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

Vaccines: The Week in Review
26 January 2013
Center for Vaccine Ethics & Policy (CVEP)

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

Comments and suggestions should be directed to
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Executive Director
Center for Vaccine Ethics & Policy
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Editor's Notes:

- A pdf version of this issue is available on our blog: http://centerforvaccineethicsandpolicy.wordpress.com/

Meeting: 132nd WHO Executive Board
21–29 January 2013
Geneva, Switzerland
Provisional agenda
All documentation for the session

Speech: *Report by the Director-General to the WHO Executive Board*
Dr Margaret Chan
21 January 2013
http://www.who.int/dg/speeches/2013/eb132_20130121/en/index.html

Editor's Excerpt

"…Finally, in a most welcome trend, a new culture of accountability, for resources and results, is emerging. The recommendations of the Commission on information and accountability for women's and children's health, which supports Every Woman Every Child, have been the model for several other accountability frameworks, including the one for vaccines which you will be discussing during this session.

Equally welcome is the trend towards independent monitoring, with the Independent Monitoring Board for polio and the independent Expert Review Group for Every Woman Every Child being notable examples. Both are fiercely independent and do not shy away from frank criticism. We need this kind of guidance.

Rigorous mechanisms for accountability hold great promise as a way of spending resources wisely, honouring commitments, fine-tuning programme strategies in line with evidence of

results, maintaining the confidence of donors, and winning the support of parliamentarians and ministries of finance.

The independent Expert Review Group issued its first report last September. Its main findings are summarized in your documents. Reports from the Independent Monitoring Board for polio have unquestionably helped reshape the eradication initiative at all levels, from headquarters down to country teams, and brought the initiative ever closer to success.

Ladies and gentlemen,

Concerning the polio situation, I need to speak from the heart. In December, nine volunteers distributing polio vaccines were killed in Pakistan in a targeted and coordinated attack.

This is a despicable and totally unacceptable act of violence. The tragedy hits especially hard as it comes at a time when we have had so much good news.

The last case of polio in India was confirmed on 13 January 2011. India, arguably the most challenging of all the remaining sanctuaries of poliovirus, has now been free of the virus for more than two years. I ask India to keep up the good work.

The Independent Monitoring Board titled its November 2012 report with a question: Polio's last stand? The report also revised the figure of all but 1% of cases eradicated to 0.1%, and concluded that the prospects for success were more positive than ever.

I am optimistic that we can put this setback behind us quickly. I thank the government of Pakistan for remaining fully committed to polio eradication. I thank the continued dedication of head office staff and teams working in countries. The initial expressions of outrage, nationally and internationally, have turned into an outcry of unwavering support. Like the prospects for success, the determination is stronger than ever.

The country's civil society and religious leaders have echoed the sentiment of the international community: the killing of humanitarian aid workers is totally unacceptable. The commitment of all spearheading partners is unwavering. We will press ahead. The risk of international spread remains real…"

2012 Annual Letter From Bill Gates

http://www.gatesfoundation.org/annual-letter/2012/Pages/home-en.aspx

Editor's Excerpts and Bolding

…Vaccines

There are still years of work to be done to introduce the diarrhea and pneumonia vaccines into every country. Moreover, global coverage of basic childhood vaccines is around 80 percent, which is good compared to many other health interventions but leaves one out of five children unprotected. We need to recreate the high-level political focus that this issue received during the 1970s, when dedicated effort brought us from just 20 percent coverage to 80 percent coverage in most countries in just a decade…

Polio

The foundation's top priority remains helping to complete the eradication of polio, perhaps the best-known vaccine-preventable disease in the world. I spend a lot of my time learning about the disease and being an advocate for doing what it takes to end polio. At the start of 2011, poliovirus was still spreading in three areas: 10 countries in Africa (with viruses that originated primarily in Nigeria), Afghanistan and Pakistan, and India.

Now India has reached a huge milestone. The country had only one case in 2011, which was recorded on January 13 in West Bengal. So on January 13, 2012, India celebrated its first year of being polio free. The challenge in India was mind-boggling. It's hard to imagine how you

would design a polio campaign that reached every Indian child. More than a billion people live in the country. Massive numbers of families migrate constantly to find work. One of the largest states, Bihar, is flood-prone. In some cases, the vaccine didn't work as well as it had in other parts of the world, probably because of malnourishment, diarrhea, and other illnesses. But the government kept raising awareness and improving the quality of its campaigns, even in the toughest locations.

The Indian government deserves special credit for this achievement. In 2012 we need to keep India and all the other places that are polio free from getting re-infected.

The biggest focus for 2012 will be improving the polio vaccination campaigns in Nigeria, Chad, the Democratic Republic of Congo, Afghanistan, and Pakistan. I recently visited Chad and Nigeria to meet with leaders there, and it's clear that we have high-level political support. Still, deploying high-quality vaccination teams and educating parents so that every single child is vaccinated will take a lot of work. In Nigeria our biggest problems are low-quality campaigns and the fact that some parents don't trust that the vaccine is safe. In Pakistan these problems are compounded by the security situation.

It will be challenging to continue raising the approximately $1 billion per year it takes to run the global campaign. Last year the United States, the United Kingdom, Australia, Japan, Canada, Norway, Saudi Arabia, the Crown Prince of Abu Dhabi, and Rotary International provided substantial contributions. Rotary continues to be the heart and soul of polio eradication, supporting the program directly while also taking on a larger role in encouraging other donors to give more. A new partner, FC Barcelona, is spreading the message of polio eradication to millions of football fans across the globe.

We are continuing to invest in studies about how polio spreads and trying to model where we need to intensify the vaccination campaigns. We are also working on new vaccines. Finding every last poliovirus requires good tools along with trained and motivated workers in every single country.

These are enormous obstacles, but the success of the polio eradication program in India and 90 other countries gives me confidence that we can triumph in these final challenging countries and end polio once and for all…

Global Fund - Announcements:

- **Germany Makes EUR 1 Billion Contribution to the Global Fund** 24 January 2013 -

- Global Fund Executive Director Calls for Focused Action to Fight Infectious Disease 22 January 2013 -

Mark Dybul, Executive Director of the Global Fund to Fight AIDS, Tuberculosis and Malaria said today that concentrated action will achieve significantly greater impact on infectious diseases that threaten maternal and child health.

"We need to move past the tyranny of averages," said Dr. Dybul. "We all see country and regional average rates of HIV, TB and malaria, but they mask micro-hyper-epidemics where transmission rates are very high.

A micro-hyper epidemic is an outbreak of disease that is highly concentrated among a part of the population, putting a wider population at risk of infection.

"By focusing high-impact interventions where new infections are occurring, countries will get the biggest bang for the buck. We can support them to control major killers - preventing many millions of new infections, and saving millions of lives. That will also save billions of dollars."

Dr. Dybul was speaking at a global health conference in Oslo entitled, "Accelerating Progress: Saving Women's and Children's Lives in the Coming Decade." In a thematic session on "How to get more health for the money," Dr. Dybul took part in a discussion focused on commodity supply and distribution…

- Global Fund Appoints Osamu Kunii as Head of Strategy Investment and Impact - 21 January 2013

- Mark Dybul Begins as Executive Director of the Global Fund - 21 January 2013

The GAVI Alliance announced an additional US$25 million in matched pledges from three private organisations at a CEO breakfast hosted by Bill Gates and the UK during the World Economic Forum. The new commitments are being matched by the UK Government and the Bill & Melinda Gates Foundation through the GAVI Matching Fund. The pledges were made by three partners:

- Comic Relief, described as a UK-based charity that "fights poverty and social injustice through the power of entertainment," committed an additional £5 million (US$8 million), bringing its total commitment to US$12 million.
- LDS Charities, described as the volunteer-driven relief and development arm of The Church of Jesus Christ of Latter-day Saints, pledged an additional US$3 million, bringing its total commitment to US$4.5 million.
- Vodafone, described as one of the world's largest mobile communications companies, "committed to explore how mobile technology can help increase childhood vaccination levels in sub-Saharan Africa." This first in-kind contribution to the GAVI Matching Fund initiative is valued at US$1.5 million and matched by the UK Government. The firm first announced its pledge last month.

http://www.gavialliance.org/library/news/press-releases/2013/gavi-alliance-significantly-expands-private-sector-involvement-in-saving-lives/

The International Vaccine Institute (IVI) said it "has begun implementing major organizational changes to ensure continued success in both vaccine sciences and public health." The changes include the election of Dr. Adel A. F. Mahmoud as Chairman of IVI's Board of Trustees and Dr. Viveka Persson as Vice Chairperson of the Board. Dr. Mahmoud succeeds Professor Ragnar Norrby of the Swedish Institute for Infectious Disease Control. Professor Norrby served as the Chairman of IVI's Board of Trustees since 2006. IVI also said it appointed new leadership including Dr. Alejandro Cravioto, serving as Chief Scientific Officer and Dr. Georges Thiry, serving as Deputy Director General Portfolio Management.

