

**Center for Vaccine  
Ethics and Policy**

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**Vaccines and Global Health: The Week in Review  
23 August 2014  
Center for Vaccine Ethics & Policy (CVEP)**

*This weekly summary 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 3,500 entries.*

*Comments and suggestions should be directed to  
David R. Curry, MS  
Editor and  
Executive Director  
Center for Vaccine Ethics & Policy  
[david.r.curry@centerforvaccineethicsandpolicy.org](mailto:david.r.curry@centerforvaccineethicsandpolicy.org)*

*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).*

***Vaccines and Global Health: The Week in Review resumes publication with this issue following a short annual leave for the Editor]***

**WHO: Global Alert and Response (GAR) – Disease Outbreak News** [to 23 August 2014]  
<http://www.who.int/csr/don/en/>

:: [Ebola virus disease update - west Africa 22 August 2014](#)

*Epidemiology and surveillance*

Between 19 and 20 August 2014, a total of 142 new cases of Ebola virus disease (laboratory-confirmed, probable, and suspect cases) as well as 77 deaths were reported from Guinea, Liberia, Nigeria, and Sierra Leone.

*Health sector response*

Questions have been received in WHO Headquarters about the original proposed budget for the response and the new draft budget, which is being reviewed by partners. The increase in needed resources is based on improved data and understanding of the situation on the ground in the affected countries. The new estimation of costs is derived using a unit-cost model, built for the most intense transmission areas and reflects the average operational costs based on the

current situation in the affected countries. The major assumptions for the cost estimates will be announced towards the end of next week.

WHO continues to receive reports of rumoured or suspected cases from countries around the world and systematic verification of these cases is ongoing. Countries are encouraged to continue engaging in active surveillance and preparedness activities. As of today, no new cases have been confirmed outside of Guinea, Liberia, Nigeria, or Sierra Leone.

WHO does not recommend any travel or trade restrictions be applied except in cases where individuals have been confirmed or are suspected of being infected with EVD or where individuals have had contact with cases of EVD. (Contacts do not include properly-protected health-care workers and laboratory staff.) Temporary recommendations from the Emergency Committee with regard to actions to be taken by countries can be found at:

[IHR Emergency Committee on Ebola outbreak in west Africa](#)

:: [WHO Director-General briefs Geneva UN missions on the Ebola outbreak](#) - 12 August 2014

:: [Statement on travel and transport in relation to Ebola virus disease \(EVD\) outbreak](#) - 18 August 2014

### **Ethical considerations for use of unregistered interventions for Ebola virus disease**

Report of an advisory panel to WHO

2014 :: 10 pages :: WHO reference number: WHO/HIS/KER/GHE/14.1

#### *Overview*

West Africa is experiencing the largest, most severe, most complex outbreak of Ebola virus disease in history. On 11 August 2014, WHO convened a consultation to consider and assess the ethical implications for clinical decision-making of use of unregistered interventions that have shown promising results in the laboratory and in animal models but that have not yet been evaluated for safety and efficacy in humans.

#### *Conclusion [full text from report p.7]*

In the particular context of the current Ebola outbreak in West Africa, it is ethically acceptable to offer unproven interventions that have shown promising results in the laboratory and in animal models but have not yet been evaluated for safety and efficacy in humans as potential treatment or prevention.

Ethical, scientific and pragmatic criteria must guide the provision of such interventions. The ethical criteria include transparency about all aspects of care, so that the maximum information is obtained about the effects of the interventions, fairness, promotion of cosmopolitan solidarity, informed consent, freedom of choice, confidentiality, respect for the person, preservation of dignity, involvement of the community and risk–benefit assessment.

If and when unproven interventions that have not yet been evaluated for safety and efficacy in humans but have shown promising results in the laboratory and in animal models are used to treat patients, those involved have a moral obligation to collect and share all the scientifically relevant data generated, including from treatments provided for “compassionate use”.

Researchers have a moral duty to evaluate these interventions (for treatment or prevention) in clinical trials that are of the best possible design in the current exceptional circumstances of the West African Ebola outbreak, in order to establish the safety and efficacy of the interventions or to provide evidence to stop their use. Continuous evaluation should guide future interventions.

**POLIO** [to 23 August 2014]

**GPEI Update: Polio this week - As of 20 August 2014**

Global Polio Eradication Initiative

*Editor's Excerpt and text bolding*

Full report: <http://www.polioeradication.org/Dataandmonitoring/Poliothisweek.aspx>

:: The Horn of Africa Technical Advisory Group (TAG) met last week to review the current epidemiological situation, the impact of outbreak response and to determine additional strategies needed to rapidly interrupt residual transmission in the region. Plans were developed to increase access to mobile populations, to improve community surveillance and to strengthen campaign quality. Read more in the Horn of Africa section below.

:: China, India and Australia have joined Saudi Arabia in requiring proof of polio vaccination for visa applications for travellers coming from polio endemic and outbreak countries to mitigate the risk of international spread of polio.

:: In Cameroon, genetic sequencing of the recently-reported cases confirms continued wild poliovirus circulation, gaps in surveillance resulting in undetected transmission and geographic expansion to new areas of the country. See 'central Africa' section below for further information.

***Pakistan***

:: Seven new WPV1 cases were reported in the past week, all from Federally Administered Tribal Areas (FATA), from North Waziristan, South Waziristan and Khyber, bringing the total number of WPV1 cases for 2014 to 115. One of the newly-reported cases from North Waziristan is the most recent WPV1 case in the country, with onset of paralysis on 27 July.

***Horn of Africa***

:: The Horn of Africa TAG met from 12-14 August to review the current epidemiological situation and the impact of the outbreak response and to determine additional strategies needed to rapidly interrupt residual transmission in the region.

:: Strategies were proposed to improve operations and strengthen surveillance including targeted tactics for reaching mobile populations in Somalia and Ethiopia, considering new communication channels and opportunities to reach these groups. The need to sustain the sense of urgency until the outbreak is stopped was highlighted

***Middle East***

:: In the Middle East, the second phase of the comprehensive outbreak response is being implemented across the region.

:: WHO and UNICEF are committed to working with all organizations and agencies providing humanitarian assistance to Syrians affected by the conflict. This includes vaccination of all children no matter where they are, whether in government or contested areas of the country, or outside Syria.

:: SNIDs will start on 31 August in high-risk governorates of Syria where over the past several SIAs coverage has been lower than in other areas. Technical support is being maximized to these areas.

:: On 6-7 September, there will be a review of the Phase 2 outbreak response in the Middle East so far.

***West Africa***

:: Polio staff across West Africa are supporting efforts to control the Ebola outbreak affecting the region. The Ebola outbreak will impact the planned multi-country polio campaigns in September in the Ebola affected countries with campaigns in Liberia, Sierra Leone, and Guinea being postponed until the Ebola outbreak is brought under control. Preparations for large scale

multi-country campaigns in countries across the rest of West Africa in mid-September are proceeding as planned.

**UNICEF Watch** [to 23 August 2014]

[http://www.unicef.org/media/media\\_71724.html](http://www.unicef.org/media/media_71724.html)

[Mass Polio Vaccination Campaign Supported by WHO and UNICEF Kicks Off in Iraq](#)

ERBIL/AMMMAN, 11 August 2014 – Iraq has launched a polio immunization campaign aiming to protect over four million children under the age of 5 throughout the country against the crippling disease.

**Editor's Note:** See the abstract on important report on IPV efficacy in *Journal Watch* below:  
Science

22 August 2014 vol 345, issue 6199, pages 845-976

*Report*

[Efficacy of inactivated poliovirus vaccine in India](#)

The **Weekly Epidemiological Record (WER) 22 August 2014**, vol. 89, 34 (pp. 369–376) includes:

:: Summary analysis of 2014 survey of National Influenza Centres in the WHO Global Influenza Surveillance and Response System

<http://www.who.int/entity/wer/2014/wer8934.pdf?ua=1>

**WHO: Humanitarian Health Action** [to 23 August 2014]

:: [Kuwaiti aid to WHO improves health for Syrians affected by conflict](#)

21 August 2014, Geneva -- A US\$45 million donation to the World Health Organization from Kuwait has saved the lives and addressed the health needs of millions of people affected by the conflict in Syria, a new WHO report says.

The much needed funds have been used to provide essential health care in both government- and opposition-controlled areas within Syria, as well as in neighbouring countries struggling to cope with 2.9 million Syrians who have taken refuge in Egypt, Iraq, Jordan and Lebanon, Turkey.

In a final report to the Government of Kuwait on the use of its donation, WHO says it has served to provide several million people with critical medicines to treat life-threatening chronic conditions, such as renal failure, epilepsy, asthma and diabetes, and over 5 million of the sick or injured with medicines, anaesthetics and surgical supplies...

**CDC/MMWR Watch** [to 23 August 2014]

[http://www.cdc.gov/mmwr/mmwr\\_wk.html](http://www.cdc.gov/mmwr/mmwr_wk.html)

:: [Two U.S. Patients Recover from Ebola, Discharged from Hospital - Media Statement](#)

August 21, 2014

"CDC is heartened to learn that the two U.S. citizens treated at Emory University Hospital for Ebola have been discharged from the hospital and can rejoin their families and communities."

**MMWR Weekly - August 22, 2014 / Vol. 63 / No. 33**

- :: [Vaccine-Associated Paralytic Poliomyelitis and BCG-osis in an Immigrant Child with Severe Combined Immunodeficiency Syndrome — Texas, 2013](#)
- :: [Update on Recommendations for Use of Herpes Zoster Vaccine](#)

**GAVI Watch** [to 23 August 2014]

<http://www.gavialliance.org/library/news/press-releases/>

*No new digest content identified.*

**Global Fund Watch** [to 23 August 2014]

<http://www.theglobalfund.org/en/mediacenter/announcements/>

*No new digest content identified.*

**European Medicines Agency Watch** [to 23 August 2014]

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

*No new digest content identified.*

**Industry Watch** [to 23 August 2014]

Selected media releases and other selected content from industry.

:: [Pfizer Announces FDA Acceptance Of And Priority Review Designation For Biologics License Application For Investigational Meningococcal B Vaccine](#) August 14, 2014

:: [Merck Statement regarding Role of PNEUMOVAX® 23 \(Pneumococcal Vaccine Polyvalent\) in Updated ACIP Recommendations for Pneumococcal Vaccination in Adults](#) - August 13, 2014

:: [Advisory Committee on Immunization Practices Votes to Recommend Pfizer's Prevnar 13® Vaccine in Adults Aged 65 Years and Older](#) - August 13, 2014

**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)

**Let's Not Talk About Sex**

By PAUL A. OFFIT

The New York Times

The Opinion Pages | Op-Ed Contributor

AUG. 19, 2014

PHILADELPHIA — EVERY year in the United States thousands of men and women die from cancers that can be prevented with a simple vaccine. Sadly, uptake of this cancer-preventing vaccine is abysmal. One reason: Doctors don't want to talk about sex. The good news is, they don't have to.

In the past decade, the Centers for Disease Control and Prevention, in concert with the American Academy of Pediatrics, has recommended three vaccines for adolescents. One to

prevent meningococcus, which causes bloodstream infections and meningitis; another, given in a three-in-one shot called Tdap, to prevent tetanus, diphtheria and pertussis (whooping cough); and a third to prevent human papillomavirus (HPV), which causes several types of cancer.

In July, the C.D.C. announced the most recent results of its teenage immunization survey. Around 80 percent of adolescents now receive the meningococcal and Tdap vaccines. The HPV vaccine, however, is a different story. Only 57 percent of girls had started the three-dose series; 38 percent had finished it. In boys, for whom the vaccine was recommended a few years ago, 35 percent had started and 14 percent had finished the series.

"It's frustrating to report almost the same HPV vaccination coverage levels among girls for another year," said Dr. Anne Schuchat, director of the National Center for Immunization and Respiratory Diseases at the C.D.C., in a statement.

Why are adolescents and their parents embracing meningococcal and Tdap vaccines but not the HPV vaccine? One possible explanation is a clash between perception and reality. People just don't understand how serious an infection HPV can be. In a typical year in the United States about 150 people die from meningococcus, four from tetanus, none from diphtheria, 20 from pertussis, and roughly 4,000 from cancers caused by HPV. People are more than 20 times more likely to die from HPV than from the other four diseases combined.

About 79 million people in the United States have been infected with HPV, and 14 million new infections occur every year. As a consequence, 18,000 women and 8,000 men suffer preventable cancers of the cervix, anus, penis and throat; it's the most common, and except for H.I.V., the most fatal sexually transmitted disease.

Another common misperception is that the HPV vaccine is ineffective and immunity is short-lived. But the truth is that the HPV vaccine is virtually 100 percent effective at preventing the precancerous lesions caused by the types of HPV contained in the vaccine, which would most likely prevent most cervical cancers. Regarding how long immunity will last, the HPV vaccine is made in the same manner as the hepatitis B vaccine, for which immunity lasts at least 30 years. Immunity provided by the HPV vaccine is likely to be no different.

Further, some high-profile — and highly irresponsible — claims have been made that the vaccine is unsafe. The HPV vaccine has now been studied in more than a million women to determine whether it causes any serious side effects. It doesn't. There is no scientific support for the suggestion by the onetime presidential hopeful Michele Bachmann that the HPV vaccine could cause "mental retardation," or for Katie Couric's giving voice to the notion that it may have caused illnesses and death.

Finally, some fear that the HPV vaccine may increase sexual promiscuity. A study of 1,243 young women and girls between the ages of 15 and 24 alleviated this concern. Those who received the HPV vaccine were not more likely to engage in risky sexual behavior. Nor did it make sense that they would. The HPV vaccine doesn't prevent other sexually transmitted diseases, like chlamydia, gonorrhea, herpes and syphilis. Indeed, the HPV vaccine doesn't even prevent all types of HPV, just the majority of those most likely to cause cancer. This argument would be analogous to the claim that people who received a tetanus vaccine could run across a bed of rusty nails with impunity.

