Vaccines: The Week in Review
14 November 2011
Center for Vaccine Ethics & Policy (CVEP)
http://centerforvaccineethicsandpolicy.wordpress.com/
A program of
- Center for Bioethics, University of Pennsylvania
http://www.bioethics.upenn.edu/
- The Wistar Institute Vaccine Center
http://www.wistar.org/vaccinecenter/default.html
- Children's Hospital of Philadelphia, Vaccine Education Center
http://www.chop.edu/consumer/jsp/microsite/microsite.jsp

This weekly summary targets news 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 now also posted in pdf form and as a set of blog posts at http://centerforvaccineethicsandpolicy.wordpress.com/. This blog allows full-texting searching of some 2,000 content items.

Comments and suggestions should be directed to
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Editor's Note
With this edition, we add ***Health Policy and Planning*** to our *Journal Watch* section below. *Health Policy and Planning*, published in association with the The London School of Hygiene and Tropical Medicine, "blends such individual specialties as epidemiology, health and development economics, management and social policy, planning and social anthropology into a lively academic mix that constantly stimulates and keeps readers abreast of global health, focusing on issues of particular relevance to low and middle income countries."

If you have a suggestion about a journal we might add to strengthen our weekly coverage, please contact the editor at:
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World Pneumonia Day
12 November 2011
WHO noted that "World Pneumonia Day seeks to raise awareness of pneumonia as a public health issue and help prevent the millions of avoidable child deaths from pneumonia that occur each year. It is organized by the Global Coalition against Child Pneumonia (a network of international, government, non-governmental and community-

based organizations, research and academic institutions, foundations, and individuals) to bring much-needed attention to pneumonia among donors, policy makers, health care professionals, and the general public.
Related links
- More information on World Pneumonia Day
- More information on pneumonia
- Fact sheet on pneumonia
http://www.who.int/mediacentre/events/annual/world_pneumonia_day/en/

The Global Coalition Against Child Pneumonia was established in April 2009 to raise awareness about the toll of pneumonia, the world's leading killer of children, and to advocate for global action to protect against, effectively treat and help prevent this deadly disease. The Coalition is a global network of more than 125 NGOs, community-based organizations, academic institutions, government agencies and foundations who together provide leadership for World Pneumonia Day, marked each year on November 12 to encourage efforts among donors, policy makers, healthcare professionals and the general public to combat the disease.
http://worldpneumoniaday.org/learn/about-the-coalition/

NIH statement on World Pneumonia Day
Alan E. Guttmacher, M.D., Director, Eunice Kennedy Shriver National Institute of Child Health and Human Development

November 12 is World Pneumonia Day, a day set aside to raise public awareness of the millions of childhood deaths that pneumonia causes each year and to encourage efforts to prevent and treat this deadly disease. Pneumonia is an infection occurring in one or both lungs, caused by any number of infectious organisms, such as bacteria, viruses, and fungi. According to the World Health Organization, pneumonia is the leading cause of death in children under the age of 5. Pneumonia kills almost 1.6 million children each year, more than AIDS, tuberculosis, and malaria combined. Childhood pneumonia remains a serious health risk but is less widespread in the United States and other developed countries.

On this World Pneumonia Day, it is important to keep in mind that a major impediment stands in the way of global efforts to prevent childhood pneumonia. In many countries, inefficient, smoky, indoor stoves fueled by wood, charcoal, dung, or coal, are used widely for cooking and heating. The smoke from these indoor fires is a major contributor to childhood pneumonia in much of the world, undermining the vaccination drives and other public health efforts seeking to prevent and treat the disease.

Fortunately, international efforts to replace these inefficient stoves with inexpensive, clean alternatives are now under way. The United Nations Foundation has launched the Global Alliance for Clean Cookstoves, which seeks to create a global market and manufacturing capability for clean and efficient cookstoves and fuels in the developing world…
http://www.nih.gov/news/health/nov2011/nichd-10.htm

IVI announced the WHO prequalification of Shanchol™, described as an innovative cholera vaccine developed through IVI and produced by Shantha Biotechnics – part of the Sanofi group - in India where the vaccine has been licensed and sold since 2009. IVI said Shanchol™ is "ready to use in a single-dose vial and is administered orally, which facilitates its implementation in large-scale immunization programs." Dr. Christian Loucq, IVI's new Director General, said, "I am immensely pleased by the news that Shanchol™, a vaccine enabled by IVI, received WHO prequalification. This stamp of approval shows that public-private partnerships - such as those among IVI, Vabiotech, Shantha and Sanofi – are essential for successful vaccine development, particularly in developing vaccines against neglected diseases of the poor like cholera."

