching of some 1,600 items.*

*Comments and suggestions should be directed to*

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**Editor's Note: *Vaccines: The Week in Review* resumes publication today covering the period 9 - 29 August 2011 following a vacation break.**

**The European Regional Certification Commission for Poliomyelitis Eradication (RCC) announced that Europe will retain its polio-free status after the importation of wild poliovirus type 1 in 2010.** At their 25th meeting in Copenhagen, Denmark this week, the RCC "noted that wild poliovirus transmission has been interrupted. No new cases have been reported since September 2010 because countries have taken effective action." Zsuzsanna Jakab, WHO Regional Director for Europe, commented, "The RCC decision is tremendous news for the Region and a credit to all the Member States and partners that individually, collectively and promptly combated the first and largest outbreak of poliomyelitis the Region has seen since it was declared polio free in 2002. I am also very pleased that the hard work and personal commitments of the presidents, prime ministers and health ministers have produced this success, which shows the importance and value of political commitment and joint action. The WHO Regional Office for Europe will continue to work with Member States so that Europe remains vigilant and the polio-free status of the Region is sustained". In 2010, four countries, Kazakhstan, the Russian Federation, Tajikistan and Turkmenistan, reported 475 laboratory-confirmed cases of wild poliovirus type 1, with 30 deaths.

<http://www.euro.who.int/en/what-we-publish/information-for-the-media/sections/latest-press-releases/polio-kicked-out-of-europe-european-region-to-retain-polio-free-status,-but-constant-vigilance-is-needed>

## **IOM Consensus Report: Adverse Effects of Vaccines: Evidence and Causality**

Released: August 25, 2011

Board: [Board on Population Health and Public Health Practice](#)

**Abstract:** Immunizations are a cornerstone of the nation's efforts to protect people from a host of infectious diseases. Though generally very rare or minor, there are side effects, or "adverse effects," associated with some vaccines. Importantly, some adverse events following a vaccine may be due to coincidence and are not caused by the vaccine. To make this distinction, researchers use evidence to determine if adverse events following vaccination are causally linked to a specific vaccine; if so, these events are referred to as adverse effects. The Health Resources and Services Administration asked the IOM to review a list of adverse events associated with eight vaccines—varicella zoster, influenza (except 2009 H1N1), hepatitis B, HPV, MMR, hepatitis A, meningococcal, and those that contain tetanus—and evaluate the scientific evidence about the event–vaccine relationship. The IOM committee appointed to this task was not asked to assess the benefits or effectiveness of vaccines but only the risk of specific adverse events.

Using epidemiologic and mechanistic evidence, the committee developed 158 causality conclusions and assigned each relationship between a vaccine and an adverse health problem to one of four categories of causation:

- Evidence convincingly supports a causal relationship
- Evidence favors acceptance of a causal relationship
- Evidence favors rejection of a causal relationship
- Evidence is inadequate to accept or reject a causal relationship

The committee finds that evidence convincingly supports a causal relationship between some vaccines and some adverse events—such as MMR, varicella zoster, influenza, hepatitis B, meningococcal, and tetanus-containing vaccines linked to anaphylaxis. Additionally, evidence favors rejection of five vaccine-adverse event relationships, including MMR vaccine and autism and inactivated influenza vaccine and asthma episodes. However, for the majority of cases (135 vaccine-adverse event pairs), the evidence was inadequate to accept or reject a causal relationship. Overall, the committee concludes that few health problems are caused by or clearly associated with vaccines.

Supporting content:

- Graphic: Strength of Evidence that Determined the Causality Conclusions ([PDF](#), [HTML](#))
- Press Release ([HTML](#))
- Report Brief ([PDF](#), [HTML](#))
- Table: Summary of Causality Conclusions ([PDF](#))

<http://www.iom.edu/Reports/2011/Adverse-Effects-of-Vaccines-Evidence-and-Causality.aspx>

**The Japan International Cooperation Agency (JICA) and the Bill & Melinda Gates Foundation announced "a strategic partnership to ensure continued progress in the fight against polio,"** including "an innovative financing agreement to support the polio campaign in Pakistan." The financing agreement "represents a significant contribution towards the goal of eradication of polio in Pakistan. Based on the Global Polio Eradication Initiative's (GPEI) current cost estimates, this 4.9 billion JPY (approximately \$65 million) ODA Loan(1) to the government of Pakistan will help ensure that polio eradication activities in Pakistan are financed through 2013."

Bill Gates commented, "This partnership comes at a critical time for Pakistan and will help us achieve our shared goal of a polio-free world. Japan's remarkable commitment will benefit generations of children in Pakistan and throughout the world." The announcement noted that Japan's ODA loan will provide the country with funds for oral polio vaccine, immunization workers, and vaccination activities across the country and along the Pakistan/Afghanistan border. It will also involve working in partnership with stakeholders such as the World Bank for co-financing as well as the United Nations Children's Fund (UNICEF) for vaccine procurement and the World Health Organization (WHO) for service delivery of the polio campaign.