When the C.D.C.'s Dr. Schuchat stood in front of the media in July and analyzed the woeful rates of HPV vaccination, she didn't mention any of these misperceptions. Rather, she offered something else. Adolescents weren't getting the HPV vaccine because doctors weren't recommending it strongly enough. In fact, one of the top reasons parents gave for not vaccinating was the lack of a recommendation from their health care providers. A likely reason: Doctors are uncomfortable talking about sex with 11-year-olds. So, what to do? How do we separate "the sex talk" from the first dose of HPV vaccine?

Amy B. Middleman, chief of adolescent medicine at the University of Oklahoma College of Medicine offers one solution in the coming NOVA television special “Vaccines — Calling the Shots”: Don’t talk about sex. “The sex part,” says Dr. Middleman, “the way in which you get the target disease, is irrelevant. We don’t talk about diphtheria, and how you can get diphtheria, before we give the Tdap vaccine.” In other words, it’s not about sex. It’s about cancer.

The fact remains that millions of adolescents aren’t getting a vaccine to prevent a known cause of cancer. It takes about 20 years for an HPV infection to progress to cancer. That’s when the bill is due. Given current rates of immunization, somewhere around 2,000 adults every year whose parents had chosen not to give them the HPV vaccine will probably die from a preventable cancer. It’s unconscionable. And doctors will have only themselves to blame.

*Paul A. Offit is a professor of pediatrics in the division of infectious diseases, and director of the Vaccine Education Center, at the Children’s Hospital of Philadelphia.*

## **The Cost of Inaction for Young Children Globally - Workshop Summary**

IOM

August 20, 2014

The Forum on Investing in Young Children Globally, which has now launched, went through a yearlong planning process with initial planning grants by the Bernard Van Leer Foundation and the Doris Duke Charitable Foundation. The first planning meeting took place in March 2013 and the second one in June 2013. Out of those two meetings and discussions with multiple leaders in the field, most of whom are here today, came the vision, objectives, and goals for the Forum on Investing in Young Children Globally.

The Board on Children, Youth, and Families of the Institute of Medicine (IOM) and the National Research Council (NRC), in collaboration with the IOM Board on Global Health launched the Forum on Investing in Young Children Globally in January 2014. At this [meeting](#) the participants agreed to focus on creating and sustaining, over 3 years, an evidence-driven community of stakeholders across northern and southern countries that aims to explore existing, new, and innovative science and research from around the world and translate this evidence into sound and strategic investments in policies and practices that will make a difference in the lives of children and their caregivers. Forum activities will highlight the science and economics of integrated investments in young children living in low-resourced regions of the world across the areas of health, nutrition, education, and social protection. As a result the forum will explore a holistic view of children and caregivers by integrating analyses and disciplines that span from neurons to neighborhoods and discuss the science from the microbiome to culture. Moreover, the forum will support an integrative vision to strengthen human capital. This work will be done through the forum and will engage in a series of stakeholder consultative sessions or public workshops, each focusing on specific aspects of science integration, bridging equity gaps, and implementing and scaling evidence-informed efforts.

Report pdf:

[https://download.nap.edu/login.php?record\\_id=18845&page=%2Fdownload.php%3Frecord\\_id%3D18845](https://download.nap.edu/login.php?record_id=18845&page=%2Fdownload.php%3Frecord_id%3D18845)

## **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)*

### **The American Journal of Bioethics**

Volume 14, Issue 9, 2014

<http://www.tandfonline.com/toc/uajb20/current>

*New Issue: focused on minimal risk in research involving children.*

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

Volume 42, Issue 8, p819-940 August 2014

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

[Reviewed earlier]

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

Volume 47, Issue 2, p105-232, e3-e6 August 2014

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

[Reviewed earlier]

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

Volume 104, Issue 8 (August 2014)

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

[Reviewed earlier]

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

August 2014; 91 (2)

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

[Reviewed earlier]

### **Annals of Internal Medicine**

19 August 2014, Vol. 161. No. 4

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

[New issue; No relevant content]

### **BMC Health Services Research**

(Accessed 23 August 2014)

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



[No new relevant content]

### **BMC Infectious Diseases**

(Accessed 23 August 2014)

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

#### ***Research article***

#### **[An epidemiological analysis of acute flaccid paralysis and its surveillance system in Iraq, 1997-2011](#)**

Jagar A Jasem, Kawa Marof, Adnan Nawar, Yosra Khalaf, Faisal Al-Hamdani, Sagvan Ali, Andre C Kalil and KM Monirul Islam

#### Author Affiliations

BMC Infectious Diseases 2014, 14:448 doi:10.1186/1471-2334-14-448

Published: 20 August 2014

#### *Abstract* (provisional)

##### Background

Acute flaccid paralysis surveillance (AFP) is an essential strategy of the WHO's Polio Eradication Initiative. This is the first study conducted to estimate the incidence, etiology, distribution, and surveillance performance of AFP in Iraq.

##### Methods

Surveillance data about the AFP cases under the age of 15 years reported from Iraq during January 1997 to December 2011 were depended in the current study.

##### Results

A total of 4974 cases of AFP were reported from Iraq during the study period, with an annual incidence of 2.5/100,000 population. Guillain-Barre syndrome represented more than half of the reported cases (N = 2611, 52.5%), followed by traumatic neuritis (N = 715, 14.4%), and other CNS infections (N = 292, 5.9%). Poliomyelitis accounted for 166 (3.3%) of cases, the last reported case being in January 2000. Surveillance performance showed that all, but two, indicators were below the required WHO recommended levels.

##### Conclusions

AFP surveillance remains the gold standard method for poliomyelitis detection. It witnessed dramatic changes over the last two decades. This has raised people's and clinicians' awareness to the importance of promptness in notifying suspected cases and timely transportation of stool specimens to the National Poliovirus Laboratory in Baghdad, or alternatively having more than one laboratory for poliovirus detection in the country, all of which are very useful measures to increase the surveillance performance in the country.

### **BMC Medical Ethics**

(Accessed 23 August 2014)

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

[No new relevant content]

### **BMC Public Health**

(Accessed 23 August 2014)

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

#### ***Research article***

## [\*\*HPV catch-up vaccination of young women: a systematic review and meta-analysis\*\*](#)

Elisabeth Couto, Ingvil Sæterdal, Lene Kristine Juvet and Marianne Klemp

### Author Affiliations

BMC Public Health 2014, 14:867 doi:10.1186/1471-2458-14-867

Published: 23 August 2014

*Abstract* (provisional)

### Background

While prophylactic human papilloma virus (HPV) vaccination is considered effective in young girls, it is unclear whether a catch-up vaccination of older girls would be beneficial. We, therefore, aimed to examine the potential health impact of a HPV catch-up vaccination of girls who were too old at the time of vaccine introduction, hence aged 16 and older.

### Methods

We systematically searched the literature for randomized clinical trials (RCTs) that examined the effect of HPV vaccines on overall mortality, cancer mortality and incidence, high-grade cervical intraepithelial neoplasia grade 2 and higher (CIN2+), vulvar intraepithelial neoplasia (VIN) and vaginal intraepithelial neoplasia (VaIN) grade 2 and higher lesions (VIN2+ and VaIN2+, respectively) genital warts (condyloma). We considered all lesions and those associated with HPV type(s) included in the vaccines. RCTs reporting on serious adverse events were also eligible. Selected publications were assessed for potential risk of bias, and we ascertained the overall quality of the evidence for each outcome using Grading of Recommendations Assessment, Development and Evaluation (GRADE). Meta-analyses were performed, assuming both random and fixed effects, to estimate risk ratios (RR) and corresponding 95% confidence intervals (CI), using intention-to-treat and per-protocol populations.

### Results

We included 46 publications reporting on 13 RCTs. Most of the RCTs had a maximum follow-up period of four years. We identified no RCT reporting on the effect of HPV catch vaccination on overall and cancer related mortality, and on cervical cancer incidence. We found a borderline protective effect of a HPV catch-up vaccination on all CIN2+, with a pooled RR of 0.80 (95% CI: 0.62-1.02) for a follow-up period of 4 years. A HPV catch-up vaccination was associated with a reduction in VIN2+ and VaIN2+ lesions, and condyloma. No difference in risk of serious adverse events was seen in vaccinated participants versus unvaccinated women (pooled RR of 0.99 (0.91-1.08)).

### Conclusions

This systematic review indicates that a HPV catch-up vaccination could be beneficial, however the long-term effect of such a vaccination, and its effect on cervical cancer incidence and mortality is still unclear.

### ***Research article***

## [\*\*Preparing for human papillomavirus vaccine introduction in Kenya: implications from focus-group and interview discussions with caregivers and opinion leaders in Western Kenya\*\*](#)

Allison L Friedman, Kelvin O Oruko, Melissa A Habel, Jessie Ford, Jennine Kinsey, Frank Odhiambo, Penelope A Phillips-Howard, Susan A Wang, Tabu Collins, Kayla F Laserson and Eileen F Dunne

### Author Affiliations

BMC Public Health 2014, 14:855 doi:10.1186/1471-2458-14-855

Published: 16 August 2014

*Abstract* (provisional)

### Background

Cervical cancer claims the lives of 275,000 women each year; most of these deaths occur in low-or middle-income countries. In Kenya, cervical cancer is the leading cause of cancer-related mortality among women of reproductive age. Kenya's Ministry of Public Health and Sanitation has developed a comprehensive strategy to prevent cervical cancer, which includes plans for vaccinating preteen girls against human papillomavirus (HPV) by 2015. To identify HPV vaccine communication and mobilization needs, this research sought to understand HPV vaccine-related perceptions and concerns of male and female caregivers and community leaders in four rural communities of western Kenya.

#### Methods

We conducted five focus groups with caregivers (n = 56) and 12 key-informant interviews with opinion leaders to explore cervical cancer-related knowledge, attitudes and beliefs, as well as acceptability of HPV vaccination for 9-12 year-old girls. Four researchers independently reviewed the data and developed codes based on questions in interview guides and topics that emerged organically, before comparing and reconciling results through a group consensus process.

#### Results

Cervical cancer was not commonly recognized, though it was understood generally in terms of its symptoms. By association with cancer and genital/reproductive organs, cervical cancer was feared and stigmatized. Overall acceptability of a vaccine that prevents cervical cancer was high, so long as it was endorsed by trusted agencies and communities were sensitized first. Some concerns emerged related to vaccine safety (e.g., impact on fertility), program intent, and health equity.

#### Conclusion

For successful vaccine introduction in Kenya, there is a need for communication and mobilization efforts to raise cervical cancer awareness; prompt demand for vaccination; address health equity concerns and stigma; and minimize potential resistance. Visible endorsement by government leaders and community influencers can provide reassurance of the vaccine's safety, efficacy and benefits for girls and communities. Involvement of community leadership, parents and champions may also be critical for combatting stigma and making cervical cancer relevant to Kenyan communities. These findings underscore the need for adequate planning and resources for information, education and communication prior to vaccine introduction. Specific recommendations for communication and social-marketing strategies are made.

#### **BMC Research Notes**

(Accessed 23 August 2014)

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

[No new relevant content]

#### **British Medical Journal**

16 August 2014(vol 349, issue 7971)

<http://www.bmj.com/content/349/7971>

[No relevant content]

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

Volume 92, Number 8, August 2014, 545-620

<http://www.who.int/bulletin/volumes/92/8/en/>

### **Editorial**

#### **Family planning and the post-2015 development agenda**

Tricia Petruney, Lucy C Wilson, John Stanback & Willard Cates

doi: 10.2471/BLT.14.142893

#### **Varicella and herpes zoster hospitalizations before and after implementation of one-dose varicella vaccination in Australia: an ecological study**

Anita E Heywood, Han Wang, Kristine K Macartney & Peter McIntyre

##### *Abstract*

##### Objective

To examine trends in varicella and herpes zoster (HZ) hospitalization following the availability and subsequent National Immunization Programme funding of one-dose varicella vaccination in Australia.

##### Methods

Varicella vaccination coverage for children born between 2001 and 2009 was obtained from the Australian Childhood Immunization Register. Principal or any coded varicella or HZ hospitalizations were retrieved from the national hospital morbidity database from 1998 to 2010. Trends in hospitalization rates in different age groups and indigenous status were assessed. Incidence rate ratios (IRR) were calculated between periods before and after implementation of immunization programme funding.

##### Findings

In the first year of the funded immunization programme, varicella vaccine coverage reached 75% in children aged 24 months and more than 80% in children aged 60 months. Compared with the pre-vaccine period, varicella hospitalization rates during the funded programme were significantly lower for age groups younger than 40 years; with the greatest reduction in children aged 18–59 months (IRR: 0.25; 95% confidence interval, CI: 0.22–0.29). Indigenous children had a higher varicella hospitalization rate compared with non-indigenous children before vaccine implementation (IRR: 1.9; 95% CI: 1.4–2.7), but afterwards reached equivalence (IRR: 1.1; 95% CI: 0.7–1.6). The age-standardized HZ hospitalization rate declined between the periods (IRR: 0.95; 95% CI: 0.92–0.97).

##### Conclusion

Rapid attainment of high coverage reduced varicella hospitalizations in the targeted age group, particularly for indigenous children, but also in non-targeted age groups, with no increase in HZ hospitalizations. This suggests high one-dose varicella vaccine coverage can have a substantial impact on severe disease.

