Center for Vaccine Ethics and Policy
NYU | Wistar Institute | CHOP

Vaccines and Global Health: The Week in Review
2 November 2013
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: The Week in Review is also posted in pdf form and as a set of blog posts at http://centerforvaccineethicsandpolicy.wordpress.com/. This blog allows full-text searching of over 3,500 entries.

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

Media Release: UNICEF and senior Syrian officials agree on urgency of reaching more war-affected children, as UNICEF Executive Director visits Syria

DAMASCUS, 29 October 2013 - Following 'businesslike and encouraging' discussions, senior Syrian officials and UNICEF Executive Director Anthony Lake agreed on **the importance of reaching hundreds of thousands of children in some of the worst-affected parts of war-torn Syria with life-saving vaccines, including those against polio**, as Mr Lake ended a two-day visit to Damascus.

The need to immunize every child quickly and without obstacle was a key focus of Mr. Lake's discussions with Syrian Prime Minister Wael Al Halqi, Vice Minister of Foreign Affairs Dr. Faisal Miqdad, and Deputy Minister of Foreign Affairs Hosam Eddin A'ala.

"Immunizing children is in its very nature non-political and has no connection to any military considerations," said Mr. Lake. "With cases of polio now emerging in Syria for the first time since 1999, reaching every child with polio and other vaccinations is an urgent and critical priority not only for Syria but for the whole world."

In a meeting with frontline volunteers from the Syrian Arab Red Crescent (SARC) Mr. Lake expressed on behalf of UNICEF his admiration for all the work SARC volunteers are doing, their courage, and the sacrifices they have made in this cause.

With SARC and with national and other partners UNICEF will be working to reach the more than 500,000 children who have not been reached with vaccinations due to the conflict in some of the hardest to reach parts of the country.
http://www.unicef.org/media/media_70763.html

GAVI and its partners met in Stockholm to review their progress since June 2011. The meeting convened donor and implementing country representatives and Alliance partners including the World Health Organization, UNICEF, the World Bank, the Bill & Melinda Gates Foundation, civil society organisations and vaccine manufacturers. GAVI CEO Dr Seth Berkley presented "a detailed update on progress since the successful London pledging conference in June 2011. This success has been made possible through GAVI's unique funding model which brings together donor funding, financial contributions from developing countries, and supply and price commitments from vaccine industry partners." New pledges were announced including from Sweden, who in 2011 pledged US$40 million per year to GAVI to 2015, will now provide a total of US$129 million for 2013 and 2014, and from the Republic of Korea which announced a new commitment to GAVI of a total of US$5 million from 2013-2017.

GAVI said delegates also "engaged in detailed discussions around the challenges of maintaining vaccination programmes while also reaching the 22 million children who go unvaccinated each year." The event closed with a Ministerial Conversation on Sustainable Funding which highlighted the opportunities and challenges of securing long-term, predictable funding to secure vaccination programmes. The European Commission also announced that it will host a high-level preparatory meeting for GAVI partners in early 2014 ahead of the Alliance's next funding cycle.

More at: http://www.gavialliance.org/library/news/press-releases/2013/gavi-alliance-partners-reaching-more-children-than-ever-before-with-accelerated-access-to-vital-vaccines/#sthash.gNJsgkeG.dpuf

MSF made a series of recommendations to the GAVI Alliance and the Mid-Term Review meetings in four key areas "where changes at GAVI could make an important difference." The recommendation includes "making GAVI prices available to humanitarian actors like MSF, further lowering vaccine prices for all in need, extending vaccination to children above one year of age, and incentivizing for development of vaccines that do not rely on cold-chain logistics." MSF also released a series of videos that "summarize the views of key experts, stakeholders and influencers in the field of global immunization that met in Oslo in October 2013 to share ideas on how to overcome current barriers, and effectively reach out to the one in five children currently unprotected from killer diseases each year." More here: http://www.doctorswithoutborders.org/press/release.cfm?id=7125&cat=press-release

The Gates Foundation announced formation of the Vaccine Discovery Partnership, which it described as "a way for our foundation to work directly with pharmaceutical companies on promising new vaccines for global health." Gates said GlaxoSmithKline (GSK) and Sanofi are the first two companies involved and said it is "optimistic that other pharmaceutical companies will also join the partnership." Gates said it will "work with each company individually to identify a promising set of research projects that are aligned with our foundation's priorities. Projects funded through the Vaccine Discovery Partnership will span the R&D lifecycle – from preclinical to experimental medicine Phase IIa trials." One of the first projects under the program involves GSK and "focuses on increasing the thermostabilization of new generation vaccines to facilitate delivery of such vaccines in special administration and campaign settings in resource-limited countries. The goal would be to build thermostability into vaccines as an integral part of new generation vaccine development." The Foundation noted that "by working together with pharmaceutical companies, these new partnerships will reduce the risks associated with early-

stage vaccine research, and increase the likelihood that the most promising new vaccines are developed quickly, and at lower cost. This will be a win for everyone involved but most importantly for the children around the world who will get the life-saving vaccines they need.'
http://www.impatientoptimists.org/Posts/2013/10/A-New-Partnership-to-Accelerate-Vaccine-Research-amp-Development

WHO: Oral cholera vaccine stockpile
November 2013

A global stockpile of oral cholera vaccine (OCV) has been created, as an additional tool to help control cholera epidemics. Over the period July 2013 /June 2014 the stockpile will have available 2 million doses of vaccine.

The OCV stockpile, is managed as a rotating fund, by the International Coordinating Group (ICG) which already manages similar stockpiles of meningococcal meningitis and Yellow Fever vaccines for outbreak response.

The ICG is comprised of four decision making partners: the International Federation of Red Cross and Red Crescent Societies (IFRC), Médecins Sans Frontières (MSF), United Nations Children's Fund (UNICEF) and WHO, which also serves as the Secretariat.

The ICG members will continue to communicate with partners and stakeholders to increase awareness of the OCV stockpile, placing vaccine in the context of an integrated cholera response which is based around early detection, case management, provision of safe water, sanitation, and raising awareness among the affected communities.

More information, applications and guidance is available here:
http://www.who.int/cholera/vaccines/ocv_stockpile_2013/en/index.html

Independent Monitoring Board of the Global Polio Eradication Initiative
Eighth Report October 2013
[60 pages:
http://www.polioeradication.org/Portals/0/Document/Aboutus/Governance/IMB/9IMBMeeting/9IMB_Report_EN.pdf]

The Independent Monitoring Board provides an independent assessment of the progress being made by the Global Polio Eradication Initiative in the detection and interruption of polio transmission globally.

This eighth report follows our ninth meeting, held in London from 1 to 3 October 2013.

At our meetings, we benefit from the time and energy of many partners of the Global Polio Eradication Initiative. We value our open discussions with these many people, but the views presented here are our own. Independence remains at the heart of our role. Each of us sits on the board in a personal capacity. As always, this report presents our findings frankly, objectively, and without fear or favour.

Selected Excerpts
[From p. 40]
The Red List: countries at highest risk of a polio outbreak
YEMEN UGANDA SYRIA LEBANON JORDAN IRAQ CENTRAL AFRICAN REPUBLIC UKRAINE MALI DJIBOUTI ERITREA SUDAN SOUTH SUDAN

The IMB considers these countries to be on the Red List. The program needs to establish a definitive Red List and act on it quickly.

[Full text of Conclusions And Recommendations beginning p.57 minus a graphic on Program Standards unable to be reproduced here]

Conclusions and recommendations

Unprecedented challenges loom over today's polio eradication program. Levels of intimidation and violence – including horrific deaths of polio workers – have reached such a level that those giving or accepting the vaccine too often do so in harrowing and hazardous circumstances. The program is banned from accessing crucial areas, in which polio is paralysing and killing children - one million children in Somalia and another million in Pakistan cannot be vaccinated against polio because those in control of the territories are not allowing the program to operate there.

The program has dealt with insecurity before (and continues to do so), but these are different, unprecedented phenomena. All who support the eradication of the second ever disease for humankind should have no greater priority than finding ways to resolve these huge challenges. This is the greatest test of the World Health Assembly's declaration that global polio eradication is a "programmatic emergency for global public health".

Operationally, the program has far from perfect control in such circumstances. Whilst we are sympathetic to the challenge that this creates, it is more important than ever that the program's performance is as eradication-ready – as worthy of a global public health emergency – as it can be, in the many aspects that remain within its control. There are too many instances in which this is not the case. The performance issues to be addressed are illustrated by (but not limited to) the fact that the Horn of Africa was not better protected against an outbreak and that too many other countries remain vulnerable. They are illustrated too by the response in the Horn of Africa, which could not be described as a robust response to a public health emergency of global importance.

It is now fourteen months until the primary goal of the Strategic Plan (stopping global polio transmission) needs to be met. The list of problems to be resolved is formidable. The program needs to address insecurity and inaccessibility in each of the endemic countries, whilst continuing to tackle the campaigns that remain stubbornly suboptimal. It needs to regain lost ground in the Horn of Africa. It needs to pay attention to the considerable 'Red List' of vulnerable countries where neglect could enable the polio virus to run amok in parts of the world from which it has been thankfully absent for some time.

