WHO Director-General praises the World Health Assembly for its work
Dr Margaret Chan, Director-General of the World Health Organization
Closing remarks at the Sixty-sixth World Health Assembly
Geneva, Switzerland
27 May 2013
Excerpt: Editor’s text bolding

“...Looking at the overall world health situation, my greatest concern right now is the novel coronavirus.

We understand too little about this virus when viewed against the magnitude of its potential threat.

Any new disease that is emerging faster than our understanding is never under control. We do not know where the virus hides in nature. We do not know how people are getting infected. Until we answer these question, we are empty-handed when it comes to prevention. These are alarm bells. And we must respond.

The novel coronavirus is not a problem that any single affected country can keep to itself or manage all by itself. The novel coronavirus is a threat to the entire world. As the Chair of committee A succinctly stated: this virus is something that can kill us.

Through WHO and the International Health Regulations, we need to bring together the assets of the entire world in order to adequately address this threat. We need more information, and we need it quickly, urgently.

As I have announced, joint WHO missions with the Kingdom of Saudi Arabia and Tunisia will take place just as soon as possible. The purpose is to gather all the facts needed to conduct a proper risk assessment. I thank these countries for their cooperation and collaboration.
I thank Member States for supporting my views on the seriousness of this situation....”

WHO: Global Alert and Response (GAR) – *Disease Outbreak News*

**Middle East respiratory syndrome-coronavirus** – *update 31 May 2013*

31 May 2013 - The Ministry of Health in Saudi Arabia has notified WHO of an additional laboratory-confirmed case with Middle East respiratory syndrome coronavirus (MERS-CoV).

The patient is a 61-year-old man with underlying medical conditions who became ill on 20 May 2013. The patient is from Al-Ahsa. Additionally, three patients earlier reported from Al-Ahsa have died.

The government is continuing to investigate the outbreaks in the country.

Globally, from September 2012 to date, WHO has been informed of a total of 50 laboratory-confirmed cases of infection with MERS-CoV, including 30 deaths.

**Yellow fever in Ethiopia** – *update 31 May 2013*

31 May 2013 - The Ministry of Health of Ethiopia is launching an emergency mass-vaccination campaign against yellow fever from 10 June 2013. This is in response to laboratory confirmation of six cases in the country on 7 May 2013.

The campaign aims to cover more than 527,000 people in the following six districts: South Ari, North Ari, Benatsemay, Selamago, Hammer, and Gnangatom and one administrative town (Jinka) in South Omo Zone of the Southern Nations, Nationalities and Peoples’ region (SNNPR) of Ethiopia.

The International Coordinating Group on Yellow Fever Vaccine Provision (YF-ICG11) will provide over 585,800 doses of yellow fever vaccine for the mass vaccination campaign run by the Ministry of Health in Ethiopia, with support from the GAVI Alliance and other partners. WHO is closely supporting the outbreak investigation, capacity building for case management, resource mobilization for outbreak management, and monitoring preventive and control activities in the field...

**Human infection with avian influenza A(H7N9) virus** – *update 29 May 2013*

29 May 2013 - The National Health and Family Planning Commission, China notified WHO of an additional laboratory confirmed case of human infection with Avian Influenza A(H7N9) virus.

The patient is a six-year-old boy reported from Beijing who became ill on 21 May 2013 and is in stable condition.

To date, WHO has been informed of a total of 132 laboratory-confirmed cases, including 37 deaths.

Authorities in affected locations continue to maintain surveillance, epidemiological investigations, close contact tracing, clinical management, laboratory testing and sharing of samples as well as prevention and control measures. City and provincial governments have started to normalize their emergency operations into their routine surveillance and response activities.

So far, there is no evidence of sustained human-to-human transmission...

**Update: Polio this week** - *As of 29 May 2013*

Global Polio Eradication Initiative
http://www.polioeradication.org/Dataandmonitoring/Poliothisweek.aspx

[Editor’s extract and bolded text]
At last week’s World Health Assembly (WHA) in Geneva, Switzerland, health ministers from around the world acknowledged the progress achieved in the past year in bringing polio to its lowest ever levels, thanks to actions of Member States in placing polio eradication on an emergency footing. Delegates endorsed the new Polio Eradication and Endgame Strategic Plan 2013-2018 to secure a lasting polio-free world and urged for its full implementation and financing. For more, please click here.

In the Horn of Africa, four new wild poliovirus (WPV) cases were reported in the past week (one in Kenya and three in Somalia). Outbreak response is continuing. See 'Horn of Africa' section for more.

**Nigeria**

Two new WPV cases were reported in the past week (WPV1s from Borno), bringing the total number of WPV cases for 2013 to 24. One of the new cases is the most recent WPV case in the country, with onset of paralysis on 25 April.

**Pakistan**

One new WPV case was reported in the past week (WPV1 from Khyber Pakhtunkhwa – KP), bringing the total number of WPV cases for 2013 to nine. It is the most recent WPV case in the country, and had onset of paralysis on 3 May.

**Horn of Africa**

Four new WPV cases were reported in the past week (one WPV1 from Dadaab, north-eastern Kenya, and three WPV1s from Somalia), bringing the total number of WPV1 cases in the region to six (two from Kenya and four from Somalia). These latest cases had onset of paralysis between 26 April and 14 May.

Outbreak response activities are continuing in both countries this week. In Kenya, immunization activities began on 26 May, to reach nearly 440,000 children aged less than 15 years across Dadaab. Further SNIDs are planned for a wider area, including parts of Nairobi, on 9 June, followed by large-scale subnational immunization days (SNIDs) in late June. In Somalia, SNIDs are ongoing (26-29 May), including in Banadir region (which includes Mogadishu).

Immunization campaigns are also planned and being conducted in other areas of the Horn of Africa, notably Ethiopia and Yemen, to urgently boost population immunity levels and minimize the risk of spread of the outbreak. In Ethiopia, in border areas with Kenya and Somalia, an immunization activity is planned to start on 31 May (targeting children aged less than 15 years). Focus will be particularly on reaching children in refugee camps. Broader activities are planned for late June.

Yemen is planning two activities in early and late June.

**Wall Street Journal:** ASIA NEWS
Updated May 28, 2013, 5:21 p.m. ET

*Polio Team Pulled From Pakistan City*

World Health Organization Acts in Peshawar After Two Members of Vaccine Team Are Shot
http://online.wsj.com/article/SB10001424127887323855804578511413280432932.html?mod=wsj_streaming_stream#articleTabs%3Darticle

The **Weekly Epidemiological Record (WER) for 31 May 2013**, vol. 88, 22 (pp. 225–232) includes:

Review of the 2012–2013 winter influenza season, northern hemisphere
WHO - Humanitarian Health Action
-No new relevant updates published

UN Watch to 1 June 2013

- Secretary-General Says Findings of Report on Post-2015 Agenda Fill Key Gaps in Millennium Development Goals (30 May 2013)
SG/SM/15065-DEV/2991
- Secretary-General Commends High-level Panel Report’s Call to Place Sustainability at Centre of Post-2015 Development Agenda (30 May 2013)
SG/SM/15064-DEV/2990

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

UN
May 2013, 81 pages

The High Level Panel on the Post-2015 Development Agenda released a report “which sets out a universal agenda to eradicate extreme poverty from the face of the earth by 2030, and deliver on the promise of sustainable development. The report calls upon the world to rally around a new Global Partnership that offers hope and a role to every person in the world.” The Panel was established by United Nations Secretary-General Ban Ki-moon and co-chaired by Indonesian President Susilo Bambang Yudhoyono, Liberian President Ellen Johnson Sirleaf and United Kingdom Prime Minister David Cameron.
http://www.post2015hlp.org/featured/high-level-panel-releases-recommendations-for-worlds-next-development-agenda/

GAVI Alliance welcomes priority given to health and immunisation in High Level Panel Report Statement from Dr Seth Berkley, CEO of the GAVI Alliance, following the publication of the report of the UN High Level Panel of Eminent Persons on the Post-2015 Development Agenda.
The new Countdown report has been produced by a global collaboration of academics and health professionals from Johns Hopkins University, Aga Khan University, Federal University of Pelotas in Brazil, Harvard University, London School of Hygiene and Tropical Medicine, UNICEF, the World Health Organization, UNFPA, Family Care International, Save the Children, and other institutions from around the world. The secretariat of the Countdown to 2015 initiative (www.countdown2015mnch.org) is based at The Partnership for Maternal, Newborn & Child Health.

Countdown to 2015 assesses progress in the 75 countries that together account for more than 95% of all maternal and child deaths. This evidence is intended to support greater progress towards achieving UN Millennium Development Goals (MDGs) 4 and 5 by 2015. These MDGs call for reducing maternal deaths by three-quarters and the deaths of children under 5 years of age by two-thirds compared to 1990 levels.

Accountability for Maternal, Newborn and Child Survival reports on the extent to which women and children have access to key life-saving services in these 75 countries, including family planning, antenatal care, skilled birth attendance, post-natal care, vaccinations, and treatment for diarrhea, pneumonia and other leading killers of young children...

