



## Vaccines and Global Health: The Week in Review

2 April 2016

Center for Vaccine Ethics & Policy (CVEP)

*This weekly digest targets news, events, announcements, articles and research in the vaccine and global health 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 and Global Health: The Week in Review is also **posted in pdf form** and as a set of blog posts at <http://centerforvaccineethicsandpolicy.wordpress.com/>. This blog allows full-text searching of over 8,000 entries.*

*Comments and suggestions should be directed to*

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**Request an email version:** Vaccines and Global Health: The Week in Review is published as a single email summary, scheduled for release each Saturday evening before midnight (EDT in the U.S.). If you would like to receive the email version, please send your request to [david.r.curry@centerforvaccineethicsandpolicy.org](mailto:david.r.curry@centerforvaccineethicsandpolicy.org).

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*Zika/WHO Executive Board*

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### **Zika virus** [to 2 April 2016]

*Public Health Emergency of International Concern (PHEIC)*

*<http://www.who.int/emergencies/zika-virus/en/>*

### **WHO Situation Report**

*Navigation: A. [Ebola/EVD; Polio; MERS-Cov](#) B. [WHO; CDC](#) C. [Announcements/Milestones/Perspectives](#)  
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## **Zika virus, Microcephaly and Guillain-Barré syndrome**

31 March 2016

### ***Summary***

:: From 1 January 2007 to 30 March 2016, Zika virus transmission was documented in a total of 61 countries and territories. Four of these (Cook Islands, French Polynesia, ISLA DE PASCUA – Chile, and New Caledonia) reported a Zika virus outbreak that is now over. Six countries have now reported locally acquired infection in the absence of any known mosquito vectors, probably through sexual transmission (Argentina, Chile, France, Italy, New Zealand and the United States of America).

:: In the Region of the Americas, the geographical distribution of Zika virus has steadily widened since the presence of the virus was confirmed in 2015. Mosquito-borne Zika virus transmission has been reported in 33 countries and territories of this region.

:: In the Western Pacific Region, mosquito-borne Zika virus cases have been reported in 16 countries and areas.

:: Microcephaly and other fetal malformations have been reported in Brazil (944 cases), Cabo Verde (two cases), Colombia (32 cases), French Polynesia (eight cases), Martinique (one case) and Panama (one case). Two additional cases, linked to a stay in Brazil, were detected in the United States of America and Slovenia.

:: In the context of Zika virus circulation, 13 countries or territories have reported an increased incidence of Guillain-Barré syndrome (GBS) and/or laboratory confirmation of a Zika virus infection among GBS cases.

***:: Based on observational, cohort and case-control studies there is strong scientific consensus that Zika virus is a cause of GBS, microcephaly and other neurological disorders.***

:: The global prevention and control strategy launched by the World Health Organization (WHO) as a Strategic Response Framework encompasses surveillance, response activities and research. This situation report is organized under those headings.

### **Disease Outbreak News (DONs)**

:: 1 April 2016 - Microcephaly – France - Martinique

:: 29 March 2016 - Zika virus infection – Dominica and Cuba

:: 29 March 2016 - Microcephaly – Panama

:: 29 March 2016 - Guillain-Barré syndrome – Panama

### **Zika Open [to 2 April 2016]**

[Bulletin of the World Health Organization]

*:: All papers available here*

Posted: 1 Apr 2016

### **Times to key events in the course of Zika infection and their implications: a systematic review and pooled analysis**

- Justin T Lessler, Cassandra T Ott, Andrea C Carcelen, Jacob M Konikoff, Joe Williamson,

Qifang Bi, Lauren M Kucirka, Derek AT Cummings, Nicholas G Reichd & Lelia H Chaissona

**CDC/ACIP** [to 2 April 2016]

<http://www.cdc.gov/media/index.html>

FRIDAY, APRIL 1, 2016

**National Zika Summit Focused on Coordinated U.S. Response**

Today, more than 300 local, state, and federal government officials; health experts; and non-government partners are gathering at the Centers for Disease Control and Prevention (CDC) to prepare for the likelihood of mosquito-borne transmission of the Zika virus in some parts of the continental United States. The Commonwealth of Puerto Rico, U.S. Virgin Islands, and American Samoa already are experiencing active Zika transmission.

Hosted by CDC, the one-day [Zika Action Plan Summit](#) brings together officials from local, state and federal jurisdictions, as well as non-government organizations, to help ensure a coordinated response to the mosquito-borne illness linked to the devastating birth defect microcephaly. The summit aims to identify gaps in readiness and provide technical support to states in the development of Zika action plans that will allow their jurisdictions to effectively prepare for and respond to active Zika transmission they may experience...

FRIDAY, APRIL 1, 2016

**Zika Virus - Vital Signs: Zika and Pregnancy**

**MMWR - April 1, 2016 / Vol. 65 / No. 12**

:: [Estimating Contraceptive Needs and Increasing Access to Contraception in Response to the Zika Virus Disease Outbreak — Puerto Rico, 2016](#)

:: [Update: Interim Guidance for Health Care Providers Caring for Women of Reproductive Age with Possible Zika Virus Exposure — United States, 2016](#)

:: [Update: Interim Guidance for Prevention of Sexual Transmission of Zika Virus — United States, 2016](#)

**FDA** [to 2 April 2016]

<http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/default.htm>

March 30, 2016

**FDA allows use of investigational test to screen blood donations for Zika virus**

The U.S. Food and Drug Administration today announced the availability of an investigational test to screen blood donations for Zika virus. The screening test may be used under an investigational new drug application (IND) for screening donated blood in areas with active mosquito-borne transmission of Zika virus.

"The availability of an investigational test to screen donated blood for Zika virus is an important step forward in maintaining the safety of the nation's blood supply, especially for those U.S. territories already experiencing active transmission," said Peter Marks, M.D., Ph.D., director of the FDA's Center for Biologics Evaluation and Research. "In the future, should Zika virus transmission occur in other areas, blood collection establishments will be able to continue to collect blood and use the investigational screening test, minimizing disruption to the blood supply."...

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## **EBOLA/EVD** [to 2 April 2016]

*Public Health Emergency of International Concern (PHEIC); "Threat to international peace and security" (UN Security Council)*

### **New positive case of Ebola virus disease confirmed in Liberia**

WHO statement

1 April 2016

Lab results confirm a new case of Ebola virus disease in Liberia — a 30-year-old woman who died yesterday afternoon while being transferred to a hospital in the capital Monrovia. Liberia's Ministry of Health, WHO and partner agencies immediately sent a team to the community outside Monrovia where the woman lived and the clinic where she was being treated to begin case investigation and identification of individuals who may have been in contact with her.

Liberian health authorities convened an emergency meeting early this morning with key partners to coordinate and plan a rapid response...

### **Ebola Situation Report - 30 March 2016**

**SUMMARY**

:: The International Health Regulations (2005) Emergency Committee regarding Ebola virus disease (EVD) in West Africa met for a ninth time on 29 March. On the basis of the Committee's advice and her own assessment of the situation, the WHO Director-General declared the end of the Public Health Emergency of International Concern regarding the Ebola virus disease outbreak in West Africa. The Committee noted that since its last meeting Guinea, Liberia, and Sierra Leone have all met the criteria for confirming interruption of their original chains of Ebola virus transmission. The Committee also noted that, although new clusters of EVD cases continue to occur as expected, including a recent and ongoing cluster in Guinea, all clusters to date have been detected and responded to rapidly...

### **Statement on the 9th meeting of the IHR Emergency Committee regarding the Ebola outbreak in West Africa**

WHO statement

29 March 2016

The 9th meeting of the Emergency Committee convened by the WHO Director-General under the International Health Regulations (2005) (IHR) regarding the Ebola virus disease (EVD) outbreak in West Africa...

The Committee was requested to provide the Director-General with views and perspectives as to whether the event continues to constitute a Public Health Emergency of International Concern (PHEIC) and whether the current Temporary Recommendations should be extended, rescinded or revised.

Representatives of Guinea, Liberia and Sierra Leone presented the epidemiological situation, ongoing work to prevent Ebola re-emergence, and capacity to detect and respond rapidly to any new clusters of cases in each country.

The Committee noted that since its last meeting all three countries have met the criteria for confirming interruption of their original chains of Ebola virus transmission. Specifically, all three countries have now completed the 42 day observation period and additional 90 day enhanced surveillance period since their last case that was linked to the original chain of transmission twice tested negative. Guinea achieved this milestone on 27 March 2016...

...The Committee further emphasized the crucial need for continued international donor and technical support to prevent, detect and respond rapidly to any new Ebola outbreak in West Africa. International support is required in particular to maintain and, where needed, expand diagnostic laboratory and surveillance capacity, sustain vaccination capacity for outbreak response, and continue relevant research and development activities (e.g. on therapeutic options to clear persistent virus excretion). The Committee gave special attention to the need to ensure that sufficient and appropriate clinical care, testing capacity and welfare services are available to all survivors of this extraordinary health crisis.

**Based on the advice of the Emergency Committee, and her own assessment of the situation, the Director-General terminated the Public Health Emergency of International Concern (PHEIC) regarding the Ebola virus disease outbreak in West Africa, in accordance with the International Health Regulations (2005). The Director-General terminated the Temporary Recommendations that she had issued in relation to this event, supported the public health advice provided above by the Committee, and reinforced the importance of States Parties immediately lifting any restrictions on travel and trade with these countries.** The Director-General thanked the Emergency Committee members and advisors for their service and expert advice, and requested their availability to reconvene if needed.

#### **WHO Director-General briefs media on outcome of Ebola Emergency Committee**

29 March 2016

#### **WHO: Vaccination of Ebola contacts in Guinea**

31 March 2016 -- Hundreds of people who may have been in contact with 8 individuals infected with Ebola virus in Guinea have been vaccinated with the experimental Ebola vaccine in a bid to contain the latest flare-up of Ebola. The VSV-EBOV vaccine currently being administered was found to be highly effective in preventing Ebola infection in a large trial conducted by Guinea's Ministry of Health, WHO and partner agencies last year.

#### **Wellcome Trust [to 2 April 2016]**

<http://www.wellcome.ac.uk/News/2016/index.htm>

31 March 2016

#### **Urgent action still needed in Ebola vaccine development**

*A panel of international experts today called for urgent steps to be taken to complete the development of safe, effective vaccines for Ebola, and ensure the world is prepared for future outbreaks.*

A panel of international experts today called for urgent steps to be taken to complete the development of safe, effective vaccines for Ebola, and ensure the world is prepared for future outbreaks.

Although tremendous progress has been made in Ebola vaccine development in the last two years, the latest report by Wellcome and the University of Minnesota's CIDRAP Ebola Vaccine Team B says without renewed commitment from the global public health community, progress towards approved vaccines for Ebola could grind to a halt as memories of the outbreak in West Africa begin to fade.

During the 2014-2015 epidemic, a total of 13 Ebola vaccine candidates (including different combinations of vaccines) were evaluated in phase 1 and/or phase 2 clinical trials and three phase 3 efficacy trials were initiated in Africa – one each in Guinea, Liberia, and Sierra Leone.

Vaccine manufacturers, such as Johnson & Johnson and GSK, have advanced their respective Ebola candidate vaccines well into the clinical trial process. Trials of one vaccine, Merck's rVSV-ZEBOV, have progressed far enough to demonstrate that it is safe and effective, prompting GAVI, the vaccine alliance, to purchase 300,000 doses as a stockpile for use during future Ebola outbreaks.

However, to date, no vaccine has been submitted for regulatory review and many questions regarding Ebola vaccines remain unresolved. Today's report from the Ebola Vaccine Team B identifies four main areas where work is still needed before the world is fully prepared for another Ebola outbreak:

- .1. Filling in the gaps in data on the safety and efficacy of Ebola vaccines;
- .2. Understanding the complex regulatory pathways for Ebola vaccines;
- .3. Gaining direct input from African public health leaders to clarify how Ebola vaccines will be used or evaluated in respond to future Ebola outbreaks;
- .4. Creating a business case for ongoing Ebola vaccine development and deployment.

The group outlines recommendations for how each of these can be achieved, including completing clinical trials of vaccine candidates to fill in the missing gaps in data, and being ready to run both phase 3 efficacy studies and phase 4 post-marketing studies from the start of the next Ebola outbreak.

Wellcome Trust Director Dr Jeremy Farrar, who co-chairs Ebola Vaccine Team B, said: "Although a global collaborative effort has moved us from having no drugs or vaccines in the early days of the Ebola epidemic to now having a safe, effective vaccine, and other promising candidates, it has taken too long, and the job is still not done.

"As Ebola infection rates come under control it's a huge concern that complacency sets in, attention moves to more immediate threats, and Ebola vaccine development is left half-finished. Today we're calling for a renewed commitment from the global health community. After the hard lessons we've learned, it would be a tragedy not to put a final stop to the current Ebola epidemic, and be prepared for the next outbreak."

Co-chair, and Regents Professor and Director of CIDRAP, Dr Michael Osterholm added: "While many in the international public health community believe these efforts have solved 'the problem of Ebola,' the path forward is not quite so simple, and many unresolved challenges and questions remain. In our report, we identify the key areas in which critical additional work and effort are needed to enhance Ebola preparedness for future outbreaks, particularly in the

megacities of equatorial Africa, and to address the ongoing concern that Ebola virus disease may become endemic in West Africa."

This report from Team B follows a report [published in February 2015](#), which set out a framework for developing vaccines for Ebola, and increasing preparedness for emerging infectious diseases. It can be downloaded from the [CIDRAP website](#).

The group is called "Team B" in recognition of the principal role played by the World Health Organization and national governments in leading the international Ebola response.

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### **POLIO** [to 2 April 2016]

*Public Health Emergency of International Concern (PHEIC)*

#### **Polio this week as of 30 March 2016**

:: There are two weeks to go until the [globally synchronized switch](#) from the trivalent to bivalent oral polio vaccine. Learn more about the switch through this series of [videos](#).

*Selected Country Levels Updates [excerpted]*

#### **Afghanistan**

:: One new cases of wild poliovirus type 1 (WPV1) were reported in the past week, in Nawzad district of Hilmand province, with onset of paralysis on 23 January. The total number of WPV1 cases for 2016 remains 2, compared to 1 reported for 2015 at this point last year.

