Vaccines: The Week in Review
7 April 2012
Center for Vaccine Ethics & Policy (CVEP)

This weekly summary targets news, announcements, articles and events in global vaccines ethics and policy gathered from key governmental, NGO and industry sources, key journals and other sources. This summary supports ongoing initiatives of the Center for Vaccine Ethics & Policy, and 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 some 2,500 entries..

Comments and suggestions should be directed to
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Editor's Notes:

- *New issues will now be distributed on Saturdays, allowing for weekend review.*
- *A pdf version of this issue is available here: http://centerforvaccineethicsandpolicy.wordpress.com/*
- *Readers can also follow developments on twitter: @vaxethicspolicy*

The GAVI Alliance said it will now include HPV and combined measles-rubella vaccines in its portfolio for the first time as it opens a new round of applications for support from eligible countries. GAVI Alliance Board Chair Dagfinn Høybråten commented, "Making it possible for children and women in developing countries to have the same access to these life-saving vaccines as their counterparts in richer nations is what GAVI was created to do. By opening this new application round, we take another step towards our goal to avert close to four million future deaths by 2015 through immunisation. Ours is an investment that helps build healthy communities and accelerates development."
http://www.gavialliance.org/library/news/press-releases/2012/new-vaccine-support-against-cervical-cancer-rubella/

Rotary International President Kalyan Banerjee presented a medal to Afghan President Hamid Karzai on 2 April in Kabul, in recognition of Karzai's support for the Global Polio Eradication Initiative. Rotary describes itself as a "spearheading partner" of the GPEI; Mr. Banerjee is the first RI president to visit Afghanistan. During their 45-minute meeting, President Karzai and Mr. Banerjee "discussed how lessons learned from India's success might be applied in Afghanistan."
http://www.rotary.org/en/MediaAndNews/News/Pages/120404_news_afghanistan.aspx

The Global Fund to Fight AIDS, Tuberculosis and Malaria announced "a transformation of its grant administration with simpler procedures that make it easier to access funding and facilitates operations in the field." Gabriel Jaramillo, General Manager of the Global Fund, said, "Significant changes to strengthen grant management and improve efficiency are reshaping the Global Fund as part of a

broad transformation to raise overall effectiveness. We are building a system that starts and ends with impeccable grant management. What we do best is invest the world's money to save lives, and this transformation will enable us to do it even better. It will strengthen our partnership with the implementers who are on the front line of the fight against the diseases." The announcement noted that the Global Fund has made a 33 per cent increase in staff positions in the Grant Management Division, and a 38 per cent reduction in other departments, "as part of a stronger emphasis on managing the grants that fund disease prevention and treatment."
http://www.theglobalfund.org/en/mediacenter/pressreleases/2012-04-02_Global_Fund_Transformation_to_Simplify_Procedures_for_Grant_Administration/

Policy Update: Manuscripts on Transmissibility of A/H5N1 Influenza Virus
NATIONAL SCIENCE ADVISORY BOARD FOR BIOSECURITY
March 29-30, 2012 Meeting of the National Science Advisory Board for Biosecurity to *Review Revised Manuscripts on Transmissibility of A/H5N1 Influenza Virus*
STATEMENT OF THE NSABB [full text]

The United States Department of Health and Human Services convened the National Science Advisory Board for Biosecurity (NSABB) on March 29-30, 2012, to examine two revised manuscripts regarding the transmissibility of A/H5N1 influenza virus (avian flu) in ferrets. Earlier versions of these manuscripts had been submitted for publication in Science and Nature and were reviewed by the Board.

The NSABB is an independent federal advisory committee chartered to provide advice and guidance on the biosecurity oversight of dual use research to the Secretary of the Department of Health and Human Services, the Director of the National Institutes of Health, and all federal entities that conduct, support or have an interest in life sciences research. Dual use research is defined as biological research with legitimate scientific purpose that may be misused to pose a threat to public health and/or national security.

The Board was asked to consider the revised manuscripts from Dr. Ron Fouchier of Erasmus Medical Center and Dr. Yoshihiro Kawaoka of the University of Wisconsin and to recommend whether the information they contain should be communicated and, if so, to what extent. In their evaluation, the Board used analytical tools that it previously developed for considering the risks and benefits associated with the communication of dual use research of concern (available at www.biosecurityboard.gov). After careful deliberation, the NSABB unanimously recommended that this revised Kawaoka manuscript should be communicated in full. The NSABB also recommended, in a 12 to 6 decision, the communication of the data, methods, and conclusions presented in this revised Fouchier manuscript.

As a general principle, the NSABB strongly supports the unrestricted communication of research information unless that information could be directly misused to pose a significant and immediate risk to public health and safety. While the communication of the information in these revised manuscripts still presents dual use concerns, the additional information changed the Board's risk/benefit calculation.

- The data described in the revised manuscripts do not appear to provide information that would immediately enable misuse of the research in ways that would endanger public health or national security.

- New evidence has emerged that underscores the fact that understanding specific mutations may improve international surveillance and public health and safety. Global cooperation, critical for pandemic influenza preparedness efforts, is predicated upon the free sharing of information and was a fundamental principle in evaluating these manuscripts.

The Board's recommendations were informed by the newly released United States Government Policy for Oversight of Life Sciences Dual Use Research of Concern. This policy applies to federally funded life sciences research and will ensure that dual use concerns are addressed during evaluation of ongoing and future research on A/H5N1 influenza virus.

As a part of these deliberations, the Board emphasized the urgent need for the further development of processes for the responsible communication of dual use research of concern. It noted that improving public health and safety will require a sustained global approach to addressing dual use concerns presented by life sciences research while encouraging a robust research enterprise.

The NSABB recommendations from this meeting will be forwarded to the U.S. Government for review and consideration.
http://oba.od.nih.gov/oba/biosecurity/PDF/NSABB_Statement_March_2012_Meeting.pdf

New Policy: US Government Issues Policy on Oversight of Life Science Dual Use Research of Concern:

The purpose of this Policy is to establish regular review of United States Government funded or conducted research with certain high-consequence pathogens and toxins for its potential to be dual use research of concern (DURC) in order to: (a) mitigate risks where appropriate; and (b) collect information needed to inform the development of an updated policy, as needed, for the oversight of DURC. The fundamental aim of this oversight is to preserve the benefits of life sciences research while minimizing the risk of misuse of the knowledge, information, products, or technologies provided by such research. (March 29, 2012)

Meeting/Webcast: H5N1 research: biosafety, biosecurity and bioethics
The Royal Society, London 03-04 April 2012

An international scientific meeting to discuss the practice and policy of H5N1 research, with a programme of talks and discussions organised by Professor John Skehel FRS and Professor Simon Wain-Hobson with a particular focus on the papers that Nature and Science have in review for publication. Biographies of the organisers and speakers are available here: download the programme (PDF). Video recordings of the presentations will be available from this website within the next two weeks.

Organised by the Royal Society in partnership with the Academy of Medical Sciences and the Foundation for Vaccine Research with support from the American Society for Microbiology, the Bill & Melinda Gates Foundation, Fondation Mérieux, the German National Academy of Sciences Leopoldina, Institut Pasteur, and the Society for General Microbiology.
http://royalsociety.org/events/2012/viruses/

The Weekly Epidemiological Record (WER) for 6 April 2012, vol. 87, 14 (pp 129–144) includes: Pneumococcal vaccines - WHO position paper – 2012
http://www.who.int/entity/wer/2012/wer8714.pdf

The **MMWR Weekly for April 6, 2012** / Vol. 61 / No. 13 includes:
- Outbreak of Meningococcal Disease Associated with an Elementary School — Oklahoma, March 2010
- Influenza Outbreaks at Two Correctional Facilities — Maine, March 2011

WHO Meeting: First European Conference on Patient Empowerment
Place: Copenhagen, Denmark
Date: 11–12 April 2012

The First European Conference on Patient Empowerment will address how patient and citizen empowerment can contribute to the future of health and social care in Europe. Increased access to information and knowledge, social media, self-management programmes, new legal requirements for patient involvement, reorganization of health care systems, new technologies – all contribute to a new dynamic where patients and citizens are redefining their role in living with chronic disease.

