

# Vaccines: The Week in Review 29 June 2013 Center for Vaccine Ethics & Policy (CVEP)

This weekly summary targets news, events, announcements, articles and research in the global vaccine ethics and policy space and is aggregated from key governmental, NGO, international organization and industry sources, key peer-reviewed journals, and other media channels. This summary proceeds from the broad base of themes and issues monitored by the Center for Vaccine Ethics & Policy in its work: it is not intended to be exhaustive in its coverage. Vaccines: The Week in Review is also posted in pdf form and as a set of blog posts at <a href="http://centerforvaccineethicsandpolicy.wordpress.com/">http://centerforvaccineethicsandpolicy.wordpress.com/</a>. This blog allows full-text searching of over 3,500 entries. Comments and suggestions should be directed to

David R. Curry, MS

Editor and
Executive Director
Center for Vaccine Ethics & Policy
david.r.curry@centerforvaccineethicsandpolicy.org

The Sabin Vaccine Institute announced the launch of the newly-formed International Association of Immunization Managers (IAIM). IAIM will operate with support from a five-year grant from the Bill & Melinda Gates Foundation and with a mission to "help drive the achievement of national, regional and international immunization goals, including those in the Global Vaccine Action Plan (GVAP), by fostering forward-thinking and superior management of immunization programs." The association's governing body, the IAIM ad hoc Governing Council, held its inaugural meeting in Washington, D.C. on 24 June. The Sabin Vaccine Institute serves as the Secretariat for IAIM and is responsible for executing its day-to-day operations.

Dr. David Salisbury, President of the newly-formed Association's ad hoc Governing Council and Director of Immunisation in the United Kingdom's Department of Health, commented, "How well an immunization manager performs his or her job can make the difference in whether the immunization program succeeds; yet these professionals often are not provided with the opportunities for training, peer-to-peer discussion and exchange and skill-building that they need to advance immunization programs. Therefore, it is both welcome and timely that we now have an international association for immunization program managers that can equip them with the right tools and professional network for the job."

IAIM is described as "the first-ever international association for immunization managers. Its objectives are to establish a forum from which immunization managers can discuss and exchange best practices; build and support international and regional networks of immunization managers; and provide immunization managers with opportunities to develop their technical and leadership capacity. The main benefits IAIM will provide for its members include: convening international and regional meetings to provide a forum for discussion, access to training and cutting-edge information and networking opportunities; organizing peer-to-peer exchanges as a

means of sharing success factors and problem-solving strategies among immunization managers; and creating an interactive website where members can access and share best practices, research, training and tools."

June 24, 2013 - <a href="http://www.sabin.org/updates/pressreleases/sabin-vaccine-institute-launches-international-association-immunization">http://www.sabin.org/updates/pressreleases/sabin-vaccine-institute-launches-international-association-immunization</a>

Japanese media report that the Japanese government withdrew its HPV vaccine recommendation for girls due to possible adverse effects such as long-term pain and numbness. The Tokyo Times reports that HPV vaccination in Japan "is not suspended, but the use of the vaccine is not promoted by local governments, as instructed by the Japanese Ministry of Health, Labor, and Welfare." Mariko Momoi, a vice president of the International University of Health and Welfare in Ōtawara, Tochigi, Japan, said, "The decision does not mean that the vaccine itself is problematic from the viewpoint of safety. By implementing investigations, we want to offer information that can make the people feel more at ease." A Merck company spokesman was quoted as stating: "While direct causal relationship between the vaccines and serious symptoms observed after inoculation has not been established at this time, we fully understand the anxiety felt by many people in Japan. In response to this decision, we will continue to collaborate with all stakeholders, including (the health ministry), to monitor and verify safety data toward resumption of active promotion for HPV vaccination as soon as possible." Both Gardasil and Cervarix "are (still) legal to use in Japan. Girls will still be able to be vaccinated for free, but from now on they will be informed by healthcare providers that the health ministry does not recommend it."

http://www.tokyotimes.com/2013/hpv-vaccine-seen-differently-by-japan-and-the-u-s/

IVI (International Vaccine Institute) said that with support from LG Electronics (LGE) and in collaboration with local partners it launched a public awareness and vaccination campaign to reduce acute watery diarrheal disease (AWD) resulting from cholera infections. The organizations expect to vaccinate more than 20,000 residents in selected districts of West Arsi Zone in Ethiopia's Oromia Region beginning on International Day of the African Child on June 16, 2013. IVI noted that LGE has been supporting IVI's vaccine program in Ethiopia since 2010 to stem the spread of AWD. Together, the organizations conducted vaccine safety research in collaboration with Ethiopia's Armauer Hansen Research Institute (AHRI) over a period of three years to confirm the vaccine's suitability for Ethiopians. Starting next month, LG and IVI officials will visit major cities in the Oromia Region to educate citizens on the importance of the vaccine. From October to December, teams will administer free vaccinations in collaboration with the Ethiopian Health and Nutrition Research Institute (EHNRI).

http://www.ivi.org/web/www/07\_01?p\_p\_id=EXT\_BBS&p\_p\_lifecycle=0&p\_p\_state=normal&p\_p\_mode=view&\_EXT\_BBS\_struts\_action=%2Fext%2Fbbs%2Fview\_message&\_EXT\_BBS\_messageId=530

Editor's Note: The media release excerpted above does not specifically identify the vaccine involved in the campaign, but we presume it be Shanchol, an oral cholera vaccine (OCV) developed by IVI.

IFFIm (International Finance Facility for Immunisation Company) made a restricted announcement of its inaugural US dollar floating rate benchmark. The US\$ 700 million, 3-year Vaccine Bonds "provide investors an opportunity to fund immunisation programmes by the GAVI Alliance, helping protect millions of children in the world's poorest countries against preventable diseases. \"

http://www.iffim.org/library/news/press-releases/2013/iffim-issues-us\$-700-million-in-3-year-floating-rate-vaccine-bonds/ [Please note access and viewing prohibitions].

The Global Fund announced that ten countries in Central America and the Caribbean "have joined a regional initiative that aims to eliminate malaria by 2020."

The announcement was made during a regional health summit of the Council of Health Ministers from Central America and the Dominican Republic (COMISCA) in San Jose, Costa Rica, and "seeks to unify and accelerate efforts to eliminate malaria in Mexico, Belize, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama, Haiti and the Dominican Republic." The Global Fund, which is currently supporting malaria grants in Nicaragua, Honduras, Guatemala, Dominican Republic and Haiti, has set aside an additional US\$10 million for the regional initiative. Dr Daisy Maria Corrales, Minister of Health of Costa Rica and Chair Pro Tempore of COMISCA, said, "We subscribe with great pleasure the Declaration for the Elimination of Malaria in Mesoamerica and Hispaniola Island in 2020, with the assurance that it will be of vast benefit for our people, and that it will allow us to improve the quality of life of the population in the region. The announcement also noted that "cases of malaria in Latin America and the Caribbean have fallen drastically since 2000. The Hispaniola, an island shared by Haiti and the Dominican Republic, is the only Caribbean island where malaria still persists, representing a financial burden to their economies, especially in the agriculture and tourism industries."

28 June 2013 - <a href="http://www.theglobalfund.org/en/mediacenter/newsreleases/2013-06-28">http://www.theglobalfund.org/en/mediacenter/newsreleases/2013-06-28</a> Ten Countries Rally to Eliminate Malaria in Central America and the Caribbean/

Rotary International and the Bill & Melinda Gates Foundation announced "an extension of their existing fundraising partnership that could generate up to US\$525 million in new money for polio eradication as the global effort to end this crippling disease enters its critical endgame phase." The new agreement was announced at Rotary's annual convention in Lisbon involving some 20,000 Rotary members from 160 countries. The Gates Foundation will match 2 for 1 every new dollar Rotary commits to polio eradication up to \$35 million per year through 2018. Rotary and the Gates Foundation have partnered on polio eradication since 2007, when the Gates Foundation gave Rotary a \$100 million challenge grant for polio eradication, increasing it to \$355 million in 2009. Rotary agreed to raise \$200 million in matching funds by June 2012. When the organization achieved its fundraising goal six months ahead of schedule, the Gates Foundation granted Rotary an additional \$50 million. To date, Rotary clubs worldwide have contributed \$1.2 billion to the polio eradication effort.