As the program enters what is supposed to be the last low season in which polio circulates, we ask ourselves (as should all within the program): it this a program that is eradication-ready? Does what we are seeing really look like a programmatic emergency for global public health? This report has identified too many ways in which this is not the case.

The goal of stopping polio transmission by the end of 2014 now stands at serious risk. This situation must be turned round with the greatest possible urgency.

This report has made 14 recommendations:

Pakistan

1. We recommend that achieving access in FATA be top priority for Pakistan's polio program and all who support it, using all diplomatic means available

Nigeria

2. We recommend that the Nigerian Expert Review Committee ensures that detailed area-specific plans are in place to overcome the challenges in each of the Local Government Areas (LGAs) that need priority focus

Horn of Africa outbreak

3. We recommend that a joint WHO-UNICEF central command unit is established for the Horn of Africa, led by a single senior commander
4. We recommend that the Polio Oversight Board is immediately appraised of what partner staff are required in, and in support of, the Horn of Africa and oversees measures to get them in place by the end of November
5. We recommend that environmental surveillance be urgently established in Nairobi, Kenya

The novel situation in Israel

6. We recommend that Israel immediately schedules a second national OPV campaign, to be completed as quickly as possible
7. We recommend that the WHO Director General briefs Member States whose populations are currently protected against polio by IPV only on the implications of circulating poliovirus in Israel

Outbreaks waiting to happen

8. We recommend that a global action plan be drawn up, identifying a definitive Red List of the world's most polio-vulnerable countries and actions to protect each of them
9. We restate our earlier recommendation that the International Health Regulations be used to ensure that all people travelling from a polio-endemic country be required to have vaccination prior to travel, and add that this should be extended to any persistently affected country

Insecurity and impositions of restrictions to access

10. We recommend that the Polio Oversight Board ensures that all of the planned security posts within the partner agencies are filled by the end of November, even if this requires extraordinary measures
11. We recommend that the partners consult and seek advice from the highest levels of the UN Security system and other experts
12. We recommend that all means be used to ensure that the polio program in every country is known to be politically neutral

Management and oversight of the global program

13. We recommend that the Polio Oversight Board commissions a comprehensive review of the program's oversight and strategic and operational management, making a decision now about how to optimally time this

Potential IPV use in interrupting transmission

14. We recommend that the program agrees and makes a clear statement of policy on the use of IPV in stopping polio transmission, addressing the questions raised by the IMB in its May and October 2013 reports

Update: Polio this week - *As of 30 October 2013*

Global Polio Eradication Initiative

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

[Editor's extract and bolded text]

:: Following reports of a cluster of 22 acute flaccid paralysis (AFP) cases on 17 October 2013 in the Syrian Arab Republic, wild poliovirus type 1 (WPV1) has been isolated from ten of the cases under investigation. Final genetic sequencing results are pending. Wild poliovirus was last reported in Syria in 1999. A wide-ranging outbreak response plan is urgently being finalized for Syria and countries in the region. For more on the Syria outbreak, please click here

:: South Sudan has been removed from the list of countries with WPV1. Results of additional molecular and genetic testing by the Global Polio Specialized Laboratory at the US Centers for Disease Control and Prevention (CDC) have revealed that an initial instance of simultaneous

handling of test specimens from a number of countries in the Horn of Africa resulted in the unintended contamination of the South Sudan specimens with WPV1.
:: The Independent Monitoring Board (IMB) for polio eradication, following its 1-3 October meeting, has published its IMB report to the Polio Oversight Board. For the full report in English, please click here [see excerpt above]

Pakistan

:: Seven new WPV1 cases were reported in the past week. Four were reported from Federally Administered Tribal Areas (FATA) and one from Khyber Pakhtunkhwa (KP), Punjab and Sindh respectively.
:: The total number of WPV1 cases for Pakistan in 2013 is now 53. The most recent WPV1 case had onset of paralysis on 5 October (from Khyber Agency, FATA). The majority of WPV1 cases in Pakistan this year, 38 (72%), are from FATA, of which 16 are from Khyber Agency and 15 from North Waziristan.
:: One new cVDPV2 case was reported in the past week. The total number of cVDPV2 cases for Pakistan is now 30. The most recent cVDPV2 case had onset of paralysis 26 September (from North Waziristan).
:: The situation in North Waziristan is dire. It is the area with the largest number of children being paralyzed by poliovirus in all of Asia (15 WP1 and 23 cVDPV2 cases). It is in an area where immunization activities have been suspended by local leaders since June 2012. It is critical that children in these areas are vaccinated and protected from poliovirus. Immunizations in neighboring high-risk areas are being intensified, to further boost population immunity levels in those areas and prevent further spread of this outbreak.

Horn of Africa

:: In Ethiopia, one new WPV1 case was reported from the Somali region in the past week.
In Somalia, six new WPV1 cases were reported this week (two from Bay region and one from Bakool, Lower Juba, Middle Juba, and Lower Shabelle regions respectively).
:: The total number of WPV cases (all WPV1) for 2013 in the Horn of Africa is now 201 (180 from Somalia, 14 from Kenya and seven from Ethiopia). The most recent WPV1 case in the region had onset of paralysis on 30 September (from Lower Shabelle, Somalia)

Syrian Arab Republic

:: Following reports of a cluster of 22 acute flaccid paralysis (AFP) cases on 17 October 2013 in the Syrian Arab Republic, wild poliovirus type 1 (WPV1) has been isolated from ten of the cases under investigation. Final genetic sequencing results are pending. Wild poliovirus was last reported in Syria in 1999.
:: A comprehensive outbreak response is currently underway. Supplementary immunization activities commenced in Syria on 24 October. The main aim is to rapidly reach children in the immediately-affected and high-risk areas, followed by wider scale immunization campaigns.
:: In further response to the Syria outbreak, multiple large-scale SIAs targeting 22 million children over the next 6 months (starting from early November) are being planned across the region (including Lebanon, Jordan, Turkey, Egypt, Iraq and occupied Palestinian territory (West Bank and Gaza).

WHO: Global Alert and Response (GAR) – *Disease Outbreak News*
http://www.who.int/csr/don/2013_03_12/en/index.html
Polio in the Syrian Arab Republic

29 October 2013 - Following reports of a cluster of 22 acute flaccid paralysis (AFP) cases on 17 October 2013 in the Syrian Arab Republic, wild poliovirus type 1 (WPV1) has been isolated from ten of the cases under investigation. Final genetic sequencing results are pending to

determine the origin of the isolated viruses. Wild poliovirus had not been detected in the Syrian Arab Republic since 1999.

Most of the cases are very young (below two years of age), and were un- or under-immunized. Estimated immunization rates in the Syrian Arab Republic declined from 91 percent in 2010 to 68 percent in 2012.

Even before this laboratory confirmation, health authorities in the Syrian Arab Republic and neighbouring countries had begun the planning and implementation of a comprehensive outbreak response. On 24 October 2013, an already-planned large-scale supplementary immunization activity (SIA) was launched in the Syrian Arab Republic to vaccinate 1.6 million children against polio, measles, mumps and rubella, in both government-controlled and contested areas.

Implementation of an SIA in Deir Al Zour province commenced promptly when the first 'hot cases' were reported. Larger-scale outbreak response across the Syrian Arab Republic and neighbouring countries is anticipated to begin in early November 2013, to last for at least six to eight months depending on the area and based on evolving epidemiology.

Given the current situation in the Syrian Arab Republic, frequent population movements across the region and subnational immunity gaps in key areas, the risk of further international spread of wild poliovirus type 1 across the region is considered to be high. A surveillance alert has been issued for the region to actively search for additional potential cases.

WHO's International Travel and Health recommends that all travellers to and from polio-infected areas be fully vaccinated against polio.
http://www.who.int/csr/don/2013_10_29/en/index.html

The **Weekly Epidemiological Record (WER) for 1 November 2013**, vol. 88, 44/45 (pp. 477–488) includes:
:: Meeting of the WHO expert working group on surveillance of influenza antiviral susceptibility, Geneva, July 2013
:: Global routine vaccination coverage, 2012
:: WHO advisory committee on immunization and vaccine related implementation research (IVIR, formerly QUIVER): executive summary report of 7th meeting
http://www.who.int/entity/wer/2013/wer8844_45.pdf

WHO: Global Alert and Response (GAR) – *Disease Outbreak News*
http://www.who.int/csr/don/2013_03_12/en/index.html
:: Middle East respiratory syndrome coronavirus (MERS-CoV) - update 31 October 2013
:: Middle East respiratory syndrome coronavirus (MERS-CoV) - update 29 October 2013
:: Polio in the Syrian Arab Republic 29 October 2013 [see full text above]
:: Cholera in Mexico – update 28 October 2013

CDC/MMWR Watch [to 2 November 2013]
November 1, 2013 / Vol. 62 / No. 43
Download .pdf document of this issue
:: Influenza Vaccination Among Pregnant Women — Massachusetts, 2009–2010
:: Global Routine Vaccination Coverage — 2012

European Medicines Agency Watch (to 2 November 2013)

No new content

WHO - Humanitarian Health Action
http://www.who.int/hac/en/index.html
No new relevant content.