#### **Pakistan**

:: One new wild poliovirus type 1 (WPV1) case was reported in the last week, in Shikarpur district of Sindh province, with onset of paralysis on 5 March. The total number of WPV1 cases for 2016 is now 7, compared to 20 reported at the same date last year.

:: One new WPV1 environmental positive sample was reported in the past week, in Peshawar district with collection date on 2 March.

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### **MERS-CoV** [to 2 April 2016]

*No new content identified.*

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### **WHO & Regional Offices** [to 2 April 2016]

#### **WHO calls for early diagnostic tests for lassa fever**

01 April 2016 -- Lassa fever has killed more than 160 people in West Africa, most of them in Nigeria, since November 2015. Many of these lives could have been saved if a rapid diagnostic test were available so that people could receive treatment early. Also around 80% of people who become infected with Lassa virus have no symptoms or they have symptoms that mimic other illnesses, such as malaria, making it difficult to treat them.

## **Highlights**

### **General Assembly proclaims the Decade of Action on Nutrition**

April 2016 -- The United Nations General Assembly today agreed a resolution proclaiming the UN Decade of Action on Nutrition from 2016 to 2025. The resolution aims to trigger intensified action to end hunger and eradicate malnutrition worldwide, and ensure universal access to healthier and more sustainable diets.

### **New positive case of Ebola virus disease confirmed in Liberia**

April 2016 -- Liberian health authorities convened an emergency meeting today with key partners to coordinate and plan a rapid response to the new positive case of Ebola virus disease.

### **The Weekly Epidemiological Record (WER) celebrates 90 years**

April 2016 -- On 1 April 1926, epidemiologists in the Health Office of the League of Nations, Geneva created the first WER. The publication's mission was to provide the world with information about disease hazards that, at that time, mostly travelled by sea: plague, cholera, yellow fever, typhus and smallpox.

### **A global course for healthy ageing**

April 2016 -- A new supplemental issue of The Gerontologist contains 12 articles that expand upon the major themes of the landmark WHO World report on ageing and health released in late 2015.

## **WHO SAGE Meeting**

Geneva: 12 - 14 April 2016.

:: • [Draft agenda pdf, 121kb](#) as of 18 March 2016

### **Weekly Epidemiological Record (WER) 01 April 2016**, vol. 91, 13 (pp. 169–180)

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169 A journey through 90 years of the Weekly Epidemiological Record

177 Message from the World Organisation for Animal Health

178 Into the future: are we ready to face modern outbreaks?

### **GIN March 2016 pdf, 1.71Mb**

31 March 2016

## **Disease Outbreak News (DONs)**

:: [1 April 2016](#) - Microcephaly – France - Martinique

:: [29 March 2016](#) - Yellow Fever – China

:: [29 March 2016](#) - Zika virus infection – Dominica and Cuba

:: [29 March 2016](#) - Microcephaly – Panama

:: [29 March 2016](#) - Guillain-Barré syndrome – Panama

:: [29 March 2016](#) - Human infection with avian influenza A(H7N9) virus – China

## :: WHO Regional Offices

### **WHO African Region AFRO**

[:: Director General of WHO and Regional Director for Africa in Luanda to support response to the yellow fever epidemic](#)

Luanda, 2 April 2016 - The Director General of the World Health Organization (WHO), Dr Margaret Chan, and the Regional Director for Africa, Dr Matshidiso Moeti, will be in Luanda, from 2 to 5 April 2016, for a working visit. The visit aims to acquaint them with ongoing efforts to prevent and control the yellow fever epidemic which has gripped the country since December 2015, and to identify ways of further strengthening support to Angola. [r](#)

[:: WHO coordinating vaccination of contacts to contain Ebola flare-up in Guinea - 01 April 2016](#)

[:: New positive case of Ebola virus disease confirmed in Liberia - 01 April 2016](#)

[:: Extraordinary Meeting of the African Vaccine Regulatory Forum \(AVAREF\) - 01 April 2016](#)

### **WHO Region of the Americas PAHO**

[:: Zika Virus Surveillance Intensifying in the Americas, but Burden of Disease Still Unclear](#)  
(03/29/2016)

### **WHO South-East Asia Region SEARO**

[:: WHO congratulates India for introduction of rotavirus vaccine in the routine immunization schedule](#)

27 March 2016

### **WHO European Region EURO**

*No new relevant content identified.*

### **WHO Eastern Mediterranean Region EMRO**

[:: Health situation in Yemen critical as violent conflict enters second year](#)

27 March 2016, Sana'a, Yemen – This week marks one year since the escalation of the conflict in Yemen, where the violence has had a devastating impact on millions of innocent civilians, causing immeasurable suffering. Since March 2015, more than 6200 people have been killed and 30 000 injured. More than 21 million people – 82% of the total population – are in need of humanitarian aid, including almost 2.5 million people who have been internally displaced. More than one third of people in need live in inaccessible or hard-to-reach areas.

### **WHO Western Pacific Region**

[:: Working together to eliminate schistosomiasis in the Mekong](#)

MANILA, 30 March 2016 – The World Health Organization (WHO) is working with communities across the Western Pacific Region to improve water safety and prevent water-borne diseases such as schistosomiasis. This story describes action in the Mekong region to eliminate schistosomiasis as a public health problem. Schistosomiasis can cause not only anaemia and stunting but also death in severe cases

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### **CDC/ACIP** [to 2 April 2016]

<http://www.cdc.gov/media/index.html>

*[see Zika coverage above which includes CDC briefing content]*

## **MMWR - April 1, 2016 / Vol. 65 / No. 12**

- :: [Estimating Contraceptive Needs and Increasing Access to Contraception in Response to the Zika Virus Disease Outbreak — Puerto Rico, 2016](#)
- :: [Update: Interim Guidance for Health Care Providers Caring for Women of Reproductive Age with Possible Zika Virus Exposure — United States, 2016](#)
- :: [Update: Interim Guidance for Prevention of Sexual Transmission of Zika Virus — United States, 2016](#)
- :: [Notes from the Field: Imported Cases of Malaria — Puerto Rico, July–October 2015](#)
- :: [Notes from the Field: Baseline Assessment of the Use of Ebola Rapid Diagnostic Tests — Forécariah, Guinea, October–November 2015](#)

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## **Announcements/Milestones/Perspectives**

### **European Medicines Agency [to 2 April 2016]**

<http://www.ema.europa.eu/>

01/04/2016

### **Meeting highlights from the Committee for Medicinal Products for Human Use (CHMP) 29 March - 1 April 2016**

...Pandemic influenza vaccine H5N1 MedImmune also received a positive opinion from the CHMP. This is the first pandemic live attenuated influenza vaccine against avian influenza (H5N1) to be recommended for approval in the European Union (EU). The vaccine is intended for pandemic preparedness...

### **GHIT Fund [to 2 April 2016]**

<https://www.ghitfund.org/>

*GHIT was set up in 2012 with the aim of developing new tools to tackle infectious diseases that devastate the world's poorest people. Other funders include six Japanese pharmaceutical companies, the Japanese Government and the Bill & Melinda Gates Foundation.*

2016.03.31 Press Room

### **GHIT Fund Announces New Investments, Including Innovative Malaria Vaccine Targeting Two Deadliest Strains of the Disease**

*Approach shows promise for achieving malaria eradication and tackling rapidly spreading malaria drug resistance; GHIT also announces investments in malaria and tuberculosis diagnostics and new treatments for leishmaniasis and soil-transmitted helminthiasis*

TOKYO, JAPAN (March 31, 2016)—The Global Health Innovative Technology Fund (GHIT Fund) announced today that it's investing US\$1,383,785\* in a pair of innovative malaria eradication tools—a vaccine that could block transmission of two species of the deadly disease and a rapid field test that can reveal a malaria infection in minutes.

"We will not be able to eradicate malaria if we can't interrupt disease transmission," said GHIT Fund Executive Director & CEO Dr. BT Slingsby. "And that will require two essential tools: vaccines that interrupt the parasite's constant movement between humans and mosquitos, and

simple, rapid diagnostic tests that allow us to identify and treat asymptomatic persons who are silently carrying and spreading malaria parasites."

The GHIT Fund also revealed that it's investing US\$2,160,577 to accelerate development of a new diagnostic test for tuberculosis (TB), which has now overtaken HIV as the leading cause of death from infectious disease. In addition, GHIT will provide US\$1,690,711 to develop treatments for two neglected tropical diseases that torment billions: leishmaniasis, a parasitic disease transmitted by sand flies that, in the cutaneous forms, causes disfiguring skin ulcers, and in the visceral form can lead to fatal organ failure, and soil-transmitted helminthiasis infections, which are caused by parasitic worms that plague two billion people worldwide and routinely lead to physical and cognitive impairments in children.

"Our new investments in malaria and these neglected tropical diseases send a clear message that GHIT and Japan are committed to employing the most innovative and advanced R&D tools available to save lives and improve health in the developing world," Dr. Slingsby said...

**PATH** [to 2 April 2016]

<http://www.path.org/news/index.php>

*Press release | March 31, 2016*

**PATH receives GHIT Fund grant to expand drug research for soil-transmitted helminths**

International partnership will focus on the development of Cry5B protein

**European Vaccine Initiative** [to 2 April 2016]

<http://www.euvaccine.eu/news-events>

29 March 2016

**Malaria rainbow tables updated by MVFG**

The Malaria Vaccine Funders Group (MVFG) have updated the malaria rainbow tables, which are tables of malaria vaccine projects globally.

**IVI** [to 2 April 2016]

<http://www.ivi.org/web/www/home>

*[Undated]*

**Launch of Global Health Youth Leadership Program**

IVI is pleased to introduce the G-HYL Program. The program aims to empower young people to become global health advocates in their schools and communities, and to inspire them to pursue careers in global health.

Middle-and high-school students in South Korea, especially the Seoul Metropolitan area, are welcome to apply. For more information, download the application form and flyer.

*[Undated]*

**Boramae Medical Center, IVI and KSC exchange MOU**

*Boramae Medical Center, IVI and KSC exchange MOU - MOU aims to narrow vaccine gap and improve public health in Korea*

The Seoul Metropolitan Government-Seoul National University (SMG-SNU) Boramae Medical Center exchanged a memorandum of understanding (MOU) with the International Vaccine Institute (IVI) and the Korea Support Committee for IVI (KSC) for cooperation in vaccine research and vaccination projects.

At the MOU signing ceremony that took place at the IVI headquarters on March 10, representatives of the three organizations agreed to cooperate in vaccine initiatives for the prevention and control of infectious diseases. The MOU, involving IVI as an international organization and Boramae Medical Center as a public hospital, is expected to contribute to improvements in public health service (in South Korea).

Boramae Medical Center, in collaboration with IVI, conducted vaccinations against meningococcal infection and influenza for underprivileged communities in Seoul last year. Since the project received a positive response from the public, the hospital plans to conduct a similar project again this year...

**UNAIDS** [to 2 April 2016]

<http://www.unaids.org/en/resources/presscentre/>

01 April 201

### **UNAIDS announces lower price tag on investments needed to Fast-Track ending the AIDS epidemic**

*Projected price drops for life-saving HIV treatment and streamlined delivery are driving down costs—investment needs for 2020 are US\$ 26 billion*

GENEVA, 1 April 2016—Ahead of the United Nations General Assembly High-Level Meeting on Ending AIDS, UNAIDS announced new investment needs to Fast-Track the AIDS response. The projected need of US\$ 26.2 billion in 2020 is down from a previous estimate of US\$ 30 billion. New findings suggest that the world can reach ambitious Fast-Track targets for preventing new HIV infections, AIDS-related deaths and discrimination with fewer resources.

“Under the Fast-Track approach the world is driving down costs quickly to close the gap between people who have services and people being left behind,” said Michel Sidibé, Executive Director of UNAIDS. “Urgently and fully funding and front-loading investments will save lives and lead us to ending the AIDS epidemic by 2030.”

The new UNAIDS reference document entitled Fast-Track—update on investments needed in the AIDS response explains improvements to the investment model with critical new inputs from the revised 2015 World Health Organization guidelines on HIV treatment. The guidelines recommend HIV treatment for all people living with HIV to reduce illness and deaths, which will increase the total cost of treatment. The guidelines also recommend streamlining care and support services that will contribute to lower costs per patient per year compared to earlier guidelines while retaining quality standards...

### **GSK expands graduated approach to patents and intellectual property to widen access to medicines in the world’s poorest countries**

31 March 2016

:: Adopts approach to intellectual property reflecting a country’s economic maturity

:: Will not file for patent protection in Least Developed and Low Income Countries

:: Will seek to grant licences to generic manufacturers to supply versions of GSK medicines in Lower Middle Income Countries

:: Outlines intent to commit future oncology products to patent pooling and will explore this approach with Medicines Patent Pool in response to increasing burden of cancer in developing countries

:: Commits to make information about its patent portfolio freely available

Ahead of today's meeting of the UN High Level Panel on Access to Medicines, GSK CEO Sir Andrew Witty set out a series of steps designed to help bring innovative GSK medicines to more people living in the world's poorest countries.

GSK has a deep commitment to improving healthcare by developing innovative new medicines and widening access to them around the world. Over the past eight years, the company has taken steps in a number of areas including tiered pricing, healthcare infrastructure building, data-sharing and innovative partnerships.

GSK recognises that improving access around the world requires a flexible and multi-faceted approach to intellectual property (IP) protection. While IP stimulates and underpins continued investment in research and development, GSK believes being flexible with its IP can help address pressing health challenges in developing countries.

Building on this perspective, GSK is evolving its graduated approach to filing and enforcing patents so that IP protection reflects a country's economic maturity. For Least Developed Countries (LDCs) and Low Income Countries (LICs), GSK will not file patents for its medicines, so as to give clarity and confidence to generic companies seeking to manufacture and supply generic versions of GSK medicines in those countries. For Lower Middle Income Countries (LMICs) generally, GSK will file for patents but will seek to offer and agree licences to allow supplies of generic versions of its medicines for 10 years. GSK intends to seek a small royalty on sales in those countries. This offer will apply even for those countries that move out of LMIC status due to increased economic growth during this period. For High Income Countries, Upper Middle Income Countries and G20 countries, GSK will continue to seek full patent protection. Any GSK medicines on the WHO's list of essential medicines will be included in these changes...