The loan is "underpinned by an innovative financing approach referred to as a "Loan Conversion" mechanism. According to this model, the Gates Foundation will repay the credit to JICA on behalf of the Pakistani government if the project is successfully implemented. The aim of this mechanism is to support the government of Pakistan's commitment to polio eradication without imposing a financial burden."

<http://www.prnewswire.com/news-releases/the-japan-international-cooperation-agency-jica-and-the-bill-melinda-gates-foundation-announce-partnership-on-polio-eradication-127978458.html>

**The U.S. HHS department awarded US\$137 million to states to "to strengthen the public health infrastructure** and provide jobs in core areas of public health. Awarded in nearly every state, the grants enhance state, tribal, local and territorial efforts to provide tobacco cessation services, strengthen public health laboratory and immunization services, (and) prevent healthcare-associated infections..." The awards include:

- US\$1 million to further enhance the nations' public health laboratories by hiring and preparing scientists for careers in public health laboratories, providing training for scientists, and supporting public health initiatives related to infectious disease research.
- More than US\$42 million to support: improvements to the Immunization Information Systems (registries) and other immunization information technologies; development of systems to improve billing for immunization services; planning and implementation of adult immunization programs; enhancement of vaccination capacity located in schools; and evaluations of the impact on disease of recent vaccine recommendations for children and adolescents.
- US\$2.6 million to the Emerging Infections Programs around the country to continue improvement in disease monitoring, professional development and training, information technology development, and laboratory capacity.
- US\$9.2 million to eight national non-profit professional public health organizations to assist state, tribal, local, and territorial health departments in adopting effective

practices that strengthen their core public health systems and service delivery. They will also enhance the workforce by providing jobs in critical disciplines of epidemiology and informatics, thus attracting new talent to public health.

A full list of grantees is available

at: [http://www.hhs.gov/news/press/2011pres/08/state\\_prevention\\_grants.html](http://www.hhs.gov/news/press/2011pres/08/state_prevention_grants.html)  
<http://www.businesswire.com/news/home/20110825006099/en/HHS-awards-137-million-states-boost-prevention>

**The Saudi Ministry of Health issued the entry visa requirements and other recommendations for the Hajj and Umra season in 2011**, specifying health conditions for travelers to the Kingdom of Saudi Arabia for the pilgrimage to Mecca (Hajj). The Saudi Ministry of Health "plays a critical role in the management of the annual Hajj pilgrimage which occurs over a five-day period during "Dhul-Hijjah," the final month of the Islamic calendar and is the world's largest annual mass gathering, attracting 2-3 million pilgrims every year."

Highlights from the full guidelines [<http://www.jiph.org/article/S1876-0341%2811%2900051-7/fulltext>] include:

- Yellow Fever: All travelers arriving from countries or areas at risk of yellow fever must present a valid yellow fever vaccination certificate showing that the person was vaccinated at least 10 days previously and not more than 10 years before arrival at the border.
- Meningococcal Meningitis: Visitors arriving for the purpose of Umra or pilgrimage or for seasonal work are required to produce a certificate of vaccination with the quadrivalent (ACYW135) vaccine against meningitis issued not more than 3 years previously and not less than 10 days before arrival in to Saudi Arabia.
- Poliomyelitis: All travelers arriving from polio-endemic countries and re-established transmission countries should receive 1 dose of OPV.
- Seasonal Influenza: International pilgrims should be vaccinated against seasonal influenza before arrival into Saudi Arabia with WHO approved strains specific to the northern or southern hemispheres. In Saudi Arabia, seasonal influenza vaccine is recommended for internal pilgrims, particularly those with pre-existing health conditions, and all staff working in the Hajj premises.
- Health Education: Health authorities in countries of origin are required to provide information to pilgrims on infectious diseases symptoms, methods of transmission, complications, and means of prevention.
- International Outbreaks Responses: Updating immunization against vaccine-preventable diseases in all travelers is strongly recommended.

His Excellency Dr. Abdullah Al Rabeeah, Saudi Minister of Health, stated, "The Department of Preventive Medicine at the Ministry of Health develops and updates these guidelines every year in close coordination with the International Health Regulations Coordination Department at WHO. This is carried out after critical review of the global situation of endemic and emerging communicable diseases, to ensure the establishment of evidence based guidelines to protect and prevent disease transmission among pilgrims and the global community."