IVI noted that its new strategic direction includes a new vision statement – *Developing Countries Free of Suffering from Infectious Disease* – and a new mission statement – *Discover, Develop and Deliver Safe, Effective and Affordable Vaccines for the World's Developing Nations*. Under its new strategic plan, IVI will focus its efforts around the following four goals:

1) Accelerate the development and introduction of safe and effective vaccines;
2) Discover and pursue proof of concept for new vaccine candidates, with a particular on new vaccines against enteric and diarrheal diseases;

3) Advance science driving new achievements in vaccinology, specifically through conducting further research in vaccine-enhancing technology and understanding how the immune system works in response to vaccination; and
4) Contribute to building vaccine technology and systems capacity in developing countries.
The new strategy reinforces IVI's commitment of ensuring the availability of safe, effective and affordable vaccines to improve the health of the world's most vulnerable people.
Full media release: http://www.ivi.org/web/www/07_01?p_p_id=EXT_BBS&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&_EXT_BBS_struts_action=%2Fext%2Fbbs%2Fview_message&_EXT_BBS_messageId=481

PATH said that Dr. Anurag Mairal was named global program leader for Technology Solutions to lead technology solutions group, overseeing research and development, commercialization, and implementation of health technologies in the areas of maternal and neonatal health, nutrition, water and sanitation, health management information systems, reproductive health, vaccine-related technologies, and diagnostics for infectious and noncommunicable diseases. Dr. Mairal has an extensive background in medical device development, collaborating with partners in India, China, and other countries to advance product development, manufacturing, and distribution.
Full media release: http://www.path.org/news/an130125-mairal.php

Novartis announced that the European Commission has approved Bexsero (Meningococcal Group B Vaccine [rDNA, component, adsorbed]) for use in individuals from 2 months of age and older. Following this approval, EU member states will evaluate Bexsero for potential inclusion into national immunization programs and, where relevant, reimbursement schemes. Novartis said it is already engaging with governments interested in the early adoption of the vaccine. Full media release:
http://www.novartis.com/newsroom/media-releases/en/2013/1672036.shtml

Pfizer announced that the FDA granted approval for the expansion of the company's pneumococcal conjugate vaccine, Prevnar 13®* (Pneumococcal 13-valent Conjugate Vaccine [Diphtheria CRM197 Protein]), for use in older children and adolescents aged 6 years through 17 years for active immunization for the prevention of invasive disease caused by the 13 Streptococcus pneumoniae serotypes contained in the vaccine. For this age group, Prevnar 13 is administered as a one-time dose to patients who have never received Prevnar 13.
Full media release: http://pfizer.newshq.businesswire.com/press-release/pfizer-receives-fda-approval-use-prevnar-13-vaccine-naive-children-and-adolescents-age

Update: Polio this week ***- As of 23 January 2013***
Global Polio Eradication Initiative

http://www.polioeradication.org/Dataandmonitoring/Poliothisweek.aspx
[Editor's Extract and bolded text]
- The polio Independent Monitoring Board (IMB) met by teleconference on 18 January, and concluded that although the Global Polio Eradication Initiative (GPEI) missed its end-2012 milestone of stopping all wild poliovirus transmission globally, the programme had brought the world to the brink of eradicating polio. "Now more than ever, the world must be absolute in its resolve to eradicate polio," the Board said in a statement. "If the right things are done and commitment remains high, it will happen." Confirming that polio eradication must be seen through to completion, the Board highlighted that the GPEI needed 'unwavering global support' in these final stages of its mission. For more, please click here…
- In Egypt, WPV has been isolated from environmental samples in two areas of greater Cairo. Virus has been detected in the sewage only; no case of paralytic polio has been reported. Genetic sequencing shows that the virus strains are closely related to virus from northern Sindh, Pakistan. The isolates were detected through routine environmental surveillance in Egypt that involves regular testing of sewage water from multiple sites. The last sample which tested positive for WPV was related to virus from Sudan, in December 2010. **In response to these latest isolates, the Government of Egypt and GPEI partners are conducting further investigations, strengthening surveillance and planning large-scale immunization activities (targeting more than three million children).**
Afghanistan
- No new WPV cases were reported in the past week. The total number of WPV cases for 2012 remains 37. The most recent case had onset of paralysis on 20 December 2012 (WPV1 from Nangarhar). Case response immunization with bivalent OPV in 10 districts of Nangarhar began on 23 January.
- Four new cases of circulating vaccine-derived poliovirus type 2 (cVDPV2) were reported in the past week (from Hilmand and Kandahar), bringing the total number of cVDPV2 cases for 2012 to 8. The most recent cVDPV2 case had onset of paralysis on 21 December 2012 (from Hilmand).
Pakistan
- No new WPV cases were reported in the past week. The total number of WPV cases for 2012 remains 58. The most recent WPV case had onset of paralysis on 30 November 2012 (WPV1 from Khyber Pakhtunkhwa - KP).
- No new cVDPV2 cases were reported in the past week. The total number of cVDPV2 cases for 2012 remains 15. The most recent cVDPV2 case had onset of paralysis on 8 December 2012 (from Sindh).
- Sub-National Immunization Days (SNIDs) planned for 58 districts from 14-16 January were postponed in 29 districts due to security concerns. Postponed campaigns will be conducted over the next few weeks. An additional vaccination round will be conducted 28-30 January targeting high-risk areas.
- District officials are assessing security conditions locally, in close consultation with law enforcement.

The **Weekly Epidemiological Record (WER) for 25 January 2013**, vol. 88, 4 (pp 37–48) includes:
- Detection of influenza virus subtype A by polymerase chain reaction: WHO external quality

- WHO advisory committee on Immunization and Vaccine related Implementation Research (IVIR, formerly QUIVER): executive summary report of 6th meeting
http://www.who.int/entity/wer/2013/wer8804.pdf

WHO - Global Alert and Response (GAR)
Disease Outbreak News - Most recent news items
No new reports

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

The **MMWR for January 25, 2013** / Vol. 62 / No. 3 includes:
- Progress in Immunization Information Systems — United States, 2011
- Infant Meningococcal Vaccination: Advisory Committee on Immunization Practices (ACIP) Recommendations and Rationale
- Notes from the Field: Emergence of New Norovirus Strain GII.4 Sydney — United States, 2012

CDC Update: 2012-2013 Influenza Season - January 18, 2013
Media Advisory | Transcript

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

No new content.

Journal Watch
Vaccines: The Week in Review continues its weekly scanning of key peer-reviewed journals to identify and cite articles, commentary and editorials, books reviews and other content supporting our focus on vaccine ethics and policy. ***Journal Watch* is not intended to be exhaustive, but indicative of themes and issues the Center is actively tracking.** We selectively provide full text of some editorial and comment articles that are specifically relevant to our work. Successful access to some of the links provided may require subscription or other access arrangement unique to the publisher.

If you would like to suggest other journal titles to include in this service, please contact David Curry at: david.r.curry@centerforvaccineethicsandpolicy.org

American Journal of Public Health
Volume 103, Issue 2 (February 2013)
http://ajph.aphapublications.org/toc/ajph/current
[Reviewed earlier]

Annals of Internal Medicine
15 January 2013, Vol. 158. No. 2
http://www.annals.org/content/current
[Reviewed earlier; No relevant content]

BMC Public Health
(Accessed 26 January 2013)
http://www.biomedcentral.com/bmcpublichealth/content
Research article
Local perceptions of cholera and anticipated vaccine acceptance in Katanga province, democratic republic of Congo
Sonja Merten, Christian Schaetti, Cele Manianga, Bruno Lapika, Claire-Lise Chaignat, Raymond Hutubessy, Mitchell G Weiss BMC Public Health 2013, 13:60 (22 January 2013)
Open Access
Abstract (provisional)
Background
In regions where access to clean water and the provision of a sanitary infrastructure has not been sustainable, cholera continues to pose an important public health burden. Although oral cholera vaccines (OCV) are effective means to complement classical cholera control efforts, still relatively little is known about their acceptability in targeted communities. Clarification of vaccine acceptability prior to the introduction of a new vaccine provides important information for future policy and planning.
Methods
In a cross-sectional study in Katanga province, Democratic Republic of Congo (DRC), local perceptions of cholera and anticipated acceptance of an OCV were investigated. A random sample of 360 unaffected adults from a rural town and a remote fishing island was interviewed in 2010. In-depth interviews with a purposive sample of key informants and focus-group discussions provided contextual information. Socio-cultural determinants of anticipated OCV acceptance were assessed with logistic regression.
Results
Most respondents perceived contaminated water (63%) and food (61%) as main causes of cholera. Vaccines (28%), health education (18%) and the provision of clean water (15%) were considered the most effective measures of cholera control. Anticipated acceptance reached 97% if an OCV would be provided for free. Cholera-specific knowledge of hygiene and self-help in form of praying for healing were positively associated with anticipated OCV acceptance if costs of USD 5 were assumed. Conversely, respondents who feared negative social implications of cholera were less likely to anticipate acceptance of OCVs. These fears were especially prominent among respondents who generated their income through fishing. With an increase of assumed costs to USD 10.5, fear of financial constraints was negatively associated as well.
Conclusions

Results suggest a high motivation to use an OCV as long as it seems affordable. The needs of socially marginalized groups such as fishermen may have to be explicitly addressed when preparing for a mass vaccination campaign.
The complete article is available as a provisional PDF. The fully formatted PDF and HTML versions are in production.