UN Watch *to 2 November 2013*
Selected meetings, press releases, and press conferences relevant to immunization, vaccines, infectious diseases, global health, etc. http://www.un.org/en/unpress/
No new relevant content.

World Bank/IMF Watch *to 2 November 2013*
Selected press releases and other selected content relevant to immunization, vaccines, infectious diseases, global health, etc. http://www.worldbank.org/en/news/all
No new relevant content.

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

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

WHO: Immunization coverage
Fact sheet N°378
Updated November 2013
Excerpt
Key facts:
:: Immunization prevents illness, disability and death from vaccine-preventable diseases including diphtheria, measles, pertussis, pneumonia, polio, rotavirus diarrhoea, rubella and tetanus.
:: Global vaccination coverage is holding steady.
:: Immunization currently averts an estimated 2 to 3 million deaths every year.
:: But an estimated 22.6 million infants worldwide are still missing out on basic vaccines.
http://www.who.int/mediacentre/factsheets/fs378/en/index.html

WHO: Expert consultation on the use of placebos in vaccine trials.
November 2013
ISBN 978 92 4 150625 0 (NLM classification: QW 805)
The Expert Consultation on the Use of Placebos in Vaccine Trials was convened by the World Health Organization (WHO) in Annecy, France on 17–18 January 2013 under the overall guidance of Rüdiger Krech, WHO Director of the Department of Ethics and Social Determinants, and Marie-Paule Kieny, Assistant Director-General, Health Systems and Innovation.
Excerpt
Conclusion

The use of placebos in a vaccine clinical trial when there is already an effective or partially effective vaccine raises challenging ethical questions. National and international documents on research involving human subjects have set forth valuable guidelines on the circumstances in which use of placebos is ethically acceptable in a randomized controlled trial. However, none of these documents specifically addresses the use of placebos in vaccine trials. The purpose of the expert consultation described in this report was to address the ethical ambiguity in this area and formulate concrete and practical guidance for action. The critical need to develop new and improved vaccines, especially for use in LMICs that bear the heaviest disease burden, provided the impetus for this consultation and the resulting recommendations.

This report presents a typology of cases in which the use of placebos in vaccine clinical trials may be justified, and offers procedural and substantive recommendations to help trial sponsors and researchers, policy-makers, RECs, and other stakeholders evaluate proposed trial designs. The report specifies five situations in which placebos may be ethically acceptable even in the presence of an efficacious vaccine. In these situations, it is recommended that there be ongoing consultation between trial sponsors and host country actors, thorough assessment of and communication about risks, and consideration of alternative trial designs.

Researchers should consider whether risks associated with the use of placebos can be adequately mitigated, and research protocols should explain the scientific necessity and social and public health value of a placebo design. Researchers should also undertake activities to mitigate risks related to the use of placebos. Additionally, the post-trial availability of the vaccine in the trial country should be carefully examined.

This document is not intended to suggest a definitive course of action for all vaccine trials when an effective or partially effective vaccine already exists. Rather, the recommendations set forth here are designed to provide an analytic framework to aid decision-making. Participants at the expert consultation agreed that the ultimate judgement about the use of placebos in these cases will depend on the specifics of the trial vaccine and the circumstances of the country in which the trial will be conducted. A careful weighing of numerous considerations by stakeholders will therefore be required. The overarching goal of these recommendations is two-fold: to assure that participants in vaccine clinical trials are protected from unjustifiable risks, and to facilitate the conduct of beneficial and urgently needed vaccine research. WHO encourages ongoing discussion of these issues and welcomes feedback on the guidance provided here.

UNICEF: Ethical Research Involving Children

Online Resource, November 2013

This on-line resource "brings together the best thinking internationally about key ethical issues involving children and how these might be addressed in different research contexts…The point of the Ethical Research Involving Children Project is to help ensure that the human dignity of children is honoured and that their rights and well-being are respected in all research, irrespective of context."

The new resources include:

:: An International Charter for Ethical Research Involving Children;

:: A Compendium on ethical issues and challenges, including a collection of over 20 case studies as well as structured questions to guide ethical research involving children (called 'Getting Started');

:: A website www.childethics.com specifically designed to provide a rich repository of evidence-based information, resources and links to journal articles to guide and improve research involving children and to provide a platform for further critical reflection and dialogue.

Nearly 400 members of the international research and NGO communities have contributed to this project that has developed a range of resources to provide clear guidance on ethical issues and concerns that can be applied in multiple research contexts.
To view the project www.childethics.com
http://www.unicef.org/media/media_70778.html

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 13, Issue 11, 2013
http://www.tandfonline.com/toc/uajb20/current#.Uhk8Az_hflY
[No relevant content]

American Journal of Infection Control
Vol 41 | No. 11 | November 2013 | Pages 949-114
http://www.ajicjournal.org/current

Immunizing health care workers against influenza: A glimpse into the challenges with voluntary programs and considerations for mandatory policies

Susan Quach, MSc, Jennifer A. Pereira, PhD, Jeffrey C. Kwong, MD, MSc, Sherman Quan, MSc Lois Crowe, BA, Maryse Guay, MD, Julie A. Bettinger, PhD, MPH
Public Health Agency of Canada/Canadian Institutes of Health Research Influenza Research Network (PCIRN) Program Delivery and Evaluation Theme Group
http://www.ajicjournal.org/article/S0196-6553%2813%2900941-3/abstract

Abstract
Background
Vaccination of health care workers (HCWs) is an important patient safety initiative. It prevents influenza infection among patients and reduces staff illness and absenteeism. Despite these benefits, HCW influenza immunization uptake is low. Therefore, strategies to achieve high immunization coverage in HCWs, barriers to uptake, and perceptions of mandatory influenza immunization policies were discussed in key informant interviews with influenza immunization program planners.
Methods
We conducted telephone interviews with 23 influenza immunization program planners from 21 organizations (7 acute care hospitals, 6 continuing care facilities, and 8 public health organizations) across Canada. We used content analysis to identify themes from the interviews.

Results
Participants used a variety of promotional and educational activities, and many vaccine delivery approaches, to support HCW immunization programs. Barriers to achieving high coverage in HCWs included misconceptions about the safety and effectiveness of the influenza vaccine, negative personal experiences associated with the vaccine, and antivaccine sentiments. Participants mentioned mandatory influenza immunizations as a solution to low coverage. However, they identified challenges with this approach such as obtaining support from stakeholders, enforcement, and limiting personal autonomy.
Conclusion
Participants believed immunization coverage in health care organizations will continue to be suboptimal using existing program strategies. Although participants discussed mandatory immunization as a way to improve uptake, potential obstacles will need to be addressed for this to be implemented successfully.

American Journal of Public Health
Volume 103, Issue 11 (November 2013)
http://ajph.aphapublications.org/toc/ajph/current
[Reviewed earlier]

American Journal of Tropical Medicine and Hygiene
October 2013; 89 (4)
http://www.ajtmh.org/content/current
[Reviewed earlier]

Annals of Internal Medicine
15 October 2013, Vol. 159. No. 8
http://annals.org/issue.aspx
[Reviewed earlier; No relevant content]

BMC Public Health
(Accessed 2 November 2013)
http://www.biomedcentral.com/bmcpublichealth/content
Research article
Coverage and parental perceptions of influenza vaccination among parents of children aged 6 to 23 months in Hong Kong
Joseph TF Lau, Phoenix KH Mo, Yan Shan Cai, Kwok Kei Mak, Hi Yi Tsui and Kai Chow Choi
http://www.biomedcentral.com/1471-2458/13/1026/abstract
Abstract (provisional)
Background
The impact of influenza on young children can be severe and even fatal. Influenza vaccination (IV) has been shown to be effective in reducing complications of influenza among children. This study investigated the prevalence and factors of IV among children aged 6-23 months in Hong Kong.
Methods

A sample of 401 Chinese parents of children aged 6-23 months were interviewed at local Maternal and Child Health Centers. Socio-demographic information, variables related to Health Belief Model, including perceptions about the child's chance of contracting influenza, perceived harm of influenza on children, perceived benefits and side-effects of IV, having received recommendations from health professionals to uptake IV, and IV behaviors of the children were measured. Multivariate analysis was used to examine factors associated with IV behaviors of children.

Results

Only 9% of the children had ever been vaccinated. Among those parents who had heard of IV (92.0%), substantial proportions perceived that IV could reduce the risk of influenza-induced complications (70.5%), hospitalization (70.5%) and death (65.9%). Relatively few of the participants believed that IV had no side effects (17.1%) and even less had been recommended by health care professionals to uptake IV (10.6%). Results from multivariate analysis showed that physician recommendations were associated with a higher likelihood for IV among younger children, whilst parental perceptions of the side effects of IV was associated with a lower likelihood for IV.

Conclusion

The prevalence of IV among children aged 6-23 months in Hong Kong was very low. Promotion of IV with the component of physician recommendations and parents' knowledge about IV safety for this group is warranted.