<http://www.prnewswire.com/news-releases/2011-health-conditions-for-travel-to-mecca-hajj-pilgrimage-published-128232393.html>

**The Bill & Melinda Gates Foundation announced Round 8 of its [Grand Challenges Explorations](http://www.gatesfoundation.org/press-releases/Pages/round-eight-grand-challenges-explorations-110823.aspx)**, "a US\$100 million grant initiative to encourage innovation in global health and development research." The initiative "offers scientists, inventors, and entrepreneurs from around the world the opportunity to win \$100,000 grants to pursue unconventional ideas that could transform health and agricultural development in the world's poorest countries." The topics in this round are:

- Protect Crop Plants from Biotic Stresses From Field to Market
- Explore Nutrition for Healthy Growth of Infants and Children
- Apply Synthetic Biology to Global Health Challenges
- Design New Approaches to Optimize Immunization Systems
- Explore New Solutions in Global Health Priority Areas

<http://www.gatesfoundation.org/press-releases/Pages/round-eight-grand-challenges-explorations-110823.aspx>

The **MMWR Weekly** issues from the last several weeks include:  
August 26, 2011 / Vol. 60 / No. 33

- [National and State Vaccination Coverage Among Adolescents Aged 13 Through 17 Years --- United States, 2010](#)
- [Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices \(ACIP\), 2011](#)
- [Announcement: Clinical Vaccinology Course --- November 4--6, 2011](#)

August 19, 2011 / Vol. 60 / No. 32 / Pg. 1073 - 1116

- [Influenza Vaccination Coverage Among Pregnant Women --- United States, 2010--11 Influenza Season](#)
- [Influenza Vaccination Coverage Among Health-Care Personnel --- United States, 2010--11 Influenza Season](#)

#### *Summary*

Although influenza vaccination levels have improved over the past few years, vaccination coverage among health-care personnel (HCP) remains below our 2020 national health objectives. All HCP should be vaccinated annually for influenza, according to recommendations from the Healthcare Infection Control Practices Advisory Committee (HICPAC) and the Advisory Committee on Immunization Practices (ACIP). In a national survey conducted in April 2011 of 1,931 HCP, influenza vaccination coverage among all HCP for the 2010-11 season was 63.5 percent, with coverage of 84 percent among physicians and 70 percent among nurses. Near universal coverage was achieved among HCP who reported being subject to an employer requirement for vaccination. In the absence of requirements, increased vaccination coverage was associated with vaccination being offered to HCP onsite free of charge for multiple days. Influenza vaccination coverage among HCP is important for patient safety, and healthcare administrators should make vaccination readily accessible to all HCP as an important part of any comprehensive infection control program.

August 12, 2011 / Vol. 60 / No. 31 / Pg. 1045 - 1072

[Progress Toward Poliomyelitis Eradication --- Nigeria, January 2010--June 2011](#)

The **Weekly Epidemiological Record (WER)** for 12 and 18 August 2011, include:

[19 August 2011, vol. 86, 34 \(pp 365–376\)](#)

- Outbreak news: Outbreak of illness in schools, Angola; West Nile virus infection in Europe
  - Neglected zoonotic diseases: report from the third international conference, November 2010
  - Yellow fever in the WHO African and American Regions, 2010
- [12 August 2011, vol. 86, 33 \(pp 353–364\)](#)
- Third meeting of the Global Polio Eradication Initiative's Independent Monitoring Board
  - Progress towards eradicating poliomyelitis – Nigeria, January 2010–June 2011
  - Monthly report on dracunculiasis cases, January–June 2011

### ***Twitter Watch***

A selection of items of interest [tracking to 19 August 2011] from a variety of twitter feeds. This capture is highly selective and by no means intended to be exhaustive.

[PIH](#) Partners In Health

New Report: Financing the Response to [#AIDS](#) in Low & Middle Income Countries

<http://ow.ly/6dZY7> via [@unaids](#) [@KaiserFamFound](#)

[GAVIAlliance](#) GAVI Alliance

Want to learn more about IFFIm? Check out our overview to learn more.

<http://ht.ly/6dyDt>

[GAVISeth](#) Seth Berkley

A reminder of why vaccination campaigns in refugee camps are critically important:

[bit.ly/nShN9p](http://bit.ly/nShN9p) [#vaccines](#) [@UNICEF](#)

[NIAIDNews](#) NIAID News

Now online! CDC recommends seasonal [#flu](#) [#shot](#) for people with egg [#allergy](#)

[go.usa.gov/k7M](http://go.usa.gov/k7M)

[USAIDGH](#) USAID

Happy birthday to Dr. Sabin! developer of oral [#polio](#) [#vaccine](#) that made prospect of

[#eradication](#) possible. <http://ow.ly/6dCtS>

[PublicHealth](#) APHA

Vaccination rates among teens are up overall, but growth lags on HPV vaccine, says

CDC research: [goo.gl/pVS4Z](http://goo.gl/pVS4Z)

[wellcometrust](#) Wellcome Trust

Immunising at birth is safe and effective against severe pneumococcal disease  
[wellc.me/mXBZk1](#)

[Eurovaccine](#) ECDC Eurovaccine

'Vaccinations : 20 objections and responses' from Germany's Robert Koch Institute & Paul-Ehrlich-Institute [bit.ly/oUzWPN](#)