The conference is organized in close technical collaboration with the WHO Regional Office for Europe under the auspices of the Danish Presidency of the Council of the European Union – the Danish Ministry of Health, the National Board of Health, Danish Committee for Health Education, Careum Foundation Switzerland and Expert Patient Programme, England.
http://www.who.int/mediacentre/events/meetings/2012/patient_empowerment/en/index.html

Twitter Watch *[accessed 7 April 2012 - 16:55]*
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.

WHO @WHO
More than 17 500 people viewed WHO's World Health Day video http://goo.gl/2fNqp. Can you top 20 000?
2:26 AM - 7 Apr 12

WHO @WHO
Yeah, today, 7 April, is World Health Day. We also celebrate the World Health Organization's 65th birthday. We #AddHealth2Life!
2:20 AM - 7 Apr 12

UNICEF @UNICEF
Meet the #polio fighters in #Nigeria! http://uni.cf/HiUdQi @unicefafrica
2:55 PM - 6 Apr 12

MorbillivirusRubeola @Rubeola
#MEasles news: Dutch Soccer Fans Advised to Get Measles Jab for Championship http://bloom.bg/Hx9WE2 #pathogenposse
Retweeted by VaccinesToday
12:03 PM - 5 Apr 12

VaccinesToday @VaccinesToday
Salk, Sabin and the Race Against Polio http://blogs.smithsonianmag.com/history/2012/04/salk-sabin-and-the-race-against-polio/ via @SmithsonianMag
6:09 AM - 5 Apr 12

Dr. Tom Frieden @DrFriedenCDC
Did you know? 75% of emerging infectious diseases affecting humans are of animal origin http://www.cdc.gov/ncezid #CDC247 #NPHW2012
Retweeted by CDCgov
12:09 PM - 4 Apr 12

Report/Research/Book Watch

Vaccines: The Week in Review is expanding 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

Report: Australian Multilateral Assessment (AMA)
Australian Government
March 2012

AusAid released the Australian Multilateral Assessment (AMA), an analyses of the effectiveness of 42 multilateral organisations, including United Nations agencies and global and regional development banks funded through the Australian aid program. Around 40 per cent of Australia's aid budget is currently delivered through multilateral organisations. The AMA provides information that the Australian Government will use to guide future decisions on funding and to ensure that it delivers development results for the world's poorest people. The AMA found that for 29 of the 42 organisations assessed, the Australian Government "could have a high degree of confidence that increases in funding represent value for money."
Other key findings were:
- coordination is improving across the multilateral system but more is needed
- the UN 'Delivering as One' approach should become the norm

- joint assessments of multilateral effectiveness can be strengthened
- 15 of the 42 organisations assessed have reform efforts underway
- organisations are investing heavily in their capacity to measure and report on results
- in some cases more focus is needed on 'value for money' and cost effectiveness
effectiveness varies at country and regional levels

This is the first time the Australian aid program has undertaken such a comprehensive assessment of multilateral funding. **The individual reports include analysis of the GAVI Alliance, The Global Fund, UNAIDS, UNICEF, WHO, and the World Bank**, among others: http://www.ausaid.gov.au/publications/pubout.cfm?ID=7373_9810_453_4167_7175&Type=
http://www.ausaid.gov.au/hottopics/topic.cfm?ID=864_3564_3247_5781_2569&From=HT

Book: Adverse Effects of Vaccines: Evidence and Causality
Authors: Kathleen Stratton, Andrew Ford, Erin Rusch, and Ellen Wright Clayton
Editors; Committee to Review Adverse Effects of Vaccines; Institute of Medicine

In 1900, for every 1,000 babies born in the United States, 100 would die before their first birthday, often due to infectious diseases. Today, vaccines exist for many viral and bacterial diseases. The National Childhood Vaccine Injury Act, passed in 1986, was intended to bolster vaccine research and development through the federal coordination of vaccine initiatives and to provide relief to vaccine manufacturers facing financial burdens. The legislation also intended to address concerns about the safety of vaccines by instituting a compensation program, setting up a passive surveillance system for vaccine adverse events, and by providing information to consumers. A key component of the legislation required the U.S. Department of Health and Human Services to collaborate with the Institute of Medicine to assess concerns about the safety of vaccines and potential adverse events, especially in children.

Adverse Effects of Vaccines reviews the epidemiological, clinical, and biological evidence regarding adverse health events associated with specific vaccines covered by the National Vaccine Injury Compensation Program (VICP), including the varicella zoster vaccine, influenza vaccines, the hepatitis B vaccine, and the human papillomavirus vaccine, among others. For each possible adverse event, the report reviews peer-reviewed primary studies, summarizes their findings, and evaluates the epidemiological, clinical, and biological evidence. It finds that while no vaccine is 100 percent safe, very few adverse events are shown to be caused by vaccines. In addition, the evidence shows that vaccines do not cause several conditions. For example, the MMR vaccine is not associated with autism or childhood diabetes. Also, the DTaP vaccine is not associated with diabetes and the influenza vaccine given as a shot does not exacerbate asthma.

Adverse Effects of Vaccines will be of special interest to the National Vaccine Program Office, the VICP, the Centers for Disease Control and Prevention, vaccine safety researchers and manufacturers, parents, caregivers, and health professionals in the private and public sectors.
http://books.nap.edu/catalog.php?record_id=13164&utm_medium=etmail&utm_source=The%20National%20Academies%20Press&utm_campaign=NAP+mail+new+4.03.12+A&utm_content=&utm_term=

Journal Watch

Vaccines: The Week in Review continues its weekly scanning of key 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

Annals of Internal Medicine

April 3, 2012; 156 (7)

http://www.annals.org/content/current

Antivirals for Treatment of Influenza: A Systematic Review and Meta-analysis of Observational Studies

Jonathan Hsu, Nancy Santesso, Reem Mustafa, Jan Brozek, Yao Long Chen, Jessica P. Hopkins, Adrienne Cheung, Gayane Hovhannisyan, Liudmila Ivanova, Signe A. Flottorp, Ingvil Sæterdal, Arthur D. Wong, Jinhui Tian, Timothy M. Uyeki, Elie A. Akl, Pablo Alonso-Coello, Fiona Smaill, and Holger J. Schünemann

Ann Intern Med April 3, 2012 156:512-524; published ahead of print February 27, 2012,

Abstract

Antiviral therapy may reduce complications and mortality associated with influenza, but there have been concerns that randomized trials might not reflect that. This review of 74 observational studies found that oral oseltamivir may reduce mortality in high-risk populations compared with no treatment. Either oral oseltamivir or inhaled zanamivir might reduce hospitalizations and symptom duration. Costs and targeting strategies, however, were not evaluated. The studies focused on drug-sensitive infections, so the results may not be applicable if antiviral-resistant viruses are prevalent. Antivirals might improve outcomes in some situations, but more evidence is needed to guide decision making about when and in whom to use particular agents.