LISBON, Portugal, June 25, 2013 /PRNewswire-USNewswire/

http://www.prnewswire.com/news-releases/rotary-and-gates-foundation-extend-fundraising-agreement-to-end-polio-212926791.html

## Update: Polio this week - As of 26 June 2013

Global Polio Eradication Initiative

http://www.polioeradication.org/Dataandmonitoring/Poliothisweek.aspx [Editor's extract and bolded text]

- :: In Pakistan, the WPV1 outbreak in Bara in Khyber Agency (Federally Administered Tribal Areas FATA), is continuing. Seven cases have now been reported since end-April. This outbreak is the major WPV reservoir in all of Asia, and is threatening progress achieved elsewhere in the country and in neighbouring Afghanistan. See 'Pakistan' section below for more
- :: In Chad and Cameroon, new circulating vaccine-derived poliovirus type 2 (cVDPV2) cases were reported this week. Genetic sequencing is ongoing to determine the origin of these latest cases, though it is likely they are linked to the ongoing cVDPV2 outbreak affecting Chad. See 'Chad and Cameroon' sections below for more.
- :: In the Horn of Africa, outbreak response is continuing. In Somalia, three campaigns have now been conducted and in Kenya, two large-scale activities have been implemented. Although newly-reported cases are increasing, it is important to note that none of these of these cases represent breakthrough transmission since outbreak response activities began.

## Afghanistan

:: One new WPV case was reported in the past week (WPV1 from Nangarhar), bringing the total number of WPV cases for 2013 to three. It is the most recent WPV case in the country and had onset of paralysis on 6 June.

#### Pakistan

- :: One new WPV case was reported in the past week (WPV1 from Bara in Khyber Agency, FATA), bringing the total number of WPV cases for 2013 to 17. It is the most recent WPV case in the country and had onset of paralysis on 6 June.
- :: Bara is affected by an outbreak of WPV1, with seven cases now confirmed since end-April. This outbreak is the major WPV reservoir in all of Asia, and is threatening progress achieved elsewhere in the country and in neighbouring Afghanistan. It is an area where limited vaccination activities have been conducted since 2009, due to hampered access and insecurity. :: In 2011 and 2012, Bara was the epicentre of a major outbreak which also spread to other areas.

#### Central Africa: Chad and Cameroon

- :: In Chad, no new WPV cases were reported in the past week. The most recent WPV case had onset of paralysis on 14 June 2012 (WPV1 from Lac).
- :: One new cVDPV2 case was reported in the past week in Chad, bringing the total number of cVDPV2 cases for 2013 to two. It is the most recent cVDPV2 case in the country and had onset of paralysis on 10 April (from N'Djamena).
- :: In Cameroon, a cVDPV2 case was also reported from Extreme-Nord (onset of paralysis on 9 May).
- :: Genetic sequencing is ongoing to determine the origin of these latest cases, but it is likely that they are linked to the ongoing cVDPV2 outbreak affecting Chad.

:: Emergency outbreak response plans are currently being finalized in both countries. In Chad, nationwide campaigns were held this week (23-26 June) with trivalent OPV. Cameroon will conduct its first round in the north of the country on 15-18 July with trivalent OPV.

#### Horn of Africa

- :: Six new WPV cases were reported in the past week (WPV1s from Somalia), bringing the total number of WPV1 cases in the region to 31 (25 WPV1s from Somalia and six WPV1s from Kenya). The most recent WPV case in the region had onset of paralysis on 23 May (from Banadir, Somalia).
- :: The bulk of the newly-reported cases are from Banadir, which remains the epicentre of the outbreak.
- :: Although newly-reported cases are increasing, it is important to note that none of these cases represent breakthrough transmission since outbreak response activities began.
- :: However, of concern is that two cases have now been reported from districts in Lower Shabelle region in south-central Somalia where access for supplementary immunization activities (SIAs) has been compromised for the past three years. Surveillance in this area, however, remains functional. As many as 500,000 children in this area are at particular risk of polio at the moment. Efforts are ongoing to operate in this area, and vaccinations are continuing at entry and exit points to build up immunity levels.
- :: In Somalia, the third round of outbreak response campaigns was conducted last week, including in Banadir (which includes Mogadishu), targeting all age groups.
- :: Anecdotal feedback from the field indicates overall good coverage is being achieved, with strong community participation. The fourth round will start on 1 July, again aiming to reach all age groups in Banadir.
- :: The security situation continues to be evaluated, especially following the deadly attack on the UN compound in Mogadishu last week.
- :: In Kenya, the second round of outbreak response campaigns was conducted last week. In the Dadaab area, all age groups were targeted. The third round will start on 1 July.
- :: Immunization campaigns are also planned and being conducted in other countries of the Horn of Africa, notably Ethiopia and Yemen, to urgently boost population immunity levels and minimize the risk of spread of the outbreak.

The **Weekly Epidemiological Record (WER) for 28 June 2013**, vol. 88, 26 (pp. 261–268) includes:

- :: Index of countries/areas
- :: Index, Volume 88, 2013, Nos. 1-26
- :: Performance of acute flaccid paralysis (AFP) surveillance and incidence of poliomyelitis, 2013
- :: Monthly report on dracunculiasis cases, January-April 2013

http://www.who.int/entity/wer/2013/wer8826.pdf

## CDC/MMWR Watch - June 28, 2013 / Vol. 62 / No. 25

:: Use of 13-Valent Pneumococcal Conjugate Vaccine and 23-Valent Pneumococcal Polysaccharide Vaccine Among Children Aged 6–18 Years with Immunocompromising Conditions: Recommendations of the Advisory Committee on Immunization Practices (ACIP)

WHO: Global Alert and Response (GAR) - Disease Outbreak News

## http://www.who.int/csr/don/2013\_03\_12/en/index.html

Middle East respiratory syndrome coronavirus (MERS-CoV) — update 26 June 2013 <a href="http://www.who.int/csr/don/2013\_06\_17/en/index.html">http://www.who.int/csr/don/2013\_06\_17/en/index.html</a>
<a href="http://excerpt">Excerpt</a>

The Ministry of Health (MoH) in Saudi Arabia has announced seven additional laboratory-confirmed cases and a death in a previously confirmed case of Middle East respiratory syndrome coronavirus (MERS-CoV).

Four cases have been detected among contacts of confirmed cases in Riyadh and the Eastern Region. They range in age from seven to 15 years, and all were asymptomatic. Two further asymptomatic cases have been record among female healthcare workers in the Eastern Region and Al-Ahsa. A seventh case has been detected in a 50 year-old female in the Eastern Region. She is currently hospitalized with pulmonary disease and her condition is considered stable. In addition, the MoH has announced the death of a previously reported confirmed case from the Eastern Region (the 32 year-old male first reported on 23 June).

Globally, from September 2012 to date, WHO has been informed of a total of 77 laboratory-confirmed cases of infection with MERS-CoV, including 40 deaths...

## **WHO - Humanitarian Health Action**

http://www.who.int/hac/en/index.html *No new content.* 

#### **UN Watch** *to 29 June 2013*

Selected meetings, press releases, and press conferences relevant to immunization, vaccines, infectious diseases, global health, etc. <a href="http://www.un.org/en/unpress/">http://www.un.org/en/unpress/</a>
No new content.

#### Reports/Research/Analysis/ Conferences/Meetings/Book Watch

Vaccines: The Week in Review has expanded its coverage of new reports, books, research and analysis published independent of the journal channel covered in Journal Watch below. Our interests span immunization and vaccines, as well as global public health, health governance, and associated themes. If you would like to suggest content to be included in this service, please contact David Curry at: david.r.curry@centerforvaccineethicsandpolicy.org

## Meeting: Launch of WHO's financing dialogue

Geneva, Switzerland 24 June 2013

On 24 June, WHO met in Geneva with Member States and other contributors to embark on a financing dialogue.

The dialogue follows Member States' agreement on WHO's priorities for the coming years, focusing on areas where the Organization has a unique function or comparative advantage. These priorities and the actions that WHO has committed to take to improve health outcomes for the world's people are highlighted in the WHO Programme Budget for 2014-15.

The financing dialogue, which will bring together WHO's contributors again at the end of November, aims to ensure this Programme Budget is fully funded.

The objectives of the 24 June meeting were:

- :: for WHO to share additional information on the programming, budgeting, and financing of WHO's 2014-15 Programme Budget;
- :: for participants to discuss expectations for, and help shape, the financing dialogue process, including the second meeting planned for November 2013;
- :: for participants to provide indications of how they are considering financing WHO and opportunities and challenges they face in securing predictable financing aligned with the priorities of WHO.