The report also highlights areas where more progress is needed, including:

- Infectious Diseases. Malaria, pneumonia, diarrhea, sepsis, measles, AIDS, and other infectious diseases account for at least half of all young child deaths. Many of these deaths can be prevented with cost-effective interventions. These priorities are highlighted by several recent efforts to scale up action to reduce child mortality, including the Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea, launched last month by WHO and UNICEF; the Global Vaccine Action Plan, endorsed by the 194 member-states of the WHO in 2012; and Committing to Child Survival: A Promise Renewed, led by the governments of India, Ethiopia and the US, supported by UNICEF...
reengage with donors in securing financial support for its activities. Yet at a time when some experts argue it is finally possible to “turn the tide” on HIV/AIDS, malaria, and tuberculosis, it is an open question whether countries and other donors will pledge adequate funding to meet the revitalized Fund’s replenishment goal...

http://smartglobalhealth.org/page/m/c780604/35488746/11f3ad/2614f53b/2136232856/VEsE/

Meeting: The 8th Global Conference on Health Promotion
Finlandia Hall, Helsinki, Finland
10–14 June 2013
This conference is co-hosted by WHO and the Ministry of Social Affairs and Health, Finland. The main theme of the conference is “Health in All Policies” (HiAP) and its focus is on implementation, the “how-to”. It is structured around six themes.
The conference aims to:
- facilitate the exchange of experiences and lessons learnt and give guidance on effective mechanisms for promoting intersectoral action;
- review approaches to address barriers and build capacity for implementing Health in All Policies;
- identify opportunities to implement the recommendations of the Commission on Social Determinants of Health through Health in All Policies;
- establish and review economic, developmental and social case for investing in HiAP;
- address the contribution of health promotion in the renewal and reform of primary health care; and
- review progress, impact and achievements of health promotion since the Ottawa Conference.

http://www.who.int/mediacentre/events/meetings/2013/health_promotion/en/index.html

WHO: Emergency Response Framework (ERF)
May 2013, 51 pages
http://www.who.int/entity/hac/about/erf_.pdf
“ERF is to clarify WHO’s roles and responsibilities and to provide a common approach for its work in emergencies”

Executive Summary
WHO’s Member States face a broad range of emergencies resulting from various hazards and differing in scale, complexity and international consequences. These emergencies can have extensive political, economic, social and public health impacts, with potential long-term consequences sometimes persisting for years after the emergency. They may be caused by natural disasters, conflict, disease outbreaks, food contamination, or chemical or radio-nuclear spills, among other hazards. They can undermine decades of social development and hard-earned health gains, damage hospitals and other health infrastructure, weaken health systems and slow progress towards the Millennium Development Goals (MDGs). Preparing for and responding effectively to such emergencies are among the most pressing challenges facing the international community.
WHO has an essential role to play in supporting Member States to prepare for, respond to and recover from emergencies with public health consequences. WHO also has obligations to the Inter-Agency Standing Committee (IASC) as Health Cluster Lead Agency, to the
international Health Regulations (2005) and to other international bodies and agreements related to emergency response.

The purpose of this Emergency Response Framework (ERF) is to clarify WHO’s roles and responsibilities in this regard and to provide a common approach for its work in emergencies. Ultimately, the ERF requires WHO to act with urgency and predictability to best serve and be accountable to populations affected by emergencies.

First, the ERF sets out WHO’s core commitments in emergency response which are those actions that WHO is committed to delivering in emergencies with public health consequences to minimize mortality and life-threatening morbidity by leading a coordinated and effective health sector response.

Second, the ERF elaborates the steps WHO will take between the initial alert of an event and its eventual emergency classification, including event verification and event risk assessment.

Third, the ERF describes WHO’s internal grading process for emergencies including the purpose of grading, the definitions of the various grades, the criteria for grading, and the steps to remove a grade.

Fourth, this paper describes WHO’s Performance Standards for emergency response: specific deliverables with timelines for completion that are used by WHO to measure its performance.

Fifth, the ERF outlines WHO’s four critical functions during emergency response: leadership, information, technical expertise and core services.

Sixth, the ERF states the role of WHO’s Global Emergency Management Team (GEMT) during emergency response, particularly related to the optimal use of Organization-wide resources, the monitoring of the implementation of relevant procedures and policies, and the management of WHO’s internal and external communications.

Seventh, the ERF outlines WHO’s Emergency Response Procedures (ERPs) that specify roles and responsibilities across the Organization to deliver on the four critical functions and the Performance Standards.

Finally, three essential emergency policies which will optimize WHO’s response are detailed: the surge policy, the Health Emergency Leader policy and the no-regrets policy.

At the end of the document there are six complementary annexes. Annex 1 provides a flow chart of the grading process and Annex 2 a country-level timeline during emergency response. Annex 3 states WHO’s obligations under an Inter-Agency Standing Committee Level 3 emergency; Annex 4 sets out WHO’s Performance Standards in protracted emergencies; Annex 5 defines WHO’s commitment to institutional readiness; and Annex 6 defines WHO’s commitment to emergency risk management.

**Journal Watch**

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

*If you would like to suggest other journal titles to include in this service, please contact David Curry at: david.r.curry@centerforvaccineethicsandpolicy.org*
Parent willingness to remind health care workers to perform hand hygiene

20 December 2012

Genevieve L. Buser, MDCM, MSHP, Brian T. Fisher, DO, MSCE, Judy A. Shea, PhD, Susan E. Coffin, MD, MPH

Background
Health care worker (HCW) hand hygiene (HH) is the core strategy to prevent health care-associated infections (HAI). Suboptimal HCW HH rates continue despite hospital efforts to increase compliance.

Objectives
To determine whether parents of hospitalized children perceive they have a role in preventing HAI and whether they are willing to remind HCW to perform HH, with and without an invitation.

Methods
We conducted structured interviews of parents of children admitted to a pediatric hospital. Questions assessed knowledge, attitudes, and behaviors about HAI and HH. The primary outcome was willingness to remind a HCW to do HH (5-point Likert scale).

Results
We interviewed 115 parents, of whom 84% were aware of HAI. Most parents (78%) perceived HH as the most important practice to prevent HAI. However, only 67% would definitely remind a HCW to perform HH. Importantly, 92% said that an invitation from a HCW would make them more likely to remind a HCW to do HH in the future.

Conclusion
Our results suggest that parents of hospitalized children are willing to help prevent HAI; however one-third are still reluctant to remind HCW to perform HH. An invitation by HCW to parents to remind HCW to perform HH might effectively engage parents as partners in HAI prevention.

Twitter as a source of vaccination information: Content drivers and what they are saying

Brad Love, PhD, Itai Himelboim, PhD, Avery Holton, MA, Kristin Stewart, MBA

Abstract
Twitter is a popular source of health information. This study reports a content analysis of posts about vaccinations, documenting sources, tone, and medical accuracy. Results can help explain patient knowledge and directions for educational campaigns. A set of 6,827 tweets indicates professional sources were shared most and treated positively. Two-thirds of shared medical content were substantiated. One-third of messages were positive, counter to other research and suggesting that users apply critical thinking when evaluating content.
Research article
The role of religious leaders in promoting acceptance of vaccination within a minority group: a qualitative study
Wilhelmina LM Ruijs, Jeannine LA Hautvast, Said Kerrar, Koos van der Velden and Marlies EJL Hulscher
http://www.biomedcentral.com/1471-2458/13/511/abstract

Abstract
Background
Although childhood vaccination programs have been very successful, vaccination coverage in minority groups may be considerably lower than in the general population. In order to increase vaccination coverage in such minority groups involvement of faith-based organizations and religious leaders has been advocated. We assessed the role of religious leaders in promoting acceptance or refusal of vaccination within an orthodox Protestant minority group with low vaccination coverage in The Netherlands.

Methods
Semi-structured interviews were conducted with orthodox Protestant religious leaders from various denominations, who were selected via purposeful sampling. Transcripts of the interviews were thematically analyzed, and emerging concepts were assessed for consistency using the constant comparative method from grounded theory.

Results
Data saturation was reached after 12 interviews. Three subgroups of religious leaders stood out: those who fully accepted vaccination and did not address the subject, those who had religious objections to vaccination but focused on a deliberate choice, and those who had religious objections to vaccination and preached against vaccination. The various approaches of the religious leaders seemed to be determined by the acceptance of vaccination in their congregation as well as by their personal point of view. All religious leaders emphasized the importance of voluntary vaccination programs and religious exemptions from vaccination requirements. In case of an epidemic of a vaccine preventable disease, they would appreciate a dialogue with the authorities. However, they were not willing to promote vaccination on behalf of authorities.

Conclusion
Religious leaders’ attitudes towards vaccination vary from full acceptance to clear refusal. According to orthodox Protestant church order, local congregation members appoint their religious leaders themselves. Obviously they choose leaders whose views are compatible with the views of the congregation members. Moreover, the positions of orthodox Protestant religious leaders on vaccination will not change easily, as their objections to vaccination are rooted in religious doctrine and they owe their authority to their interpretation and application of this doctrine. Although the dialogue with religious leaders that is pursued by the Dutch
government may be helpful in controlling epidemics by other means than vaccination, it is unlikely to increase vaccination coverage.

**British Medical Bulletin**  
Volume 105 Issue 1 March 2013  
[http://bmb.oxfordjournals.org/content/current](http://bmb.oxfordjournals.org/content/current)  
[Reviewed earlier]

**British Medical Journal**  
01 June 2013 (Vol 346, Issue 7910)  
[http://www.bmj.com/content/346/7910](http://www.bmj.com/content/346/7910)  
[No relevant content]

**Bulletin of the World Health Organization**  
Volume 91, Number 6, June 2013, 389-464  
[No relevant content]

**Clinical Therapeutics**  
Vol 35 | No. 5 | May 2013 | Pages 541-744  
[Reviewed earlier; No relevant content]

**Cost Effectiveness and Resource Allocation**  
(Accessed 1 June 2013)  
[No new relevant content]

**Current Opinion in Infectious Diseases.**  
June 2013 - Volume 26 - Issue 3 pp: v-v,213-293  
[http://journals.lww.com/co-infectiousdiseases/pages/currenttoc.aspx](http://journals.lww.com/co-infectiousdiseases/pages/currenttoc.aspx)  
[Reviewed earlier]

**Development in Practice**  
[http://www.tandfonline.com/toc/cdip20/current](http://www.tandfonline.com/toc/cdip20/current)  
[Reviewed earlier; No relevant content]

**Emerging Infectious Diseases**  
Volume 19, Number 6—June 2013
Volume 28 Issue 3  May 2013
http://heapol.oxfordjournals.org/content/current
[Reviewed earlier]

**Human Vaccines & Immunotherapeutics** (formerly Human Vaccines)
Volume 9, Issue 5  May 2013
http://www.landesbioscience.com/journals/vaccines/toc/volume/9/issue/5/
[Reviewed earlier]