IVI noted that WHO prequalification of Shanchol™ is "the latest achievement in IVI's mission to develop and introduce innovative, safe, and effective vaccines to protect vulnerable populations in poor countries against deadly diseases including cholera." IVI said that "with financial support from the Bill & Melinda Gates Foundation and the governments of Korea and Sweden, and technical support from scientists in Sweden, as well as at Vietnam's National Institute of Hygiene and Epidemiology and production experts at Shantha, IVI enabled technology transfer from Vabiotech, a vaccine manufacturer in Vietnam, to Shantha for the production of cholera vaccine. IVI also established and transferred tests to ensure the vaccine was of the highest quality and enabled improvements in production to keep manufacturing costs as low as possible."

The prequalification by WHO sets the stage for the next planned phase of the vaccine: "introducing Shanchol™ in settings where cholera remains a major public health problem, such as countries in Africa and South Asia where the disease is endemic. Dr. Loucq continued, "In light of the devastating cholera outbreaks in Haiti, Pakistan, Nepal and in several countries of Africa, there is a clear need for a solution to halt the countless deaths and suffering."
www.ivi.int

The **Weekly Epidemiological Record (WER) for 11 November 2011**, vol. 86, 46 (pp 509–520) includes: Global routine vaccination coverage, 2010; Progress towards eradicating poliomyelitis: Afghanistan and Pakistan, January 2010– September 2011
http://www.who.int/entity/wer/2011/wer8646.pdf

The **MMWR for November 11, 2011** / Vol. 60 / No. 44 includes:
- Global Routine Vaccination Coverage, 2010
- Progress Toward Poliomyelitis Eradication --- Afghanistan and Pakistan, January 2010--September 2011
- Update on Herpes Zoster Vaccine: Licensure for Persons Aged 50 Through 59 Years

Twitter Watch

A selection of items of interest from a variety of twitter feeds associated with immunization, vaccines and global public health. This capture is highly selective and by no means intended to be exhaustive.

GAVIAlliance GAVI Alliance
New blog by Kate Dodson about her experience at an Ethiopia Pneumo Vaccine rollout- ht.ly/7rTpI @shotatlife

gatesfoundation Gates Foundation
#Vaccines save lives. No child should die of a disease we can prevent: gates.ly/spxvyv #WPD2011

WHOnews WHO
World Pneumonia Day: Pneumonia kills an estimated 1.4 million kids under five years old every year bit.ly/vBApPN #WPD2011
12 Nov

AIDSvaccine IAVI
The #HIV #vaccine funding landscape in 2010 & how it compares to past yrs: bit.ly/sNBGuW #globalhealth #research #socialgood
11 Nov

sabinvaccine Sabin Vaccine Inst.
Guest blog post by @sabinvaccine's Sofia Redford: This World Pneumonia Day, learn the facts & spread the word bit.ly/rpTm9e #WPD2011
11 Nov

globalfundnews The Global Fund
Global Fund Board Communities Delegation Call for Membership 2012-2014 shar.es/bMvwI @AmyCSays
11 Nov

GAVISeth Seth Berkley
Delighted to be back in India asking how GAVI partners can be most helpful to accelerate introduction and expansion of life saving vaccines
11 Nov

sabinvaccine Sabin Vaccine Inst.
#Dengue cases in the Philippines nears 100,000 bit.ly/tiGLu8 Support efforts to produce and deliver a dengue #vaccine! @preventdengue
9 Nov

Journal Watch

[Editor's Note]

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

November 1, 2011; 155 (9)

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

[Reviewed earlier; No relevant content]

British Medical Bulletin

Volume 99 Issue 1 September 2011

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

[Reviewed earlier; No relevant content]

