# Vaccines: The Week in Review 18 April 2011

#### **Center for Vaccine Ethics & Policy**

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 <a href="http://centerforvaccineethicsandpolicy.wordpress.com/">http://centerforvaccineethicsandpolicy.wordpress.com/</a>. This blog allows full-texting searching of some 1,200 items.

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

WHO European Region said it continues "to battle large measles outbreaks that are spreading between countries and to other regions of the world. To date, 24 countries in Region have reported measles cases in 2011. France has experienced the largest outbreak, with 3,749 measles cases officially reported in January and February 2011 – eight people have suffered neurological complications and one person has died due to measles-related pneumonia. The national immunization system is implementing measures to get children vaccinated during the outbreak, including vaccinating infants at nine months of age, in line with WHO recommendations for a measles outbreak, and offering vaccine to all unimmunized and under-immunized people over the age of nine months.

"In 2011, epidemiological investigations and genotyping by laboratories confirm that the measles virus has been exported from France to Denmark, Germany, Italy, Romania, the Russian Federation and, most recently, to Belgium. The national surveillance system in Belgium has reported 100 cases of measles so far in 2011. In the hot spot of this outbreak, Ghent, the virus is affecting primarily children younger than one year (and therefore unimmunized) and students of anthroposophic schools (unimmunized due to philosophical beliefs).

"A measles outbreak is also ongoing in Andalusia, Spain, with more than 400 cases reported during the first two months of 2011. Regular updates on outbreaks from Serbia, Turkey and the former Yugoslav Republic of Macedonia confirm that the disease continues to spread, and this emphasizes the need to strengthen responses in order to control these outbreaks.

"At the September 2010 session of the WHO Regional Committee for Europe, Member States unanimously adopted a resolution to renew their commitment and accelerate actions to eliminate measles and rubella in the European Region by 2015. It is crucially important that Member States and WHO/Europe act now on this commitment, in order to stop costly and deadly outbreaks.

"WHO urges countries to remain vigilant and to implement timely prevention and control measures, in order to halt the spread of measles within their own borders and prevent measles being exported to other countries – especially those where measles can be extremely deadly, such as in Africa and south-east Asia."

http://www.euro.who.int/en/what-we-do/health-topics/disease-prevention/vaccines-andimmunization/news/news/2011/04/measles-outbreaks-across-europe-show-no-sign-ofslowing

# WHO posted background documents and presentations from the SAGE meeting of 5-7 April 2011 including:

- Report from IVB Director J-M. Okwo-Bele Report from IVB Director pdf, 5.60Mb **Background documents** 

WHO- GIVS: Progress report and strategic direction for the 'Decade of Vaccines' pdf, 282kb

WHO-UNICEF. Draft of Delivering Immunization in the Next Decade (V14-01-2011) pdf, 1.25Mb

- Decade of vaccines draft
- Regional priorities, major policy and implementation issues: reports from AFR, EMR and SEAR
- Report from the GAVI Alliance secretariat GAVI report pdf, 2.31Mb
- Reports from other Advisory Committees in Immunization Report from the Advisory Committee of the Initiative (IVAC) pdf, 1.15Mb Report of the Global Advisory Committee on Vaccine Safety (GACVS) pdf, 1.04Mb
- Pandemic and seasonal influenza vaccines
- Tick-borne encephalitis
- Meningococcal meningitis vaccines
- Rubella vaccination
- Polio eradication
- Update on evidence-based review process and GRADing of guality of scientific evidence

- Cholera vaccine: feed-back on implementation of SAGE recommendations http://www.who.int/immunization/sage/previous april2011/en/index1.html

The Weekly Epidemiological Record (WER) for 15 April 2011, vol. 86, 16 (pp 153–160) includes: Monitoring progress towards global polio eradication: poliovirus surveillance, 2009-2010

http://www.who.int/entity/wer/2011/wer8616.pdf

The MMWR for April 15, 2011 / Vol. 60 / No. 14 includes:

- Human Rabies --- Michigan, 2009

- <u>Tracking Progress Toward Global Polio Eradication --- Worldwide, 2009--2010</u> <u>http://www.cdc.gov/mmwr/pdf/wk/mm6014.pdf</u>

# Twitter Watch

A selection of items of interest this week from a variety of twitter feeds. This capture is highly selective and by no means intended to be exhaustive.