[gatesfoundation](#) Gates Foundation

Congratulations to [#Europe](#): [@UN](#) hails the [#EU](#) for fighting outbreaks to remain free of [#polio](#): [gates.ly/oEuTCy](#)

[MalariaVaccine](#) PATH MVI

New Vision article discusses the need for the Ugandan government to prepare for a malaria vaccine: [bit.ly/omdjgb](#)

[PATHtweets](#) PATH

PATH CEO Chris Elias on [@ModernizeAid](#) blog: Budget cuts threaten lives abroad and the economy at home. [http://ow.ly/6cORL](#)

[GAVISeth](#) Seth Berkley

Robert Steinglass of [@JSIhealth](#) interviewed on how to improve [#vaccine](#) delivery [#coldchain](#): [ht.ly/6aaJu](#) via [@gplushealth](#)

[GAVIAlliance](#) GAVI Alliance

"The dispassionate economic case for vaccination looks at least as strong as the compassionate medical one" The Economist [http://ht.ly/69Mlz](#)

[sabinvaccine](#) Sabin Vaccine Inst.

Today on Sabin's blog: Immunization Financing in Latin America  
[sabin.org/blog/immunizat...](#)

[unpublications](#) UN Publications

On World Humanitarian Day UN pays tribute to aid workers around globe. Learn more about the campaign here: [bit.ly/9wy17n](#)

### ***Journal Watch***

[Editor's Note]

*Vaccines: The Week in Review* continues its weekly scanning of key journals to identify and cite articles, commentary and editorials, books reviews and other content supporting our focus on vaccine ethics and policy. ***Journal Watch* is not intended to be exhaustive, but indicative of themes and issues the Center is actively tracking.** We selectively provide full text of some editorial and comment articles that are specifically relevant to our work. Successful access to some of the links provided may require subscription or other access arrangement unique to the publisher. If you



would like to suggest other journal titles to include in this service, please contact David Curry at: [david.r.curry@centerforvaccineethicsandpolicy.org](mailto:david.r.curry@centerforvaccineethicsandpolicy.org)

### **Annals of Internal Medicine**

August 16, 2011; 155 (4)

<http://www.annals.org/content/current>

[No relevant content]

### **British Medical Bulletin**

Volume 98 Issue 1 June 2011

<http://bmb.oxfordjournals.org/content/current>

[Reviewed earlier; No relevant content]

### **British Medical Journal**

<http://www.bmj.com/content/current>

20 August 2011 Volume 343, Issue 7820

[No relevant content]

13 August 2011 Volume 343, Issue 7819

#### **"Irrelevant" WHO outpaced by younger rivals**

Nigel Hawkes, freelance journalist

##### *Extract*

The World Health Organization's critics accuse it of being bogged down in red tape and internal politics. However, attempts at reform are raising concerns over conflicts of interest. Nigel Hawkes reports

For as long as many can remember, the World Health Organization has been facing a crisis. From decade to decade, the nature of that crisis might change, but it never quite goes away.

Despite its past accomplishments, WHO fits increasingly uneasily into a world with a growing number of international players who seem fleet of foot and deeper of pocket. Set up as an agency to provide advice to governments at a time when government health departments were the prime movers in health policy and delivery, it seems passé beside such upstarts as the Global Fund to Fight Aids, Tuberculosis and Malaria, the GAVI Alliance (formerly known as the Global Alliance for Vaccines and Immunization), and private philanthropies such as the Bill and Melinda Gates Foundation.

##### *Setting the agenda of global health?*

The existence of such organisations is a reproach to WHO, whose bureaucracy and politicisation have been increasingly bypassed by governments in the interests of getting something done. Jack C Chow, a former assistant director general of WHO, claimed last year that the organisation was becoming irrelevant. <sup>1</sup> It was outmoded, underfunded, and overly politicised, he said. "WHO is no longer setting the agenda of global health; it's struggling to keep up." His theme was echoed this year by Barry R Bloom, professor of public health at Harvard, who pointed out that of WHO's budget of \$3.9bn (£2.4bn; €2.7bn) in 2008-9, less than \$1bn came from member states' mandatory contributions.



2 The rest were earmarked funds provided by countries or foundations for specific projects, indicating a lack of confidence in WHO's ability to set the right priorities if left to itself...