British Medical Journal

12 November 2011 (Vol 343, Issue 7831)

http://www.bmj.com/content/current

Letters

Doctors choosing not to be vaccinated is choosing to do harm

BMJ BMJ 2011;343:bmj.d7198 (Published 8 November 2011)

Amy J Behrman, Arthur L Caplan, Susan E Coffin, Neil Fishman

Doctors accepting flu vaccination is the sensible and responsible choice

BMJ BMJ 2011;343:bmj.d7199 (Published 8 November 2011)

Flu vaccination prevents nosocomial outbreaks

BMJ BMJ 2011;343:bmj.d7203 (Published 8 November 2011)

Cost Effectiveness and Resource Allocation

(accessed 13 November 2011)

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

[No new relevant content]

Emerging Infectious Diseases

Volume 17, Number 11—November 2011

http://www.cdc.gov/ncidod/EID/index.htm

[Reviewed earlier]

Health Affairs
November 2011; Volume 30, Issue 11
http://content.healthaffairs.org/content/current
Theme: Linking Community Development & Health
[No relevant content]

Health Economics, Policy and Law
Volume 6 - Issue 04 - 01 October 2011
http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue
[Reviewed earlier]

Health Policy and Planning
Volume 26 Issue 6 November 2011
http://heapol.oxfordjournals.org/content/current
Commentary
Oliver Sabot, Megumi Gordon, Bruno Moonen, Ambrose Talisuna, and George Amofah
A path to an optimal future for the Affordable Medicines Facility – malaria
Health Policy Plan. (2011) 26(6): 441-444 doi:10.1093/heapol/czr067
Free Full Text (HTML)
Extract

In 2004, the Institute of Medicine (IOM) proposed a simple solution to a pressing global problem (Arrow et al. 2004). The price of artemisinin-based combination therapies (ACTs), the most effective malaria treatment in many countries, would be subsidized at the factory-gate to make them as affordable as ubiquitous, sub-optimal monotherapies such as chloroquine. This would, the IOM theorized, lead to widespread crowding out of the less effective drugs through both public and private channels, thereby improving immediate health outcomes and delaying the development of devastating resistance to artemisinin.

The subsequent process to translate that theory into a corresponding global initiative, however, was complex and lengthy, with 3 years of debate. Sceptics of the subsidy argued that it would not have the necessary impact because middlemen would capture excessive profits, poorer patients would not access the drugs through private shops regardless of price, and most ACTs would be purchased by individuals without malaria and would be wasted (Oxfam International 2009; Kamal-Yanni 2010). Proponents countered that market forces would ensure affordable pricing and broad supply, and that the problems of ensuring the equity and targeting of ACTs were not unique to the private sector and had not hampered major investments in distribution of drugs in the public sector (Roll Back Malaria Partnership 2007). After significant negotiation and compromise, the Affordable Medicines Facility-malaria (AMFm), as the subsidy concept is now known, opened its doors in July 2010. One of the most important compromises was that the AMFm would not begin as a global initiative, but would rather be 'piloted' at national-scale in selected malaria-endemic countries with an extensive evaluation of that initial phase. The Board of the Global Fund to Fight AIDS, Tuberculosis and Malaria, which hosts the AMFm, eventually set December 2012 as the target date to review the evaluation …

Human Vaccines
Volume 7, Issue 11 November 2011
http://www.landesbioscience.com/journals/vaccines/toc/volume/7/issue/11/
Special Focus: Neglected Vaccines - Developing World
[Reviewed earlier]

International Journal of Infectious Diseases
Volume 15, Issue 11 pp. e731-e806 (November 2011)
http://www.sciencedirect.com/science/journal/12019712
[Reviewed earlier; No relevant content]

JAMA
November 9, 2011, Vol 306, No. 18, pp 1951-2048
http://jama.ama-assn.org/current.dtl
[No relevant content]

Journal of Infectious Diseases
Volume 204 Issue 12 December 15, 2011
http://www.journals.uchicago.edu/toc/jid/current
[No relevant content]