# AIDSvaccine IAVI

New <u>#HIV</u> <u>#vaccine</u> info portal from <u>@HIVEnterprise</u> includes forums, events, news & career opportunities: <u>http://bit.ly/g99BYC</u> <u>#globalhealth</u>

#### MalariaVaccine PATH MVI

RT @<u>PATHtweets</u>: VIDEO: President's Malaria Initiative: "This is the dream of every mother, of every child bor... (cont) <u>http://deck.ly/~UgnH9</u>

#### PATHtweets PATH

Late doses of HPV vaccine could still be effective, reducing <u>#cervicalcancer</u> rates for low-income women. <u>http://ow.ly/4zIkz #globalhealth</u>

#### AP\_Images AP Images

by EndPolioNow

The Salk vaccine against <u>#polio</u>, as developed by Jonas E. Salk, was declared safe and effective on April 12, 1955. <u>http://bit.ly/e9aEu4</u>

# 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**

April 5, 2011; 154 (7) http://www.annals.org/content/current [Reviewed last week; No relevant content]

#### **British Medical Bulletin**

Volume 97 Issue 1 March 2011 http://bmb.oxfordjournals.org/content/current [Reviewed earlier]

### **British Medical Journal**

16 April 2011 Volume 342, Issue 7802 http://www.bmj.com/content/current [No relevant content]

### **Clinical Infectious Diseases**

Volume 52 Issue 9 May 1, 2011 http://www.journals.uchicago.edu/toc/cid/current [Reviewed earlier; No relevant content]

# **Cost Effectiveness and Resource Allocation**

(accessed 17 April 2011) http://www.resource-allocation.com/ [No relevant content]

# **Emerging Infectious Diseases**

Volume 17, Number 4–April 2011 http://www.cdc.gov/ncidod/EID/index.htm [Reviewed earlier]

# **Health Affairs**

April 2011; Volume 30, Issue 4 <u>http://content.healthaffairs.org/content/30/2.toc</u> [No relevant content]

# Health Economics, Policy and Law

Volume 6 - Issue 02 http://journals.cambridge.org/action/displayJournal?jid=HEP [Reviewed earlier; No relevant content]

#### **Human Vaccines**

Volume 7, Issue 4 April 2011 <u>http://www.landesbioscience.com/journals/vaccines/toc/volume/7/issue/4/</u> [Reviewed earlier]

# JAMA

April 13, 2011, Vol 305, No. 14, pp 1385-1500 http://jama.ama-assn.org/current.dtl Theme Issue: Infectious Disease/Immunology

#### Editorial

# **Progress in Infectious Disease and Immunology**

Gianna Zuccotti, Phil B. Fontanarosa

JAMA. 2011;305(14):1486-1487.doi:10.1001/jama.2011.452

[Extract: initial text per JAMA convention]

Infectious diseases are commonly encountered in virtually all areas of health care, can represent potential major threats to communities and public health, and account for substantial morbidity and mortality. On a global level, infectious diseases such as malaria and tuberculosis remain leading causes of death. 1 Among hospitalized patients, infectious complications such as central line–associated bloodstream infections, ventilator-associated pneumonia, and surgical site infections continue to be important causes of morbidity and increased length of stay. Illness related to infectious diseases also accounts for significant numbers of office and emergency department visits as well as substantial heath care costs and leads to losses in productivity among workers. In addition, the management of infectious diseases continues to be challenging, with major concerns about the emergence of multidrug-resistant pathogens and a significant decline in the production of new antimicrobial agents from both research and industry sources. 2