### **Clinical Infectious Diseases**

<http://www.journals.uchicago.edu/toc/cid/current>

Volume 53 Issue 6 September 15, 2011

[No relevant content]

Volume 53 Issue 5 September 1, 2011

Crossing Borders: One World, Global Health

Clive M. Brown, Martin S. Cetron, Section Editors

**An editorial feature on globally mobile populations and infectious disease outbreaks**, written by the Centers for Disease Control and Prevention's Division of Global Migration and Quarantine

#### **An End to the Era of the US HIV Entry Ban**

(Kent Taylor and Stacy Howard)—

In 1991 human immunodeficiency virus (HIV) infection was added to the list of diseases that bar entry to the United States (US) for non-US citizens as a requirement stipulated by congressional statute. Under the Immigration and Nationality Act, the Secretary of Health and Human Services (HHS) has the authority to establish requirements for the medical examination of immigrants and refugees that determine admission into the United States. These requirements are promulgated in Title 42, Part 34 of the Code of Federal Regulations (CFR), which includes specific, serious contagious illnesses, known as a communicable disease of public health significance. Almost 20 years after the inclusion of HIV on this list of diseases, this action has been reversed. The reversal was made possible by ending the statutory ban imposed by Congress in 1987.

In 2004, the Joint United Nations Programme on HIV/AIDS (UN/AIDS) and the International Organization for Migration issued a statement on HIV/AIDS-related travel restrictions. This statement provided guidance to governments in addressing the public health, economic, and human rights concerns involved in HIV-related travel restrictions. As more information became available about HIV transmission, which cannot take place through casual contact, combined with the reality of globalization, this entry ban became increasingly contradictory to US policies supporting civil liberties. In addition, the ban was detrimental in the fight against HIV/AIDS. After a thorough medical and epidemiologic review of HIV transmission, the Centers for Disease Control and Prevention (CDC) made a policy decision that an entry ban for HIV infection was not a viable control strategy for HIV.

CDC initiated the first step in removing HIV infection as an inadmissible condition by

...

[\[Full Text of this Article\]](#)

### **Cost Effectiveness and Resource Allocation**

(accessed 27 August 2011)

<http://www.resource-allocation.com/>

[No new relevant content]

### **Emerging Infectious Diseases**

Volume 17, Number 9–September 2011

<http://www.cdc.gov/ncidod/EID/index.htm>

[No relevant content]

### **Health Affairs**

August 2011; Volume 30, Issue 8

New Perspectives On Substance Abuse

<http://content.healthaffairs.org/content/current>

[Reviewed earlier]

### **Health Economics, Policy and Law**

Volume 6 - Issue 03 - 2011 <http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue>

[Reviewed earlier]

### **Human Vaccines**

Volume 7, Issue 8 August 2011

<http://www.landesbioscience.com/journals/vaccines/toc/volume/7/issue/8/>

[Reviewed earlier]

### **International Journal of Infectious Diseases**

Volume 15, Issue 8 pp. e509-e582 (August 2011)

[Attempted access 27 August 2011: site down - technical issues]

### **JAMA**

August 24/31, 2011, Vol 306, No. 8, pp 793-896

<http://jama.ama-assn.org/current.dtl>

[No relevant content]

August 17, 2011, Vol 306, No. 7, pp 679-781

<http://jama.ama-assn.org/content/306/7.toc>

[No relevant content]

August 10, 2011, Vol 306, No. 6, pp 581-668

<http://jama.ama-assn.org/content/306/6.toc>

[No relevant content]

## **Journal of Infectious Diseases**

Volume 204 Issue 6 September 15, 2011

<http://www.journals.uchicago.edu/toc/jid/current>

[No relevant content]

Volume 204 Issue 5 September 1, 2011

<http://jid.oxfordjournals.org/content/204/5.toc>

Catherine Yen, Jesús Reyna Figueroa, Edgar Sánchez Uribe, Luz del Carmen-Hernández, Jacqueline E. Tate, Umesh D. Parashar, Manish M. Patel, and Vesta Richardson López-Collado

### **Monovalent Rotavirus Vaccine Provides Protection Against an Emerging Fully Heterotypic G9P[4] Rotavirus Strain in Mexico**

J Infect Dis. (2011) 204(5): 783-786 doi:10.1093/infdis/jir390

#### *Abstract*

After the introduction of monovalent rotavirus vaccine (RV1) in Mexico in 2006–2007, diarrhea mortality and morbidity declined substantially among Mexican children under 5 years of age. In January 2010, surveillance identified the emergence of a novel G9P[4] rotavirus strain nationwide. We conducted a case-control study to assess the field effectiveness of RV1 against severe rotavirus gastroenteritis caused by this unusual strain and to determine whether the G9P[4] emergence was related to vaccine failure or failure to vaccinate. RV1 was 94% effective (95% confidence interval, 16%–100%) against G9P[4] rotavirus-related hospitalization, indicating that its emergence was likely unrelated to vaccine pressure.