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**AERAS** [to 2 April 2016]  
<http://www.aeras.org/pressreleases>  
*No new digest content identified.*

**Gavi** [to 2 April 2016]  
<http://www.gavialliance.org/library/news/press-releases/>  
*No new digest content identified.*

**Global Fund** [to 2 April 2016]  
<http://www.theglobalfund.org/>  
*No new digest content identified.*

**IAVI** International AIDS Vaccine Initiative [to 2 April 2016]  
<http://www.iavi.org/press-releases/2016>

*No new digest content identified.*

**Sabin Vaccine Institute** [to 2 April 2016]

<http://www.sabin.org/updates/ressreleases>

*No new digest content identified.*

**IVAC [International Vaccine Access Center]** [to 2 April 2016]

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

*No new digest content identified.*

**NIH** [to 2 April 2016]

<http://www.nih.gov/news/releases.htm>

*No new digest content identified.*

**BMGF - Gates Foundation** [to 2 April 2016]

<http://www.gatesfoundation.org/Media-Center/Press-Releases>

*No new digest content identified.*

**Fondation Merieux** [to 2 April 2016]

*Mission: Contribute to global health by strengthening local capacities of developing countries to reduce the impact of infectious diseases on vulnerable populations.*

<http://www.fondation-merieux.org/news>

*No new digest content identified.*

**EDCTP** [to 2 April 2016]

<http://www.edctp.org/>

*The European & Developing Countries Clinical Trials Partnership (EDCTP) aims to accelerate the development of new or improved drugs, vaccines, microbicides and diagnostics against HIV/AIDS, tuberculosis and malaria as well as other poverty-related and neglected infectious diseases in sub-Saharan Africa, with a focus on phase II and III clinical trials.*

*No new digest content identified.*

\* \* \* \*

### **Reports/Research/Analysis/Commentary/Conferences/Meetings/Book Watch/Tenders**

*Vaccines and Global Health: 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](mailto:david.r.curry@centerforvaccineethicsandpolicy.org)

### **Philanthropies Announce Program to Develop Scientific Talent Worldwide**

March 29, 2016

*Summary*

*HHMI, the Bill & Melinda Gates Foundation, the Wellcome Trust, and the Calouste Gulbenkian Foundation announce the International Research Scholars Program which aims to support up to 50 outstanding early career scientists worldwide.*

The Howard Hughes Medical Institute (HHMI) and partners, the Bill & Melinda Gates Foundation, the Wellcome Trust, and the Calouste Gulbenkian Foundation, today announced an international program to select up to 50 outstanding early career scientists. The program's aim is to help develop scientific talent worldwide.

The program represents a key piece in HHMI's efforts to expand and enhance its support of international scientific research in the life sciences. "We are pleased to be joined in this initiative by the Bill & Melinda Gates Foundation, the Wellcome Trust, and the Gulbenkian Foundation," said HHMI President Robert Tjian. "Each organization shares a commitment to building international scientific capacity by identifying and supporting outstanding early career scientists who have the potential to be scientific leaders."

HHMI and its partners have committed a total of \$37.4 million for the International Research Scholars Program and will award each scientist who is selected a total of \$650,000 over five years. The competition is open to scientists who have trained in the U.S. or United Kingdom for at least one year. Additionally, eligible scientists must have run their own labs for less than seven years, and work in one of the eligible countries.

Countries that are not eligible for this competition include the G7 countries (Canada, France, Germany, Italy, Japan, United Kingdom and United States), as well as countries identified by the U.S. Department of Treasury, Office of Foreign Assets Control (OFAC) as being subject to comprehensive country or territory-wide sanctions or where current OFAC regulations prohibit U.S. persons or entities from engaging in the funding arrangements contemplated by this grant program. For this program, such sanctioned countries or territories currently include Iran, North Korea, Sudan, Syria, and the Crimea region of Ukraine...

"Scientific innovation is the engine that underpins the discovery and development of new vaccines, drugs, diagnostics and other interventions needed to address global health inequities," said Chris Wilson, senior advisor and former director of Discovery & Translational Sciences at the Bill & Melinda Gates Foundation. "International research scientists bring unique perspectives and novel approaches that can accelerate this process. Through this collaborative endeavor, the Gates Foundation, HHMI, the Wellcome Trust, and the Gulbenkian Foundation aim to identify and support the research undertaken by such scientists and to bring them into a community that fosters the careers of these promising individuals."

Dr. Jeremy Farrar, director of the Wellcome Trust, said: "This program brings together funding partners who recognise that investing in research is critical to improving health. Our message is as relevant in lower and middle income countries as it is in high income countries, and this program is one way that we can support world-class scientists wanting to return to non-G7 countries to shape excellent, locally driven health research."...

\* \* \* \*

## **Journal Watch**

*Vaccines and Global Health: 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](mailto:david.r.curry@centerforvaccineethicsandpolicy.org)*

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

April 2016 Volume 44, Issue 4, p373-494, e37-e58

<http://www.ajicjournal.org/current>

#### *Major Articles*

##### **[Influenza immunization among resident physicians in an urban teaching hospital](#)**

Mubdiul Ali Imtiaz, Lawrence D. Budnick, Andrew R. Berman

p491–493

Published online: December 18 2015

#### *Highlights*

:: The self-reported immunization rate of resident physicians in 2013-2014 was 76.7%.

:: Lack of time to get immunized was the most cited reason for nonvaccination.

:: Availability of vaccination at convenient locations and times improves vaccination.

:: Instituting a mandatory influenza vaccine policy was felt to be a strong motivator.

We surveyed resident physicians (RPs) at an academic medical center to determine the rate of influenza vaccination and reasons for nonvaccination. The overall self-reported immunization rate of RPs in 2013-2014 was 76.7%, and the most common reason for not being vaccinated was lack of time to get immunized (38.6%). Making flu vaccination available in training hospitals and at convenient locations and times that take into account varying work schedules may increase compliance.

#### *Major Articles*

##### **[Risk factors for measles in children younger than age 8 months: A case-control study during an outbreak in Guangxi, China, 2013](#)**

Zhen-Zhu Tang, Yi-Hong Xie, Chuleeporn Jiraphongsa, Xuan-Hua Liu, Zhong-You Li, Virasakdi Chongsuvivatwong

e51–e58

Published online: December 28 2015

#### *Highlights*

:: This measles outbreak occurred at a near-elimination point.

:: A quarter of cases were under the recommended vaccination age (8 months).

:: Coverage of two-dose measles-containing vaccine was low (34%).

:: The disease possible transmission to children visiting the hospitals.

:: The need for SIAs and prevention of hospital transmission cannot be overemphasized.

#### *Background*

Following a period (2009-2012) during which zero measles cases were reported, a measles outbreak occurred in 2013 in Bama County, Guangxi, China, that involved more than 100

children younger than age 8 months. We aimed to identify the pitfalls and risk factors while implementing the control measures.

#### Methods

An outbreak investigation and a case-control study was conducted among children younger than age 8 months. The serum specimens of the study subjects and their mothers were tested for measles immunoglobulin M and immunoglobulin G.

#### Results

The attack rate was 2.3/1,000 population. The median (interquartile range) age was 18.6 months (7.9-52.8 months). The coverage of 2-dose measles-containing vaccine was only 34%. The case-control study revealed 2 independent risk factors: low education level of main caregiver (odds ratio [OR], 2.86; 95% confidence interval [CI], 1.31-6.22) and visiting a hospital 7-21 days before the date of symptoms onset (OR, 9.84; 95% CI, 4.27-22.67). The population attributable fraction of the latter was 52.8%. The mothers of the cases had nonsignificantly higher levels of immunoglobulin M and were significantly more likely to have protective levels of immunoglobulin G than those of the controls. This suggests a reactive rather than protective role of the antibody to the child's infection.

#### Conclusions

In a near-elimination but low measles-containing vaccine coverage community, supplementary immunization activities should be emphasized for children and women who are potential future mothers. The minimum age of measles-containing vaccine should be further reduced. Hospital measles transmission must also be strictly prevented.

### **American Journal of Preventive Medicine**

April 2016 Volume 50, Issue 4, p427-552, e91-e122

<http://www.ajpmonline.org/current>

#### *Research Articles*

#### **Influenza Vaccination During Pregnancy: Influenza Seasons 2002–2012, Vaccine Safety Datalink**

Holly C. Groom, Michelle L. Henninger, Ning Smith, Padma Koppolu, T. Craig Cheetham, Jason M. Glanz, Simon J. Hambidge, Lisa A. Jackson, Elyse O. Kharbanda, Nicola P. Klein, Natalie L. McCarthy, James D. Nordin, Eric S. Weintraub, Allison L. Naleway

p480–488

Published online: October 30 2015

#### *Abstract*

#### *Introduction*

Pregnant women are at risk for influenza-related complications and have been recommended for vaccination by the Advisory Committee on Immunization Practices (ACIP) since 1990. Annual rates of influenza coverage of pregnant women have been consistently low. The Vaccine Safety Datalink was used to assess influenza vaccine coverage over 10 consecutive years (2002–2012); assess patterns related to changes in ACIP recommendations; identify predictors of vaccination; and compare the results with those published by national U.S. surveys.

#### *Methods*

Retrospective cohort study of 721,898 pregnancies conducted in 2014. Coverage rates were assessed for all pregnancies and for live births only. Multivariate regression analysis identified predictors associated with vaccination.

#### *Results*

Coverage increased from 8.8% to 50.9% in 2002–2012. Seasonal coverage rates increased slowly following the 2004 ACIP influenza vaccine recommendation (to remove the first trimester restriction), but spiked significantly during the 2009 H1N1 influenza pandemic. Significant predictors of vaccination during pregnancy included older age; vaccination in a previous season; high-risk conditions in addition to pregnancy; pregnancy during either the 2004–2005 or 2009–2010 seasons; entering the influenza season after the first trimester of pregnancy; and a pregnancy with longer overlap with the influenza season ( $p<0.001$  for each).

#### Conclusions

Influenza vaccination coverage among pregnant women increased between the 2002–2003 and 2011–2012 seasons, although it was still below the developmental Healthy People 2020 goal of 80%. The 2004 ACIP language change positively impacted first-trimester vaccination uptake. Vaccine Safety Datalink data estimates were consistent with U.S. estimates.

#### *Current Issues*

#### **Understanding Vaccine Refusal: Why We Need Social Media Now**

Mark Dredze, David A. Broniatowski, Michael C. Smith, Karen M. Hilyard

p550–552

Published online: December 2 2015

#### *Preview*

The recent Disneyland measles outbreak brought national attention to a growing problem: vaccine refusal—herd immunity is no longer a reality in many communities. Only 70% of children aged 19–35 months are up-to-date on immunizations,<sup>1</sup> and in some communities, more than a quarter of school-age children have exemptions on file

([www.doh.wa.gov/Portals/1/Documents/Pubs/348-247-SY2014-15-ImmunizationMaps.pdf](http://www.doh.wa.gov/Portals/1/Documents/Pubs/348-247-SY2014-15-ImmunizationMaps.pdf)).

Although they vary across the ideological spectrum, vaccine refusers tend to be well educated, white, and more affluent than people who typically experience health disparities.

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

Volume 106, Issue 4 (April 2016)

<http://ajph.aphapublications.org/toc/ajph/current>

#### *AJPH EDITORIALS*

#### **ZIKA Preventing Zika Virus Infections in Pregnant Women: An Urgent Public Health Priority**

American Journal of Public Health: April 2016, Vol. 106, No. 4: 589–590.

Beth P. Bell, Coleen A. Boyle, Lyle R. Petersen

[No abstract]

#### *AJPH SPECIAL SECTION: ZIKA*

#### **Aedes Rides Again: Mosquitoes and Flaviviruses in the Americas**

American Journal of Public Health: April 2016, Vol. 106, No. 4: 596–597.

John McNeill

#### **Initial Description of the Presumed Congenital Zika Syndrome**

American Journal of Public Health: April 2016, Vol. 106, No. 4: 598–600.

Demórcito de Barros Miranda-Filho, Celina Maria Turchi Martelli, Ricardo Arraes de Alencar Ximenes, Thalia Velho Barreto Araújo, Maria Angela Wanderley Rocha, Regina Coeli Ferreira

Ramos, Rafael Dhalia, Rafael Freitas de Oliveira França, Ernesto Torres de Azevedo Marques Júnior, Laura Cunha Rodrigues

**The Epidemic of Zika Virus–Related Microcephaly in Brazil: Detection, Control, Etiology, and Future Scenarios**

American Journal of Public Health: April 2016, Vol. 106, No. 4: 601–605.

Maria G. Teixeira, Maria da Conceição N. Costa, Wanderson K. de Oliveira, Marilia Lavocat Nunes, Laura C. Rodrigues

**History, Epidemiology, and Clinical Manifestations of Zika: A Systematic Review**

American Journal of Public Health: April 2016, Vol. 106, No. 4: 606–612.

Enny S. Paixão, Florisneide Barreto, Maria da Glória Teixeira, Maria da Conceição N. Costa, Laura C. Rodrigues

**Human Papillomavirus Vaccination in the United States: Uneven Uptake by Gender, Race/Ethnicity, and Sexual Orientation**

American Journal of Public Health: April 2016, Vol. 106, No. 4: 746–747.

Jason Daniel-Ulloa, Paul A Gilbert, Edith A. Parker

*Abstract*

Objectives. To assess national differences in human papillomavirus (HPV) vaccine uptake among young adults in the United States by gender, race/ethnicity, and sexual orientation.

Methods. We tested group differences in initiation and completion of the HPV vaccine series (i.e., 3 doses) by Rao–Scott  $\chi^2$  test among 6444 respondents aged 18 to 30 years from the 2013 National Health Interview Survey.

Results. Among men, 5% reported receiving the HPV vaccine, with no differences in uptake by race/ethnicity or sexual orientation. By contrast, 30% of the women reported receiving the HPV vaccine, with women of color having lower odds of initiating and completing the vaccine series compared with White women.

Conclusions. In the United States, HPV vaccine rates are lagging in men and show disparities among women. Increasing HPV vaccine uptake and series completion among women of color and all men may provide considerable long-term public health benefits.

