



Vaccines and Global Health: The Week in Review **16 May 2015** **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 6,500 entries.*

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

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Nepal earthquake 2015 - Grade 3 emergency

:: [Health situation report No. 16pdf, 281kb](#) 15 May 2015

:: [Nepal ramps up disease surveillance after earthquakes](#) 15 May 2015

Global Health Cluster

..Health Cluster 4Ws - 13 May 2015xlsx, 360kb

..Health Cluster Bulletin No. 2pdf, 2.26Mb 12 May 2015

:: [WHO South-East Asia Region SEARO](#)

.. [Emergency preparedness pays off as Kathmandu hospitals respond to earthquakes](#)

13 May 2015

[.. Continuing care for tuberculosis, diabetes and heart patients in earthquake hit Nepal](#)

10 May 2015

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EBOLA/EVD [to 16 May 2015]

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

WHO: [Ebola Situation Report - 13 May 2015](#)

[Excerpts]

SUMMARY

:: A total of 9 confirmed cases of Ebola virus disease (EVD) was reported in the week to 10 May: the lowest weekly total this year. Guinea reported a total of 7 cases, Sierra Leone reported 2. For the first time since the beginning of the outbreak in Sierra Leone, the country reported zero confirmed cases for more than 2 consecutive days in the week to 10 May. As at 12 May, Sierra Leone has reported 8 consecutive days without a confirmed case. The EVD outbreak in Liberia was declared over on 9 May, after 42 complete days elapsed since the burial of the last confirmed case. The country has now entered a 3-month period of heightened vigilance. WHO will maintain an enhanced presence in the country until the end of 2015, with a particular focus on areas that border Guinea and Sierra Leone....

COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

:: There have been a total of 26,724 reported confirmed, probable, and suspected cases of EVD in Guinea, Liberia and Sierra Leone (figure 1, table 1), with 11,065 reported deaths (this total includes reported deaths among probable and suspected cases, although outcomes for many cases are unknown). A total of 7 new confirmed cases were reported in Guinea and 2 in Sierra Leone in the 7 days to 10 May. The outbreak in Liberia was declared over on 9 May...

[Ebola virus disease – Italy](#)

Disease outbreak news

13 May 2015

On 12 May 2015, WHO received notification of a laboratory-confirmed case of Ebola virus disease (EVD) in Italy. This is the first EVD case to be detected on Italian soil...

Editor's Note

Prepared in time for engagement during the upcoming World Health Assembly, the first report of the Ebola assessment panel is excerpted below. The panel will present its final report after visiting and consulting with the affected countries, currently set for June 2015.

The panel is chaired by Barbara Stocking, President of Murray Edwards College, University of Cambridge the United Kingdom and former chief executive of Oxfam GB; Professor Jean-Jacques Muyembe-Tamfun, Director-General of the National Institute for Biomedical Research, Democratic Republic of the Congo; Dr Faisal Shuaib, Head of the National Ebola Emergency Operations Center, Nigeria; Dr Carmencita Alberto-Banatin, independent consultant and advisor on health emergencies and disasters, Philippines; Professor Julio Frenk, Dean of the Faculty,

Harvard T. H. Chan School of Public Health, Boston, Massachusetts; and Professor Ilona Kickbusch, Director of the Global Health Programme at the Graduate Institute of International and Development Studies, Geneva, Switzerland.

Ebola Interim Assessment Panel

Report by the Secretariat A68/25

WHO - SIXTY-EIGHTH WORLD HEALTH ASSEMBLY

Provisional agenda item 16.1

8 May 2015 :: 12 pages

Pdf: http://apps.who.int/gb/ebwha/pdf_files/WHA68/A68_25-en.pdf

[Selected Excerpts]

19. Now is the historic political moment for world leaders to give WHO new relevance and empower it to lead in global health. A strengthened, well-funded WHO can support all countries as they prepare to meet the challenges of increasing global interdependence and shared vulnerability. In response, the Secretariat needs to take serious steps to earn this leadership role in relation to outbreaks and emergency response and to regain the trust of the international community.

20. At present, WHO does not have the operational capacity or culture to deliver a full emergency public health response. A number of options have been suggested by different organizations and individuals: (i) a new agency should be established for health emergencies; (ii) the emergency part of the health response should be led by another United Nations agency; or (iii) investments should be made so that the operational capacity of WHO for emergency response is fully in place.

21. The panel recommends that the third option should be pursued with vigour. Establishing a new agency would take time to put in place and substantial new resources would be required to establish its basic administrative systems, and operational response capacity. A new agency would, in any case, have to rely on and coordinate with WHO for public health and technical resources, creating an unnecessary interface. Similarly, if another United Nations agency were expected to develop health operational capacity, it too would need to coordinate in depth with WHO, especially with respect to the International Health Regulations (2005). All this suggests that, as WHO already has the mandate to deliver on operational response, it would be a far more effective and efficient use of resources to make WHO fit for purpose. This will require the resources and political will of the Member States.

22. The Panel puts this recommendation to the Health Assembly now so that the overarching strategic direction is clear and that change can be driven forward quickly. If Member States agree to this strategic direction, then matters such as the Global Health Emergency Workforce and the proposed Contingency Fund can immediately move to implementation, so that the world is better placed to respond to significant public health emergencies.

23. A WHO that is capable of adequately responding to public health emergencies requires deep and substantial organizational change. The reaffirmation of WHO's mandate in these emergencies should not be given lightly. This will require accountability and monitoring. Below we set out the key implications...

WHO Director-General addresses high-level meeting on Ebola R&D

Dr Margaret Chan, Director-General of the World Health Organization

Opening remarks at a WHO Ebola research and development forum

11 May 2015

Distinguished scientists, representatives of industry, colleagues in public health, ladies and gentlemen,

Good morning and a warm welcome to this high-level meeting. I thank you for your time and expertise.

The Ebola R&D effort has mobilised people, institutions and resources in ways never seen before. This is one positive outcome in an otherwise horrific human calamity.

New tools have been developed with unprecedented speed, though the window of opportunity for testing some is closing. On Saturday, WHO declared an end to the outbreak in Liberia. This is a monumental achievement in by far the worst outbreak since Ebola emerged in 1976.

Prior to the current outbreak, Ebola was considered a rare disease. Much about the disease and its causative agent was poorly understood. Your work has increased that understanding considerably. We are likely very close to having a vaccine that can protect against Ebola.

We have 4 rapid diagnostics to detect infection, and 2 of these are point-of-care. We have much more information about which therapeutic interventions may or may not work.

This is a contribution to scientific knowledge, but it is also a contribution to better preparedness. Thanks to your work, the world will be far better equipped to respond when the next Ebola outbreak inevitably occurs.

You have achieved something even bigger. What we see emerging, over a very short time, is a new model for the accelerated development, testing, and approval of new medical products during emergencies caused by any emerging or re-emerging infectious disease.

Your collaborative efforts prove that the traditional R&D model can be adapted, timeframes can be compressed, and partnerships that are otherwise unlikely can be formed.

The implications are huge. Many other serious diseases have no vaccines or therapeutic options, and some of these diseases have epidemic potential.

The job now is to harness the lessons from Ebola to create a new R&D framework that can be used for any epidemic-prone disease, in any infectious disease emergency.

This is what you will be discussing over the next 2 days: an R&D preparedness plan with clear rules, well-defined platforms for information sharing, and agreed procedures to expedite development and clinical trials.

In emergencies, coordination is the first essential element. Timely and transparent information sharing is the second.

The more we know about what other partners have discovered or achieved, the better equipped we will be to make informed decisions and take the right next steps with the greatest possible speed.

In this sense, the R&D response to Ebola marks an historical, ground-breaking event. Public research institutes, private funders, civil society, countries, and industry have united, in unprecedented ways, to defend the world against a deadly and deeply dreaded disease.

Many of you present today were part of this army. I hope the world will recognize what your engagement means, also as a contribution to future preparedness.

I wish you every success over the coming 2 days and eagerly await the outcome of your discussions.

As Ebola disappears, no useful data seen from vaccine trials: WHO

Reuters | 12 May 2015

By Stephanie Nebehay

GENEVA (Reuters) - With Ebola nearly stamped out in West Africa, vaccine trials will probably fail to provide enough useful data on how well they protect people against the deadly virus, the World Health Organization (WHO) said on Tuesday.

Liberia was declared free from Ebola by the government and the WHO on Saturday after 42 days without a new case of the virus, which killed more than 4,700 people there during a year-long epidemic.

Guinea reported seven cases in the week of May 4-10, while Sierra Leone had two, Dr. Marie-Paule Kieny, WHO Assistant Director-General for Health Systems and Innovation, told a news briefing in Geneva.

"The best news is we are going to zero cases, there is absolutely no doubt about that," she said.

But two experimental Ebola vaccines - developed by GlaxoSmithKline and jointly by Merck and NewLink Genetics - being tested on volunteers may not yield sufficient data on efficacy as case numbers fall, Kieny said.

"It is not clear whether it will be possible to have even a hint of efficacy from these two vaccines," she said, noting that they already had been proven safe.

"To have efficacy we must see if people are actually protected, as the number of cases is going down it is not clear whether there will be a strong robust answer to this question at the end of epidemic," she said.

Two drugs - Zmapp made by Zmapp Pharmaceuticals and sIRNA by Tekmira Pharmaceuticals - are also being tested and it is hoped that they will produce some limited results on efficacy, Kieny said.

The U.N. agency this week hosted a two-day experts' meeting on Ebola research and development after the world's largest epidemic that has killed more than 11,000 since December 2013. The aim is to draw up a plan to speedily develop vaccines and drugs for use in clinical trials during any future outbreak of any infectious disease.

Consultations will be held in coming months on issues including developing protocols, data sharing and storing biological material including the virus and blood serum of patients, Kieny said.

Asked when a framework deal on research and development could be reached, she said: "Tentatively we try to go for the end of the year."

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POLIO [to 16 May 2015]

Public Health Emergency of International Concern (PHEIC)

GPEI Update: Polio this week - As of 13 May 2015

Global Polio Eradication Initiative

[Editor's Excerpt and text bolding]

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

:: Ministers of Health from around the world will meet in Geneva, Switzerland, next week for the annual World Health Assembly. The Ministers will discuss a number of topics related to public health, including polio eradication. The Global Polio Eradication Initiative has prepared a

status report for delegates. The report and an accompanying resolution are expected to inform the discussions.

:: The latest semi-annual status report has been published and covers the period July to December 2014. The report provides an in-depth epidemiological and programmatic update for endemic, re-infected and high-risk countries.

:: Liberia and Sierra Leone have conducted polio and measles vaccination campaigns during the first week of May. These are the first campaigns conducted in these countries since 2013 (due to the Ebola outbreak). Polio staff in these countries continue to assist in the Ebola outbreak response efforts

Selected excerpts from Country-specific Reports [No new polio cases reported]

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WHO & Regionals [to 16 May 2015]

:: [**Racing to combat an unprecedented meningitis outbreak in Niger**](#)

15 May 2015 -- WHO and partners have sent an international expert team and negotiated provision of over half a million doses of vaccine to help Niger combat an unprecedented outbreak of meningococcal meningitis. This outbreak is the first large-scale meningitis outbreak caused by strain C to hit any country in Africa's meningitis belt and has caused 5,855 suspected cases including 406 deaths.

Read the situation assessment

:: [**Sixty-eighth World Health Assembly**](#)

15 May 2015 -- The Sixty-eighth session of the World Health Assembly takes place in Geneva 18–26 May 2015, as officials from 194 Member States begin their annual review of the activities of WHO and set new priorities for the future. The main functions of the World Health Assembly are to determine the policies of the Organization and review and approve the proposed programme budget. The Health Assembly is held every May in Geneva, Switzerland.