## **The Lancet**

Aug 27, 2011 Volume 378 Number 9793 p741 - 848

<http://www.thelancet.com/journals/lancet/issue/current>

[No relevant content]

Aug 20, 2011 Volume 378 Number 9793 p637 - 740

<http://www.thelancet.com/journals/lancet/issue/current?tab=past>

[No relevant content]

Aug 13, 2011 Volume 378 Number 9793 p541 - 636

<http://www.thelancet.com/journals/lancet/issue/current?tab=past>

#### **Comment**

### **The last mile in global poliomyelitis eradication**

Zulfiqar A Bhutta

## **The Lancet Infectious Disease**

Sep 2011 Volume 11 Number 9 p651 - 720

<http://www.thelancet.com/journals/laninf/issue/current>

#### **Editorial**

### **Treatment as prevention for HIV**

The Lancet Infectious Diseases

*Preview*

June 5, 2011, was the 30th anniversary of the first reports of five patients with an immune disorder in the US Centers for Diseases Control and Prevention publication Morbidity and Mortality Weekly Report. In the past three decades, HIV/AIDS has become a global pandemic that has defined an age and has affected almost every group of people irrespective of socioeconomic background, race, geography, or personal history, killing more than 33 million people worldwide. Leaps and bounds made in our understanding of HIV and its progression to AIDS and how the virus and syndrome spread and develop have led to great progress in the ability to manage the disease, reflected by a 20% fall in annual incidence in the past 10 years.

### **Medical Decision Making (MDM)**

July/August 2011; 31 (4)

<http://mdm.sagepub.com/content/current>

[Reviewed earlier]

### **Nature**

Volume 476 Number 7361 pp371-482 25 August 2011

[http://www.nature.com/nature/current\\_issue.html](http://www.nature.com/nature/current_issue.html)

[No relevant content]

Volume 476 Number 7360 pp251-366 18 August 2011

<http://www.nature.com/nature/journal/v476/n7360/index.html>

[No relevant content]

Volume 476 Number 7359 pp125-246 11 August 2011

<http://www.nature.com/nature/journal/v476/n7359/index.html>

[No relevant content]

### **Nature Medicine**

August 2011, Volume 17 No 8

<http://www.nature.com/nm/index.html>

[Reviewed earlier]

### **New England Journal of Medicine**

<http://content.nejm.org/current.shtml>

August 25, 2011 Vol. 365 No. 8

#### ***Correspondence***

#### **Childhood Diarrhea Deaths after Rotavirus Vaccination in Mexico**

N Engl J Med 2011; 365:772-773

August 25, 2011

#### ***Extract***

"...The sustained reduction in the rate of death from diarrhea for three seasons after the introduction of the rotavirus vaccine, with reductions progressively extending to other

age groups as they become age-eligible for vaccination, provides evidence that some mortality reduction is likely attributable to vaccination. The cumulative reduction of some 2640 childhood deaths since the vaccination program was initiated in Mexico highlights the lifesaving promise of rotavirus vaccines and supports the WHO recommendation for immunization of all children worldwide against rotavirus."

August 18, 2011 Vol. 365 No. 7  
[No relevant content]

August 11, 2011 Vol. 365 No. 6  
<http://www.nejm.org/toc/nejm/365/6>

**Editorial**

**Antiretroviral Treatment as Prevention**

S.M. Hammer

*Extract*

"...Antiretroviral therapy is by no means perfect and is not the ultimate answer to controlling and ending the HIV epidemic. Adverse events, emergence of drug-resistant viral strains, maintenance of adherence, sustainability, and cost are just some of the concerns. However, this is precisely the wrong time to limit access to antiretroviral therapy in resource-limited settings, since we have the tools in hand to maintain or restore health in infected persons and reduce transmission to their sexual partners. Aggressive programs to diagnose and treat HIV infection as part of a comprehensive care package and multiple approaches to the prevention of transmission that have been tested in well-designed clinical trials have the potential to preserve health and control the epidemic until a safe and effective HIV vaccine is a reality."

**The Pediatric Infectious Disease Journal**

September 2011 - Volume 30 - Issue 9 pp: A7,731-820,e155-e178

<http://journals.lww.com/pidj/pages/currenttoc.aspx>

[No relevant content]

**Pediatrics**

August 2011, VOLUME 128 / ISSUE 2

<http://pediatrics.aappublications.org/current.shtml>

[Reviewed earlier]

**Pharmacoeconomics**

September 1, 2011 - Volume 29 - Issue 9 pp: 731-821

<http://adisonline.com/pharmacoeconomics/pages/currenttoc.aspx>

**Editorial**

**Value-Based Pricing: Incentive for Innovation or Zero Net Benefit?**

Hughes, Dyfrig A.

Pharmacoeconomics. 29(9):731-735, September 1, 2011

[No abstract available]

**Original Research Articles**

## **Economic Evaluation of Policy Options for Prevention and Control of Cervical Cancer in Thailand**

Praditsitthikorn, Naiyana; Teerawattananon, Yot; Tantivess, Sripen; Limwattananon, Supon; Riewpaiboon, Arthorn; Chichareon, Saibua; Ieumwananonthachai, Nantakan; Tangcharoensathien, Viroj

Pharmacoeconomics. 29(9):781-806, September 1, 2011.

doi: 10.2165/11586560-000000000-00000

### ***Abstract***

**Background:** The Thai healthcare setting has seen patients with cervical cancer experience an increasing burden of morbidity and mortality, a stagnation in the performance of cervical screening programmes and the introduction of a vaccine for the prevention of human papillomavirus (HPV) infection.