The Lancet
Nov 12, 2011 Volume 378 Number 9804 p1677 – 1756 e6 - 7
http://www.thelancet.com/journals/lancet/issue/current
[No relevant content]

The Lancet Infectious Disease
Nov 2011 Volume 11 Number 11 p801 - 886
http://www.thelancet.com/journals/laninf/issue/current
Latest Podcast
Mike Osterholm discusses the effectiveness of influenza vaccines based on a new meta-analysis of published studies.
(mp3, 22.24 mins, 20.5Mb)
Online First
Articles
Oct 26, 2011
Efficacy and effectiveness of influenza vaccines: a systematic review and meta-analysis
Michael T Osterholm, Nicholas S Kelley, Alfred Sommer, Edward A Belongia
Preview | Summary |
Comment
Nov 08, 2011

Inactivated polio vaccine and global polio eradication
John F Modlin
Preview |
Nov 08, 2011
New studies of BCG: implications for tuberculosis vaccines
C Fordham von Reyn
Preview |
Articles
Nov 08, 2011
Effectiveness and cost-effectiveness of first BCG vaccination against tuberculosis in school-age children without previous tuberculin test (BCG-REVAC trial): a cluster-randomised trial
Susan M Pereira, Mauricio L Barreto, Daniel Pilger, Alvaro A Cruz, Clemax Sant'Anna, Miguel A Hijjar, Maria Y Ichihara, Andreia C Santos, Bernd Genser, Laura C Rodrigues
Preview | Summary |
Nov 08, 2011
Immunogenicity of supplemental doses of poliovirus vaccine for children aged 6–9 months in Moradabad, India: a community-based, randomised controlled trial
Concepción F Estívariz, Hamid Jafari, Roland W Sutter, T Jacob John, Vibhor Jain, Ashutosh Agarwal, Harish Verma, Mark A Pallansch, Ajit P Singh, Sherine Guirguis, Jitendra Awale, Anthony Burton, Sunil Bahl, Arani Chatterjee, R Bruce Aylward
Preview | Summary |

Medical Decision Making (MDM)
November/December 2011; 31 (6)
http://mdm.sagepub.com/content/current
[No relevant content]

Nature
Volume 479 Number 7372 pp149-260 10 November 2011
http://www.nature.com/nature/current_issue.html
[No relevant content]

Nature Medicine
November 2011, Volume 17 No 11
http://www.nature.com/nm/index.html
[No relevant content]

New England Journal of Medicine
November 10, 2011 Vol. 365 No. 19
http://content.nejm.org/current.shtml
Perspective
The Role of Cost-Effectiveness in U.S. Vaccination Policy
Jane J. Kim, Ph.D.
N Engl J Med 2011; 365:1760-1761 November 10, 2011
[Full text]

Vaccination policy is driven by several factors, including vaccine safety and efficacy, avertable disease burden, acceptability, and societal value. One measure of value is an intervention's cost-effectiveness, defined as the additional cost required per additional unit of health benefit produced as compared with the next-most-effective alternative. It is important to differentiate cost-effectiveness (value for money) from affordability (financial resources required); indeed, interventions with high value may not always be affordable. Although information on the cost-effectiveness of health interventions is increasingly being used in health policy globally, the extent to which this information influences decisions varies by country. For example, the governments in Britain and Australia explicitly and routinely incorporate findings from cost-effectiveness analyses into coverage and reimbursement decisions; in contrast, in the United States, it has been essentially taboo for anyone in the public sector to refer explicitly to cost as a factor in health decisions.

One exception is the Advisory Committee on Immunization Practices (ACIP), an independent expert advisory board that formally includes cost-effectiveness among the types of evidence it considers when making vaccine-policy recommendations to the Centers for Disease Control and Prevention (CDC). The ACIP strives to be transparent and balanced, inviting perspectives from stakeholders ranging from scientists to patient groups, and tries to harmonize its recommendations with those of professional organizations, such as the American Academy of Family Physicians and the American Academy of Pediatrics.

