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

This weekly summary targets news and events in global vaccines ethics and policy gathered from key governmental, NGO and industry sources, key journals and other sources. This summary supports ongoing initiatives of the Center for Vaccine Ethics & Policy, and is not intended to be exhaustive in its coverage. Vaccines: The Week in Review is now also posted in pdf form and as a set of blog posts at http://centerforvaccineethicsandpolicy.wordpress.com/. This blog allows full-texting searching of some 1,200 items.

Comments and suggestions should be directed to
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Editor's Note:
We post this weekly summary as a pdf document, downloadable from http://centerforvaccineethicsandpolicy.wordpress.com/ which also carries each entry below as an individual, searchable post, resulting in a useful literature and announcement database.

Gates Foundation co-chair Bill Gates released his third "annual letter" at http://www.gatesfoundation.org/annualletter in which he "argues the case for polio eradication and expanded childhood immunization and also calls on governments to invest in foreign aid, even in the face of a tough economic climate." Mr. Gates notes that, "Getting rid of polio will mean that no child will be paralyzed or die by this disease. Any major advance in the human condition requires resolve and courageous leadership. We are so close, but we have to finish the last leg of the journey."
http://www.gatesfoundation.org/press-releases/Pages/bill-gates-third-annual-letter-110131.aspx

The Global Fund to Fight AIDS, Tuberculosis and Malaria announced "a number of measures to reinforce its financial safeguards and increase its capacity to prevent and detect fraud and misuse in its grants. The organization is also setting up a high-profile panel of international experts to review its systems and ensure that its approaches to fraud prevention are among the strongest in the world." The measures to strengthen financial safeguards announced today include:

- Expanding the mandate of firms that monitor expenditure in countries in order to enhance fraud prevention and detection
- Strengthening the role of country coordinating bodies in grant oversight
- Additional scrutiny of activities considered at higher risk of fraud, such as training
- Redirecting a proportion of all grants to assess and strengthen financial controls at country level
- Increasing the number of the Fund's staff responsible for financial management
- Doubling the budget of the Fund's independent Inspector General.

In parallel, the Global Fund said it is establishing an independent, panel of highly-respected international experts "to review its financial control and oversight procedures, evaluate that they are of the highest standard and, if necessary, suggest further improvements." The panel will deliver its report to the Global Fund Board in May and will be made public.
4 February 2011: http://www.theglobalfund.org/en/pressreleases/?pr=pr_110204

The **Weekly Epidemiological Record (WER) for 4 February 2011**, vol. 86, 6 (pp 45–52) includes: Outbreak news – Yellow fever, Côte d'Ivoire – update; http://www.who.int/entity/wer/2011/wer8606.pdf

The **MMWR for February 4, 2011** / 60(04);1-4 includes:
Recommended Adult Immunization Schedule --- United States, 2011

Each year, the Advisory Committee on Immunization Practices (ACIP) reviews the recommended adult immunization schedule to ensure that the schedule reflects current recommendations for the licensed vaccines.

In October 2010, ACIP approved the adult immunization schedule for 2011, which includes several changes. The notation for influenza vaccination in the figure and footnotes was changed to reflect the expanded recommendation for annual influenza vaccination for all persons aged 6 months and older, which was approved by ACIP in February 2010.

In October 2010, ACIP issued a permissive recommendation for use of tetanus, diphtheria, and acellular pertussis (Tdap) vaccine in adults aged 65 years and older, approved the recommendation that Tdap vaccine be administered regardless of how much time has elapsed since the most recent tetanus and diphtheria toxoids (Td)--containing vaccine, and approved a recommendation for a 2-dose series of meningococcal vaccine in adults with certain high-risk medical conditions.

The vaccines listed in the figures have been reordered to keep all universally recommended vaccines together (e.g., influenza, Td/Tdap, varicella, human papillomavirus [HPV], and zoster vaccines). Clarifications were made to the footnotes for measles, mumps, and rubella (MMR) vaccination; HPV vaccine; revaccination with pneumococcal polysaccharide vaccine (PPSV), and Haemophilus influenza type b (Hib) vaccine.