**Infectious Diseases of Poverty**
http://www.idpjournal.com/content
[Accessed 1 June 2013]
[No new relevant content]

**International Journal of Epidemiology**
Volume 42 Issue 2 April 2013
http://ije.oxfordjournals.org/content/current
[Reviewed earlier]

**International Journal of Infectious Diseases**
Vol 17 | No. 7 | July 2013
http://www.ijidonline.com/current
[Reviewed earlier]

**JAMA**
May 22, 2013, Vol 309, No. 20
http://jama.ama-assn.org/current.dtl
[No relevant content]

**JAMA Pediatrics**
May 2013, Vol 167, No. 5
http://archpedi.jamanetwork.com/issue.aspx
[Reviewed earlier; No relevant content]

**Journal of Community Health**
Volume 38, Issue 3, June 2013
http://link.springer.com/journal/10900/38/3/page/1
[Reviewed earlier]

**Journal of Health Organization and Management**
Editor’s choice: Loss of Passively Acquired Maternal Antibodies in Highly Vaccinated Populations: An Emerging Need to Define the Ontogeny of Infant Immune Responses

Hayley A. Gans and Yvonne A. Maldonado


http://jid.oxfordjournals.org/content/208/1/1.extract

Extract

Protection against infectious diseases is provided to young infants by passive immunity through the transplacental transfer of immunoglobulin G during pregnancy and through immunoglobulin A in breast milk [1–7]. Despite the obvious benefits of these antibodies to the youngest infants, their levels wane over time, necessitating the development of active immunity through vaccination. The timing of primary vaccination is complex, driven by the need to provide protection prior to a time when the infant is likely to be exposed to disease, by the possibility of interference with vaccine-induced immunity by passively acquired maternal antibodies, and, finally, by considerations of the developing infant immune system [7–9].

The titers of transplacentally transferred passive antibodies (PA) provided to infants are, in part, determined by antibody titers present in the mother during pregnancy. These maternal titers are affected by her nutritional and immune status, and evidence demonstrates that antibody titers induced by vaccination are typically lower than titers induced by natural disease [3, 5, 6, 10]. After decades of vaccination against childhood diseases, it is clear that successful vaccine programs have resulted in dramatic decreases in morbidity and mortality. However, the increasing prevalence of vaccine-derived maternal antibodies has also led to unexpected outcomes. This is most evident in the emergence of measles susceptibility in young infants living in highly vaccinated populations where the measles vaccine has been in use for decades [11–14]. Historically, in developed nations protection against measles among infants <12 months of age was provided by a combination of PA and herd immunity, supported by high population immunization rates. However, this barrier has been disrupted, to a certain extent, by global importation of measles ...

Major Articles and Brief Reports

VIRUSES

Editor’s choice: Waning of Maternal Antibodies Against Measles, Mumps, Rubella, and Varicella in Communities With Contrasting Vaccination Coverage

Sandra Waaijenborg, Susan J. M. Hahné, Liesbeth Mollema, Gaby P. Smits, Guy A. M. Berbers, Fiona R. M. van der Klis, Hester E. de Melker, and Jacco Wallinga


http://jid.oxfordjournals.org/content/208/1/10.abstract

Abstract
Background. The combined measles, mumps, and rubella (MMR) vaccine has been successfully administered for >20 years. Because of this, protection by maternal antibodies in infants born to vaccinated mothers might be negatively affected.

Methods. A large cross-sectional serologic survey was conducted in the Netherlands during 2006–2007. We compared the kinetics of antibody concentrations in children and women of childbearing age in the highly vaccinated general population with those in orthodox Protestant communities that were exposed to outbreaks.

Results. The estimated duration of protection by maternal antibodies among infants in the general population, most of whom were born to vaccinated mothers, was short: 3.3 months for measles, 2.7 months for mumps, 3.9 months for rubella, and 3.4 months for varicella. The duration of protection against measles was 2 months longer for infants born in the orthodox communities, most of whom had unvaccinated mothers. For rubella, mothers in the orthodox communities had higher concentrations of antibodies as compared to the general population.

Conclusion. Children of mothers vaccinated against measles and, possibly, rubella have lower concentrations of maternal antibodies and lose protection by maternal antibodies at an earlier age than children of mothers in communities that oppose vaccination. This increases the risk of disease transmission in highly vaccinated populations.
Editorial

Improving the health response to humanitarian crises

The Lancet

When humanitarian crises happen, the natural response is to get help to those affected as quickly as possible. But when governments, agencies, and charities respond to a crisis, are they responding in the best way possible? In 2011, the UK's Humanitarian Emergency Response Review, chaired by Paddy Ashdown, found that the evidence base for action in these settings was weak.

Comment

Avian influenza A H7N9 in Zhejiang, China

On March 31, 2013, the China Health and Planning Commission notified WHO of three human infections in Shanghai and Anhui with a novel influenza virus characterised as avian influenza A H7N9 (illness onset between Feb 19 and March 15, 2013). Genetic characterisation showed that this virus resulted from recombination of genes between three parent viruses noted in Asia in poultry and wild birds. The severity of disease was remarkable, as was the fact that patients were from towns located 400 km apart, and had no epidemiological connection.

Comment

Genesis of avian-origin H7N9 influenza A viruses

Since March, 2013, 126 laboratory-confirmed cases of avian influenza A H7N9 have been detected in ten provinces or municipalities in east and southeast China (as of April 30, 2013). Most H7N9-infected patients are older (approximate median age 62 years) urban men who reported exposure to chickens or captive-bred pigeons either professionally or through visits to live poultry markets. Patients rapidly develop progressive pneumonia leading to acute respiratory distress syndrome and multiorgan failure.

World Report

Revising the Declaration of Helsinki

The Declaration of Helsinki is undergoing its seventh revision. Reaction to the first draft, out for public consultation until June 15, has been polarised. Kelly Morris investigates.
Cross species poultry-to-person transmission of this new reassortant H7N9 virus is associated with severe pneumonia and multiorgan dysfunction in human beings. Monitoring of the viral evolution and further study of disease pathogenesis will improve disease management, epidemic control, and pandemic preparedness.

**Origin and diversity of novel avian influenza A H7N9 viruses causing human infection: phylogenetic, structural, and coalescent analyses**

Di Liu, Weifeng Shi, Yi Shi, Dayan Wang, Haixia Xiao, Wei Li, Yuhai Bi, Ying Wu, Xianbin Li, Jinghua Yan, Wenjun Liu, Guoping Zhao, Weizhong Yang, Yu Wang, Juncai Ma, Yuelong Shu, Fumin Lei, George F Gao

http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)60938-1/abstract

The novel avian influenza A H7N9 virus might have evolved from at least four origins. Diversity among isolates implies that the H7N9 virus has evolved into at least two different lineages. Unknown intermediate hosts involved might be implicated, extensive global surveillance is needed, and domestic-poultry-to-person transmission should be closely watched in the future.
Comparative Effectiveness of Acellular Versus Whole-Cell Pertussis Vaccines in Teenagers
Nicola P. Klein, MD, PhD, Joan Bartlett, MPH, MPP, Bruce Fireman, MA, Ali Rowhani-Rahbar, MD, MPH, PhD, and Roger Baxter, MD
http://pediatrics.aappublications.org/content/131/6/e1716.abstract

Abstract
BACKGROUND: During the 1990s, the United States switched from combined diphtheria, tetanus toxoids, whole-cell pertussis (DTwP) vaccines to combined acellular pertussis (DTaP) vaccines because of safety concerns. After a 2010–2011 pertussis outbreak, we sought to evaluate whether disease risk in 10 to 17 year olds differed between those who previously received DTwP from those who received DTaP.

METHODS: A case-control study among individuals born from 1994 to 1999 who received 4 pertussis-containing vaccines during the first 2 years of life at Kaiser Permanente Northern California (KPNC). We separately compared pertussis polymerase chain reaction (PCR)-positive cases with PCR-negative and KPNC-matched controls. We assessed risk of pertussis relative to vaccine type in early childhood (4 DTwPs, mixed DTwP/DTaP, or 4 DTaPs) by using conditional logistic regression stratified for calendar time and adjusted for gender, race, medical clinic, and receipt of reduced antigen content acellular pertussis (Tdap) vaccine.

RESULTS: We compared 138 PCR-positive cases with 899 PCR-negative and 54,339 KPNC-matched controls. Teenagers who had received 4 DTwPs were much less likely to be pertussis PCR-positive than those who had received 4 DTaPs (odds ratio 5.63, 95% confidence interval 2.55–12.46) or mixed DTwP/DTaP vaccines (odds ratio 3.77, 95% confidence interval 1.57–9.07). Decreasing number of DTwP doses was significantly associated with increased pertussis risk (P < .0001).

CONCLUSIONS: Teenagers who received DTwP vaccines in childhood were more protected during a pertussis outbreak than were those who received DTaP vaccines.

Article
Pregnancy Dose Tdap and Postpartum Cocooning to Prevent Infant Pertussis: A Decision Analysis
Andrew Terranella, MD, MPH, Garrett R. Beeler Asay, PhD, Mark L. Messonnier, PhD, Thomas A. Clark, MD, MPH, and Jennifer L. Liang, DVM, MPVM
http://pediatrics.aappublications.org/content/131/6/e1748.abstract

Abstract
BACKGROUND: Infants <2 months of age are at highest risk of pertussis morbidity and mortality. Until recently, the US Advisory Committee on Immunization Practices (ACIP) recommended protecting young infants by "cocooning" or vaccination of postpartum mothers and other close contacts with tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis, adsorbed (Tdap) booster vaccine. ACIP recommends pregnancy vaccination as a preferred and safe alternative to postpartum vaccination. The ACIP cocooning recommendation has not changed.

METHODS: We used a cohort model reflecting US 2009 births and the diphtheria-tetanus-acellular pertussis schedule to simulate a decision and cost-effectiveness analysis of Tdap vaccination during pregnancy compared with postpartum vaccination with or without vaccination of other close contacts (ie, cocooning). We analyzed infant pertussis cases, hospitalizations, and deaths, as well as direct disease, indirect, and public health costs for infants in the first year of life. All costs were updated to 2011 US dollars.