#### Letters

# Herpes Zoster Vaccine and Older Adults

Michael B. Rothberg, Kenneth J. Smith JAMA. 2011;305(14):1410.doi:10.1001/jama.2011.422

#### Extract

# Herpes Zoster Vaccine and Older Adults—Reply

Hung Fu Tseng, Steven J. Jacobsen JAMA. 2011;305(14):1410-1411.doi:10.1001/jama.2011.423 Extract

# **Journal of Infectious Diseases**

Volume 203 Issue 10 May 15, 2011 http://www.journals.uchicago.edu/toc/jid/current [No relevant content]

# The Lancet

Apr 16, 2011 Volume 377 Number 9774 Pages 1289 - 1378 http://www.thelancet.com/journals/lancet/issue/current [No relevant content]

# **The Lancet Infectious Disease**

Apr 2011 Volume 11 Number 4 Pages 253 - 332

http://www.thelancet.com/journals/laninf/issue/current [Reviewed earlier]

# Medical Decision Making (MDM)

March/April 2011; 31 (2) http://mdm.sagepub.com/content/current [Reviewed earlier]

#### Nature

Volume 472 Number 7342 pp135-254 14 April 2011 http://www.nature.com/nature/current\_issue.html [No relevant content]

#### **Nature Medicine**

April 2011, Volume 17 No 4 http://www.nature.com/nm/index.html [Reviewed last week]

#### **New England Journal of Medicine**

April 14, 2011 Vol. 364 No. 15 http://content.nejm.org/current.shtml [No relevant content]

# The Pediatric Infectious Disease Journal

May 2011 - Volume 30 - Issue 5 pp: A9-A10,365-450,e75-e87 <u>http://journals.lww.com/pidj/pa ges/currenttoc.aspx</u> [No relevant content]

#### Pediatrics

April 2011 / VOLUME 127 / ISSUE 4 http://pediatrics.aappublications.org/current.shtml [Reviewed earlier; No relevant content]

#### Pharmacoeconomics

April 1, 2011 - Volume 29 - Issue 4 pp: 269-359 http://adisonline.com/pharmacoeconomics/pages/currenttoc.aspx [Reviewed earlier]

#### PLoS Medicine

(Accessed 17 April 2011)

http://medicine.plosjournals.org/perlserv/?request=browse&issn=1549-

<u>1676&method=pubdate&search\_fulltext=1&order=online\_date&row\_start=1&limit=10&</u> <u>document\_count=1533&ct=1&SESSID=aac96924d41874935d8e1c2a2501181c#results</u> <u>The Quality of Medical Care in Low-Income Countries: From Providers to</u> <u>Markets</u>

Jishnu Das Perspective, published 12 Apr 2011

doi:10.1371/journal.pmed.1000432

# [Initial paragraphs]

It is widely believed that people in low- and middle-income countries (LMICs) are in poor health because they cannot reach medical services on time. Predicated on this belief, much of global health policy focuses on the physical provision of goods (clinics, equipment, and medicine) and getting doctors to "underserved" rural areas. Yet, recent evidence shows high utilization rates, even among the poor [1],[2].

While problems of access are certainly salient for particular disadvantaged populations, quality is likely the constraining factor for the majority.

The excellent systematic review in this week's PLoS Medicine by Paul Garner and colleagues [3] focuses discussion on this critical issue. Their finding of poor quality in both the public and private sectors along different dimensions (competence is similar in both, but the private sector is more patient centered) brings much needed evidence to an ongoing debate. The review reflects a logical initial focus in the literature on individual providers rather than the interactions between providers; going forward, broadening the discussion on quality to health care markets can generate valuable insights for policy.

# Global Health Philanthropy and Institutional Relationships: How Should Conflicts of Interest Be Addressed?

David Stuckler, Sanjay Basu, Martin McKee Policy Forum, published 12 Apr 2011 *doi:10.1371/journal.pmed.1001020* 

# Summary Points

Institutional relationships in global health are a growing area of study, but few if any previous analyses have examined private foundations.