**Objective:** This study aims to identify the optimum mix of interventions that are cost effective, from societal and healthcare provider perspectives, for the prevention and control of cervical cancer.

**Methods:** A computer-based Markov model of the natural history of cervical cancer was used to simulate an age-stratified cohort of women in Thailand. The strategy comparators, including both control and prevention programmes, were (i) conventional cytology screening (Pap smears); (ii) screening by visual inspection with acetic acid (VIA); and (iii) HPV-16, -18 vaccination. Input parameters (e.g. age-specific incidence of HPV infection, progression and regression of the infection, test performance of screening methods and efficacy of vaccine) were synthesized from a systematic review and meta-analysis. Costs (year 2007 values) and outcomes were evaluated separately, and compared for each combination. The screening strategies were started from the age of 30–40 years and repeated at 5- and 10-year intervals. In addition, HPV vaccines were introduced at age 15–60 years.

**Results:** All of the screening strategies showed certain benefits due to a decreased number of women developing cervical cancer versus 'no intervention'. Moreover, the most cost-effective strategy from the societal perspective was the combination of VIA and sequential Pap smear (i.e. VIA every 5 years for women aged 30–45 years, followed by Pap smear every 5 years for women aged 50–60 years). This strategy was dominant, with a QALY gain of 0.01 and a total cost saving of Baht (Bt)800, compared with doing nothing. From the societal perspective, universal HPV vaccination for girls aged 15 years without screening resulted in a QALY gain of 0.06 at an additional cost of Bt8800, based on the cost of Bt15 000 for a full immunization schedule. The incremental cost-effectiveness ratio, comparing HPV vaccinations for girls aged 15 years with the current national policy of Pap smears for women aged 35–60 years every 5 years, was approximately Bt181 000 per QALY gained. This figure was relatively high for the Thai setting.

**Conclusions:** The results suggest that controlling cervical cancer by increasing the numbers of women accepting the VIA and Pap smear screening as routine and by improving the performance of the existing screening programmes is the most cost-effective policy option in Thailand.

## **PLoS One**

[Accessed 27 August 2011]

<http://www.plosone.org/article/browse.action;jsessionid=577FD8B9E1F322DAA533C413369CD6F3.ambra01?field=date>

### **Assessing Google Flu Trends Performance in the United States during the 2009 Influenza Virus A (H1N1) Pandemic**

Samantha Cook, Corrie Conrad, Ashley L. Fowlkes, Matthew H. Mohebbi and effectiveness of seasonal vaccination. Euro Surveill PLoS ONE: Research Article, published 19 Aug 2011 10.1371/journal.pone.0023610

#### *Abstract*

##### Background

Google Flu Trends (GFT) uses anonymized, aggregated internet search activity to provide near-real time estimates of influenza activity. GFT estimates have shown a strong correlation with official influenza surveillance data. The 2009 influenza virus A (H1N1) pandemic [pH1N1] provided the first opportunity to evaluate GFT during a non-seasonal influenza outbreak. In September 2009, an updated United States GFT model was developed using data from the beginning of pH1N1.

##### Methodology/Principal Findings

We evaluated the accuracy of each U.S. GFT model by comparing weekly estimates of ILI (influenza-like illness) activity with the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet). For each GFT model we calculated the correlation and RMSE (root mean square error) between model estimates and ILINet for four time periods: pre-H1N1, Summer H1N1, Winter H1N1, and H1N1 overall (Mar 2009–Dec 2009). We also compared the number of queries, query volume, and types of queries (e.g., influenza symptoms, influenza complications) in each model. Both models' estimates were highly correlated with ILINet pre-H1N1 and over the entire surveillance period, although the original model underestimated the magnitude of ILI activity during pH1N1. The updated model was more correlated with ILINet than the original model during Summer H1N1 ( $r = 0.95$  and  $0.29$ , respectively). The updated model included more search query terms than the original model, with more queries directly related to influenza infection, whereas the original model contained more queries related to influenza complications.

##### Conclusions

Internet search behavior changed during pH1N1, particularly in the categories "influenza complications" and "term for influenza." The complications associated with pH1N1, the fact that pH1N1 began in the summer rather than winter, and changes in health-seeking behavior each may have played a part. Both GFT models performed well prior to and during pH1N1, although the updated model performed better during pH1N1, especially during the summer months.