#### **A prospective study of maternal, fetal and neonatal deaths in low- and middle-income countries**

Sarah Saleem, Elizabeth M McClure, Shivaprasad S Goudar, Archana Patel, Fabian Esamai, Ana Garces, Elwyn Chomba, Fernando Althabe, Janet Moore, Bhalachandra Kodkany, Omrana Pasha, Jose Belizan, Albert Mayansyan, Richard J Derman, Patricia L Hibberd, Edward A Liechty, Nancy F Krebs, K Michael Hambidge, Pierre Buekens, Waldemar A Carlo, Linda L Wright, Marion Koso-Thomas, Alan H Jobe, Robert L Goldenberg & on behalf of the Global Network Maternal Newborn Health Registry Study Investigators

##### *Abstract*

##### Objective

To quantify maternal, fetal and neonatal mortality in low- and middle-income countries, to identify when deaths occur and to identify relationships between maternal deaths and stillbirths and neonatal deaths.

## Methods

A prospective study of pregnancy outcomes was performed in 106 communities at seven sites in Argentina, Guatemala, India, Kenya, Pakistan and Zambia. Pregnant women were enrolled and followed until six weeks postpartum.

## Findings

Between 2010 and 2012, 214 070 of 220 235 enrolled women (97.2%) completed follow-up. The maternal mortality ratio was 168 per 100 000 live births, ranging from 69 per 100 000 in Argentina to 316 per 100 000 in Pakistan. Overall, 29% (98/336) of maternal deaths occurred around the time of delivery: most were attributed to haemorrhage (86/336), pre-eclampsia or eclampsia (55/336) or sepsis (39/336). Around 70% (4349/6213) of stillbirths were probably intrapartum; 34% (1804/5230) of neonates died on the day of delivery and 14% (755/5230) died the day after. Stillbirths were more common in women who died than in those alive six weeks postpartum (risk ratio, RR: 9.48; 95% confidence interval, CI: 7.97–11.27), as were perinatal deaths (RR: 4.30; 95% CI: 3.26–5.67) and 7-day (RR: 3.94; 95% CI: 2.74–5.65) and 28-day neonatal deaths (RR: 7.36; 95% CI: 5.54–9.77).

## Conclusion

Most maternal, fetal and neonatal deaths occurred at or around delivery and were attributed to preventable causes. Maternal death increased the risk of perinatal and neonatal death. Improving obstetric and neonatal care around the time of birth offers the greatest chance of reducing mortality.

## **Clinical Infectious Diseases (CID)**

Volume 59 Issue 5 September 1, 2014

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

### **[Risk of Pneumococcal Disease in Children With Chronic Medical Conditions in the Era of Pneumococcal Conjugate Vaccine](#)**

Clin Infect Dis. (2014) 59 (5): 615-623 doi:10.1093/cid/ciu348

Stephen I. Pelton, Derek Weycker, Raymond A. Farkouh, David R. Strutton, Kimberly M. Shea, and John Edelsberg

#### *Abstract*

Children with previously identified at-risk/high-risk conditions remain at elevated risk of pneumococcal disease in the era of widespread use of pneumococcal conjugate vaccine. Children with multiple at-risk conditions or moderate/severe asthma also are at elevated risk and warrant consideration for immunoprophylaxis

## **Clinical Therapeutics**

Volume 36, Issue 8, p1127-1314 August 2014

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

[New issue; No new relevant content]

## **Cost Effectiveness and Resource Allocation**

(Accessed 23 August 2014)

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

[No new relevant content]

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

August 2014 - Volume 27 - Issue 4 pp: v-vi, 303-401

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

[Reviewed earlier]

### **Developing World Bioethics**

August 2014 Volume 14, Issue 2 Pages ii–viii, 59–110

<http://onlinelibrary.wiley.com/doi/10.1111/dewb.2014.14.issue-2/issuetoc>

[Reviewed earlier]

### **Development in Practice**

Volume 24, Issue 4, 2014

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

**Special issue on climate change adaptation and development**

### **Emerging Infectious Diseases**

Volume 20, Number 9—September 2014

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

[New issue; No relevant content]

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

Volume 24 Issue 4 August 2014

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

[Reviewed earlier]

### **Eurosurveillance**

Volume 19, Issue 33, 21 August 2014

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

[New issue; No relevant content]

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

August 2014 | Volume 2 | Issue 3

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

**[Evidence-based public health: not only whether it works, but how it can be made to work practicably at scale](#)**

James D Shelton

Glob Health Sci Pract 2014;2(3):253-258.

<http://dx.doi.org/10.9745/GHSP-D-14-00066>

Because public health must operate at scale in widely diverse, complex situations, randomized controlled trials (RCTs) have limited utility for public health. Other methodologies are needed. A key conceptual backbone is a detailed “theory of change” to apply appropriate evidence for

each operational component. Synthesizing patterns of findings across multiple methodologies provides key insights. Programs operating successfully across a variety of settings can provide some of the best evidence. Challenges include judging the quality of such evidence and assisting programs to apply it. WHO and others should shift emphasis from RCTs to more relevant evidence when assessing public health issues.

### **[Combating trafficking in persons: a call to action for global health professionals](#)**

Luis CdeBaca, Jane Nady Sigmon

Glob Health Sci Pract 2014;2(3):261-267. First published online July 8, 2014.

<http://dx.doi.org/10.9745/GHSP-D-13-00142>

Health care professionals can help identify victims of human trafficking, who commonly come into contact with providers during captivity. Providers can also help restore the physical and mental health of trafficking survivors. Training should focus on recognizing trafficking signs, interviewing techniques, and recommended responses when a victim is identified

### **[Maximizing the benefits of improved cookstoves: moving from acquisition to correct and consistent use](#)**

Anita Shankar, Michael Johnson, Ethan Kay, Raj Pannu, Theresa Beltramo, Elisa Derby, Stephen Harrell, Curt Davis, Helen Petach

Glob Health Sci Pract 2014;2(3):268-274. First published online July 22, 2014.

<http://dx.doi.org/10.9745/GHSP-D-14-00060>

The adoption of clean cooking technologies goes beyond mere product acquisition and requires attention to issues of cooking traditions, user engagement, gender dynamics, culture, and religion to effect correct and consistent use.

### **[Development and use of a master health facility list: Haiti's experience during the 2010 earthquake response](#)**

[Alyson Rose-Wooda](#), [Nathan Heard](#), [Roody Thermidor](#), [Jessica Chand](#), [Fanor Josephe](#), [Gerald Lerebourse](#), [Antonio Zugaldia](#), [Kimberly Konkelf](#), [Michael Edwardse](#), [Bill Langg](#), [Carmen-Rosa Torresa](#)

Author Affiliations

aU.S. Department of Health and Human Services, Office of Global Affairs, Washington, DC., USA

bU.S. Department of State, Humanitarian Information Unit, Washington, DC., USA

cMinistère de la Santé Publique et de la Population, Unité de Planification et d'Evaluation, Port-au-Prince., Haiti

dPan American Health Organization, Emergency Operations Center, Washington, DC., USA

eMEASURE Evaluation, Chapel Hill, NC., USA

fU.S. Department of Health and Human Services, Center for Faith-Based and Neighborhood Partnerships, Washington, DC., USA

gShoreland, Inc., Arlington, VA., USA

*Collaboration between the Haitian government and NGOs after the 2010 earthquake contributed to a more accurate and complete master health facility list, which helped coordinate emergency response operations as well as strengthen the routine health information system. Open data and social networks facilitated the collection and sharing of health facility information and in maintenance of the list over time.*

ABSTRACT

Master health facility lists (MHFLs) are gaining attention as a standards-based means to uniquely identify health facilities and to link facility-level data. The ability to reliably communicate information about specific health facilities can support an array of health system functions, such as routine reporting and emergency response operations. MHFLs support the alignment of donor-supported health information systems with county-owned systems. Recent



World Health Organization draft guidance promotes the utility of MHFLs and outlines a process for list development and governance. Although the potential benefits of MHFLs are numerous and may seem obvious, there are few documented cases of MHFL construction and use. The international response to the 2010 Haiti earthquake provides an example of how governments, nongovernmental organizations, and others can collaborate within a framework of standards to build a more complete and accurate list of health facilities. Prior to the earthquake, the Haitian Ministry of Health (Ministère de la Santé Publique et de la Population [MSPP]) maintained a list of public-sector health facilities but lacked information on privately managed facilities. Following the earthquake, the MSPP worked with a multinational group to expand the completeness and accuracy of the list of health facilities, including information on post-quake operational status. This list later proved useful in the response to the cholera epidemic and is now incorporated into the MSPP's routine health information system. Haiti's experience demonstrates the utility of MHFL formation and use in crisis as well as in the routine function of the health information system.

### **Globalization and Health**

[Accessed 23 August 2014]

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

[No new relevant content]

### **Global Health Governance**

[Accessed 23 August 2014]

<http://blogs.shu.edu/ghg/category/complete-issues/summer-2013/>

[No new relevant content]

### **Global Public Health**

Volume 9, Supplement 1, 2014

<http://www.tandfonline.com/toc/rgph20/.Uq0DgeKy-F9#.U4onnCjDU1w>

*This Special Supplement is dedicated to all the Afghan and international health workers who sacrificed their lives during the rebuilding of the Afghan health system.*

[Reviewed earlier]

### **Health Affairs**

August 2014; Volume 33, Issue 8

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

*Theme: Variety Issue*

[New issue; No relevant content]

### **Health and Human Rights**

Volume 16, Issue 1

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

*Climate Justice and the Right to Health – A Special Issue*

[Reviewed earlier]



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

Volume 9 - Issue 03 - July 2014

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

[Reviewed earlier]

## **Health Policy and Planning**

Volume 29 Issue 5 August 2014

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

[New issue; No relevant content]

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

August 2014 Volume 10, Issue 8

<http://www.landesbioscience.com/journals/vaccines/toc/volume/10/issue/8/>

### ***Commentary***

#### **[Do current cost-effectiveness analyses reflect the full value of childhood vaccination in Europe?: A rotavirus case study](#)**

Bernd Brüggengjürgen, Mathie Lorrot, Fiona R Sheppard and Vanessa Rémy

#### ***Abstract***

Economic evaluation of vaccination programs can be challenging and does not always fully capture the benefits provided. Reasons for this include the difficulties incurred in accurately capturing the health and economic impact of infectious diseases and how different diseases may interact with each other. Rotavirus infection, for example, peaks at a similar time than other infectious diseases, such as RSV and influenza, which can cause hospital overcrowding and disruption, and may pose a risk to more vulnerable children due to limited availability of isolation facilities. Another challenge, specific to evaluating childhood vaccination, is that QoL cannot be accurately measured in children due to a lack of validated instruments. Childhood diseases also incur a care giver burden, due to the need for parents to take time off work, and this is important to consider. Finally, for diseases such as RVGE, cost-effectiveness analyses in which longer time horizons are considered may not reflect the short-term benefits of vaccination. Further quantification of the economic impact of childhood diseases is thus required to fully highlight the true benefits of childhood vaccination that may be realized. Herein we explore the limitations of existing economic evaluations for childhood vaccination, and how economic analyses could be better adapted in future.

### ***Short Report***

#### **[Inequalities in vaccination coverage for young females whose parents are informal caregivers](#)**

Tabatha N Offutt-Powell, Rohit P Ojha, Tara M Brinkman, Joseph E Tota, Bradford E Jackson, Karan P Singh and Jennifer S Smith

#### ***Abstract***

The effects of caregiver strain and stress on preventive health service utilization among adult family members are well-established, but the effects of informal caregiving on children of caregivers are unknown. We aimed to assess whether inequalities in vaccination coverage (specifically human papillomavirus [HPV] and influenza) exist for females aged 9 to 17 years whose parents are informal caregivers (i.e., care providers for family members or others who

are not functionally independent) compared with females whose parents are not informal caregivers. Data from the 2009 Behavioral Risk Factor Surveillance System were analyzed using Poisson regression with robust variance to estimate overall and subgroup-specific HPV and influenza vaccination prevalence ratios (PRs) and corresponding 95% confidence limits (CL) comparing females whose parents were informal caregivers with females whose parents were not informal caregivers. Our unweighted study populations comprised 1645 and 1279 females aged 9 to 17 years for the HPV and influenza vaccination analyses, respectively. Overall, both HPV and influenza vaccination coverage were lower among females whose parents were informal caregivers (HPV: PR = 0.72, 95% CL: 0.53, 0.97; Influenza: PR = 0.89, 95% CL: 0.66, 1.2). Our results suggest consistently lower HPV and influenza vaccination coverage for young females whose parents are informal caregivers. Our study provides new evidence about the potential implications of caregiving on the utilization of preventive health services among children of caregivers.

### ***Research Paper***

#### **Safety and immunogenicity of pentavalent rotavirus vaccine in a randomized, double-blind, placebo-controlled study in healthy elderly subjects**

Jody Lawrence, Su He, Jason Martin, Florian Schödel, Max Ciarlet and Alexander V Murray

#### ***Abstract***

Rotavirus may be an important causative agent of acute gastroenteritis (AGE) in the elderly, a population that is particularly vulnerable due to waning immunity. It is estimated that rotavirus may account for 2–5% of adult gastroenteritis hospitalizations in the United States. This is the first study to assess the safety and immunogenicity of the live pentavalent rotavirus vaccine (RV5) in an elderly population. In this study, healthy, independently living adults aged 65–80 years were randomized in a 2:1 ratio to receive three 2-mL oral doses of RV5 or placebo administered 28–42 days apart. All subjects were followed for safety for 42 days post any vaccination and up to 180 days after the final vaccination for clinical adverse events.