Clinical Guidelines

Guidelines International Network: Toward International Standards for Clinical Practice Guidelines

Amir Qaseem, Frode Forland, Fergus Macbeth, Günter Ollenschläger, Sue Phillips, and Philip van der Wees , for the Board of Trustees of the Guidelines International Network

Ann Intern Med April 3, 2012 156:525-531;

Abstract

Guideline development processes vary substantially, and many guidelines do not meet basic quality criteria. Standards for guideline development can help organizations ensure that recommendations are evidence-based and can help users identify high-quality guidelines. Such organizations as the U.S. Institute of Medicine and the United Kingdom's National Institute for Health and Clinical Excellence have developed recommendations to define trustworthy guidelines within their locales. Many groups

charged with guideline development find the lengthy list of standards developed by such organizations to be aspirational but infeasible to follow in entirety.

Founded in 2002, the Guidelines International Network (G-I-N) is a network of guideline developers that includes 93 organizations and 89 individual members representing 46 countries. The G-I-N board of trustees recognized the importance of guideline development processes that are both rigorous and feasible even for modestly funded groups to implement and initiated an effort toward consensus about minimum standards for high-quality guidelines. In contrast to other existing standards for guideline development at national or local levels, the key components proposed by G-I-N will represent the consensus of an international, multidisciplinary group of active guideline developers.

This article presents G-I-N's proposed set of key components for guideline development. These key components address panel composition, decision-making process, conflicts of interest, guideline objective, development methods, evidence review, basis of recommendations, ratings of evidence and recommendations, guideline review, updating processes, and funding. It is hoped that this article promotes discussion and eventual agreement on a set of international standards for guideline development.

British Medical Bulletin
Volume 101 Issue 1 March 2012
http://bmb.oxfordjournals.org/content/current
[Reviewed earlier]

British Medical Journal
07 April 2012 (Vol 344, Issue 7851)
http://www.bmj.com/content/344/7851
Editorials
Effect of quadrivalent HPV vaccination on HPV related disease in women treated for cervical or vulvar/vaginal disease
BMJ 2012;344:e1544 (Published 27 March 2012)
[Extract: initial text]
Subsequent disease is reduced in women who undergo treatment post-vaccination

The two most carcinogenic types of human papillomavirus (HPV) types 16 and 18, are responsible for around 70% of cervical cancers, 85% of anal cancers, and a smaller proportion of other anogenital and oral cancers.1 Vaccines that target these two sexually transmitted HPV types have consistently shown high efficacy in preventing disease related to those specific HPV types in people who have not yet been exposed.2 3 4 5 6 In the linked study (doi:10.1136/bmj.e1401), which is a post hoc analysis of the main efficacy trials (FUTURE I and FUTURE II) of the quadrivalent HPV vaccine that also targets non-carcinogenic HPV types 6 and 11 (responsible for most genital warts),2 3 Joura and colleagues show a reduction in subsequent HPV related disease in vaccinated women who received treatment for cervical, vulvar, or vaginal disease (including genital warts) during the course of the trial.7 This protection extended to disease associated with not only the four HPV types targeted by the vaccine but also 10 other HPV types that cause cancer.

The study's findings—including reductions in any HPV related disease (irrespective of causal HPV type) of 46.2% after cervical surgery and 35.2% after diagnosis of vulvar or vaginal disease—are welcome, but some important caveats …

Research

Effect of the human papillomavirus (HPV) quadrivalent vaccine in a subgroup of women with cervical and vulvar disease: retrospective pooled analysis of trial data

BMJ 2012;344:e1401 (Published 27 March 2012)

Press release

Open Access

Abstract

Objectives To determine the effect of human papillomavirus (HPV) quadrivalent vaccine on the risk of developing subsequent disease after an excisional procedure for cervical intraepithelial neoplasia or diagnosis of genital warts, vulvar intraepithelial neoplasia, or vaginal intraepithelial neoplasia.

Design Retrospective analysis of data from two international, double blind, placebo controlled, randomised efficacy trials of quadrivalent HPV vaccine (protocol 013 (FUTURE I) and protocol 015 (FUTURE II)).

Setting Primary care centres and university or hospital associated health centres in 24 countries and territories around the world.

Participants Among 17 622 women aged 15–26 years who underwent 1:1 randomisation to vaccine or placebo, 2054 received cervical surgery or were diagnosed with genital warts, vulvar intraepithelial neoplasia, or vaginal intraepithelial neoplasia.

Intervention Three doses of quadrivalent HPV vaccine or placebo at day 1, month 2, and month 6.

Main outcome measures Incidence of HPV related disease from 60 days after treatment or diagnosis, expressed as the number of women with an end point per 100 person years at risk.

Results A total of 587 vaccine and 763 placebo recipients underwent cervical surgery. The incidence of any subsequent HPV related disease was 6.6 and 12.2 in vaccine and placebo recipients respectively (46.2% reduction (95% confidence interval 22.5% to 63.2%) with vaccination). Vaccination was associated with a significant reduction in risk of any subsequent high grade disease of the cervix by 64.9% (20.1% to 86.3%). A total of 229 vaccine recipients and 475 placebo recipients were diagnosed with genital warts, vulvar intraepithelial neoplasia, or vaginal intraepithelial neoplasia, and the incidence of any subsequent HPV related disease was 20.1 and 31.0 in vaccine and placebo recipients respectively (35.2% reduction (13.8% to 51.8%)).

Conclusions Previous vaccination with quadrivalent HPV vaccine among women who had surgical treatment for HPV related disease significantly reduced the incidence of subsequent HPV related disease, including high grade disease.

Trial registrations NCT00092521 and NCT00092534

Feature

Polio eradication: a complex end game

BMJ 2012;344:e2398 (Published 2 April 2012)

Thomas Abraham examines the challenges of meeting the Global Polio Eradication Initiative's target of eliminating polio by the end of this year

Extract

Like the skipper of an ageing rust bucket trying to get to port before the boat goes under, the Global Polio Eradication Initiative is ploughing through choppy seas in its effort to stamp out polio and end a mission that began more than two decades ago. As the vessel lurches uncertainly on, a Greek chorus of commentators has raised questions about everything from the choice of vaccine and the technical strategies the campaign has used to the very wisdom of pursuing the goal of eradication.

These questions are important because they cast light on the long and tortuous route that the polio eradication programme has followed since 1988, when the World Health Assembly passed a resolution declaring it was committed to eradicating polio by 2000. That deadline and a subsequent one have been missed, and a third deadline of the end of 2012 will probably be missed as well. Eradication seems both tantalisingly close and elusively distant. As it becomes harder to maintain the funding and government engagement necessary to keep the campaign going at the frenetic pace it has kept for several years now, there is a danger that the gains made over the past two decades will be lost, and the poliovirus, largely confined to pockets in South Asia and western and central Africa, will again entrench itself across swathes of the globe.