Research article

Cost-effectiveness and cost utility analysis of three pneumococcal conjugate vaccines in children of Peru

Jorge Alberto Gomez, Juan Carlos Tirado, Aldo Amador Navarro Rojas, Maria Mercedes Castrejon Alba and Oleksandr Topachevskyi

http://www.biomedcentral.com/1471-2458/13/1025/abstract

Abstract (provisional)

Background

The clinical and economic burden associated with invasive and non-invasive pneumococcal and non-typeable Haemophilus influenzae (NTHi) diseases is substantial in the Latin America and Caribbean region, where pneumococcal vaccines have only been introduced to a few countries. This study analyzed the cost-effectiveness and cost utility of three different pneumococcal conjugate vaccines (PCVs) for Peru.

Methods

A Markov model that simulated the disease processes in a birth cohort over a lifetime, within 1,128 month cycles was used to evaluate the cost-effectiveness of 10-valent pneumococcal NTHi protein D conjugate vaccine (PHiD-CV) and 7- and 13-valent PCVs (PCV-7 and PCV-13). Expected quality-adjusted life years (QALYs), cost-savings and incremental cost-effectiveness ratios (ICERs) were calculated.

Results

Without vaccination, pneumonia was associated with the greatest health economic burden (90% of QALYs lost and 63% of lifetime direct medical costs); while acute otitis media (AOM) was responsible for 1% of QALYs lost and 25% of direct medical costs. All vaccines were predicted to be cost-effective for Peru, with PHiD-CV being most cost-effective. PHiD-CV was predicted to generate 50 more QALYs gained and required a reduced investment (-US$ 3.4 million) versus PCV-13 (discounted data), and was therefore dominant and cost saving. The probabilistic sensitivity analysis showed that PHiD-CV generated more QALYs gained at a reduced cost than PCV-13 in 84% of the simulations and less QALYs gains at a reduced cost in

16%. Additional scenarios using different assumptions on vaccine efficacies based on previous evidence were explored, but no significant change in the overall cost-effective results were observed.
Conclusions
The results of this modeling study predict that PCVs are likely to be a cost-effective strategy to help relieve the epidemiological and economic burden associated with pediatric pneumococcal and NTHi diseases for Peru. PHiD-CV is likely to be a dominant (better health gains at a reduced net cost) intervention compared to PCV-13 or PCV-7. The most significant drivers for these results are the better health and economic profile of PHiD-CV against AOM and its reduced cost per dose available through the PAHO Revolving Fund in the LAC region.

British Medical Bulletin
Volume 107 Issue 1 September 2013
http://bmb.oxfordjournals.org/content/current
[Reviewed earlier]

British Medical Journal
02 November 2013 (Vol 347, Issue 7931)
http://www.bmj.com/content/347/7931
[No relevant content]

Bulletin of the World Health Organization
Volume 91, Number 11, November 2013, 797-896
http://www.who.int/bulletin/volumes/91/11/en/index.html
Special theme: human resources for universal health coverage
[No relevant content]

Clinical Therapeutics
Vol 35 | No. 10 | October 2013 | Pages 1475-1652
http://www.clinicaltherapeutics.com/current
[No relevant content]

Cost Effectiveness and Resource Allocation
(Accessed 2 November 2013)
http://www.resource-allocation.com/
[No new relevant content]

Current Opinion in Infectious Diseases.
December 2013 - Volume 26 - Issue 6 pp: v-v,493-588
http://journals.lww.com/co-infectiousdiseases/pages/currenttoc.aspx
Special Theme: ANTIMICROBIAL AGENTS
[No relevant content]

Developing World Bioethics
August 2013 Volume 13, Issue 2 Pages ii–iii, 57–104
http://onlinelibrary.wiley.com/doi/10.1111/dewb.2013.13.issue-2/issuetoc
[Reviewed earlier]

Development in Practice
Volume 23, Issue 7, 2013
http://www.tandfonline.com/toc/cdip20/current
[No relevant content]

Emerging Infectious Diseases
Volume 19, Number 11—November 2013
http://www.cdc.gov/ncidod/EID/index.htm
Research
Mobile Phone–based Syndromic Surveillance System, Papua New Guinea
Article Contents
Alexander Rosewell, Berry Ropa, Heather Randall, Rosheila Dagina, Samuel Hurim, Sibauk Bieb, Siddhartha Datta, Sundar Ramamurthy, Glen Mola, Anthony B. Zwi, Pradeep Ray, and C. Raina MacIntyre
http://wwwnc.cdc.gov/eid/article/19/11/12-1843_article.htm
Abstract
The health care system in Papua New Guinea is fragile, and surveillance systems infrequently meet international standards. To strengthen outbreak identification, health authorities piloted a mobile phone–based syndromic surveillance system and used established frameworks to evaluate whether the system was meeting objectives. Stakeholder experience was investigated by using standardized questionnaires and focus groups. Nine sites reported data that included 7 outbreaks and 92 cases of acute watery diarrhea. The new system was more timely (2.4 vs. 84 days), complete (70% vs. 40%), and sensitive (95% vs. 26%) than existing systems. The system was simple, stable, useful, and acceptable; however, feedback and subnational involvement were weak. A simple syndromic surveillance system implemented in a fragile state enabled more timely, complete, and sensitive data reporting for disease risk assessment. Feedback and provincial involvement require improvement. Use of mobile phone technology might improve the timeliness and efficiency of public health surveillance.

The European Journal of Public Health
Volume 23 Issue 5 October 2013
http://eurpub.oxfordjournals.org/content/current
[Reviewed earlier]

Eurosurveillance
Volume 18, Issue 44, 31 October 201
http://www.eurosurveillance.org/Public/Articles/Archives.aspx?PublicationId=11678

Research articles

Dramatic change in public attitudes towards vaccination during the 2009 influenza A(H1N1) pandemic in France

P Peretti-Water [1,2,3], P Verger[1,2,3], J Raude[4,2], A Constant[2,1], A Gautier[5], C Jestin[5], F Beck[5,6]

http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=20623

Abstract

We investigated the potential impact of the 2009 influenza A(H1N1) pandemic on attitudes towards vaccination among people aged 18 to 75 years and living in metropolitan France. We used data from three national telephone surveys conducted on representative samples in 2000, 2005 and 2010 (n=12,256, n=23,931, n=8,573 respectively). In France, unfavourable attitudes towards vaccination in general dramatically increased from 8.5% in 2000 and 9.6% in 2005 to 38.2% in 2010. In 2010, among respondents who held unfavourable attitudes towards vaccination, 50% mentioned specifically their opposition to the influenza A(H1N1) vaccine. The sociodemographic profile associated with these attitudes also changed greatly. In particular, unfavourable attitudes towards vaccination in general became significantly more frequent among less educated people in 2010. These attitudes were also correlated with vaccination behaviours. For example, parents who were unfavourable towards vaccination in general were more likely to report that they had at least one child who did not get the measles-mumps-rubella vaccine. As this shift in attitude may have a significant impact on future vaccination coverage, health authorities should urgently address the vaccine confidence gap.

Forum for Development Studies

Volume 40, Issue 3, 2013

http://www.tandfonline.com/toc/sfds20/current

[No relevant content]

Global Health Governance

Summer 2013 Archive

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

Special Series on Universal Health Coverage

Globalization and Health

[Accessed 2 November 2013]

http://www.globalizationandhealth.com/

[No new relevant content]

Health Affairs

October 2013; Volume 32, Issue 10

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

Theme: **Economic Trends & Quality Trade-Off**

[No relevant content]

Health and Human Rights

Volume 15, Issue 1
http://www.hhrjournal.org/
Theme: Realizing the Right to Health Through a Framework Convention on Global Health
[Reviewed earlier]

Health Economics, Policy and Law
Volume 8 / Issue 04 / October 2013
http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue
[Reviewed earlier; No relevant content]

Health Policy and Planning
Volume 28 Issue 7 October 2013
http://heapol.oxfordjournals.org/content/current
[Reviewed earlier]

Human Vaccines & Immunotherapeutics (formerly Human Vaccines)
November 2013 Volume 9, Issue 11
http://www.landesbioscience.com/journals/vaccines/toc/volume/9/issue/11/
A critical review of cost-effectiveness analyses of vaccinating males against human papillomavirus
Yiling Jiang, Aline Gauthier, Maarten J Postma, Laureen Ribassin-Majed, Nathalie Largeron, Xavier Bresse*
https://www.landesbioscience.com/journals/vaccines/article/25754/
Abstract
A critical review of cost-effectiveness analyses of HPV vaccination in males was conducted and nine studies were identified in different countries. Due to the heterogeneity among these studies in terms of modeling approach, vaccination strategies, health outcomes considered, assumptions and parameters, limited conclusions can be drawn with regard to the absolute cost-effectiveness. Nevertheless, key drivers were identified. More favorable cost-effectiveness appeared when all HPV-related diseases outcomes were considered, a suboptimal vaccine coverage among girls and/or lower vaccine prices were assumed. There was a general lack of transparency to fully describe the details of the methodological approach of modeling and calibration. Further research should be conducted to generate robust evidence-based data sets (HPV-related diseases epidemiology, costs and quality of life). The best modeling practice for HPV vaccination and how to better capture the true economic value of vaccination beyond cost-effectiveness in a broader policy context need to be investigated.
Overcoming perceptions of financial barriers to rotavirus vaccine introduction in Asia
E Anthony S Nelson*, Ciro A de Quadros, Mathuram Santosham, Umesh D Parashar, Duncan Steele
https://www.landesbioscience.com/journals/vaccines/article/26107/
Abstract
Despite a WHO recommendation in 2009, reaffirmed in 2013, that all countries should consider introducing rotavirus vaccines into their National Immunization Programs, as of June 2013 only

45 have done so. One major consideration appears to have been the costs of the vaccine to countries. Of concern, is that Asian countries have been slow to introduce rotavirus vaccines despite having robust data that could inform the decision-making process. Although decisions on new vaccine introduction are very complex and vary by country and region, economic evaluations are often pivotal once vaccine efficacy and safety has been established, and disease burden documented and communicated. Unfortunately, with private sector list prices of vaccines often used in economic evaluations, rather than a potential public health sector pricing structure, policy-makers may defer decisions on rotavirus vaccine introduction based on the belief that "the vaccine price is too high," even though this might be based on erroneous data. The Pan American Health Organization's Revolving Fund provides one example of how vaccine price can be made more competitive and transparent through a regional tendering process. Other mechanisms, such as tiered pricing and UNICEF procurement, also exist that could help Asian and other countries move forward more quickly with rotavirus vaccine introduction.