RESULTS: Pregnancy vaccination could reduce annual infant pertussis incidence by more than postpartum vaccination, reducing cases by 33% versus 20%, hospitalizations by 38% versus
19%, and deaths by 49% versus 16%. Additional cocooning doses in a father and 1 grandparent could avert an additional 16% of cases but at higher cost. The cost per quality-adjusted life-year saved for pregnancy vaccination was substantially less than postpartum vaccination ($414,523 vs $1,172,825).

CONCLUSIONS: Tdap vaccination during pregnancy could avert more infant cases and deaths at lower cost than postpartum vaccination, even when postpartum vaccination is combined with additional cocooning doses. Pregnancy dose vaccination is the preferred alternative to postpartum vaccination for preventing infant pertussis.

Article

Intussusception After Rotavirus Vaccines Reported to US VAERS, 2006–2012
Penina Haber, MPH, Manish Patel, MD, Yi Pan, PhD, James Baggs, PhD, Michael Haber, PhD, Oidda Museru, MPH, Xin Yue, MS, Paige Lewis, MSPH, Frank DeStefano, MD, MPH, and Umesh D. Parashar, MBBS, MPH

Abstract
BACKGROUND: In 2006 and 2008, 2 new rotavirus vaccines (RotaTeq [RV5] and Rotarix [RV1]) were introduced in the United States.

METHODS: We assessed intussusception events reported to the Vaccine Adverse Event Reporting System from February 2006 through April 2012 for RV5 and from April 2008 through April 2012 for RV1. For RV5, we conducted a self-controlled risk interval analysis using Poisson regression to estimate the daily reporting ratio (DRR) of intussusception comparing average daily reports 3 to 6 versus 0 to 2 days after vaccination. We calculated reporting rate differences based on DRRs and background rates of intussusception. Sensitivity analyses were conducted to assess effects of differential reporting completeness and inaccuracy of baseline rates. Few reports were submitted after RV1, allowing only a descriptive analysis.

RESULTS: The Vaccine Adverse Event Reporting System received 584 confirmed intussusception reports after RV5 and 52 after RV1, with clustering 3 to 6 days after both vaccines. The DRR comparing the 3- to 6-day and the 0- to 2-day periods after RV5 dose 1 was 3.75 (95% confidence interval = 1.90 to 7.39). There was no significant increase in reporting after dose 2 or dose 3. Over all 3 doses, the excess risk of intussusception was 0.79 events (95% confidence interval = −0.04 to 1.62) per 100,000 vaccinations. From the sensitivity analyses, we conclude that under a worst-case scenario, the DRR could be 5.00 and excess risk per 100,000 doses could be 1.36.

CONCLUSIONS: We observed a persistent clustering of reported intussusception events 3 to 6 days after the first dose of RV5 vaccination. This clustering could translate to a small increased risk of intussusception, which is outweighed by the benefits of rotavirus vaccination.

Article

Effectiveness of Decision Support for Families, Clinicians, or Both on HPV Vaccine Receipt
Alexander G. Fiks, MD, MSCE; Robert W. Grundmeier, MD; Lihai Song, MS; Kristen Feemster, MD, MPH, MSHP; Dean Karavite, MSI; Cayce C. Hughes, MPH; James Massey, RN; Ron Keren, MD, MPH; Louis M. Bell, MD; Richard Wasserman, MD, and A. Russell Localio, PhD

Abstract
OBJECTIVE: To improve human papillomavirus (HPV) vaccination rates, we studied the effectiveness of targeting automated decision support to families, clinicians, or both.

METHODS: Twenty-two primary care practices were cluster-randomized to receive a 3-part clinician-focused intervention (education, electronic health record-based alerts, and audit and
feedback) or none. Overall, 22,486 girls aged 11 to 17 years due for HPV vaccine dose 1, 2, or 3 were randomly assigned within each practice to receive family-focused decision support with educational telephone calls. Randomization established 4 groups: family-focused, clinician-focused, combined, and no intervention. We measured decision support effectiveness by final vaccination rates and time to vaccine receipt, standardized for covariates and limited to those having received the previous dose for HPV #2 and 3. The 1-year study began in May 2010.

RESULTS: Final vaccination rates for HPV #1, 2, and 3 were 16%, 65%, and 63% among controls. The combined intervention increased vaccination rates by 9, 8, and 13 percentage points, respectively. The control group achieved 15% vaccination for HPV #1 and 50% vaccination for HPV #2 and 3 after 318, 178, and 215 days. The combined intervention significantly accelerated vaccination by 151, 68, and 93 days. The clinician-focused intervention was more effective than the family-focused intervention for HPV #1, but less effective for HPV #2 and 3.

CONCLUSIONS: A clinician-focused intervention was most effective for initiating the HPV vaccination series, whereas a family-focused intervention promoted completion. Decision support directed at both clinicians and families most effectively promotes HPV vaccine series receipt.

Pharmaceutics
Volume 5, Issue 2 (June 2013), Pages 220-
http://www.mdpi.com/1999-4923/5/2
[Reviewed earlier; No relevant content]

Pharmacoeconomics
Volume 31, Issue 5, May 2013
http://link.springer.com/journal/40273/31/5/page/1
[No relevant content]

PLoS One
[Accessed 1 June 2013]
http://www.plosone.org/
Meningococcal Serogroup A, C, W135 and Y Conjugated Vaccine: A Cost-Effectiveness Analysis in the Netherlands
Hiltsje Hepkema, Koen B. Pouwels, Arie van der Ende, Tjalke A. Westra, Maarten J. Postma
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0065036

Abstract

Background

In 2002, vaccination with a serogroup C meningococcal conjugate vaccine (MenC) was introduced in the Netherlands for all children aged 14 months. Despite its success, herd immunity may wane over time. Recently, a serogroup A,C,W135,Y meningococcal conjugate vaccine (MenACWY) was licensed for use in subjects of 12 months of age and above.

Objectives

To evaluate the cost-effectiveness of meningococcal vaccination at 14 months and an additional vaccination at the age of 12 years, both with the MenACWY vaccine.

Methods
A decision analysis cohort model, with 185,000 Dutch newborns, was used to evaluate the cost-effectiveness of different immunization strategies. For strategies including a vaccination at 12 years of age, an additional cohort with adolescents aged 12 years was followed. The incremental cost-effectiveness ratio (ICER) was estimated for the current disease incidence and for a scenario when herd immunity is lost.

**Results**

Vaccination with MenACWY at 14 months is cost-saving. Vaccinating with MenACWY at 14 months and at 12 years would prevent 7 additional cases of meningococcal serogroup A,C,W135,Y disease in the birth cohort and adolescent cohort followed for 99 years compared to the current vaccine schedule of a single vaccination with MenC at 14 months. With the current incidence, this strategy resulted in an ICER of €635,334 per quality adjusted life year. When serogroup C disease incidence returns to pre-vaccination levels due to a loss of vaccine-induced herd-immunity, vaccination with MenACWY at 14 months and at 12 years would be cost-saving.

**Conclusions**

Routine vaccination with MenACWY is cost-saving. With the current epidemiology, a booster-dose with MenACWY is not likely cost-effective. When herd immunity is lost, a booster-dose has the potential of being cost-effective. A dynamic model should be developed for more precise estimation of the cost-effectiveness of the prevention of disappearance of herd immunity.
Accelerating Next-Generation Vaccine Development for Global Disease Prevention

Abstract

Background

Vaccines have provided some of the greatest successes in the history of medicine, including the eradication of smallpox, the near eradication of polio, and the prevention of considerable morbidity and mortality from numerous infectious diseases each year. However, past strategies for vaccine development are unlikely to succeed in the future against major global diseases such as AIDS, tuberculosis, and malaria. For such diseases, the correlates of protection are poorly defined, and the pathogens evade immune detection and/or exhibit extensive genetic variability. Limitations of animal models to predict human immune responses to vaccines, coupled with low success rates for vaccine development compared with biopharmaceuticals, suggest that new paradigms must be implemented for accelerating vaccine development.

Advances

Recent technological advances in molecular genetics, molecular and cellular immunology, structural biology, bioinformatics, computational biology, nanotechnology, formulation methods, and systems biology are ushering in a new era of vaccine discovery. For example, genomic-based antigen discovery is being exploited for the design of vaccines against multiple bacterial pathogens. Similarly, interrogation of the memory B cell and antibody repertoires from virus-infected subjects has led to the identification of broadly neutralizing antibodies against HIV, influenza, and other viruses, which are now being exploited as tools to design highly conserved epitope-based vaccines. Advances in adjuvant and vector delivery technologies are providing novel approaches for immune potentiation of vaccines, offering new strategies for improving vaccine response rates in neonates and the elderly. However, translation of these advances into vaccines remains impeded by major gaps in our knowledge of human immune responses, including methods to focus immune responses on subdominant protective epitopes, to elicit long-term memory responses, and to drive antibody maturation processes. These gaps can now be addressed given the technological advances described, including the development of approaches to analyze immune responses at the single-cell and systems levels.

Outlook

Successful development of vaccines against the major global diseases for which vaccines do not currently exist would be transformational for public health, with huge benefits across society. To accelerate next-generation vaccine development, we propose that new human
immunology–based clinical research initiatives be established, with the goal of elucidating and more effectively generating vaccine-induced protective immune responses. Collectively, such a "Human Vaccines Project" holds the potential to greatly accelerate the development of next-generation vaccines against major global killers such as AIDS, tuberculosis, malaria, and other infectious diseases; enable more successful vaccine development against allergies, autoimmune diseases, and cancers; and provide a foundation for vaccine development against new and emerging diseases.