British Medical Bulletin
Volume 104 Issue 1 December 2012
http://bmb.oxfordjournals.org/content/current
[Reviewed earlier; No relevant content]

British Medical Journal
26 January 2013 (Vol 346, Issue 7892)
http://www.bmj.com/content/346/7892
[No relevant content]

Bulletin of the World Health Organization
Volume 91, Number 1, January 2013, 1-80
http://www.who.int/bulletin/volumes/91/1/en/index.html
[Reviewed earlier]

Cost Effectiveness and Resource Allocation
(Accessed 26 January 2013)
http://www.resource-allocation.com/
[No new relevant content]

Emerging Infectious Diseases
http://www.cdc.gov/ncidod/EID/index.htm
Expedited Articles
Effects of Vaccine Program against Pandemic Influenza A(H1N1) Virus, United States, 2009–2010
R. H. Borse et al.
Abstract
In April 2009, the United States began a response to the emergence of a pandemic influenza virus strain: A(H1N1)pdm09. Vaccination began in October 2009. By using US surveillance data (April 12, 2009–April 10, 2010) and vaccine coverage estimates (October 3, 2009–April 18, 2010), we estimated that the A(H1N1)pdm09 virus vaccination program prevented 700,000–1,500,000 clinical cases, 4,000–10,000 hospitalizations, and 200–500 deaths. We found that the national health effects were greatly influenced by the timing of vaccine administration and the effectiveness of the vaccine. We estimated that recommendations for priority vaccination of targeted priority groups were not inferior to other vaccination prioritization strategies. These results emphasize the need for relevant surveillance data to facilitate a rapid evaluation of vaccine recommendations and effects.

Volume 19, Number 2—February 2013

Lessons and Challenges for Measles Control from Unexpected Large Outbreak, Malawi

PDF Version [PDF - 791 KB - 8 pages]

A. Minetti et al.

Abstract

Despite high reported coverage for routine and supplementary immunization, in 2010 in Malawi, a large measles outbreak occurred that comprised 134,000 cases and 304 deaths. Although the highest attack rates were for young children (2.3%, 7.6%, and 4.5% for children <6, 6–8, and 9–11 months, respectively), persons >15 years of age were highly affected (1.0% and 0.4% for persons 15–19 and >19 years, respectively; 28% of all cases). A survey in 8 districts showed routine coverage of 95.0% for children 12–23 months; 57.9% for children 9–11 months; and 60.7% for children covered during the last supplementary immunization activities in 2008. Vaccine effectiveness was 83.9% for 1 dose and 90.5% for 2 doses. A continuous accumulation of susceptible persons during the past decade probably accounts for this outbreak. Countries en route to measles elimination, such as Malawi, should improve outbreak preparedness. Timeliness and the population chosen are crucial elements for reactive campaigns.

Historical Review

Lessons from the History of Quarantine, from Plague to Influenza A

PDF Version PDF - 1.94 MB - 6 pages]

E. Tognotti

Abstract

In the new millennium, the centuries-old strategy of quarantine is becoming a powerful component of the public health response to emerging and reemerging infectious diseases. During the 2003 pandemic of severe acute respiratory syndrome, the use of quarantine, border controls, contact tracing, and surveillance proved effective in containing the global threat in just over 3 months. For centuries, these practices have been the cornerstone of organized responses to infectious disease outbreaks. However, the use of quarantine and other measures for controlling epidemic diseases has always been controversial because such strategies raise political, ethical, and socioeconomic issues and require a careful balance between public interest and individual rights. In a globalized world that is becoming ever more vulnerable to communicable diseases, a historical perspective can help clarify the use and implications of a still-valid public health strategy.

Eurosurveillance

Volume 18, Issue 4, 24 January 2013

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

Editorials

From molecular to genomic epidemiology: transforming surveillance and control of infectious diseases

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The use of increasingly powerful genotyping tools for the characterisation of pathogens has become a standard component of infectious disease surveillance and outbreak investigations. This thematic issue of Eurosurveillance, published in two parts, provides a series of review and

original research articles that gauge progress in molecular epidemiology strategies and tools, and illustrate their applications in public health. Molecular epidemiology of infectious diseases combines traditional epidemiological methods with analysis of genome polymorphisms of pathogens over time, place and person across human populations and relevant reservoirs, to study host–pathogen interactions and infer hypotheses about host-to-host or source-to-host transmission [1-3]. Based on discriminant genotyping of human pathogens, clonally derived strains can be identified as likely links in a chain of transmission [1-3]. In this two-part issue of Eurosurveillance, Goering et al. explain that such biological evidence of clonal linkage complements but does not replace epidemiological evidence of person-to-person contact or common exposure to a potential source [3]. Muellner et al. provide clear examples how prediction about infectious disease outcome and transmission risks can be enhanced through integration of pathogen genetic information and epidemiological modelling to inform public health decisions about food-borne disease prevention [4].

Perspectives

The need for ethical reflection on the use of molecular microbial characterisation in outbreak management

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Department of Philosophy, Utrecht University, Utrecht, the Netherlands
Ethics Institute, Utrecht University, Utrecht, the Netherlands

Abstract

Current thinking on the development of molecular microbial characterisation techniques in public health focuses mainly on operational issues that need to be resolved before incorporation into daily practice can take place. Notwithstanding the importance of these operational challenges, it is also essential to formulate conditions under which such microbial characterisation methods can be used from an ethical perspective. The potential ability of molecular techniques to show relational patterns between individuals with more certainty brings a new sense of urgency to already difficult ethical issues associated with privacy, consent and a moral obligation to avoid spreading a disease. It is therefore important that professionals reflect on the ethical implications of using these techniques in outbreak management, in order to be able to formulate the conditions under which they may be applied in public health practice.

Global Health Governance
Volume VI, Issue 1: Fall 2012
– December 31, 2012
[Reviewed earlier]

Globalization and Health
[Accessed 26 January 2013]
http://www.globalizationandhealth.com/
[No new relevant content]

Health Affairs
January 2013; Volume 32, Issue 1
http://content.healthaffairs.org/content/current

Theme: Transforming The Delivery Of Health Care
[No specific relevant content on vaccines/immunization]

Health and Human Rights
Vol 14, No 2 (2012)
http://hhrjournal.org/index.php/hhr
[Reviewed earlier]

Health Economics, Policy and Law
Volume 8 - Issue 01 - January 2013
http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue
Special Section: ACA
The US Supreme Court decision on the constitutional legitimacy of the Affordable Care Act
Adam Oliver
Health Economics, Policy and Law / Volume 8 / Issue 01 / January 2013, pp 111 - 112

DOI: http://dx.doi.org/10.1017/S1744133112000369 (About DOI), Published online: 22 January 2013
The Affordable Care Act and the Supreme Court: American health care reform inches forward despite dysfunctional political institutions and politics
Timothy Jost
Health Economics, Policy and Law / Volume 8 / Issue 01 / January 2013, pp 113 - 118

DOI: http://dx.doi.org/10.1017/S1744133112000370 (About DOI), Published online: 22 January 2013
NFIB vs Sebelius: the political expediency of the Roberts court
Michael K. Gusmano
Health Economics, Policy and Law / Volume 8 / Issue 01 / January 2013, pp 119 - 124

DOI: http://dx.doi.org/10.1017/S1744133112000382 (About DOI), Published online: 22 January 2013
Much ado about nothing: the US Supreme Court's rules on health reform
Uwe E. Reinhardt
Health Economics, Policy and Law / Volume 8 / Issue 01 / January 2013, pp 125 - 132