Immunogenicity of RV5 was measured by serum anti-rotavirus IgA enzyme immunoassay and serum neutralizing antibody responses to human rotavirus serotypes prior to and after each dose. Results of this study demonstrated that RV5 was generally safe and well tolerated in healthy elderly adults, where 9% of placebo and 27% of RV5 recipients experienced a vaccine-related adverse event of mild or moderate intensity. Immune responses (serum anti-rotavirus immunoglobulin A [IgA] and serum neutralizing antibodies against human rotavirus serotypes in the vaccine) were augmented in this population after a single dose of RV5, despite the factors of older age and preexisting antibodies to the virus. Therefore, if vaccination in the elderly is needed, further evaluation of RV5 as a candidate vaccine in this age group may be warranted.

### ***Research Paper***

#### **Knowledge of and attitudes to influenza in unvaccinated primary care physicians and nurses: A cross-sectional study**

Angela Domínguez, Pere Godoy, Jesús Castilla Catalán, José María Mayoral, Núria Soldevila, Nuria Torner, Diana Toledo, Jenaro Astray, Sonia Tamames, Susana García-Gutiérrez, Fernando González-Candelas, Vicente Martín, José Díaz, the CIBERESP Working Group and for the Survey on Influenza Vaccination in Primary Health Care Workers

#### ***Abstract***

Primary healthcare workers, especially nurses, are exposed to the vast majority of patients with influenza and play an important role in vaccinating patients. Healthcare workers' misconceptions about influenza and influenza vaccination have been reported as possible factors associated with lack of vaccination. The objective of this study was to compare the characteristics of unvaccinated physicians and unvaccinated nurses in the 2011–2012 influenza season. We

performed an anonymous web survey of Spanish primary healthcare workers in 2012. Information was collected on vaccination and knowledge of and attitudes to the influenza vaccine. Multivariate analysis was performed using unconditional logistic regression. We included 461 unvaccinated physicians and 402 unvaccinated nurses. Compared with unvaccinated nurses, unvaccinated physicians had more frequently received seasonal influenza vaccination in the preceding seasons (aOR 1.58; 95% CI 1.11–2.25), and more frequently believed that vaccination of high risk individuals is effective in reducing complications (aOR 2.53; 95% CI 1.30–4.95) and that influenza can be a serious illness (aOR 1.65; 95% CI 1.17–2.32). In contrast, unvaccinated physicians were less concerned about infecting patients (aOR 0.62; 95% CI 0.40–0.96). Unvaccinated nurses had more misconceptions than physicians about influenza and the influenza vaccine and more doubts about the severity of annual influenza epidemics in patients with high risk conditions and the prevention of complications by means of the influenza vaccination. For unvaccinated physicians, strategies to improve vaccination coverage should stress the importance of physicians as a possible source of infection of their patients. The effectiveness of influenza vaccination of high risk persons should be emphasized in nurses.

### ***Research Paper***

### **Cost-effectiveness of hepatitis A vaccination in Indonesia**

Auliya A Suwantika, Philippe Beutels and Maarten J Postma

#### ***Abstract***

#### **Objective**

This study aims to assess the cost-effectiveness of hepatitis A immunization in Indonesia, including an explicit comparison between one-dose and two-dose vaccines.

#### **Methods**

An age-structured cohort model based on a decision tree was developed for the 2012 Indonesia birth cohort. Using the model, we made a comparison on the use of two-dose and one-dose vaccines. The model involved a 70-year time horizon with 1-month cycles for children less than 2-years-old and annually thereafter. Monte Carlo simulations were used to examine the economic acceptability and affordability of the hepatitis A vaccination.

#### **Results**

Vaccination would save US\$ 3 795 148 and US\$ 2 892 920 from the societal perspective, for the two-dose and one-dose vaccine schedules, respectively, in the context of hepatitis A treatment. It also would save 8917 and 6614 discounted quality-adjusted-life-years (QALYs), respectively. With the vaccine price of US\$ 3.21 per dose, the implementation of single dose vaccine would yield an incremental cost-effectiveness ratio (ICER) of US\$ 4933 per QALY gained versus no vaccination, whereas the two-dose versus one-dose schedule would cost US\$ 14 568 per QALY gained. Considering the 2012 gross-domestic-product (GDP) per capita in Indonesia of US\$ 3557, the results indicate that hepatitis A vaccination would be a cost-effective intervention, both for the two-dose and one-dose vaccine schedules in isolation, but two-dose vaccination would no longer be cost-effective if one-dose vaccination is a feasible option. Vaccination would be 100% affordable at budgets of US\$ 71 408 000 and US\$ 37 690 000 for the implementation of the two-dose and one-dose vaccine schedules, respectively.

#### **Conclusions**

The implementation of hepatitis A vaccination in Indonesia would be a cost-effective health intervention under the market vaccine price. Given the budget limitations, the use of a one-dose-vaccine schedule would be more realistic to be applied than a two-dose schedule. The vaccine price, mortality rate and discount rate were the most influential parameters impacting the ICERs.

## **Research Paper**

### **Parents' attitude toward multiple vaccinations at a single visit with alternative delivery methods**

Patricia Kaaijk, Deborah E Kleijne, Mirjam J Knol, Irene A Harmsen, Olga JAE Ophorst and Nynke Y Rots

#### **Abstract**

Last decades, the number of routine childhood vaccinations has increased considerably, which consequently has led to multiple vaccine injections per consultation. Implementation of additional vaccines will probably lead to more than 2 vaccine injections per consult, which might be a barrier for parents to vaccinate their child. A decrease in vaccination coverage, however, increases the risk of disease outbreaks. Less stressful alternative methods for vaccine delivery might lead to an increased acceptance of multiple childhood vaccinations by parents. The present questionnaire study was set up to explore the maximum number of vaccine injections per visit that is acceptable for parents, as well as to gauge parents' attitude toward alternative needle-free methods for vaccine delivery. For this purpose, the parents' opinion toward a jet injector, a patch, a microneedle system, and nasal spray device as methods for vaccine delivery was assessed. The majority of the 1154 participating parents indicated that 3 vaccine injections per visit was perceived as too much. Most participants had a positive attitude with respect to the jet injector and the patch as alternative vaccine delivery method, whereas the microneedle device and an intranasal spray device were not perceived as better than the conventional syringe by the parents. Parents indicated that both the jet injector and the patch might increase their acceptance of giving their children more than 2 vaccinations at the same time. This should encourage vaccine developers and manufacturers to put efforts in developing these delivery methods for their vaccines.

## **Infectious Agents and Cancer**

[Accessed 23 August 2014]

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

[No new relevant content]

## **Infectious Diseases of Poverty**

[Accessed 23 August 2014]

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

## **International Journal of Epidemiology**

Volume 43 Issue 4 August 2014

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

[New issue; No relevant content]

## **International Journal of Infectious Diseases**

Vol 25 Complete | August 2014 | Pages 1-206

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

[Reviewed earlier]

## **JAMA**

August 20, 2014, Vol 312, No. 7

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

Editorial | August 13, 2014

### **Meta-analysis as Evidence Building a Better Pyramid**

Jesse A. Berlin, ScD1; Robert M. Golub, MD2

JAMA. 2014;312(6):603-605. doi:10.1001/jama.2014.8167.

*Initial text*

In following the practice of evidence-based medicine, when faced with a question about prevention or treatment the clinician should seek out the best evidence that addresses the question. If quality of evidence is considered a pyramid, what category should be placed at the peak? One dogma argues that it is the best-conducted randomized clinical trial (RCT) comprising patients similar to those seen by the clinician, reasoning that a well-done RCT mimics pure experimental conditions better than any other study design, hence minimizing the likelihood of confounding. A counterargument is that the best evidence is a systematic review with meta-analysis, because this approach can integrate all of the relevant evidence and provide a more reliable answer than a single study, however well conducted....

## **JAMA Pediatrics**

August 2014, Vol 168, No. 8

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

[New issue; No relevant content]

## **Journal of Community Health**

Volume 39, Issue 4, August 2014

<http://link.springer.com/journal/10900/39/4/page/1>

[Reviewed earlier]

## **Journal of Global Ethics**

Volume 10, Issue 1, 2014

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

### **Tenth Anniversary Forum: The Future of Global Ethics**

[Reviewed earlier]

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

July-September 2014 Volume 6 | Issue 3 Page Nos. 93-137

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

[New issue; No relevant content]

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

Volume 25, Number 2, May 2014

[http://muse.jhu.edu/journals/journal\\_of\\_health\\_care\\_for\\_the\\_poor\\_and\\_underserved/toc/hpu.25.2.html](http://muse.jhu.edu/journals/journal_of_health_care_for_the_poor_and_underserved/toc/hpu.25.2.html)

THEMES: Linguistically-Identified Populations and Health Care Settings  
[Reviewed earlier]

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

Volume 28 issue 4 - Latest Issue

<http://www.emeraldinsight.com/journals.htm?issn=1477-7266&show=latest>

[Reviewed earlier]

### **Journal of Immigrant and Minority Health**

Volume 16, Issue 4 – August 2014

<http://link.springer.com/journal/10903/16/4/page/1>

*Special Focus: Health Care Barriers, Access, Quality, and Utilization*

[Reviewed earlier]

### **Journal of Infectious Diseases**

Volume 210 Issue 6 September 15, 2014

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

#### **Prevalence of Human Papillomavirus Infection in Adolescent Girls Before Reported Sexual Debut**

Jennifer S. Smith

Author Affiliations

Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina, and Cervical Cancer Free Coalition, Chapel Hill

*(See the major article by Houlihan et al on pages 837–45.)*

Houlihan et al present data on the prevalence of human papillomavirus (HPV) infection among 474 adolescent girls aged 15–16 years in Tanzania who reported no previous sexual intercourse. Despite no reported history of sex, a nonnegligible fraction of girls (8.4%) tested positive for HPV infection, using a highly sensitive polymerase chain reaction assay from nurse-assisted, self-administered cervicovaginal specimens. Global data on the prevalence of HPV infection among adolescents worldwide are extremely limited [1]. Therefore, these data from Tanzania are important because they are among the first to examine HPV infection prevalence among female adolescents and are from sub-Saharan Africa, which has one of the highest incidence rates of invasive cervical cancer in the world [2].

As cited by the authors, the laboratory-confirmed prevalence of HPV infection was relatively higher than that previously observed in studies from Europe, Australia, and the United States, which found extremely low or no HPV detection among female participants reporting no previous sexual intercourse. The 2010 Tanzania Demographic and Health Survey (TDHS) documented a self-reported median age at first intercourse of 17.4 years...

#### **Influence of Enteric Infections on Response to Oral Poliovirus Vaccine: A Systematic Review and Meta-analysis**

Edward P. K. Parker<sup>1</sup>, Beate Kampmann<sup>2,3</sup>, Gagandeep Kang<sup>4</sup> and Nicholas C. Grassly<sup>1</sup>

Author Affiliations

<sup>1</sup>Department of Infectious Disease Epidemiology

2Department of Paediatrics, St Mary's Campus, Imperial College London, United Kingdom  
3MRC Unit, The Gambia, Fajara  
4Division of Gastrointestinal Sciences, Christian Medical College, Vellore, India  
Presented in part: Seventh International Conference on Vaccines for Enteric Diseases (VED 2013), Bangkok, Thailand, 6–8 November 2013.

#### *Abstract*

**Background.** The impaired immunogenicity of oral poliovirus vaccine (OPV) in low-income countries has been apparent since the early field trials of this vaccine. Infection with enteropathogens at the time of vaccination may contribute to this phenomenon. However, the relative influence of these infections on OPV performance remains uncertain.

**Methods.** We conducted a systematic review to examine the impact of concurrent enteric infections on OPV response. Using random-effects models, we assessed the effects of nonpolio enteroviruses (NPEVs) and diarrhea on the odds of seroconversion and/or vaccine virus shedding.

**Results.** We identified 25 trials in which OPV outcomes were compared according to the presence or absence of enteric infections, the majority of which ( $n = 17$ ) reported only on NPEVs. Concurrent NPEVs significantly reduced the odds of per-dose seroconversion for type 1 poliovirus (odds ratio [OR] 0.44, 95% confidence interval 0.23–0.84), but not type 2 (OR 0.53 [0.19–1.46]) or type 3 (OR 0.56 [0.27–1.12]). A similar reduction, significant for type 1 poliovirus (OR 0.50 [0.28–0.89]), was observed in the odds of vaccine virus shedding among NPEV-infected individuals. Concurrent diarrhea significantly inhibited per-dose seroconversion overall (OR 0.61 [0.38–0.87]).

**Conclusions.** Our findings are consistent with an inhibitory effect of concurrent enteric infections on OPV response.

#### **Journal of Medical Ethics**

September 2014, Volume 40, Issue 9

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

#### *Viewpoint*

Published Online First 18 August 2014

#### **[Refugees, humanitarian aid and the right to decline vaccinations](#)**

A L Caplan, David R Curry

#### Author Affiliations

Population Health, Medical Ethics, New York University School of Medicine, New York, New York, USA

#### *Abstract*

Recent instances of governments and others refusing humanitarian assistance to refugees and IDPs (internally-displaced persons) unless they agreed to polio immunization for their children raise difficult ethical challenges. The authors argue that states have the right and a responsibility to require such vaccinations in instances where the serious vaccine-preventable disease(s) at issue threaten others, including local populations, humanitarian workers, and others in camps or support settings.