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29 May 2013 vol 5, issue 187
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Volume 86, Pages 1-112 (June 2013)
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Volume 88, Pages 1-116 (July 2013)
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Volume 89, Pages 1-62 (July 2013)
[No relevant content]
Volume 90, In Progress (August 2013)
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Vaccine

Volume 31, Issue 22, Pages 2539-2598 (24 May 2013)

Teenagers' understandings of and attitudes towards vaccines and vaccine-preventable diseases: A qualitative study

Original Research Article
Pages 2543-2550
S. Hilton, C. Patterson, E. Smith, H. Bedford, K. H

Abstract
Background
To examine immunisation information needs of teenagers we explored understandings of vaccination and vaccine-preventable diseases, attitudes towards immunisation and experiences of immunisation. Diseases discussed included nine for which vaccines are currently offered in the UK (human papillomavirus, meningitis, tetanus, diphtheria, polio, whooping cough, measles, mumps and rubella), and two not currently included in the routine UK schedule (hepatitis B and chickenpox).

Methods
Twelve focus groups conducted between November 2010 and March 2011 with 59 teenagers (29 girls and 30 boys) living in various parts of Scotland.

Results
Teenagers exhibited limited knowledge and experience of the diseases, excluding chickenpox. Measles, mumps and rubella were perceived as severe forms of chickenpox-like illness, and rubella was not associated with foetal damage. Boys commonly believed that human papillomavirus only affects girls, and both genders exhibited confusion about its relationship with cancer. Participants considered two key factors when assessing the threat of diseases: their prevalence in the UK, and their potential to cause fatal or long-term harm. Meningitis was seen as a threat, but primarily to babies. Participants explained their limited knowledge as a result of mass immunisation making once-common diseases rare in the UK, and acknowledged immunisation's role in reducing disease prevalence.

Conclusions
While it is welcome that fewer teenagers have experienced vaccine-preventable diseases, this presents public health advocates with the challenge of communicating benefits of immunisation when advantages are less visible. The findings are timely in view of the Joint Committee on Vaccination and Immunisation's recommendation that a booster of meningitis C vaccine should be offered to teenagers; that teenagers did not perceive meningitis C as a significant threat should be a key concern of promotional information. While teenagers’ experiences of immunisation in school were not always positive, they seemed enthusiastic at the prospect of introducing more vaccines for their age group.

Cost–benefit analysis of hospital based postpartum vaccination with combined tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine (Tdap)

Original Research Article
Pages 2558-2564
Yao Ding, Sylvia H. Yeh, Chris Anna M. Mink, Kenneth M. Zangwill, Norma J. Allred, Joel W. Ha

Abstract
Objective
To assess the economic benefits associated with hospital-based postpartum Tdap (combined tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis) vaccination.

Methods
A decision tree model was constructed to calculate the potential cost–benefit of this strategy from both a health care system and a societal perspective. Probabilities and costs were derived from published literature, data reported to Centers for Disease Control and Prevention, and recommendations from expert panels. The maternal vaccination protection period for infants was defined as 7 months, and 10 years of waning immunity following Tdap for birth mothers was estimated in the model. All cost estimates were inflated to year 2012 US dollars and discounted at a 3% annual discount rate.

Results
In the base case from a societal perspective, the expected costs per vaccinated and unvaccinated mother were estimated at $129.27 and $187.97, respectively, suggesting an expected net benefit of $58.70 per vaccinated mother. The overall societal benefits in the cohort of 3.6 million U.S. birth mothers ranged from $52.8–126.8 million, depending on the vaccination coverage level. If including direct medical costs only, the strategy would not generate net savings from a health care system perspective. Annual incidence of pertussis in birth mothers and Tdap efficacy exhibited substantial impact on the model as shown in one-way and two-way sensitivity analyses.

Conclusions
Although postpartum Tdap vaccination is not cost-beneficial from a health care system perspective in the base case, this strategy is likely to generate net benefits from a societal perspective.

**Postlicensure surveillance for pre-specified adverse events following the 13-valent pneumococcal conjugate vaccine in children**

Original Research Article

*Pages 2578-2583*

Hung Fu Tseng, Lina S. Sy, In-Lu Amy Liu, Lei Qian, S. Michael Marcy, Eric Weintraub, Katherine Yih, Roger Baxter, Jason M. Glanz, James Donahue, Allison Naleway, James Nordin, Steven J. Jacobsen

**Abstract**

Although no increased risk was detected for serious adverse events in the prelicensure trials for the 13-valent pneumococcal vaccine, Prevnar 13® (PCV13), continued monitoring of rare but serious adverse events is necessary. A surveillance system using cohort study design was set up to monitor safety of PCV13 immediately after it was included in the childhood immunization program in the United States. The exposed population included children of 1 month to 2 years old who received PCV13 from April, 2010 to January, 2012 from the eight managed care organizations participating in the Vaccine Safety Datalink Project in the United States. The historical unexposed population was children of the same age who received the 7-valent pneumococcal conjugate vaccine Prevnar 7® (PCV7) in 2007 (or 2005 depending on the outcome of interest) to 2009. The risk of pre-specified adverse events in the risk window following PCV13 was repeatedly compared to that in the historical comparison group. The number of doses included in the study was 599,229. No increased risk was found for febrile seizures, urticaria or angioneurotic edema, asthma, thrombocytopenia, or anaphylaxis. An increased risk for encephalopathy was not confirmed following the medical record review. The relative risk for Kawasaki disease in 0–28 days following vaccination was 1.94 (95% confidence interval: 0.79–4.86), comparing PCV13 to PCV7. Comparing to PCV7 vaccine, we identified no significant increased risk of pre-specified adverse events in the Vaccine Safety Datalink study cohort. The possible association between PCV13 and Kawasaki disease may deserve further investigation.

**Vaccine**

*Volume 31, Issue 23, Pages 2599-2658 (28 May 2013)*

**Long-term safety assessment of live attenuated tetravalent dengue vaccines: Deliberations from a WHO technical consultation**

Original Research Article

*Pages 2603-2609*


**Abstract**

Dengue is a rapidly growing public health threat with approximately 2.5 billion people estimated to be at risk. Several vaccine candidates are at various stages of pre-clinical and clinical development. Thus far, live dengue vaccine candidates have been administered to several thousands of volunteers and were well-tolerated, with minimal short-term safety effects reported in Phase I and Phase II clinical trials. Based on the natural history of dengue, a theoretical possibility of an increased risk of severe dengue as a consequence of vaccination has been hypothesized but not yet observed. In October 2011, the World Health Organization
WHO convened a consultation of experts in dengue, vaccine regulation and vaccine safety to review the current scientific evidence regarding safety concerns associated with live attenuated dengue vaccines and, in particular, to consider methodological approaches for their long-term evaluation. In this paper we summarize the scientific background and methodological considerations relevant to the safety assessment of these vaccines. Careful planning and a coordinated approach to safety assessment are recommended to ensure adequate long-term evaluation of dengue vaccines that will support their introduction and continued use.

Introducing vaccination against serogroup B meningococcal disease: An economic and mathematical modelling study of potential impact
Original Research Article
Pages 2638-2646
Hannah Christensen, Matthew Hickman, W. John Edmunds, Caroline L. Trotter

Abstract
Background
Meningococcal disease remains an important cause of morbidity and mortality worldwide. The first broadly effective vaccine against group B disease (which causes considerable meningococcal disease in Europe, the Americas and Australasia) was licensed in the EU in January 2013; our objective was to estimate the potential impact of introducing such a vaccine in England.

Methods
We developed two models to estimate the impact of introducing a new ‘MenB’ vaccine. The cohort model assumes the vaccine protects against disease only; the transmission dynamic model also allows the vaccine to protect against carriage (accounting for herd effects). We used these, and economic models, to estimate the case reduction and cost-effectiveness of a number of different vaccine strategies.

Results
We estimate 27% of meningococcal disease cases could be prevented over the lifetime of an English birth cohort by vaccinating infants at 2,3,4 and 12 months of age with a vaccine that prevents disease only; this strategy could be cost-effective at £9 per vaccine dose. Substantial reductions in disease (71%) can be produced after 10 years by routinely vaccinating infants in combination with a large-scale catch-up campaign, using a vaccine which protects against carriage as well as disease; this could be cost-effective at £17 per vaccine dose.

Conclusions
New ‘MenB’ vaccines could substantially reduce disease in England and be cost-effective if competitively priced, particularly if the vaccines can prevent carriage as well as disease. These results are relevant to other countries, with a similar epidemiology to England, considering the introduction of a new ‘MenB’ vaccine.

Indicators to assess National Immunization Technical Advisory Groups (NITAGs)
Original Research Article
Pages 2653-2657

Abstract
A National Immunization Technical Advisory Group (NITAG) is an expert advisory committee that provides evidence-based recommendations to the Ministry of Health (MoH) to guide immunization programs and policies. The World Health Organization (WHO), the Initiative for Supporting National Independent Immunization and Vaccine Advisory Committees (SIVAC) at
Agence de Médecine Préventive (AMP) and the US Centers for Disease Control and Prevention (US CDC) engaged NITAG stakeholders and technical partners in the development of indicators to assess the effectiveness of NITAGs. A list of 17 process, output and outcome indicators was developed and tested in 14 countries to determine whether they were understandable, feasible to collect, and useful for the countries. Based on the findings, a revised version of the indicators is proposed for self-assessment in the countries, as well as for global monitoring of the NITAGs.

**Vaccine**

**Volume 31, Issue 24, Pages 2659-2722 (31 May 2013)**

Economic analysis of measles elimination program in the Republic of Korea, 2001: A cost benefit analysis study

Original Research Article

*Pages 2661-2666*

Geun-Ryang Bae, Young June Choe, Un Yeong Go, Yong-Ik Kim, Jong-Koo Lee

**Abstract**

**Background**

In this study, we modeled the cost benefit analysis for three different measles vaccination strategies based upon three different measles-containing vaccines in Korea, 2001. We employed an economic analysis model using vaccination coverage data and population-based measles surveillance data, along with available estimates of the costs for the different strategies. In addition, we have included analysis on benefit of reduction of complication by mumps and rubella.