Background documents

- :: <u>Provisional meeting agenda for launch of WHO's financing dialogue, 24 June 2013</u> pdf, 511kb
- :: Launch of WHO's financing dialogue: key principles, June 2013 pdf, 266kb
- :: <u>Investing in the World's Health Organization</u> pdf, 4.53Mb

Taking steps towards a fully-funded Programme Budget 2014-2015 - Speeches and presentations given at the meeting

:: WHO Director-General's opening remarks

pdf, 111kb

:: Presentation - WHO's budget - English

pdf, 1.64Mb

:: Presentation - WHO's budget - French

pdf, 1.53Mb

:: Presentation - Investing in the World's Health Organization - English

pdf. 1.52Mb

:: Presentation - Investing in the World's Health Organization - French

pdf, 1.32Mb

# **Workshop: Developing Financing Strategies for Dengue Vaccine Introduction in the Americas**

July 22-23 2013 [Site not identified]

IVAC, International Vaccine Institute (IVI), the Sabin Vaccine Institute, and PAHO [Dengue Vaccine Initiative (DVI)]

"In January 2013, the World Health Organization (WHO) ranked dengue the world's fastest growing tropical disease. The region of the Americas continues to experience a significant portion of the global burden of dengue, which is estimated to be 50-100 million dengue cases per year. An effective and affordable dengue vaccine will play a critical role in reducing the human and economic costs of the disease by preventing millions around the world from getting sick. To introduce and implement a dengue vaccine in a timely and equitable manner, countries need to assess their needs and current capacities and develop effective immunization and financing strategies.

"...More than 20 experts in health economics, epidemiology, and financing, plus program managers and decision makers, will work to identify a set of recommendations of financing options that would facilitate equitable and timely introduction of dengue vaccine and to develop a set of key actions that can advance these recommendations."

http://www.jhsph.edu/research/centers-and-institutes/ivac/about-us/news.html#DenFin

## Annual Report: UNICEF - 2012 Supply Annual Report Supply Chains for Children **UNICEF**

June 2013 - 82 pages Excerpt from Introduction

"...Improving the efficiency and effectiveness of UNICEF's large supply chain network requires working on internal and external processes and procedures, and strengthening our interactions with the wide range of partners we collaborate with every day.

Internally, UNICEF is introducing new tools, approaches and technical capacities to optimise the supply chain activities we manage. Performance objectives such as reduced stock-outs, lower transport costs and timely delivery have been established and are monitored on a regular basis.

Externally, we are helping strengthen national supply chains in partnership with governments and other stakeholders. Together, we are optimising global supply chains by improving key interfaces and dependencies based on analysis and evidence. The testing of temperaturecontrolled sea shipments from supplier to implementing partner, streamlining packaging and deliveries, using text message alerts to warn of temperature breaches, improving the traceability and monitoring of products via barcoding, and strategic tendering for local transport provision will help us realise these goals. Building a professional network of supply chain managers is also critical to these achievements.

Strong supply chains will deliver better results for children and their families, and will support the realisation of their rights to health, education, nutrition and protection wherever they live..."

http://www.unicef.org/supply/index report.html

Editor's Note: The report notes that in 2012 UNICEF procured vaccines and supporting supplies valued at USD\$1,053 billion, involving some 1.9 billion vaccine doses for 96 countries; 554.1 million immunization syringes, and USD\$29.7 million worth of cold chain equipment.

#### Journal Watch

Vaccines: The Week in Review continues its weekly scanning of key peer-reviewed 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

#### **American Journal of Infection Control**

Vol 41 | No. 7 | July 2013 | Pages 575-666

http://www.ajicjournal.org/current

Health care personnel immunization programs: An assessment of knowledge and practice among infection preventionists in US health care facilities

Ruth M. Carrico, PhD, RN, FSHEA, CIC; Timothy Wiemken, PhD, MPH, CIC; Kelly Westhusing,

MPH; Diana Christensen, MD; W. Paul McKinney, MD

published online 14 January 2013. <a href="http://www.ajicjournal.org/article/S0196-">http://www.ajicjournal.org/article/S0196-</a>

6553%2812%2901242-4/abstract

**Abstract** 

Background

Guidelines exist that recommend specific vaccines for health care personnel and supporting documents provide guidance for program development and implementation, but the extent to which those guidelines have been implemented in health care personnel immunization programs has not been fully explored. This project aimed to evaluate current practices in US health care facilities concerning health care personnel immunization programs.

Methods

A Web-based survey was deployed to 13,670 infection preventionists to assess 5 major program areas: (1) immunization program management; (2) vaccines provided to health care personnel; (3) vaccine handling practices; (4) training provided for the individual(s) responsible for the program; and (5) quality indicators for the program. A scoring scale was developed that demonstrated an overall measure of program performance.

Results

The Web-based survey resulted in 1,006 completed responses. When assessing overall program performance, the median vaccine program score was 47.6%. Respondents certified in infection prevention (CIC) scored significantly higher in overall program performance than respondents not certified (54% vs, 43%, respectively, P = .003).

Conclusion

Results of the survey have identified a number of education and training opportunities that can be addressed by professional associations using available evidence-based and proven implementation materials as resource documents.

#### Pandemic 2009 H1N1 influenza among health care workers

Renata D. Lobo, RN, MS; Maura S. Oliveira, MD, MS; Cilmara P. Garcia, MD; Helio Hehl Caiaffa Filho, MS; Anna S. Levin, MD, PhD

published online 02 January 2013. <a href="http://www.ajicjournal.org/article/S0196-6553%2812%2901240-0/abstract">http://www.ajicjournal.org/article/S0196-6553%2812%2901240-0/abstract</a>

**Abstract** 

To evaluate factors associated with pandemic influenza among health care workers (HCWs), a case-case-control study was conducted with 52 confirmed cases, 120 influenza-negative cases, and 102 controls. Comorbidities (odds ratio [OR], 19.05; 95% confidence interval [95% CI]: 4.75–76.41), male sex (OR, 5.11; 95% CI: 1.80–14.46), and being a physician (OR, 8.58; 95% CI: 2.52–29.27) were independent risk factors for pandemic influenza infection among HCWs. Contact with symptomatic coworker or social contact was protective (OR, 0.11; 95% CI: 0.04–0.29). To our knowledge, this is the first study of factors associated with acquiring influenza involving HCW in nonsevere cases.

#### **American Journal of Public Health**

Volume 103, Issue 7 (July 2013) <a href="http://ajph.aphapublications.org/toc/ajph/current">http://ajph.aphapublications.org/toc/ajph/current</a> [Reviewed earlier]

#### **Annals of Internal Medicine**

18 June 2013, Vol. 158. No. 12 <a href="http://www.annals.org/content/current">http://www.annals.org/content/current</a> [Reviewed earlier; No relevant content]

#### **BMC Public Health**

(Accessed 29 June 2013)

http://www.biomedcentral.com/bmcpublichealth/content

Research article Open Access

<u>Increasing girls' knowledge about human papillomavirus vaccination with a pre-test and a national leaflet: a quasi-experimental study</u>

Robine Hofman, Puck AWH Schiffers, Jan Hendrik Richardus, Hein Raat, Inge MCM de Kok, Marjolein van Ballegooijen, Ida J Korfage *BMC Public Health* 2013, 13:611 (26 June 2013)

Abstract (provisional)

Background

Adolescent girls are at an age to be involved in the decision about HPV vaccination uptake and therefore need adequate information about the vaccination. This study assesses to what extent reading an official information leaflet about HPV contributes to girls' knowledge levels, and to what extent an increase in knowledge is boosted by a pre-test measurement.

Methods

Participants (girls aged 11--14 years) were systematically allocated to group A that completed a pre-test measurement (12 true/false statements) or to group B that did not complete it. Subsequently, both groups read the HPV leaflet and completed the post-test measurement.

Results

The response rate was 237/287 (83%). Pre-test scores in group A (M = 3.6, SD = 1.81, p < 0.001) were lower than post-test mean knowledge scores (0--10) in group B (M = 4.6, SD = 2.05). Post-test knowledge scores in group A were higher than those in group B [6.2 (SD = 2.06) versus 4.6 (SD = 2.05), p < 0.001]. In the post-test measurement, about a third of both groups knew that vaccinations do not give 100% protection against cervical cancer and that the duration of protection is unknown.

Conclusions

Reading the information leaflet had a positive effect on knowledge, even more so when boosted by a pre-test measurement. However, knowledge on the degree and duration of protection against cervical cancer remained limited. Focusing girls' attention on important aspects before they start reading the leaflet (e.g. by including a quiz on the first page) may serve to raise their awareness of these aspects.

The complete article is available as a <u>provisional PDF</u>. The fully formatted PDF and HTML versions are in production.