Social media microblogs as an HPV vaccination forum

Chupei Zhang*, Marientina Gotsis, Maryalice Jordan-Marsh

https://www.landesbioscience.com/journals/vaccines/article/25599/

Abstract

The 2006 US FDA approval of the human papillomavirus (HPV) vaccine brought new hope for cancer prevention. Gardasil and Cervarix are widely available vaccines that can deter HPV infection, which causes 70% of cervical cancer. Acceptance of vaccination varies due to a lack of HPV awareness and HPV vaccine knowledge. Recent observations of the Chinese microblog "SinaWeibo" suggest a new approach to engage health professionals and consumer website bloggers. Websites that present the latest fashion, fitness or beauty news and ways to obtain "deals" have created informative blogs or online communities that appeal to female users. Some users raise health questions of their peers. Health professionals, as website bloggers, can introduce vaccine news or respond to conversations between bloggers and their followers. By transforming medical vocabulary into ordinary chat, microblogs may promote efficiency in vaccine education and communication. A web-based, interactive social media-microblog could offer an ideal platform to speed up information dissemination and increase targeted communication.

Infectious Agents and Cancer

http://www.infectagentscancer.com/content

[Accessed 2 November 2013]

[No new relevant content]

Infectious Diseases of Poverty

http://www.idpjournal.com/content

[Accessed 2 November 2013]

[No new relevant content]

International Journal of Epidemiology

Volume 42 Issue 5 October 2013

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

[No relevant content]

International Journal of Infectious Diseases
Vol 17 | No. 11 | November 2013
http://www.ijidonline.com/current
[Reviewed earlier]

JAMA
October 23/30, 2013, Vol 310, No. 16
http://jama.jamanetwork.com/issue.aspx
[Reviewed earlier]

JAMA Pediatrics
October 2013, Vol 167, No. 10
http://archpedi.jamanetwork.com/issue.aspx
[Reviewed earlier; No relevant content]

Journal of Community Health
Volume 38, Issue 5, October 2013
http://link.springer.com/journal/10900/38/5/page/1
[Reviewed earlier]

Journal of Health Organization and Management
Volume 27 issue 6 - Latest Issue
http://www.emeraldinsight.com/journals.htm?issn=1477-7266&show=latest
[No relevant content]

Journal of Infectious Diseases
Volume 208 Issue 11 December 1, 2013
http://jid.oxfordjournals.org/content/current
[No relevant content]

Journal of Global Infectious Diseases (JGID)
July-September 2013 Volume 5 | Issue 3 Page Nos. 91-124
http://www.jgid.org/currentissue.asp?sabs=n
[No relevant content]

Journal of Medical Ethics
November 2013, Volume 39, Issue 11
http://jme.bmj.com/content/current
[No relevant content]

Journal of Medical Microbiology
November 2013; 62 (Pt 11)
http://jmm.sgmjournals.org/content/current
[No relevant content]

Journal of the Pediatric Infectious Diseases Society (JPIDS)
Volume 2 Issue 3 September 2013
http://jpids.oxfordjournals.org/content/current
[Reviewed earlier]

Journal of Pediatrics
Vol 163 | No. 5 | November 2013 | Pages 1235-1536
http://www.jpeds.com/current
[Reviewed earlier]

Journal of Public Health Policy
Volume 34, Issue 4 (November 2013)
http://www.palgrave-journals.com/jphp/journal/v34/n4/index.html
[Reviewed earlier]

Journal of the Royal Society – Interface
January 6, 2014; 11 (90)
http://rsif.royalsocietypublishing.org/content/current
[No relevant content]

Journal of Virology
December 2013, volume 87, issue 23
http://jvi.asm.org/content/current
[No relevant content]

The Lancet
Nov 02, 2013 Volume 382 Number 9903 p1459 - 1534
http://www.thelancet.com/journals/lancet/issue/current
Editorial
Equity in child survival
The Lancet
Preview |
Efforts to meet Millennium Development Goal 4 (MDG 4)—a two-thirds reduction in child mortality by 2015—have led to a substantial decrease in deaths of children younger than 5 years. However, not all children have benefited equally from these gains. Furthermore, despite

many country successes, the world as a whole remains off-track in meeting this goal. A growing consensus exists that fresh approaches will be needed in the years up to the MDG deadline and beyond to accelerate progress. A new report from Save the Children—*Lives on the Line: An Agenda for Ending Preventable Deaths*—highlights how countries need to shift their strategies based on the current child mortality landscape.

The Lancet Global Health
Nov 2013 Volume 1 Number 5 e238 - 309
http://www.thelancet.com/journals/langlo/issue/current
[No relevant content]

The Lancet Infectious Diseases
Nov 2013 Volume 13 Number 11 p907 - 994
http://www.thelancet.com/journals/laninf/issue/current
[No relevant content]

Medical Decision Making (MDM)
November 2013; 33 (8)
http://mdm.sagepub.com/content/current
[Reviewed earlier]

The Milbank Quarterly
A Multidisciplinary Journal of Population Health and Health Policy
September 2013 Volume 91, Issue 3 Pages 419–65
http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1468-0009/currentissue
[Reviewed earlier; No relevant content]

Nature
Volume 502 Number 7473 pp593-716 31 October 2013
http://www.nature.com/nature/current_issue.html
[No relevant content**]**

Nature Immunology
November 2013, Volume 14 No 11 pp1101-1198
http://www.nature.com/ni/journal/v14/n11/index.html
[No relevant content]

Nature Medicine
October 2013, Volume 19 No 10 pp1191-1350
http://www.nature.com/nm/journal/v19/n10/index.html
[Reviewed earlier]

Nature Reviews Immunology
November 2013 Vol 13 No 11
http://www.nature.com/nri/journal/v13/n11/index.html
[No relevant content]

New England Journal of Medicine
October 31, 2013 Vol. 369 No. 18
http://www.nejm.org/toc/nejm/medical-journal
[No relevant content]

OMICS: A Journal of Integrative Biology
November 2013, 17(11)
http://online.liebertpub.com/toc/omi/17/11
[No relevant content]

Revista Panamericana de Salud Pública/Pan American Journal of Public Health (RPSP/PAJPH)
September 2013 Vol. 34, No. 3
http://www.paho.org/journal/index.php?option=com_content&view=article&id=132&Itemid=228&lang=en
[Reviewed earlier]

The Pediatric Infectious Disease Journal
November 2013 - Volume 32 - Issue **11** pp: 1159-1302,e414-e42
http://journals.lww.com/pidj/pages/currenttoc.aspx

Effectiveness of Pneumococcal Conjugate Vaccine in Infants by Maternal Influenza Vaccination Status

van Santen, Katharina L.; Bednarczyk, Robert A.; Adjaye-Gbewonyo, Dzifa; M

Abstract
Background: Influenza virus infection can predispose patients to secondary pneumococcal infections. Children are at greatest risk for pneumococcal infection in the first year of life and are not considered fully protected by pneumococcal conjugate vaccine (PCV) until their third dose at 6 months of age. Infants less than 6 months cannot receive influenza vaccination, though maternal influenza vaccination can protect infants.
Methods: We conducted a retrospective cohort study of 9807 mother–infant pairs enrolled in a managed care organization for infants born June 1, 2002, to December 31, 2009. Exposure was assessed for receipt of infant PCV only and the combination of PCV and maternal influenza vaccine (trivalent inactivated vaccine). Outcomes of interest were acute otitis media and medically attended acute respiratory infection in the first year of life. We estimated the adjusted incidence of illness, incidence rate ratios and vaccine effectiveness using the ratio of incidence rate ratios between the periods of noncirculating influenza and that of at least local influenza circulation.

Results: For medically attended acute respiratory infection, vaccine effectiveness for the combination of trivalent inactivated vaccine and PCV was 39.6% (95% confidence interval [CI]: 31.6%–46.7%) and for PCV only was 29.8% (95% CI: 11.4%–44.3%). For acute otitis media, vaccine effectiveness for the combination of trivalent inactivated vaccine and PCV was 47.9% (95% CI: 42%–53.3%) and for PCV only was 37.6% (95% CI: 23.1%–49.4%).
Conclusion: In infants, the combination of maternal influenza vaccine and infant pneumococcal conjugate vaccination confers greater protection from acute otitis media infections and medically attended acute respiratory infections than does PCV alone.