The initiative's key partners—WHO, Unicef, US Centers for Disease Control and Prevention, Rotary International, and the Bill and Melinda Gates Foundation—have responded by increasing pressure on governments in polio affected countries to intensify their immunisation and surveillance efforts. However, the response …

Bulletin of the World Health Organization
Volume 90, Number 4, April 2012, 245-320
http://www.who.int/bulletin/volumes/90/4/en/index.html
Special theme: influenza
[Reviewed last week]

Cost Effectiveness and Resource Allocation
(Accessed 7 April 2012)
http://www.resource-allocation.com/
Research
Cost and cost effectiveness of long-lasting insecticide-treated bed nets - A model-based analysis
Pulkki-Brannstrom AM, Wolff C, Brannstrom N and Skordis-Worrall J Cost Effectiveness *and Resource Allocation 2012, 10:5 (4 April 2012)*
Abstract (provisional)
Background
The World Health Organization recommends that national malaria programmes universally distribute long-lasting insecticide-treated bed nets (LLINs). LLINs provide effective insecticide protection for at least three years while conventional nets must be retreated every 6-12 months. LLINs may also promise longer physical durability (lifespan), but at a higher unit price. No prospective data currently available is sufficient to calculate the comparative cost effectiveness of different net types. We thus constructed a model to explore the cost effectiveness of LLINs, asking how a longer lifespan affects the relative cost effectiveness of nets, and if, when and why LLINs might

be preferred to conventional insecticide-treated nets. An innovation of our model is that we also considered the replenishment need i.e. loss of nets over time.
Methods
We modelled the choice of net over a 10-year period to facilitate the comparison of nets with different lifespan (and/or price) and replenishment need over time. Our base case represents a large-scale programme which achieves high coverage and usage throughout the population by distributing either LLINs or conventional nets through existing health services, and retreats a large proportion of conventional nets regularly at low cost. We identified the determinants of bed net programme cost effectiveness and parameter values for usage rate, delivery and retreatment cost from the literature. One-way sensitivity analysis was conducted to explicitly compare the differential effect of changing parameters such as price, lifespan, usage and replenishment need.
Results
If conventional and long-lasting bed nets have the same physical lifespan (3 years), LLINs are more cost effective unless they are priced at more than USD 1.5 above the price of conventional nets. Because a longer lifespan brings delivery cost savings, each one year increase in lifespan can be accompanied by a USD 1 or more increase in price without the cheaper net (of the same type) becoming more cost effective. Distributing replenishment nets each year in addition to the replacement of all nets every 3-4 years increases the number of under-5 deaths averted by 5-14% at a cost of USD 17-25 per additional person protected per annum or USD 1080-1610 per additional under-5 death averted.
Conclusions
Our results support the World Health Organization recommendation to distribute only LLINs, while giving guidance on the price thresholds above which this recommendation will no longer hold. Programme planners should be willing to pay a premium for nets which have a longer physical lifespan, and if planners are willing to pay USD 1600 per under-5 death averted, investing in replenishment is cost effective.

Emerging Infectious Diseases
Volume 18, Number 4—April 2012
http://www.cdc.gov/ncidod/EID/index.htm
[Reviewed last week]

Foreign Affairs
March/April 2012 Volume 91, Number 2
http://www.foreignaffairs.com/
[Reviewed earlier]

Global Health
Winter 2012
http://www.globalhealthmagazine.com/in_this_issue/
[Reviewed earlier]

Globalization and Health
[Accessed 7 April 2012]
http://www.globalizationandhealth.com/
Research
The politics behind the implementation of the WTO Paragraph 6 Decision in Canada to increase global drug access
Esmail LC and Kohler JC Globalization and Health 2012, 8:7 (3 April 2012)
Open Access
Abstract (provisional)
Background
The reform of pharmaceutical policy can often involve trade-offs between competing social and commercial goals. Canada's Access to Medicines Regime (CAMR), a legislative amendment that permits compulsory licensing for the production and export of medicines to developing countries, aimed to reconcile these goals. Since it was passed in 2004, only two orders of antiretroviral drugs, enough for 21,000 HIV/AIDS patients in Rwanda have been exported. Future use of the regime appears unlikely. This research aimed to examine the politics of CAMR.
Methods
Parliamentary Committee hearing transcripts from CAMR's legislative development (2004) and legislative review (2007) were analysed using a content analysis technique to identify how stakeholders who participated in the debates framed the issues. These findings were subsequently analysed using a framework of framing, institutions and interests to determine how these three dimensions shaped CAMR.
Results
In 2004, policy debates in Canada were dominated by two themes: intellectual property rights and the TRIPS Agreement. The right to medicines as a basic human right and CAMR's potential impact on innovation were hardly discussed. With the Departments of Industry Canada and International Trade as the lead institutions, the goals of protecting intellectual property and ensuring good trade relations with the United States appear to have taken priority over encouraging generic competition to achieve drug affordability. The result was a more limited interpretation of patent flexibilities under the WTO Paragraph 6 Decision. The most striking finding is the minimal discussion over the potential barriers developing country beneficiaries might face when attempting to use compulsory licensing, including their reluctance to use TRIPS flexibilities, their desire to pursue technological development and the constraints inherent in the WTO Paragraph 6 Decision. Instead, these issues were raised in 2007, which can be partly accounted for by experience in implementing the legislation and hence a greater representation of the interests of potential beneficiary country governments.
Conclusions
The Canadian government designed CAMR as a last resort measure. Increased input from the developing country beneficiaries and shifting to institutions where the right to health gets prioritized may lead to policies that better achieves affordable drug access.

Health Affairs
March 2012; Volume 31, Issue 3
http://content.healthaffairs.org/content/current
[Reviewed earlier; No relevant content]

Health and Human Rights
Vol 13, No 2 (2011) December
http://hhrjournal.org/index.php/hhr
[Reviewed earlier]

Health Economics, Policy and Law
Volume 7 - Issue 02 - April 2012
http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue
[Reviewed earlier]

Health Policy and Planning
Volume 27 Issue 2 March 2012
http://heapol.oxfordjournals.org/content/current
[Reviewed earlier]

Human Vaccines & Immunotherapeutics (formerly Human Vaccines)
Volume 8, Issue 4 April 2012
http://www.landesbioscience.com/journals/vaccines/toc/volume/8/issue/3/
Commentaries
Japanese Encephalitis vaccine: Need of the hour in endemic states of India
Ramesh Verma
Japanese encephalitis (JE), a mosquito-borne arboviral infection, is the leading cause of viral encephalitis in Asia. Most worldwide cases of JE are reported annually from the People's Republic of China (PRC), Korea, Japan, Southeast Asia, the Indian subcontinent, and parts of Oceania. JE virus is transmitted by Culex mosquitoes particularly of the Culex vishnui group (C. tritaeniorhynchus). Humans get infected following a bite by an infected mosquito. However, since humans cannot transmit infection, further spread does not take place between humans. Most human cases of JE are asymptomatic. Infection leads to overt encephalitis in only 1 of 20–1,000 cases. Encephalitis usually is severe, resulting in a fatal outcome in 25% of cases and residual neuropsychiatric sequelae in 30% of cases. The World Health Organization (WHO) estimates that there are at least 50,000 serious cases of the disease in Asia each year. Approximately 10,000 of those subjects die, mostly children. JE Outbreaks have been reported from most states and union territories in India through the years. In India, the risk is highest in the monsoon and post-monsoon period. The proposed immunization strategy for India is based on the regional experience and builds off of the three pillars of JE control, i.e., Surveillance for cases of encephalitis, Vector control and Vaccination. The Cell Culture Derived Live SA-14–14–2 Vaccine is based on a stable neuro-attenuated strain of JE virus (SA-14–14–2). It was first licensed for use in 1988 in People's Republic of China, and current usage is over 60 million doses per year. It is also licensed in India, South Korea and Nepal. JE vaccines are available in 5-dose vials as a lyophilized powder that looks like a milky-white crisp cake; this is rehydrated with 2.5 mL diluent. The dose

is 0.5 mL administered subcutaneously for all ages and containing not less than 5.4 log PFU of live JE virus (JEV).