DOI: http://dx.doi.org/10.1017/S1744133112000394 (About DOI), Published online: 22 January 2013
Medicaid after the Supreme Court decision
Howard S. Berliner
Health Economics, Policy and Law / Volume 8 / Issue 01 / January 2013, pp 133 - 137

DOI: http://dx.doi.org/10.1017/S1744133112000400 (About DOI), Published online: 22 January 2013
Health care reform after the Supreme Court: even more known unknowns
Alex Waddan

Health Economics, Policy and Law / Volume 8 / Issue 01 / January 2013, pp 139 - 143

DOI: http://dx.doi.org/10.1017/S1744133112000412 (About DOI), Published online: 22 January 2013

Health Policy and Planning
Volume 28 Issue 1 January 2013
http://heapol.oxfordjournals.org/content/current
[Reviewed earlier]

Human Vaccines & Immunotherapeutics (formerly Human Vaccines)
Volume 9, Issue 1 January 2013
http://www.landesbioscience.com/journals/vaccines/toc/volume/9/issue/1/
[Reviewed earlier]

Infectious Diseases of Poverty
2012, 1
http://www.idpjournal.com/content
[Accessed 26 January 2013]
[No new relevant content]

International Journal of Infectious Diseases
January 2013, Vol. 17, No. 1
http://www.ijidonline.com/
[No relevant content]

JAMA
January 23, 2013, Vol 309, No. 4
http://jama.ama-assn.org/current.dtl
[No relevant content]

JAMA Pediatrics
January 2013 Vol 167, No. 1
http://archpedi.jamanetwork.com/issue.aspx?journalid=75&IssueID=926200
Online First
Article | January 21, 2013
A Population-Based Cohort Study of Undervaccination in 8 Managed Care Organizations Across the United States
Jason M. Glanz, PhD; Sophia R. Newcomer, MPH; Komal J. Narwaney, MD, PhD; Simon J. Hambidge, MD, PhD; Matthew F. Daley, MD; Nicole M. Wagner, MPH; David L. McClure, PhD; Stan Xu, PhD; Ali Rowhani-Rahbar, MD, PhD; Grace M. Lee, MD, MPH; Jennifer C. Nelson, PhD;

James G. Donahue, DVM, PhD; Allison L. Naleway, PhD; James D. Nordin, MD, MPH; Marlene M. Lugg, DrPH; Eric S. Weintraub, MPH
Includes: Supplemental Content
ABSTRACT
Objectives To examine patterns and trends of undervaccination in children aged 2 to 24 months and to compare health care utilization rates between undervaccinated and age-appropriately vaccinated children.
Design Retrospective matched cohort study.
Setting Eight managed care organizations of the Vaccine Safety Datalink.
Participants Children born between 2004 and 2008.
Main Exposure Immunization records were used to calculate the average number of days undervaccinated. Two matched cohorts were created: 1 with children who were undervaccinated for any reason and 1 with children who were undervaccinated because of parental choice. For both cohorts, undervaccinated children were matched to age-appropriately vaccinated children by birth date, managed care organization, and sex.
Main Outcome Measures Rates of undervaccination, specific patterns of undervaccination, and health care utilization rates.
Results Of 323 247 children born between 2004 and 2008, 48.7% were undervaccinated for at least 1 day before age 24 months. The prevalence of undervaccination and specific patterns of undervaccination increased over time ($P < .001$). In a matched cohort analysis, undervaccinated children had lower outpatient visit rates compared with children who were age-appropriately vaccinated (incidence rate ratio [IRR], 0.89; 95% CI, 0.89- 0.90). In contrast, undervaccinated children had increased inpatient admission rates compared with age-appropriately vaccinated children (IRR, 1.21; 95% CI, 1.18-1.23). In a second matched cohort analysis, children who were undervaccinated because of parental choice had lower rates of outpatient visits (IRR, 0.94; 95% CI, 0.93-0.95) and emergency department encounters (IRR, 0.91; 95% CI, 0.88-0.94) than age-appropriately vaccinated children.
Conclusions Undervaccination appears to be an increasing trend. Undervaccinated children appear to have different health care utilization patterns compared with age-appropriately vaccinated children.

Editorial | January 21, 2013

The Enigma of Alternative Childhood Immunization Schedules: What Are the Questions?

Douglas J. Opel, MD, MPH; Edgar K. Marcuse, MD, MPH
Alternative childhood immunization schedules have emerged as a distinct phenomenon in response to parental concerns about the safety of the US immunization schedule and its component vaccines. Some alternative schedules have been put in writing,1 many more are ad hoc, and all endorse a spacing out, a delaying, or a forgoing of at least some vaccines (which is contrary to what is jointly recommended by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices, the American Academy of Pediatrics, and the American Academy of Family Physicians). None of these alternative schedules have been tested for their safety and efficacy.

Journal of Health Organization and Management
Volume 26 issue 6 - Published: 2012
http://www.emeraldinsight.com/journals.htm?issn=1477-7266&show=latest
[Reviewed earlier; No relevant content]

Journal of Infectious Diseases
Volume 207 Issue 4 February 15, 2013
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Journal of Global Infectious Diseases (JGID)
October-December 2012
Volume 4 | Issue 4
Page Nos. 187-224
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[Reviewed earlier; No relevant content]

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February 2013, Volume 39, Issue 2
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[No relevant content]

Journal of Medical Microbiology
February 2013; 62 (Pt 2)
http://jmm.sgmjournals.org/content/current
[No relevant content]

Journal of the Pediatric Infectious Diseases Society (JPIDS)
Volume 1 Issue 4 December 2012
http://jpids.oxfordjournals.org/content/current
[Reviewed earlier]

The Lancet
Jan 26, 2013 Volume 381 Number 9863 p267 – 346 e2 - 3
http://www.thelancet.com/journals/lancet/issue/current
Editorial
Neglected tropical diseases: progress and priorities
The Lancet
Preview |
This January marks the first anniversary of the London Declaration on Neglected Tropical Diseases—a coordinated effort by endemic countries, non-governmental organisations, drug companies, and donors to improve the lives of more than a billion of the world's poorest people by the end of the decade. A year on from the launch, the results look promising.

The Lancet Infectious Disease

Feb 2013 Volume 13 Number 2 p97 - 182
http://www.thelancet.com/journals/laninf/issue/current
Editorial
The inexorable progress of norovirus
The Lancet Infectious Diseases
Preview
Perhaps because of its proclivity to cause outbreaks of explosive vomiting and diarrhoea that can sweep through closed and semiclosed communities (eg, hospital wards, schools, and cruise ships), norovirus is an infectious disease that attracts popular attention. Norovirus outbreaks can occur worldwide and all year round, although cases usually peak during the winter months, hence the name winter vomiting disease given to the illness caused by the virus. At the beginning of January, van Beek and colleagues warned of a worldwide increase in norovirus cases compared with previous seasons.

Medical Decision Making (MDM)
January 2013; 33 (1)
http://mdm.sagepub.com/content/current
Special Issue: Decision Aids and Risk Perception
[Reviewed earlier]

The Milbank Quarterly
A Multidisciplinary Journal of Population Health and Health Policy
December 2012 Volume 90, Issue 4 Pages 631–807
http://onlinelibrary.wiley.com/doi/10.1111/milq.2012.90.issue-4/issuetoc
[Reviewed earlier]

Nature
Volume 493 Number 7433 pp451-570 24 January 2013
http://www.nature.com/nature/current_issue.html
Nature | Editorial
Vigilance needed
Experiments that make deadly pathogens more dangerous demand the utmost scrutiny.
23 January 2013
Extract
The year-long voluntary moratorium on research to engineer strains of the H5N1 avian influenza virus that can transmit between mammals has already borne fruit. Claims of public-health benefits have received thorough scrutiny, and the researchers involved have better explained the biosafety and biosecurity precautions that they take. The debate has drawn attention to, and exposed gaps in, the rules that govern 'dual-use' research — work that can bring public benefit but might also be used for harmful purposes. The row has also, for example, prompted long-overdue national guidelines in the United States and made funders everywhere more aware of the need to assess risky research proposals proactively. In short, the moratorium — the lifting of which is announced this week (see page 460) — has seen serious thought on the complex issues involved…

Nature* / *News

Work resumes on lethal flu strains

Study of lab-made viruses a 'public-health responsibility'.