..Full coverage of the 68th World Health Assembly

..View live webcast - Monday, 18 May, 9:30 CET

:: [**Global Alert and Response \(GAR\) – Disease Outbreak News \(DONs\)**](#)

.. Rapidly growing outbreak of meningococcal disease in Niger 15 May 2015

.. Human infection with avian influenza A(H7N9) virus – China 14 May 2015

.. Ebola virus disease – Italy 13 May 2015

:: [**The Weekly Epidemiological Record \(WER\) 15 May 2015**](#), vol. 90, 20 (pp. 217–252)

includes

.. Set of interviews

.. Epidemics timeline

.. Emerging and re-emerging infectious threats in the 21st century

.. Middle East respiratory syndrome coronavirus (MERS-CoV): current situation 3 years after the virus was first identified

.. Plague in Madagascar: overview of the 2014– 2015 epidemic season

:: [**Millennium Development Goals \(MDGs\) - Fact sheet N°290**](#)

Updated May 2015

Key facts

..Globally, the number of deaths of children under 5 years of age fell from 12.7 million in 1990 to 6.3 million in 2013.

..In developing countries, the percentage of underweight children under 5 years old dropped from 28% in 1990 to 17% in 2013.

..Globally, new HIV infections declined by 38% between 2001 and 2013.

..Existing cases of tuberculosis are declining, along with deaths among HIV-negative tuberculosis cases.

..In 2010, the world met the United Nations Millennium Development Goals target on access to safe drinking-water, as measured by the proxy indicator of access to improved drinking-water sources, but more needs to be done to achieve the sanitation target.

:: **World Health Statistics 2015**

World Health Statistics 2015 contains WHO's annual compilation of health-related data for its 194 Member States, and includes a summary of the progress made towards achieving the health-related Millennium Development Goals (MDGs) and associated targets.

WHO presents World Health Statistics 2015 as an integral part of its ongoing efforts to provide enhanced access to comparable high-quality statistics on core measures of population health and national health systems.

DOWNLOAD THE FULL REPORT: [English](#)

:: **WHO Regional Offices**

WHO African Region AFRO

:: [Renowned public health experts and leaders endorse a vision for an Africa Health Transformation Programme to enhance health in the African Region - 14 May 2015](#)

WHO Region of the Americas PAHO

:: [LGBT health sees progress and challenges 15 years after homosexuality ceased being considered a disease](#) (05/15/2015)

:: [PAHO/WHO urges more attention to blood pressure control](#) (05/14/2015)

:: [PAHO/WHO highlights need to train more nursing personnel](#) (05/12/2015)

:: [New studies show immunization remains a 'best buy' in the fight against vaccine-preventable diseases](#) (05/11/2015)

WHO South-East Asia Region SEARO

:: [Emergency preparedness pays off as Kathmandu hospitals respond to earthquakes](#)

13 May 2015

:: [Continuing care for tuberculosis, diabetes and heart patients in earthquake hit Nepal](#)

10 May 2015

WHO European Region EURO

:: [First confirmed Ebola case in Italy](#) 14-05-2015

:: [Better hospital care for children](#) 11-05-2015

:: [WHO/Europe supports translation of European Vaccine Action Plan into national immunization plans in Gavi-supported countries](#)

12-05-2015

A workshop to build capacity for comprehensive multi-year planning (cMYP) on immunization in countries eligible for support from the Global Alliance for Vaccines and Immunization (Gavi) took place on 27–29 April 2015 in Copenhagen, Denmark.

Continuation of GAVI support to countries is conditional on submission of updated cMYPs, which provide strategic guidance to national immunization programmes and stakeholders. WHO/Europe organized the workshop to help Armenia, Azerbaijan, Georgia, Kyrgyzstan, Republic of Moldova, Tajikistan, Ukraine and Uzbekistan identify critical aspects to be considered while developing their next cMYP, in line with revised WHO–United Nations Children's Fund cMYP development guidelines and new costing and financing tool.

The process of updating cMYPs for the upcoming cycle (2016–2020) is also a vital time to translate the goals, objectives and proposed actions of the European Vaccine Action Plan 2015–2020 (EVAP) into national immunization plans.

Cross-border collaboration combined with tailored support to countries

Approximately 35 immunization programme managers and programme staff in charge of vaccine management and logistics, surveillance of vaccine-preventable diseases and immunization financing attended the workshop, along with WHO experts and representatives of partner agencies. Working together to improve planning of national immunization programmes allowed the participants to share experiences and best practices across national borders.

The workshop also provided WHO/Europe the opportunity to assess what technical assistance each country needs to finalize its cMYP. Based on this assessment, tailored support will be provided to countries at different stages of the planning process to ensure that development of cMYPs is aligned with national commitments and plans as laid out in the EVAP.

WHO Eastern Mediterranean Region EMRO

:: [WHO to deliver additional medicines and medical supplies to Yemen](#)

15 May 2015, Amman, Jordan — WHO is scaling up its provision of medicines and medical supplies to Yemen during the current humanitarian pause. Today, WHO is sending more than 20 tonnes of medicines and medical supplies to Hodeida, comprising international emergency health kits, trauma kits, surgical supply kits, emergency diarrhoeal disease kits, and water, sanitation and hygiene items for more than 120 000 beneficiaries. More than 300 000 people have been newly displaced in Yemen since March, and almost 8.6 million people are in need of health services around the country.

:: [Morocco joins the International Agency for Research on Cancer](#) 16 May 2015

:: [Egypt: upsurge in H5N1 human and poultry cases but no change in transmission pattern of infection](#) 15 May 2015

:: [WHO–Kuwait partnership to help the people of Syria](#)

15 May 2015

WHO Western Pacific Region

:: [Four innovative Pacific projects receive WHO Healthy Islands Recognition](#)

YANUCA ISLAND, 11 May 2015 – As part of the Eleventh Pacific Health Ministers Meeting, the World Health Organization (WHO) awarded four innovative projects in Commonwealth of the Northern Mariana Islands, Samoa, Tokelau and Vanuatu with the WHO Healthy Islands Recognition for the outstanding work by health and community leaders in the Pacific.

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CDC/MMWR/ACIP Watch [to 16 May 2015]

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

:: **MMWR Weekly May 15, 2015 / Vol. 64 / No. 18**

.. Controlling the Last Known Cluster of Ebola Virus Disease — Liberia, January–February 2015

.. Initiation of a Ring Approach to Infection Prevention and Control at Non-Ebola Health Care Facilities — Liberia, January–February 2015

GAVI [to 16 May 2015]

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

:: **Qatar pledges support for Gavi to save children's lives with vaccines**

Funding will help Vaccine Alliance protect millions of children from infectious disease.

DOHA, 14 May 2015 – The Qatar Development Fund and Gavi, the Vaccine Alliance signed today a landmark Contribution Agreement, under which the State of Qatar agreed to make a multi-year financial pledge to help immunise children in the world's poorest countries against vaccine-preventable diseases.

Under the agreement, Qatar committed to provide an initial US\$ 10 million to Gavi to support immunisation programmes in the period between 2016 and 2020. The funding will be provided through the Qatar Development Fund and follows the announcement at the Gavi Pledging Conference, held in Berlin in January 2015, that Qatar intends to commit funding to the Vaccine Alliance...

..."The State of Qatar is committed to helping the international coalition save children's lives and protect people's health through cooperation with the Global Alliance for Vaccines and Immunization Organization by increasing access to immunisation in developing countries," said Khalifa Al-Kuwari, General Director of Qatar Development Fund...

:: **IFFIm awarded prize for 'Innovation in Islamic Finance 2015'**

12 May 2015

Third global award given for IFFIm's November sukuk transaction.

European Vaccine Initiative [to 16 May 2015]

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

MVVC: Publication of promising results from a recent vaccine clinical trial in Kenya

10 May 2015

Results of a phase IIb clinical trial conducted in Kenya under the MVVC project were published 7 May 2015 in Science Translational Medicine.

European Medicines Agency Watch [to 16 May 2015]

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

:: **Safety monitoring of medicines: EMA to screen medical literature for 400 active substance groups**

12/05/2015

New service will improve safety monitoring of medicines and simplify pharmacovigilance activities for companies

The European Medicines Agency (EMA) has published the list of active substances and a reference to the journals that will be covered by its new medical literature monitoring service. This service will start with a limited number of active substances on 1 July 2015 and will be fully rolled out in September 2015. A guide, a training video and a document detailing the inclusion

and exclusion criteria to be used when screening the literature are also available on a dedicated webpage.

Medical literature is an important source of information on suspected adverse reactions reported on medicines. The European Union's (EU) pharmacovigilance legislation has given EMA responsibility for the monitoring of selected medical literature for a defined list of active substances used in medicines and for entering identified reports of suspected adverse reactions in EudraVigilance, the EU adverse drug reaction collection and management system...

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BMGF (Gates Foundation) [to 16 May 2015]

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

No new digest content identified.

Global Fund [to 16 May 2015]

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

No new digest content identified.

PATH [to 16 May 2015]

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

No new digest content identified.

International AIDS Vaccine Initiative Watch [to 16 May 2015]

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

No new digest content identified.

IVI Watch [to 16 May 2015]

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

No new digest content identified.

Sabin Vaccine Institute Watch [to 16 May 2015]

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

No new digest content identified.

NIH Watch [to 16 May 2015]

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

No new digest content identified.

FDA Watch [to 16 May 2015]

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

No new digest content identified.

Industry Watch [to 16 May 2015]

No new digest content identified.

DCVMN / PhRMA / EFPIA / IFPMA / BIO Watch [to 16 May 2015]

No new digest content identified.

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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

IOM: Scaling Program Investments for Young Children Globally: Evidence from Latin America and the Caribbean—Workshop in Brief

May 14, 2015

Authors: Amanda Pascavis, Rapporteur

Forum on Investing in Young Children Globally; Board on Children, Youth, and Families; Board on Global Health; Institute of Medicine; National Research Council

Pdf: http://www.nap.edu/catalog.php?record_id=21748

Overview

On November 11, 2014, the Forum on Investing in Young Children Globally of the Institute of Medicine and National Research Council, in partnership with Fundação Maria Cecília Souto Vidigal (FMCSV) in São Paulo, Brazil, held a 1-day workshop. The purpose of this interactive public workshop was to highlight efforts made to scale program investments across health, education, nutrition, and social protection that aim to improve children's developmental potential. Invited speakers and public participants explored four topics on scaling up program investments: evidence of impact for effective investments in young children; scalability of investments; sustainability of investments; and governance.

Presenters highlighted evidence on effective investments in programs and interventions in Latin America, including an account of their strengths and challenges. Speakers addressed scalability and sustainability of program investments and how to maintain quality at scale, with a focus on approaches in culturally and ethnically diverse contexts and issues of decentralization, local capacity, and information systems for monitoring and evaluation. Presentations and discussions included policy perspectives on scaling up programs. This brief summary of the workshop highlights the topics raised by panelists, moderators, and public participants, while also including possible directions for further discussion. It represents the viewpoints of individual session participants and should not be viewed as consensus conclusion or recommendations of the workshop as a whole. A full summary of the workshop will be available in summer 2015

Expanding Opportunities for the Next Generation, Early Childhood Development in the Middle East and North Africa – *Directions in development; human development*

World Bank Group

May 07, 2015 :: 343 pages

Authors: El-Kogali, Safaa El Tayeb; Krafft, Caroline Gould;

Pdf:

<http://documents.worldbank.org/curated/en/2015/01/23811898/expanding-opportunities-next-generation-early-childhood-development-middle-east-north-africa>

The report fills a critical research gap by providing the first comprehensive analysis of the state of early childhood development (ECD) in the Middle East and North Africa (MENA).