#### **Journal of Medical Microbiology**

August 2014; 63 (Pt 8)

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



[Reviewed earlier]

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

Volume 3 Issue 3 September 2014

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

[New issue; No relevant content]

**Journal of Pediatrics**

Vol 165 | No. 2 | August 2014 | Pages 217-426

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

[Reviewed earlier]

**Journal of Public Health Policy**

Volume 35, Issue 3 (August 2014)

<http://www.palgrave-journals.com/jphp/journal/v35/n3/index.html>

[Reviewed earlier]

**Journal of the Royal Society – Interface**

October 6, 2014; 11 (99)

<http://rsif.royalsocietypublishing.org/content/current>

[Reviewed earlier]

**Journal of Virology**

August 2014, volume 88, issue 15

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

[Reviewed earlier]

**The Lancet**

Aug 23, 2014 Volume 384 Number 9944 p637 - 713

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

**Editorial**

**[Ebola: a failure of international collective action](#)**

[The Lancet](#)

When a 2-year-old boy in the Guéckédou region of Guinea fell ill on Dec 6, 2013, no one knew that his illness signalled the start of the biggest, most complex outbreak of Ebola the world has ever seen. As of mid-August, 2240 cases and 1229 deaths have been reported from Guinea, Liberia, Nigeria, and Sierra Leone. But WHO believes that these numbers could be a vast underestimation, as the numbers of deaths and infections increase rapidly in Liberia and Sierra Leone. On Aug 8, after a 2 day meeting of the International Health Regulations Emergency Committee, WHO declared the outbreak a “public health emergency of international concern”. This is not because the outbreak has pandemic potential. It does not. If Ebola arrives in high-income and middle-income nations, it should be contained quickly. WHO declared the



emergency to escalate the national, regional, and international response to the outbreak's epicentre in west Africa, recognising that it constituted an "extraordinary event".

The outbreak continues to be difficult to bring under control. Health workers are dealing with numerous issues they have not had to deal with to this extent when battling Ebola in the past in central and east Africa. These include incredibly weak health systems, with few staff, little equipment, and poor facilities, making disease surveillance, isolation, and supportive care virtually impossible without external assistance. High levels of fear and mistrust about the disease and about health professionals have also led to removal of patients from hospitals and hiding of sick people in communities. Additionally, cross-border movement between the three main affected countries has facilitated spread across a huge expanse. All these factors have made effective contact tracing, which is crucial for containment, extremely difficult, especially in remote, rural areas.

Although WHO is now leading the international response to the crisis, it was initially slow to act at the high level that was needed. Its concern did not match that of the other major player in this outbreak—*Médecins Sans Frontières (MSF)*. On June 24, MSF said that the outbreak was "out of control", that its teams had reached the limits of what they could do, and it called for a massive deployment of resources to the region. Only on July 31, did WHO launch its joint response plan calling for US\$71 million from donors and for the deployment of several hundred more personnel to west Africa. But WHO is not solely to blame for not moving more swiftly. Member states and donors are responsible too. WHO has experienced severe budget cuts over recent years. Its budget for responding to crises and outbreaks fell by 50% from 2012—13 (\$469 million) to 2014—15 (\$228 million). The crisis shows the importance of sufficient levels of multilateral funding for WHO—the only international agency capable of coordinating the response to a health crisis with global dimensions.

There are other lessons from this outbreak, including the need for increased investment in health system strengthening. Fragile health systems are unable to respond when a sudden, rapidly evolving emergency arises. Communities' experiences of poorly functioning health facilities might also explain some of their mistrust during this crisis. The World Bank has pledged \$200 million to deal with the outbreak and bolster health systems in west Africa, but further investments will be needed from other sources to develop resilient health sectors in the region.

No vaccine or cure exists for Ebola. Interest in developing treatments has been spurred by this outbreak. An experimental vaccine is being fast-tracked into human trials by the US National Institutes of Health. Last week, a WHO-convened ethics committee decided that it was right to use untested drugs in this outbreak. However, as others have commented, a vaccine would probably exist today if Ebola affected a large number of people in high-income countries, making research and development financially attractive to drug companies—a situation that John Ashton, president of the UK Faculty of Public Health, has described as "the moral bankruptcy of capitalism acting in the absence of an ethical and social framework".

The US Centers for Disease Control and Prevention estimates that the outbreak will last for at least another 3—6 months. On Aug 15, MSF, which has nearly 700 staff on the ground, called the international effort to contain the outbreak "dangerously inadequate"; immediate and massive mobilisation of human and technical resources to the region is still needed not only to deal with the outbreak but also to restore collapsing health systems. The international community must show the collective responsibility and global solidarity absent at the start of this outbreak to bring it to an end. Its failure to do so is allowing a disaster of unprecedented proportions to unfold in west Africa.

***Comment***

### **Influenza vaccination in the off-label grey zone**

Bruce G Weniger

*Preview /*

In *The Lancet*, Linda McAllister and colleagues<sup>1</sup> report the findings from their influenza vaccination trial conducted in the USA during the 2012–13 season, showing non-inferiority of Stratis, a disposable-syringe jet injector (DSJI) versus needle and syringe for geometric mean titres and seroconversion. As expected for this delivery method, local reactions were more common in patients who received DSJI vaccination, but were generally mild and well tolerated: grade 3 reactions were 6·0% (37 of 616) versus 3·5% (21 of 607) with needle and syringe.

### **Needle-free jet injection for administration of influenza vaccine: a randomised non-inferiority trial**

Linda McAllister, Jonathan Anderson, Kristen Werth, Iksung Cho, Karen Copeland, Nancy Le Cam Bouveret, David Plant, Paul M Mendelman, David K Cobb

*Preview /*

The immune response to influenza vaccine given with the jet injector device was non-inferior to the immune response to influenza vaccine given with needle and syringe. The device had a clinically acceptable safety profile, but was associated with a higher frequency of local injection site reactions than was the use of needle and syringe. The Stratis needle-free jet injector device could be used as an alternative method of administration of Afluria trivalent influenza vaccine.

### **The Lancet Global Health**

Aug 2014 Volume 2 Number 8 e431 - 487

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

[Reviewed earlier]

### **The Lancet Infectious Diseases**

Aug 2014 Volume 14 Number 8 p657 - 778

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

[Reviewed earlier]

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

August 2014; 34 (6)

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

[Reviewed earlier]

### **The Milbank Quarterly**

*A Multidisciplinary Journal of Population Health and Health Policy*

June 2014 Volume 92, Issue 2 Pages 167–405

[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1468-0009/currentissue](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1468-0009/currentissue)

[Reviewed earlier]

### **Nature**

Volume 512 Number 7514 pp231-342 21 August 2014

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

**[Scale up the supply of experimental Ebola drugs](#)**

Estimates of the probable impact of the outbreak show that existing stocks of potentially useful medicines are insufficient, says Oliver Brady.

Volume 512 Number 7513 pp113-226 14 August 2014

**Nature Immunology**

August 2014, Volume 15 No 8 pp695-788

<http://www.nature.com/ni/journal/v15/n6/index.html>

[Reviewed earlier]

**Nature Medicine**

August 2014, Volume 20 No 8 pp795-966

<http://www.nature.com/nm/journal/v20/n8/index.html>

[Reviewed earlier]

**Nature Reviews Immunology**

August 2014 Vol 14 No 8

<http://www.nature.com/nri/journal/v14/n7/index.html>

[Reviewed earlier]

**New England Journal of Medicine**

August 21, 2014 Vol. 371 No. 8

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

[New issue; No relevant content]

August 14, 2014 Vol. 371 No. 7

<http://www.nejm.org/toc/nejm/371/7>

**The Pediatric Infectious Disease Journal**

August 2014 - Volume 33 - Issue 8 pp: 789-891,e183-e218

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

[Reviewed earlier]

**Pediatrics**

August 2014, VOLUME 134 / ISSUE 2

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

**Pharmaceutics**

Volume 6, Issue 3 (September 2014), Pages 354-

<http://www.mdpi.com/1999-4923/6/2>

[Reviewed earlier]

## Pharmacoeconomics

Volume 32, Issue 8, August 2014

<http://link.springer.com/journal/40273/32/8/page/1>

[Reviewed earlier]

## PLoS One

[Accessed 23 August 2014]

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

### **Traditional Medicine and Childcare in Western Africa: Mothers' Knowledge, Folk Illnesses, and Patterns of Healthcare-Seeking Behavior**

Alexandra M. Towns, Sandra Mengue Eyi, Tinde van Andel Research Article | published 22 Aug 2014 | PLOS ONE 10.1371/journal.pone.0105972

#### **Research Article**

### **Have Preferences of Girls Changed Almost 3 Years after the Much Debated Start of the HPV Vaccination Program in the Netherlands? A Discrete Choice Experiment**

Robine Hofman mail, Esther W. de Bekker-Grob, Jan Hendrik Richardus, Harry J. de Koning, Marjolein van Ballegooijen, Ida J. Korfage

Published: August 19, 2014

DOI: 10.1371/journal.pone.0104772

#### *Abstract*

##### Objectives

To assess how girls' preferences have changed almost 3 years after the much debated start of the human papillomavirus (HPV) vaccination program.

##### Methods

A discrete choice experiment (DCE) was conducted among girls aged 11–15 years who were invited, or were not yet invited, to get vaccinated. A panel latent class model was used to determine girls' preferences for vaccination based on five characteristics: degree of protection against cervical cancer; duration of protection; risk of mild side-effects; age of vaccination; and the number of required doses of the vaccine.

##### Results

The response rate was 85% (500/592). Most girls preferred vaccination at age 14 years (instead of at age 9 years) and a 2-dose scheme (instead of the current 3-dose scheme). Girls were willing to trade-off 7% (CI: 3.2% to 10.8%) of the degree of protection to have 10% less risk of mild side-effects, and 4% (CI: 1.2% to 5.9%) to receive 2 doses instead of 3 doses. Latent class analyses showed that there was preference heterogeneity among girls, i.e., higher educated girls and HPV vaccinated girls had a higher probability to opt for HPV vaccination at a higher age than lower educated girls or non-vaccinated girls.

##### Conclusions

Three years after the start of HPV vaccination program the risk of mild side-effects and age at vaccination seem to have become less important. For the Dutch national immunization program, we recommend not to lower the current target age of 12 years. A 2-dose scheme may result in a higher uptake and we recommend that if this scheme is introduced, it needs to receive adequate publicity.

#### **Research Article**

## **Vaccination Management and Vaccination Errors: A Representative Online-Survey among Primary Care Physicians**

Birgitta M. Weltermann mail, Marta Markic, Anika Thielmann, Stefan Gesenhues, Martin Hermann

Published: August 13, 2014

DOI: 10.1371/journal.pone.0105119

### *Abstract*

#### Background

Effective immunizations require a thorough, multi-step process, yet few studies comprehensively addressed issues around vaccination management.

#### Objectives

To assess variations in vaccination management and vaccination errors in primary care.

#### Methods

A cross sectional, web-based questionnaire survey was performed among 1157 primary physicians from North Rhine-Westphalia, Germany: a representative 10% random sample of general practitioners (n = 946) and all teaching physicians from the University Duisburg-Essen (n = 211). Four quality aspects with three items each were included: patient-related quality (patient information, patient consent, strategies to increase immunization rates), vaccine-related quality (practice vaccine spectrum, vaccine pre-selection, vaccination documentation), personnel-related quality (recommendation of vaccinations, vaccine application, personnel qualification) and storage-related quality (storage device, temperature log, vaccine storage control). For each of the four quality aspects, "good quality" was reached if all three criteria per quality aspect were fulfilled. Good vaccination management was defined as fulfilling all twelve items. Additionally, physicians' experiences with errors and nearby-errors in vaccination management were obtained.

#### Results

More than 20% of the physicians participated in the survey. Good vaccination management was reached by 19% of the practices. Patient-related quality was good in 69% of the practices, vaccine-related quality in 73%, personnel-related quality in 59% and storage-related quality in 41% of the practices. No predictors for error reporting and good vaccination management were identified.

#### Conclusions

We identified good results for vaccine- and patient-related quality but need to improve issues that revolve around vaccine storage.

### **PLoS Medicine**

(Accessed 23 August 2014)

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

[No new relevant content]

### **PLoS Neglected Tropical Diseases**

(Accessed 23 August 2014)

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

**Vaccine Strategies for the Control and Prevention of Japanese Encephalitis in Mainland China, 1951–2011**

Xiaoyan Gao, Xiaolong Li, Minghua Li, Shihong Fu, Huanyu Wang, Zhi Lu, Yuxi Cao, Ying He, Wuyang Zhu, Tingting Zhang, Ernest A. Gould, Guodong Liang Review | published 14 Aug 2014 | PLOS Neglected Tropical Diseases 10.1371/journal.pntd.0003015

### **Editorial**

## **Outbreak of Ebola Virus Disease in Guinea: Where Ecology Meets Economy**

Daniel G. Bausch mail, Lara Schwarz

Published: July 31, 2014

DOI: 10.1371/journal.pntd.0003056

### *Initial text*

Ebola virus is back, this time in West Africa, with over 350 cases and a 69% case fatality ratio at the time of this writing [1]. The culprit is the Zaire ebolavirus species, the most lethal Ebola virus known, with case fatality ratios up to 90%. The epicenter and site of first introduction is the region of Guéckédou in Guinea's remote southeastern forest region, spilling over into various other regions of Guinea as well as to neighboring Liberia and Sierra Leone (Figure 1). News of this outbreak engenders three basic questions: (1) What in the world is Zaire ebolavirus doing in West Africa, far from its usual haunts in Central Africa? (2) Why Guinea, where no Ebola virus has ever been seen before? (3) Why now? We'll have to wait for the outbreak to conclude and more data analysis to occur to answer these questions in detail, and even then we may never know, but some educated speculation may be illustrative...