Declan Butler

23 January 2013

http://www.nature.com/news/work-resumes-on-lethal-flu-strains-1.12266

Nature* / *Correspondence

H5N1 virus: Transmission studies resume for avian flu

Ron A. M. Fouchier, Adolfo García-Sastre, Yoshihiro Kawaoka & 37 co-authors

Nature (2013)

doi:10.1038/nature11858

Published online

23 January 2013

In January 2012, influenza virus researchers from around the world announced a voluntary pause of 60 days on any research involving highly pathogenic avian influenza H5N1 viruses leading to the generation of viruses that are more transmissible in mammals1. We declared a pause to this important research to provide time to explain the public-health benefits of this work, to describe the measures in place to minimize possible risks, and to enable organizations and governments around the world to review their policies (for example, on biosafety, biosecurity, oversight and communication) regarding these experiments.

During the past year, the benefits of this important research have been explained clearly in publications2, 3, 4, 5, 6, 7 and meetings8, 9, 10. Measures to mitigate the possible risks of the work have been detailed11, 12, 13. The World Health Organization has released recommendations on laboratory biosafety for those conducting this research14, and relevant authorities in several countries have reviewed the biosafety, biosecurity and funding conditions under which further research would be conducted on the laboratory-modified H5N1 viruses10, 15, 16, 17. Thus, acknowledging that the aims of the voluntary moratorium have been met in some countries and are close to being met in others, we declare an end to the voluntary moratorium on avian-flu transmission studies.

The controversy surrounding H5N1 virus-transmission research has highlighted the need for a global approach to dealing with dual-use research of concern. Developing comprehensive solutions to resolve all the issues will take time. Meanwhile, H5N1 viruses continue to evolve in nature.

Because H5N1 virus-transmission studies are essential for pandemic preparedness and understanding the adaptation of influenza viruses to mammals, researchers who have approval from their governments and institutions to conduct this research safely, under appropriate biosafety and biosecurity conditions, have a public-health responsibility to resume this important work. Scientists should not restart their work in countries where, as yet, no decision has been reached on the conditions for H5N1 virus transmission research. At this time, this includes the United States and US-funded research conducted in other countries. Scientists should never conduct this type of research without the appropriate facilities, oversight and all necessary approvals.

We consider biosafety level 3 conditions with the considerable enhancements (BSL-3+) as outlined in the referenced publications11, 12, 13 to be appropriate for this type of work, but recognize that some countries may require BSL-4 conditions in accordance with applicable standards (such as Canada). We fully acknowledge that this research — as with any work on infectious agents — is not without risks. However, because the risk exists in nature that an

H5N1 virus capable of transmission in mammals may emerge, the benefits of this work outweigh the risks.
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February 2013, Volume 14 No 2 pp101-185
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January 2013, Volume 19 No 1 pp1-112
http://www.nature.com/nm/journal/v19/n1/index.html
[Reviewed earlier]

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February 2013 Vol 13 No 2
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New England Journal of Medicine
January 24, 2013 Vol. 368 No. 4
http://content.nejm.org/current.shtml
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Online First
Perspective
The Cure for Cholera — Improving Access to Safe Water and Sanitation
January 9, 2013
Waldman R.J., Mintz E.D., Papowitz H.E.
Whenever epidemics of cholera occur, the global public health community is energized. Experts meet, guidelines for control are reviewed and reissued, and new and modified interventions are proposed and promoted. In the past two decades, these things happened after cholera appeared in Latin America…
10.1056/NEJMp1214179
Free Full Text

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January 2013, 17(1):
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Revista Panamericana de Salud Pública/Pan American Journal of Public Health (RPSP/PAJPH)

December 2012 Vol. 32, No. 6
http://new.paho.org/journal/index.php?option=com_content&task=view&id=118&Itemid=219
ORIGINAL RESEARCH ARTICLES

Health and economic impact of human papillomavirus 16 and 18 vaccination of preadolescent girls and cervical cancer screening of adult women in Peru

[Repercusiones sanitarias y económicas de la vacunación de niñas preadolescentes contra los tipos 16 y 18 del virus del papiloma humano y el tamizaje del cáncer cervicouterino en las mujeres adultas en el Perú]

Sue J. Goldie, Carol Levin, N. Rocio Mosqueira-Lovón,
Jesse Ortendahl, Jane Kim, Meredith O'Shea,
Mireia Diaz Sanchez, and Maria Ana Mendoza Araujo

The Pediatric Infectious Disease Journal
February 2013 - Volume 32 - Issue 2 pp: A11,99-196,e54-e93
http://journals.lww.com/pidj/pages/currenttoc.aspx

Original Studies

Australian Population Cohort Study of Newly Arrived Refugee Children: How Effective Is Predeparture Measles and Rubella Vaccination?

Joshua, Paul Robert; Smith, Mitchell M.; Koh, Alaric Sek Kai; Woodland, Lisa Anne; Zwi, Karen
Pediatric Infectious Disease Journal. 32(2):104-109, February 2013.
doi: 10.1097/INF.0b013e31827075c2

Abstract:
Background: Predeparture medical screening and measles-mumps-rubella vaccination are routinely given to refugee children before departure from most transit countries en route to Australia.
Objectives: The purpose of this study was to evaluate the effectiveness of this single measles-mumps-rubella vaccine and the reliability of its documentation. This is important in determining refugees' susceptibility to measles and rubella and the risk to the nonvaccinated community.
Methods: We analyzed measles and rubella serology in a comprehensively screened population of newly arrived refugees. We reviewed seropositivity rates based on age, sex, country of departure and vaccine documentation.
Results: Of 164 children screened, 139 (84.8%) were immune to rubella; 143 (87.7%) to measles and 119 (73.0%) to both. There was no significant difference in immunity among those of different ages or those departing different continents. Immunity rates among those with documented measles-mumps-rubella tended to be higher: 91.1% for rubella, 89.1% for measles and 80.0% for both diseases, but this did not reach significance at the 5% level. There was a significant difference between males (65.9%) and females (81.3%) immune to both diseases ($P = 0.042$).
Conclusions: This cohort demonstrated similar measles and rubella seropositivity rates to those of the Australian population, but lower rates than population seroconversion studies, which have been estimated at 95%. Males were less likely to be immune. Rates in those with documented vaccination approximated seroconversion studies. This confirms the appropriateness of current guidelines which suggest that immunization is not required in the face of documented prior vaccination, but is required without such documentation.

Vaccine Reports

Clinical Assessment of Serious Adverse Events in Children Receiving 2009 H1N1 Vaccination

Pahud, Barbara A.; Williams, S. Elizabeth; Dekker, Cornelia L.; Halsey, Neal; LaRussa, Philip; Baxter, Roger P.; Klein, Nicola P.; Marchant, Colin D.; Sparks, Robert C.; Jakob, Kathleen; Aukes, Laurie; Swope, Susan; Barnett, Elizabeth; Lewis, Paige; Berger, Melvin; Dreskin, Stephen C.; Donofrio, Peter D.; Sejvar, James J.; Slade, Barbara A.; Gidudu, Jane; Vellozzi, Claudia; Edwards, Kathryn M.
Pediatric Infectious Disease Journal. 32(2):163-168, February 2013.
doi: 10.1097/INF.0b013e318271b90a
Abstract:
Background: Monovalent 2009 H1N1 influenza vaccines were licensed and administered in the United States during the H1N1 influenza pandemic between 2009 and 2013.
Methods: Vaccine Adverse Event Reporting System received reports of adverse events following immunization (AEFI) after H1N1 vaccination. Selected reports were referred to the Centers for Disease Control and Prevention's Clinical Immunization Safety Assessment network for additional review. We assessed causality using modified World Health Organization criteria.
Results: There were 3,928 reports of AEFI in children younger than age 18 years after 2009 H1N1 vaccination received by January 31, 2010. Of these, 214 (5.4%) were classified as serious nonfatal and 109 were referred to Clinical Immunization Safety Assessment for further evaluation. Ninety-nine (91%) had sufficient initial information to begin investigation and are described here. The mean age was 8 years (range, 6 months–17 years) and 38% were female. Median number of days between vaccination and symptom onset was 2 (range, −11 days to +41 days). Receipt of inactivated, live attenuated, or unknown type of 2009 H1N1 vaccines was reported by 68, 26 and 5 cases, respectively. Serious AEFI were categorized as neurologic events in 47 cases, as hypersensitivity in 15 cases and as respiratory events in 10 cases. At the time of evaluation, recovery was described as complete (61), partial (16), no improvement (1), or unknown (21). Causality assessment yielded the following likelihood of association with 2009 H1N1 vaccination: 8 definitely; 8 probably; 21 possibly; 43 unlikely; 17 unrelated; and 2 unclassifiable.
Conclusions: Most AEFI in children evaluated were not causally related to vaccine and resolved without sequelae. Detailed clinical assessment of individual serious AEFI can provide reassurance of vaccine safety.