Historically, ACIP recommendations have influenced coverage decisions by both private and public insurers. Through a separate process, the ACIP also determines what vaccines are to be covered by the federal Vaccines for Children (VFC) program, which covers children who are Medicaid-eligible, uninsured or underinsured, or American Indians or Alaska natives up to the age of 18. With nearly 50% of U.S. children eligible for VFC coverage,[1] the ACIP faces dual pressures: it must maximize underserved children's access to vaccines while selecting vaccines that provide the most bang for the buck. This pressure will increase with the rollout of the Affordable Care Act, which mandates coverage of all ACIP-recommended childhood immunizations.

With low cost and high efficacy, many vaccines are estimated to be cost-saving — the up-front expenditure for vaccination is entirely offset by costs averted through disease prevention. However, newly licensed and expensive vaccines, such as those against human papillomavirus (HPV, the virus causally linked to cervical cancer) and meningococcal disease, are being considered for use in ways that raise questions regarding their overall public health value as estimated in cost-effectiveness analyses. In late October, the ACIP is expected to vote on routine HPV vaccination in boys and young men and to discuss meningococcal vaccination in infants, including its cost-effectiveness. Since 2007, routine HPV vaccination has been recommended for girls 11 to 12 years of age (and as early as 9 years), with "catch-up" vaccination recommended

up to the age of 26, despite evidence of rapidly diminishing marginal returns and decreasing cost-effectiveness after 21 years of age.[2]

After the Food and Drug Administration (FDA) approved the quadrivalent HPV (HPV4) vaccine for males in 2009, the ACIP voted for "permissive" — but not routine — use of it in boys and men 9 to 26 years of age for prevention of genital warts. Despite this less enthusiastic stance, the ACIP voted in favor of VFC coverage for eligible males 9 to 18 years of age. The committee was persuaded not to recommend routine male HPV vaccination in part by evidence that it may not be cost-effective, especially if vaccine uptake in girls and young women is high, given the sexual transmission of HPV infections and expected herd-immunity benefits through female-only vaccination. Recent data on uptake among adolescent girls, however, show less than 50% completion of the three-dose series, suggesting that HPV vaccination of boys may be cost-effective at this time. Furthermore, since the 2009 guidelines were issued, the indications for HPV4 have expanded to include prevention of anal cancers. Routine male HPV vaccination, especially if targeted at an early age, when the vaccines are expected to have highest benefit, would maximize protection for men who have sex with men, a group at high risk for HPV-related cancers that would receive little herd-immunity protection from female-only vaccination.

With respect to meningococcal vaccination, in October 2010, the ACIP decided in a narrow vote to recommend a single booster dose of the quadrivalent meningococcal conjugate vaccine (MCV4) at the age of 16 despite evidence that routine adolescent MCV4 vaccination does not provide good value for money, largely because of low disease incidence rates and relatively high vaccine cost. Since then, the FDA has approved the licensure of one meningococcal vaccine for use in infants and is reviewing the licensing application for another. In considering expanding use to infants, the ACIP will need to contend with evidence that MCV4 vaccination at such young ages, which requires at least two doses, is even less cost-effective than adolescent vaccination.[3]

The cost-effectiveness of vaccines is influenced by several factors, including vaccine efficacy and durability, severity of disease burden, vaccine price, and delivery-program costs. The meningococcal and HPV vaccines are among the most expensive vaccines on the market, with costs of $82 and $109 per dose, respectively, in the public sector (private-sector costs are 20 to 30% higher).[4] With the relatively high costs of new vaccines, the U.S. immunization program is placing an increasing financial strain on the health system. Today, the schedule of recommended routine child and adolescent vaccines includes more than 30 doses against 16 diseases — more than double the number in 1980. The public-sector cost of fully vaccinating one person as recommended through adulthood (not including annual influenza vaccines) is roughly $1,450 for males and $1,800 for females, of which the HPV and meningococcal vaccinations alone account for more than 25% at current prices.