**Methods**

We evaluated four different strategies: strategy 1, keep-up program with a second dose measles-mumps-rubella (MMR) vaccine at 4–6 years without catch-up campaign; strategy 2, additional catch-up campaign with measles (M) vaccine; strategy 3, catch-up campaign with measles-rubella (MR) vaccine; and strategy 4, catch-up campaign with MMR vaccine. The cost of vaccination included cost for vaccines, vaccination practices and other administrative expenses. The direct benefit of estimated using data from National Health Insurance Company, a government-operated system that reimburses all medical costs spent on designated illness in Korea.

**Results**

With the routine one-dose MMR vaccination program, we estimated a baseline of 178,560 measles cases over the 20 years; when the catch-up campaign with M, MR or MMR vaccines was conducted, we estimated the measles cases would decrease to 5936 cases. Among all strategies, the two-dose MMR keep-up program with MR catch-up campaign showed the highest benefit-cost ratio of 1.27 with a net benefit of 51.6 billion KRW.

**Conclusion**

Across different vaccination strategies, our finding suggest that MR catch-up campaign in conjunction with two-dose MMR keep-up program was the most appropriate option in terms of economic costs and public health effects associated with measles elimination strategy in Korea.

**Who is unlikely to report adverse events after vaccinations to the Vaccine Adverse Event Reporting System (VAERS)?**

Original Research Article

*Pages 2673-2679*

Michael M. McNeil, Rongxia Li, Susanne Pickering, Theresa M. Real, Philip J. Smith, Michael R. Pemberton

**Abstract**
Background
Healthcare provider (HCP) reporting to the Vaccine Adverse Event Reporting System (VAERS) is important to assuring the safety of U.S. licensed vaccines. HCP awareness of and practices regarding reporting of adverse events following immunization (AEFI) is understudied.

Methods
A large, nationally representative sample of U.S. office-based HCP across three occupational groups (physicians, mid-level providers [physician assistants, advanced practice nurses] and nurses) and three primary care practice areas (pediatrics, family medicine, internal medicine) were surveyed utilizing standardized methodology. We assessed HCP familiarity with VAERS, the situations under which they were likely to report an AEFI, and the methods they used and preferred for reporting. We used logistic regression to determine factors associated with HCP not reporting AEFI to VAERS.

Results
Our survey response rate was 54.9%. The percentage of HCP aware of VAERS (71%) varied by occupation and primary care practice area. About 37% of HCP had identified at least one AEFI with only 17% of these indicating that they had ever reported to VAERS. More serious events were more likely to be reported. Factors associated with HCP not reporting AEFI included: HCP not familiar versus very familiar with filing a paper VAERS report (OR = 12.84; p < 0.0001), primary care practice area of internal medicine versus pediatrics (OR = 4.22; p = 0.0005), and HCP not familiar versus very familiar with when it was required to file a VAERS report (OR = 5.52; p = 0.0013).

Conclusions
Specific educational interventions targeted to HCP likely to see AEFI but not currently reporting may improve vaccine safety reporting practices.

Have changing pneumococcal vaccination programmes impacted disease in Ontario?


Original Research Article
Pages 2680-2685

Abstract
Background
Publicly funded infant 7-valent pneumococcal conjugate vaccine (PCV7) was introduced in Ontario, Canada in 2005 and was replaced by 10- and 13-valent vaccines (PCV10, PCV13) in October 2009 and November 2010, respectively. Among adults ≥ 65 years, a 23-valent polysaccharide vaccine (PPV23) has been universally available since 1996. In January 2012, PCV13 was approved for adults ≥ 50 years. This study examines the impact of publicly funded vaccination programmes on invasive pneumococcal disease (IPD).

Methods
Laboratory data from population-based surveillance for IPD conducted at the Toronto Invasive Bacterial Disease Network and from Public Health Ontario Laboratories between January 1, 2008 and December 31, 2010 were analyzed.

Results
Between 2008 and 2010 there were 3259 cases of IPD; overall incidence was 7.4/9.3/8.3 per 100,000 in 2008/9/10, respectively. Incidence increased significantly among adults 65+ years during the period; this group had the highest incidence (21.5–25.6/100,000). The second highest incidence in 2008 and 2009 was in infants <1 year, whereas in 2010 it was in children 1–4 years. Among children <5 years, 68% and 19% of serotypes were covered by PCV13 and PCV10, respectively, between 2008 and 2010. In 2009, 6 cases with the 3 additional PCV10
serotypes were reported in infants compared with 2 in 2010. Among persons eligible for PCV7 (born ≥ 2004), there was a 77% decrease in the rate of IPD due to PCV7 serotypes between 2008 and 2010 and a 60% decrease in PCV7 serotypes among persons not vaccine-eligible (born < 2004). There was a 15% difference in serotype coverage between PCV13 and the 23-valent polysaccharide vaccine in adults ≥ 50 years.

Conclusions
During Ontario's PCV7 programme, serotype-specific decreases in IPD were observed, suggesting vaccine programme success, including herd immunity. Our results also suggest some early impact among infants from PCV10 introduction. A substantial burden of disease was also observed among older adults.

Vaccine
Volume 31, Issue 25, Pages 2723-2786 (7 June 2013)
Vaccine review: “Staphylococcus aureus vaccines: Problems and prospects”

Review Article
Pages 2723-2730
Kathrin U. Jansen, Douglas Q. Girgenti, Ingrid L. Scully, Annaliesa S. Anderson

Abstract
Staphylococcus aureus is a leading cause of both healthcare- and community-associated infections globally. S. aureus exhibits diverse clinical presentations, ranging from benign carriage and superficial skin and soft tissue infections to deep wound and organ/space infections, biofilm-related prosthesis infections, life-threatening bacteremia and sepsis. This broad clinical spectrum, together with the high incidence of these disease manifestations and magnitude of the diverse populations at risk, presents a high unmet medical need and a substantial burden to the healthcare system. With the increasing propensity of S. aureus to develop resistance to essentially all classes of antibiotics, alternative strategies, such as prophylactic vaccination to prevent S. aureus infections, are actively being pursued in healthcare settings. Within the last decade, the S. aureus vaccine field has witnessed two major vaccine failures in phase 3 clinical trials designed to prevent S. aureus infections in either patients undergoing cardiothoracic surgery or patients with end-stage renal disease undergoing hemodialysis. This review summarizes the potential underlying reasons why these two approaches may have failed, and proposes avenues that may provide successful vaccine approaches to prevent S. aureus disease in the future.

An overview of meningococcal disease in India: Knowledge gaps and potential solutions

Review Article
Pages 2731-2737
T. Jacob John, Sunil Gupta, A.J. Chitkara, Ashok Kumar Dutta, Ray Borrow

Abstract
The Global Meningococcal Initiative (GMI) consists of an international group of scientists and clinicians, with expertise in meningococcal immunology, epidemiology, public health and vaccinology that aims to prevent meningococcal disease worldwide through education, research, cooperation and vaccination. In India, there is no national policy on routine meningococcal vaccination to control the disease. The GMI convened a meeting in India, with local medical leaders and public policy personnel, to gain insight into meningococcal disease burden and current surveillance and vaccination practices in the country. Neisseria meningitidis is the third most common cause of sporadic bacterial meningitis in children <5 years, with higher incidence in temperate northern versus tropical southern India. Incidence is not reliably
known due to suboptimal surveillance and insufficient microbiological support for diagnosis. Since 2005, there have been a number of outbreaks, all attributable to serogroup A. Outbreak responses were ad hoc and included mandatory case reporting by hospitals in Delhi, temporary strengthening of laboratory diagnostics, chemoprophylaxis of close contacts/high-risk groups and limited reactive use of polysaccharide vaccine. Although a conjugate serogroup A vaccine (MenAfriVac™) is manufactured in India, it is not presently used in India. Epidemiological data on meningococcal disease in India are sparse. Meningococcal disease control efforts should focus on establishing systematic surveillance and educating physicians and officers of the Immunization Division of the Ministry of Health on the importance of N. meningitidis as a cause of morbidity and mortality. Conjugate vaccine should be used for outbreak control and the immunization of high-risk persons.

**Economic evaluation of vaccination programme of 13-valent pneumococcal conjugate vaccine to the birth cohort in Japan**

Original Research Article

*Pages 2762-2771*

Shu-ling Hoshi, Masahide Kondo, Ichiro Okubo

**Abstract**

Japan is now preparing to incorporate PCV-7 into the national childhood immunisation programme. Our recently published economic evaluation of using PCV-7 to the birth cohort suggests that the cost to gain one QALY is lower than the WHO's cost-effectiveness criterion for intervention. However, many countries have started to introduce PCV-13 into their national immunisation schedule replacing PCV-7 for preventing pneumococcal diseases among young children. These raise the need to appraise the 'value for money' of replacing PCV-7 with PCV-13 vaccination programme in Japan.

We conducted a cost-effectiveness analysis with Markov model and calculated incremental cost effectiveness ratios (ICERs). Our base-case analyses, which assumed both PCVs have no net indirect effect and set the cost of PCV-7/PCV-13 per shot at ¥10,000 (US$125)/¥13,000 (US$163).

The results show that in Base-case A (assumed PCV-13 has no additional protection against AOM compared to PCV-7), replacing PCV-7 with PCV-13 will cost ¥37,722,901 (US$471,536) or ¥35,584,455 (US$444,850) per QALY when the caregiver's productivity loss is not included or is included, respectively. While in Base-case B (assumed PCV-13 has additional protection against AOM compared to PCV-7), ¥343,830 (US$4298) per QALY or more QALY is gained by saving money without or with caregiver's productivity loss, respectively.

We also find that, in Base-case B if cost per PCV-13 shot is equal to or less than that ¥17,000, then a PCV-13 vaccination programme offered to the birth cohort in Japan is likely to be a socially acceptable option compared to the current PCV-7 vaccination programme. Furthermore, if cost per PCV-13 shot is equal to or less than ¥12,000, replacing PCV-7 with PCV-13 will save money and gain more QALYs. While in Base-case A, the replacement can only be socially acceptable if cost per PCV-13 shot is equal to or less than ¥11,000.