Tax-exempt private foundations and for-profit corporations have increasingly engaged in relationships that can influence global health.

Using a case study of five of the largest private global health foundations, we identify the scope of relationships between tax-exempt foundations and for-profit corporations. Many public health foundations have associations with private food and pharmaceutical corporations. In some instances, these corporations directly benefit from foundation grants, and foundations in turn are invested in the corporations to which they award these grants.

Personnel move between food and drug industries and public health foundations. Foundation board members and decision-makers also sit on the boards of some forprofit corporations benefitting from their grants.

While private foundations adopt standard disclosure protocols for employees to mitigate potential conflicts of interests, these do not always apply to the overall endowment investments of the foundations or to board membership appointments. The extent and range of relationships between tax-exempt foundations and for-profit corporations suggest that transparency or grant-making recusal of employees alone may not be preventing potential conflicts of interests between global health programs and their financing.

#### Science

15 April 2011 vol 332, issue 6027, pages 271-382 http://www.sciencemag.org/current.dtl [No relevant content]

# Science Translational Medicine

13 April 2011 vol 3, issue 78 http://stm.sciencemag.org/content/current [No relevant content]

#### Vaccine

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

# Volume 29, Issue 18 pp. 3363-3512 (18 April 2011)

Meeting Report

The Global Meningococcal Initiative: Recommendations for reducing the global burden of meningococcal disease

Pages 3363-3371

Lee H. Harrison, Stephen I. Pelton, Annelies Wilder-Smith, Johan Holst, Marco A.P. Safadi, Julio A. Vazquez, Muhamed-Kheir Taha, F. Marc LaForce, Anne von Gottberg, Ray Borrow, Stanley A. Plotkin

# Abstract

The Global Meningococcal Initiative (GMI) is composed of an international group of scientists, clinicians and public health officials with expertise in meningococcal immunology, epidemiology and prevention. The primary goal of the GMI is the promotion of the global prevention of invasive meningococcal disease through education and research. The GMI members reviewed global meningococcal disease epidemiology, immunization strategies, and research needs. Over the past decade, substantial advances in meningococcal vaccine development have occurred and much has been learned about prevention from countries that have incorporated meningococcal vaccines into their immunization programs. The burden of meningococcal disease is unknown for many parts of the world because of inadequate surveillance, which severely hampers evidence-based immunization policy. As the field of meningococcal vaccine development advances, global surveillance for meningococcal disease needs to be strengthened in many regions of the world. For countries with meningococcal vaccination policies, research on vaccine effectiveness and impact, including indirect effects, is crucial for informing policy decisions. Each country needs to tailor meningococcal vaccination policy according to individual country needs and knowledge of disease burden. Innovative approaches are needed to introduce and sustain meningococcal vaccination programs in resource-poor settings with a high incidence of meningococcal disease.

# **Regular Papers**

Healthcare utilization and cost of pneumococcal disease in the United States

Original Research Article Pages 3398-3412 Susan S. Huang, Kristen M. Johnson, G. Thomas Ray, Peter Wroe, Tracy A. Lieu, Matthew R. Moore, Elizabeth R. Zell, Jeffrey A. Linder, Carlos G. Grijalva, Joshua P. Metlay, Jonathan A. Finkelstein

Abstract

Background

Streptococcus pneumoniae continues to cause a variety of common clinical syndromes, despite vaccination programs for both adults and children. The total U.S. burden of pneumococcal disease is unknown.