Comparing Haemophilus influenzae Type b Conjugate Vaccine Schedules: A Systematic Review and Meta-analysis of Vaccine Trials

Low, Nicola; Redmond, Shelagh M.; Rutjes, Anne W. S.; More

Abstract

Background: The optimal schedule and the need for a booster dose are unclear for Haemophilus influenzae type b (Hib) conjugate vaccines. We systematically reviewed relative effects of Hib vaccine schedules.
Methods: We searched 21 databases to May 2010 or June 2012 and selected randomized controlled trials or quasi-randomized controlled trials that compared different Hib schedules (3 primary doses with no booster dose [3p+0], 3p+1 and 2p+1) or different intervals in primary schedules and between primary and booster schedules. Outcomes were clinical efficacy, nasopharyngeal carriage and immunological response. Results were combined in random-effects meta-analysis.
Results: Twenty trials from 15 countries were included; 16 used vaccines conjugated to tetanus toxoid (polyribosylribitol phosphate conjugated to tetanus toxoid). No trials assessed clinical or carriage outcomes. Twenty trials examined immunological outcomes and found few relevant differences. Comparing polyribosylribitol phosphate conjugated to tetanus toxoid 3p+0 with 2p+0, there was no difference in seropositivity at the 1.0 μg/mL threshold by 6 months after the last primary dose (combined risk difference −0.02; 95% confidence interval: −0.10, 0.06). Only small differences were seen between schedules starting at different ages, with different intervals between primary doses, or with different intervals between primary and booster doses. Individuals receiving a booster were more likely to be seropositive than those at the same age who did not.
Conclusions: There is no clear evidence from trials that any 2p+1, 3p+0 or 3p+1 schedule of Hib conjugate vaccine is likely to provide better protection against Hib disease than other schedules. Until more data become available, scheduling is likely to be determined by epidemiological and programmatic considerations in individual settings.

Pediatrics
November 2013, VOLUME 132 / ISSUE 5
http://pediatrics.aappublications.org/current.shtml

Article

Measles in Children Vaccinated With 2 Doses of MMR

Fannie Defay, MSca, Gaston De Serres, MD, PhDa,b,c, Danuta M. Skowronski, MD, FRCPCd, Nicole Boulianne, RN, MSca,b, Manale Ouakki, MSCb, Monique Landry, MDe, Nicholas Brousseau, MD, FRCPCf, and Brian J. Ward, MD, FRCPCg

http://pediatrics.aappublications.org/content/132/5/e1126.abstract

Abstract

OBJECTIVE: A previous measles outbreak investigation in a high school in Quebec, Canada identified 2-dose vaccine effectiveness of 94%. The risk of measles in 2-dose recipients was significantly higher (2–4 times) when measles vaccine was first administered at 12 versus ≥15 months of age, with no significant effect of the age at second dose. Generalizability of this association was also assessed in the expanded provincial data set of notified cases.
METHODS: This matched case–control study included only 2-dose recipients. All confirmed (laboratory or epidemiologically linked) cases in patients aged 5 to 17 years were included. Each case was matched to 5 controls.
RESULTS: A total of 102 cases and 510 controls were included; 89% of cases were in patients 13 to 17 years old. When the first dose was administered at 12 to 13 months compared with ≥15 months of age, the risk of measles in participants outside the outbreak school was 6 times higher (95% confidence interval, 1.33–29.3) and was 5.2 times higher (95% confidence interval, 1.91–14.3) in the pooled estimate (participants from the outbreak school + outside that school).
CONCLUSIONS: A significantly greater risk of measles among 2-dose recipients whose first dose was given at 12 to 13 months rather than ≥15 months of age is confirmed in the larger Quebec data set. The mechanism remains unknown, but vaccine failures in 2-dose recipients could have substantial implications for measles elimination efforts through 2-dose vaccination. The optimal age at first dose may warrant additional evaluation.

Article

Impact of a Routine Two-Dose Varicella Vaccination Program on Varicella Epidemiology

Stephanie R. Bialek, MD, MPHa, Dana Perella, MPHb, John Zhang, PhDa, Laurene Mascola, MD, MPHc, Kendra Viner, PhD, MPHb, Christina Jackson, MPHc, Adriana S. Lopez, MHSa, Barbara Watson, MB, ChB, FRCP, FAAPb, and Rachel Civen, MD, MPHc

Abstract

OBJECTIVE: One-dose varicella vaccination for children was introduced in the United States in 1995. In 2006, a second dose was recommended to further decrease varicella disease and outbreaks. We describe the impact of the 2-dose vaccination program on varicella incidence, severity, and outbreaks in 2 varicella active surveillance areas.
METHODS: We examined varicella incidence rates and disease characteristics in Antelope Valley (AV), CA, and West Philadelphia, PA, and varicella outbreak characteristics in AV during 1995–2010.
RESULTS: In 2010, varicella incidence was 0.3 cases per 1000 population in AV and 0.1 cases per 1000 population in West Philadelphia: 76% and 67% declines, respectively, since 2006 and 98% declines in both sites since 1995; incidence declined in all age groups during 2006–2010. From 2006–2010, 61.7% of case patients in both surveillance areas had been vaccinated with 1 dose of varicella vaccine and 7.5% with 2 doses. Most vaccinated case patients had <50 lesions with no statistically significant differences among 1- and 2-dose cases (62.8% and 70.3%, respectively). Varicella-related hospitalizations during 2006–2010 declined >40% compared with 2002–2005 and >85% compared with 1995–1998. Twelve varicella outbreaks occurred in AV during 2007–2010, compared with 47 during 2003–2006 and 236 during 1995–1998 ($P < .01$).
CONCLUSIONS: Varicella incidence, hospitalizations, and outbreaks in 2 active surveillance areas declined substantially during the first 5 years of the 2-dose varicella vaccination program. Declines in incidence across all ages, including infants who are not eligible for varicella vaccination, and adults, in whom vaccination levels are low, provide evidence of the benefit of high levels of immunity in the population.

Pharmaceutics
Volume 5, Issue 3 (September 2013), Pages 371-
http://www.mdpi.com/1999-4923/5/3
[No new relevant content]

Pharmacoeconomics
Volume 31, Issue 10, October 2013
http://link.springer.com/journal/40273/31/10/page/1
[Reviewed earlier]

PLoS One
[Accessed 2 November 2013]
http://www.plosone.org/
Research Article
Political and Institutional Influences on the Use of Evidence in Public Health Policy. A Systematic Review
Marco Liverani a, Benjamin Hawkins, Justin O. Parkhurst
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0077404
Abstract
Background
There is increasing recognition that the development of evidence-informed health policy is not only a technical problem of knowledge exchange or translation, but also a political challenge. Yet, while political scientists have long considered the nature of political systems, the role of institutional structures, and the political contestation of policy issues as central to understanding policy decisions, these issues remain largely unexplored by scholars of evidence-informed policy making.
Methods
We conducted a systematic review of empirical studies that examined the influence of key features of political systems and institutional mechanisms on evidence use, and contextual factors that may contribute to the politicisation of health evidence. Eligible studies were identified through searches of seven health and social sciences databases, websites of relevant organisations, the British Library database, and manual searches of academic journals. Relevant findings were extracted using a uniform data extraction tool and synthesised by narrative review.
Findings
56 studies were selected for inclusion. Relevant political and institutional aspects affecting the use of health evidence included the level of state centralisation and democratisation, the influence of external donors and organisations, the organisation and function of bureaucracies, and the framing of evidence in relation to social norms and values. However, our understanding of such influences remains piecemeal given the limited number of empirical analyses on this subject, the paucity of comparative works, and the limited consideration of political and institutional theory in these studies.
Conclusions

This review highlights the need for a more explicit engagement with the political and institutional factors affecting the use of health evidence in decision-making. A more nuanced understanding of evidence use in health policy making requires both additional empirical studies of evidence use, and an engagement with theories and approaches beyond the current remit of public health or knowledge utilisation studies.

PLoS Medicine
(Accessed 2 November 2013)
http://www.plosmedicine.org/
Guidelines and Guidance
Complexity in Mathematical Models of Public Health Policies: A Guide for Consumers of Models
Sanjay Basu, Jason Andrews
http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001540
Summary Points
:: Mathematical models are increasingly used to inform public health policy, but a major dilemma faced by readers is how to evaluate the quality of models.
:: All models require simplifying assumptions, and there are tradeoffs between creating models that are more "realistic" versus those that are grounded in more well-characterized data on the behavior of disease processes.
:: Complex models are not necessarily more accurate or reliable simply because they can more easily fit real-world data than simpler models; complex models can suffer parameter estimation problems that can be difficult to detect and often cannot be fixed by "calibrating" models to external data. Conversely, complexity can be important to include when uncertain factors are central to a disease process or research question.
:: In many cases, alternative model structures can appear reasonable for the same policy problem. Sensitivity analyses not only around parameter values but also using alternative model structures can help determine which factors are particularly important to disease outcomes of interest. Explicit methods are now available to transparently and objectively compare different model structures.