**Reducing children’s pain and distress towards flu vaccinations: A novel and effective application of humanoid robotics**

Original Research Article

*Pages 2772-2777*

Tanya N. Beran, Alex Ramirez-Serrano, Otto G. Vanderkooi, Susan Kuhn

**Abstract**

**Objective**
Millions of children in North America receive an annual flu vaccination, many of whom are at risk of experiencing severe distress. Millions of children also use technologically advanced devices such as computers and cell phones. Based on this familiarity, we introduced another sophisticated device – a humanoid robot – to interact with children during their vaccination. We hypothesized that these children would experience less pain and distress than children who did not have this interaction.

Method
This was a randomized controlled study in which 57 children (30 male; age, mean ± SD: 6.87 ± 1.34 years) were randomly assigned to a vaccination session with a nurse who used standard administration procedures, or with a robot who was programmed to use cognitive-behavioral strategies with them while a nurse administered the vaccination. Measures of pain and distress were completed by children, parents, nurses, and researchers.

Results
Multivariate analyses of variance indicated that interaction with a robot during flu vaccination resulted in significantly less pain and distress in children according to parent, child, nurse, and researcher ratings with effect sizes in the moderate to high range (Cohen's d = 0.49–0.90).

Conclusion
This is the first study to examine the effectiveness of child–robot interaction for reducing children's pain and distress during a medical procedure. All measures of reduction were significant. These findings suggest that further research on robotics at the bedside is warranted to determine how they can effectively help children manage painful medical procedures.

Vaccine
Volume 31, Issue 26, Pages 2787-2848 (10 June 2013)
HPV vaccination among adolescent males: Results from the National Immunization Survey-Teen
Original Research Article
Pages 2816-2821
Paul L. Reiter, Melissa B. Gilkey, Noel T. Brewer
Abstract
US guidelines provided a permissive recommendation for HPV vaccine for males in 2009, with an updated recommendation for routine vaccination in 2011. Data on vaccine uptake among males, however, remain sparse. We analyzed 2010–2011 data (collected mostly prior to the recommendation for routine vaccination) from the National Immunization Survey-Teen for a nationally representative sample of adolescent males ages 13–17 (n = 22,365). We examined HPV vaccine initiation (receipt of at least one dose based on healthcare provider records) as the primary outcome. Analyses used weighted logistic regression. HPV vaccine initiation increased from 1.4% in 2010 to 8.3% in 2011. Parents who reported receiving a healthcare provider recommendation to get their sons HPV vaccine were much more likely to have vaccinated sons (OR = 19.02, 95% CI: 14.36–25.19). Initiation was also higher among sons who were Hispanic (OR = 1.83, 95% CI: 1.24–2.71) or who were eligible for the Vaccines for Children program (OR = 1.53, 95% CI: 1.01–2.31). Only 31.0% of parents with unvaccinated sons indicated their sons were “somewhat likely” or “very likely” to receive HPV vaccine in the next year. The most common main reasons for parents not intending to vaccinate were believing vaccination is not needed or not necessary (24.5%), not having received a provider recommendation (22.1%), and lack of knowledge (15.9%). HPV vaccination is low among adolescent males in the US, and provider recommendation for vaccination is likely key to improving vaccine uptake. Given the
updated recommendation for routine vaccination and the changes in health insurance coverage that are likely to follow, continued efforts are needed to monitor HPV vaccination among males. **Removing the regional level from the Niger vaccine supply chain**

*Original Research Article*

*Pages 2828-2834*

Tina-Marie Assi, Shawn T. Brown, Souleymane Kone, Bryan A. Norman, Ali Djibo, Diana L. Connor, Angela R. Wateska, Jayant Rajgopal, Rachel B. Slayton, Bruce Y. Lee

*Abstract*

**Objective**

Since many of the world's vaccine supply chains contain multiple levels, the question remains of whether removing a level could bring efficiencies.

**Methods**

We utilized HERMES to generate a detailed discrete-event simulation model of Niger's vaccine supply chain and compared the current four-tier (central, regional, district, and integrated health center levels) with a modified three-tier structure (removing the regional level). Different scenarios explored various accompanying shipping policies and frequencies.

**Findings**

Removing the regional level and implementing a collection-based shipping policy from the district stores increases vaccine availability from a mean of 70–100% when districts could collect vaccines at least weekly. Alternatively, implementing a delivery-based shipping policy from the central store monthly in three-route and eight-route scenarios only increases vaccine availability to 87%. Restricting central-to-district vaccine shipments to a quarterly schedule for three-route and eight-route scenarios reduces vaccine availability to 49%. The collection-based shipping policy from district stores reduces supply chain logistics cost per dose administered from US$0.14 at baseline to US$0.13 after removing the regional level.

**Conclusion**

Removing the regional level from Niger's vaccine supply chain can substantially improve vaccine availability as long as certain concomitant adjustments to shipping policies and frequencies are implemented.

**Cost-utility analysis of 10- and 13-valent pneumococcal conjugate vaccines: Protection at what price in the Thai context?**

*Original Research Article*

*Pages 2839-2847*

Wantanee Kulpeng, Pattara Leelahavarong, Waranya Rattanavipapong, Vorasith Sornsrivichai, Henry C. Baggett, Aronrag Meeyai, Warunee Punpanich, Yot Teerawattananon

*Abstract*

**Objective**

This study aims to evaluate the costs and outcomes of offering the 10-valent pneumococcal conjugate vaccine (PCV10) and 13-valent pneumococcal conjugate vaccine (PCV13) in Thailand compared to the current situation of no PCV vaccination.

**Methods**

Two vaccination schedules were considered: two-dose primary series plus a booster dose (2 + 1) and three-dose primary series plus a booster dose (3 + 1). A cost-utility analysis was conducted using a societal perspective. A Markov simulation model was used to estimate the relevant costs and health outcomes for a lifetime horizon. Costs were collected and values were calculated for the year 2010. The results were reported as incremental cost-effectiveness ratios (ICERs) in Thai Baht (THB) per quality adjusted life year (QALY) gained, with future costs and outcomes being discounted at 3% per annum. One-way sensitivity analysis and probabilistic
sensitivity analysis using a Monte Carlo simulation were performed to assess parameter uncertainty.

Results
Under the base case-scenario of 2 + 1 dose schedule and a five-year protection, without indirect vaccine effects, the ICER for PCV10 and PCV13 were THB 1,368,072 and THB 1,490,305 per QALY gained, respectively. With indirect vaccine effects, the ICER of PCV10 was THB 519,399, and for PCV13 was THB 527,378. The model was sensitive to discount rate, the change in duration of vaccine protection and the incidence of pneumonia for all age groups.

Conclusions
At current prices, PCV10 and PCV13 are not cost-effective in Thailand. Inclusion of indirect vaccine effects substantially reduced the ICERs for both vaccines, but did not result in cost effectiveness.

Vaccine
Volume 31, Issue 27, Pages 2849-2910 (12 June 2013)
Population access to new vaccines in European countries
Original Research Article
Pages 2862-2867
Patricia R. Blank, Matthias Schwenkglenks, Christelle Saint Sardos, Julien Patris, Thomas D. Szucs

Abstract
Time from registration to population access to new vaccines can take considerable time in European countries. Reasons might be found in the regulatory framework, decision-making processes or the assessment of vaccines by evaluating bodies. The aim of this study was to determine whether some decision-making processes can explain between-country differences in the time to population access to new vaccination programs. Information gathered from a survey among European National Vaccine Industry Groups was combined with information from official health authorities, vaccine manufacturers and literature published. Firstly, a retrospective survey was conducted to measure access time to new vaccines against three diseases in 17 European countries. Secondly, qualitative information on the country-specific decision-making frameworks for the introduction of new “vaccination programs” was identified in a cross-sectional survey. Spearman's rank correlation coefficients (ρ) were used for data analysis. The median access time to new vaccines was 6.4 years (95% confidence interval: 5.7–7.1 years) post marketing authorization. National assessments underlying immunization policy decisions (recommendation phase) absorbed most of the access time. Correlation analysis suggested that processes with established timelines and clarity in regard to vaccine evaluation criteria used could ameliorate the effectiveness of the decision-making process. In order to reduce the time to access for new, beneficial vaccines, the underlying vaccination recommendation, implementation and funding process needs to be understood and optimized, where necessary.

Barriers to influenza vaccination among pregnant women
Original Research Article
Pages 2874-2878
Catherine Eppes, Alison Wu, Whitney You, K.A. Cameron, Patricia Garcia, William Grobman

Abstract
Objective
Despite pregnant women's increased morbidity and mortality from influenza, vaccination rates remain low. This study intended to evaluate barriers to pregnant women's uptake of influenza vaccine.
Study design
A survey was designed that assessed participant demographics, knowledge, beliefs, attitudes, and general experiences with seasonal and 2009 novel H1N1 influenza. Associations between patient characteristics and vaccine uptake were then assessed.

Results
88 women completed the survey. Women who correctly answered >75% of knowledge questions regarding influenza were significantly more likely to accept the influenza vaccine (seasonal: p = 0.04, H1N1: p < 0.01). Conversely, patients who declined the vaccine were more likely to hold false beliefs, such as perceiving that the vaccine was not protective (seasonal: p < 0.01, H1N1: p < .01) and that they were not at risk for influenza (seasonal: p < 0.01).

Conclusion
The reasons for influenza vaccine declination in pregnant patients include lower levels of knowledge and unfavorable attitudes regarding the safety and efficacy of the vaccine, and suggest the importance of education as a tool to improve vaccination uptake.

Vaccine: Development and Therapy
(Accessed 1 June 2013)
http://www.dovepress.com/vaccine-development-and-therapy-journal
[No new relevant content]

Value in Health
Vol 16 | No. 3 | May 2013
http://www.valueinhealthjournal.com/current
[Reviewed earlier]

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

Viewpoint
Social Media and the Empowering of Opponents of Medical Technologies: The Case of Anti-Vaccinationism
Kumanan Wilson1, MD, MSc, FRCP; Jennifer Keelan2, PhD
[HTML]
doi:10.2196/jmir.2409

ABSTRACT
Social media has contributed positively to the interaction between proponents of medical products and technologies and the public by permitting more direct interaction between these two groups. However, it has also provided opponents of these products a new mechanism to organize opposition. Using the example of anti-vaccinationism, we provide recommendations for how proponents of medical products and technologies should address this new challenge.