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

(Accessed 23 August 2014)

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

### **Vaccines PNAS 100th Anniversary Special Feature - Introduction**

Rino Rappuoli

PNAS 2014 ; published ahead of print August 19, 2014, doi:10.1073/pnas.1413559111

[Full Text \(PDF\)](#)

### Excerpt

The special issue of the centenary of PNAS provides an opportunity to review the history of vaccines, the most exciting features of vaccine science, and to contemplate the future. The picture that emerges is intriguing: The history of vaccines confirms that vaccines have been the medical intervention with the greatest beneficial impact on human health and longevity (3). Vaccines dramatically reduced the incidence of infectious diseases that historically killed hundreds of millions, and made a substantial contribution to life expectancy that during the last century in developed countries increased from ~47–80 y (4). During the last 30 y, improvements in our understanding of immunology and technological progress involving recombinant DNA, conjugation technology, and genomics provided vaccines against diseases, which could not be conquered by conventional vaccine technologies.

Finally, new, emerging, more powerful technologies, including rationally designed adjuvants and systems biology (4–6), raise the possibility of new and better vaccines that may allow better control of existing diseases and extend the benefits of vaccination to newly emerging infectious diseases and to noncommunicable diseases as well.

In the next few decades vaccines have the potential to continue to be the most powerful tool for advancing global health and contributing to human well-being by (i) extending the benefits of vaccination beyond childhood and especially among pregnant women and the elderly; (ii) providing tools to prevent and control emerging infections, such as pandemic influenza and

HIV; (iii) preventing and controlling noncommunicable diseases, such as cancer, neurodegenerative, autoimmune, and metabolic disorders that are the leading causes of morbidity and mortality in modern society; (iv) extending the benefits of vaccination to low-income countries so that during the next two decades we can close the health and longevity gap between poor and rich countries (4, 7); and (v) controlling most of the existing, and reducing the emergence of, antibiotic-resistant bacteria (8).

The bitter truth is that although vaccines keep people healthy and save money, fewer and fewer pharmaceutical companies invest in the development of new vaccines. Rather, their investment dollars are channeled disproportionately to new drug therapies in areas such as oncology, immunology, inflammation, and cardiovascular, metabolic, and neurodegenerative diseases, for which the return on investment tends to be higher and more predictable than for vaccines....

### **[History of vaccination](#)**

[Stanley Plotkin](#)<sup>1</sup>

[Author Affiliations](#)

Edited by Rino Rappuoli, Novartis Vaccines, Siena, Italy, and approved February 5, 2014 (received for review January 13, 2014)

[PDF](#)

*Abstract*

Vaccines have a history that started late in the 18th century. From the late 19th century, vaccines could be developed in the laboratory. However, in the 20th century, it became possible to develop vaccines based on immunologic markers. In the 21st century, molecular biology permits vaccine development that was not possible before.

### **[Valuing vaccination](#)**

[Till Bärnighausena](#),<sup>b</sup>, [David E. Blooma](#),<sup>1</sup>, [Elizabeth T. Cafiero-Fonsecaa](#), and [Jennifer Carroll O'Briena](#)

[Author Affiliations](#)

Edited by Rino Rappuoli, Novartis Vaccines, Siena, Italy, and approved July 18, 2014 (received for review March 20, 2014)

*Abstract*

Vaccination has led to remarkable health gains over the last century. However, large coverage gaps remain, which will require significant financial resources and political will to address. In recent years, a compelling line of inquiry has established the economic benefits of health, at both the individual and aggregate levels. Most existing economic evaluations of particular health interventions fail to account for this new research, leading to potentially sizable undervaluation of those interventions. In line with this new research, we set forth a framework for conceptualizing the full benefits of vaccination, including avoided medical care costs, outcome-related productivity gains, behavior-related productivity gains, community health externalities, community economic externalities, and the value of risk reduction and pure health gains. We also review literature highlighting the magnitude of these sources of benefit for different vaccinations. Finally, we outline the steps that need to be taken to implement a broad-approach economic evaluation and discuss the implications of this work for research, policy, and resource allocation for vaccine development and delivery.

### **[Vaccines, new opportunities for a new society](#)**

[Rino Rappuoli](#)<sup>1</sup>, [Mariagrazia Pizza](#), [Giuseppe Del Giudice](#), and [Ennio De Gregorio](#)

[Author Affiliations](#)

Edited by Rafi Ahmed, Emory University, Atlanta, GA, and approved May 27, 2014 (received for review February 18, 2014)



### *Abstract*

Vaccination is the most effective medical intervention ever introduced and, together with clean water and sanitation, it has eliminated a large part of the infectious diseases that once killed millions of people. A recent study concluded that since 1924 in the United States alone, vaccines have prevented 40 million cases of diphtheria, 35 million cases of measles, and a total of 103 million cases of childhood diseases. A report from the World Health Organization states that today vaccines prevent 2.5 million deaths per year: Every minute five lives are saved by vaccines worldwide. Overall, vaccines have done and continue to do an excellent job in eliminating or reducing the impact of childhood diseases. Furthermore, thanks to new technologies, vaccines now have the potential to make an enormous contribution to the health of modern society by preventing and treating not only communicable diseases in all ages, but also noncommunicable diseases such as cancer and neurodegenerative disorders. The achievement of these results requires the development of novel technologies and health economic models able to capture not only the mere cost–benefit of vaccination, but also the value of health per se.

### **Systems vaccinology: Probing humanity's diverse immune systems with vaccines**

Bali Pulendran<sup>1</sup>

#### Author Affiliations

Edited by Rino Rappuoli, Novartis Vaccines, Siena, Italy, and approved May 21, 2014 (received for review March 10, 2014)

### *Abstract*

Homo sapiens are genetically diverse, but dramatic demographic and socioeconomic changes during the past century have created further diversification with respect to age, nutritional status, and the incidence of associated chronic inflammatory disorders and chronic infections. These shifting demographics pose new challenges for vaccination, as emerging evidence suggests that age, the metabolic state, and chronic infections can exert major influences on the immune system. Thus, a key public health challenge is learning how to reprogram suboptimal immune systems to induce effective vaccine immunity. Recent advances have applied systems biological analysis to define molecular signatures induced early after vaccination that correlate with and predict the later adaptive immune responses in humans. Such “systems vaccinology” approaches offer an integrated picture of the molecular networks driving vaccine immunity, and are beginning to yield novel insights about the immune system. Here we discuss the promise of systems vaccinology in probing humanity's diverse immune systems, and in delineating the impact of genes, the environment, and the microbiome on protective immunity induced by vaccination. Such insights will be critical in reengineering suboptimal immune systems in immunocompromised populations.

### **Vaccines against poverty**

Calman A. MacLennana,b,1 and Allan Saula

#### Author Affiliations

Edited by Inder M. Verma, The Salk Institute for Biological Studies, La Jolla, CA, and approved April 2, 2014 (received for review February 14, 2014)

### *Abstract*

With the 2010s declared the Decade of Vaccines, and Millennium Development Goals 4 and 5 focused on reducing diseases that are potentially vaccine preventable, now is an exciting time for vaccines against poverty, that is, vaccines against diseases that disproportionately affect low- and middle-income countries (LMICs). The Global Burden of Disease Study 2010 has helped better understand which vaccines are most needed. In 2012, US\$1.3 billion was spent on research and development for new vaccines for neglected infectious diseases. However, the



majority of this went to three diseases: HIV/AIDS, malaria, and tuberculosis, and not neglected diseases. Much of it went to basic research rather than development, with an ongoing decline in funding for product development partnerships. Further investment in vaccines against diarrheal diseases, hepatitis C, and group A Streptococcus could lead to a major health impact in LMICs, along with vaccines to prevent sepsis, particularly among mothers and neonates. The Advanced Market Commitment strategy of the Global Alliance for Vaccines and Immunisation (GAVI) Alliance is helping to implement vaccines against rotavirus and pneumococcus in LMICs, and the roll out of the MenAfriVac meningococcal A vaccine in the African Meningitis Belt represents a paradigm shift in vaccines against poverty: the development of a vaccine primarily targeted at LMICs. Global health vaccine institutes and increasing capacity of vaccine manufacturers in emerging economies are helping drive forward new vaccines for LMICs. Above all, partnership is needed between those developing and manufacturing LMIC vaccines and the scientists, health care professionals, and policy makers in LMICs where such vaccines will be implemented.

### **Pneumonia**

Vol 5 (2014)

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

*Special Issue "Pneumonia Diagnosis"*

[Reviewed earlier]

### **Public Health Ethics**

Volume 7 Issue 2 July 2014

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

[Reviewed earlier]

### **Qualitative Health Research**

August 2014; 24 (8)

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

*Special Issue: Insights Into Mental Health*

[Reviewed earlier]

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

July 2014 Vol. 36, No. 1

[http://www.paho.org/journal/index.php?option=com\\_content&view=article&id=148&Itemid=261&lang=en](http://www.paho.org/journal/index.php?option=com_content&view=article&id=148&Itemid=261&lang=en)

ORIGINAL RESEARCH ARTICLES

[Factors associated with use of maternal health services in Haiti: a multilevel analysis](#) [Factores asociados con la utilización de los servicios de salud materna en Haití: un análisis de varios niveles]

Stella O. Babalola

SPECIAL REPORTS

[Building alliances for improving newborn health in Latin America and the Caribbean](#) [Alianzas para mejorar la salud de los recién nacidos en América Latina y el Caribe]

Molly K. Miller-Petrie, Goldy Mazia, Magdalena Serpa,  
Bertha Pooley, Margaret Marshall, Carlos Meléndez,  
and Marisol Vicuña  
SPECIAL SECTION

[Efectos combinados de la ampliación de la atención primaria de salud y de las transferencias condicionadas de dinero en efectivo sobre la mortalidad infantil en Brasil, 1998–2010](#) [The combined effects of the expansion of primary health care and conditional cash transfers on infant mortality in Brazil, 1998–2010]  
Federico C. Guanais

### **Risk Analysis**

July 2014 Volume 34, Issue 7 Pages 1161–1358  
<http://onlinelibrary.wiley.com/doi/10.1111/risa.2014.34.issue-7/issuetoc>  
[Reviewed earlier]

### **Science**

22 August 2014 vol 345, issue 6199, pages 845-976  
<http://www.sciencemag.org/current.dtl>

#### **Report**

#### **[Efficacy of inactivated poliovirus vaccine in India](#)**

*[free full text]*

[Hamid Jafari](#)<sup>1,\*</sup>, [Jagadish M. Deshpande](#)<sup>2</sup>, [Roland W. Sutter](#)<sup>3</sup>, [Sunil Bahl](#)<sup>1</sup>, [Harish Verma](#)<sup>3</sup>, [Mohammad Ahmad](#)<sup>1</sup>, [Abhishek Kunwar](#)<sup>1</sup>, [Rakesh Vishwakarma](#)<sup>1</sup>, [Ashutosh Agarwal](#)<sup>1</sup>, [Shilpi Jain](#)<sup>4</sup>, [Concepcion Estivariz](#)<sup>5</sup>, [Raman Sethi](#)<sup>1</sup>, [Natalie A. Molodecky](#)<sup>3</sup>, [Nicholas C. Grassly](#)<sup>6</sup>, [Mark A. Pallansch](#)<sup>5</sup>, [Arani Chatterjee](#)<sup>4</sup>, [R. Bruce Aylward](#)<sup>3</sup>

#### **Abstract**

Inactivated poliovirus vaccine (IPV) is efficacious against paralytic disease, but its effect on mucosal immunity is debated. We assessed the efficacy of IPV in boosting mucosal immunity. Participants received IPV, bivalent 1 and 3 oral poliovirus vaccine (bOPV), or no vaccine. A bOPV challenge was administered 4 weeks later, and excretion was assessed 3, 7, and 14 days later. Nine hundred and fifty-four participants completed the study. Any fecal shedding of poliovirus type 1 was 8.8, 9.1, and 13.5% in the IPV group and 14.4, 24.1, and 52.4% in the control group by 6- to 11-month, 5-year, and 10-year groups, respectively (IPV versus control: Fisher's exact test  $P < 0.001$ ). IPV reduced excretion for poliovirus types 1 and 3 between 38.9 and 74.2% and 52.8 and 75.7%, respectively. Thus, IPV in OPV-vaccinated individuals boosts intestinal mucosal immunity.

#### **[Editor's Summary](#)**

*Two vaccines together are better than one alone*

Polio is proving difficult to eradicate. Making the choice between administering a live attenuated vaccine orally (Sabin) or an inactivated vaccine (Salk) by injection has been highly controversial. Patients prefer the Sabin vaccine, but it requires many doses to offer immunity. Jafari et al. tested the two vaccines together in northern India. The injected vaccine significantly reduced virus shedding and boosted intestinal mucosal immunity in children already given the oral vaccine. Thus, using both vaccines could help speed the eventual global demise of polio.

## Science

15 August 2014 vol 345, issue 6198, pages 709-844

<http://www.sciencemag.org/content/345/6198.toc>

### ***Special Issue: Parenting***

Infectious Diseases

### **Debate erupts on 'repurposed' drugs for Ebola**

Martin Enserink

With the outbreak of Ebola in West Africa escalating, some scientists think they can save lives by using existing, approved drugs that weren't developed for Ebola but that might nonetheless help patients. Among the proposals being floated are interferon  $\alpha$  and statins. The advantage of such existing drugs is that they have been tested for safety, and they are cheap and widely available. But some Ebola scientists oppose trying anything that has not been shown to reduce mortality from Ebola in nonhuman primates. They say that some of the drugs might make the disease worse, and even if they just aren't effective, they might hamper the prospects for the long-term future of more promising drugs developed specifically for Ebola. So far, the World Health Organization appears to be skeptical as well.