Rotavirus vaccine: A cost effective control measure for India

Arun Kumar, Manish Goel, RamBilas Jain, Pardeep Khanna and Vibha

Globally, rotavirus diarrhea results in 453,000 deaths in children younger than 5 y — 37% of deaths attributable to diarrhea and 5% of all deaths in children younger than 5 y. India alone accounts for 22% (~100,000 deaths) of all deaths attributable to rotavirus infection. Two oral rotavirus vaccines are available: Rotarix, a monovalent P1A[8] G1 vaccine (GlaxoSmithKline), and RotaTeq, a pentavalent bovine–human reassortant vaccine (Merck). Rotarix is administered in a 2-dose schedule with the first and second doses of DTP (DTP1, DTP2). RotaTeq requires a 3-dose schedule with DTP1, DTP2, and DTP3 with an interval of 4–10 weeks between doses. The first dose of either vaccine should be administered to infants aged 6–15 weeks irrespective of the history of previous rotavirus infection, and the maximum age for administering the last dose of either vaccine should be 32 weeks. Although India would require funding from international health organizations / GAVI until new indigenous rotavirus vaccine candidates are developed at a cheaper price, introduction of vaccination into the national immunization program would be a cost-effective step toward control of the rotavirus diarrhea-related morbidity and mortality in India.

International Journal of Infectious Diseases

Volume 16, Issue 4, Pages e225-e310 (April 2012)

http://www.sciencedirect.com/science/journal/12019712

[Reviewed earlier; No relevant content]

JAMA

April 4, 2012, Vol 307, No. 13, pp 1337-1447

http://jama.ama-assn.org/current.dtl

[No relevant content]

Journal of Infectious Diseases

Volume 205 Issue 9 May 1, 2012

http://www.journals.uchicago.edu/toc/jid/current

EDITORIAL COMMENTARIES

Karen C. Bloch and James G. Johnson

Editor's Choice: Varicella Zoster Virus Transmission in the Vaccine Era: Unmasking the Role of Herpes Zoster

J Infect Dis. (2012) 205(9): 1331-1333 doi:10.1093/infdis/jis214

Extract

Varicella (chickenpox) is a highly contagious disease caused by varicella zoster virus (VZV). After infection, the virus remains dormant in sensory dorsal root ganglia. Reactivation of latent VZV is associated with cutaneous disease occurring in ≥1 dermatomes, termed herpes zoster (HZ). Historically, HZ has been considered significantly less infectious than varicella and has not been thought to play an important role in person-to-person transmission. Since the licensure of the varicella vaccine in

1995 and the more recent recommendation that a second dose of vaccine be given to children aged 4–6 years [1], the epidemiology of pediatric varicella infection has shifted dramatically [2].

Efforts to quantify the burden of varicella in the community since vaccine licensure have been hindered by the absence of mandatory case-based reporting in most jurisdictions [3]. The article by Viner et al in this issue of the journal [4] provides important new insights into the epidemiology and transmissibility of VZV in a highly immunized, healthy pediatric population. The authors analyzed data obtained through a combination of active and passive surveillance for both varicella and HZ in Philadelphia schools and day care centers during 7 academic years. Cases were linked to the Philadelphia Department of Public Health immunization registry for ascertainment of vaccine status. Through this comprehensive surveillance system, 2296 cases of VZV-associated infection were identified, with 28% categorized as secondary varicella.

Much of what is known about VZV transmission dynamics in the community comes from outbreak investigations at elementary schools or day care centers. In these settings, varicella attack rates among children who had previously received a single dose of varicella vaccine ranged from 12%–42% [5–7]. A recent report found that …

VIRUSES

Kendra Viner, Dana Perella, Adriana Lopez, Stephanie Bialek, Claire Newbern, Rodrerica Pierre, Niya Spells, and Barbara Watson

Editor's Choice: Transmission of Varicella Zoster Virus From Individuals With Herpes Zoster or Varicella in School and Day Care Settings

J Infect Dis. (2012) 205(9): 1336-1341 doi:10.1093/infdis/jis207

Abstract

(See the editorial commentary by Bloch and Johnson, on pages 1331–3.)

Background. Because the varicella incidence has declined following varicella vaccine licensure, herpes zoster (HZ) cases may play a larger role in varicella zoster virus (VZV) transmission. We investigated how HZ and varicella cases contribute to the varicella incidence in schools and day care centers.

Methods. Surveillance data collected in Philadelphia during September 2003–June 2010 were analyzed. A varicella case was considered to be sporadic if it was reported from a school or day care facility >6 weeks after or ≥10 days before other reports of VZV transmission. A varicella case was considered to be secondary if it occurred 10–21 days after report of a case of HZ or sporadic varicella. Analysis compared VZV transmission from individuals with HZ or sporadic varicella, stratified by varicella vaccination status and disease severity.

Results. Of 290 HZ cases reported, 27 (9%) resulted in 84 secondary varicella cases. Of 1358 sporadic varicella cases reported, 205 (15%) resulted in 564 secondary varicella cases. Approximately half of the HZ and sporadic varicella cases resulted in single secondary cases. The proportion of individuals who had secondary cases with mild disease was similar for those exposed to HZ and those exposed to varicella (70% and 72%, respectively). VZV transmission was highest from unvaccinated individuals with sporadic varicella ($P < .01$).

Conclusions. VZV transmission from individuals with HZ contributes to varicella morbidity. More research is needed to understand risk factors and guide recommendations for preventing VZV transmission from individuals with HZ.

The Lancet
Apr 07, 2012 Volume 379 Number 9823 p1273 - 1364
http://www.thelancet.com/journals/lancet/issue/current
[No relevant content]

The Lancet Infectious Disease
Apr 2012 Volume 12 Number 4 p255 - 354
http://www.thelancet.com/journals/laninf/issue/current
[Reviewed earlier]

Medical Decision Making (MDM)
March–April 2012; 32 (2)
http://mdm.sagepub.com/content/current
[Reviewed earlier]

Nature
Volume 484 Number 7392 pp5-136 5 April 2012
http://www.nature.com/nature/current_issue.html
[No relevant content]

Nature Medicine
April 2012, Volume 18 No 4 pp469-630
http://www.nature.com/nm/journal/v18/n4/index.html
Editorial
A marriage of convenience
doi:10.1038/nm.2732 - pp469 - 470
Translational research that takes place in academic settings is increasingly being funded by private-public partnerships. As these partnerships become more prevalent, scientists need to strike a balance between the benefits from this welcome funding source and the protection of their academic freedom.

Nature Reviews Immunology
April 2012 Vol 12 No 4
http://www.nature.com/nri/journal/v12/n4/index.html
[Reviewed earlier; No relevant content]

New England Journal of Medicine
April 5, 2012 Vol. 366 No. 14
http://content.nejm.org/current.shtml
Editorials
The Road to an Effective HIV Vaccine
L.R. Baden and R. Dolin

Extract
During the 30 years since the discovery of HIV as the cause of AIDS, efforts to develop a vaccine have faced immense challenges. First, naturally acquired immunity to protect against infection that results in disease, found with virtually all other known infectious agents, may not exist for HIV. Second, the best available experimental animal model for AIDS, the nonhuman primate, provides potentially important information but also has substantial limitations. Therefore, advancement in the field has put an extraordinarily high premium on data from human studies. Yet only three candidate HIV vaccines have completed clinical efficacy trials. The first of these . . .