# Methods

We constructed a decision tree-based model to estimate U.S. healthcare utilization and costs of pneumococcal disease in 2004. Data were obtained from the 2004–2005 National (Hospital) Ambulatory Medical Care Surveys (outpatient visits, antibiotics) and the National Hospital Discharge Survey (hospitalization rates), and CDC surveillance data. Other assumptions regarding the incidence of each syndrome due to pneumococcus, expected health outcomes, and healthcare utilization were derived from literature and expert opinion. Healthcare and time costs used 2007 dollars. Results

We estimate that, in 2004, pneumococcal disease caused 4.0 million illness episodes, 22,000 deaths, 445,000 hospitalizations, 774,000 emergency department visits, 5.0 million outpatient visits, and 4.1 million outpatient antibiotic prescriptions. Direct medical costs totaled \$3.5 billion. Pneumonia (866,000 cases) accounted for 22% of all cases and 72% of pneumococcal costs. In contrast, acute otitis media and sinusitis (1.5 million cases each) comprised 75% of cases but only 16% of direct medical costs. Patients  $\geq$ 65 years old, accounted for most serious cases and the majority of direct medical costs (\$1.8 billion in healthcare costs annually). In this age group, pneumonia caused 242,000 hospitalizations, 1.4 million hospital days, 194,000 emergency department visits, 374,000 outpatient visits, and 16,000 deaths. However, if work loss and productivity are considered, the cost of pneumococcal disease among younger working adults (18–<50) nearly equaled those  $\geq$ 65.

# Conclusions

Pneumococcal disease remains a substantial cause of morbidity and mortality even in the era of routine pediatric and adult vaccination. Continued efforts are warranted to reduce serious pneumococcal disease, especially adult pneumonia.

# Measles susceptibility in children in Karachi, Pakistan

Original Research Article Pages 3419-3423

Sana Sheikh, Asad Ali, Anita K.M. Zaidi, Ajmal Agha, Asif Khowaja, Salim Allana, Shahida Qureshi, Iqbal Azam

# Abstract

Measles, despite being vaccine preventable is still a major public health problem in many developing countries. We estimated the proportion of measles susceptible children in Karachi, the largest metropolitan city of Pakistan, one year after the nationwide measles supplementary immunization activity (SIA) of 2007–2008. Oral fluid specimens of 504 randomly selected children from Karachi, aged 12–59 months were collected to detect measles IgG antibodies. Measles antibodies were detected in only 55% children. The proportion of children whose families reported receiving a single or two doses of measles vaccine were 78% and 12% respectively. Only 3% of parents reported that their child received measles vaccine through the SIA. Among the reported single dose measles vaccine recipients, 58% had serologic immunity against measles while among

the reported two dose measles vaccine recipients, 64% had evidence of measles immunity. Urgent strengthening of routine immunization services and high quality mass vaccination campaigns against measles are recommended to achieve measles elimination in Pakistan.

# Voluntary reporting of employee influenza vaccination rates by acute care hospitals in Iowa: The impact of a four year provider-based statewide performance improvement project

Original Research Article Pages 3483-3488

Charles Helms, Philip Polgreen, Linnea Polgreen, Thomas Evans, Lance L. Roberts, Gerd Clabaugh, Patricia Quinlisk

# Abstract

Objective

In 2006 a voluntary, provider-based project was initiated to improve influenza vaccination rates among healthcare workers (HCWs) employed by acute care hospitals in Iowa. The statewide vaccination target was 95% by 2010. Data from the first four influenza seasons (2006–2007, 2007–2008, 2008–2009 and 2009–2010) are presented. Methods

A website was used to submit and circulate hospital-specific influenza vaccination rates. Rates were fed back to participating hospitals from the outset and hospital-specific rates made publicly available for the last two influenza seasons. Results

Hospital participation rates ranged from 86% in season 1 to 100% in the subsequent three seasons. Statewide median hospital employee vaccination rates trended upward from 73% in season 1 to 93% in season 4. By season 4, 35% of participating hospitals had reached or exceeded a 95% vaccination rate. In season 4 the mean employee vaccination rate of 19 hospitals reporting use of a mandatory vaccination policy was 96% vs. 87% in the 64 hospitals not using such policies.

# Conclusion

Over a 4 year period, while participating in a provider-based, voluntary project, acute care hospitals in Iowa reported significantly improved seasonal influenza vaccination rates among their employees.