PLoS Neglected Tropical Diseases
October 2013
http://www.plosntds.org/article/browseIssue.action
Editorial
An Unfolding Tragedy of Chagas Disease in North America
Peter J. Hotez, Eric Dumonteil, Miguel Betancourt Cravioto, Maria Elena Bottazzi, Roberto Tapia-Conyer, Sheba Meymandi, Unni Karunakara, Isabela Ribeiro, Rachel M. Cohen, Bernard Pecoul
http://www.plosntds.org/article/info%3Adoi%2F10.1371%2Fjournal.pntd.0002300;jsessionid=1B8834FCB6D27B175425F512D2D1B36C
Research Article
First Outbreak Response Using an Oral Cholera Vaccine in Africa: Vaccine Coverage, Acceptability and Surveillance of Adverse Events, Guinea, 2012
Francisco J. Luquero, Lise Grout, Iza Ciglenecki, Keita Sakoba, Bala Traore, Melat Heile, Alpha Amadou Dialo, Christian Itama, , icaela Serafini, Dominique Legros, Rebecca F. Grais
Abstract

Background
Despite World Health Organization (WHO) prequalification of two safe and effective oral cholera vaccines (OCV), concerns about the acceptability, potential diversion of resources, cost and feasibility of implementing timely campaigns has discouraged their use. In 2012, the Ministry of Health of Guinea, with the support of Médecins Sans Frontières organized the first mass vaccination campaign using a two-dose OCV (Shanchol) as an additional control measure to respond to the on-going nationwide epidemic. Overall, 316,250 vaccines were delivered. Here, we present the results of vaccination coverage, acceptability and surveillance of adverse events.
Methodology/Principal Findings
We performed a cross-sectional cluster survey and implemented adverse event surveillance. The study population included individuals older than 12 months, eligible for vaccination, and residing in the areas targeted for vaccination (Forécariah and Boffa, Guinea). Data sources were household interviews with verification by vaccination card and notifications of adverse events from surveillance at vaccination posts and health centres. In total 5,248 people were included in the survey, 3,993 in Boffa and 1,255 in Forécariah. Overall, 89.4% [95%CI:86.4–91.8%] and 87.7% [95%CI:84.2–90.6%] were vaccinated during the first round and 79.8% [95%CI:75.6–83.4%] and 82.9% [95%CI:76.6–87.7%] during the second round in Boffa and Forécariah respectively. The two dose vaccine coverage (including card and oral reporting) was 75.8% [95%CI: 71.2–75.9%] in Boffa and 75.9% [95%CI: 69.8–80.9%] in Forécariah respectively. Vaccination coverage was higher in children. The main reason for non-vaccination was absence. No severe adverse events were notified.
Conclusions/Significance
The well-accepted mass vaccination campaign reached high coverage in a remote area with a mobile population. Although OCV should not be foreseen as the long-term solution for global cholera control, they should be integrated as an additional tool into the response.

PNAS - Proceedings of the National Academy of Sciences of the United States of America
(Accessed 2 November 2013)
http://www.pnas.org/content/early/recent
[No new relevant content]

Public Health Ethics
Volume 6 Issue 2 July 2013
http://phe.oxfordjournals.org/content/current
[Reviewed earlier]

Qualitative Health Research
November 2013; 23 (11)
http://qhr.sagepub.com/content/current
[No relevant content]

Risk Analysis
October 2013 Volume 33, Issue 10 Pages 1759–1937

http://onlinelibrary.wiley.com/doi/10.1111/risa.2013.33.issue-10/issuetoc
[Reviewed earlier; No relevant content]

Science
1 November 2013 vol 342, issue 6158, pages 521-660
http://www.sciencemag.org/current.dtl
[No relevant content]

Science Translational Medicine
30 October 2013 vol 5, issue 209
[No relevant content]

Social Science & Medicine
Volume 98, In Progress (December 2013)
http://www.sciencedirect.com/science/journal/02779536/93
[No new relevant content]

UN Chronicle
Vol. L No. 3 2013 September 2013
http://unchronicle.un.org/
Theme: Migration
This issue, which features contributions from twelve leading experts from within and outside of the United Nations system, looks at international migration and development. The articles examine, among other things, lowering the costs and amplifying the benefits of migration; the protection of migrants' rights and State sovereignty; labour migration and inclusive development; leveraging remittances for development; the reintegration of returning migrants; and strengthening migration cooperation.

Vaccine
Volume 31, Issue 48, Pages 5623-5784 (19 November 2013)
http://www.sciencedirect.com/science/journal/0264410X
Vaccine effects and impact of vaccination programmes in post-licensure studies
Review Article
Pages 5634-5642
Germaine Hanquet, Marta Valenciano, François Simondon, Alain Moren
Abstract
Once a vaccine is licensed and introduced in the population, post-licensure studies are required to measure vaccine effectiveness and impact of vaccination programmes on the population at large. However, confusion still prevails around these concepts, making it difficult to discern which effects are measured in such studies and how their findings should be interpreted. We review from the public health evaluation perspective the effects of vaccine-related exposures, describe the methods used to measure them and their assumptions.

We distinguish effects due to exposure to individual vaccination from those due to exposure to a vaccination programme, as the latter depends on vaccine coverage, other population factors and includes indirect effects as well. Vaccine (direct) effectiveness is estimated by comparing vaccinated and unvaccinated individuals exposed to the same vaccination programme. The impact of a vaccination programme, defined here as the population prevented fraction when exposure is the programme, is measured by comparing populations with and without a vaccination programme, most commonly the same population before and after vaccination. These designs are based on a number of assumptions for valid inference. In particular, they assume that vaccinees and non-vaccinees do not differ in terms of susceptibility and exposure to the disease or in ascertainment of vaccination and disease status. In pre and post-vaccination design, the population is assumed to have similar baseline transmission, case detection and reporting, risk factors and medical practices in both periods.

These principles are frequently violated in post-licensure studies. Potential confounding and biases must be minimized in study design and analyses, or taken into account during result interpretation. It is also essential to define which exposure is evaluated (individual vaccination or vaccination programme) and which effect is measured. This may help decision-makers clarify which type of study is needed and how to interpret the results.

Vaccine
Volume 31, Issue 47, Pages 5495-5622 (12 November 2013)
http://www.sciencedirect.com/science/journal/0264410X/31/47

Geographic variation in human papillomavirus vaccination uptake among young adult women in the United States during 2008–2010

Pages 5495-5499

Mahbubur Rahman, Tabassum H. Laz, Abbey B. Berenson

Abstract
Very little is known about geographic variation in human papillomavirus (HPV) vaccine uptake among young adult women in the US. To investigate this, we analyzed data from 12 US states collected through the Behavioral Risk Factor Surveillance System between 2008 and 2010. Among 2632 young adult women (18–26 years old) who responded to HPV vaccine uptake questions, weighted vaccine initiation and completion rates were: 28.0% and 17.0% overall, 14.0% and 6.6% in the South, 28.7% and 19.3% in the Midwest/West, and 37.2% and 23.1% in the Northeast ($P < 0.001$), respectively. Log-binomial regression analysis showed that women living in the South were less likely to initiate (adjusted prevalence ratio (aPR) 0.71, 95% confidence interval (CI) 0.60–0.83) or complete (aPR 0.61, 95% CI, 0.53–0.71) the HPV vaccine series compared to women living in the Northeast. Interventions programs to improve HPV vaccine uptake in the Southern states are warranted.

Human papillomavirus (HPV), HPV-associated oropharyngeal cancer, and HPV vaccine in the United States—Do we need a broader vaccine policy?

Review Article

Pages 5500-5505

N. Osazuwa-Peters

Abstract
Background
Human papillomavirus (HPV) is a sexually transmitted infection (STI) of global importance; it is the most prevalent STI in the United States, with strains causally linked to oropharyngeal and other cancers. Efforts to prevent HPV have been made to varying degrees by policies

implemented by different state governments; however, HPV and associated oropharyngeal cancer continue to show increasing incidence rates in the US.
Design
A narrative review based on search on SciVerse, PubMed/Medline, Google Scholar, and EMBASE databases, as well as literature/documents from the World Health Organization, Centers for Disease Control and Prevention, American Cancer Society, National Conference of State legislatures, and the U.S. Department of Health and Human Services relevant to HPV and HPV vaccine policy in the US.
Results
Vaccination has proved to be a successful policy in the US, and an extant recommendation aimed at preventing HPV and associated cervical and other anogenital cancers is the routine use of HPV vaccines for males and females. However, HPV vaccines are presently not recommended for preventing oropharyngeal cancer, although they have been shown to be highly effective against the HPV strains that are most commonly found in the oropharynx. And while there is a history of successful vaccine mandate in the US with resulting decrease in occurrence of infectious diseases, implementing HPV vaccine mandate has proved to be very unpopular.
Conclusions
With emerging evidence of the efficacy of the use of the HPV vaccine in preventing oral-HPV, more focus should be put on extending HPV vaccine to present oral HPV infection and oropharyngeal cancer. Also, implementing a broader HPV vaccine policy that include mandating HPV vaccines as a school-entry requirement for both sexes may increase vaccine use in the US for the greater good of the public.