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January 2013, VOLUME 131 / ISSUE 1
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December 1, 2012 - Volume 30 - Issue 12 pp: 1097-1214
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(Accessed 26 January 2013)
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December 2012
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Volume 19, Issue 1, Pages 1-70 (January 2013)
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25 January 2013 vol 339, issue 6118, pages 365-480
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Science Translational Medicine
23 January 2013 vol 5, issue 169
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[No relevant content]

Vaccine
http://www.sciencedirect.com/science/journal/0264410X

Volume 31, Issue 7, Pages 1009-1134 (4 February 2013)
Knowledge and awareness of HPV and the HPV vaccine among young women in the first routinely vaccinated cohort in England
Original Research Article
Pages 1051-1056
Harriet L. Bowyer, Laura A.V. Marlow, Sam Hibbitts, Kevin G. Pollock, Jo Waller
Abstract
A national school-based human papillomavirus (HPV) vaccination programme has been available for 12–13 year old females in the UK since 2008, offering protection against HPV types 16 and 18, which are responsible for the majority of cervical cancer. Little is known about HPV knowledge in girls who have been offered the vaccine. Girls offered the school-based vaccine in the first routine cohort (n = 1033) were recruited from 13 schools in London three years post-vaccination. Participants completed a questionnaire about HPV awareness, knowledge about HPV and the vaccine, and demographic characteristics including vaccine status. About a fifth of the girls reported they were unaware of the HPV infection. Among those who reported being aware of HPV (n = 759) knowledge was relatively low. Approximately half of the participants knew that HPV infection causes cervical cancer, condoms can reduce the risk of transmission and that cervical screening is needed regardless of vaccination status. These results are helpful in benchmarking HPV-related knowledge in vaccinated girls and could be used in the development of appropriate educational messages to accompany the first cervical screening invitation in this cohort in the future.

Vaccine
Volume 31, Issue 6, Pages 857-1008 (30 January 2013)
Pandemic influenza A(H1N1)pdm09 improves vaccination routine in subsequent years: A cohort study from 2009 to 2011
Original Research Article
Pages 900-905
Margot A.J.B. Tacken, Birgit Jansen, Jan Mulder, Stefan Visscher, Marie-Louise A. Heijnen, Stephen M. Campbell, Jozé C.C. Braspenning
Abstract
Background
In 2009 the pandemic influenza virus A(H1N1)pdm09 emerged with guidance that people at risk should be vaccinated. It is unclear how this event affected the underlying seasonal vaccination rate in subsequent years.
Purpose
To investigate the association of pandemic influenza A(H1N1)pdm09 and seasonal flu vaccination status in 2009 with vaccination rates in 2010 and 2011.
Methods
Data were collected in 40 Dutch family practices on patients at risk for influenza during 2009–2011; data analysis was conducted in 2012.
Results

A multilevel logistic regression model (n = 41,843 patients) adjusted for practice and patient characteristics (age and gender, as well as those patient groups at risk), showed that people who were vaccinated against A(H1N1)pdm09 in 2009 were more likely to have been vaccinated in 2010 (OR 6.02; 95%CI 5.62–6.45, p < .0001). This likelihood was even more for people who were vaccinated against seasonal flu in 2009 (OR 13.83; 95%CI 12.93–14.78, p < .0001). A second analysis on the uptake rate in 2011 (n = 39,468 patients) showed that the influence of the vaccination state in 2009 declined after two years, but the diminishing effect was smaller for people vaccinated against A(H1N1)pdm09 than for seasonal flu (OR 5.50; 95%CI 5.13–5.90, p < .0001; OR 10.98; 95%CI 10.26–11.75, p < .0001, respectively).
Conclusion
Being vaccinated against A(H1N1)pdm09 and seasonal influenza in the pandemic year 2009 enhanced the probability of vaccination in the next year and this was still effective in 2011. This suggests that peoples' vaccination routines were not changed by the rumor around the outbreak of A(H1N1)pdm09, but rather confirmed underlying behavior.

Cost-effectiveness of childhood influenza vaccination in England and Wales: Results from a dynamic transmission model

Original Research Article
Pages 927-942
R.J. Pitman, L.D. Nagy, M.J. Sculpher
Abstract
This study uses a dynamic influenza transmission model to directly compare the cost-effectiveness of various policies of annual paediatric influenza vaccination in England and Wales, varying the target age range and level of coverage. The model accounts for both the protection of those immunised and the indirect protection of the rest of the population via herd immunity. The impact of augmenting current practice with a policy to vaccinate pre-school age children, on their own or with school age children, was assessed in terms of quality adjusted life years and health service costs. Vaccinating 2–18 year olds was estimated to be the most cost-effective policy in an incremental cost-effectiveness analysis, at an assumed annual vaccine uptake rate of 50%. The mean incremental cost-effectiveness ratios for this policy was estimated at £251/QALY relative to current practice. Paediatric vaccination would appear to be a highly cost-effective intervention that directly protects those targeted for vaccination, with indirect protection extending to both the very young and the elderly.

Number-needed-to-vaccinate calculations: Fallacies associated with exclusion of transmission

Original Research Article
Pages 973-978
Ashleigh R. Tuite, David N. Fisman
Abstract
Background
Number-needed-to-vaccinate (NNV) calculations are used with increasing frequency as metrics of the attractiveness of vaccination programs. However, such calculations as typically applied consider only the direct protective effects of vaccination and ignore indirect effects generated through reduction of force of infection (i.e., risk of infection in susceptible individuals). We postulated that such calculations could produce profoundly biased estimates of vaccine attractiveness.
Methods
We used mathematical models simulating endemic and epidemic diseases with a variety of epidemiological characteristics, and in the face of varying approaches to immunization, to

evaluate biases associated with exclusion of transmission. We generated number-needed-to-vaccinate calculations using both traditional methods, and using a more realistic approach that defines this quantity as the ratio of cases prevented through vaccination (directly or indirectly) to individuals vaccinated. We quantified bias as the ratio of estimates produced using these two different methods.
Results
Across a range of simulated infectious diseases with variable epidemiological characteristics, and in the context of both pulsed vaccination and ongoing vaccine programs, traditional NNV calculations based on systems using plausible infectious disease parameters produced estimates biased by up to 3 orders of magnitude (i.e., 1000 fold). Unbiased NNV estimates were seen only in the context of diseases with extremely high reproductive numbers that could be prevented with highly efficacious vaccines.
Conclusions
When evaluated using mathematical models that simulate common vaccine-preventable diseases of public health importance, typical number-needed-to-vaccinate calculation produce marked over-estimates relative to NNV calculations incorporating the fundamental transmissibility of communicable diseases. NNV calculations should be used with caution and interpreted critically when used as metrics for the potential community-level impact of vaccination programs.

The feasibility of using mobile-phone based SMS reminders and conditional cash transfers to improve timely immunization in rural Kenya

Original Research Article
Pages 987-993
Hotenzia Wakadha, Subhash Chandir, Elijah Victor Were, Alan Rubin, David Obor, Orin S. Levine, Dustin G. Gibson, Frank Odhiambo, Kayla F. Laserson, Daniel R. Feikin
Abstract
Background
Demand-side strategies could contribute to achieving high and timely vaccine coverage in rural Africa, but require platforms to deliver either messages or conditional cash transfers (CCTs). We studied the feasibility of using short message services (SMS) reminders and mobile phone-based conditional cash transfers (CCTs) to reach parents in rural Western Kenya.
Methods
In a Health and Demographic Surveillance System (HDSS), mothers with children aged 0–3 weeks old were approached to determine who had access to a mobile phone. SMS reminders were sent three days prior to and on the scheduled day of immunization for 1st (age 6 weeks) and 2nd doses (age 10 weeks) of DTP-HepB-Hib (Pentavalent) vaccine, using open-source Rapid SMS software. Approximately $2.00 USD was sent as cash using mPESA, a mobile money transfer platform (2/3 of mothers), or airtime (1/3 of mothers) via phone if the child was vaccinated within 4 weeks of the scheduled date. Follow-up surveys were done when children reached 14 weeks of age.
Results
We approached 77 mothers; 72 were enrolled into the study (26% owned a phone and 74% used someone else's). Of the 63 children with known vaccination status at 14 weeks of age, 57 (90%) received pentavalent1 and 54 (86%) received pentavalent2 within 4 weeks of their scheduled date. Of the 61 mothers with follow-up surveys administered at 14 weeks of age, 55 (90%) reported having received SMS reminders. Of the 54 women who reported having received SMS reminders and answered the CCT questions on the survey, 45 (83%) reported receiving their CCT. Most (89%) of mothers in the mPESA group obtained their cash within 3

days of being sent their credit via mobile phone. All mothers stated they preferred CCTs as cash via mobile phone rather than airtime. Of the 9 participants who did not vaccinate their children at the designated clinic 2(22%) cited refusals by husbands to participate in the study.
Conclusion
The data show that in rural Western Kenya mobile phone-based strategies are a potentially useful platform to deliver reminders and cash transfers. Follow-up studies are needed that provide evidence for the effectiveness of these strategies in improving vaccine coverage and timeliness.