Dissertation: U Maryland
Improving the rates of pertussis vaccination in the retail clinic setting through provider education
Dye, Alissa

Problem: Pertussis is an emerging public health risk with the infant population posing greatest risk of morbidity and mortality. Over the past two decades, the incidence of pertussis has been increasing in the United States, making it the most common preventable childhood illness by vaccine. Despite recommendations from the Advisory Committee on Immunization Practices (ACIP) and the Centers for Disease Control (CDC), the rates of vaccination against pertussis remain low, with only 56 percent of adolescents and 5.9 percent of adults having obtained the Tdap vaccine. The National Foundation for Infectious Diseases posited that many providers are unaware of the ACIP guidelines for adolescents and adults or have personal reservations about vaccination, therefore, are less likely to recommend routine vaccinations. Retail clinics present an opportunity to reach target patient populations through convenience and affordability; every patient visit is an opportunity to address patients' vaccination status. There is evidence that education can be an effective tool to increase immunization frequency, both for providers and patients when combined with other strategies such as making vaccinations affordable and convenient.

Purpose: The purpose of this capstone project was to determine if an electronic educational intervention in the provider's weekly newsletter increased the number of Tdap vaccinations in a clinical retail setting. Methods: The educational intervention and retrospective chart review was conducted over a ten week period from February to April 2013 across twelve states. Data were collected four weeks prior to the first educational intervention, two weeks following the first educational intervention, two weeks following the second educational intervention, and four weeks following the second intervention. The rate of Tdap vaccination per visits was analyzed across each of the five two week periods.

Results: Twelve states were selected to participate in this project. On average, each state had an average of 6,583 visits per two-week period, with 5.7 Tdap vaccines being given. Using Friedman's ANOVA, there was a difference in the rates of Tdap vaccinations (x² (4) = 11.25, P < 0.05. Wilcoxon signed-rank tests were used to follow up on this finding. A Bonferroni correction was applied so all effects are reported at the 0.005 level. None of the tested pairs were statistically significant at the 0.005 level.

Conclusion: Despite a lack of statistical significance, the project demonstrated the importance of using an electronic educational intervention as a plausible method to educate providers in clinical retail settings on standards of practice. Individually, some of the states demonstrated changes in trends, which indicates the clinical significance of the intervention. Educating providers on best standards for routine vaccinations is a necessary strategy in order to promote adherence to national guidelines.

[PDF] Advances in Biopharmaceutical and Vaccine Manufacturing Plants
OVERVIEW: The development of innovative pharmaceuticals with potential for meeting unmet medical needs and vaccines that protect against infectious diseases is very important for ensuring people's health and welfare. However, biopharmaceuticals and vaccines that ...

Fear factor Deferring, forgoing vaccination to avoid seizures is not always necessary
M Wiznitzer - AAP News, 2013
Given the amount of information available, some vaccine providers may be unclear as to when they should defer vaccines to prevent seizures in certain patients as well as the contraindications for vaccination.

**On the Trail of Preventing Meningococcal Disease: A Survey of Students Planning to Travel to the United States**
HL Huang, SY Cheng, LT Lee, CA Yao, CW Chu... - Journal of Travel Medicine, 2013

... Many Taiwanese students preparing to study in the United States are required to have the vaccination, which is not a routine immunization in Taiwan.[14] In addition, the vaccine is available only at 12 Centers for Disease Control contracted hospitals due to the scarceness of the ...

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

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

**Al Jazeera**
[http://www.aljazeera.com/Services/Search/?q=vaccine](http://www.aljazeera.com/Services/Search/?q=vaccine)
Accessed 1 June 2013
No new, unique, relevant content

**The Atlantic**
Accessed 1 June 2013
No new, unique, relevant content

**BBC**
[http://www.bbc.co.uk/](http://www.bbc.co.uk/)
Accessed 1 June 2013
No new, unique, relevant content

**Brookings**
[http://www.brookings.edu/](http://www.brookings.edu/)
Accessed 1 June 2013
No new, unique, relevant content
No Woman Should Die From Cervical Cancer

This article is part of a special edition of Impact—PSI’s global health magazine—and was produced in partnership with Women Deliver and the Skoll World Forum on Social Entrepreneurship. Launching this week at Women Deliver 2013 in Kuala Lumpur, Malaysia, this issue brings insightful dialogue on the value of investing in girls and women’s health.

Girls and women in the developing world are losing the fight against cervical cancer because we have failed to close deadly gaps in prevention, screening and treatment that could spare their lives and end this disease.

More than 85 percent of the estimated 275,000 women who die from cervical cancer globally every year live in low- and middle income countries.

As global leaders convene in Kuala Lumpur for the third Women Deliver conference, the American Cancer Society and PSI are proud to join forces with other critical members of civil society to raise our collective voices and amplify the message that no woman should die from cervical cancer. We know what it takes to save lives from this disease – and we have a moral obligation to ensure that all girls and women, regardless of their location, benefit from this knowledge.

The control of cervical cancer is at a global tipping point with the advent of the human papillomavirus (HPV) vaccine. HPV is the leading cause of cervical cancer. And new screening technologies that enable cervical cancer to be effectively detected and addressed in all resource settings.

But we must accelerate adoption of the HPV vaccine, improve access to resource-appropriate cervical cancer screenings, and increase global resources for and attention to cervical cancer prevention and treatment. With proven, cost-effective interventions at hand and a recent commitment to wider accessibility of the HPV vaccine by the GAVI Alliance and the Pan American Health Organization Revolving Fund, as well as engagement from the Bill & Melinda Gates Foundation, we have an unprecedented opportunity to save lives from this disease.

Partnerships are absolutely critical to advance the fight against cervical cancer worldwide and to ensure that women and girls are given priority on global health and development agendas. One example is the Taskforce on Non-Communicable Diseases (NCDs) and Women’s Health that launched during the first-ever United Nations High-level Meeting on NCDs in September 2011. This initiative, co-chaired by PSI and Jhpiego, with the American Cancer Society providing secretariat support, brings together leading global health organizations from the women’s health and NCD communities and supports a gender-focused approach to women’s health. The
taskforce collectively advocates for the prevention and treatment of these diseases to be integrated into current programs, policies and services that address women's health needs. The global toll of NCDs is staggering, with more than half of all female deaths in low- and middle-income countries caused by these diseases. Left unaddressed, NCDs risk undermining decades of progress in women’s health and development.

The American Cancer Society is working to strengthen advocacy efforts for national adoption of the HPV vaccine and improved screening policies, as well as drive public demand and acceptability of the vaccine and cervical cancer screening. As the American Cancer Society celebrates its 100th birthday this year, it is also urging people to raise their voices against the silence and complacency that have allowed this disease to claim so many lives unnecessarily.

As part of global efforts to support the prevention and awareness of cervical cancer, PSI is integrating cervical cancer screening and treatment services into many existing sexual and reproductive health services. PSI is offering women the opportunity to further protect their health by building upon existing resources and programs and forging new partnerships.

We have an unprecedented opportunity – and a moral obligation – to change the course of cervical cancer and NCDs. But we must ensure they are a priority at the global policy level, with investments and action reflecting these diseases’ tremendous impact on society, health and the economy. Please join us in our efforts to ensure that where a person lives does not determine whether they live.

http://www.forbes.com/sites/skollworldforum/2013/05/30/no-woman-should-die-from-cervical-cancer/

Foreign Affairs
http://www.foreignaffairs.com/
Accessed 1 June 2013
[No new, unique, relevant content]

Foreign Policy
http://www.foreignpolicy.com/
Accessed 1 June 2013
[No new, unique, relevant content]

The Guardian
http://www.guardiannews.com/
Accessed 1 June 2013
[No new, unique, relevant content]

The Huffington Post
http://www.huffingtonpost.com/
Accessed 1 June 2013
[No new, unique, relevant content]

Le Monde
http://www.lemonde.fr/
Accessed 1 June 2013
Le Vaccin selon Bill Gates
LE MONDE TELEVISION | 30 mai 2013 | Sandrine Cabut | 265 mots
Des chercheurs reconnus comme le Français Pierre Druilhe et le Colombien Manuel Patarroyo (dont le vaccin avait soulevé un grand espoir dans les années 1990 avant d’être reconnu inefficace) sont par ailleurs dubitatifs sur le choix de l'antigène du RTS, S, dont l'efficacité paraît...

**New Yorker**  
http://www.newyorker.com/  
*Accessed 1 June 2013*

**New York Times**  
http://www.nytimes.com/  
*[No new, unique, relevant content]*

**Reuters**  
http://www.reuters.com/  
*Accessed 1 June 2013*  
**GSK bets on chimp virus with $321 million vaccines buy**  
LONDON - GlaxoSmithKline is betting on a new *vaccine* technology based on chimpanzee viruses by acquiring Swiss-based Okairos for 250 million euros (321 million ...*

**Wall Street Journal**  
http://online.wsj.com/home  
May 20, 2013, 4:02 a.m. ET  
*[No new, unique, relevant content]*

**Washington Post**  
http://www.washingtonpost.com/  
*Accessed 1 June 2013*  
**In Somalia, some parents say no to polio vaccine**  
Abdi Guled 5:51 PM ET  
*Excerpt*  
Islamist rebels are opposing a campaign in Somalia to administer a polio vaccine. The al-Shabab extremists have been pushed out of virtually all of Somalia’s cities and face continued military pressure from African Union and government troops. Health workers are gaining access to more children to give the life-saving polio vaccine. But some parents are refusing the inoculation, apparently heeding the advice of the Islamist militants who warn that the vaccination exercise is part of a foreign conspiracy to kill or weaken Somali children.  
Vaccination workers who walked door to door in the capital, Mogadishu, were turned away by some parents who often didn’t state why they objected to the vaccination. One man told the workers to leave immediately because they were carrying “toxic things.”...

* * * * *

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

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