**American Journal of Tropical Medicine and Hygiene**

March 2016; 94 (3)

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

[Reviewed earlier]

**Annals of Internal Medicine**

15 March 2016, Vol. 164. No. 6

<http://annals.org/issue.aspx>

[Reviewed earlier]

**BMC Cost Effectiveness and Resource Allocation**

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

(Accessed 2 April 2016)

[No new content]

## **BMC Health Services Research**

<http://www.biomedcentral.com/bmchealthservres/content>

(Accessed 2 April 2016)

[No new relevant content identified]

## **BMC Infectious Diseases**

<http://www.biomedcentral.com/bmcinfectdis/content>

(Accessed 2 April 2016)

[No new relevant content identified]

## **BMC Medical Ethics**

<http://www.biomedcentral.com/bmcmedethics/content>

(Accessed 2 April 2016)

*Research article*

### **[The ethics of animal research: a survey of the public and scientists in North America](#)**

Ari R. Joffe, Meredith Bara, Natalie Anton and Nathan Nobis

Published on: 29 March 2016

#### *Abstract*

#### *Background*

To determine whether the public and scientists consider common arguments (and counterarguments) in support (or not) of animal research (AR) convincing.

#### *Methods*

After validation, the survey was sent to samples of public (Sampling Survey International (SSI; Canadian), Amazon Mechanical Turk (AMT; US), a Canadian city festival and children's hospital), medical students (two second-year classes), and scientists (corresponding authors, and academic pediatricians). We presented questions about common arguments (with their counterarguments) to justify the moral permissibility (or not) of AR. Responses were compared using Chi-square with Bonferroni correction.

#### *Results*

There were 1220 public [SSI, n = 586; AMT, n = 439; Festival, n = 195; Hospital n = 107], 194/331 (59 %) medical student, and 19/319 (6 %) scientist [too few to report] responses.

Most public respondents were <45 years (65 %), had some College/University education

(83 %), and had never done AR (92 %). Most public and medical student respondents

considered 'benefits arguments' sufficient to justify AR; however, most acknowledged that counterarguments suggesting alternative research methods may be available, or that it is unclear why the same 'benefits arguments' do not apply to using humans in research, significantly weakened 'benefits arguments'. Almost all were not convinced of the moral permissibility of AR by 'characteristics of non-human-animals arguments', including that non-human-animals are not sentient, or are property. Most were not convinced of the moral permissibility of AR by 'human exceptionalism' arguments, including that humans have more advanced mental abilities, are of a special 'kind', can enter social contracts, or face a 'lifeboat situation'. Counterarguments explained much of this, including that not all humans have these

more advanced abilities ['argument from species overlap'], and that the notion of 'kind' is arbitrary [e.g., why are we not of the 'kind' 'sentient-animal' or 'subject-of-a-life?']. Medical students were more supportive (80 %) of AR at the end of the survey ( $p < 0.05$ ).

#### Conclusions

Responses suggest that support for AR may not be based on cogent philosophical rationales, and more open debate is warranted.

## BMC Medicine

<http://www.biomedcentral.com/bmcmed/content>

(Accessed 2 April 2016)

*Research article*

### **[Analysis of vaccination campaign effectiveness and population immunity to support and sustain polio elimination in Nigeria](#)**

Alexander M. Upfill-Brown, Arend Voorman, Guillaume Chabot-Couture, Faisal Shuaib and Hil M. Lyons

Published on: 30 March 2016

#### *Abstract*

#### Background

The world is closer than ever to a polio-free Africa. In this end-stage, it is important to ensure high levels of population immunity to prevent polio outbreaks. Here, we introduce a new method of assessing vaccination campaign effectiveness and estimating immunity at the district-level. We demonstrate how this approach can be used to plan the vaccination campaigns prospectively to better manage population immunity in Northern Nigeria.

#### Methods

Using Nigerian acute flaccid paralysis surveillance data from 2004–2014, we developed a Bayesian hierarchical model of campaign effectiveness and compared it to lot-quality assurance sampling data. We then used reconstructed sero-specific population immunity based on campaign history and compared district estimates of immunity to the occurrence of confirmed poliovirus cases.

#### Results

Estimated campaign effectiveness has improved across northern Nigeria since 2004, with Kano state experiencing an increase of 40 % (95 % CI, 26–54 %) in effectiveness from 2013 to 2014. Immunity to type 1 poliovirus has increased steadily. On the other hand, type 2 immunity was low and variable until the recent use of trivalent oral polio vaccine. We find that immunity estimates are related to the occurrence of both wild and vaccine-derived poliovirus cases and that campaign effectiveness correlates with direct measurements using lot-quality assurance sampling. Future campaign schedules highlight the trade-offs involved with using different vaccine types.

#### Conclusions

The model in this study provides a novel method for assessing vaccination campaign performance and epidemiologically-relevant estimates of population immunity. Small-area estimates of campaign effectiveness can then be used to evaluate prospective campaign plans. This modeling approach could be applied to other countries as well as other vaccine preventable diseases

#### *Commentary*

## **Living cumulative network meta-analysis to reduce waste in research: A paradigmatic shift for systematic reviews?**

Per Olav Vandvik, Romina Brignardello-Petersen and Gordon H. Guyatt

Published on: 29 March 2016

### **Abstract**

In a recent research article in BMC Medicine, Créquit and colleagues demonstrate how published systematic reviews in lung cancer provide a fragmented, out-of-date picture of the evidence for all treatments. The results and conclusions drawn from this study, based on cumulative network meta-analyses (NMA) of evidence from randomized clinical trials over time, are quite compelling. The inherent waste of research resulting from incomplete evidence synthesis has wide-reaching implications for a range of target groups including developers of systematic reviews and guidelines and their end-users, health care professionals and patients at the point of care. Building on emerging concepts for living systematic reviews and NMA, the authors propose "living cumulative NMA" as a potential solution and paradigmatic shift. Here we describe how recent innovations within authoring, dissemination, and updating of systematic reviews and trustworthy guidelines may greatly facilitate the production of living NMA. Some additional challenges need to be solved for NMA in general, and for living cumulative NMA in particular, before a paradigmatic shift for systematic reviews can become reality.

## **BMC Pregnancy and Childbirth**

<http://www.biomedcentral.com/bmcpregnancychildbirth/content>

(Accessed 2 April 2016)

[No new relevant content identified]

## **BMC Public Health**

<http://bmcpublichealth.biomedcentral.com/articles>

(Accessed 2 April 2016)

*Research article*

### **Protective effect of vaccination against mumps complications, Czech Republic, 2007–2012**

*In the Czech Republic, two-dose immunization against mumps achieves 98 % coverage. The routine reporting detects mumps cases, clinical complications, and hospital admissions in unvaccinated but also in vaccinated individuals. Using surveillance data of patients with mumps we assessed the effectiveness of mumps vaccination on mumps clinical complications and hospitalization need. We also investigated the effect of the time since immunization*

Hana Orlíková, Marek Malý, Pavla Lexová, Helena Šebestová, Radomíra Limberková, Lucie Jurzykowská and Jan Kynčl

BMC Public Health 2016 16:293

Published on: 1 April 2016

## **BMC Research Notes**

<http://www.biomedcentral.com/bmcresnotes/content>

(Accessed 2 April 2016)

[No new relevant content identified]

**BMJ Open**

2016, Volume 6, Issue 4

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

[New issue; No relevant content identified]

**British Medical Journal**

2 April 2016 (vol 352, issue 8051)

<http://www.bmj.com/content/353/8051>

[New issue; No relevant content identified]

**Bulletin of the World Health Organization**

Volume 94, Number 4, April 2016, 233-308

<http://www.who.int/bulletin/volumes/94/4/en/>

EDITORIALS

**[Best practices for sharing information through data platforms: establishing the principles](#)**

Vasee S Moorthy, Cathy Roth, Piero Olliari, Christopher Dye & Marie Paule Kieny

<http://dx.doi.org/10.2471/BLT.16.172882>

**[Addressing the health of vulnerable populations: a call for papers](#)**

Viroj Tangcharoensathien, Churnrurtai Kanchanachitra, Rebekah Thomas, James Headen Pfizer & Paige Whitney

<http://dx.doi.org/10.2471/BLT.16.172783>

**[Knowledge sharing during public health emergencies: from global call to effective implementation](#)**

Sophie Delaunay, Patricia Kahn, Mercedes Tatay & Joanne Liu

<http://dx.doi.org/10.2471/BLT.16.172650>

*[Initial text]*

In February 2016, the issue of data sharing during emergencies made headlines around the world after leading research funders, academic journals and nongovernmental organizations signed a joint declaration of commitment to rapidly share data relevant to the Zika virus outbreak.<sup>1</sup> This action followed repeated calls from some of the same constituencies for sharing data from clinical trials<sup>2,3</sup> conducted in the context of public health emergencies<sup>4,5</sup> and public health in general.<sup>6,7</sup>

While the Zika open data initiative is a positive step, it also highlights the shortcomings of calling for knowledge sharing after an outbreak has already begun. To improve epidemic emergency response and to accelerate related research, health authorities in potentially exposed countries must put in place the necessary frameworks for collecting, managing and swiftly making available good-quality, standardized data and for safely securing and sharing biomaterial – such as patient samples – collected during the outbreak...

**[Assessment of universal health coverage for adults aged 50 years or older with chronic illness in six middle-income countries](#)**

Christine Goeppel, Patricia Frenz, Linus Grabenhenrich, Thomas Keil & Peter Tinnemann  
<http://dx.doi.org/10.2471/BLT.15.163832>

**[An approach for setting evidence-based and stakeholder-informed research priorities in low- and middle-income countries](#)**

Eva A Rehfuss, Solange Durão, Patrick Kyamanywa, Joerg J Meerpohl, Taryn Young, Anke Rohwer, on behalf of the CEBHA+ & consortium  
<http://dx.doi.org/10.2471/BLT.15.162966>

**Child Care, Health and Development**

March 2016 Volume 42, Issue 2 Pages 149–295

*Original Articles*

**[" I think they're all basically the same": parents' perceptions of human papilloma virus \(HPV\) vaccine compared with other adolescent vaccines.](#)**

Ogunbajo A1, Hansen CE2, North AL1, Okoloko E1, Niccolai LM1,3,4.

[Author information](#)

**Abstract**

**BACKGROUND:**

Human papillomavirus (HPV) vaccination is recommended for routine administration at ages 11-12 years. However, uptake is lower than for other vaccines that are also routinely recommended for adolescents (MCV4 and Tdap). Understanding parental perceptions of HPV vaccine compared with other vaccines may help to inform strategies to increase uptake.

**METHODS:**

Parents and caregivers (n = 45) of adolescents ages 10-18 years from a low-income, ethnic minority population participated in a qualitative study. Interviews were transcribed verbatim and coded for emergent themes.

**RESULTS:**

Many participants perceived the HPV vaccine to be similar to other routine vaccines. Noted similarities included the vaccines' ability to prevent disease, similar methods of administration and belief in health care providers' recommendation. Some parents noted the greater benefit of HPV vaccine in preventing cancer, which was viewed as a serious disease. Parents also noted the different mode of transmission (sexual) for HPV, which evoked mixed opinions.

**CONCLUSION:**

Overall, most participants viewed the HPV vaccine in a positive light and similar to other adolescent vaccines with the added benefit of cancer prevention. Strategies that treat all three vaccines equally such as presenting them similarly as a 'bundle' to parents or considering policy initiatives such as school entry requirements might help increase raise coverage for HPV vaccine.

**Clinical Therapeutics**

March 2016 Volume 38, Issue 3, p429-682  
<http://www.clinicaltherapeutics.com/current>  
[New issue; No relevant content identified]

**Complexity**

March/April 2016 Volume 21, Issue 4 Pages 1–93

<http://onlinelibrary.wiley.com/doi/10.1002/cplx.v21.3/issuetoc>

[New issue; No relevant content identified]

**Conflict and Health**

<http://www.conflictandhealth.com/>

[Accessed 2 April 2016]

[No new content]

**Contemporary Clinical Trials**

Volume 47, In Progress (March 2016)

<http://www.sciencedirect.com/science/journal/15517144/47>

[Reviewed earlier]

**Current Opinion in Infectious Diseases**

April 2016 - Volume 29 - Issue 2 pp: v-v,99-228

<http://journals.lww.com/co-infectiousdiseases/pages/currenttoc.aspx>

[Reviewed earlier]

**Developing World Bioethics**

April 2016 Volume 16, Issue 1 Pages 1–60

<http://onlinelibrary.wiley.com/doi/10.1111/dewb.2016.16.issue-1/issuetoc>

[Reviewed earlier]

**Development in Practice**

Volume 26, Issue 2, 2016

<http://www.tandfonline.com/toc/cdip20/current>

[Reviewed earlier]

**Disasters**

April 2016 Volume 40, Issue 2 Pages 183–383

<http://onlinelibrary.wiley.com/doi/10.1111/dis.2016.40.issue-2/issuetoc>

[Reviewed earlier]

**Emerging Infectious Diseases**

Volume 22, Number 3—March 2016

<http://wwwnc.cdc.gov/eid/>

[Reviewed earlier]

## **Epidemics**

Volume 15, In Progress (June 2016)

<http://www.sciencedirect.com/science/journal/17554365>

[No new relevant content]

## **Epidemiology and Infection**

Volume 144 - Issue 04 - March 2016

<http://journals.cambridge.org/action/displayIssue?jid=HYG&tab=currentissue>

[Reviewed earlier]

## **The European Journal of Public Health**

Volume 26, Issue 2, 1 April 2016

<http://eurpub.oxfordjournals.org/content/26/2?current-issue=y>

[Reviewed earlier]

## **Eurosurveillance**

Volume 21, Issue 13, 31 March 2016

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

*Editorials*

### **Zika virus and congenital malformations in perspective**

by C Drosten

*Research Articles*

### **Congenital cerebral malformations and dysfunction in fetuses and newborns following the 2013 to 2014 Zika virus epidemic in French Polynesia**

by M Besnard, D Eyrolle-Guignot, P Guillemette-Artur, S Lastère, F Bost-Bezeaud, L Marcelis, V Abadie, C Garel, M Moutard, J Jouannic, F Rozenberg, I Leparc-Goffart, H Mallet

*Abstract*

We detected an unusual increase in congenital cerebral malformations and dysfunction in fetuses and newborns in French Polynesia, following an epidemic of Zika virus (ZIKV), from October 2013 to March 2014. A retrospective review identified 19 cases, including eight with major brain lesions and severe microcephaly, six with severe cerebral lesions without microcephaly and five with brainstem dysfunction without visible malformations. Imaging revealed profound neurological lesions (septal and callosal disruption, ventriculomegaly, abnormal neuronal migration, cerebellar hypoplasia, occipital pseudocysts, brain calcifications). Amniotic fluid was drawn from seven cases at gestation weeks 20 to 29. ZIKV RNA was detected by RT-PCR and infectious ZIKV isolates were obtained in four of five microcephalic, but not in two non-microcephalic cases with severe brain lesions. Medical termination of pregnancy was performed in eleven cases; two cases with brainstem dysfunction died in the first months of life; six cases are alive, with severe neurological impairment. The results show that four of seven tested fetuses with major neurological injuries were infected with ZIKV in utero. For other non-microcephalic, congenital abnormalities we were not able to prove or exclude ZIKV infection retrospectively. The unusual occurrence of brain malformations or dysfunction without microcephaly following a ZIKV outbreak needs further studies.