Vaccine
Volume 31, Issue 5, Pages 725-856 (21 January 2013)
WHO Article
Global production capacity of seasonal influenza vaccine in 2011
Original Research Article
Pages 728-731
Jeffrey Partridge, Marie Paule Kieny
Abstract
The effectiveness of vaccines to mitigate the impact of annual seasonal influenza epidemics and influenza pandemics has been well documented. However, the steady increase in global capacity to produce annual seasonal influenza vaccine has not been matched with increased demand, and thus actual vaccine production. Currently, without a significant increase in demand for seasonal influenza vaccine, global capacity will be far from able to meet even the essential needs for a monovalent vaccine in the event of a severe influenza pandemic. Global commitment to the development of influenza vaccine production capacity was renewed at a consultation leading to the Second Global Action Plan on Influenza Vaccines (GAP) in July 2011. To monitor progress on the GAP, the World Health Organization has carried out periodic surveys of influenza vaccine manufacturers. This latest survey compares current maximum global capacity and actual production of seasonal influenza vaccine in 2011 with data from surveys carried out in 2009 and 2010; analyses global influenza production capacity in the context of sustainability; and discusses options to increase demand, based on strong evidence of public health benefit.
Correlates of high vaccination exemption rates among kindergartens
Original Research Article
Pages 750-756
Michael S. Birnbaum, Elizabeth T. Jacobs, Jennifer Ralston-King, Kacey C. Ernst
Abstract
Objectives
The present study was designed to characterize Arizona schools with high rates of permanent PBE among kindergartners, and to determine the degree to which they aggregate across the state.
Methods
Data for permanent personal belief exemptions (PBE) were accessed through the 2010–2011 kindergarten Immunization Data Report (IDR) from the Arizona Department of Health Services (AZDHS), and were linked to the 2009–2010 data from the National Center of Education Statistics (NCES). Incidence rate ratios (IRR) were calculated using negative binomial regression, and hotspots were identified using Getis-Ord Gi*.
Results

Schools with highest proportion of white students compared to the lowest had the highest exemption rates (IRR = 14.11; 95% confidence interval [CI], 9.47–21.03); furthermore charter schools and those with low prevalence of free and reduced lunches had significantly higher rates of PBE. Statewide analyses of PBE identified higher rates of permanent PBE in northern vs. southern Arizona, while a more focused examination of the central Arizona region demonstrated a pattern of increased PBE from west to east.
Conclusion
In Arizona, the profile of a high PBE school is that of a charter school attended by predominantly white, higher-income students. The local and statewide hotspots serve as a challenge that requires a multi-faceted approach that calls upon all healthcare professionals. It is important that both local and statewide pockets be targeted by local and state officials either to improve vaccination uptake or to employ careful monitoring to identify outbreaks at their onset.

Coverage from Ontario, Canada's school-based HPV vaccine program: The first three years

Original Research Article
Pages 757-762
Sarah E. Wilson, Tara Harris, Pam Sethi, Jill Fediurek, Liane Macdonald, Shelley L. Deeks

Abstract
Background
In 2007, Ontario implemented a school-based human papillomavirus (HPV) vaccination program targeting grade 8 girls. Girls may complete the series in grade 9 (extended eligibility). Limitations in the existing provincial data sources for assessing HPV vaccine coverage in Ontario prompted the use of two surveys of Health Units (HUs) to calculate provincial vaccine coverage for the first three years of the vaccination program.
Methods
We surveyed Ontario's 36 HUs in March and November 2011 to obtain vaccine coverage information, including source of denominator data, and use of local information systems. The second survey was necessary in order to assess coverage including extended eligibility for the third year. HU-reported HPV vaccine coverage was compared to coverage estimates obtained from two provincial systems: the Immunization Records Information System (IRIS) and the HPV reimbursement database, a system used to remunerate HUs for HPV vaccine doses administered.
Results
100% of HUs participated in the two surveys. The provincial coverage estimates using HU-reported data were: 51% (2007–2008), 58% (2008–2009), and 59% (2009–2010) with large variation by HU. Coverage increased significantly over time. The number of HUs that were able to report on doses given as part of extended eligibility also increased over time (47% in 2007–2008 to 89% in 2009–2010; $p = 0.0008$). Comparisons across the three data sources (survey, IRIS and reimbursement database) revealed significantly different coverage estimates. Class or school lists were the most common source of denominator data used by HUs (27/36, 75%), however independent schools were not included by all.
Conclusions
As not all HUs were able to report on HPV vaccine coverage including extended eligibility doses these findings likely underestimate the true coverage attained by Ontario's program. Although coverage is below the Canadian Immunization Committee benchmark of 80% within two years of program implementation, the upward trend in coverage is encouraging.

Knowledge of human papillomavirus (HPV) and HPV vaccination: An international comparison

Original Research Article
Pages 763-769
Laura A.V. Marlow, Gregory D. Zimet, Kirsten J. McCaffery, Remo Ostini, Jo Waller
Abstract
Since vaccination against human papillomavirus (HPV) became available, awareness of HPV has dramatically increased. Implementation of a vaccine program varies internationally yet no studies have explored the influence this has on the public's knowledge of HPV. The present study aimed to explore differences in awareness of HPV and HPV knowledge across three countries: The US, UK and Australia.
Participants (n = 2409) completed a validated measure of HPV knowledge as part of an online survey. There were higher levels of HPV awareness among men and women in the US than the UK and Australia. Being male and having a lower educational level was associated with lower HPV awareness in all three countries. Awareness of HPV vaccine was higher in women from the US than the UK and Australia. Women in the US scored significantly higher on general HPV knowledge (on a 15-item scale) than women in the UK and Australia, but there were no between country differences in HPV vaccine knowledge (on a 6-item scale). When asked about country-specific vaccine availability, participants in the US were less able to identify the correct answers than participants in the UK and Australia. More than half of participants did not know: HPV can cause genital warts; most sexually active people will get HPV at some point in their life; or HPV doesn't usually need treatment.
Pharmaceutical advertising campaigns could explain why awareness of HPV and HPV vaccine is higher in the US and this has helped to get some important messages across. Significant gaps in HPV knowledge remain across all three countries.

State law and influenza vaccination of health care personnel

Original Research Article
Pages 827-832
Alexandra M. Stewart, Marisa A. Cox
Abstract
Nosocomial influenza outbreaks, attributed to the unvaccinated health care workforce, have contributed to patient complications or death, worker illness and absenteeism, and increased economic costs to the health care system. Since 1981, the Advisory Committee on Immunization Practices (ACIP) of the Centers for Disease Control and Prevention (CDC) has recommended that all HCP receive an annual influenza vaccination.

Health care employers (HCE) have adopted various strategies to encourage health care personnel (HCP) to voluntarily receive influenza vaccination, including: sponsoring educational and promotional campaigns, increasing access to seasonal influenza vaccine, permitting the use of declination statements, and combining multiple approaches. However, these measures failed to significantly increase uptake among HCP. As a result, beginning in 2004, health care facilities and local health departments began to require certain HCP to receive influenza vaccination as a condition of employment and annually. Today, hundreds of facilities throughout the country have developed and implemented similar policies. Mandatory vaccination programs have been endorsed by professional and non-profit organizations, state health departments, and public health. These programs have been more effective at increasing coverage rates than any voluntary strategy, with some health systems reporting coverage rates up to 99.3%.

Several states have enacted laws requiring HCEs to implement vaccination programs for the workforce. These laws present an example of how states will respond to threats to the public's health and constrain personal choice in order to protect vulnerable populations.

This study analyzes laws in twenty states that address influenza vaccination requirements for HCP who practice in acute or long-term care facilities in the United States. The laws vary in the extent to which they incorporate the six elements of a mandatory HCP influenza vaccination program. Four of the twenty states have adopted a broad definition of HCP or HCE. While 16/20 of the laws require employers to "provide," "arrange for," "ensure," "require" or "offer" influenza vaccinations to HCP, only four states explicitly require HCEs to cover the cost of vaccination. Fifteen of the twenty laws allow HCP to decline the vaccination due to medical contraindication, religious or philosophical beliefs, or by signing a declination statement. Finally, three states address how to sanction noncompliant HCPs. The analysis also discusses the development of a model legal policy that legislators could use as they draft and revise influenza prevention guidelines in health care settings.