### **Predictive Mapping of Human Risk for West Nile Virus (WNV) Based on Environmental and Socioeconomic Factors**

Ilia Rochlin, David Turbow, Frank Gomez, Dominick V. Ninivaggi, Scott R. Campbell vaccine, vector surveillance and control are the most PLoS ONE: Research Article, published 10 Aug 2011 10.1371/journal.pone.0023280

#### *Abstract*

A West Nile virus (WNV) human risk map was developed for Suffolk County, New York utilizing a case-control approach to explore the association between the risk of vector-borne WNV and habitat, landscape, virus activity, and socioeconomic variables derived from publically available datasets. Results of logistic regression modeling for the time period between 2000 and 2004 revealed that higher proportion of population with



college education, increased habitat fragmentation, and proximity to WNV positive mosquito pools were strongly associated with WNV human risk. Similar to previous investigations from north-central US, this study identified middle class suburban neighborhoods as the areas with the highest WNV human risk. These results contrast with similar studies from the southern and western US, where the highest WNV risk was associated with low income areas. This discrepancy may be due to regional differences in vector ecology, urban environment, or human behavior. Geographic Information Systems (GIS) analytical tools were used to integrate the risk factors in the 2000–2004 logistic regression model generating WNV human risk map. In 2005–2010, 41 out of 46 (89%) of WNV human cases occurred either inside of (30 cases) or in close proximity (11 cases) to the WNV high risk areas predicted by the 2000–2004 model. The novel approach employed by this study may be implemented by other municipal, local, or state public health agencies to improve geographic risk estimates for vector-borne diseases based on a small number of acute human cases.

## **PLoS Medicine**

(Accessed 27 August 2011)

<http://www.plosmedicine.org/article/browse.action?field=date>

### **Building the Field of Health Policy and Systems Research: Social Science Matters**

Lucy Gilson, Kara Hanson, Kabir Sheikh, Irene Akua Agyepong, Freddie Ssengooba, Sara Bennett Policy Forum, published 23 Aug 2011

doi:10.1371/journal.pmed.1001079

#### *Summary Points*

All researchers hold a knowledge paradigm that frames their understanding of reality and of the functions and nature of research. Some disciplines are dominated by a particular paradigm and some are spread across paradigms.

The criticisms that Health Policy and Systems Research (HPSR) is too context specific, does not offer clear lessons for policy makers, and is not rigorous are partly a reflection of differences in knowledge paradigms between those with predominantly clinical, biomedical, and epidemiological backgrounds, underpinned by a positivist paradigm, and those with social science backgrounds underpinned by a relativist paradigm.

Health policies and systems are complex social and political phenomena, constructed by human action rather than naturally occurring. Relativist social science perspectives are, therefore, of particular relevance to HPSR as they recognise that all phenomena are in essence constructed through human behaviour and interpretation.

Social science insights that can advance the science of HPSR include approaches to generalising from rich understanding of context; supporting policy learning; and enhancing research rigour and quality.

#### ***PLoS Medicine Series on HPSR***

Following the First Global Symposium on Health Systems Research in Montreux in November 2010, PLoS Medicine commissioned three articles on the state-of-the-art in Health Policy and Systems Research (HPSR). Three Policy Forum articles, authored by a diverse group of global health academics, critically examine the current challenges to the field and lay out what is needed to build capacity in HPSR and support local policy development and health systems strengthening, especially in low- and middle-income countries.

- Paper 1. Kabir Sheikh and colleagues. Building the Field of Health Policy and Systems Research: Framing the Questions.
- Paper 2. Lucy Gilson and colleagues. Building the Field of Health Policy and Systems Research: Social Science Matters.
- Paper 3. Sara Bennett and colleagues. Building the Field of Health Policy and Systems Research: An Agenda for Action.

### **Proceedings of the National Academy of Sciences of the United States of America**

<http://www.pnas.org/content/early/recent>

Early Edition: Last updated August 26, 2011

[No relevant content]

### **Science**

26 August 2011 vol 333, issue 6046, pages 1057-1188

<http://www.sciencemag.org/current.dtl>

[No relevant content]

19 August 2011 vol 333, issue 6045, pages 909-1056

<http://www.sciencemag.org/content/333/6045.toc>

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12 August 2011 vol 333, issue 6044, pages 793-908

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[No relevant content]

### **Science Translational Medicine**

24 August 2011 vol 3, issue 97

<http://stm.sciencemag.org/content/current>

[No relevant content]

17 August 2011 vol 3, issue 96

<http://stm.sciencemag.org/content/3/96.toc>

[No relevant content]

10 August 2011 vol 3, issue 95

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[No relevant content]

### **Tropical Medicine & International Health**

September 2011 Volume 16, Issue 9 Pages 1043–1189

[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1365-3156/currentissue](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-3156/currentissue)

[Reviewed earlier]

**Vaccine**

[Attempted access 27 August 2011: site down - technical issues]

**Value in Health**

July 2011, Vol. 14, No. 5

<http://www.valueinhealthjournal.com/home>

[No relevant content]