OMICS: A Journal of Integrative Biology
April 2012, 16(4)
http://online.liebertpub.com/toc/omi/16/3
[No relevant content]

The Pediatric Infectious Disease Journal
April 2012 - Volume 31 - Issue 4 pp: 325-359,e59-e72
http://journals.lww.com/pidj/pages/currenttoc.aspx
ESPID Reports and Reviews
Challenges in Estimating the Impact of Pneumococcal Conjugate Vaccines Through Surveillance
Vergison, Anne; Hanquet, Germaine
Pediatric Infectious Disease Journal. 31(4):400-403, April 2012.
doi: 10.1097/INF.0b013e31824bc1f0
No Abstract

Pediatrics
April 2012, VOLUME 129 / ISSUE 4
http://pediatrics.aappublications.org/current.shtml
Articles
Impact of Rotavirus Vaccine on Diarrhea-Associated Disease Burden Among American Indian and Alaska Native Children
Rishi Desai, Dana Haberling, Robert C. Holman, Rosalyn J. Singleton, James E. Cheek, Amy V. Groom, Claudia A. Steiner, Umesh D. Parashar, and Douglas H. Esposito
Pediatrics 2012; 129:e907-e913
Abstract
OBJECTIVE: Beginning in 2006, the Indian Health Service (IHS) began rotavirus vaccination of American Indian and Alaska Native (AI/AN) infants. To assess vaccine impact, we examined trends in IHS diarrhea-associated hospitalization and outpatient visits among AI/AN children in the pre- and postrotavirus vaccine era.
METHODS: Diarrhea-associated hospitalizations and outpatient visits among AI/AN children <5 years of age during 2001 through 2010 were examined by gender, age group, and region for prevaccine years 2001–2006 and postvaccine years 2008, 2009, and 2010. To account for secular declining trends observed in prevaccine years,

expected diarrhea-associated hospitalization and outpatient rates for postvaccine years were generated by using Poisson regression analysis of the 2001–2006 annual rates.
RESULTS: Coverage with at least 1 dose of rotavirus vaccine among AI/AN infants aged 3 to 5 months in the first half of 2008, 2009, and 2010 ranged from 48% to 80% in various IHS regions. The prevaccine average annual diarrhea-associated hospitalization rates among AI/AN children <5 years of age was 63 per 10 000 persons (range: 57–75 per 10 000), and declined to 39, 31, and 27 per 10 000 in 2008, 2009, and 2010, respectively. Observed 2008, 2009, and 2010 rates were 24%, 37%, and 44% lower than expected rates, respectively. Decreases in diarrhea-associated hospitalizations and outpatient visits were observed in all IHS regions.
CONCLUSIONS: Diarrhea-associated hospitalization and outpatient visit rates among AI/AN children have declined after implementation of rotavirus vaccination in AI/AN populations.

The National Perinatal Hepatitis B Prevention Program, 1994–2008

Emily A. Smith, Lisa Jacques-Carroll, Tanja Y. Walker, Barry Sirotkin, and Trudy V. Murphy

Pediatrics 2012; 129:609-616

Abstract

OBJECTIVE: To determine the trends and outcomes of the national Perinatal Hepatitis B Prevention Program (PHBPP) for infants born from 1994 to 2008.
METHODS: PHBPPs in state and city public health jurisdictions annually submitted program outcome reports to the Centers for Disease Control and Prevention. The annual number of births to hepatitis B surface antigen (HBsAg)-positive women was estimated and used to evaluate the percentage of PHBPP-identified HBsAg-positive pregnant women. PHBPP reports were used to assess program objectives achieved, and infant outcomes by 12 to 24 months of age.
RESULTS: From 1994 to 2008, the estimated number of annual births to HBsAg-positive women increased from 19 208 to 25 600 ($P < .001$). The annual number of PHBPP-managed infants increased ($P < .001$), comprising 40.8% to 50.5% of the estimated number. On average, 94.4% of PHBPP-managed infants received hepatitis B immunoglobulin and hepatitis B vaccine within 1 day of birth. The percentage of infants who completed the vaccine series by age 12 months decreased from 86.0% to 77.7% ($P = .004$), but the percentage who received postvaccination testing increased from 25.1% to 56.0% ($P < .001$). Incidence of chronic hepatitis B virus infection among tested infants decreased from 2.1% in 1999 to 0.8% in 2008 ($P = .001$).
CONCLUSIONS: The PHBPP achieved substantial progress in preventing perinatal hepatitis B virus infection in the United States, despite an increasing number of at-risk infants. Significant gaps remain in identifying HBsAg-positive pregnant women, and completing management and assessment of their infants to ensure prevention of perinatal hepatitis B virus transmission.

Accuracy and Usefulness of the HEDIS Childhood Immunization Measures

David G. Bundy, Barry S. Solomon, Julia M. Kim, and Marlene R. Miller

Pediatrics 2012; 129:648-656

Abstract

OBJECTIVE: With the use of Centers for Disease Control and Prevention (CDC) immunization recommendations as the gold standard, our objectives were to measure the accuracy ("is this child up-to-date on immunizations?") and usefulness ("is this child

due for catch-up immunizations?") of the Healthcare Effectiveness Data and Information Set (HEDIS) childhood immunization measures.
METHODS: For children aged 24 to 35 months from the 2009 National Immunization Survey, we assessed the accuracy and usefulness of the HEDIS childhood immunization measures for 6 individual immunizations and a composite.
RESULTS: A total of 12 096 children met all inclusion criteria and composed the study sample. The HEDIS measures had >90% accuracy when compared with the CDC gold standard for each of the 6 immunizations (range, 94.3%–99.7%) and the composite (93.8%). The HEDIS measure was least accurate for hepatitis B and pneumococcal conjugate immunizations. The proportion of children for which the HEDIS measure yielded a nonuseful result (ie, an incorrect answer to the question, "is this child due for catch-up immunization?") ranged from 0.33% (varicella) to 5.96% (pneumococcal conjugate). The most important predictor of HEDIS measure accuracy and usefulness was the CDC-recommended number of immunizations due at age 2 years; children with zero or all immunizations due were the most likely to be correctly classified.
CONCLUSIONS: HEDIS childhood immunization measures are, on the whole, accurate and useful. Certain immunizations (eg, hepatitis B, pneumococcal conjugate) and children (eg, those with a single overdue immunization), however, are more prone to HEDIS misclassification.

Pharmacoeconomics
April 1, 2012 - Volume 30 - Issue 4 pp: 257-353
http://adisonline.com/pharmacoeconomics/pages/currenttoc.aspx
[Reviewed earlier]

PLoS One
[Accessed 7 April 2012]
http://www.plosone.org/article/browse.action;jsessionid=577FD8B9E1F322DAA533C413369CD6F3.ambra01?field=date
[No new relevant content]

PLoS Medicine
(Accessed 7 April 2012)
http://www.plosmedicine.org/article/browse.action?field=date
The Role of Public Health Institutions in Global Health System Strengthening Efforts: The US CDC's Perspective
Peter Bloland, Patricia Simone, Brent Burkholder, Laurence Slutsker, Kevin M. De Cock
Policy Forum, published 03 Apr 2012
doi:10.1371/journal.pmed.1001199
Summary Points
- Health system strengthening has become a recognized priority for achieving major public health goals such as those identified by disease-specific global health initiatives for HIV/AIDs, tuberculosis, malaria, childhood immunizations, and others.
- The contribution that strengthening of public health systems makes to strengthening health systems in general has been inadequately described.

- To guide its support of public health in low- and middle-income countries around the world, the US Centers for Disease Control and Prevention (CDC) proposes to prioritize its investments on strengthening six key public health functions that would contribute the most towards health systems strengthening efforts as a whole and have the greatest impact on improving the public's health.
- In this Policy Forum article, we set out the US CDC's perspective on the role of public health institutions in global health system strengthening efforts.