#### **British Medical Bulletin**

Volume 106 Issue 1 June 2013
<a href="http://bmb.oxfordjournals.org/content/current">http://bmb.oxfordjournals.org/content/current</a>
[Reviewed earlier; No relevant content]

#### **British Medical Journal**

29 June 2013 (Vol 346, Issue 7914) http://www.bmj.com/content/346/7914 [No relevant content]

## **Bulletin of the World Health Organization**

Volume 91, Number 6, June 2013, 389-464 <a href="http://www.who.int/bulletin/volumes/91/6/en/index.html">http://www.who.int/bulletin/volumes/91/6/en/index.html</a> [Reviewed earlier; No relevant content]

### **Clinical Therapeutics**

Vol 35 | No. 6 | June 2013 | Pages 745-900 http://www.clinicaltherapeutics.com/current [No relevant content]

## **Cost Effectiveness and Resource Allocation**

(Accessed 29 June 2013)
<a href="http://www.resource-allocation.com/">http://www.resource-allocation.com/</a>
[No new relevant content]

## **Current Opinion in Infectious Diseases.**

June 2013 - Volume 26 - Issue 3 pp: v-v,213-293 http://journals.lww.com/co-infectiousdiseases/pages/currenttoc.aspx [Reviewed earlier]

# **Development in Practice**

Volume 23, Issue 4, 2013 http://www.tandfonline.com/toc/cdip20/current [Reviewed earlier; No relevant content]

#### **Emerging Infectious Diseases**

Volume 19, Number 7—July 2013
<a href="http://www.cdc.gov/ncidod/EID/index.htm">http://www.cdc.gov/ncidod/EID/index.htm</a>
[Reviewed earlier; No relevant content]

#### **Eurosurveillance**

Volume 18, Issue 26, 27 June 2013

http://www.eurosurveillance.org/Public/Articles/Archives.aspx?PublicationId=11678

#### Research articles

Hospital-based cluster randomised controlled trial to assess effects of a multifaceted programme on influenza vaccine coverage among hospital healthcare workers and nosocomial influenza in the Netherlands, 2009 to 2011

by J Riphagen-Dalhuisen, JG Burgerhof, G Frijstein, AD van der Geest-Blankert, MB Danhof-Pont, HJ de Jager, AA Bos, EE Smeets, MJ de Vries, PM Gallee, E Hak Abstract

Nosocomial influenza is a large burden in hospitals. Despite recommendations from the World Health Organization to vaccinate healthcare workers against influenza, vaccine uptake remains low in most European countries. We performed a pragmatic cluster randomised controlled trial in order to assess the effects of implementing a multi-faceted influenza immunisation programme on vaccine coverage in hospital healthcare workers (HCWs) and on in-patient morbidity. We included hospital HCWs of three intervention and three control University Medical Centers (UMCs), and 3,367 patients. An implementation programme was offered to the intervention UMCs to assess the effects on both vaccine uptake among hospital staff and patient morbidity. In 2009/10, the coverage of seasonal, the first and second dose of pandemic influenza vaccine as well as seasonal vaccine in 2010/11 was higher in intervention UMCs than control UMCs (all p<0.05). At the internal medicine departments of the intervention group with higher vaccine coverage compared to the control group, nosocomial influenza and/or pneumonia was recorded in 3.9% and 9.7% of patients of intervention and control UMCs, respectively (p=0.015). Though potential bias could not be completely ruled out, an increase in vaccine coverage was associated with decreased patient in-hospital morbidity from influenza and/or pneumonia.

#### **Forum for Development Studies**

Volume 40, Issue 2, 2013 <a href="http://www.tandfonline.com/toc/sfds20/current">http://www.tandfonline.com/toc/sfds20/current</a> [Reviewed earlier; No relevant content]

### **Global Health Governance**

Volume VI, Issue 1: Fall 2012

- December 31, 2012
[Reviewed earlier]

## **Globalization and Health**

[Accessed 29 June 2013] <a href="http://www.globalizationandhealth.com/">http://www.globalizationandhealth.com/</a>
[No new relevant content]

#### **Health Affairs**

June 2013; Volume 32, Issue 6

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

# **Theme: Medicaid Expansion & Vulnerable Populations**

[No specific relevant content on vaccines/immunization]

## **Health and Human Rights**

Volume 15, Issue 1

http://www.hhrjournal.org/

# Theme: Realizing the Right to Health Through a Framework Convention on Global

Health

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

Volume 8 - Issue 03 - July 2013

http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue

[Reviewed earlier; No relevant content]

## **Health Policy and Planning**

Volume 28 Issue 3 May 2013 <a href="http://heapol.oxfordjournals.org/content/current">http://heapol.oxfordjournals.org/content/current</a> [Reviewed earlier]

# **Human Vaccines & Immunotherapeutics** (formerly Human Vaccines)

Volume 9, Issue 6 June 2013

http://www.landesbioscience.com/journals/vaccines/toc/volume/9/issue/6/ [Reviewed earlier]

### **Infectious Diseases of Poverty**

http://www.idpjournal.com/content [Accessed 29 June 2013] [No new relevant content]

## **International Journal of Epidemiology**

Volume 42 Issue 2 April 2013 http://ije.oxfordjournals.org/content/current [Reviewed earlier]

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

Vol 17 | No. 8 | August 2013

http://www.ijidonline.com/current

[Reviewed earlier; No relevant content]

#### **JAMA**

June 26, 2013, Vol 309, No. 24 http://jama.ama-assn.org/current.dtl

## Viewpoint / ONLINE FIRST

# Major Challenges in Providing an Effective and Timely Pandemic Vaccine for Influenza A(H7N9)

Michael T. Osterholm, PhD, MPH; Katie S. Ballering, PhD; Nicholas S. Kelley, PhD JAMA. 2013;309(24):2557-2558. doi:10.1001/jama.2013.6589.

Published online May 9, 2013 <a href="http://jama.jamanetwork.com/article.aspx?articleid=1686871">http://jama.jamanetwork.com/article.aspx?articleid=1686871</a>
Opening language (no abstract)

The emergence of avian influenza A(H7N9) virus in humans has public health authorities around the world on high alert for the potential development of a human influenza pandemic. 1 As of May 8, 2013, authorities had identified 131 confirmed cases and 32 deaths among residents of 8 provinces and 2 municipalities in China. 2

Three primary scenarios exist for how this A(H7N9) virus outbreak will unfold. First, the virus could disappear in the animal reservoir, ending new human cases. Second, the virus could persist in the animal reservoir, resulting in sporadic human infections. Third, the virus could, through mutation or reassortment, become readily transmissible between humans, resulting in a global pandemic...

#### **JAMA Pediatrics**

June 2013, Vol 167, No. 6
<a href="http://archpedi.jamanetwork.com/issue.aspx">http://archpedi.jamanetwork.com/issue.aspx</a>
[Reviewed earlier; No relevant content]

## **Journal of Community Health**

Volume 38, Issue 3, June 2013 http://link.springer.com/journal/10900/38/3/page/1 [Reviewed earlier]

## **Journal of Health Organization and Management**

Volume 27 issue 5 - Latest Issue http://www.emeraldinsight.com/journals.htm?issn=1477-7266&show=latest [No relevant content]

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

Volume 208 Issue 2 July 15, 2013 <a href="http://jid.oxfordjournals.org/content/current">http://jid.oxfordjournals.org/content/current</a>

## Journal of Global Infectious Diseases (JGID)

April-June 2013 Volume 5 | Issue 2 Page Nos. 43-90 http://www.jqid.org/currentissue.asp?sabs=n

[Reviewed earlier; No relevant content]

### **Journal of Medical Ethics**

July 2013, Volume 39, Issue

http://jme.bmj.com/content/current

**Issue Theme: The ethics of male circumcision** 

[No relevant content]

## **Journal of Medical Microbiology**

July 2013; 62 (Pt 7)

http://jmm.sgmjournals.org/content/current

[Reviewed earlier; No relevant content]

## Journal of the Pediatric Infectious Diseases Society (JPIDS)

Volume 2 Issue 2 June 2013

http://jpids.oxfordjournals.org/content/current

[Reviewed earlier]

#### **Journal of Pediatrics**

Vol 163 | No. 1 | July 2013 | Pages 1-308

http://www.ipeds.com/current

[No relevant content]

## **Journal of Virology**

July 2013, volume 87, issue 13

http://jvi.asm.org/content/current

[Reviewed earlier]

#### The Lancet

Jun 29, 2013 Volume 381 Number 9885 p2223 - 2298

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

#### World report

## Ukraine at risk of polio outbreak

Ed Holt

Preview |

A combination of public mistrust in vaccinations, poor vaccine supply, and corruption in the health system has left Ukraine with worryingly low rates of immunisation. Ed Holt reports.