Abstract

Early childhood is the most important stage of human development. In the Middle East and North Africa (MENA), there is little research and inadequate investment in this crucial stage of life. This book assesses the state of early childhood development (ECD) in MENA from before birth through age five, examining multiple dimensions of early development including health, nutrition, socio-emotional development, early learning, and early work. The book begins with a discussion of the importance of ECD as a critical foundation for later development, and also as a stage of life when inequality and social exclusion begin. ECD in MENA is set in a global context, and then countries within MENA are compared, with chapters on ECD in Algeria, Djibouti, Egypt, Iraq, Jordan, Lebanon, Libya, Morocco, Syria, Tunisia, West Bank and Gaza, and Yemen. As well as illustrating the state of ECD, the chapters assess risk and protective factors for early development and the extent of inequality in early childhood. A discussion of policies and programs that can enhance ECD illustrates how inequality and shortfalls in early development can be effectively addressed. This book will be of interest to anyone interested in the state of human development and inequality in MENA.

Contents Overview

The first chapter offers an overview of the evidence that the period from before birth to age five is the most important stage of human development. This period is especially crucial as deficits at this early stage tend to be irreversible and to perpetuate cycles of poverty and inequality. The many dimensions of healthy ECD, from proper healthcare and nutrition to early development activities, are identified along with the range of related indicators used to measure the state of ECD in the region.

Chapter 2 offers a comparison with other regions of the world, for a better understanding of the state of ECD in MENA,. The twelve countries of the region are also compared, to establish benchmarks and identify country-specific deficits in ECD. The chapter includes an analysis of the factors that influence ECD, as there is significant inequality of access to key development activities even in the region's more developed countries.

Chapter 3 shows that economic growth alone will not address the many shortfalls in the region's ECD. Targeted interventions are needed. The chapter provides a way forward with a number of approaches from around the world that have been implemented successfully and which would benefit children in MENA.

Country analyses:

:: **Algeria** which has achieved good immunization rates but has high rates of stunting due to malnutrition, and where a child's social and economic background influences the chances of healthy development.

:: **Djibouti** where prenatal and delivery care is now almost universal but child mortality rates are still high and less than one third of children are fully immunized by the age of one.

:: **Egypt** where stunting is a major and persistent problem and disadvantaged children are the least likely to benefit from early schooling, although immunization rates have reached 92%.

:: **Iraq** where only half of children are receiving regular prenatal care, less than two-thirds are fully immunized and access to key development activities is closely related to social and economic background.

:: **Jordan** which has achieved near universal coverage for prenatal and neonatal care, and while rates for stunting are low there is large variation in nutrition status, with a child from the poorest segment of society seven times as likely to be stunted as a child from the richest.

:: **Lebanon** which has also achieved near universal coverage for prenatal and neonatal care but where only half of all children are fully immunized by age one and poorer children are more likely to be stunted.

:: **Libya** before the current crisis, where 87% of all children were fully immunized but only half had access to iodized salt, essential for cognitive development, and more than one fifth were stunted.

:: **Morocco** where 90% of children are fully immunized but almost one third are stunted and deaths in the first month and year of life are above regional averages, with the poorest children facing greater risk of death.

:: **Syria** before the current crisis, where 96% of births were assisted by a skilled attendant but only 78% of one-year-olds were fully immunized and over one quarter of all children were stunted.

:: **Tunisia** which has achieved near universal prenatal and delivery care and early mortality has fallen below regional averages, but children in rural areas have one third the chance of urban children to attend early education and 22% of children aged 5 are engaged in child labor.

:: **West Bank and Gaza** which has achieved near universal coverage for prenatal and delivery care but stunting remains a persistent problem and there are large differences in access to early care and education between advantaged and disadvantaged children.

:: **Yemen** before the current crisis where less than half of all births received prenatal care and children were more than twice as likely to die before their first birthday (7%) as they were to attend early childhood education (3%).

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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

The American Journal of Bioethics

Volume 15, Issue 5, 2015

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

[No relevant content identified]

American Journal of Infection Control

May 2015 Volume 43, Issue 5, p423-546, e1-e17

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

[Reviewed earlier]

American Journal of Preventive Medicine

May 2015 Volume 48, Issue 5, p491-646, e5-e10

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

[No relevant content identified]

American Journal of Public Health

Volume 105, Issue 5 (May 2015)

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

[Reviewed earlier]

American Journal of Tropical Medicine and Hygiene

May 2015; 92 (5)

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

[Reviewed earlier]

Annals of Internal Medicine

5 May 2015, Vol. 162. No. 9

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

[Reviewed earlier]

BMC Health Services Research

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

(Accessed 16 May 2015)

[No new relevant content identified]

BMC Infectious Diseases

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

(Accessed 16 May 2015)

[No new relevant content identified]

BMC Medical Ethics

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

(Accessed 16 May 2015)

[No new relevant content identified]

BMC Pregnancy and Childbirth

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

(Accessed 16 May 2015)

[No new relevant content identified]

BMC Public Health

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

(Accessed 16 May 2015)

Research article

Motives of Dutch persons aged 50 years and older to accept vaccination: a qualitative study

Renske Eilers, Paul Krabbe, Hester de Melker BMC Public Health 2015, 15:493 (16 May 2015)

[Abstract](#) | [Provisional PDF](#)

Review

Urban health indicators and indices: current status

Richard Rothenberg^{1*}, Christine Stauber¹, Scott Weaver¹, Dajun Dai², Amit Prasad³ and Megumi Kano³

Author Affiliations

BMC Public Health 2015, 15:494 doi:10.1186/s12889-015-1827-x

Published: 16 May 2015

Abstract (provisional)

Though numbers alone may be insufficient to capture the nuances of population health, they provide a common language of appraisal and furnish clear evidence of disparities and inequalities. Over the past 30 years, facilitated by high speed computing and electronics, considerable investment has been made in the collection and analysis of urban health indicators, environmental indicators, and methods for their amalgamation. Much of this work has been characterized by a perceived need for a standard set of indicators. We used publication databases (e.g. Medline) and web searches to identify compilations of health indicators and health metrics. We found 14 long-term large-area compilations of health indicators and determinants and seven compilations of environmental health indicators, comprising hundreds of metrics. Despite the plethora of indicators, these compilations have striking similarities in the domains from which the indicators are drawn—an unappreciated concordance among the major collections. Research with these databases and other sources has produced a small number of composite indices, and a number of methods for the amalgamation of indicators and the demonstration of disparities. These indices have been primarily used for large-area (nation, region, state) comparisons, with both developing and developed countries, often for purposes of ranking. Small area indices have been less explored, in part perhaps because of the vagaries of data availability, and because idiosyncratic local conditions require flexible approaches as opposed to a fixed format. One result has been advances in the ability to compare large areas, but with a concomitant deficiency in tools for public health workers to assess the status of local health and health disparities. Large area assessments are important, but the need for small area action requires a greater focus on local information and analysis, emphasizing method over prespecified content.

BMC Research Notes

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

(Accessed 16 May 2015)

[No new relevant content identified]

BMJ Open

2015, Volume 5, Issue 5

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

[No new relevant content identified]

British Medical Journal

16 May 2015(vol 350, issue 8008)

<http://www.bmj.com/content/350/8008>

Editorials

Who should be vaccinated against HPV?

BMJ 2015; 350 doi: <http://dx.doi.org/10.1136/bmj.h2244> (Published 12 May 2015) Cite this as:
BMJ 2015;350:h2244

Karen Canfell, director¹

Author affiliations

As richer countries consider vaccinating males, the focus for lower income countries should remain on cervical cancer prevention

Vaccination of girls against the human papillomavirus (HPV) has been implemented in most developed countries, driven by prevention of cervical cancer as a public health priority. Bivalent (Cervarix, GSK) and quadrivalent (Gardasil, Merck) vaccines protect against subsequent infection with oncogenic HPV16/18, and quadrivalent vaccine protects against HPV6/11, which cause anogenital warts. Although HPV vaccination effectively protects against external genital lesions and anal intraepithelial neoplasia in males, only a few jurisdictions have so far recommended universal vaccination of boys. These include Australia, Austria, two Canadian provinces, and the United States. In other countries, a cautious approach has been due, in part, to uncertainties around the population level impact and cost effectiveness of vaccination of boys.

In a linked article, Bogaards and colleagues (doi:[10.1136/bmj.h2016](http://dx.doi.org/10.1136/bmj.h2016)) estimated the benefits to men of offering HPV vaccination to boys.¹ They used a dynamic simulation and a bayesian synthesis to integrate the evidence on HPV related cancers in men. The analysis takes account of indirect protection from female vaccination: heterosexual men will benefit from reduced HPV circulation in females, so if coverage in girls is high the incremental benefit of vaccinating boys is driven by prevention of the residual burden of anal cancer in men who have sex with men.

The findings reinforce those of prior analyses that found that adding boys to established vaccination programmes in girls becomes less cost effective as female coverage increases.² The cost effectiveness of vaccination of boys also depends on other local issues, especially vaccine type and vaccine and administration costs. A threshold total cost per vaccinated boy for cost effectiveness can be identified at any level of coverage in girls: such analyses can provide policy makers with the maximum rational vaccine price appropriate to the local environment. If vaccine coverage in girls is lower, however, the most effective use of resources is likely to involve increasing coverage in girls, if feasible.^{2 3}

In some countries, vaccination of boys might not be cost effective, even at lower vaccine prices, due to higher administration costs.³ Recent developments towards reduced dose

schedules could help. In 2013 the European Medical Agency recommended a two dose schedule for the bivalent vaccine in girls, in 2014 the United Kingdom switched to a two dose schedule, and the World Health Organization now recommends two doses for girls <15. Two dose schedules are the most cost effective option for girls provided protection lasts for ≥ 20 years⁴ and reduced dose schedules in boys are also likely to increase cost effectiveness if adequate efficacy is maintained.

Bogaards and colleagues highlight the importance of vaccination for prevention of anal cancer in men who have sex with men. In part due to uncertainties in natural history, the effectiveness of anal cancer screening is not established.⁵ Primary prevention with targeted vaccination of men who have sex with men is an attractive option and is potentially more cost effective than universal vaccination of boys. The US Advisory Committee on Immunization Practices already recommends vaccination of men who have sex with men up to the age of 26 years.⁶ Older men who have sex with men could also potentially benefit. The UK's Joint Committee on Vaccination and Immunisation, as an interim position, recently stated that a programme to vaccinate men aged 16-40 who have sex with men with a quadrivalent vaccine should be considered, if cost effective.⁷ Lower coverage rates expected with targeted versus universal male vaccination are an important consideration, and the two approaches are not mutually exclusive.

Several other new developments should be factored in to future policy decisions. A recent study showed that the bivalent vaccine is effective in women aged ≥ 25 without a history of HPV disease.⁸ With a transition to primary HPV screening occurring in several countries, an interesting possibility to be evaluated involves "screen and vaccinate" strategies in older women—that is, offering HPV screening, followed by vaccination for HPV negative women with extended (or perhaps no) recall for this group. Secondly, a nonavalent vaccine (Gardasil9, Merck), which protects against an extra five HPV types,⁹ has recently been recommended for use in the US.⁶ In women, this will increase protection against cervical cancer in those who are fully vaccinated (from about 70% to about 90%)¹⁰ but as most HPV cancers in men are attributed to types included in current vaccines,¹ tiered pricing structures for new generation vaccines based on differential incremental benefits (and thus differential cost effectiveness thresholds) in girls versus boys could be considered.