Vaccine: Development and Therapy
(Accessed 26 January 2013)
http://www.dovepress.com/vaccine-development-and-therapy-journal
[No new relevant content]

Value in Health
Vol 16 | No. 1 | January-February 2013 | Pages 1-228
http://www.valueinhealthjournal.com/current
[No relevant content]

From Google Scholar+: Dissertations, Theses, Selected Journal Articles

Physicians' Confidence in Vaccine Safety Studies.
ST O'Leary, MA Allison, S Stokley, LA Crane, LP Hurley… - Preventive medicine, 2013
OBJECTIVES: To ascertain, through two separate surveys among nationally representative networks of pediatricians (Peds) and family physicians (FM): 1) physicians' reported level of confidence in pre-and post-licensure vaccine safety studies; and 2) changes in reported…

Toward a Universal Influenza Vaccine: Prospects and Challenges
P Palese - Annual Review of Medicine, 2013
Current influenza virus vaccines are annually reformulated to elicit protection by generating an immune response toward the virus strains that are predicted to circulate in the upcoming influenza season. These vaccines provide limited protection in cases of antigenic…

Predictors of Initial Uptake of Human Papillomavirus Vaccine Uptake Among Rural Appalachian Young Women.
BR Casey, RA Crosby, RC Vanderpool, M Dignan… - Journal of Primary Prevention 2013 Jan 17.
[Epub ahead of print]

Women in Appalachian Kentucky experience a high burden of cervical cancer and have low rates of human papillomavirus (HPV) vaccination. The purpose of this study was to identify normative influences predicting initial HPV vaccine uptake among a sample of young…

Early Lessons Learned From Extramural School Programs That Offer HPV Vaccine
KA Hayes, P Entzel, W Berger, RN Caskey, JC Shlay… - Journal of School Health, 2013
BACKGROUND There has been little evaluation of school-located vaccination programs that offer human papillomavirus (HPV) vaccine in US schools without health centers (ie, extramural programs). This article summarizes lessons learned from such programs…

HPV at the time of vaccine: has screening reached its goal?
E Tartaglia, D Iafusco, A Cocca, S Palomba, M Rotondi… - European Journal of Gynaecological Oncology 2012;33(6):591-7.
INTRODUCTION: The human papillomavirus (HPV) prevalence recognized a geographic distribution of genotypes but, in the last years, the change of sexual behaviours, the increase number of sex partners, and the reduction of geographic distances have changed its…

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

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

BBC
http://www.bbc.co.uk/
Accessed 26 January 2013
[No new, unique, relevant content]

Economist
http://www.economist.com/
Accessed 26 January 2013
[No new, unique, relevant content]

Financial Times
http://www.ft.com
Accessed 26 January 2013
[No new, unique, relevant content]

Forbes
http://www.forbes.com/
Accessed 26 January 2013
[No new, unique, relevant content]

Foreign Affairs
http://www.foreignaffairs.com/
January/February 2013 Volume 92, Number 1
Accessed 26 January 2013
[No new unique, relevant content]

Foreign Policy
http://www.foreignpolicy.com/
Accessed 26 January 2013]
[No new unique, relevant content]

The Guardian
http://www.guardiannews.com/
Accessed 26 January 2013
[No new unique, relevant content]

The Huffington Post
http://www.huffingtonpost.com/
Accessed 26 January 2013
The Big Push to Defeat AIDS, TB and Malaria
Dr. Mark Dybul
Executive Director, Global Fund to Fight AIDS, Tuberculosis and Malaria
Posted: 01/21/2013 12:00 am
Extract
Every era offers something special. I think the most special thing about our current time is the incredible opportunity that scientific advances have provided in the field of global health, giving us the ability to completely control highly dangerous infectious diseases such as AIDS, tuberculosis and malaria. The recent progress is breathtaking. If we can harness the funds needed, we can essentially take these diseases off the table as threats to greater development…

New Yorker
http://www.newyorker.com/
Accessed 26 January 2013
[No new, unique, relevant content]

NPR/National Public Radio [U.S.]
Public Health
Accessed 26 January 2013
[No new, unique, relevant content]

New York Times
http://www.nytimes.com/

Accessed 26 January 2013.

Reuters
http://www.reuters.com/
Accessed 26 January 2013
[No new, unique, relevant content]

Wall Street Journal
http://online.wsj.com/home-page
Accessed 26 January 2013
THE SATURDAY ESSAY
January 25, 2013, 8:12 p.m. ET
Bill Gates: My Plan to Fix The World's Biggest Problems
From the fight against polio to fixing education, what's missing is often good measurement and a commitment to follow the data. We can do better. We have the tools at hand.
http://online.wsj.com/article/SB10001424127887323539804578261780648285770.html?KEYWORDS=vaccine

Washington Post
http://www.washingtonpost.com/
Accessed 26 January 2013
[No new, unique, relevant content]

***Twitter Watch* (26January 2013 – 18:36)**
Items of interest from a variety of twitter feeds associated with immunization, vaccines and global public health. This capture is highly selective and is by no means intended to be exhaustive.

HarvardPublicHealth @HarvardHSPH
Video: Trust in vaccines -- & why it matters http://ht.ly/h9FQu #publichealth
Download: MP3 Audio
SUMMARY AND BACKGROUND [Video]
Long a cost-effective stalwart in the public health armament, vaccines have become a target for misinformation that has undermined immunization efforts in parts of the U.S., U.K. and elsewhere, contributing to dangerous and potentially lethal disease outbreaks of measles, polio and more. At the same time, in this "Decade of Vaccines," steps have been taken to boost vaccine access in areas of the world where people live with, and die unnecessarily from, infectious illnesses that could be controlled by immunization programs. This Forum event examined the importance of immunization, the safety of vaccines, and the consequences of vaccine hesitancy.
10:56 AM - 26 Jan 13

GAVI Alliance @GAVIAlliance
#VIDEO: An interesting dialogue to watch between PM @jensstoltenberg from @noradno and @BillGates, in Oslo last week: http://ht.ly/h9xlV
8:45 AM - 26 Jan 13

UNICEF @UNICEF
RT @IshmaelBeah UNICEF's Humanitarian Action for Children report highlights challenges for most vulnerable children & women #HAC2013
9:35 AM - 25 Jan 13

UNICEF @UNICEF
In 2012, we vaccinated 38.3m children. We need your help to do it again in 2013. http://uni.cf/SMhChx #HAC2013
7:51 AM - 25 Jan 13

Dagfinn Høybråten @Hoybraten
How do we immunize a quarter billion children by 2015 http:// http://bit.ly/10Stpys
Retweeted by GAVI Alliance
6:59 AM - 25 Jan 13

PAHO/WHO @pahowho
Rt @UN: Watch: @UNICEF message to #Davos. Investing in children's health pays the biggest dividends http://uni.cf/WMSZyX #WEF #mdgs"
Investment in children - the best buy in global health
As world leaders, economists and captains of industry meet in Davos, Switzerland, to tackle the health of the economy, UNICEF Health Chief Dr. Mickey Chopra ...
5:41 AM - 25 Jan 13

WHO @WHO
Polio Team Leader, @WHO Pakistan, Dr Elias Durry, op/ed piece on #polio situation in #Pakistan http://goo.gl/oLhsE via @etribune
3:51 AM - 25 Jan 13

GAVI Alliance @GAVIAlliance
New commitments from @comicrelief @ldscharities & @VodafoneGroup bring total raised under GAVI Matching Fund to US$ 78M http://ht.ly/h7oPI
1:54 AM - 25 Jan 13

UNICEF @UNICEF
The Humanitarian Action for Children report highlights challenges for most vulnerable children and women http://uni.cf/WLL3Oy #HAC2013
1:50 AM - 25 Jan 13

UNICEF @UNICEF
#Egypt to vaccinate after #polio found in sewer, via @AP: http://uni.cf/XDghGR Highlights need to #protecthealthworkers in #Pakistan
2:10 PM - 24 Jan 13

Doctors w/o Borders @MSF_USA
"Decade of Vaccines" blueprint ignores high prices, lacks ambition on better-adapted vaccines to reach more children: http://bit.ly/UnQDZ8
10:45 AM - 24 Jan 13

The Global Fund @globalfundnews
Big News: Germany announces 1b Euros for the Global Fund's #thebigpush to defeat #AIDS #TB & #Malaria #Davos http://bit.ly/10U7isi
6:57 AM - 24 Jan 13

M&R Initiative @MeaslesRubella
Human Rights Commission of #Pakistan flays rising death toll from #measles - as epidemic
2:42 AM - 24 Jan 13

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