# Vaccine

#### Volume 29, Issue 17 pp. 3093-3362 (12 April 2011) *Review*

Public engagement on ethical principles in allocating scarce resources during an influenza pandemic

# Review Article Pages 3111-3117

Tracey M. Bailey, Christina Haines, Rhonda J. Rosychuk, Thomas J. Marrie, Olive Yonge, Robert Lake, Ben Herman, Mark Ammann

Abstract

Objectives

To investigate the views of students, support staff and academic staff at the University of Alberta in Edmonton, Canada on the allocation of scarce resources during an influenza pandemic to discover if there were any shared values. Methods

A web-based questionnaire was circulated to students, support staff and academic staff asking them how they would rank the priority of eleven different groups for access to scarce resources. They were also asked to select one of seven priority access plans. Results

The highest priority was given to health care workers by 89% of respondents, closely followed by emergency workers (85%). Only 12.7% of respondents gave politicians high priority. Respondents favored the "Save the most lives" priority access (39.9%) (N = 5220).

Conclusion

Current policies in place for the allocation of scarce resources during an influenza pandemic may not properly reflect the views of the general public. Further public consultation should be undertaken in order to uncover how they would allocate scarce resources.

# Human papillomavirus vaccine uptake and barriers: Association with perceived risk, actual risk and race/ethnicity among female students at a New York State university, 2010

Original Research Article Pages 3138-3143

Robert A. Bednarczyk, Guthrie S. Birkhead, Dale L. Morse, Helene Doleyres, Louise-Anne McNutt

Abstract

Understanding human papillomavirus (HPV) vaccine uptake patterns is critical to improve vaccination levels. Approximately half (56%) of female undergraduate students surveyed at a large public university reported HPV vaccine series initiation, with 79% of initiators completing the three dose series. Predictors of series initiation included having a conversation with a health-care provider about the vaccine, reporting a history of sexual intercourse and receipt of the meningitis vaccine. Compared to whites, black/African-American women were 33% less likely to have initiated HPV vaccination. Common reasons for not receiving the HPV vaccine included concerns about vaccine safety and doctors' not recommending vaccination.

# Sustaining GAVI-supported vaccine introductions in resource-poor countries Original Research Article Pages 3149-3154

Patrick L.F. Zuber, Ibrahim El-Ziq, Miloud Kaddar, Ann E. Ottosen, Katinka Rosenbaum, Meredith Shirey, Lidija Kamara, Philippe Duclos

# Abstract

Since 2000, GAVI provided essential support for an unprecedented increase in the use of hepatitis B (HepB) and Haemophilus influenzae (Hib) containing vaccines in resource poor countries. This increase was supported with significant funding from international donors, intended to be time-limited. To assess the sustainability of this important expansion of the global access to vaccines, we reviewed supply chains, financial resources for procurement and decision-making in countries that introduced hepatitis B or Hib vaccines with GAVI support. During the period studied, the types of vaccine products supplied fluctuated rapidly in relationship with the number of suppliers and availability of more combination products. The price of the cheaper vaccines decreased while that of pentavalent DTwP-HepB-Hib remained stable. In average, vaccine introduction was associated with an increase of national programs budget, with new vaccines representing more than half of that increase, while the part of GAVI contributions to the budget went from 25% to 46%. Less than 20% of the vaccine introductions were decided by a national advisory body. Strengthening supply chains,

adjusting funding schemes and increasing national ownership will be key to the sustained use of hepatitis B and Hib vaccines and the eventual addition of other important vaccines where they are the most needed.