All these policy decisions must consider burden of disease, safety, effectiveness, acceptability, equity, and cost effectiveness. Although the focus in developed countries has now, appropriately, shifted to considering these issues for boys, men who have sex with men, and older women, broader efforts to prevent cervical cancer should remain the priority in low and middle income countries. Of the 610 000 cancers annually attributable to HPV worldwide, 87% are cancers of the cervix, and three quarters of these occur in countries with a low or medium human development index.¹¹ Even if a substantial majority of young girls in such countries were vaccinated, hundreds of millions of older women would remain at risk—vaccination alone will not prevent an expected increase in cervical cancers in the next few decades, driven by population ageing. Here, the priority focus should be the development of integrated programmes for vaccinating young girls and screening older women. Based on experience in developed countries, this will also provide benefits for men through indirect vaccine protection.

Footnotes

Research, doi:10.1136/bmj.h2016

Research

[Direct benefit of vaccinating boys along with girls against oncogenic human papillomavirus: bayesian evidence synthesis](http://dx.doi.org/10.1136/bmj.h2016)

BMJ 2015; 350 doi: <http://dx.doi.org/10.1136/bmj.h2016> (Published 12 May 2015) Cite this as: BMJ 2015;350:h2016

Johannes A Bogaards, senior researcher^{1,2}, Jacco Wallinga, senior researcher², Ruud H Brakenhoff, professor³, Chris J L M Meijer, professor⁴, Johannes Berkhof, associate professor¹
Author affiliations

Abstract

Objective

To assess the reduction in the vaccine preventable burden of cancer in men if boys are vaccinated along with girls against oncogenic human papillomavirus (HPV).

Design

Bayesian evidence synthesis approach used to evaluate the impact of vaccination against HPV types 16 and 18 on the burden of anal, penile, and oropharyngeal carcinomas among heterosexual men and men who have sex with men. The reduced transmission of vaccine-type HPV from vaccination of girls was assumed to lower the risk of HPV associated cancer in all men but not to affect the excess risk of HPV associated cancers among men who have sex with men.

Setting

General population in the Netherlands.

Intervention

Inclusion of boys aged 12 into HPV vaccination programmes.

Main outcome measures

Quality adjusted life years (QALYs) and numbers needed to vaccinate.

Results

Before HPV vaccination, 14.9 (95% credible interval 12.2 to 18.1) QALYs per thousand men were lost to vaccine preventable cancers associated with HPV in the Netherlands. This burden would be reduced by 37% (28% to 48%) if the vaccine uptake among girls remains at the current level of 60%. To prevent one additional case of cancer among men, 795 boys (660 to 987) would need to be vaccinated; with tumour specific numbers for anal, penile, and oropharyngeal cancer of 2162, 3486, and 1975, respectively. The burden of HPV related cancer in men would be reduced by 66% (53% to 80%) if vaccine uptake among girls increases to 90%. In that case, 1735 boys (1240 to 2900) would need to be vaccinated to prevent an additional case; with tumour specific numbers for anal, penile, and oropharyngeal cancer of 2593, 29107, and 6484, respectively.

Conclusions

Men will benefit indirectly from vaccination of girls but remain at risk of cancers associated with HPV. The incremental benefit of vaccinating boys when vaccine uptake among girls is high is driven by the prevention of anal carcinomas, which underscores the relevance of HPV prevention efforts for men who have sex with men.

Bulletin of the World Health Organization

Volume 93, Number 5, May 2015, 285-360

<http://www.who.int/bulletin/volumes/93/5/en/>

[Reviewed earlier]

Clinical Infectious Diseases (CID)

Volume 60 Issue 10 May 15, 2015

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

[Reviewed earlier]

Clinical Therapeutics

April 2015 Volume 37, Issue 4, p687-924

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

[Reviewed earlier]

Complexity

May/June 2015 Volume 20, Issue 5 Pages C1–C1, 1–76

<http://onlinelibrary.wiley.com/doi/10.1002/cplx.v20.5/issuetoc>

[Reviewed earlier]

Conflict and Health

[Accessed 16 May 2015]

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

[No new relevant content identified]

Contemporary Clinical Trials

Volume 42, *In Progress* (May 2015)

<http://www.sciencedirect.com/science/journal/15517144/42>

[Reviewed earlier]

Cost Effectiveness and Resource Allocation

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

(Accessed 16 May 2015)

[No new relevant content identified]

Current Opinion in Infectious Diseases

June 2015 - Volume 28 - Issue 3 pp: v-v,199-282

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

[Reviewed earlier]

Developing World Bioethics

April 2015 Volume 15, Issue 1 Pages ii–iii, 1–57

<http://onlinelibrary.wiley.com/doi/10.1111/dewb.2015.15.issue-1/issuetoc>

[Reviewed earlier]

Development in Practice

Volume 25, Issue 4, 2015

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

[Reviewed earlier]

Emerging Infectious Diseases

Volume 21, Number 5—May 2015

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

[Reviewed earlier]

Epidemics

Volume 11, [In Progress](#) (June 2015)

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

[Reviewed earlier]

Epidemiology and Infection

Volume 143 - Issue 07 - May 2015

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

[Reviewed earlier]

The European Journal of Public Health

Volume 25, Issue 2, 01 April 2015

<http://eurpub.oxfordjournals.org/content/25/2>

[Reviewed earlier]

Eurosurveillance

Volume 20, Issue 19, 14 May 2015

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

[No relevant content identified

]

Global Health: Science and Practice (GHSP)

March 2015 | Volume 3 | Issue 1

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

[Reviewed earlier]

Global Health Governance

<http://blogs.shu.edu/ghg/category/complete-issues/spring-autumn-2014/>

[Accessed 16 May 2015]

[No new relevant content]

Global Public Health

Volume 10, Issue 4, 2015

<http://www.tandfonline.com/toc/rgph20/current#.VPudJy5nBhU>

[Reviewed earlier]

Globalization and Health

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

[Accessed 16 May 2015]

[No new relevant content]

Health Affairs

May 2015; Volume 34, Issue 5

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

[Reviewed earlier]

Health and Human Rights

Volume 16, Issue 2 December 2014

<http://www.hhrjournal.org/volume-16-issue-2/>

Papers in Press: Special Issue on Health Rights Litigation

[Reviewed earlier]

Health Economics, Policy and Law

Volume 10 - Issue 02 - April 2015

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

[Reviewed earlier]

Health Policy and Planning

Volume 30 Issue 5 June 2015

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

[Reviewed earlier]

Health Research Policy and Systems

<http://www.health-policy-systems.com/content>

[Accessed 16 May 2015]

[No new relevant content]

Human Vaccines & Immunotherapeutics (formerly Human Vaccines)

Volume 11, Issue 4, 2015

<http://www.tandfonline.com/toc/khvi20/current>

[**A review of economic evaluations of 13-valent pneumococcal conjugate vaccine \(PCV13\) in adults and the elderly**](#)

Open access

DOI:10.1080/21645515.2015.1011954

S Dirmesropiana, JG Wooda, CR MacIntyreab & AT Newalla*

pages 818-825

Abstract

The 13-valent pneumococcal conjugated vaccine (PCV13) is already recommended for some adult groups and is being considered for wider use in many countries. In order to identify the strengths and limitations of the existing economic evaluation studies of PCV13 in adults and the elderly a literature review was conducted. The majority of the studies identified (9 out of 10) found that PCV13 was cost-effective in adults and/or the elderly. However, these results were based on assumptions that could not always be informed by robust evidence. Key uncertainties included the efficacy of PCV13 against non-invasive pneumonia and the herd immunity effect of childhood vaccination programs. Emerging trial evidence on PCV13 in adults from the Netherlands offers the ability to parameterize future economic evaluations with empirical efficacy data. However, it is important that these estimates are used thoughtfully when they are transferred to other settings

[Cost-effectiveness analysis of a vaccination program for the prevention of herpes zoster and post-herpetic neuralgia in adults aged 50 and over in Germany](#)

Open access

DOI:10.1080/21645515.2015.1011561

Emmanuelle Préauda*, Mathieu Uharta, Katharina Böhmb, Pamela Aidelsburgerb, Delphine Angerc, Florence Bianicc & Nathalie Largerona
pages 884-896

Abstract

Herpes zoster (HZ; shingles) is a common viral disease that affects the nerves and surrounding skin causing a painful dermatomal rash and leading to debilitating complications such as, mainly, post-herpetic neuralgia (PHN). Currently, there is no effective treatment for HZ and PHN. The objective of this study was to assess the cost-effectiveness of a HZ vaccination program in Germany. An existing Markov Model was adapted to the German healthcare setting to compare a vaccination policy to no vaccination on a lifetime time-horizon, considering 2 scenarios: vaccinating people starting at the age of 50 or at the age of 60 years, from the perspective of the statutory health insurance (SHI) and the societal perspective. According to the perspective, vaccinating 20% of the 60+ German population resulted in 162,713 to 186,732 HZ and 31,657 to 35,793 PHN cases avoided. Corresponding incremental cost-effectiveness ratios (ICER) were 39,306 €/QALY from the SHI perspective and 37,417 €/QALY from a societal perspective. Results for the 50+ German population ranged from 336,468 to 394,575 HZ and from 48,637 to 56,087 PHN cases avoided from the societal perspective. Corresponding ICER were 39,782 €/QALY from a SHI perspective and 32,848 €/QALY from a societal perspective. Sensitivity analyses showed that results are mainly impacted by discount rates, utility values and use of alternative epidemiological data. The model indicated that a HZ vaccination policy in Germany leads to significant public health benefits and could be a cost-effective intervention. The results were robust and consistent with local and international existing literature.

[Evaluation of a vaccination strategy by serosurveillance data: The case of varicella](#)

Open access

DOI:10.1080/21645515.2015.1009818

Silvio Tafuri*, Maria Serena Gallonea, Maria Filomena Gallonea, Maria Giovanna Cappellia, Maria Chironnaa & Cinzia Germinarioa
pages 897-900

Abstract

Serological studies have many important epidemiologic applications. They can be used to investigate acquisition of various infections in different populations, measure the induction of an immune response in the host, evaluate the persistence of antibody, identify appropriate target groups and the age for vaccination. Serological studies can also be used to determine the

vaccine efficacy. Since 1995 a varicella vaccine is available and it has been recommended in several countries (e.g. USA, Australia, Canada, Costa Rica, Ecuador, etc.). Nevertheless few varicella seroprevalence studies in countries that adopted an URV are available. It is related to the relatively recent introduction of the vaccination and to the lack of structured and collaborative surveillance systems based on serosurvey at national or regional level. Varicella seroprevalence data collected before the introduction of vaccination strategies allowed to establish the age of vaccination (e.g., indicated the opportunity to offer the vaccine to Italian susceptible adolescents). In the post-vaccination era, seroprevalence data demonstrated vaccine as immunogenic and excluded an increase of the age of infection linked to the vaccination strategy. New seroprevalence studies should be performed to answer to open questions, such as the long-term immunity and the change of the herpes zoster epidemiological pattern related to the vaccine.