Finally, a statement has been added to the box at the bottom of the footnotes to clarify that a vaccine series does not need to be restarted, regardless of the time that has elapsed between doses.
Additional information is available as follows: schedule (in English and Spanish) at http://www.cdc.gov/vaccines/recs/schedules/adult-schedule.htm; information about

adult vaccination at http://www.cdc.gov/vaccines/default.htm; ACIP statements for specific vaccines at http://www.cdc.gov/vaccines/pubs/acip-list.htm; and reporting adverse events at http://www.vaers.hhs.gov or by telephone, 800-822-7967.

Symposium: Access to Medicines, Patent Information and Freedom to Operate - A Joint Technical Symposium by WHO, WIPO and WTO
Where: WHO Headquarters, Geneva
When: 18 February 2011, 9 am - 6 pm
"Limited information on patent status of medical products and related problems for users of such information are frequently raised in policy discussions on access to medicines, including at a recent trilateral technical symposium on Access to Medicines: Pricing and Procurement Practices organized jointly by the WHO, the World Intellectual Property Organization (WIPO) and the World Trade Organization (WTO) in Geneva on July 16, 2010. This second of the series of joint symposia will therefore focus on access to medicines, patent information and freedom to operate. A draft programme is available at: http://www.who.int/entity/phi/symposium_feb2011_speakers.pdf
http://www.who.int/phi/access_medicines_feb2011/en/index.html

Twitter Watch

A selection of items of interest this week from a variety of twitter feeds from NGOs and other sources.

ONECampaign ONE
by PATHtweets
2 mos ago, PATH set out to immunize 20 mil Africans from #meningitis. Guess where they are now? @PATHTweets @WHONews http://bit.ly/e0dAYO

sabinvaccine Sabin Vaccine Inst.
Latest issue of PACE Report highlights tremendous achievements in the fight against #pneumococcal disease; take a look: http://bit.ly/haVE18

BillGates Bill Gates
My 3rd annual letter is available here - http://bit.ly/fy9ov9 - I write about ending Polio, leadership, foreign aid effectiveness & more...

GAVIAlliance GAVI Alliance
Mathematics of Vaccines: http://ht.ly/3QYlw

ArthurCaplan Arthur Caplan
paul offit on colbert good stuff http://bit.ly/hc4OQ3

GAVIAlliance GAVI Alliance
News Update: Introduction of pneumococcal vaccine in Yemen - Introduction of pneumococcal vaccine in Yemen http://ow.ly/1b7pzD

Journal Watch

[Editor's Note]
Vaccines: The Week in Review continues its weekly scanning of key journals to identify and cite articles, commentary and editorials, books reviews and other content supporting our focus on vaccine ethics and policy. ***Journal Watch*** **is not intended to be exhaustive, but indicative of themes and issues the Center is actively tracking.** We selectively provide full text of some editorial and comment articles that are specifically relevant to our work. Successful access to some of the links provided may require subscription or other access arrangement unique to the publisher. Our initial scan list includes the journals below. If you would like to suggest other titles, please write to David Curry at david.r.curry@centerforvaccineethicsandpolicy.org

Annals of Internal Medicine
February 1, 2011; 154 (3)
http://www.annals.org/content/current
Immunization 2011: Expanding Coverage, Enhancing Protection
Sandra Adamson Fryhofer
Ann Intern Med February 1, 2011 154:204-206
Annually, the ACIP of the Centers for Disease Control and Prevention issues a revised Adult Immunization Schedule that is approved by the major specialty societies representing physicians who care for adults, including ACP. The changes in each year's schedule are driven by advances in our knowledge of vaccines and vaccine-preventable disease. The editorialist highlights the changes to this year's schedule and stresses the importance of vaccination.
[see link to Schedule above in MMWR]

British Medical Journal
5 February 2011 Volume 342, Issue 7792
http://www.bmj.com/content/current
Editor's Choice
Chronic disease must top the agenda
Fiona Godlee, editor, BMJ
The BMJ archive has been put to various good uses since it was digitised and made available on bmj.com two years ago (BMJ 2010:341;c6898, c6738, c5168). This week, Mangesh Thorat and colleagues present a brief summary of their findings after searching the archive from 1840 for mentions of four communicable and four non-communicable diseases (doi: 10.1136/bmj.c3306). The temporal trends are not surprising and nicely illustrate a story of our time—the beginning of the 20th century is the era of chronic disease. If the BMJ does its job properly over the next 50 years, the trajectory of coverage of chronic disease is likely to climb even more steeply. …