#### Correspondence

## Standardised case definitions for adverse events following immunisation

Ulrich Heininger

Preview |

Comparability of data obtained in different vaccine trials is of interest for those who want to assess reactogenicity and safety profiles of specific vaccines. In this regard, the Brighton Collaboration (founded in 2000) has set internationally recognised standards by creating case definitions for many adverse events following immunisation (AEFI), and by developing standards for the collection and reporting of safety data in clinical trials.1

# Clinical features and viral diagnosis of two cases of infection with Middle East Respiratory Syndrome coronavirus: a report of nosocomial transmission

Benoit Guery, Julien Poissy, Loubna el Mansouf, Caroline Séjourné, Nicolas Ettahar, Xavier Lemaire, Fanny Vuotto, Anne Goffard, Sylvie Behillil, Vincent Enouf, Valérie Caro, Alexandra Mailles, Didier Che, Jean-Claude Manuguerra, Daniel Mathieu, Arnaud Fontanet, Sylvie van der Werf, the MERS-CoV study group

http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2813%2960982-4/abstract *Summary* 

Background

Human infection with a novel coronavirus named Middle East Respiratory Syndrome coronavirus (MERS-CoV) was first identified in Saudi Arabia and the Middle East in September, 2012, with 44 laboratory-confirmed cases as of May 23, 2013. We report detailed clinical and virological data for two related cases of MERS-CoV disease, after nosocomial transmission of the virus from one patient to another in a French hospital.

Methods

Patient 1 visited Dubai in April, 2013; patient 2 lives in France and did not travel abroad. Both patients had underlying immunosuppressive disorders. We tested specimens from the upper (nasopharyngeal swabs) or the lower (bronchoalveolar lavage, sputum) respiratory tract and whole blood, plasma, and serum specimens for MERS-CoV by real-time RT-PCR targeting the upE and Orf1A genes of MERS-CoV.

**Findings** 

Initial clinical presentation included fever, chills, and myalgia in both patients, and for patient 1, diarrhoea. Respiratory symptoms rapidly became predominant with acute respiratory failure leading to mechanical ventilation and extracorporeal membrane oxygenation (ECMO). Both patients developed acute renal failure. MERS-CoV was detected in lower respiratory tract specimens with high viral load (eg, cycle threshold [Ct] values of 22·9 for upE and 24 for Orf1a for a bronchoalveolar lavage sample from patient 1; Ct values of 22·5 for upE and 23·9 for Orf1a for an induced sputum sample from patient 2), whereas nasopharyngeal specimens were weakly positive or inconclusive. The two patients shared the same room for 3 days. The incubation period was estimated at 9—12 days for the second case. No secondary transmission was documented in hospital staff despite the absence of specific protective measures before the diagnosis of MERS-CoV was suspected. Patient 1 died on May 28, due to refractory multiple organ failure.

Interpretation

Patients with respiratory symptoms returning from the Middle East or exposed to a confirmed case should be isolated and investigated for MERS-CoV with lower respiratory tract sample analysis and an assumed incubation period of 12 days. Immunosuppression should also be taken into account as a risk factor.

**Fundina** 

French Institute for Public Health Surveillance, ANR grant Labex Integrative Biology of Emerging Infectious Diseases, and the European Community's Seventh Framework Programme projects EMPERIE and PREDEMICS.

#### The Lancet Global Health

July 2013 Volume 1 Number 1 e1 - 54

http://www.thelancet.com/journals/langlo/issue/current

#### Comment

## Malaria eradication: is it possible? Is it worth it? Should we do it?

Jenny Liu, Sepideh Modrek, Roly D Gosling, Richard GA Feachem *Preview* |

The malaria map is rapidly shrinking. In 1900, endemic malaria was present in almost every country. Nowadays, the disease has been eliminated in 111 countries and 34 countries are advancing towards elimination.1 Elimination is defined as the absence of transmission in a defined geography—typically a country.2 Successful malaria control programmes in the remaining 64 countries with ongoing transmission have helped to reduce global incidence by 17% and mortality by 26% since 2000.3 For the 34 eliminating countries, the reductions were 85% in incidence and 87% in mortality.

#### The Lancet Infectious Diseases

Jul 2013 Volume 13 Number 7 p559 - 638

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

#### **Comment**

## **Inoculating communities against vaccine scare stories**

Natasha Sarah Crowcroft, Kwame Julius McKenzie

# <u>Preview</u>

The biggest threat facing the success of immunisation might be public lack of confidence in vaccines, repeatedly undermined by safety concerns promulgated in social and news media.1 In *The Lancet Infectious Diseases*, Heidi Larson and colleagues' study examines how a typology of concerns can be applied within an established global surveillance system, HealthMap, to track and characterise vaccine news stories.2,3 The usefulness of systematically tracking online media stories was first established for disease surveillance through a Canadian project, the Global Public Health Information Network,4 followed by several other systems including HealthMap.

# Measuring vaccine confidence: analysis of data obtained by a media surveillance system used to analyse public concerns about vaccines

Heidi J Larson, David MD Smith, Pauline Paterson, Melissa Cumming, Elisabeth Eckersberger, Clark C Freifeld, Isaac Ghinai, Caitlin Jarrett, Louisa Paushter, John S Brownstein, Lawrence C Madoff

http://www.thelancet.com/journals/laninf/article/PIIS1473-3099%2813%2970108-7/abstract Summary

#### Background

The intensity, spread, and effects of public opinion about vaccines are growing as new modes of communication speed up information sharing, contributing to vaccine hesitancy, refusals, and disease outbreaks. We aimed to develop a new application of existing surveillance systems to detect and characterise early signs of vaccine issues. We also aimed to develop a typology of concerns and a way to assess the priority of each concern.

### Methods

Following preliminary research by The Vaccine Confidence Project, media reports (eg, online articles, blogs, government reports) were obtained using the HealthMap automated data

collection system, adapted to monitor online reports about vaccines, vaccination programmes, and vaccine-preventable diseases. Any reports that did not meet the inclusion criteria—any reference to a human vaccine or vaccination campaign or programme that was accessible online—were removed from analysis. Reports were manually analysed for content and categorised by concerns, vaccine, disease, location, and source of report, and overall positive or negative sentiment towards vaccines. They were then given a priority level depending on the seriousness of the reported event and time of event occurrence. We used descriptive statistics to analyse the data collected during a period of 1 year, after refinements to the search terms and processes had been made.

**Findings** 

We analysed data from 10 380 reports (from 144 countries) obtained between May 1, 2011, and April 30, 2012. 7171 (69%) contained positive or neutral content and 3209 (31%) contained negative content. Of the negative reports, 1977 (24%) were associated with impacts on vaccine programmes and disease outbreaks; 1726 (21%) with beliefs, awareness, and perceptions; 1371 (16%) with vaccine safety; and 1336 (16%) with vaccine delivery programmes. We were able to disaggregate the data by country and vaccine type, and monitor evolution of events over time and location in specific regions where vaccine concerns were high. Interpretation

Real-time monitoring and analysis of vaccine concerns over time and location could help immunisation programmes to tailor more effective and timely strategies to address specific public concerns.

Funding

Bill & Melinda Gates Foundation.

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

July 2013; 33 (5)
<a href="http://mdm.sagepub.com/content/current">http://mdm.sagepub.com/content/current</a>
[No relevant content]

## **The Milbank Quarterly**

A Multidisciplinary Journal of Population Health and Health Policy
June 2013 Volume 91, Issue 2 Pages 219–418
<a href="http://onlinelibrary.wiley.com/doi/10.1111/milq.2013.91.issue-2/issuetoc">http://onlinelibrary.wiley.com/doi/10.1111/milq.2013.91.issue-2/issuetoc</a>
[No relevant content]

#### **Nature**

Volume 498 Number 7455 pp407-532 27 June 2013 <a href="http://www.nature.com/nature/current\_issue.html">http://www.nature.com/nature/current\_issue.html</a> [No relevant content]

#### **Nature Immunology**

July 2013, Volume 14 No 7 pp645-763 http://www.nature.com/ni/journal/v14/n7/index.html

**Focus Issue: The microbiota** 

Interactions between the immune system and microbiota influence local and systemic immune homeostasis. Nature Immunology presents a series of specially commissioned articles that discuss the reciprocal regulation between the host immune system and commensal microbiota, the dynamic interactions between commensals and pathogens, and emerging information on how resident viruses might influence immune homeostasis. The web focus also includes highlights of recent research in this area.