Vaccination attitudes and mobile readiness: A survey of expectant and new mothers

Open access

DOI:10.1080/21645515.2015.1009807

Katherine M Atkinson^a, Robin Ducharme^{ab}, Jacqueline Westeinde^a, Sarah E Wilson^{cd}, Shelley L Deeks^{cd}, Dante Pascali^e & Kumanan Wilson^{abef*}

pages 1039-1045

Abstract

Sub-optimal vaccination coverage and recent outbreaks of vaccine-preventable diseases serve as a reminder that vaccine hesitancy remains a concern. ImmunizeCA, a new smartphone app to help track immunizations, may address several reasons for not vaccinating. We conducted a study to describe demographic variables, attitudes, beliefs and information sources regarding pediatric vaccination in a sample of childbearing women who were willing to download an immunization app. We also sought to measure their current mobile usage behaviors and determine if there is an association between participant demographics, attitudes, beliefs and information sources regarding pediatric vaccination and mobile usage. We recruited participants using a combination of passive and active methods at a tertiary care hospital in Ottawa, Canada. We used surveys to collect demographic information, examine attitudes, behavior, and information sources regarding immunization and self-reported mobile phone usage. A total of 54 women participated. The majority had positive attitudes toward vaccination (96%) and intended to vaccinate their children (98%). Participants were interested in information on pediatric vaccination (94%), and found information from public health the most reliable and accessible (78%). Participants also trusted immunization information from their doctor or nurse and public health (83%) more than other sources. There was variability in participant use of mobile apps for other purposes. The median participant mobile readiness score was 3.2. We found no significant associations between participant age, behavior and attitudes regarding vaccination and mobile readiness scores. This is the first evaluation of mobile readiness for a smartphone app to track immunizations. Our findings suggest that there exists an opportunity to provide reliable information on vaccination through mobile devices to better inform the public, however predictors of individual engagement with these technologies merits further study.

Infectious Agents and Cancer

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

[Accessed 16 May 2015]

[No new relevant content]

Infectious Diseases of Poverty

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

[Accessed 16 May 2015]

[No new relevant content]

International Health

Volume 7 Issue 3 May 2015

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

Noma: neglected, forgotten and a human rights issue

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cGESNOMA (Geneva Study Group on Noma), Service of Plastic and Reconstructive Surgery, Geneva University Hospitals, Geneva, Switzerland

Abstract

Noma, an orofacial gangrene and opportunistic infection, affects primarily malnourished children living in extreme poverty. Neglected, forgotten, unknown by most health workers, noma results in death, disfigurement and disability of some of the world's most vulnerable children. Noma is a biological indicator of multiple human rights violations, including the right to food.

International support and national attention in countries with noma are lacking. The end of neglect of noma can lead to the elimination of this horrific childhood disease.

Patients struggle to access effective health care due to ongoing violence, distance, costs and health service performance in Afghanistan

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eMédecins Sans Frontières–Operational Centre Brussels, Operational Department, Brussels

fMédecins Sans Frontières–Operational Centre Brussels, Operational Research Unit, Brussels

Abstract

Background

The Afghan population suffers from a long standing armed conflict. We investigated patients' experiences of their access to and use of the health services.

Methods

Data were collected in four clinics from different provinces. Mixed methods were applied. The questions focused on access obstacles during the current health problem and health seeking behaviour during a previous illness episode of a household member.

Results

To access the health facilities 71.8% (545/759) of patients experienced obstacles. The combination of long distances, high costs and the conflict deprived people of life-saving

healthcare. The closest public clinics were underused due to perceptions regarding their lack of availability or quality of staff, services or medicines. For one in five people, a lack of access to health care had resulted in death among family members or close friends within the last year.

Conclusions

Violence continues to affect daily life and access to healthcare in Afghanistan. Moreover, healthcare provision is not adequately geared to meet medical and emergency needs. Impartial healthcare tailored to the context will be vital to increase access to basic and life-saving healthcare.

Health worker perceptions of integrating mobile phones into community case management of malaria in Saraya, Senegal

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^gAfrican Services Committee, New York, New York, 10027, USA

Abstract

Background

Although community case management of malaria increases access to life-saving care in isolated settings, it contends with many logistical challenges. Mobile phone health information technology may present an opportunity to address a number of these barriers.

Methods

Using the wireless adaptation of the technology acceptance model, this study assessed availability, ease of use, usefulness, and job relevance of mobile phones by health workers in Saraya, Senegal.

Results

This study conducted seven key informant interviews with government health workers, and three focus groups and 76 surveys with lay health workers. Principal findings included that mobile phones are already widely available and used, and that participants valued using phones to address training, stock management, programme reporting, and transportation challenges.

Conclusions

By documenting widespread use of mobile phones and health worker perceptions of their most useful applications, this paper provides a framework for their integration into the community case management of malaria programme in Saraya, Senegal.

International Journal of Epidemiology

Volume 44 Issue 1 February 2015

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

[Reviewed earlier]

International Journal of Infectious Diseases

June 2015 Volume 35, p1

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

[Reviewed earlier]

JAMA

May 12, 2015, Vol 313, No. 18

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

[New issue; No relevant content identified]

JAMA Pediatrics

May 2015, Vol 169, No. 5

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

[Reviewed earlier]

Journal of Community Health

Volume 40, Issue 3, June 2015

<http://link.springer.com/journal/10900/40/3/page/1>

[Reviewed earlier]

Journal of Epidemiology & Community Health

May 2015, Volume 69, Issue 5

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

[Reviewed earlier]

Journal of Global Ethics

Volume 11, Issue 1, 2015

<http://www.tandfonline.com/toc/rjge20/.U2V-Elf4L0l#.VAJEj2N4WF8>

Forum: The Sustainable Development

[Reviewed earlier]

Journal of Global Infectious Diseases (JGID)

January-March 2015 Volume 7 | Issue 1 Page Nos. 1-50

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

[Reviewed earlier]

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

Volume 26, Number 2, May 2015

[http://muse.jhu.edu/journals/journal of health care for the poor and underserved/toc/hpu.26.2.html](http://muse.jhu.edu/journals/journal%20of%20health%20care%20for%20the%20poor%20and%20underserved/toc/hpu.26.2.html)

[Reviewed earlier]

Journal of Immigrant and Minority Health

Volume 17, Issue 2, April 2015

<http://link.springer.com/journal/10903/17/2/page/1>

Special Focus: Food, Diet, and Nutrition

39 articles covering these themes in different ethnic and national contexts

[Reviewed earlier]

Journal of Immigrant & Refugee Studies

Volume 13, Issue 1, 2015

<http://www.tandfonline.com/toc/wimm20/current#.VQS0KOFnBhW>

[Reviewed earlier]

Journal of Infectious Diseases

Volume 211 Issue 11 June 1, 2015

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

Can epidemiology inform global health and development targets?

Alan D Lopez

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[Initial text]

In 2015, the global health and development community will collectively assess the progress of nations towards achieving the Millennium Development Goals (MDGs), an ambitious framework for human development based on broad principles of equity, solidarity and poverty reduction. Of the 12 goals established to measure social and economic progress, three (MDG4, MDG5 and MDG6) relate directly to health development; reduction of child mortality, reduction of maternal mortality; and progress against the global epidemics of HIV/AIDS, malaria and tuberculosis, respectively.¹ There has been much debate about whether global goals with explicit targets are useful or not in stimulating action by countries and donors to improve health. Whereas broad development goals are likely to receive strong endorsement by countries, the addition of specific targets might well be unwelcome, particularly if they are perceived as being too ambitious. Worse, the global focus on targets for the MDGs has driven a culture of accountability with an almost singular focus on whether a country is likely to achieve the specified targets or not, to the detriment of other important measures of progress. The political imperative that countries have no doubt felt to accelerate progress with health development because of the existence of the MDGs is laudable, and real, but it has not necessarily been the ideal policy environment to do so, for five principal reasons.

First, recent global assessments have suggested that only about one-quarter of all countries, and less than one in five developing countries, will achieve MDGs 4 and 5, obscuring the very substantial progress in reducing child mortality, for example, that has occurred in sub-Saharan Africa, India and much of eastern Europe since 2000.^{2–4} In many countries, these accelerated declines have been due to the success of bold public policies, and financing, to scale-up and ensure delivery of bed nets ...

The Journal of Law, Medicine & Ethics

Spring 2015 Volume 43, Issue 1 Pages 6–166

<http://onlinelibrary.wiley.com/doi/10.1111/jlme.2015.43.issue-1/issuetoc>

[Reviewed earlier]

Journal of Medical Ethics

May 2015, Volume 41, Issue 5

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

[Reviewed earlier]

Journal of Medical Internet Research

Vol 17, No 4 (2015): April

<http://www.jmir.org/2015/4>

[Reviewed earlier]

Journal of Medical Microbiology

April 2015; 64 (Pt 4)

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

[Reviewed earlier]

Journal of Patient-Centered Research and Reviews

Volume 2, Issue 2 (2015)

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

[Reviewed earlier]

Journal of the Pediatric Infectious Diseases Society (JPIDS)

Volume 4 Issue 1 March 2015

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

[Reviewed earlier]

Journal of Pediatrics

April 2015 Volume 166, Issue 4, p783-1100

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

[Reviewed earlier]

Journal of Public Health Policy

Volume 36, Issue 2 (May 2015)

<http://www.palgrave-journals.com/jphp/journal/v36/n2/index.html>

[Reviewed earlier]

Journal of the Royal Society – Interface

06 May 2015; volume 12, issue 106

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

[Reviewed earlier]

Journal of Virology

May 2015, volume 89, issue 10

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

[New issue; No relevant content]

The Lancet

May 16, 2015 Volume 385 Number 9981 p1917-2014 e47-e48

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

Comment

[For every woman, every child, everywhere: a universal agenda for the health of women, children, and adolescents](#)

Sarah Zeid, Flavia Bustreo, Maha Taysir Barakat, Peter Maurer, Kate Gilmore

DOI: [http://dx.doi.org/10.1016/S0140-6736\(15\)60766-8](http://dx.doi.org/10.1016/S0140-6736(15)60766-8)

Summary

Preventable mortality and morbidity among women, adolescents, and children are severe in humanitarian settings. Data from the Organisation for Economic Co-operation and Development on 50 fragile states show that 60% of preventable maternal deaths, 53% of deaths in children younger than 5 years, and 45% of neonatal deaths take place in fragile settings of conflict, displacement, and natural disasters.^{1–3} Worldwide, women and children are up to 14 times more likely than men to die in a disaster.⁴

World Report

[Ebola vaccine trial in west Africa faces criticism](#)

Miriam Shuchman

Published Online: 12 May 2015

DOI: [http://dx.doi.org/10.1016/S0140-6736\(15\)60938-2](http://dx.doi.org/10.1016/S0140-6736(15)60938-2)

WHO has come under fire for its running of the Ebola ring vaccine trial in Guinea, with critics highlighting inadequate care of participants and patients. Miriam Shuchman report

The Lancet Global Health

May 2015 Volume 3 Number 5 e240-e296

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

[Reviewed earlier]

The Lancet Infectious Diseases

May 2015 Volume 15 Number 5 p487-614

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

[Reviewed earlier]

Maternal and Child Health Journal

Volume 19, Issue 5, May 2015

<http://link.springer.com/journal/10995/19/5/page/1>

[Reviewed earlier]

Medical Decision Making (MDM)

May 2015; 35 (4)

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

[Reviewed earlier]

The Milbank Quarterly

A Multidisciplinary Journal of Population Health and Health Policy

March 2015 Volume 93, Issue 1 Pages 1–222

[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 521 Number 7551 pp125-252 14 May 2015

http://www.nature.com/nature/current_issue.html

[New issue; No relevant content identified]

Nature Medicine

May 2015, Volume 21 No 5 pp415-537

<http://www.nature.com/nm/journal/v21/n5/index.html>

[New issue; No relevant content identified]

Nature Reviews Immunology

May 2015 Vol 15 No 5

<http://www.nature.com/nri/journal/v15/n5/index.html>

[Reviewed earlier]

New England Journal of Medicine

May 14, 2015 Vol. 372 No. 20

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

[New issue; No relevant content identified]

Pediatrics

May 2015, VOLUME 135 / ISSUE 5

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

[Reviewed earlier]

Pharmaceutics

Volume 7, Issue 2 (June 2015), Pages 10-

<http://www.mdpi.com/1999-4923/7/2>

[No new relevant content]

Pharmacoeconomics

Volume 33, Issue 5, May 2015

<http://link.springer.com/journal/40273/33/5/page/1>

[Reviewed earlier]

PLoS Currents: Outbreaks

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

(Accessed 16 May 2015)

[No new relevant content]

PLoS Medicine

(Accessed 16 May 2015)

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

[A Global Biomedical R&D Fund and Mechanism for Innovations of Public Health Importance](#)

Manica Balasegaram, Christian Bréchet, Jeremy Farrar, David Heymann, Nirmal Ganguly, Martin Khor, Yves Lévy, Precious Matsoso, Ren Minghui, Bernard Pécou, Liu Peilong, Marcel Tanner, John-Arne Røttingen

Essay | published 11 May 2015 | PLOS Medicine 10.1371/journal.pmed.1001831

Summary Points

:: Anti-microbial resistance, emerging infectious diseases, and neglected diseases are all important public health concerns and priorities with serious market failures, deficits, and identified needs in biomedical innovation.