## Social Science & Medicine

Volume 118, *In Progress* (October 2014)

<http://www.sciencedirect.com/science/journal/02779536/118>

[Reviewed earlier]

## Tropical Medicine and Health

Vol. 42(2014) No. 2

[https://www.jstage.jst.go.jp/browse/tmh/42/2/\\_contents](https://www.jstage.jst.go.jp/browse/tmh/42/2/_contents)

[Reviewed earlier]

## Vaccine

Volume 32, Issue 40, Pages 5145-5258 (8 September 2014)

<http://www.sciencedirect.com/science/journal/0264410X/32/40>

### **Relative cost-effectiveness of a norovirus vaccine in the deployed military setting compared to a vaccine against *Campylobacter* sp., ETEC, and *Shigella* sp.**

Original Research Article

Pages 5156-5162

Aaron Tallant, Chad K. Porter, Shannon D. Putnam, David R. Tribble, Tomoko I. Hooper, Mark S. Riddle

#### *Abstract*

Norovirus (NoV) has been identified as a significant cause of acute gastrointestinal illness among deployed military troops. We conducted a cost-effectiveness analysis for the use of a NoV vaccine in the military using a previously developed model that evaluated vaccines for ETEC, *Campylobacter*, and *Shigella* for prevention of non-outbreak associated travelers' diarrhea. Under conservative assumptions, acquisition of a NoV vaccine by the Department of Defense is estimated to result in a cost-effectiveness ratio per duty day lost to illness (CERDDL) of \$1344 compared to a CERDDL of \$776, \$800, and \$1275 for ETEC, *Campylobacter* sp., and *Shigella* sp., respectively compared to current management strategies. The absolute value of

avoiding a duty day lost is likely to vary under different scenarios, and further study is needed to evaluate how improved diagnostics and prevention of outbreaks may impact the relative value of this vaccine. Overall, this study demonstrates the utility of a previously established evidence-based decision tool for prioritization of vaccine acquisition in an important target population.

## **Vaccine**

Volume 32, Issue 39, Pages 4881-5144 (3 September 2014)

<http://www.sciencedirect.com/science/journal/0264410X/32/39>

### **Human papillomavirus (HPV) vaccination and subsequent sexual behaviour: Evidence from a large survey of Nordic women**

Original Research Article

Pages 4945-4953

Bo T. Hansen, Susanne K. Kjær, Lisen Arnheim-Dahlström, Kai-Li Liaw, Kirsten E. Jensen, Louise T. Thomsen, Christian Munk, Mari Nygård

#### *Abstract*

##### Objective

To assess whether recipients and non-recipients of the human papillomavirus (HPV) vaccine subsequently differ in terms of sexual risk taking behaviour.

##### Design

Cross-sectional survey. Sequential analyses constructed from self-reported age at vaccination, age at first intercourse and age at response.

##### Setting

A random selection of women aged 18–46 years living in Denmark, Norway and Sweden in 2011–2012, eligible for opportunistic or organized catch-up HPV vaccination.

##### Participants

A total of 3805 women reported to have received the HPV vaccine and 40,247 reported not to have received it. Among vaccinees, 1539 received the HPV vaccine before or at the same age as sexual debut, of which 476 and 1063 were eligible for organized catch-up and opportunistic vaccination, respectively.

##### Main outcome measures

Self-reported sexual behaviour, compared by hazard ratios and odds ratios for women who received the HPV vaccine before or at the same age as sexual debut versus women who did not receive the HPV vaccine.

##### Results

HPV vaccination did not result in younger age at first intercourse. Women who received the HPV vaccine before or at the same age as sexual debut did not have more sexual partners than did non-vaccinees. Non-use of contraception during first intercourse was more common among non-vaccinees than among HPV vaccinees. The results were similar for organized catch-up and opportunistic vaccinees.

##### Conclusion

Women who received the HPV vaccine before or at the same age as sexual debut did not subsequently engage more in sexual risk taking behaviour than women who did not receive the HPV vaccine.

### **Duration of post-vaccination immunity against yellow fever in adults**

Original Research Article

Pages 4977-4984

Collaborative group for studies on yellow fever vaccines

## *Abstract*

### Introduction

Available scientific evidence to recommend or to advise against booster doses of yellow fever vaccine (YFV) is inconclusive. A study to estimate the seropositivity rate and geometric mean titres (GMT) of adults with varied times of vaccination was aimed to provide elements to revise the need and the timing of revaccination.

### Methods

Adults from the cities of Rio de Janeiro and Alfenas located in non-endemic areas in the Southeast of Brazil, who had one dose of YFV, were tested for YF neutralising antibodies and dengue IgG. Time (in years) since vaccination was based on immunisation cards and other reliable records.

### Results

From 2011 to 2012 we recruited 691 subjects (73% males), aged 18–83 years. Time since vaccination ranged from 30 days to 18 years. Seropositivity rates (95% C.I.) and GMT (International Units/mL; 95% C.I.) decreased with time since vaccination: 93% (88–96%), 8.8 (7.0–10.9) IU/mL for newly vaccinated; 94% (88–97), 3.0 (2.5–3.6) IU/mL after 1–4 years; 83% (74–90), 2.2 (1.7–2.8) IU/mL after 5–9 years; 76% (68–83), 1.7 (1.4–2.0) IU/mL after 10–11 years; and 85% (80–90), 2.1 (1.7–2.5) IU/mL after 12 years or more. YF seropositivity rates were not affected by previous dengue infection.

### Conclusions

Even though serological correlates of protection for yellow fever are unknown, seronegativity in vaccinated subjects may indicate primary immunisation failure, or waning of immunity to levels below the protection threshold. Immunogenicity of YFV under routine conditions of immunisation services is likely to be lower than in controlled studies. Moreover, infants and toddlers, who comprise the main target group in YF endemic regions, and populations with high HIV infection rates, respond to YFV with lower antibody levels. In those settings one booster dose, preferably sooner than currently recommended, seems to be necessary to ensure longer protection for all vaccinees.

### [Valuing vaccines using value of statistical life measures](#)

Original Research Article

Pages 5065-5070

Ramanan Laxminarayan, Dean T. Jamison, Alan J. Krupnick, Ole F. Norheim

## *Abstract*

Vaccines are effective tools to improve human health, but resources to pursue all vaccine-related investments are lacking. Benefit–cost and cost-effectiveness analysis are the two major methodological approaches used to assess the impact, efficiency, and distributional consequences of disease interventions, including those related to vaccinations. Childhood vaccinations can have important non-health consequences for productivity and economic well-being through multiple channels, including school attendance, physical growth, and cognitive ability. Benefit–cost analysis would capture such non-health benefits; cost-effectiveness analysis does not. Standard cost-effectiveness analysis may grossly underestimate the benefits of vaccines.

A specific willingness-to-pay measure is based on the notion of the value of a statistical life (VSL), derived from trade-offs people are willing to make between fatality risk and wealth. Such methods have been used widely in the environmental and health literature to capture the broader economic benefits of improving health, but reservations remain about their acceptability. These reservations remain mainly because the methods may reflect ability to pay, and hence be discriminatory against the poor. However, willingness-to-pay methods can be

made sensitive to income distribution by using appropriate income-sensitive distributional weights.

Here, we describe the pros and cons of these methods and how they compare against standard cost-effectiveness analysis using pure health metrics, such as quality-adjusted life years (QALYs) and disability-adjusted life years (DALYs), in the context of vaccine priorities. We conclude that if appropriately used, willingness-to-pay methods will not discriminate against the poor, and they can capture important non-health benefits such as financial risk protection, productivity gains, and economic wellbeing.

### [\*\*Parents' preferences for seasonal influenza vaccine for their children in Japan\*\*](#)

Original Research Article

Pages 5071-5076

Aiko Shono, Masahide Kondo

#### *Abstract*

In Japan, trivalent inactivated influenza vaccine is the only approved influenza vaccine. It is typically administered by hypodermic injection, and children under 13 years of age are recommended to be vaccinated two times during each winter season. Live-attenuated influenza vaccine (LAIV) is administered by a thimerosal-free nasal spray. If LAIV is approved in the future in Japan, parents will have an alternative type of influenza vaccine for their children. This study investigated parents' preference for the type of seasonal influenza vaccine for their children if alternatives are available. The marginal willingness to pay for vaccine benefits was also evaluated.

We conducted a discrete choice experiment, a quantitative approach that is often used in healthcare studies, in January 2013. Respondents were recruited from a registered online survey panel, and parents with at least one child under 13 years of age were offered questionnaires.

This study showed that for seasonal influenza vaccines for their children, parents are more likely to value safety, including thimerosal-free vaccines and those with a lower risk of adverse events, instead of avoiding the momentary pain from an injection. If LAIV is released in Japan, the fact that it is thimerosal-free could be an advantage. However, for parents to choose LAIV, they would need to accept the slightly higher risk of minor adverse events from LAIV.

### [\*\*Vaccination coverage and susceptibility against vaccine-preventable diseases of healthcare students in Athens, Greece\*\*](#)

Original Research Article

Pages 5083-5086

Katerina Karageorgou, Panos Katerelos, Andreas Efstathiou, Maria Theodoridou, Helena C. Maltezou

#### *Abstract*

##### Background

Vaccination of healthcare students is important to protect them from acquiring and transmitting vaccine-preventable diseases (VPDs) to high-risk patients and other healthcare workers (HCWs). The aim of the current study was to estimate the vaccination coverage, the susceptibility against VPDs, the knowledge and attitudes toward vaccinations of healthcare students studying at the Athens Technological Educational Institute.

##### Methods

The study was conducted during the academic year 2012–2013 using a standardized questionnaire.

##### Results

The mean knowledge score (correct answers) of healthcare students about the vaccines that are recommended by the Greek Ministry of Health for HCWs was 41%. Completed vaccination rates range from 19.6% for varicella to 80.2% for tetanus-diphtheria. A history of measles, mumps, rubella, varicella, hepatitis A, hepatitis B, or pertussis was reported by 8.2%, 4%, 5.4%, 70.4%, 1.5%, 0%, and 3% of students, respectively. Susceptibility rates were 20.5% against measles, 26.4% against mumps, 13.9% against rubella, 15.7% against varicella, 47.8% against hepatitis A, 17.3% against hepatitis B, and 19.8% against tetanus–diphtheria. Mandatory vaccination of HCWs was supported by 145 (96.7%) students.

#### Conclusions

There are significant immunity gaps against all VPDs among healthcare students in Athens. A system to easily identify non-immune students should be established in association with efficient reminder systems. Education of healthcare students about VPDs and vaccines will improve their attitudes toward vaccinations and their vaccination coverage. Mandatory vaccinations should be considered for HCWs in order to promote safety within healthcare facilities.

#### [Examining Ontario's universal influenza immunization program with a multi-strain dynamic model](#)

Original Research Article

Pages 5098-5117

E.W. Thommes, A. Chit, G.C. Meier, C.T. Bauch

#### Abstract

Seasonal influenza imposes a significant worldwide health burden each year. Mathematical models help us to understand how changes in vaccination affect this burden. Here, we develop a new dynamic transmission model which directly tracks the four dominant seasonal influenza strains/lineages, and use it to retrospectively examine the impact of the switch from a targeted to a universal influenza immunization program (UIIP) in the Canadian province of Ontario in 2000. According to our model results, averaged over the first four seasons post-UIIP, the rates of influenza-associated health outcomes in Ontario were reduced to about half of their pre-UIIP values. This is conservative compared to the results of a study estimating the UIIP impact from administrative data, though that study finds age-specific trends similar to those presented here. The strain interaction in our model, together with its flexible parameter calibration scheme, make it readily extensible to studying scenarios beyond the one explored here.

#### **Vaccine**

Volume 32, Issue 38, Pages 4813-4880 (27 August 2014)

<http://www.sciencedirect.com/science/journal/0264410X/32/38>

#### ***Special Issue: Vaccine-preventable Diseases and Vaccinations Among Health-care Workers***

*Edited by Helena C. Maltezou and Gregory A. Poland*

[Immunization of healthcare providers: A critical step toward patient safety](#)

Page 4813

Helena C. Maltezou, G.A. Poland

[Healthcare providers as sources of vaccine-preventable diseases](#)

Review Article

Pages 4814-4822

Emily Sydnor, Trish M. Perl

[A global perspective of vaccination of healthcare personnel against measles: Systematic review](#)

Review Article



Pages 4823-4839

Amy Parker Fiebelkorn, Jane F. Seward, Walter A. Orenstein

[Vaccination of health care workers against pertussis: Meeting the need for safety within hospitals](#)

Original Research Article

Pages 4840-4843

U. Heininger

[Vaccination of health care workers against influenza: Is it time to think about a mandatory policy in Europe?](#)

Original Research Article

Pages 4844-4848

Sabine Wicker, Georg Marckmann

[Incentives and barriers regarding immunization against influenza and hepatitis of health care workers](#)

Pages 4849-4854

David FitzSimons, Greet Hendrickx, Tinne Lernout, Selim Badur, Alex Vorsters, Pierre Van Damme

[Vaccinations among medical and nursing students: Coverage and opportunities](#)

Original Research Article

Pages 4855-4859

Pierre Loulergue, Odile Launay

[Addressing the anti-vaccination movement and the role of HCWs](#)

Original Research Article

Pages 4860-4865

S. Tafuri, M.S. Gallone, M.G. Cappelli, D. Martinelli, R. Prato, C. Germinario

[Professional and ethical responsibilities of health-care workers in regard to vaccinations](#)

Original Research Article

Pages 4866-4868

Maria Theodoridou

[Update on immunizations for healthcare personnel in the United States](#)

Original Research Article

Pages 4869-4875

Thomas R. Talbot

[Vaccination policies for healthcare workers in Europe](#)

Original Research Article

Pages 4876-4880

Helena C. Maltezou, Gregory A. Poland

## **Vaccine: Development and Therapy**

(Accessed 23 August 2014)

<http://www.dovepress.com/vaccine-development-and-therapy-journal>

[No new relevant content]