#### **Nature Medicine**

June 2013, Volume 19 No 6 pp653-790 <a href="http://www.nature.com/nm/journal/v19/n6/index.html">http://www.nature.com/nm/journal/v19/n6/index.html</a> [Reviewed earlier]

## **Nature Reviews Immunology**

June 2013 Vol 13 No 6
<a href="http://www.nature.com/nri/journal/v13/n6/index.html">http://www.nature.com/nri/journal/v13/n6/index.html</a>
[Reviewed earlier; No relevant content]

## **New England Journal of Medicine**

June 27, 2013 Vol. 368 No. 26

http://www.nejm.org/toc/nejm/medical-journal

<u>Brief Report: Family Cluster of Middle East Respiratory Syndrome Coronavirus Infections</u>

Z.A. Memish, A.I. Zumla, R.F. Al-Hakeem, A.A. Al-Rabeeah, and G.M. Stephens Abstract

A human coronavirus, called the Middle East respiratory syndrome coronavirus (MERS-CoV), was first identified in September 2012 in samples obtained from a Saudi Arabian businessman who died from acute respiratory failure. Since then, 49 cases of infections caused by MERS-CoV (previously called a novel coronavirus) with 26 deaths have been reported to date. In this report, we describe a family case cluster of MERS-CoV infection, including the clinical presentation, treatment outcomes, and household relationships of three young men who became ill with MERS-CoV infection after the hospitalization of an elderly male relative, who died of the disease. Twenty-four other family members living in the same household and 124 attending staff members at the hospitals did not become ill. MERS-CoV infection may cause a spectrum of clinical illness. Although an animal reservoir is suspected, none has been discovered. Meanwhile, global concern rests on the ability of MERS-CoV to cause major illness in close contacts of patients.

# **OMICS: A Journal of Integrative Biology**

June 2013, 17(6)

http://online.liebertpub.com/toc/omi/17/6
[Reviewed earlier; No relevant content]

# Revista Panamericana de Salud Pública/Pan American Journal of Public Health (RPSP/PAJPH)

May 2013 Vol. 33, No. 5

http://www.paho.org/journal/index.php?option=com\_content&task=view&id=125&Itemid=224 [Reviewed earlier; No relevant content]

#### The Pediatric Infectious Disease Journal

July 2013 - Volume 32 - Issue 7 pp: A15-A16,709-804,e265-e313

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

<u>Trends in National Rotavirus Activity Before and After Introduction of Rotavirus</u>

<u>Vaccine into the National Immunization Program in the United States, 2000 to 2012</u>

Tate, Jacqueline E.; Haynes, Amber; Payne, Daniel C.; Cortese, Margaret M.; Lopman, Benjamin A.; Patel, Manish M.; Parashar, Umesh D.

Pediatric Infectious Disease Journal. 32(7):741-744, July 2013.

doi: 10.1097/INF.0b013e31828d639c

Abstract:

Background: Rotavirus vaccine introduction in the United States in 2006 led to substantial declines in rotavirus detections during 2007 to 2010. To further evaluate the long-term impact of the vaccine program, we assessed trends in rotavirus testing and detection in the 2010 to 2011 and 2011 to 2012 seasons compared with prevaccine seasons from 2000 to 2006. Methods: We examined data from July 2000 to June 2012 from 50 to 70 laboratories reporting to the National Respiratory and Enteric Viruses Surveillance System to compare rotavirus season timing and peak activity in the pre- and postvaccine introduction eras. To assess trends in rotavirus testing and detection, we restricted the analyses to 25 laboratories that consistently reported for ≥26 weeks for each season from 2000 to 2012.

Results: The threshold for the start of the rotavirus season was never achieved nationally during the 2011 to 2012 season, and the 2010 to 2011 season was 8 weeks shorter in duration than the prevaccine baseline. During these seasons, nationally, the number of positive rotavirus tests declined 74%–90% compared with the prevaccine baseline and the total number of tests performed annually declined 28%–36%. The annual proportion positive at the 25 consistently reporting laboratories remained below 10% in both seasons compared with a prevaccine baseline median of 26%. A pattern of biennial increases in rotavirus activity emerged during the 5 postvaccine seasons from 2007 to 2012, but activity remained substantially below prevaccine levels.

Conclusions: A substantial and sustained decline in rotavirus activity below the prevaccine baseline was observed in all 5 postvaccine introduction years, affirming the long-term health benefits of the US rotavirus vaccination program.

#### **Pediatrics**

June 2013, VOLUME 131 / ISSUE 6 http://pediatrics.aappublications.org/current.shtml [Reviewed earlier]

#### **Pharmaceutics**

Volume 5, Issue 2 (June 2013), Pages 220-

## http://www.mdpi.com/1999-4923/5/2

[Reviewed earlier; No relevant content]

#### **Pharmacoeconomics**

Volume 31, Issue 7, July 2013

http://link.springer.com/journal/40273/31/7/page/1

**Productivity Costs in Economic Evaluations: Past, Present, Future** 

Marieke Krol, Werner Brouwer, Frans Rutten

Abstract

Productivity costs occur when the productivity of individuals is affected by illness, treatment, disability or premature death. The objective of this paper was to review past and current developments related to the inclusion, identification, measurement and valuation of productivity costs in economic evaluations. The main debates in the theory and practice of economic evaluations of health technologies described in this review have centred on the questions of whether and how to include productivity costs, especially productivity costs related to paid work. The past few decades have seen important progress in this area. There are important sources of productivity costs other than absenteeism (e.g. presenteeism and multiplier effects in co-workers), but their exact influence on costs remains unclear. Different measurement instruments have been developed over the years, but which instrument provides the most accurate estimates has not been established. Several valuation approaches have been proposed. While empirical research suggests that productivity costs are best included in the cost side of the cost-effectiveness ratio, the jury is still out regarding whether the human capital approach or the friction cost approach is the most appropriate valuation method to do so. Despite the progress and the substantial amount of scientific research, a consensus has not been reached on either the inclusion of productivity costs in economic evaluations or the methods used to produce productivity cost estimates. Such a lack of consensus has likely contributed to ignoring productivity costs in actual economic evaluations and is reflected in variations in national health economic guidelines. Further research is needed to lessen the controversy regarding the estimation of health-related productivity costs. More standardization would increase the comparability and credibility of economic evaluations taking a societal perspective.

#### Review Article

# <u>The Cost and Public Health Burden of Invasive Meningococcal Disease Outbreaks: A</u> Systematic Review

Andrea Anonychuk, Gloria Woo, Andrew Vyse, Nadia Demarteau...

**Abstract** 

Background

Invasive meningococcal disease (IMD) is a serious disease with a rapid onset, high mortality rate, and risk of long-term complications. Numerous reports in the literature conclude that IMD outbreaks are associated with substantial costs to society and significant burden on communities due to the cost associated with the prevention of secondary cases. Objective

To systematically review the literature on the costs and public health burden associated with IMD outbreaks.

Methods

Studies were primarily identified through searching MEDLINE and EMBASE. Reports were included if they provided cost data related to the containment of an IMD outbreak after 1990

and were written in English, French, or Spanish. Costs were converted to 2010 United States dollars. Outbreaks were categorized by low-income countries (LIC) and high-income countries (HIC) based on gross domestic product per capita. Outbreak containment strategies were classified as small (e.g., targeting members of the school/institution where the outbreak occurred) or large (e.g., targeting everyone in the community). Results

Sixteen articles reporting data on 93 IMD outbreaks fulfilled the eligibility criteria and were included. The majority of outbreaks occurred in HIC. Five studies reported the use of small containment strategies including targeted vaccination and chemoprophylaxis, all occurring in HIC. The average cost per small containment strategy was 99,641 and the average cost per IMD case was 41,857. Eight studies reported large containment strategies involving widespread vaccination targeting a specific age group or community. For HIC, the average cost per large containment strategy was 579,851 and the average cost per IMD case was 55,755. In LIC, the average cost per large containment strategy was 3,407,590. Conclusion

IMD outbreaks were associated with substantial costs. We found that although there were numerous reports on IMD outbreaks, data on containment costs were very limited. More research in this area is warranted.