:: It is important to reconcile, rather than fragment, the needs of these three priority areas by considering an umbrella framework for specifically financing and coordinating research and development (R&D) that delivers innovation while securing patient access.

:: A sizeable, sustainably financed global R&D fund and mechanism that promotes coordination, collaboration, and utilization of new and innovative incentives should be set up to cover all three priority areas.

PLoS Neglected Tropical Diseases

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

(Accessed 16 May 2015)

[Prospects for Malaria Elimination in Mesoamerica and Hispaniola](#)

Sócrates Herrera, Sergio Andrés Ochoa-Orozco, Iveth J. González, Lucrecia Peinado, Martha L. Quiñones, Myriam Arévalo-Herrera

Abstract

Malaria remains endemic in 21 countries of the American continent with an estimated 427,000 cases per year. Approximately 10% of these occur in the Mesoamerican and Caribbean regions. During the last decade, malaria transmission in Mesoamerica showed a decrease of ~85%; whereas, in the Caribbean region, Hispaniola (comprising the Dominican Republic [DR] and Haiti) presented an overall rise in malaria transmission, primarily due to a steady increase in Haiti, while DR experienced a significant transmission decrease in this period.

The significant malaria reduction observed recently in the region prompted the launch of an initiative for Malaria Elimination in Mesoamerica and Hispaniola (EMMIE) with the active involvement of the National Malaria Control Programs (NMCPs) of nine countries, the Regional Coordination Mechanism (RCM) for Mesoamerica, and the Council of Health Ministries of Central America and Dominican Republic (COMISCA). The EMMIE initiative is supported by the Global Fund for Aids, Tuberculosis and Malaria (GFATM) with active participation of multiple partners including Ministries of Health, bilateral and multilateral agencies, as well as research centers. EMMIE's main goal is to achieve elimination of malaria transmission in the region by 2020. Here we discuss the prospects, challenges, and research needs associated with this initiative that, if successful, could represent a paradigm for other malaria-affected regions.

PLoS One

[Accessed 16 May 2015]

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

Research Article

"The One Who Chases You Away Does Not Tell You Go": Silent Refusals and Complex Power Relations in Research Consent Processes in Coastal Kenya

Dorcas M. Kamuya, Sally J. Theobald, Vicki Marsh, Michael Parker, Wenzel P. Geissler, Sassy C. Molyneux

Published: May 15, 2015

DOI: 10.1371/journal.pone.0126671

Abstract

Consent processes have attracted significant research attention over the last decade, including in the global south. Although relevant studies suggest consent is a complex negotiated process involving multiple actors, most guidelines assume consent is a one-off encounter with a clear 'yes' or 'no' decision. In this paper we explore the concept of 'silent refusals', a situation where it is not clear whether potential participants want to join studies or those in studies want to withdraw from research, as they were not actively saying no. We draw on participant observation, in-depth interviews and group discussions conducted with a range of stakeholders in two large community based studies conducted by the KEMRI Wellcome Trust programme in coastal Kenya. We identified three broad inter-related rationales for silent refusals: 1) a strategy to avoid conflicts and safeguard relations within households, - for young women in particular—to appear to conform to the wishes of elders; 2) an approach to maintain friendly, appreciative and reciprocal relationships with fieldworkers, and the broader research programme; and 3) an effort to retain study benefits, either for individuals, whole households or wider communities. That refusals and underlying rationales were silent posed multiple dilemmas for fieldworkers, who are increasingly recognised to play a key interface role between researchers and communities in many settings. Silent refusals reflect and reinforce complex power relations

embedded in decisions about research participation, with important implications for consent processes and broader research ethics practice. Fieldworkers need support to reflect upon and respond to the ethically charged environment they work in.

PLoS Pathogens

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

(Accessed 16 May 2015)

[No new relevant content identified]

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

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

(Accessed 16 May 2015)

[No new relevant content identified]

Pneumonia

Vol 6 (2015)

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

[Reviewed earlier]

Preventive Medicine

Volume 77, *In Progress* (August 2015)

<http://www.sciencedirect.com/science/journal/00917435/77/supp/C>

[Reviewed earlier]

Proceedings of the Royal Society B

07 May 2015; volume 282, issue 1806

<http://rspb.royalsocietypublishing.org/content/282/1806?current-issue=y> [Reviewed earlier]

Public Health Ethics

Volume 8 Issue 1 April 2015

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

[Reviewed earlier]

Qualitative Health Research

May 2015; 25 (5)

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

[Reviewed earlier]

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

February 2015 Vol. 37, No. 2

[Reviewed earlier]

Risk Analysis

March 2015 Volume 35, Issue 3 Pages 345–554

<http://onlinelibrary.wiley.com/doi/10.1111/risa.2015.35.issue-3/issuetoc>

[Reviewed earlier]

Science

15 May 2015 vol 348, issue 6236, pages 729-832

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

In Depth

Infectious Diseases

[Ebola survivors fight back in plasma studies](#)

[Martin Enserink*](#)

In the Guinean capital, Conakry, 90 people have so far been treated in a clinical trial that aims to seek whether plasma from Ebola survivors can help patients. Animal studies of similar therapies had yielded mixed results, and the findings of a small human study in 1995 were ambiguous. The study aims to recruit 130 patients, but enrollment has ground to a halt because the last Ebola patient in Conakry was discharged on 28 April. Results are expected later this year, but researchers acknowledge that they will be difficult to interpret because the study has no control arm.

Policy Forum

Public Health

[Linking funds to actions for global health emergencies](#)

[C. J. Standley, E. M. Sorrell, S. Kornblet, A. Vaught, J. E. Fischer, R. Katz*](#)

Author Affiliations

Department of Health Policy and Management, Milken Institute School of Public Health, George Washington University, Washington, DC 20052, USA.

The failings of the international community's response to the Ebola virus disease outbreak in West Africa underscore the need for new mechanisms for governance and mobilization of resources for timely, coordinated responses to public health threats (1). Creating a global finance mechanism, ideally tied to existing global health frameworks, is a first step. The World Bank recently announced it would create a Pandemic Emergency Facility (PEF). The next necessary element is a trigger to release those funds to support rapid and effective responses during early phases of a public health event. With the World Health Assembly convening soon, we suggest how the World Health Organization's (WHO's) International Health Regulations (IHR) present such an initiator.

Perspective

Cancer Immunotherapy

[Neo approaches to cancer vaccines](#)

[Lélia Delamarre, Ira Mellman, Mahesh Yadav](#)

Author Affiliations

Genentech, South San Francisco, CA 94080, USA.

The recent success of cancer immunotherapies is rapidly changing the face of both cancer care and cancer biology. The excitement has been driven by various antibodies that block so-called "immune checkpoints" to enhance antitumor immune responses (1). Although this approach has produced durable responses for patients across a variety of tumor types, it is also the case that only a minority of patients benefit from these agents. It seems likely that among patients who do not respond or respond poorly to immunotherapies, there will be individuals who lack preexisting antitumor T cell responses. In principle, this situation can be addressed with antitumor vaccines, a strategy that has yet to yield much success despite decades of effort. The recent finding that tumor-specific mutations (neoantigens) may drive potent antitumor responses has provided hope and prompted renewed interest in the field (2). On page 803 of this issue, Carreno et al. (3) report, in a first proof of concept study, that CD8 T cell responses to tumor neoantigens can be enhanced through vaccination in melanoma patients.

Social Science & Medicine

Volume 132, Pages 1-286 (May 2015)

<http://www.sciencedirect.com/science/journal/02779536/132>

[Reviewed earlier]

Tropical Medicine and Health

Vol. 43(2015) No. 2

https://www.jstage.jst.go.jp/browse/tmh/43/0/_contents

[Reviewed earlier]

Tropical Medicine & International Health

May 2015 Volume 20, Issue 5 Pages 553–680

<http://onlinelibrary.wiley.com/doi/10.1111/tmi.2015.20.issue-5/issuetoc>

[Reviewed earlier]

Vaccine

Volume 33, Issue 24, Pages 2735-2850 (4 June 2015)

<http://www.sciencedirect.com/science/journal/0264410X/33>

Immunogenicity of poliovirus vaccines in chronically malnourished infants: A randomized controlled trial in Pakistan

Original Research Article

Pages 2757-2763

Ali Faisal Saleem, Ondrej Mach, Farheen Quadri, Asia Khan, Zaid Bhatti, Najeeb ur Rehman, Sohail Zaidi, William C. Weldon, Steven M. Oberste, Maha Salama, Roland W. Sutter, Anita K.M. Zaidi

Abstract

Reaching high population immunity against polioviruses (PV) is essential to achieving global polio eradication. Efficacy of oral poliovirus vaccine (OPV) varies and is lower among children living in tropical areas with impoverished environments. Malnutrition found as a risk factor for lower serological protection against PV. We compared whether inactivated polio vaccine (IPV)

can be used to rapidly close the immunity gap among chronically malnourished (stunted) infants in Pakistan who will not be eligible for the 14 week IPV dose in routine EPI schedule. A phase 3, multicenter 4-arm randomized controlled trial conducted at five Primary Health Care (PHC) centers in Karachi, Pakistan. Infants, 9–12 months were stratified by length for age Z score into chronically malnourished and normally nourished. Infants were randomized to receive one dose of either bivalent OPV (bOPV) alone or bOPV + IPV. Baseline seroprevalence of PV antibodies and serum immune response to study vaccine dose were assessed by neutralization assay. Vaccine PV shedding in stool was evaluated 7 days after a bOPV challenge dose. Sera and stool were analyzed from 852/928 (92%) enrolled children. At baseline, the seroprevalence was 85.6% (n = 386), 73.6% (n = 332), and 70.7% (n = 319) in malnourished children against PV types 1, 2 and 3 respectively; and 94.1% (n = 448), 87.0% (n = 441) and 83.6% (n = 397) in the normally nourished group (p < 0.05). Children had previously received 9–10 doses of bOPV (80%) or tOPV (20%). One dose of IPV + bOPV given to malnourished children increased their serological protection (PV1, n = 201, 97.6%; PV2, n = 198, 96.1% and PV3, n = 189, 91.7%) to parity with normally nourished children who had not received IPV (p = <0.001). Seroconversion and boosting for all three serotypes was significantly more frequent in children who received IPV + bOPV than in those with bOPV only (p < 0.001) in both strata. Shedding of polioviruses in stool did not differ between study groups and ranged from 2.4% (n = 5) to 7.1% (n = 15). In malnourished children the shedding was reduced after bOPV + IPV compared to bOPV only.