Canadian paediatricians' opinions on rotavirus vaccination

Original Research Article Pages 3177-3182

E. Dubé, V. Gilca, C. Sauvageau, R. Bradet, J.A. Bettinger, N. Boulianne, F.D. Boucher,

S. McNeil, I. Gemmill, F. Lavoie

# Abstract

Rotavirus is the leading cause of dehydration and hospitalization due to gastroenteritis (GE) in young children. Almost all children are affected by the age of 5 years. Two safe and effective rotavirus vaccines are available for clinical use in Canada. In the context where rotavirus vaccination is recommended, but not publicly funded, we have assessed paediatricians' knowledge, attitudes and beliefs (KAB) regarding rotavirus disease and its prevention by vaccination. A self-administered anonymous questionnaire based upon the Health Belief Model and the Analytical framework for immunization programs was mailed to all 1852 Canadian paediatricians. The response rate was 50%. The majority of respondents rated consequences of rotavirus infection for young patients as moderate. Sixty-six percent considered that rotavirus disease occur frequently without vaccination and 62% estimated that the disease generates a significant economic burden. Sixty-nine percent of respondents considered rotavirus vaccines to be safe and 61%, to be effective. The reduction of severe GE cases was seen as the main benefit of rotavirus vaccination, while the risk of adverse events was the principal perceived barrier. Fiftythree percent (53%) indicated a strong intention to recommend rotavirus vaccines. In multivariate analysis, main determinant of paediatricians' intention to recommend rotavirus vaccines was the perceived health and economic burden of rotavirus diseases (partial R2 = 0.49, p < 0.0001). More than half of surveyed paediatricians were willing to recommend rotavirus vaccines to their patients, but the proportion of respondents who had a strong intention to do so remains low when compared to several other new vaccines. As with other new vaccines, rotavirus vaccine uptake risks to remain low in Canada as long as it is not publicly funded.

# The school nurse, the school and HPV vaccination: A qualitative study of factors affecting HPV vaccine uptake

Original Research Article Pages 3192-3196

Loretta Brabin, Rebecca Stretch, Stephen A. Roberts, Peter Elton, David Baxter, Rosemary McCann

# Abstract

School nurses in the United Kingdom are largely responsible for delivering the human papillomavirus (HPV) vaccine to 12–13 year old girls. In order to assess the impact of HPV vaccination on school nurses' roles, we gave a questionnaire to all 33 school nurses who offered Cervarix <sup>TM</sup> in two Primary Care Trusts one year ahead of the national vaccine programme. Key organisational issues raised by the school nurses were the size of the team and its skill mix. A few found their schools uncooperative and were dissatisfied with mechanisms for problem resolution. On average, nurses spent an additional 69 h (0.80 h per child) on vaccine-related activities. In semi-qualitative interviews (n = 17), school nurses complained of work overload and described the difficulties of establishing good relationships with some of their schools. Nurses expected schools to take some responsibility for ensuring good uptake and were frustrated when help was not forthcoming. We conclude that variation in uptake between schools in part

reflects a difficult relationship with the school nurse which may be attributed to characteristics of the school, schools' attitudes towards health interventions, organisational problems, multiple school nurse roles and/or personal ability. Some of these issues will need to be addressed to ensure continued high vaccine coverage as HPV vaccination becomes a less prioritised, routine activity.

# Projected health benefits and costs of pneumococcal and rotavirus vaccination in Uganda

Original Research Article Pages 3329-3334

Jacqueline E. Tate, Annet Kisakye, Prosper Mugyenyi, Diana Kizza, Amos Odiit, Fiona Braka

Abstract

We determined impact and cost-effectiveness of pneumococcal and rotavirus vaccination programs among children < 5 years of age in Uganda from the public health system perspective. Disease-specific models compared the disease burden and cost with and without a vaccination program. If introduced, pneumococcal and rotavirus vaccine programs will save 10,796 and 5265 lives, respectively, prevent 94,071 Streptococcus pneumoniae and 94,729 rotavirus cases in children < 5 years, and save 3886 and 996 million Ugandan shillings (\$2.3 and \$0.6 million US dollars), respectively, in direct medical costs annually. At the GAVI price (\$0.15/dose), pneumococcal vaccine will be cost-saving and rotavirus vaccine highly cost-effective.

# Value in Health

December 2010 Volume 13, Issue 8 Pages 863–1065 http://onlinelibrary.wiley.com/doi/10.1111/vhe.2010.13.issue-8/issuetoc [Reviewed earlier]