## **Effectiveness of seasonal influenza vaccine in preventing laboratory-confirmed influenza in primary care in the United Kingdom: 2015/16 mid-season results**

by R Pebody, F Warburton, J Ellis, N Andrews, A Potts, S Cottrell, J Johnston, A Reynolds, R Gunson, C Thompson, M Galiano, C Robertson, D Mullett, N Gallagher, M Sinnathamby, I Yonova, C Moore, J McMenamin, S de Lusignan, M Zambon

### *Abstract*

In 2015/16, the influenza season in the United Kingdom was dominated by influenza A(H1N1)pdm09 circulation. Virus characterisation indicated the emergence of genetic clusters, with the majority antigenically similar to the current influenza A(H1N1)pdm09 vaccine strain. Mid-season vaccine effectiveness (VE) estimates show an adjusted VE of 41.5% (95% confidence interval (CI): 3.0–64.7) against influenza-confirmed primary care consultations and of 49.1% (95% CI: 9.3–71.5) against influenza A(H1N1)pdm09. These estimates show levels of protection similar to the 2010/11 season, when this strain was first used in the seasonal vaccine.

## **Global Health: Science and Practice (GHSP)**

March 2016 | Volume 4 | Issue 1

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

[Reviewed earlier]

## **Global Public Health**

Volume 11, Issue 4, 2016

<http://www.tandfonline.com/toc/rgph20/current>

[Reviewed earlier]

## **Globalization and Health**

<http://www.globalizationandhealth.com/>

[Accessed 2 April 2016]

### *Commentary*

## **The ESTHER hospital partnership initiative: a powerful levy for building capacities to combat the HIV pandemic in low-resource countries**

Gilles Raguin

Published on: 1 April 2016

### *Research*

## **Protecting health workers from infectious disease transmission: an exploration of a Canadian-South African partnership of partnerships**

Annalee Yassi, Muzimkhulu Zungu, Jerry M. Spiegel, Barry Kistnasamy, Karen Lockhart, David Jones, Lyndsay M. O'Hara, Letshego Nophale, Elizabeth A. Bryce and Lincoln Darwin

Published on: 31 March 2016

## **Health Affairs**

March 2016; Volume 35, Issue 3

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

***Issue Focus: Physicians, Prescription Drugs, ACOs & More***  
[Reviewed earlier]

**Health and Human Rights**  
Volume 17, Issue 2 December 2015  
<http://www.hhrjournal.org/>

***Special Issue: Evidence of the Impact of Human Rights-Based Approaches to Health***  
[Reviewed earlier]

**Health Economics, Policy and Law**  
Volume 11 - Issue 02 - April 2016  
<http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue>  
[Reviewed earlier]

**Health Policy and Planning**  
Volume 31 Issue 3 April 2016  
<http://heapol.oxfordjournals.org/content/current>  
[Reviewed earlier]

**Health Research Policy and Systems**  
<http://www.health-policy-systems.com/content>  
[Accessed 2 April 2016]  
[No new relevant content identified]

**Human Vaccines & Immunotherapeutics** (formerly Human Vaccines)  
Volume 12, Issue 2, 2016  
<http://www.tandfonline.com/toc/khvi20/current>  
[Reviewed earlier]

**Humanitarian Exchange Magazine**  
Number 65 November 2015  
[http://odihpn.org/wp-content/uploads/2015/10/HE\\_65\\_web.pdf](http://odihpn.org/wp-content/uploads/2015/10/HE_65_web.pdf)  
***Special Feature: The Crisis in Iraq***  
[Reviewed earlier]

**Infectious Agents and Cancer**  
<http://www.infectagentscancer.com/content>  
[Accessed 2 April 2016]  
[No new relevant content identified]

**Infectious Diseases of Poverty**

<http://www.idpjournal.com/content>

[Accessed 2 April 2016]

[No new relevant content identified]

**International Health**

Volume 8 Issue 2 February 2016

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

[Reviewed earlier]

**International Journal of Epidemiology**

Volume 45 Issue 1 February 2016

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

[Reviewed earlier]

**International Journal of Infectious Diseases**

March 2016 Volume 44, p1-74

<http://www.ijidonline.com/current>

[Reviewed earlier]

**JAMA**

March 22/29, 2016, Vol 315, No. 12

<http://jama.jamanetwork.com/issue.aspx>

[Reviewed earlier]

**JAMA Pediatrics**

March 2016, Vol 170, No. 3

<http://archpedi.jamanetwork.com/issue.aspx>

[Reviewed earlier]

**Journal of Community Health**

Volume 41, Issue 2, April 2016

<http://link.springer.com/journal/10900/41/2/page/1>

[Reviewed earlier]

**Journal of Epidemiology & Community Health**

April 2016, Volume 70, Issue 4

<http://jech.bmjjournals.org/content/current>

[New issue; No relevant content identified]

**Journal of Global Ethics**

Volume 11, Issue 3, 2015

<http://www.tandfonline.com/toc/rjge20/.U2V-Elf4L0I#.VAJEj2N4WF8>

***Forum: The Sustainable Development Goals***

[Reviewed earlier]

**Journal of Global Infectious Diseases (JGID)**

January-March 2016 Volume 8 | Issue 1 Page Nos. 1-56

<http://www.jgid.org/currentissue.asp?sabs=n>

[Reviewed earlier]

**Journal of Health Care for the Poor and Underserved (JHCPU)**

Volume 27, Number 1, February 2016 Supplement

[https://muse.jhu.edu/journals/journal\\_of\\_health\\_care\\_for\\_the\\_poor\\_and\\_underserved/toc/hpu.27.1A.html](https://muse.jhu.edu/journals/journal_of_health_care_for_the_poor_and_underserved/toc/hpu.27.1A.html)

***Special Issue Journal: Indigenous Oral Health***

[Reviewed earlier]

**Journal of Immigrant and Minority Health**

Volume 18, Issue 2, April 2016

<http://link.springer.com/journal/10903/18/2/page/1>

[Reviewed earlier]

**Journal of Immigrant & Refugee Studies**

Volume 14, Issue 1, 2016

<http://www.tandfonline.com/toc/wimm20/current>

[Reviewed earlier]

**Journal of Infectious Diseases**

Volume 213 Issue 7 April 1, 2016

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

[Reviewed earlier]

**The Journal of Law, Medicine & Ethics**

Winter 2015 Volume 43, Issue 4 Pages 673–913

<http://onlinelibrary.wiley.com/doi/10.1111/jlme.2015.43.issue-4/issuetoc>

***Special Issue: SYMPOSIUM: Harmonizing Privacy Laws to Enable International Biobank Research: Part I***

[14 articles]

[Reviewed earlier]

## **Journal of Medical Ethics**

April 2016, Volume 42, Issue 4

<http://jme.bmjjournals.org/content/current>

*Current controversy*

### **The Ebola outbreak in Western Africa: ethical obligations for care**

Aminu Yakubu, Morenike Oluwatoyin Folayan, Nasir Sani-Gwarzo, Patrick Nguku, Kristin Peterson, Brandon Brown

J Med Ethics 2016;42:209-210 Published Online First: 9 September 2014

doi:10.1136/medethics-2014-102434

#### *Abstract*

The recent wave of the Ebola Virus Disease (EVD) in Western Africa and efforts to control the disease where the health system requires strengthening raises a number of ethical challenges for healthcare workers practicing in these countries. We discuss the implications of weak health systems for controlling EVD and limitations of the ethical obligation to provide care for patients with EVD using Nigeria as a case study. We highlight the right of healthcare workers to protection that should be obligatorily provided by the government. Where the national government cannot meet this obligation, healthcare workers only have a moral and not a professional obligation to provide care to patients with EVD. The national government also has an obligation to adequately compensate healthcare workers that become infected in the course of duty. Institutionalisation of policies that protect healthcare workers are required for effective control of the spread of highly contagious diseases like EVD in a timely manner.

### **Research led by participants: a new social contract for a new kind of research**

Effy Vayena, Roger Brownsword, Sarah Jane Edwards, Bastian Greshake, Jeffrey P Kahn, Navjyot Ladher, Jonathan Montgomery, Daniel O'Connor, Onora O'Neill, Martin P Richards, Annette Rid, Mark Sheehan, Paul Wicks, John Tasioulas

J Med Ethics 2016;42:216-219 Published Online First: 30 March 2015 doi:10.1136/medethics-2015-102663

### **Paper: Incorporating ethical principles into clinical research protocols: a tool for protocol writers and ethics committees**

Rebecca H Li, Mary C Wacholtz, Mark Barnes, Liam Boggs, Susan Callery-D'Amico, Amy Davis, Alla Digilova, David Forster, Kate Heffernan, Maeve Luthin, Holly Fernandez Lynch, Lindsay McNair, Jennifer E Miller, Jacquelyn Murphy, Luann Van Campen, Mark Wilenzick, Delia Wolf, Cris Woolston, Carmen Aldinger, Barbara E Bierer

J Med Ethics 2016;42:229-234 Published Online First: 25 January 2016 doi:10.1136/medethics-2014-102540

#### *Abstract*

A novel Protocol Ethics Tool Kit ('Ethics Tool Kit') has been developed by a multi-stakeholder group of the Multi-Regional Clinical Trials Center of Brigham and Women's Hospital and Harvard. The purpose of the Ethics Tool Kit is to facilitate effective recognition, consideration and deliberation of critical ethical issues in clinical trial protocols. The Ethics Tool Kit may be used by investigators and sponsors to develop a dedicated Ethics Section within a protocol to improve the consistency and transparency between clinical trial protocols and research ethics committee reviews. It may also streamline ethics review and may facilitate and expedite the review process by anticipating the concerns of ethics committee reviewers. Specific attention was given to issues arising in multinational settings. With the use of this Tool Kit, researchers

have the opportunity to address critical research ethics issues proactively, potentially speeding the time and easing the process to final protocol approval

*Ethics briefing*

**The Mediterranean refugee crisis: ethics, international law and migrant health**

Sophie Brannan, Ruth Campbell, Martin Davies, Veronica English, Rebecca Mussell, Julian C Sheather

J Med Ethics 2016;42:269-270 doi:10.1136/medethics-2016-103444

*Extract*

Europe is experiencing levels of forced migration not seen since the Second World War. Its sources lie in the fragile, strife-torn states of the Middle East and Africa: four million people have fled Syria since the conflict began; 12 million of those remaining require humanitarian assistance. Large numbers of people are fleeing violence in Iraq, Afghanistan and Eritrea. Although millions have been displaced by violence, others are seeking relief from endemic poverty and brutally restricted life-choices. Overwhelmingly their chosen routes into Europe are perilous—according to the UN High Commissioner for Refugees (UNHCR) over 590 000 people have arrived in Europe by sea this year.<sup>1</sup> Nor do their difficulties end once they reach Europe. The asylum systems of the frontline countries, overwhelmingly Greece and Italy, never designed for such high levels of migration, are inadequate. In this thematic ethics brief we provide some background information to the crisis and raise a number of ethical issues it gives rise to...

**Journal of Medical Microbiology**

Volume 65, Issue 3, March 2016

<http://jmm.microbiologyresearch.org/content/journal/jmm/65/3>

[New issue; No relevant content identified]

**Journal of Patient-Centered Research and Reviews**

Volume 3, Issue 1 (2016)

<http://digitalrepository.aurorahealthcare.org/jpcrr/>

[Reviewed earlier]

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

Volume 5 Issue 1 March 2016

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

[Reviewed earlier]

**Journal of Pediatrics**

March 2016 Volume 170, p1-350

<http://www.jpeds.com/current>

[Reviewed earlier]

**Journal of Public Health Policy**

Volume 37, Issue 1 (February 2016)  
<http://www.palgrave-journals.com/jphp/journal/v37/n1/index.html>  
[Reviewed earlier]

### **Journal of the Royal Society – Interface**

01 March 2016; volume 13, issue 116  
<http://rsif.royalsocietypublishing.org/content/current>  
*Life Sciences–Mathematics interface*  
*Research article:*

#### **[Model-based reconstruction of an epidemic using multiple datasets: understanding influenza A/H1N1 pandemic dynamics in Israel](#)**

R. Yaari, G. Katriel, L. Stone, E. Mendelson, M. Mandelboim, A. Huppert  
J. R. Soc. Interface 2016 13 20160099; DOI: 10.1098/rsif.2016.0099. Published 30 March 2016

*Research articles:*

#### **[Potential impact of spatially targeted adult tuberculosis vaccine in Gujarat, India](#)**

Sourya Shrestha, Susmita Chatterjee, Krishna D. Rao, David W. Dowdy  
J. R. Soc. Interface 2016 13 20151016; DOI: 10.1098/rsif.2015.1016. Published 23 March 2016

#### *Abstract*

Some of the most promising vaccines in the pipeline for tuberculosis (TB) target adolescents and adults. Unlike for childhood vaccines, high-coverage population-wide vaccination is significantly more challenging for adult vaccines. Here, we aimed to estimate the impact of vaccine delivery strategies that were targeted to high-incidence geographical ‘hotspots’ compared with randomly allocated vaccination. We developed a spatially explicit mathematical model of TB transmission that distinguished these hotspots from the general population. We evaluated the impact of targeted and untargeted vaccine delivery strategies in India—a country that bears more than 25% of global TB burden, and may be a potential early adopter of the vaccine. We collected TB notification data and conducted a demonstration study in the state of Gujarat to validate our estimates of heterogeneity in TB incidence. We then projected the impact of randomly vaccinating 8% of adults in a single mass campaign to a spatially targeted vaccination preferentially delivered to 80% of adults in the hotspots, with both strategies augmented by continuous adolescent vaccination. In consultation with vaccine developers, we considered a vaccine efficacy of 60%, and evaluated the population-level impact after 10 years of vaccination. Spatial heterogeneity in TB notification (per 100 000/year) was modest in Gujarat: 190 in the hotspots versus 125 in the remaining population. At this level of heterogeneity, the spatially targeted vaccination was projected to reduce TB incidence by 28% after 10 years, compared with a 24% reduction projected to achieve via untargeted vaccination—a 1.17-fold augmentation in the impact of vaccination by spatially targeting. The degree of the augmentation was robust to reasonable variation in natural history assumptions, but depended strongly on the extent of spatial heterogeneity and mixing between the hotspot and general population. Identifying high-incidence hotspots and quantifying spatial mixing patterns are critical to accurate estimation of the value of targeted intervention strategies.