Chronically malnourished infants were more likely to be unprotected against polioviruses than normal infants. bOPV + IPV helped close the immunity gap better than bOPV alone.

[An extended cost-effectiveness analysis of publicly financed HPV vaccination to prevent cervical cancer in China](#)

Original Research Article

Pages 2830-2841

Carol E. Levin, Monisha Sharma, Zachary Olson, Stéphane Verguet, Ju-Fang Shi, Shao-Ming Wang, You-Lin Qiao, Dean T. Jamison, Jane J. Kim

Abstract

Introduction

Cervical cancer screening and existing health insurance schemes in China fall short of reaching women with prevention and treatment services, especially in rural areas where the disease burden is greatest. We conducted an extended cost-effectiveness analysis (ECEA) to evaluate public financing of HPV vaccination to prevent cervical cancer, adding new dimensions to conventional cost-effectiveness analysis through an explicit inclusion of equity and impact on financial risk protection.

Methods

We synthesized available epidemiological, clinical, and economic data from China using an individual-based Monte Carlo simulation model of cervical cancer to estimate the distribution of deaths averted by income quintile, comparing vaccination plus screening against current practice. We also estimated reductions in cervical cancer incidence, net costs to the government (HPV vaccination costs minus cervical cancer treatment costs averted), and patient cost savings, as well as the incremental government health care costs per death averted.

Results

HPV vaccination is cost-effective across all income groups when the cost is less than US \$50 per vaccinated girl. Compared to screening alone, adding preadolescent HPV vaccination followed by cervical cancer screening in adulthood could reduce cancer by 44 percent across all income groups, while providing relatively higher financial protection to the poorest women. The

absolute numbers of cervical cancer deaths averted and the financial risk protection from HPV vaccination are highest among women in the lowest quintile; women in the bottom income quintiles received higher benefits than those in the upper wealth quintiles. Patient cost savings represent a large proportion of poor women's average per capita income, reaching 60 percent among women in the bottom income quintile and declining to 15 percent among women in the wealthiest quintile.

Effect of multiple, simultaneous vaccines on polio seroresponse and associated health outcomes

Original Research Article

Pages 2842-2848

Michael P. Broderick, M. Steven Oberste, Deborah Moore, Sandra Romero-Steiner, Christian J. Hansen, Dennis J. Faix

Abstract

Background

Administration of multiple simultaneous vaccines to infants, children, and military recruits is not uncommon. However, little research exists to examine associated serological and health effects, especially in adults.

Method

We retrospectively examined 416 paired serum specimens from U.S. military subjects who had received the inactivated polio vaccine (IPV) alone or in combination with either 1 other vaccine (<3 group) or 4 other vaccines (>4 group). Each of the 2 groups was subdivided into 2 subgroups in which Tdap was present or absent.

Results

The >4 group was associated with a higher proportion of polio seroconversions than the <3 group (95% vs. 58%, respectively, $p < 0.01$). Analysis of the <3 subgroup that excluded Tdap vs. the >4 subgroup that excluded Tdap showed no difference between them ($p > 0.1$).

However, the >4 subgroup that included Tdap had significantly more seroconversions than either the <3 subgroup that excluded Tdap or the >4 subgroup that excluded Tdap ($p < 0.01$). Overall, at least 98% of subjects were at or above the putative level of seroprotection both pre- and post-vaccination, yet at least 81% of subjects seroconverted. In an analysis of 400 of the subjects in which clinic in- and outpatient encounters were counted over the course of 1 year following vaccinations, there was no significant difference between the 2 groups ($p > 0.1$).

Conclusion

A combination of >4 vaccines including IPV appeared to have an immunopotential effect on polio seroconversion, and Tdap in particular was a strong candidate for an important role. The dose of IPV we studied in our subjects, who already had a high level of seroprotection, acted as a booster. In addition, there appear to be no negative health consequences from receiving few versus more multiple simultaneous vaccinations.

Vaccine

Volume 33, Supplement 1, Pages A1-A254 (7 May 2015)

Expanding the Evidence Base to Inform Vaccine Introduction: Program Costing and Cost-effectiveness Analyses

pp. A1-A254 (7 May 2015)

Perspectives on expanding the evidence base to inform vaccine introduction: Program costing and cost-effectiveness analyses

Jon Kim Andrusa, Damian G. Walkerb,

[doi:10.1016/j.vaccine.2015.01.001](https://doi.org/10.1016/j.vaccine.2015.01.001)

Over the past decade, the Pan American Health Organization's (PAHO) ProVac Initiative has worked with countries to promote the development and use of evidence for immunization policymaking [1]. This supplement features examples of ProVac's country-led research and other partner efforts in this area with an emphasis on analyses of cost-effectiveness, program costs and financial flows. The findings from these studies represent one important outcome of a broader objective to strengthen and institutionalize national capacity to generate, assess, interpret and use local data in the decision making process. Achieving this broader objective has always been a guiding principle of ProVac's work [2].

Due to the success of ProVac, PAHO has received numerous requests for similar support from countries outside of the Americas Region. Therefore, in 2011, the ProVac International Working Group was formed with the aim of transferring the ProVac Initiative's methods and tools to other WHO regions [3]. The International Working Group includes the Agence de Médecine Préventive (AMP), the United States' Centers for Disease Control and Prevention (CDC), the Program for Appropriate Technologies in Health (PATH), PAHO, the Sabin Vaccine Institute, and World Health Organization headquarters and its regional offices for Africa (AFRO), Eastern Mediterranean (EMRO) and Europe (EURO). A total of 17 countries in these three regions received training from the International Working Group over a two year period resulting in nine cost-effectiveness studies [3].

The impact of ProVac's mission to increase national capacity to make evidence-based immunization policy is difficult to quantify. However, cost-effectiveness analyses in this supplement demonstrate the quality of evidence a national team can produce for their own decision making use when given access to flexible tools and training. Nine studies were supported through the ProVac IWG platform and results from Albania, Croatia, Egypt, Georgia, Iran, Kenya, Senegal and Uganda are featured in this supplement [4], [5], [6], [7], [8], [9] and [10]. Another six studies featured in this supplement were from countries in the PAHO Region, including Argentina, Belize, Brazil, Honduras, Paraguay and Peru [11], [12], [13], [14], [15] and [16]. They were all led by national health professionals and stakeholders.

These analyses provide an important update to the cost-effectiveness literature on new vaccines from a diverse set of country contexts. With the exception of one cost-effectiveness analysis developed in a high-income country setting (Croatia) with no access to affordable vaccine prices, the findings from the cost-effectiveness research support the previously published evidence that pneumococcal conjugate, rotavirus and HPV vaccines represent good value for money, where disease burden is substantial and/or treatment costs are relatively high and the vaccines can be procured at an affordable price. All primary results from these analyses were subjected to sensitivity analyses to examine the robustness of the findings to changes in the values of key inputs and assumptions. For example, these analyses often considered vaccine price trends over time and other technical or programmatic uncertainties (i.e. booster doses, herd immunity and delivery strategies). Since many countries that received support from the ProVac IWG will graduate from Gavi subsidies in the coming years, these additional analyses were useful to explore the impact of price changes in the cost-effectiveness results. While the results are subject to uncertainty, the conclusions were stable.

The supplement also highlights a recent multi-country study on the costs and financing of routine immunization and new vaccines (EPIC) [17]. The EPIC study included six countries: Benin, Ghana, Honduras, Moldova, Uganda and Zambia. This work represents the first systematic evaluation of costs in countries with a baseline of routine immunization, while also estimating the incremental cost of new vaccines (pneumococcal and rotavirus) to the routine system [18].

The EPIC studies are unique in both the breadth and depth of the data collected from over 300 primary health care facilities across the six countries. An important outcome of this work was the development and use of a Common Approach to costing [17], as well as the creation of a community of practice around cost and financial analysis of immunization. The costing studies allow us to not only describe the range of total and unit costs of routine immunization (RI) [18], [19], [20] and [21], but also to evaluate more systematically the determinants of costs and productivity [22] and [23]. Finally, each country team undertook a financial mapping of the total resources available for routine immunization by source [24] and [25]. This work will be used to improve budgeting and planning of national immunization programs. The evidence will also be used to inform advocacy aimed at greater domestic resource mobilization.

Finally, leading researchers, decision makers and donors comment on the development and use of the data featured in this supplement from their perspective. The four commentaries highlight the following themes (1) the potential role of cost-effectiveness analysis in price negotiation; (2) the continued need for models and methodological approaches that can be adapted for use in low resource policy settings; and (3) the juxtaposition of supporting country-level decision making in the context of donor priority setting [26], [27], [28] and [29]. From Thailand's Health Intervention and Technology Assessment Program's (HITAP) perspective, cost-effectiveness data is critical in price negotiation for countries, like Thailand, that do not have access to donor subsidies or innovative financing mechanisms [26]. We see how the HITAP approach could easily be adapted in a context like Croatia, where PCV was found to be not cost-effective at the current assumed price of US\$30-35 [8]. Decision support systems as a fundamental underpinning to making better choices with public monies are described from a decision scientist's perspective in 'The ProVac Initiative and evolving decision support' [27]. As we've seen with the implementation of ProVac, these systems require a long-term investment and commitment to building institutions that require and support an evidence-based approach.

We have only just begun with immunization programs but the lessons from the ProVac Initiative may serve to guide future work in promoting health technology assessment across the health sector. Lastly, Gavi and the immunization program manager from Honduras, a Gavi-graduating country, share perspectives on the increasing importance of priority-setting at country level for effective immunization policy and the support that Gavi-eligible countries may need today in order to enter into the near-term graduation from Gavi support [28] and [29]. All commentaries combined offer an insight into developing a forward thinking approach to the use of evidence for immunization decision making.

We hope the reader finds that this collection of articles provides useful insight into the work required to help countries strengthen their capacity to make evidence-based policy decisions. Accelerating national policy development on new vaccines adoption, together with rapid deployment of vaccines when appropriate, will contribute to saving more lives more quickly.

Disclaimer

The studies published herein include but are not limited to work conducted by the Pan American Health Organization's ProVac Initiative, the ProVac International Working Group and the EPIC study with financial support from the Bill and Melinda Gates Foundation (grant no. OPP50788). The views expressed in each article are those of the authors alone and do not necessarily reflect the official policy or position of the Bill and Melinda Gates Foundation or the Pan American Health Organization.