Cost-effectiveness analysis provides information on whether the health gain associated with each new vaccine is worth the cost, as compared with other options for health spending. For example, the VFC program must weigh the cost of covering expensive vaccines against an alternative use of those dollars, such as outreach to improve uptake of other routine vaccines in the eligible population. Indeed, a recent CDC analysis showed that it would be more cost-effective to spend up to the purchase price of the HPV vaccine on improving vaccine uptake among girls than it would be to extend the program to boys.[5]

As the use of cost-effectiveness information increases, we should consider some important limitations of current analyses. The tendency to evaluate single diseases or interventions in isolation is restrictive. Individual vaccines may appear cost-effective, but the overall U.S. vaccination program may be unaffordable or provide less value than other bundled preventive health services targeting the same age group. Real-world obstacles should also be integrated into analyses; for example, the lack of organized vaccine-delivery mechanisms for older age groups can affect vaccine-uptake rates among adolescents and adults, and shortages in vaccine supply (as experienced with influenza vaccines) can influence cost-effectiveness results. To make cost-effectiveness analysis a more practical tool, analysts should evaluate investments across multiple diseases and interventions and include the influences of nonmonetary constraints.

As we confront sobering proposals to cut more than $300 billion in federal health spending over the next decade, public health decision makers will increasingly have to make explicit choices among health investments while keeping a vigilant eye on total expenditures. Identification of high-value health interventions through comparative effectiveness analysis has been prioritized by the new Patient-Centered Outcomes Research Institute. Evidence of cost-effectiveness, if provided in a transparent, standardized, and comprehensive manner, can help to highlight important tradeoffs and contribute to policy recommendations for vaccinations and other health interventions.

Editor's Note: On October 25, the ACIP voted to recommend that boys 11 to 12 years of age be routinely vaccinated against HPV, indicating that the vaccine series can be started as early as age 9 and that men up to age 21 who have not yet received the vaccine should be vaccinated.

The Pediatric Infectious Disease Journal
November 2011 - Volume 30 - Issue 11 pp: A7-A8,921-1016,e203-e224
http://journals.lww.com/pidj/pages/currenttoc.aspx
[Reviewed earlier; No relevant content]

Pediatrics
November 2011, VOLUME 128 / ISSUE 5
http://pediatrics.aappublications.org/current.shtml
[Reviewed last week]

Pharmacoeconomics
November 1, 2011 - Volume 29 - Issue 11 pp: 913-1009
http://adisonline.com/pharmacoeconomics/pages/currenttoc.aspx
[Reviewed earlier]

PLoS One
[Accessed 13 November 2011]
http://www.plosone.org/article/browse.action;jsessionid=577FD8B9E1F322DAA533C413369CD6F3.ambra01?field=date
[No new relevant content]

PLoS Medicine
(Accessed 13 November 2011)
http://www.plosmedicine.org/article/browse.action?field=date
[No new relevant content]

Proceedings of the National Academy of Sciences of the United States of America
(Accessed 13 November 2011)
http://www.pnas.org/content/early/recent
[No new relevant content]

Science
11 November 2011 vol 334, issue 6057, pages 729-864
http://www.sciencemag.org/current.dtl
[No relevant content]

Science Translational Medicine
9 November 2011 vol 3, issue 108
http://stm.sciencemag.org/content/current
[No relevant content]

Tropical Medicine & International Health
November 2011 Volume 16, Issue 11 Pages 1353–1464
http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-3156/currentissue
[Reviewed earlier; No relevant content]

Vaccine
Volume 29, Issue 50 pp. 9289-9410 (21 November 2011)
http://www.sciencedirect.com/science/journal/0264410X
Letters to the Editor
Limited benefit of HPV vaccination for sexually active women in developing countries
Pages 9290-9291
Vivien Tsu, Marjorie Murray
[No extract]
Response to Letter to the Editor by Tsu et al. "Benefits of vaccinating young adult women with a prophylactic quadrivalent human papillomavirus (types 6, 11, 16 and 18) vaccine"
Pages 9292-9293
Joseph Monsonego
[No extract]

Brief report

Abstract
To estimate the proportion of children in day-care centres with incomplete vaccination and to identify associated risk factors, we conducted a cross-sectional study among 258 children less than 18 months of age attending public and philanthropic day-care centres in the city of Sao Paulo, Brazil. Interviews, blood collection and anthropometry were performed. Unconditional logistic regression was adjusted for incomplete vaccination risk factors. 10.9% of children had incomplete vaccination. Children who were born prematurely (OR = 4.27; p = 0.004), or were malnourished (OR = 4.99; p = 0.049), or lived in inadequate housing (OR = 2.88; p = 0.039), or whose mothers had had poor prenatal care (OR = 4.98; p = 0.040) were more likely to have incomplete vaccination. Opportunities are being missed to identify children with incomplete vaccination; strategies to enhance vaccination coverage should pay special attention to the needs of families living in inadequate housing; and health promotion actions in primary health facilities and day-care centres should be performed as concomitant activities.