## **Vaccines — Open Access Journal**

(Accessed 23 August 2014)

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



[No new relevant content]

## **Value in Health**

Vol 17 | No. 5 | July 2014 | Pages 491-660

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

[New issue; No relevant content]

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

#### **Procedia in Vaccinology**

Volume 8, 2014, Pages 68–76

7th Vaccine & ISV Annual Global Congress

#### **Primary Cervical Cancer Prevention in Morocco: HPV Vaccine Awareness and Acceptability among Parents**

M. Mouallifa, H. Bowyerb, S. Festalic, A. Albertd, Y. Filalie, S. Gueninf, P. Delvennef, J. Wallerb, M. Ennajic

DOI: 10.1016/j.provac.2014.07.012

#### *Abstract*

Cervical cancer is a major public health concern in Morocco where it represents the second most common and lethal cancer in women. Human papillomavirus (HPV) vaccines have been licensed in Morocco since 2008 but there is no available data on their acceptability. This study aimed to assess awareness of HPV and the vaccine, and to identify factors associated with acceptability of the vaccine among parents in Morocco. A questionnaire-based survey using face-to-face interviews was conducted in a sample of 852 parents (670 mothers and 182 fathers) with at least one unmarried daughter  $\leq 26$  years. The study took place within public and private health centres and clinics in four regions in Morocco between July and August 2012. The main outcome measure was willingness to consider vaccinating a daughter against HPV. Responses revealed very low awareness of HPV infection (5%) and the HPV vaccine (14%). None of the participants had vaccinated their daughters against HPV and only 35% (32% of mothers and 45% of fathers) were willing to consider doing so in the future. Higher education and income, previous awareness of the HPV vaccine and endorsement of the belief that a recommendation from the ministry of health or a doctor to have the vaccine would be encouraging, were associated with mothers' HPV vaccine acceptance. Non-acceptance among mothers was associated with having more than two daughters, believing the vaccine was expensive and lack of information. The only factor associated with the fathers' acceptance of the vaccine was the cost. Increasing HPV and HPV vaccine awareness through educational campaigns, along with active recommendation by physicians and a publically funded vaccination programme could increase parental acceptance of the vaccine in Morocco.

#### **Pediatrics**

Published online August 18, 2014

doi: 10.1542/peds.2013-4077

#### **Vaccine Message Framing and Parents' Intent to Immunize Their Infants for MMR**

Kristin S. Hendrix, PhD<sub>a,b</sub>, S. Maria E. Finnell, MD, MS<sub>a,b,c</sub>, Gregory D. Zimet, PhD<sub>a</sub>, Lynne A. Sturm, PhD<sub>a</sub>, Kathleen A. Lane, MS<sub>d</sub>, and Stephen M. Downs, MD, MS<sub>a,b</sub>

**Author Affiliations**

aDepartments of Pediatrics, and

dBiostatistics, Indiana University School of Medicine, Indianapolis, Indiana;

bRegenstrief Institute, Inc, Indianapolis, Indiana; and

cRyan White Center for Pediatric Infectious Disease, Riley Hospital for Children, Indianapolis, Indiana

*Abstract*

**BACKGROUND AND OBJECTIVE:** Emphasizing societal benefits of vaccines has been linked to increased vaccination intentions in adults. It is unclear if this pattern holds for parents deciding whether to vaccinate their children. The objective was to determine whether emphasizing the benefits of measles-mumps-rubella (MMR) vaccination directly to the vaccine recipient or to society differentially impacts parents' vaccine intentions for their infants.

**METHODS:** In a national online survey, parents (N = 802) of infants <12 months old were randomly assigned to receive 1 of 4 MMR vaccine messages: (1) the Centers for Disease Control and Prevention Vaccine Information Statement (VIS), (2) VIS and information emphasizing the MMR vaccine's benefits to the child, (3) VIS and information emphasizing societal benefits, or (4) VIS and information emphasizing benefits both to the child and society. Parents reported their likelihood of vaccinating their infants for MMR on a response scale of 0 (extremely unlikely) to 100 (extremely likely).

**RESULTS:** Compared with the VIS-only group (mean intention = 86.3), parents reported increased vaccine intentions for their infants when receiving additional information emphasizing the MMR vaccine's benefits either directly to the child (mean intention = 91.6, P = .01) or to both the child and society (mean intention = 90.8, P = .03). Emphasizing the MMR vaccine's benefits only to society did not increase intentions (mean intention = 86.4, P = .97).

**CONCLUSIONS:** We did not see increases in parents' MMR vaccine intentions for their infants when societal benefits were emphasized without mention of benefits directly to the child. This finding suggests that providers should emphasize benefits directly to the child. Mentioning societal

**The Nigerian Postgraduate Medical Journal**

2014, 21(2):107-114

**Awareness, perception and coverage of tetanus immunisation in women of child bearing age in an urban district of Lagos, Nigeria.**

Sule SS, Nkem-Uchendu C, Onajole AT, Ogunowo BE

National Postgraduate Medical College of Nigeria, Km 26 Lagos-Badagry Expressway, Ijanikin, Lagos. Nigeria.

*Abstract*

**AIMS AND OBJECTIVES:** This study assessed the level of awareness and perception of women of child bearing age to tetanus immunisation and determines the coverage rate in Ojodu Local Council Development Area (LCDA) of Lagos State, Nigeria.

**SUBJECTS AND METHODS:** This is a descriptive cross-sectional study of 288 women of child bearing age selected using multistage sampling technique. Information was obtained using structured close-ended questionnaire. Data analysis was done using Epi-InfoTM software, version 3.5.1.

**RESULTS:** There was high level of awareness of tetanus immunisation among respondents

(89%) and as a method of prevention of tetanus (76%). There was a positive association between the level of awareness and respondents' educational level and occupation ( $p < 0.05$ ). However, there is a low level of awareness regarding the number of doses of the vaccine required in pregnancy (14.4%) and for life protection (19.5%). Those who ever received the vaccine, got it post-injury (48.9%) and in pregnancy (45.2%). Age, occupation and parity were positively associated with receiving the vaccine ( $p < 0.05$ ), while parity and marital status were positively associated with number of dose of vaccine received ( $p < 0.05$ ). Only about 20% of the respondents had received two or more doses of the vaccine.

CONCLUSION: This study concludes that despite the high level of awareness about tetanus and tetanus immunisation, there is a low coverage rate of tetanus immunisation among women of child bearing age in Ojodu LCDA of Lagos State. Women of child bearing age should also be targeted at the community level in tetanus immunisation campaign programme.

## **Epidemiology & Infection**

2014 Aug 14:1-10. [Epub ahead of print]

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

### **Transport networks and inequities in vaccination: remoteness shapes measles vaccine coverage and prospects for elimination across Africa.**

Metcalf CJ1, Tatem A2, Bjornstad ON3, Lessler J4, O'Reilly K5, Takahashi S6, Cutts F7, Grenfell BT2.

#### *Abstract*

SUMMARY Measles vaccination is estimated to have averted 13·8 million deaths between 2000 and 2012. Persisting heterogeneity in coverage is a major contributor to continued measles mortality, and a barrier to measles elimination and introduction of rubella-containing vaccine. Our objective is to identify determinants of inequities in coverage, and how vaccine delivery must change to achieve elimination goals, which is a focus of the WHO Decade of Vaccines. We combined estimates of travel time to the nearest urban centre ( $\geq 50\ 000$  people) with vaccination data from Demographic Health Surveys to assess how remoteness affects coverage in 26 African countries. Building on a statistical mapping of coverage against age and geographical isolation, we quantified how modifying the rate and age range of vaccine delivery affects national coverage. Our scenario analysis considers increasing the rate of delivery of routine vaccination, increasing the target age range of routine vaccination, and enhanced delivery to remote areas. Geographical isolation plays a key role in defining vaccine inequity, with greater inequity in countries with lower measles vaccine coverage. Eliminating geographical inequities alone will not achieve thresholds for herd immunity, indicating that changes in delivery rate or age range of routine vaccination will be required. Measles vaccine coverage remains far below targets for herd immunity in many countries on the African continent and is likely to be inadequate for achieving rubella elimination. The impact of strategies such as increasing the upper age range eligible for routine vaccination should be considered.

## **Special Focus Newsletters**

[\*RotaFlash\* \[PATH\]](#)

August 19, 2014

Headline: [Rotavirus vaccines now in Niger and Eritrea](#)

Dual launch in Niger means more children's lives saved more quickly

*Confidence Commentary from Dr Heidi Larson*

[Distrust and fear fuel two International Public Health Emergencies in 2014](#)

The Vaccine Confidence Project

London School of Hygiene and Tropical Medicine

### **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.

#### **Al Jazeera**

<http://www.aljazeera.com/Services/Search/?q=vaccine>

*Accessed 23 August 2014*

[No new, unique, relevant content]

#### **The Atlantic**

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

*Accessed 23 August 2014*

[No new, unique, relevant content]

#### **BBC**

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

*Accessed 23 August 2014 16:38*

[No new, unique, relevant content]

#### **Brookings**

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

*Accessed 23 August 2014*

[No new, unique, relevant content]

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

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

*Accessed 23 August 2014*

*Policy Innovation Memorandum*

[Designing a Global Coalition of Medicines Regulators](#)

by Stewart M. Patrick, Jeffrey Wright August 19, 2014

The marketplace for medicines is highly fragmented and globalized, posing acute public health threats. Stewart Patrick and Jeffrey Wright assert that a global coalition of medicines regulators, designed with distinct features in mind, would better ensure the safety and integrity of our medicines.

### **Economist**

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

*Accessed 23 August 2014*

[No new, unique, relevant content]

### **Financial Times**

<http://www.ft.com>

*Accessed 23 August 2014*

[No new, unique, relevant content]

### **Forbes**

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

*Accessed 23 August 2014*

[As Ebola Outbreak Expands, These Experimental Drugs Could See Action](#)

Scott Gottlieb Contributor

...There are at least three vaccines in development for Ebola that are garnering attention....

### **Foreign Affairs**

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

*Accessed 23 August 2014*

[No new, unique, relevant content]

### **Foreign Policy**

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

*Accessed 23 August 2014*

[The Race to Develop an Ebola Vaccine](#)

BY [Siddhartha Mahanta](#) 12 August 2014

### **The Guardian**

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

*Accessed 23 August 2014*

[No new, unique, relevant content]

### **The Huffington Post**

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

*Accessed 23 August 2014*

[No new, unique, relevant content]

### **Le Monde**

<http://www.lemonde.fr/>

*Accessed 23 August 2014*

[No new, unique, relevant content]

## **New Yorker**

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

### Ebolanomics

The Economics of Ebola Drugs

By James Surowiecki

August 25, 2014

The deadly hemorrhagic fever Ebola was first discovered in 1976, and it has haunted the public imagination for twenty years, ever since the publication of Richard Preston's "The Hot Zone." Yet, in all that time, no drug has ever been approved to treat the disease. Now the deadliest outbreak yet is raging in West Africa, and there are no real tools to stop it. (Supplies of the experimental drug administered to two American patients have already run out.) The lack of an Ebola treatment is disturbing. But, given the way drug development is funded, it's also predictable...

### Ebola and the Fiction of Quarantine

By Geoff Manaugh and Nicola Twilley

August 11, 2014

#### *Excerpts*

Amid heated debate, the Ebola virus came to the United States on Saturday, August 2, 2014, aboard a Gulfstream jet chartered by the Centers for Disease Control and Prevention. The virus was carried in the bloodstream of Doctor Kent Brantly, who travelled within an Aeromedical Biological Containment System—a hermetically sealed, transparent plastic tent that isolated the patient from the flight crew...

...Medical quarantine has its own architecture: levels of separation and isolation, nests inside of nests. The structure's first level, according to Jonathan Richmond, a biosecurity consultant who spent thirty-five years at the C.D.C., consists of "not much of anything at all, except simple behavioral guidelines like, 'Don't stick things in your mouth.'" Biosafety levels three and four are typically reserved for airborne diseases. Ones that only spread through contact, like the Ebola virus, normally call for level-two containment. But because Ebola has no proven vaccine or cure, Brantly, who was transported to Emory Hospital in Atlanta, has been under level-four containment—a protocol that requires what Richmond calls "extraordinary engineering controls."...

## **New York Times**

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

*Accessed 23 August 2014*

[No new, unique, relevant content]

## **Reuters**

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

*Accessed 23 August 2014*

### Experimental Ebola drugs needed for "up to 30,000 people"

Wed Aug 20, 2014 1:00pm EDT

- :: Scientists estimate need for drugs, vaccines in West Africa
- :: Study shows dilemma after WHO backs use of untested drugs
- :: Only tiny quantities of experimental medicines available
- :: 17 drugs and 12 vaccines in pipeline, but progress slow

## **Wall Street Journal**

<http://online.wsj.com/home-page? wsjregion=na,us& homepage=/home/us>

Accessed 23 August 2014

[No new, unique, relevant content]

### **Washington Post**

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

Accessed 23 August 2014

[No new, unique, relevant content]

\* \* \* \*

***Vaccines and Global Health: The Week in Review*** is a service of the Center for Vaccines Ethics and Policy (CVEP) which is solely responsible for its content. Support for this service is provided by its governing institutions – Department of Medical Ethics, NYU Medical School; The Wistar Institute Vaccine Center and the Children’s Hospital of Philadelphia Vaccine Education Center. Additional support is provided by the PATH Vaccine Development Program; the International Vaccine Institute (IVI); the Bill & Melinda Gates Foundation; industry resource members Janssen, Pfizer, and Sanofi Pasteur U.S. (list in formation), and the Developing Countries Vaccine Manufacturers Network (DCVMN). 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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