### **Journal of Virology**

March 2016, volume 90, issue 6  
<http://jvi.asm.org/content/current>

[Reviewed earlier]

## **The Lancet**

Apr 02, 2016 Volume 387 Number 10026 p1347-1482 e24

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

*Editorial*

### **[Yellow fever: a global reckoning](#)**

The Lancet

DOI: [http://dx.doi.org/10.1016/S0140-6736\(16\)30116-7](http://dx.doi.org/10.1016/S0140-6736(16)30116-7)

*Summary*

Angola is currently facing its worst outbreak of yellow fever in 30 years. Since December, 2015, when the outbreak was first declared in the capital of Luanda, there have been 178 deaths, more than 1000 suspected cases, and spread to several provinces. Imported cases have now been reported in China, Kenya, and the Democratic Republic of the Congo, posing a global health security risk. A mass vaccination campaign in Luanda began in February, but the emergency stockpile of the vaccine has already been exhausted.

*Comment*

### **[Lean economies and innovation in mental health systems](#)**

Sara Evans-Lacko, Wagner Ribeiro, Elisa Brietzke, Martin Knapp, Jair Mari, David McDaid,

Cristiane S Paula, Renee Romeo, Graham Thornicroft, Lawrence Wissow

1356

*The Lancet Commissions*

### **[Public health and international drug policy](#)**

Joanne Csete, Adeeba Kamarulzaman, Michel Kazatchkine, Frederick Altice, Marek Balicki, Julia Buxton, Javier Cepeda, Megan Comfort, Eric Goosby, João Goulão, Carl Hart, Thomas Kerr, Alejandro Madrazo Lajous, Stephen Lewis, Natasha Martin, Daniel Mejía, Adriana Camacho, David Mathieson, Isidore Obot, Adeolu Ogunrombi, Susan Sherman, Jack Stone, Nandini Vallath, Peter Vickerman, Tomáš Zábranský, Chris Beyer

1427

*Summary*

In September, 2015, the member states of the UN endorsed Sustainable Development Goals (SDGs) for 2030, which aspire to human-rights-centred approaches to ensuring the health and wellbeing of all people. The SDGs embody both the UN Charter values of rights and justice for all and the responsibility of states to rely on the best scientific evidence as they seek to better humankind. In April, 2016, these same states will consider control of illicit drugs, an area of social policy that has been fraught with controversy and thought of as inconsistent with human rights norms, and in which scientific evidence and public health approaches have arguably had too limited a role.

*Case Report*

### **[Guillain-Barré syndrome associated with Zika virus infection](#)**

Patrícia Brasil, Patricia Carvalho Sequeira, Andrea D'Avila Freitas, Heruza Einsfeld Zogbi,

Guilherme Amaral Calvet, Rogerio Valls de Souza, André Machado Siqueira, Marcos Cesar Lima de Mendonça, Rita Maria Ribeiro Nogueira, Ana Maria Bispo de Filippis, Tom Solomon

1482

## **The Lancet Infectious Diseases**

Apr 2016 Volume 16 Number 4 p385-506 e34-e63

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

*Editorial*

### **Costs, compassion, and the case for vaccination**

The Lancet Infectious Diseases

DOI: [http://dx.doi.org/10.1016/S1473-3099\(16\)00139-0](http://dx.doi.org/10.1016/S1473-3099(16)00139-0)

*Summary*

If you want an overview of the major political issues in the UK, the government's petitioning website is a good place to start. Calls for action on Islamic State, immigration, and the National Health Service (NHS) have all garnered hundreds of thousands of signatures. But the most popular current petition—indeed, the issue that has received the most signatures ever on the site—concerns meningitis B vaccination.

### **Public funding for research on antibacterial resistance in the JPIAMR countries, the European Commission, and related European Union agencies: a systematic observational analysis**

Ruth Kelly, Ghada Zoubiane, Desmond Walsh, Rebecca Ward, Herman Goossens

431

Open Access

### **Preventive malaria treatment for contacts of patients with Ebola virus disease in the context of the west Africa 2014–15 Ebola virus disease response: an economic analysis**

Cristina Carias, Bradford Greening Jr, Caresse G Campbell, Martin I Meltzer, Mary J Hamel

449

### **Potential for reduction of burden and local elimination of malaria by reducing Plasmodium falciparum malaria transmission: a mathematical modelling study**

Jamie T Griffin, Samir Bhatt, Marianne E Sinka, Peter W Gething, Michael Lynch, Edith Patouillard, Erin Shutes, Robert D Newman, Pedro Alonso, Richard E Cibulskis, Azra C Ghani  
Open Access

### **Association between spending on social protection and tuberculosis burden: a global analysis**

Andrew Siroka, Ninez A Ponce, Knut Lönnroth

## **Lancet Global Health**

Apr 2016 Volume 4 Number 4 e215-e286

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

*Comment*

### **A second affordable oral cholera vaccine: implications for the global vaccine stockpile**

Sachin N Desai, Lorenzo Pezzoli, Stephen Martin, Alejandro Costa, Carmen Rodriguez, Dominique Legros, William Perea

### *Summary*

On Dec 23, 2015, WHO prequalified a second affordable oral cholera vaccine (OCV), Euvichol (Eubiologics, South Korea), which is expected to double current global OCV production and has the potential to further increase production capacity.<sup>1</sup> The increased production will have implications for vaccine availability and reduced costs per dose, and will ultimately represent an added value for global cholera prevention and control.

### *Articles*

#### **Accuracy of the WHO Haemoglobin Colour Scale for the diagnosis of anaemia in primary health care settings in low-income countries: a systematic review and meta-analysis**

Heiko Marn, Julia Alison Critchley

#### **Timing of initiation, patterns of breastfeeding, and infant survival: prospective analysis of pooled data from three randomised trials**

NEOVITA Study Group

#### **The UN Commission on Life Saving Commodities 3 years on: global progress update and results of a multicountry assessment**

Paul M Pronyk, Bennett Nemser, Blerta Maliqi, Nora Springstubb, Diana Sera, Rouslan Karimov, Elizabeth Katwan, Benedicte Walter, Pascal Bijleveld, UNCoLSC Technical Resource Teams, UN Agency Leads, UNCoLSC Monitoring and Evaluation Advisory Group

### **Maternal and Child Health Journal**

Volume 20, Issue 3, March 2016

<http://link.springer.com/journal/10995/20/3/page/1>

[Reviewed earlier]

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

April 2016; 36 (3)

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

[Reviewed earlier]

### **The Milbank Quarterly**

A Multidisciplinary Journal of Population Health and Health Policy

December 2015 Volume 93, Issue 4 Pages 651–883

<http://onlinelibrary.wiley.com/doi/10.1111/1468-0009.2015.93.issue-4/issuetoc>

[Reviewed earlier]

### **Nature**

Volume 531 Number 7596 pp549-674 31 March 2016

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

[New issue; No relevant content identified]

**Nature Medicine**

March 2016, Volume 22 No 3 pp219-323

<http://www.nature.com/nm/journal/v22/n3/index.html>

[Reviewed earlier]

**Nature Reviews Immunology**

April 2016 Vol 16 No 4

<http://www.nature.com/nri/journal/v16/n4/index.html>

[Reviewed earlier]

**New England Journal of Medicine**

March 31, 2016 Vol. 374 No. 13

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

*Special Report*

**The Neglected Dimension of Global Security — A Framework for Countering Infectious-Disease Crises**

Peter Sands, M.P.A., Carmen Mundaca-Shah, M.D., Dr.P.H., and Victor J. Dzau, M.D.

N Engl J Med 2016; 374:1281-1287 March 31, 2016 DOI: 10.1056/NEJMsr1600236

*[Initial text]*

Pandemics and epidemics have ravaged human societies throughout history. The plague, cholera, and smallpox killed tens of millions of people and destroyed civilizations. In the past 100 years, the “Spanish Flu” of 1918–1919 and HIV–AIDS caused the deaths of nearly 100 million people.

Advances in medicine have transformed our defenses against the threat of infectious disease. Better hygiene, antibiotics, diagnostics, and vaccines have given us far more effective tools for preventing and responding to outbreaks. Yet the severe acute respiratory syndrome (SARS), the Middle East respiratory syndrome (MERS), and the recent West African Ebola outbreak show that we cannot be complacent ([Figure 1](#)). Infectious-disease outbreaks that turn into epidemics and potential pandemics can cause massive loss of life and huge economic disruption.

Indeed, Ebola demonstrated how ill-prepared we are for such infectious-disease crises. There were failures at almost every level. Identifying the outbreak in the community and raising alerts took too long. Local health systems were quickly overwhelmed. Response teams did not adequately engage communities and deepened distrust in health authorities. The international response was slow, cumbersome, and poorly coordinated. Rapid diagnostics, protective equipment, effective therapeutics, and a vaccine were lacking. Ultimately, the crisis was contained, thanks to the courage and commitment of medical staff and communities on the ground and a massive deployment of international resources. Yet the cost in human lives and economic and social disruption was far greater than it should have been.

In this context, the Commission on a Global Health Risk Framework for the Future was initiated in the spring of 2015. Eight sponsors came together to support the initiative. The U.S. National Academy of Medicine provided leadership and guidance. An International Oversight Group comprising 12 leaders in science, business, and government was established to set up and guide the Commission...

## **Pediatrics**

April 2016, VOLUME 137 / ISSUE 4

<http://pediatrics.aappublications.org/content/137/3?current-issue=y>

*Articles*

### **Varicella Vaccine Effectiveness in Preventing Community Transmission in the 2-Dose Era**

Dana Perella, Chengbin Wang, Rachel Civen, Kendra Viner, Karen Kuguru, Irini Daskalaki, D. Scott Schmid, Adriana S. Lopez, Hung Fu Tseng, E. Claire Newbern, Laurene Mascola, Stephanie R. Bialek

Pediatrics Apr 2016, 137 (4) DOI: 10.1542/peds.2015-2802

*Commentaries*

### **Childhood Vaccine Exemption Policy: The Case for a Less Restrictive Alternative**

Douglas J. Opel, Matthew P. Kronman, Douglas S. Diekema, Edgar K. Marcuse, Jeffrey S. Duchin, Eric Kodish

Pediatrics Apr 2016, 137 (4) DOI: 10.1542/peds.2015-4230

### **Childhood Vaccine Exemptions: A Broader Perspective Is Required**

Carrie L. Byington, Ellen Wright Clayton, Kathryn M. Edwards

Pediatrics Apr 2016, 137 (4) DOI: 10.1542/peds.2016-0189

## **Pharmaceutics**

Volume 8, Issue 1 (March 2016)

<http://www.mdpi.com/1999-4923/8/1>

### **Editorial: Introduction to Special Issue: A New Paradigm of Gene Therapy**

by Keiji Itaka

## **PharmacoEconomics**

Volume 34, Issue 3, March 2016

<http://link.springer.com/journal/40273/34/3/page/1>

[Reviewed earlier]

## **PLOS Currents: Disasters**

<http://currents.plos.org/disasters/>

[Accessed 2 April 2016]

[No new content]

## **PLoS Currents: Outbreaks**

<http://currents.plos.org/outbreaks/>

(Accessed 2 April 2016)

[No new content]

**PLoS Medicine**

<http://www.plosmedicine.org/>

(Accessed 2 April 2016)

*Editorial*

**[Pragmatic Trials for Noncommunicable Diseases: Relieving Constraints](#)**

Anushka Patel, Ruth Webster

| published 29 Mar 2016 | PLOS Medicine

<http://dx.doi.org/10.1371/journal.pmed.1001986>

[No abstract]

**PLoS Neglected Tropical Diseases**

<http://www.plosncts.org/>

(Accessed 2 April 2016)

[No new relevant content identified]

**PLoS One**

<http://www.plosone.org/>

[Accessed 2 April 2016]

*Research Article*

**[Knowledge and Perceptions about Clinical Trials and the Use of Biomedical Samples: Findings from a Qualitative Study in Rural Northern Ghana](#)**

Samuel Chatio, Frank Baiden, Fabian Sebastian Achana, Abraham Oduro, James Akazili

Research Article | published 01 Apr 2016 | PLOS ONE

<http://dx.doi.org/10.1371/journal.pone.0152854>

*Abstract*

#### Introduction

Clinical trials conducted in sub-Saharan Africa have helped to address the prevalent health challenges. The knowledge about how communities perceive clinical trials is however only now evolving. This study was conducted among parents whose children participated in past clinical trials in northern Ghana to assess their knowledge and perceptions of clinical trials and the use of biomedical samples.

#### Method

This was a qualitative study based on eighty in-depth interviews with parents. The participants were randomly selected from among parents whose children were enrolled in a clinical trial conducted in the Kassena-Nankana districts between 2000 and 2003. The interviews were transcribed and coded into emergent themes using Nvivo 9 software. The thematic analysis framework was used to analyze the data.

#### Results

Study participants reported that clinical trials were carried out to determine the efficacy of drugs and to make sure that these drugs were suitable for human beings to use. The conduct of clinical trials was perceived to have helped to reduce the occurrence of diseases such as malaria, cerebrospinal meningitis and diarrhea. Quality of care was reported to be better in clinical trials than in the routine care. Parents indicated that participation in clinical trials positively influenced their health-seeking behavior. Apprehensions about blood draw and the

use to which samples were put were expressed, with suspicion by a few participants that researchers sold blood samples. The issue of blood draw was most contentious.

#### Conclusion

Parents perception about the conduct of clinical trials in the study districts is generally positive. However, misconceptions made about the use of blood samples in this study must be taken seriously and strategies found to improve transparency and greater community acceptability.