#### **PLoS One**

[Accessed 29 June 2013] http://www.plosone.org/

<u>Evolution of Type 2 Vaccine Derived Poliovirus Lineages. Evidence for Codon-Specific Positive Selection at Three Distinct Locations on Capsid Wall</u>

Tapani Hovi, Carita Savolainen-Kopra, Teemu Smura, Soile Blomqvist, Haider Al-Hello, Merja Roivainen

Research Article | published 28 Jun 2013 | PLOS ONE 10.1371/journal.pone.0066836 *Abstract* 

Partial sequences of 110 type 2 poliovirus strains isolated from sewage in Slovakia in 2003–2005, and most probably originating from a single dose of oral poliovirus vaccine, were subjected to a detailed genetic analysis. Evolutionary patterns of these vaccine derived poliovirus strains (SVK-aVDPV2) were compared to those of type 1 and type 3 wild poliovirus (WPV) lineages considered to have a single seed strain origin, respectively. The 102 unique SVK-aVDPV VP1 sequences were monophyletic differing from that of the most likely parental poliovirus type 2/Sabin (PV2 Sabin) by 12.5-15.6%. Judging from this difference and from the rate of accumulation of synonymous transversions during the 22 month observation period, the relevant oral poliovirus vaccine dose had been administered to an unknown recipient more than 12 years earlier. The patterns of nucleotide substitution during the observation period differed from those found in the studied lineages of WPV1 or 3, including a lower transition/transversion (Ts/Tv) bias and strikingly lower Ts/Tv rate ratios at the 2<sup>nd</sup> codon position for both purines and pyrimidines. A relatively low preference of transitions at the 2<sup>nd</sup> codon position was also found in the large set of VP1 sequences of Nigerian circulating (c)VDPV2, as well as in the smaller sets from the Hispaniola cVDPV1 and Egypt cVDPV2 outbreaks, and among aVDPV1and aVDPV2 strains recently isolated from sewage in Finland. Codon-wise analysis of synonymous versus non-synonymous

substitution rates in the VP1 sequences suggested that in five codons, those coding for amino acids at sites 24, 144, 147, 221 and 222, there may have been positive selection during the observation period. We conclude that pattern of poliovirus VP1 evolution in prolonged infection may differ from that found in WPV epidemics. Further studies on sufficiently large independent datasets are needed to confirm this suggestion and to reveal its potential significance.

<u>Vaccinating Girls and Boys with Different Human Papillomavirus Vaccines: Can It Optimise Population-Level Effectiveness?</u>

Mélanie Drolet, Marie-Claude Boily, Nicolas Van de Velde, Eduardo L. Franco, Marc Brisson Research Article | published 26 Jun 2013 | PLOS ONE 10.1371/journal.pone.0067072 *Abstract* 

## Background

Decision-makers may consider vaccinating girls and boys with different HPV vaccines to benefit from their respective strengths; the quadrivalent (HPV4) prevents anogenital warts (AGW) whilst the bivalent (HPV2) may confer greater cross-protection. We compared, to a girls-only vaccination program with HPV4, the impact of vaccinating: 1) both genders with HPV4, and 2) boys with HPV4 and girls with HPV2. Methods

We used an individual-based transmission-dynamic model of heterosexual HPV infection and diseases. Our base-case scenario assumed lifelong efficacy of 100% against vaccine types, and 46,29, 8, 18,6% and 77, 43, 79, 8, 0% efficacy against HPV-31,-33,-45,-52,-58 for HPV4 and HPV2, respectively.

#### Results

Assuming 70% vaccination coverage and lifelong cross-protection, vaccinating boys has little additional benefit on AGW prevention, irrespective of the vaccine used for girls. Furthermore, using HPV4 for boys and HPV2 for girls produces greater incremental reductions in SCC incidence than using HPV4 for both genders (12 vs 7 percentage points). At 50% vaccination coverage, vaccinating boys produces incremental reductions in AGW of 17 percentage points if both genders are vaccinated with HPV4, but increases female incidence by 16 percentage points if girls are switched to HPV2 (heterosexual male incidence is incrementally reduced by 24 percentage points in both scenarios). Higher incremental reductions in SCC incidence are predicted when vaccinating boys with HPV4 and girls with HPV2 versus vaccinating both genders with HPV4 (16 vs 12 percentage points). Results are sensitive to vaccination coverage and the relative duration of protection of the vaccines.

#### Conclusion

Vaccinating girls with HPV2 and boys with HPV4 can optimize SCC prevention if HPV2 has higher/longer cross-protection, but can increase AGW incidence if vaccination coverage is low among boys.

<u>Assessment of Health Benefits and Cost-Effectiveness of 10-Valent and 13-Valent Pneumococcal Conjugate Vaccination in Kenyan Children</u>

Philip Ayieko, Ulla K. Griffiths, Moses Ndiritu, Jennifer Moisi, Isaac K. Mugoya, Tatu Kamau, Mike English, J. Anthony G. Scott

Research Article | published 24 Jun 2013 | PLOS ONE 10.1371/journal.pone.0067324 *Abstract* 

## Background

Methods

The GAVI Alliance supported10-valent pneumococcal conjugate vaccine (PCV10) introduction in Kenya. We estimated the cost-effectiveness of introducing either PCV10 or the13-valent vaccine (PCV13) from a societal perspective and explored the incremental impact of including indirect vaccine effects.

The costs and effects of pneumococcal vaccination among infants born in Kenya in 2010 were assessed using a decision analytic model comparing PCV10 or PCV13, in turn, with no vaccination. Direct vaccine effects were estimated as a reduction in the incidence of pneumococcal meningitis, sepsis, bacteraemic pneumonia and non-bacteraemic pneumonia. Pneumococcal disease incidence was extrapolated from a population-based hospital surveillance system in Kilifi and adjustments were made for variable access to care across Kenya. We used vaccine efficacy estimates from a trial in The Gambia and accounted for serotype distribution in Kilifi. We estimated indirect vaccine protection and serotype replacement by extrapolating from the USA. Multivariable sensitivity analysis was conducted using Monte Carlo simulation. We assumed a vaccine price of US\$ 3.50 per dose.

## Findings

The annual cost of delivering PCV10 was approximately US\$14 million. We projected a 42.7% reduction in pneumococcal disease episodes leading to a US\$1.97 million reduction in treatment costs and a 6.1% reduction in childhood mortality annually. In the base case analysis, costs per discounted DALY and per death averted by PCV10, amounted to US\$ 59 (95% CI 26–103) and US\$ 1,958 (95% CI 866–3,425), respectively. PCV13 introduction improved the cost-effectiveness ratios by approximately 20% and inclusion of indirect effects improved cost-effectiveness ratios by 43–56%. The break-even prices for introduction of PCV10 and PCV13 are US\$ 0.41 and 0.51, respectively.

#### Conclusions

Introducing either PCV10 or PCV13 in Kenya is highly cost-effective from a societal perspective. Indirect effects, if they occur, would significantly improve the cost-effectiveness.

#### **PLoS Medicine**

(Accessed 29 June 2013)
<a href="http://www.plosmedicine.org/">http://www.plosmedicine.org/</a>
[No new relevant content]

## **PLoS Neglected Tropical Diseases**

June 2013 <a href="http://www.plosntds.org/article/browseIssue.action">http://www.plosntds.org/article/browseIssue.action</a> [No new relevant content]

# PNAS - Proceedings of the National Academy of Sciences of the United States of America

(Accessed 29 June 2013)
<a href="http://www.pnas.org/content/early/recent">http://www.pnas.org/content/early/recent</a>
[No new relevant content]

#### **Public Health Ethics**

Volume 6 Issue 1 April 2013 <a href="http://phe.oxfordjournals.org/content/current">http://phe.oxfordjournals.org/content/current</a> [Reviewed earlier]

## **Qualitative Health Research**

July 2013; 23 (7) <a href="http://qhr.sagepub.com/content/current">http://qhr.sagepub.com/content/current</a> [Reviewed earlier; No relevant content]

#### **Risk Analysis**

June 2013 Volume 33, Issue 6 Pages 945–1173 <a href="http://onlinelibrary.wiley.com/doi/10.1111/risa.2013.33.issue-6/issuetoc">http://onlinelibrary.wiley.com/doi/10.1111/risa.2013.33.issue-6/issuetoc</a> [No relevant content]

#### **Science**

28 June 2013 vol 340, issue 6140, pages 1489-1604 http://www.sciencemag.org/current.dtl

#### Editorial

#### The Science of Sustainability

Christopher Dye1,\*, Marcia McNutt2,†

1Christopher Dye is a director in the Office of Health Information in the Office of HIV/AIDS, Tuberculosis, Malaria and Neglected Tropical Diseases at the World Health Organization, Geneva, Switzerland. The views expressed here do not necessarily represent the decisions, policy, or view of the World Health Organization.

2Marcia McNutt is Editor-in-Chief of Science.