Well-woman visit of mothers and human papillomavirus vaccine intent and uptake among their 9–17 year old children

Original Research Article
Pages 5544-5548
Mahbubur Rahman, Lee B. Elam, Michael I. Balat, Abbey B. Berenson

Abstract
Objective
To examine the association between attending a well-woman clinic in the prior 2 years and obtaining the human papillomavirus (HPV) vaccine for their 9–17-year-old child.
Methods
Women (n = 1256) who attended reproductive health clinics during September 2011 to February 2013 and had ≥1 children 9–17 years of age were asked to complete a self-administered questionnaire containing questions on demographic characteristics, prior well-woman visits, HPV awareness, and HPV vaccine intent and uptake among their adolescent children.
Results
Nearly 78% of women reported having undergone a well-woman visit during the past 2 years. Bivariate analysis showed that the HPV vaccine initiation (23.9% vs. 14.0%, P = .004) and completion (13.6% vs. 6.7%, P = .011) among 9–17 daughters differed between mothers who did or did not have a well-woman visit during the past 2 years. However, intent to vaccinate them (47.2% vs. 53.3%, P = .173) did not differ between these two groups. With regard to 9–17 year old sons, vaccine initiation (10.1% vs. 9.6%, P = .871), completion (4.6% vs. 2.4%, P = .273) and intent to vaccinate (47.3% vs. 52.1%, P = .311) did not differ between these two groups. Multivariable logistic regression analyses confirmed the findings of these bivariate analyses after adjusting for confounder variables.
Conclusion

The well-woman visit may be a missed opportunity for physicians to educate their patients about the benefits of HPV vaccination for their adolescent children in general and sons in particular. Intervention studies are warranted to assess the benefits of using this setting to improve HPV vaccine uptake in the US.

Template protocol for clinical trials investigating vaccines—Focus on safety elements

Original Research Article
Pages 5602-5620
Jan Bonhoeffer, Egeruan B. Imoukhuede, Grace Aldrovandi, Novilia S. Bachtiar, Eng-Soon Chan, Soju Chang, Robert T. Chen, Rohini Fernandopulle, Karen L. Goldenthal, James D. Heffelfinger, Shah Hossain, Indira Jevaji, Ali Khamesipour, Sonali Kochhar, Mamodikoe Makhene, Elissa Malkin, David Nalin, Rebecca Prevots, Ranjan Ramasamy, Sarah Sellers, et al.

Abstract
This document is intended as a guide to the protocol development for trials of prophylactic vaccines. The template may serve phases I–IV clinical trials protocol development to include safety relevant information as required by the regulatory authorities and as deemed useful by the investigators. This document may also be helpful for future site strengthening efforts.

Vaccine: Development and Therapy
(Accessed 2 November 2013)
http://www.dovepress.com/vaccine-development-and-therapy-journal
[No new relevant content]

Vaccines — Open Access Journal
(Accessed 2 November 2013)
http://www.mdpi.com/journal/vaccines
Vaccines (ISSN 2076-393X), an international open access journal, is published by MDPI online quarterly.
[No new relevant content]

Value in Health
Vol 16 | No. 7 | November 2013
http://www.valueinhealthjournal.com/current
[No relevant content]

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

Association between health care workers' knowledge of influenza vaccine and vaccine uptake

O Jaiyeoba, M Villers, DE Soper, J Korte, CD Salgado - American Journal of Infection …, 2013

Methods Vaccination was voluntary at our institution prior to 2010 and resulted in compliance rates ranging from 40% to 60%. Our institution adopted a policy for the 2010-2011 season and beyond that stated all employees who refused vaccine were required to ...

Immunosignatures can predict vaccine efficacy
JB Legutki, SA Johnston - Proceedings of the National Academy of Sciences, 2013
Abstract The development of new vaccines would be greatly facilitated by having effective methods to predict vaccine performance. Such methods could also be helpful in monitoring individual vaccine responses to existing vaccines. We have developed " ...

Health disparities in human papillomavirus vaccine coverage: Trends analysis from NIS-Teen, 2008-2011
RA Bednarczyk, EA Curran, WA Orenstein, SB Omer - Clinical Infectious Diseases, 2013
Abstract Adolescent uptake of human papillomavirus (HPV) vaccine remains low. We evaluated HPV vaccine uptake patterns over 2008-2011 by race/ethnicity, poverty status, and the combination of race/ethnicity and poverty status, utilizing National Immunization ...

[HTML] **A Phase I Randomized Clinical Trial of Candidate Human Immunodeficiency Virus type 1 Vaccine MVA. HIVA Administered to Gambian Infants**
MO Afolabi, J Ndure, A Drammeh, F Darboe… - PLOS ONE, 2013
Background A vaccine to decrease transmission of human immunodeficiency virus type 1 (HIV-1) during breast-feeding would complement efforts to eliminate infant HIV-1 infection by antiretroviral therapy. Relative to adults, infants have distinct immune development, ...

A systems framework for vaccine design
M Mooney, S McWeeney, G Canderan, RP Sékaly - Current Opinion in Immunology, 2013
Numerous challenges have been identified in vaccine development, including variable efficacy as a function of population demographics and a lack of characterization and mechanistic understanding of immune correlates of protection able to guide delivery and ...

Special Focus Newsletters
RotaFlash
November 1, 2013
PATH
http://vad.createsend1.com/t/ViewEmail/r/471294C4D2E5E67D2540EF23F30FEDED/E38B11B8894CC5F5DBC23BD704D2542D
Lead story
Burkina Faso takes on burden of diarrhea and pneumonia together
Dual vaccine launch follows success of MenAfriVac® introduction

A Non-State Centric Governance Framework for Global Health - Barcelona Institute for Global Health
A Global Social Contract for a Healthy Global Society: Why, What and How - Barcelona Institute for Global Health

Media/Policy Watch

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

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

Al Jazeera
http://www.aljazeera.com/Services/Search/?q=vaccine
Accessed 2 November 2013
[No new, unique, relevant content]

The Atlantic
http://www.theatlantic.com/magazine/
Accessed 2 November 2013
[No new, unique, relevant content]

BBC
http://www.bbc.co.uk/
Accessed 2 November 2013
[No new, unique, relevant content]

Brookings
http://www.brookings.edu/
Accessed 2 November 2013
[No new, unique, relevant content]

Council on Foreign Relations
http://www.cfr.org/
Accessed 2 November 2013
[No new, unique, relevant content]

Economist
http://www.economist.com/
Accessed 2 November 2013
[No new, unique, relevant content]

Financial Times
http://www.ft.com
Accessed 2 November 2013
[No new, unique, relevant content]

Forbes

http://www.forbes.com/
Accessed 2 November 2013
[No new, unique, relevant content]

Foreign Affairs
http://www.foreignaffairs.com/
Accessed 2 November 2013
[No new, unique, relevant content]

Foreign Policy
http://www.foreignpolicy.com/
Accessed 2 November 2013
[No new, unique, relevant content]

The Guardian
http://www.guardiannews.com/
Accessed 2 November 2013
[No new, unique, relevant content]

The Huffington Post
http://www.huffingtonpost.com/
Accessed 2 November 2013
Is All Well in the World of Vaccination? We Think a Booster Is Desperately Needed
Huffington Post US | 31 October 2013
Dr. Manica Balasegaram, Executive director of MSF's Access Campaign
Excerpt
"…Through its medical humanitarian work, Doctors Without Borders/Médecins Sans Frontières (MSF) has been delivering vaccines both in deadly disease outbreaks and through routine vaccination in our clinics for decades, often in places grappling with war and violence. A wake-up call about the fact that life-saving vaccines are not getting to children in some of the hardest-to-reach places, happened in the past several years when we began responding to repeated, massive outbreaks of measles. MSF vaccinated more than four million people in the Democratic Republic of Congo in 2010 alone.

Increasingly, we feel compelled to speak out about what we believe needs to change in the immunization world, both to make our work more effective and to decrease the number of children who miss out on the benefits of vaccines. As GAVI concludes its 'mid-term review' meeting -- where it reflected on its accomplishments over the last few years and looked ahead to how it will position itself in the future -- we think it's a good time to suggest several short- and long-term changes that could help reach more of the children who are missing out on life-saving vaccination. GAVI now has a real opportunity to change certain policies, push for easier-to-use products, and negotiate lower prices for vaccines…

Le Monde
http://www.lemonde.fr/
Accessed 2 November 2013
[No new, unique, relevant content]

New Yorker

http://www.newyorker.com/
Accessed 2 November 2013
[No new, unique, relevant content]

New York Times
http://www.nytimes.com/
Accessed 2 November 2013
[No new, unique, relevant content]

Reuters
http://www.reuters.com/
Accessed 2 November 2013
[No new, unique, relevant content]

Wall Street Journal
http://online.wsj.com/home-page
Accessed 2 November 2013
[No new, unique, relevant content]

Washington Post
http://www.washingtonpost.com/
Accessed 2 November 2013
[No new, unique, relevant content]

* * * *

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

* * * *