#### **PLoS Pathogens**

<http://journals.plos.org/plospathogens/>

(Accessed 2 April 2016)

[No new relevant content identified]

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

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

(Accessed 2 April 2016)

[No new relevant content identified]

#### **Pneumonia**

Vol 6 (2015)

<https://pneumonia.org.au/index.php/pneumonia/issue/current>

[Reviewed earlier]

#### **Prehospital & Disaster Medicine**

Volume 31 - Issue 02 - April 2016

<https://journals.cambridge.org/action/displayIssue?jid=PDM&tab=currentissue>

[Reviewed earlier]

#### **Preventive Medicine**

Volume 84, Pages 1-98 (March 2016)

<http://www.sciencedirect.com/science/journal/00917435/84>

[Reviewed earlier]

#### **Proceedings of the Royal Society B**

10 February 2016; volume 283, issue 1824

<http://rsbp.royalsocietypublishing.org/content/283/1824?current-issue=y>

[New issue; No relevant content identified]

#### **Public Health Ethics**

Volume 9 Issue 1 April 2016

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

[Reviewed earlier]

### **Public Health Reports**

Volume 131 , Issue Number 2 March/April 2016

<http://www.publichealthreports.org/issuecontents.cfm?Volume=131&Issue=2>

[Reviewed earlier]

### **Qualitative Health Research**

April 2016; 26 (5)

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

#### ***Special Issue: Qualitative Contributions to Quantitative Inquiry***

[Reviewed earlier]

### **Reproductive Health**

<http://www.reproductive-health-journal.com/content>

[Accessed 2 April 2016]

[Reviewed earlier]

### **Revista Panamericana de Salud Pública/Pan American Journal of Public Health**

#### **(RPSP/PAJPH)**

February 2016 Vol. 39, No. 2

<http://www.paho.org/journal/>

ARTÍCULOS DE INVESTIGACIÓN ORIGINAL/ORIGINAL RESEARCH ARTICLES

[Establishing national noncommunicable disease surveillance in a developing country: a model](#)

[for small island nations](#) [Introducción de la vigilancia nacional de las enfermedades no transmisibles en un país en desarrollo: un modelo para las pequeñas naciones insulares]

Angela M. Rose, Ian R. Hambleton, Selvi M. Jeyaseelan, Christina Howitt, Rhea Harewood, Jacqueline Campbell, Tanya N. Martelly, Tracy Blackman, Kenneth S. George, Trevor A. Hassell, David O. Corbin, Rudolph Delice, Patsy Prussia, Branka Legetic, and Anselm J. Hennis

[Traslación a la práctica de estrategias de empoderamiento en la prevención del dengue: facilitadores y barreras](#) [Translation into practice of empowerment strategies for dengue prevention: facilitators and barriers]

Dennis Pérez, Marta Castro, Ángel Manuel Álvarez, Lizet Sánchez, María Eugenia Toledo, Damayanti Matos, Patrick Van der Stuyft y Pierre Lefèvre

[Determinants of tuberculosis in countries of Latin America and the Caribbean](#) [Determinantes de la tuberculosis en los países de América Latina y el Caribe]

Gustavo Bergonzoli, Luis G. Castellanos, Rodolfo Rodríguez, and Lina María García

[Diagnóstico de salud y percepción de riesgos, elementos clave para una propuesta de intervención en comunidades indígenas en México](#) [Health diagnosis and risk perception:

key elements of a proposed intervention for indigenous communities in Mexico]  
Mónica Terán-Hernández, Fernando Díaz-Barriga y Ana Cristina Cubillas-Tejeda

[Analysis of registered cancer clinical trials in Latin America and the Caribbean, 2007--2013](#)  
[Análisis de los ensayos clínicos sobre el cáncer registrados en América Latina y el Caribe del 2007 al 2013]  
Bridget Lee, Luis G. Cuervo, Pablo Rodríguez-Feria, and Silvana Luciani

OPINIÓN Y ANÁLISIS/OPINION AND ANALYSIS  
[Salud global: una visión latinoamericana](#) [Global health: a Latin American vision]  
Álvaro Franco-Giraldo

### **Risk Analysis**

March 2016 Volume 36, Issue 3 Pages 431–638  
<http://onlinelibrary.wiley.com/doi/10.1111/risa.2016.36.issue-3/issuetoc>  
[Reviewed earlier]

### **Science**

01 April 2016 Vol 352, Issue 6281  
<http://www.sciencemag.org/current.dtl>

#### *Policy Forum*

#### [Engage key social concepts for sustainability](#)

By Christina C. Hicks, Arielle Levine, Arun Agrawal, Xavier Basurto, Sara J. Breslow, Courtney Carothers, Susan Charnley, Sarah Coulthard, Nives Dolsak, Jamie Donatuto, Carlos Garcia-Quijano, Michael B. Mascia, Karma Norman, Melissa R. Poe, Terre Satterfield, Kevin St. Martin, Phillip S. Levin

Science01 Apr 2016 : 38-40

#### *Summary*

With humans altering climate processes, biogeochemical cycles, and ecosystem functions (1), governments and societies confront the challenge of shaping a sustainable future for people and nature. Policies and practices to address these challenges must draw on social sciences, along with natural sciences and engineering (2). Although various social science approaches can enable and assess progress toward sustainability, debate about such concrete engagement is outpacing actual use. To catalyze uptake, we identify seven key social concepts that are largely absent from many efforts to pursue sustainability goals. We present existing and emerging well-tested indicators and propose priority areas for conceptual and methodological development.

### **Science Translational Medicine**

16 March 2016 Vol 8, Issue 330  
<http://stm.sciencemag.org/>  
[Reviewed earlier]

### **Social Science & Medicine**

Volume 153, Pages 1-266 (March 2016)

<http://www.sciencedirect.com/science/journal/02779536/153>

*Review Article*

## **[Polio vaccine hesitancy in the networks and neighborhoods of Malegaon, India](#)**

Original Research Article

Pages 99-106

Jukka-Pekka Onnela, Bruce E. Landon, Anna-Lea Kahn, Danish Ahmed, Harish Verma, A. James O'Malley, Sunil Bahl, Roland W. Sutter, Nicholas A. Christakis

*Abstract*

**Objectives**

Eradication and control of childhood diseases through immunization can only work if parents allow their children to be vaccinated. To learn about social network factors associated with polio vaccine hesitancy, we investigated social and spatial clustering of households by their vaccine acceptance status in Malegaon, India, an area known for vaccine refusal and repeated detection of polio cases.

**Methods**

We interviewed family heads from 2462 households in 25 neighborhoods in July 2012 and constructed social networks based on advice seeking from other households. We restricted our main analyses to surveyed households for which we also had data on whether they accepted the polio vaccine for their eligible children or not.

**Results**

Data from 2452 households was retained and these households made 2012 nominations to 830 households. Vaccine-refusing households had fewer outgoing ties than vaccine-accepting households. After excluding 24 isolated households, vaccine-refusing households had 189% more nominations to other vaccine-refusing households (93% more in the largest component of the network) compared to vaccine-accepting households, revealing that vaccine-refusing households cluster in the social network. Since roughly half of all ties connect households within neighborhoods, vaccine-refusing clusters lie in spatially localized "pockets".

**Conclusions**

The social (and spatial) clustering of vaccine-refusing households could be leveraged to tailor communication strategies to improve vaccine acceptance and community perceptions of immunization programs for polio and other vaccine-preventable diseases.

## **["Saving lives": Adapting and adopting Human Papilloma Virus \(HPV\) vaccination in Austria](#)**

Original Research Article

Pages 193-200

Katharina T. Paul

*Abstract*

Vaccination against the sexually transmitted Human Papilloma Virus (HPV), a necessary agent for the development of cervical cancer, has triggered much debate. In Austria, HPV policy turned from "lagging behind" in 2008 into "Europe's frontrunner" by 2013. Drawing on qualitative research, the article shows how the vaccine was transformed and made "good enough" over the course of five years. By means of tinkering and shifting storylines, policy officials and experts disassociated the vaccine from gender, vaccine manufacturers, and youth sexuality. Ultimately, the HPV vaccine functioned to strengthen the national immunization program. To this end, preventing an effective problematization of the extant screening program was essential.

## **Tropical Medicine & International Health**

March 2016 Volume 21, Issue 3 Pages 293–453

<http://onlinelibrary.wiley.com/doi/10.1111/tmi.2016.21.issue-3/issuetoc>

[Reviewed earlier]

### **Vaccine**

Volume 34, Issue 18, Pages 2051-2156 (19 April 2016)

<http://www.sciencedirect.com/science/journal/0264410X/34/18>

*Original Research Article*

### **[Challenges to health workers and their opinions about parents' refusal of oral polio vaccination in the Khyber Pakhtoon Khawa \(KPK\) province, Pakistan](#)**

Pages 2074-2081

Tahir Mehmood Khan, Muhammad Umar Khayam Sahibzada

*Abstract*

A qualitative study design was adapted to explore the challenges faced by health workers (HWs) during the polio health campaign. In addition, HWs' opinions about the factors causing parents to refuse oral polio vaccination (OPV) were also explored. Four focus group discussions (FGDs) were held (from 1st January 2015–31st March 2015) with the HWs who participated in the OPV campaigns in the polio red zones of Khyber Pakhtoon Khawa (KPK) province of Pakistan, namely Kohat (FG 1), Domel and Bannu (FG 2), Hangoo (FG 3), and Peshawar (FG 4). A total of N = 42 HWs (10–11 in each FG) agreed to participate in this study. Overall, HWs disclosed that public attitude and harsh behaviour towards the HWs and security threats are the two main challenges they face. Common issues hindering parents' willingness to vaccinate their children against OPV are: OPV is seen as haram and not permitted in Islam, it is said to contain the blood of pigs (Khinzir) and monkeys, and parents are afraid that it is done to induce sterility among their children. HWs also shared that parents have a strong belief in the conspiracies that are associated with OPV, i.e. the USA and CIA, are spying on us and our government is helping them to achieve their agenda. Furthermore, HWs revealed that frequent visits may further strengthen parents' perceptions and make them more resistant to OPV. The common side effects of OPV reported by parents were mainly gastro-intestinal problems and in some cases mild to moderate fever with some respiratory symptoms. There is a great need to improve the logistics and facilities for HWs assisting in vaccination programmes. Furthermore, it is necessary to improve education, so people understand the basic concept of revaccination and booster doses, thereby assisting in creating a basic understanding of vaccinations, which may trigger changes in attitudes and make people believe in the benefits of OPV rather than following the conspiracies that lead them to refuse it.

### **[The cost-effectiveness of pneumococcal vaccination in healthy adults over 50: An exploration of influential factors for Belgium](#)**

*Original Research Article*

Pages 2106-2112

Adriaan Blommaert, Joke Bilcke, Lander Willem, Jan Verhaegen, Herman Goossens, Philippe Beutels

*Abstract*

Background

A recent trial demonstrated the 13 valent conjugate pneumococcal vaccine (PCV13) to be effective against invasive and non-invasive pneumococcal disease in healthy adults. PCV13 might therefore be considered as an alternative to the 23 valent polysaccharide vaccine (PPV23).

#### Aim

To explore the cost-effectiveness of vaccinating healthy adults over 50, with either PCV13 or PPV23 alone, or with a combined strategy using both PCV13 and PPV23.

#### Methods

A static multi-cohort model was developed simulating the consequences of pneumococcal vaccination in adults over 50 from a health care payer's perspective, for different scenarios of duration of vaccine protection and serotype evolution.

#### Results

At currently expected prices, PCV13 vaccination of healthy adults over 50 is unlikely to be cost-effective either compared with no vaccination or in combination with PPV23 versus PPV23 only.

#### Conclusion

Further research is needed on vaccine efficacy of the combination strategy and of risk groups, as well as the duration of vaccine protection. Serotype evolutions under the influence of the childhood PCV program should be closely monitored.

### **Impact of oral cholera vaccines in cholera-endemic countries: A mathematical modeling study**

Original Research Article

Pages 2113-2120

Jong-Hoon Kim, Vittal Mogasale, Colleen Burgess, Thomas F. Wierzba

#### *Abstract*

#### Background

Impact evaluation of vaccination programs is necessary for making decisions to introduce oral cholera vaccines (OCVs) in cholera-endemic countries.

#### Methods

We analyzed data to forecast the future global burden of cholera. We developed a mathematical model of cholera transmission in three countries as examples: Nigeria, Uganda, and Indonesia. After fitting the model, we evaluated the impact of OCVs delivered in four vaccination strategies varying by target age group and frequency of vaccination over the period of 2015–2030.

#### Results

Data suggest that the global annual incidence of cholera will increase from 3 046 238 in 2015 to 3 787 385 in 2030 with the highest burden in Asia and Africa where overall population size is large and the proportion of population with access to improved sanitation facilities is low. We estimate that OCV will reduce the cumulative incidence of cholera by half in Indonesia and >80% in Nigeria and Uganda when delivered to 1+ year olds every three years at a coverage rate of 50%, although cholera may persist through higher coverage rates (i.e., >90%). The proportion of person-to-person transmission compared to water-to-person transmission is positively correlated with higher vaccination impact in all three countries.

#### Conclusions

Periodic OCV vaccination every three or five years can significantly reduce the global burden of cholera although cholera may persist even with high OCV coverage. Vaccination impact will likely vary depending on local epidemiological conditions including age distribution of cases and relative contribution of different transmission routes.

## **The free vaccination policy of influenza in Beijing, China: The vaccine coverage and its associated factors**

Original Research Article

Pages 2135-2140

Min Lv, Renfei Fang, Jiang Wu, Xinghuo Pang, Ying Deng, Trudy Lei, Zheng Xie

### *Abstract*

#### **Background**

In order to improve influenza vaccination coverage, the coverage rate and reasons for non-vaccination need to be determined. In 2007, the Beijing Government published a policy providing free influenza vaccinations to elderly people living in Beijing who are older than 60. This study examines the vaccination coverage after the policy was carried out and factors influencing vaccination among the elderly in Beijing.

#### **Methods**

A cross-sectional survey was conducted through the use of questionnaires in 2013. A total of 1673 eligible participants were selected by multistage stratified random sampling in Beijing using anonymous questionnaires in-person. They were surveyed to determine vaccination status and social demographic information.