#### **Abstract**

The question of what can be achieved in 1000 days has preoccupied kings, queens, presidents, and, very recently, the Secretary-General of the United Nations (UN). Ban Ki-moon has not only appealed for a last big push to reach as many as possible of the UN's Millennium Development Goals (MDGs) by the deadline of 31 December 2015, he is advocating the establishment of objectives that should succeed the MDGs as well. Strong clues about the shape of the post-2015 agenda can be found in two recent reports, one published last month by a High-Level Panel\* convened by Ban Ki-moon and chaired by the presidents of Indonesia and Liberia and the prime minister of the United Kingdom, and the other released this month by the Sustainable Development Solutions Network.† Both reports list the eradication of poverty as the number-one priority and set out complementary goals concerned with gender equality, education, health, food, water and sanitation, climate change, energy, employment, natural resources,

governance, peace, and finance. These reports are unlikely to be the last contributions to the debate, but the proposed goals represent a call to action for the science community.

## **Science Translational Medicine**

26 June 2013 vol 5, issue 191

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

#### Editorial

#### **UNIVERSAL VACCINES**

### **Getting to the Heart of Influenza**

Jonathan W. Yewdell, David J. Spiro, Hana Golding, Helen Quill, Abraham Mittelman, and Gary J. Nabel

26 June 2013: 191ed8

Full Text

Diverse stakeholders convened at the U.S. National Institutes of Health to devise a plan for development of universal influenza virus vaccines.

### **Social Science & Medicine**

Volume 92, <u>In Progress</u> (September 2013) <a href="http://www.sciencedirect.com/science/journal/02779536/85">http://www.sciencedirect.com/science/journal/02779536/85</a> [No new relevant content]

#### **Vaccine**

Volume 31, Issue 32, Pages 3207-3308 (11 July 2013) <a href="http://www.sciencedirect.com/science/journal/0264410X">http://www.sciencedirect.com/science/journal/0264410X</a> [Reviewed earlier]

#### **Vaccine: Development and Therapy**

(Accessed 29 June 2013)
<a href="http://www.dovepress.com/vaccine-development-and-therapy-journal">http://www.dovepress.com/vaccine-development-and-therapy-journal</a>
12 June 2013 vol 5, issue 189
[No new relevant content]

#### Value in Health

Vol 16 | No. 4 | June 2013 | Pages 453-698 http://www.valueinhealthjournal.com/current

# Estimating the Effectiveness of HPV Vaccination in the Open Population: A Bayesian Approach

Willem Woertman, Gert Jan van der Wilt, PhD published online 27 February 2013. Abstract

Objectives

Estimation of the effectiveness of human papillomavirus (HPV) vaccination in the open population on the basis of published data from various sources.

#### Methods

A Bayesian approach was used to reanalyze the data underlying a guidance by the Dutch National Health Insurance Board about the quadrivalent HPV vaccine Gardasil. Several studies document the vaccine's effectiveness in preventing cases in different subpopulations. None of these (sub)populations, however, is representative of the actual target population that the vaccination program will be applied to. We used a Bayesian approach for restructuring the data by means of reweighting the subpopulations by using HPV prevalence data, to estimate the effectiveness that can be expected in the actual target population.

The original data show an effectiveness of 44% in the entire population and an effectiveness of 98% for women who were compliant and were HPV-free at the start of the study. In the study population, the HPV prevalence was below 4%. In the relevant target population, however, the actual prevalence could be very different. In fact, some publications find an HPV prevalence of around 10%. We used Bayesian techniques to estimate the effectiveness in the actual target population. We found a mean effectiveness of 25%, and the probability that the effectiveness in the target population exceeds 50% is virtually zero. The results are very sensitive to the HPV prevalence that is used.

#### Conclusions

A supplementary analysis can put together the bits and pieces of information to arrive at more relevant answers. A Bayesian approach allows for integrating all the evidence into one model in a straightforward way and results in very intuitive probability statements.

# <u>From Google Scholar & other sources: Selected Journal Articles, Dissertations, Theses, Commentary</u>

## **Vaccine Development for Tuberculosis: Current Progress**

IM Orme - Drugs, 2013

Abstract Very substantial efforts have been made over the past decade or more to develop vaccines against tuberculosis. Historically, this began with a view to replace the current vaccine, Bacillus Calmette Guérin (BCG), but more recently most candidates are either ...

## Media/Policy Watch

Beginning in June 2012, *Vaccines: The Week in Review* expanded to alert readers to substantive news, analysis and opinion from the general media on vaccines, immunization, global; public health and related themes. *Media Watch* is not intended to be exhaustive, but indicative of themes and issues CVEP is actively tracking. This section will grow from an initial base of newspapers, magazines and blog sources, and is segregated from *Journal Watch* above which scans the peer-reviewed journal ecology.

We acknowledge the Western/Northern bias in this initial selection of titles and invite suggestions for expanded coverage. We are conservative in our outlook of adding news sources which largely report on primary content we are already covering above. Many electronic media sources have tiered, fee-based subscription models for access. We will provide full-text where content is published without restriction, but most publications require registration and some subscription level.

#### Al Jazeera

http://www.aljazeera.com/Services/Search/?q=vaccine Accessed 29 June 2013 [No new, unique, relevant content]

#### **The Atlantic**

http://www.theatlantic.com/magazine/ Accessed 29 June 2013 [No new, unique, relevant content]

#### **BBC**

http://www.bbc.co.uk/ Accessed 29 June 2013 [No new, unique, relevant content]

## **Brookings**

http://www.brookings.edu/ Accessed 29 June 2013 [No new, unique, relevant content]

### **Council on Foreign Relations**

http://www.cfr.org/ Accessed 29 June 2013 [No new, unique, relevant content]

#### **Economist**

http://www.economist.com/ Accessed 29 June 2013 [No new, unique, relevant content]

#### **Financial Times**

http://www.ft.com Accessed 29 June 2013

#### **Forbes**

http://www.forbes.com/ Accessed 29 June 2013

6/28/2013 @ 8:00AM | 311 views

**HPV Vaccination In India: An Historic Opportunity...And A Daunting Challenge** Geoffrey Kabat, Contributor

#### **Foreign Affairs**

http://www.foreignaffairs.com/ Accessed 29 June 2013

## Who Owns MERS?

The Intellectual Property Controversy Surrounding the Latest Pandemic

David P. Fidler June 7, 2013

The outbreak of the Middle East Respiratory Syndrome has led to a global controversy over who legally owns the intellectual property of a virus, whether a virus can be patented, and how to share samples of it once it is. But all the bickering has obscured the fact that pandemics aren't problems that can be litigated away.

DAVID P. FIDLER is the James Louis Calamaras Professor of Law at Indiana University's Maurer School of Law.

### **Foreign Policy**

http://www.foreignpolicy.com/

Accessed 29 June 2013

#### The Middle East Plague Goes Global

A scary virus is sweeping Saudi Arabia. Six million religious pilgrims are about to descend on the country from across the world. The result could be disastrous.

BY LAURIE GARRETT, MAXINE BUILDER | JUNE 28, 2013

#### The Guardian

http://www.guardiannews.com/ Accessed 29 June 2013 [No new, unique, relevant content]

## **The Huffington Post**

http://www.huffingtonpost.com/ Accessed 29 June 2013

#### Le Monde

http://www.lemonde.fr/ Accessed 29 June 2013 [No new, unique, relevant content]

#### **New Yorker**

http://www.newyorker.com/ Accessed 29 June 2013 [No new, unique, relevant content]

#### **New York Times**

http://www.nytimes.com/ Accessed 29 June 2013 [No new, unique, relevant content]

#### Reuters

http://www.reuters.com/ Accessed 29 June 2013 [No new, unique, relevant content]

#### **Wall Street Journal**

http://online.wsj.com/home-page

Accessed 29 June 2013
[No new, unique, relevant content]

## **Washington Post**

http://www.washingtonpost.com/ Accessed 29 June 2013 [No new, unique, relevant content]

\* \* \* \*

**Vaccines: The Week in Review** is a service of the Center for Vaccines Ethics and Policy (<u>CVEP</u>) which is solely responsible for its content. Support for this service is provided by its governing institutions — <u>Department of Medical Ethics, NYU Medical School; The Wistar Institute Vaccine Center</u> and the <u>Children's Hospital of Philadelphia Vaccine Education Center</u>. Additional support is provided by the <u>PATH Vaccine Development Program</u> and the <u>International Vaccine Institute</u> (IVI), and by vaccine industry leaders including GSK, Pfizer, and Sanofi Pasteur U.S. (list in formation), as well as the Developing Countries Vaccine Manufacturers Network (<u>DCVMN</u>). Support is also provided by a growing list of individuals who use this service to support their roles in public health, clinical practice, government, NGOs and other international institutions, academia and research organizations, and industry.

\* \* \* \*