<http://www.mdpi.com/journal/vaccines>
[No new relevant content identified]

Value in Health

May 2015 Volume 18, Issue 3

<http://www.valueinhealthjournal.com/current>
[Reviewed earlier]

* * * *

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

Special Focus Newsletters

RotaFlash – Rotavirus Vaccine Update

PATH

May 12, 2015

Rotavirus vaccines predicted to be highly cost-effective in several low- and middle-income countries

Journal of the American Board of Family Medicine (JABFM)

May-June 2015; 28 (3)

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

Impact of an Electronic Health Record (EHR) Reminder on Human Papillomavirus (HPV) Vaccine Initiation and Timely Completion

Mack T. Ruffin IV, MD, MPH, Melissa A. Plegue, MA, Pamela G. Rockwell, DO, Alisa P. Young, MD, Divya A. Patel, PhD and Mark W. Yeazel, MD, MPH

Abstract

Background: The initiation and timely completion of the human papillomavirus (HPV) vaccine in young women is critical. We compared the initiation and completion of the HPV vaccine among women in 2 community-based networks with electronic health records: 1 with a prompt and reminder system (prompted cohort) and 1 without (unprompted cohort).

Methods: Female patients aged 9 to 26 years seen between March 1, 2007, and January 25, 2010, were used as the retrospective cohort. Patient demographics and vaccination dates were extracted from the electronic health records.

Results: Patients eligible for the vaccine included 6019 from the prompted cohort and 9096 from the unprompted cohort. Mean age at initiation was 17.3 years in the prompted cohort and 18.1 years in the unprompted cohort. Significantly more ($P < .001$) patients initiated the vaccine in the prompted cohort (34.9%) compared with the unprompted cohort (21.5%). African Americans aged 9 to 18 years with ≥ 3 visits during the observation period were significantly more likely to initiate in the prompted cohort ($P < .001$). The prompted cohort was significantly more likely ($P < .001$) to complete the vaccine series in a timely manner compared with the unprompted cohort.

Conclusion: More patients aged 9 to 26 years initiated and achieved timely completion of the HPV vaccine series in clinics using an electronic health record system with prompts compared with clinics without prompts.

Philosophical Transactions of the Royal Society B: Biological Sciences: 370 (1671)

19 June 2015; volume 370, issue 1671

Discussion meeting issue 'Biological challenges to effective vaccines in the developing world' organized and edited by Nicholas Grassly, Gagandeep Kang and Beate Kampmann

Introduction:

Biological challenges to effective vaccines in the developing world

Nicholas C. Grassly, Gagandeep Kang, Beate Kampmann

Phil. Trans. R. Soc. B 2015 370 20140138; DOI: 10.1098/rstb.2014.0138. Published 11 May 2015

Review article:

Searching for the human genetic factors standing in the way of universally effective vaccines

Alexander J. Mentzer, Daniel O'Connor, Andrew J. Pollard, Adrian V. S. Hill

Phil. Trans. R. Soc. B 2015 370 20140341; DOI: 10.1098/rstb.2014.0341. Published 11 May 2015

Research article:

Genomics of immune response to typhoid and cholera vaccines

Partha P. Majumder

Phil. Trans. R. Soc. B 2015 370 20140142; DOI: 10.1098/rstb.2014.0142. Published 11 May 2015

Research article:

The impact of maternal infection with Mycobacterium tuberculosis on the infant response to bacille Calmette–Guérin immunization

Patrice A. Mawa, Gyaviira Nkurunungi, Moses Egesa, Emily L. Webb, Steven G. Smith, Robert Kizindo, Mirriam Akello, Swaib A. Lule, Moses Muwanga, Hazel M. Dockrell, Stephen Cose, Alison M. Elliott

Phil. Trans. R. Soc. B 2015 370 20140137; DOI: 10.1098/rstb.2014.0137. Published 11 May 2015

Review article:

Malnutrition and vaccination in developing countries

Andrew J. Prendergast

Phil. Trans. R. Soc. B 2015 370 20140141; DOI: 10.1098/rstb.2014.0141. Published 11 May 2015

Review article:

Is infant immunization by breastfeeding possible?

Valerie Verhasselt

Phil. Trans. R. Soc. B 2015 370 20140139; DOI: 10.1098/rstb.2014.0139. Published 11 May 2015

Review article:

Exploring the role of environmental enteropathy in malnutrition, infant development and oral vaccine response

Allissia A. Gilmartin, William A. Petri

Phil. Trans. R. Soc. B 2015 370 20140143; DOI: 10.1098/rstb.2014.0143. Published 11 May 2015

Review article:

Potential for use of retinoic acid as an oral vaccine adjuvant

Mpala Mwanza-Lisulo, Paul Kelly

Phil. Trans. R. Soc. B 2015 370 20140145; DOI: 10.1098/rstb.2014.0145. Published 11 May 2015

Review article:

Probiotics, antibiotics and the immune responses to vaccines

Ira Praharaaj, Sushil M. John, Rini Bandyopadhyay, Gagandeep Kang

Phil. Trans. R. Soc. B 2015 370 20140144; DOI: 10.1098/rstb.2014.0144. Published 11 May 2015

Review article:

Vaccinology in the era of high-throughput biology

Helder I. Nakaya, Bali Pulendran

Phil. Trans. R. Soc. B 2015 370 20140146; DOI: 10.1098/rstb.2014.0146. Published 11 May 2015

Opinion piece:

Systems vaccinology: a promise for the young and the poor

Nelly Amenyogbe, Ofer Levy, Tobias R. Kollmann

Phil. Trans. R. Soc. B 2015 370 20140340; DOI: 10.1098/rstb.2014.0340. Published 11 May 2015

Review article:

Factors influencing innate immunity and vaccine responses in infancy

Beate Kampmann, Christine E Jones

Phil. Trans. R. Soc. B 2015 370 20140148; DOI: 10.1098/rstb.2014.0148. Published 11 May 2015

Opinion piece:

Can immunological principles and cross-disciplinary science illuminate the path to vaccines for HIV and other global health challenges?

Christopher B. Wilson, Christopher L. Karp

Phil. Trans. R. Soc. B 2015 370 20140152; DOI: 10.1098/rstb.2014.0152. Published 11 May 2015

Review article:

Vaccines against enteric infections for the developing world

Cecil Czerkinsky, Jan Holmgren

Phil. Trans. R. Soc. B 2015 370 20150142; DOI: 10.1098/rstb.2015.0142. Published 11 May 2015

Review article:

Delivering vaccines to the people who need them most

Michèle Anne Barocchi, Rino Rappuoli

Phil. Trans. R. Soc. B 2015 370 20140150; DOI: 10.1098/rstb.2014.0150. Published 11 May 2015

Reproductive Health

Volume 12 Supplement 1 [2015]

<http://www.reproductive-health-journal.com/supplements/12/S1>

Special Supplement - True costs of maternal death

Research

Edited by Jose Belizan and Suellen Miller

An accompanying blog can be found [here](#).

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Research

Intergenerational impacts of maternal mortality: Qualitative findings from rural Malawi

Junior Bazile, Jonas Rigodon, Leslie Berman, Vanessa M Boulanger, Emily Maistrellis, Pilira Kausiwa, Alicia Yamin Reproductive Health 2015, 12(Suppl 1):S1 (6 May 2015)

Research

Continuing with "...a heavy heart" - consequences of maternal death in rural Kenya

Rohini Pande, Sheila Ogwang, Robinson Karuga, Radha Rajan, Aslihan Kes, Frank O Odhiambo, Kayla Laserson, Kathleen Schaffer Reproductive Health 2015, 12(Suppl 1):S2 (6 May 2015)

Research

The economic burden of maternal mortality on households: evidence from three sub-counties in rural western Kenya

Aslihan Kes, Sheila Ogwang, Rohini Pande, Zayid Douglas, Robinson Karuga, Frank O Odhiambo, Kayla Laserson, Kathleen Schaffer Reproductive Health 2015, 12(Suppl 1):S3 (6 May 2015)

Research

Consequences of maternal mortality on infant and child survival: a 25-year longitudinal analysis in Butajira Ethiopia (1987-2011)

Corrina Moucheraud, Alemayehu Worku, Mitike Molla, Jocelyn E Finlay, Jennifer Leaning, Alicia Yamin Reproductive Health 2015, 12(Suppl 1):S4 (6 May 2015)

Research

"Without a mother": caregivers and community members' views about the impacts of maternal mortality on families in KwaZulu-Natal, South Africa

Lucia Knight, Alicia Yamin Reproductive Health 2015, 12(Suppl 1):S5 (6 May 2015)

Research

Impacts of maternal mortality on living children and families: A qualitative study from Butajira, Ethiopia

Mitike Molla, Israel Mitiku, Alemayehu Worku, Alicia Yamin Reproductive Health 2015, 12(Suppl 1):S6 (6 May 2015)

Research

The impacts of maternal mortality and cause of death on children's risk of dying in rural South Africa: evidence from a population based surveillance study (1992-2013)

Brian Houle, Samuel J Clark, Kathleen Kahn, Stephen Tollman, Alicia Yamin Reproductive Health 2015, 12

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Media/Policy Watch

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

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

Al Jazeera

<http://america.aljazeera.com/search.html?q=vaccine>

Accessed 16 May 2015

[No new, unique, relevant content]

The Atlantic

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

Accessed 16 May 2015

[No new, unique, relevant content]

BBC

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

Accessed 16 May 2015

[No new, unique, relevant content]

Brookings

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

Accessed 16 May 2015

[No new, unique, relevant content]

Council on Foreign Relations

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

Accessed 16 May 2015

[No new, unique, relevant content]

The Economist

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

Accessed 16 May 2015

[No new, unique, relevant content]

Financial Times

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

[No new, unique, relevant content]

Forbes

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

Accessed 16 May 2015
[No new, unique, relevant content]

Foreign Affairs

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

Accessed 16 May 2015

[No new, unique, relevant content]

Foreign Policy

<http://foreignpolicy.com/>

Accessed 16 May 2015

[No new, unique, relevant content]

The Guardian

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

Accessed 16 May 2015

[Pay big pharma to solve antibiotics crisis, says UK government review](#)

Jim O'Neill, economist appointed by David Cameron, says a global fund would incentivise drug firms to save millions of lives

14 May 2015

Pharmaceutical companies should be given cash incentives of up to \$3bn to find and develop new antibiotics desperately needed to keep infections at bay, according to a UK government review. Jim O'Neill, the economist and former chair of Goldman Sachs Asset Management, asked to find solutions to the global antibiotic crisis, said at the launch of his report that a fund worth between \$16bn and \$37bn per decade would be enough to incentivise drug companies to turn their attentions to antibiotics.

The Antimicrobial Review (AMR) Committee proposals, he said, could "supercharge antibiotics discovery, potentially saving millions of lives for a fraction of the \$100tn cost of inaction". He estimated that globally, 10 million people could die every year from untreatable infections unless new antibiotics are discovered...

The Huffington Post

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

[No new, unique, relevant content]

Mail & Guardian

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

Accessed 16 May 2015

[No new, unique, relevant content]

New Yorker

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

Accessed 16 May 2015

[The Brighter Side of Rabies - The New Yorker](#)

May 6, 2015 ... Callaway and his team began with a **vaccine** form of the rabies virus that was missing the hook-making gene, rendering it unable to jump ...

New York Times

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

Accessed 16 May 2015

[Mexico Says Bacteria Contaminated Vaccine Blamed in 2 Deaths](#)

Mexico's public health system says a localized bacterial contamination appears to have been responsible for infant vaccine causing the deaths of two babies and the sickening of 31. The Mexican Institute for Social Security

May 13, 2015 -

Wall Street Journal

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

Accessed 16 May 2015

[California Senate Approves School Vaccine Bill](#)

Bill would prohibit parents from seeking exemptions because of religious or personal beliefs
Associated Press

May 14, 2015 2:53 p.m. ET

SACRAMENTO, Calif.—The state Senate has passed a bill aimed at increasing California's school immunization rates...

Washington Post

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

Accessed 16 May 2015

[No new, unique, relevant content]

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