PLoS Neglected Tropical Diseases
March 2012
http://www.plosntds.org/article/browseIssue.action
[Reviewed earlier]

PNAS - Proceedings of the National Academy of Sciences of the United States of America
(Accessed 7 April 2012)
http://www.pnas.org/content/early/recent
Structural diversity in social contagion
Johan Ugandera, Lars Backstromb, Cameron Marlowb, and Jon Kleinbergc,1
+ Author Affiliations
aCenter for Applied Mathematics and
cDepartment of Computer Science, Cornell University, Ithaca, NY 14853; and
bFacebook, Menlo Park, CA 94025
Edited by Ronald L. Graham, University of California at San Diego, La Jolla, CA, and approved February 21, 2012 (received for review October 6, 2011)
Abstract
The concept of contagion has steadily expanded from its original grounding in epidemic disease to describe a vast array of processes that spread across networks, notably social phenomena such as fads, political opinions, the adoption of new technologies, and financial decisions. Traditional models of social contagion have been based on physical analogies with biological contagion, in which the probability that an individual is affected by the contagion grows monotonically with the size of his or her "contact neighborhood"—the number of affected individuals with whom he or she is in contact. Whereas this contact neighborhood hypothesis has formed the underpinning of essentially all current models, it has been challenging to evaluate it due to the difficulty in obtaining detailed data on individual network neighborhoods during the course of a large-scale contagion process. Here we study this question by analyzing the growth of Facebook, a rare example of a social process with genuinely global adoption. We find that the probability of contagion is tightly controlled by the number of connected components in an individual's contact neighborhood, rather than by the actual size of the neighborhood. Surprisingly, once this "structural diversity" is controlled for, the size of the contact neighborhood is in fact generally a negative predictor of contagion. More broadly, our analysis shows how data at the size and resolution of the Facebook network make possible the identification of subtle structural signals that go undetected at smaller scales yet hold pivotal predictive roles for the outcomes of social processes.

Public Health Ethics
Volume 5 Issue 1 April 2012
http://phe.oxfordjournals.org/content/current
[Reviewed earlier]

Science
6 April 2012 vol 336, issue 6077, pages 1-116
http://www.sciencemag.org/current.dtl
[No relevant content]

Science Translational Medicine
4 April 2012 vol 4, issue 128
http://stm.sciencemag.org/content/current
Commentary
Policy
ADITEC: Joining Forces for Next-Generation Vaccines
Rino Rappuoli and Donata Medaglini
4 April 2012: 128cm4
Abstract
Scientists sit poised at a singular moment in the history of vaccine research. Genomics and systems biology have fueled advances in our understanding of human immunology. Together with adjuvant development and structure-based design of immunogens, these next-generation technologies are transforming the field of vaccinology and shaping the future of medicine. However, the sophisticated science behind the development of modern vaccines and the resulting knotty ethical issues have become so complex that scientists and policy-makers need a new model for vaccine research. The European Commission–sponsored Advanced Immunization Technologies project—ADITEC—brings together some of the leading laboratories in the field to tackle the problems that no lab can tackle in isolation.

Tropical Medicine & International Health
April 2012 Volume 17, Issue 4 Pages 405–530
http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-3156/currentissue
[Reviewed last week]

Vaccine
http://www.sciencedirect.com/science/journal/0264410X
Volume 30, Issue 21 pp. 3147-3248 (2 May 2012)
Brief Report
Hepatitis B vaccination of susceptible elderly residents of long term care facilities during a hepatitis B outbreak

Pages 3147-3150
Roxanne E. Williams, Arlene C. Sena, Anne C. Moorman, Zack S. Moore, Umid M. Sharapov, Jan Drobenuic, Dale J. Hu, Hattie W. Wood, Jian Xing, Philip R. Spradling
Abstract
Protection of older persons, particularly those with diabetes, against hepatitis B virus (HBV) infection is of growing concern because of increased reports of outbreaks among long-term care facility residents receiving assisted blood glucose monitoring. We evaluated hepatitis B vaccine immunogenicity among residents immunized in response to two such outbreaks in skilled nursing facilities during June 2009–July 2010. One hundred forty-eight (71%) of 209 residents were found to be susceptible to HBV infection. Of 105 patients who began a vaccination series with Twinrix® (0-, 1-, 6-month dosing), 86 (82%) completed the series and postvaccination testing. Of these, most were elderly (median age 79.5 years; range 45–101), female (56%), and African-American (51%). Twenty-nine (34%) vaccinated residents had post-vaccination hepatitis B surface antibody levels ≥10 mIU/ml. There were no significant differences in vaccine response by age, gender, race, diabetes status, body mass index, or current smoking status. Our findings indicate that a low proportion of skilled nursing facility residents achieved a seroprotective response after hepatitis B vaccination.

Short Communication

What lies behind the low rates of vaccinations among nurses who treat infants?

Pages 3151-3154
O. Baron-Epel, S. Bord, B. Madjar, S. Habib, S. Rishpon
Abstract
Background
In most countries rates of immunizations of health care workers with recommended vaccines are not satisfactory.
Objectives
To identify reasons behind the low rates of compliance of Israeli nurses in Mother and Child Healthcare Centers (MCHC) with an official request for pertussis vaccination.
Methods
Three focus groups were conducted. Qualitative analysis identified themes that could explain the nurses' non-compliance.
Results
Trust in health authorities was low, mainly following the A/H1N1 purported influenza pandemic. In addition, nurses did not see the importance of being role models for the public and demanded the autonomy to decide whether to receive vaccinations. The nurses differentiated between their role as nurses and their personal life, expressed fear of new vaccines and exhibited low levels of risk perception. Misconceptions regarding vaccinations were expressed by the nurses.
Conclusions
Antivaccinationist ideas were expressed by MCHC nurses and these attitudes may have led to non-compliance with vaccination guidelines.

Regular Papers

Does HPV vaccination affect women's attitudes to cervical cancer screening and safe sexual behaviour?

Original Research Article
Pages 3196-3201
Tanya Mather, Kirsten McCaffery, Ilona Juraskova
Abstract
The Human Papillomavirus (HPV) vaccine has the potential to greatly reduce the incidence of cervical cancer by protecting against HPV infections responsible for 70% of cervical cancer diagnoses. However, preliminary research has indicated that women vaccinated against HPV may be less likely to undergo cervical cancer screening and engage in safe sexual behaviour. The aim of the current study was to investigate whether vaccinated and unvaccinated women differ in their (i) knowledge of cervical screening guidelines, (ii) perceived vulnerability to cervical cancer, (iii) cervical screening intentions and uptake, and (iv) attitudes to and engagement in safe sexual behaviour. Participants were 193 female university students (119 vaccine recipients and 74 vaccine non-recipients) who completed online self-report questionnaires. Of all the assessed outcomes, attitudes to safe sexual behaviour were the only significant findings related to vaccination status ($p < .001$), such that vaccinated women held more positive attitudes to practicing safe sexual behaviour. Less than 5% of participants correctly identified screening guidelines. These findings do not support previous research concluding vaccination could have a detrimental impact on screening and sexual behaviour. Importantly, results highlight poor awareness of screening guidelines, poor levels of consistent condom use (50%) amongst those sexually active, and low uptake of screening (42%) amongst those eligible to be screened. Further research needs to specifically address young women's gaps in knowledge by developing initiatives promoting cervical screening.

Vaccine
Volume 30, Issue 20 pp. 3047-3146 (26 April 2012)
http://www.sciencedirect.com/science/journal/0264410X/30/20
Regular Papers
Factors associated with human papillomavirus vaccine-series initiation and healthcare provider recommendation in US adolescent females: 2007 National Survey of Children's Health
Original Research Article
Pages 3112-3118
May Lau, Hua Lin, Glenn Flores
Abstract
Objective
To identify factors associated with initiation of the human papillomavirus vaccine series and parental report of a healthcare provider recommendation of the human papillomavirus vaccine in adolescent females.
Design
Cross-sectional analysis of 2007 National Survey of Children's Health.
Participants
Parents of 12–17 year-old US adolescent females.
Main outcome measures
Associations of sociodemographic and healthcare factors with initiation of the human papillomavirus vaccine series and parental report of a healthcare provider recommendation of the human papillomavirus vaccine.