#### **Results**

The influenza vaccination coverage was 38.7% among elderly people in Beijing in 2012. The most common reason for not being vaccinated was people thinking they did not need to have a flu shot. After controlling for age, gender, income, self-reported health status, and the acceptance of health promotion, the rate in rural areas was 2.566 (95% confidence interval [CI], 1.801–3.655,  $P < 0.010$ ) times greater than that in urban areas. Different mechanisms of health education and health promotion have different influences on vaccination uptake. Those whom received information through television, community boards, or doctors were more likely to get vaccinated compared to those who did not (Odds Ratio [OR] = 1.403,  $P < 0.010$ ; OR = 1.812,  $P < 0.010$ ; OR = 2.647,  $P < 0.010$ ).

#### **Conclusion**

The influenza vaccine coverage in Beijing is much lower than that of developed countries with similar policies. The rural–urban disparity in coverage rate (64.1% versus 33.5%), may be explained by differing health provision systems and personal attitudes toward free services due to socioeconomic factors. Methods for increasing vaccination levels include increasing the focus on primary care and health education programs, particularly recommendations from doctors, to the distinct target populations, especially with a focus on expanding these efforts in urban areas.

## **Knowledge, attitudes and beliefs related to seasonal influenza vaccine among pregnant women in Thailand**

Original Research Article

Pages 2141-2146

Darunee Ditsungnoen, Adena Greenbaum, Prabda Praphasiri, Fatimah S. Dawood, Mark G. Thompson, Pornsak Yoocharoen, Kim A. Lindblade, Sonja J. Olsen, Charung Muangchana

### *Abstract*

#### **Background**

In 2009, Thailand recommended pregnant women be prioritized for influenza vaccination. Vaccine uptake among Thai pregnant women is lower than other high-risk groups.

#### **Methods**

During December 2012–April 2013, we conducted a cross-sectional survey of a convenience sample of Thai pregnant women aged  $\geq 15$  years attending antenatal clinics at public hospitals in 8 of 77 provinces. A self-administered questionnaire covered knowledge, attitudes, and beliefs related to influenza vaccination using the Health Belief Model. We examined factors associated with willingness to be vaccinated using log-binomial regression models.

#### Results

The survey was completed by 1031 (96%) of 1072 pregnant women approached. A total of 627 (61%) women had heard about influenza vaccine and were included in the analysis, of whom 262 (42%) were willing to be vaccinated, 155 (25%) had received a healthcare provider recommendation for influenza vaccination and 25 (4%) had received the influenza vaccine during the current pregnancy. In unadjusted models, high levels of perceptions of susceptibility (prevalence ratio [PR] 1.5, 95% CI 1.2–2.0), high levels of belief in the benefits of vaccination (PR 2.3, 95% CI 1.7–3.1), moderate (PR 1.7, 95% CI 1.2–2.3) and high (PR 3.4, 95% CI 2.6–4.5) levels of encouragement by others to be vaccinated (i.e., cues to action) were positively associated with willingness to be vaccinated. Moderate (PR 0.5, 95% CI 0.4–0.7) and high levels of (PR 0.5, 95% CI 0.4–0.8) perceived barriers were negatively associated with willingness to be vaccinated. In the final adjusted model, only moderate (PR 1.5, 95% CI 1.1–2.0) and high levels of cues to action (PR 2.7, 95% CI 2.0–3.6) were statistically associated with willingness to be vaccinated.

#### Conclusion

Cues to action were associated with willingness to be vaccinated and can be used to inform communication strategies during the vaccine campaign to increase influenza vaccination among Thai pregnant women.

#### Vaccine

Volume 34, Issue 17, Pages 1987-2050 (12 April 2016)

<http://www.sciencedirect.com/science/journal/0264410X/34/17>

#### Commentary

#### [\*\*Vaccine hesitancy: A vade mecum v1.0\*\*](#)

Pages 1989-1992

Angus Thomson, Michael Watson

[Free full text]

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

<https://www.dovepress.com/vaccine-development-and-therapy-archive111>

(Accessed 2 April 2016)

[No new relevant content identified]

#### **Vaccines — Open Access Journal**

<http://www.mdpi.com/journal/vaccines>

(Accessed 2 April 2016)

#### Editorial

#### [\*\*Vaccine Delivery Methods into the Future\*\*](#)

by [Vasso Apostolopoulos](#)

Vaccines 2016, 4(2), 9; doi:[10.3390/vaccines4020009](https://doi.org/10.3390/vaccines4020009) - published 28 March 2016

*Abstract:*

Several modes of vaccine delivery have been developed in the last 25 years, which induce strong immune responses in pre-clinical models and in human clinical trials. Some modes of delivery include, adjuvants (aluminum hydroxide, Ribi formulation, QS21), liposomes, nanoparticles, virus like particles, immunostimulatory complexes (ISCOMs), dendrimers, viral vectors, DNA delivery via gene gun, electroporation or Biojector 2000, cell penetrating peptides, dendritic cell receptor targeting, toll-like receptors, chemokine receptors and bacterial toxins. There is an enormous amount of information and vaccine delivery methods available for guiding vaccine and immunotherapeutics development against diseases.

## **Value in Health**

March 2016 Volume 19, Issue 2, p123-296  
<http://www.valueinhealthjournal.com/current>  
[Reviewed earlier]

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## **From Google Scholar & other sources: Selected Journal Articles, Newsletters, Dissertations, Theses, Commentary**

### **Clinical Infectious Diseases**

2016 Mar 21. pii: ciw145. [Epub ahead of print]

### **Single-Dose Live Oral Cholera Vaccine CVD 103-HgR Protects Against Human Experimental Infection with Vibrio cholerae O1 El Tor.**

WH Chen, MB Cohen, BD Kirkpatrick, RC Brady... -

#### *Abstract*

#### BACKGROUND:

No licensed cholera vaccine is presently available in the U.S.A. Cholera vaccines available in other countries require 2 spaced doses. A single-dose cholera vaccine that can rapidly protect short-notice travelers to high risk areas and help control explosive outbreaks where logistics render two-dose immunization regimens impractical would be a major advance. PXVX0200, based on live attenuated *Vibrio cholerae* O1 classical Inaba vaccine strain CVD 103-HgR, elicits seroconversion of vibriocidal antibodies (a correlate of protection) within 10 days of a single oral dose. We investigated the protection conferred by this vaccine in a human cholera challenge model.

#### METHODS:

Consenting healthy adult volunteers, 18-45 years old, were randomly allocated 1:1 to receive one oral dose of vaccine (~5x10<sup>8</sup> colony forming units, CFU) or placebo in double-blind fashion. Volunteers ingested ~1x10<sup>5</sup> CFU of wild type *V. cholerae* O1 El Tor Inaba strain N16961 10 days or 3 months after vaccination and were observed on an inpatient research ward for stool output measurement and management of hydration.

#### RESULTS:

The vaccine was well tolerated, with no difference in adverse event frequency among 95 vaccinees versus 102 placebo recipients. The primary endpoint, moderate ( $\geq 3.0$  liter) to severe ( $\geq 5.0$  liter) diarrheal purge occurred in 39/66 (59.1%) placebo controls but only 2/35 (5.7%)

vaccinees at 10 days (vaccine efficacy=90.3%, p<0.0001) and 4/33 (12.1%) vaccinees at 3 months (vaccine efficacy=79.5%, p<0.0001).

#### CONCLUSIONS:

The significant vaccine efficacy documented 10 days and 3 months after one oral dose of PXVX0200 supports further development as a single-dose cholera vaccine.

### **American Journal of Tropical Medicine and Hygiene**

Published online March 28, 2016 , doi: 10.4269/ajtmh.15-0659 2016 15-0659

#### OPEN ACCESS ARTICLE

### **Long-Term Safety and Immunogenicity of a Tetravalent Live-Attenuated Dengue Vaccine and Evaluation of a Booster Dose Administered to Healthy Thai Children**

Veerachai Watanaveeradej, Sriluck Simasathien, Mammen P. Mammen Jr., Ananda Nisalak, Elodie Tournay, Phirangkul Kerdpaich, Rudiwilai Samakoses, Robert J. Putnak, Robert V. Gibbons, In-Kyu Yoon, Richard G. Jarman, Rafael De La Barrera, Philippe Moris, Kenneth H. Eckels, Stephen J. Thomas\* and Bruce L. Innis

#### *Author Affiliations*

Department of Pediatrics, Phramongkutklao Hospital, Bangkok, Thailand; Department of Virology, United States Army Medical Component–Armed Forces Research Institute of Medical Sciences (USAMC-AFRIMS), Bangkok, Thailand; GSK Vaccines, Rixensart, Belgium; Viral Diseases Branch, Walter Reed Army Institute of Research, Silver Spring, Maryland; Dengue Vaccine Initiative, International Vaccine Institute, Seoul, Republic of Korea; Pilot BioProduction Facility, Translational Medicine Branch, Walter Reed Army Institute of Research, Silver Spring, Maryland; GSK Vaccines, Philadelphia, Pennsylvania

#### *Abstract*

We evaluated the safety and immunogenicity of two doses of a live-attenuated, tetravalent dengue virus vaccine (F17/Pre formulation) and a booster dose in a dengue endemic setting in two studies. Seven children (7- to 8-year-olds) were followed for 1 year after dose 2 and then given a booster dose (F17/Pre formulation), and followed for four more years (Child study). In the Infant study, 49 2-year-olds, vaccinated as infants, were followed for approximately 3.5 years after dose 2 and then given a booster dose (F17) and followed for one additional year. Two clinically notable events were observed, both in dengue vaccine recipients in the Infant study: 1 case of dengue approximately 2.7 years after dose 2 and 1 case of suspected dengue after booster vaccinations. The booster vaccinations had a favorable safety profile in terms of reactogenicity and adverse events reported during the 1-month follow-up periods. No vaccine-related serious adverse events were reported during the studies. Neutralizing antibodies against dengue viruses 1–4 waned during the 1–3 years before boosting, which elicited a short-lived booster response but did not provide a long-lived, multivalent antibody response in most subjects. Overall, this candidate vaccine did not elicit a durable humoral immune response.

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### **Media/Policy Watch**

This section is intended 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 in 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.

### **The Atlantic**

<http://www.theatlantic.com/magazine/>

Accessed 2 April 2016

[No new, unique, relevant content]

### **BBC**

<http://www.bbc.co.uk/>

Accessed 2 April 2016

[No new, unique, relevant content]

### **The Economist**

<http://www.economist.com/>

Accessed 2 April 2016

*Spreading fear*

#### **[A vaccine scandal in China causes an outcry](#)**

*The latest in a long line of medical abuses reveals widespread corruption, dismal lack of supervision and harmful distortions in the public-health system*

Apr 1st 2016 | Beijing | [China](#)

“...In all, roughly 2m faulty vaccines are thought to have been sold, for a total of 570m yuan (\$90m). The scandal has implicated 29 pharmaceutical firms and 16 health departments. The police are pursuing 69 criminal cases. On March 28th the government finally launched its own investigation under the China Food and Drug Administration. The prime minister, Li Keqiang, said the case had “exposed many regulatory loopholes”...

### **Financial Times**

<http://www.ft.com/home/uk>

Accessed 2 April 2016

[No new, unique, relevant content]

### **Forbes**

<http://www.forbes.com/>

Accessed 2 April 2016

#### **[No Andrew Wakefield, You're Not Being Censored And You Don't Deserve Due Process](#)**

Andrew Wakefield has already caused enough death and disease, and he rightfully doesn't get a respectable platform like Tribeca Film Festival to further spread his destruction. To paint Tribeca's decision as a conspiracy, as censorship and, laughably, as denial of due process is a sham.

Kavin Senapathy, Contributor Mar 28, 2016

**Foreign Affairs**

<http://www.foreignaffairs.com/>

Accessed 2 April 2016

[No new, unique, relevant content]

**Foreign Policy**

<http://foreignpolicy.com/>

Accessed 2 April 2016

[No new, unique, relevant content]

**The Guardian**

<http://www.guardiannews.com/>

Accessed 2 April 2016

[No new, unique, relevant content]

**Mail & Guardian**

<http://mg.co.za/>

Accessed 2 April 2016

[No new, unique, relevant content]

**New Yorker**

<http://www.newyorker.com/>

Accessed 2 April 2016

[No new, unique, relevant content]

**New York Times**

<http://www.nytimes.com/>

Accessed 2 April 2016

**[After China Vaccine Scare, Hong Kong to Limit Inoculations for Non-Resident Children](#)**

HONG KONG — Hong Kong is to limit the number of non-resident children getting vaccinations at government clinics, after an illegal vaccine scandal in mainland China raised fears some families would come to the city for inoculations and put pressure on supplies.

From April 1, Hong Kong's Maternal and Child Health Centres will only accept 120 new non-resident children a month. Non-resident children will only be able to book an appointment when there is spare capacity and will have to pay a higher fee.

"The government's policy is to accord priority to local children," Hong Kong's Assistant Director of Health for Family and Elderly Health Services, Teresa Li, said in a statement...  
March 30, 2016 - By REUTERS -

**Wall Street Journal**

[http://online.wsj.com/home-page?\\_wsjregion=na,us&\\_homepage=/home/us](http://online.wsj.com/home-page?_wsjregion=na,us&_homepage=/home/us)

Accessed 2 April 2016

[No new, unique, relevant content]

**Washington Post**

<http://www.washingtonpost.com/>

Accessed 2 April 2016

### **Red Cross brings solar panels to Gaza clinics**

The international Red Cross has installed solar panels at 32 health-care clinics in the Gaza Strip to ensure that vaccines remain refrigerated in the power-starved territory.

Associated Press | National | Mar 31, 2016

### **Think Tanks et al**

#### **Brookings**

<http://www.brookings.edu/>

Accessed 2 April 2016

[No new relevant content]

#### **Center for Global Development**

<http://www.cgdev.org/>

Accessed 2 April 2016

[No new relevant content]

#### **Council on Foreign Relations**

<http://www.cfr.org/>

Accessed 2 April 2016

[No new relevant content]

#### **CSIS Center for Strategic and International Studies**

[http://csis.org/press/browse/all/all/press\\_release](http://csis.org/press/browse/all/all/press_release)

Accessed 2 April 2016

[No new relevant content]

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Support is also provided by a growing list of individuals who use this membership service to support their roles in public health, clinical practice, government, NGOs and other international institutions, academia and research organizations, and industry.

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