Regular Papers

Abstract
In Denmark selective screening programs of pregnant women for hepatitis B missed 30–50% of high-risk groups and in late 2005 a universal screening of pregnant women for HBsAg was implemented.

During a 2-year period a prospective enhanced surveillance of the universal screening was performed to examine the effectiveness of universal HBV-screening of pregnant women and HBV-immunizations of their newborn, and to provide a prevalence-estimate for HBV in Denmark. On a opt out basis all women in Denmark attending antenatal care were tested for hepatitis B serology. Vaccination data of the newborns and households of HBsAg positive pregnant women were assembled.

Among 140,376 HBsAg tests of pregnant women, 371 (0.26%) were positive. The prevalence among women of Danish origin was 0.012% and 2.74% among foreign born women, highest for women from Southeast Asia (14.5%). Genotype C was the most prevalent (37%) and 13% had a HBVDNA ≥108 IU/ml. The prevalence estimate of chronic hepatitis B in Denmark was 0.2–0.3% in the general population.
Among children born within the project period, 96% received vaccination at birth compared to 50% of siblings born prior to universal screening. During 3 years of passive

follow-up two transmissions (0.5%) have been notified. Among children born of the positive mothers prior to the trial-period 7.3% had been notified.

Thus the prevalence of HBV positive mothers has more than doubled in Denmark over the last 40 years, but among women of Danish origin it has decreased 10-fold. By replacing selective screening with universal, identification of newborns in need of HBV-immunization was increased from 50% to almost complete coverage, and also identifies mothers with high viral load for evaluation of pre-term treatment to interrupt in utero transmission.

Increases in vaccination coverage of healthcare personnel following institutional requirements for influenza vaccination: A national survey of US hospitals

Pages 9398-9403

Brady L. Miller, Faruque Ahmed, Megan C. Lindley, Pascale M. Wortley

Abstract

Background

Institutional requirements for influenza vaccination, ranging from policies that mandate declinations to those terminating unvaccinated healthcare personnel (HCP), are increasingly common in the US. Our objective was to determine HCP vaccine uptake following requirements for influenza vaccination at US hospitals.

Methods

Survey mailed in 2011 to a nationally representative sample of 998 acute care hospitals. An institutional requirement was defined as an institutional policy that requires receipt or declination of influenza vaccination, with or without consequences for vaccine refusal. Respondents reported institutional-level, seasonal influenza vaccination coverage, if known, during two consecutive influenza seasons: the season prior to (i.e., pre-requirement), and the first season of requirement (i.e., post-requirement). Weighted univariate and multivariate analyses accounted for sampling design and non-response.

Results

808 (81.0%) hospitals responded. Of hospitals with institutional requirements for influenza vaccination (n = 440), 228 hospitals met analytic inclusion criteria. Overall, mean reported institutional-level influenza vaccination coverage among HCP rose from 62.0% in the pre-requirement season to 76.6% in the post-requirement season, representing a single-season increase of 14.7 (95% CI: 12.6–16.7) percentage points. After adjusting for potential confounders, single-season increases in influenza vaccination uptake remained greater among hospitals that imposed consequences for vaccine refusal, and among hospitals with lower pre-requirement vaccination coverage. Institutional characteristics were not associated with vaccination increases of differential magnitude.

Conclusion

Hospitals that are unable to improve suboptimal influenza vaccination coverage through multi-faceted, voluntary vaccination campaigns may consider institutional requirements for influenza vaccination. Rapid and measurable increases in vaccination coverage followed institutional requirements at hospitals of varying demographic characteristics.

Value in Health

November 2011, Vol. 14, No. 7

http://www.valueinhealthjournal.com/home

[Reviewed earlier; No relevant content]