Results
Data were analyzed for 16,139 adolescent females. Almost 20% of adolescent females initiated the HPV vaccine series. Significantly higher proportions of adolescent females who initiated the human papillomavirus vaccine series vs. those who did not initiate the human papillomavirus vaccine series had a parental report of their healthcare provider recommending the human papillomavirus vaccine (84% vs. 20%). In multivariable analyses, adolescent females who were American Indian/Alaska Native, were multiracial, received the meningococcal vaccine, received the tetanus/tetanus–diphtheria/tetanus–diphtheria–acellular pertussis vaccine, or were poor had higher adjusted odds of initiating the human papillomavirus vaccine series; parental report of a healthcare provider recommendation of the human papillomavirus vaccine was associated with about 18 times the adjusted odds of initiating the human papillomavirus vaccine series. In separate multivariable analyses, adolescent females who were African-American and uninsured had lower adjusted odds of a parental report of a healthcare provider recommendation of the human papillomavirus vaccine.
Conclusion
Parental report of a healthcare provider recommendation is significantly associated with human papillomavirus vaccine-series initiation. African-American race/ethnicity and uninsurance were associated with lower odds of a parental report of a healthcare provider recommendation of the human papillomavirus vaccine. Routine healthcare provider recommendation of human papillomavirus vaccination might improve adolescent females' human papillomavirus vaccination rates.

Vaccine
Volume 30, Issue 19 pp. 2915-3046 (19 April 2012)
http://www.sciencedirect.com/science/journal/0264410X/30/19
Regular Papers
Pediatric influenza immunization in an integrated safety net health care system
Original Research Article
Pages 2951-2955
Mary E. O'Connor, Rachel M. Everhart, Michele Berg, Steven G. Federico, Simon J. Hambidge
Abstract
Objective
In 2008 the Advisory Committee on Immunization Practices (ACIP) of the Centers for Disease Control and Prevention (CDC) recommended that all children aged 6 months to 18 years receive annual influenza vaccine. Full pediatric influenza administration has proven difficult. We compared rates of full influenza immunization between a safety net health care system and CDC sentinel sites and evaluated sociodemographic factors associated with full influenza immunization.
Patients and methods
We matched influenza immunization data for 2008–2009 from a health care system immunization registry with patient demographic/billing data and compared rates to CDC sentinel sites using bivariate analysis. We evaluated immunization rates by patient characteristics using multivariate analysis.
Results

Full influenza immunization was achieved in 32% of Denver Health (DH) children compared to 12% at the CDC sites ($p < 0.001$). The largest differences occurred in children aged 11–12 and 13–18 years, 47% DH vs 12% CDC sites, and 33% DH vs 9% CDC sites respectively, ($p < 0.001$ for both). In multivariate analysis, DH children were more likely to be immunized if they were Asian, Odds Ratio (OR) 1.59 95%CI (CI) 1.32–1.91, or Hispanic OR 1.18 CI 1.07–1.30, compared to white, spoke Spanish OR 1.19 CI 1.13–1.26, or other non-English language OR 2.05 CI 1.80–2.34, and had a greater number of visits for well care OR 2.86 CI 2.74–2.98 and sick/follow-up care OR 1.59 CI 1.56–1.62, during the influenza season. They were less likely to be immunized if they had commercial insurance OR 0.68 CI 0.62–0.75 or were uninsured OR 0.77 CI 0.72–0.80, compared to Medicaid/SCHIP.

Conclusions

Using immunization registry prompts, standing orders, multiple sites and visit types for immunization, an integrated safety net health care system had higher full influenza immunization rates than the CDC sentinel sites singularly or collectively. These procedures can be applied elsewhere to improve influenza immunization rates.

Mumps vaccine effectiveness in primary schools and households, the Netherlands, 2008

Original Research Article

Pages 2999-3002

Bianca E.P. Snijders, Alies van Lier, Jan van de Kassteele, Ewout B. Fanoy, Wilhelmina L.M. Ruijs, Folkwin Hulshof, Annet Blauwhof, Maarten Schipper, Rob van Binnendijk, Hein J. Boot, Hester E. de Melker, Susan J.M. Hahné

Abstract

To estimate the mumps vaccine effectiveness (VE) during a large genotype D mumps outbreak, we conducted a cross-sectional study in eight primary schools and associated households in the Netherlands. Questionnaires were used to collect information on the occurrence of mumps. Multivariate analyses were used to estimate VE. Among schoolchildren we estimated the VE against mumps. Among household contacts where the schoolchild was the index case we estimated the VE against mumps and against mumps infectiousness. In total 1175 children and 2281 household contacts participated in the study. The mumps attack rate among schoolchildren was 17%. The mumps VE in schoolchildren was 92% [95% confidence interval (CI) 83–96%] and 93% [85–97%] for one and two doses of the measles, mumps, rubella (MMR) vaccine, respectively. The adjusted mumps VE among household contacts was 67% [65–95%] and 11% [−4 to 88%] against mumps and mumps infectiousness, respectively. Our study indicates that the mumps component of the MMR vaccine offered adequate protection against mumps among schoolchildren. The relatively low VE among household contacts is of concern.

Evaluating associations between sources of information, knowledge of the human papillomavirus, and human papillomavirus vaccine uptake for adult women in California

Original Research Article

Pages 3003-3008

Cristina M. Almeida, Jasmin A. Tiro, Michael A. Rodriguez, Allison L. Diamant

Abstract

Objective

Vaccines have the potential to reduce morbidity from HPV infections if age-eligible patients receive and parents know about them. Content analyses have demonstrated

significant range in the quality of HPV information obtained from different sources. The purpose of this study was to determine the pattern of associations between information source and level of knowledge about HPV and vaccine receipt/intention.
Methods
We analyzed the 2007 California Health Interview Survey, a population-based, statewide random digit dial survey, using data on adult females ages 18–65 who had heard about HPV (n = 16,806). One-way ANOVA and multivariate logistic regression assessed the associations between source of information (advertisement only, advertisement plus other sources, and non-advertisement sources) and knowledge of HPV (3 or greater correct on a 4-point scale). Multivariate logistic regressions were conducted on a subsample of vaccine-eligible women and parents to assess vaccine uptake or intention.
Results
Less than half of respondents (43%) correctly answered 3 or more of the HPV knowledge questions. Mean knowledge scores were significantly different when comparing women who reported advertisement only, non-advertisement, and advertisement plus other sources of information ($p < 0.001$). In multivariate analysis, women who reported non-advertisement sources (OR 2.44, 95% CI 2.07–2.87) and advertisements plus other sources (OR 3.03, 95% CI 2.57–3.58) were more likely to have knowledge scores above the 75% level than women who relied on advertisements alone. In the subsample of vaccine-eligible women and parents, those who reported advertisements plus other sources (OR 1.85, 95% CI 1.30–2.62) were more likely to have received or intend to receive the vaccine than those who reported advertisements as their sole information source.
Conclusion
Advertisements are the most commonly reported source of information about HPV, and while they inform women of the existence of the vaccine, they do not contribute to accurate knowledge about the virus, nor do they appear to influence vaccine uptake. Other sources may play a larger role in refining knowledge and/or improving uptake.

Value in Health
Vol 15 | No. 2 | March-April 2012 | Pages 215-400
http://www.valueinhealthjournal.com/current
[Reviewed earlier]

World Journal of Vaccines
Volume 02, Number 01 (February 2012)
http://www.scirp.org/journal/Home.aspx?IssueID=1399#17225
[Reviewed earlier]

* * * *

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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 GSK and Pfizer (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, IGOs/NGOs, research, industry and academia.

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