Clinical Infectious Diseases
Volume 52 Issue 5 March 1, 2011

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

VIEWPOINTS

Daniel M. Musher, Rahul Sampath, and Maria C. Rodriguez-Barradas

The Potential Role for Protein-Conjugate Pneumococcal Vaccine in Adults: What Is the Supporting Evidence?

Clin Infect Dis. (2011) 52(5): 633-640 doi:10.1093/cid/ciq207

Abstract

Vaccination with protein-conjugate pneumococcal vaccine (PCV) provides children with extraordinary protection against pneumococcal disease, although the protective effect may be blunted by the emergence of replacement strains. Studies in adults have compared PCV with pneumococcal polysaccharide vaccine (PPV) using surrogate markers of protection, namely, serum anticapsular IgG antibody and opsonic activity. Results suggest that PCV is at least as effective as PPV for the strains covered, but a definitive and consistent advantage has not been demonstrated. Unfortunately, persons who are most in need of vaccine do not respond as well as otherwise healthy adults to either vaccine. Newer formulations of PCV will protect against the most prevalent of the current replacement strains, but replacement strains will create a moving target for PCVs. Unless an ongoing trial comparing 13-valent PCV with placebo (not to PPV) demonstrates a clearly better effect than that seen in the past with PPV, cost-effectiveness considerations are likely to prevent widespread use of PCV in adults.

BRIEF REPORT

LaRee Tracy, Holly D. Gaff, Colleen Burgess, Samba Sow, Patti E. Gravitt, and J. Kathleen Tracy

Estimating the Impact of Human Papillomavirus (HPV) Vaccination on HPV Prevalence and Cervical Cancer Incidence in Mali

Clin Infect Dis. (2011) 52(5): 641-645 first published online January 20, 2011 doi:10.1093/cid/ciq190

Abstract

Human papillomavirus vaccines have potential to reduce cervical cancer incidence and mortality; however, cultural and economic barriers may hinder success in developing countries. We assessed impact of a single vaccine campaign in Mali with use of mathematical modeling. Our model shows that decreases in the prevalence of Human papillomavirus infection are proportional to achieved vaccination coverage.

Emerging Infectious Diseases

Volume 17, Number 2–February 2011

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

Dispatches

School Closures and Student Contact Patterns

C. Jackson et al.

Abstract

To determine how school closure for pandemic (H1N1) 2009 affected students' contact patterns, we conducted a retrospective questionnaire survey at a UK school 2 weeks after the school reopened. School closure was associated with a 65% reduction in the mean total number of contacts for each student.

Alert System to Detect Possible School-based Outbreaks of Influenza-like Illness

P. Mann et al.

Abstract

To evaluate the usefulness of school absentee data in identifying outbreaks as part of syndromic surveillance, we examined data collected from public schools in Miami-Dade County, Florida, USA. An innovative automated alert system captured information about school-specific absenteeism to detect and provide real-time notification of possible outbreaks of influenza-like illness.

Human Vaccines

Volume 7, Issue 2 February 2011

http://www.landesbioscience.com/journals/vaccines/toc/volume/6/issue/12/

News, Policy and Profiles

Saving the pneumococcal AMC and GAVI

Donald W. Light

The GAVI Alliance, a key institution in saving poor children by increasing the use of vaccines, is mounting a campaign in early 2011 to raise $4.1 billion to close its funding crisis. Yet much of this shortfall stems from its own decisions, especially around the Advance Market Commitment (AMC), a costly kind of surplus contract GAVI is using to save poor children by selling new, global pneumococcal conjugate vaccines (PCVs) at deep discount. This essay explains how the AMC became a surplus contract, why it and GAVI are in financial straits and how to save both. It concludes with thoughts about how generous and caring donors can maximize the number of children saved.

Open Access Article: http://www.landesbioscience.com/journals/vaccines/News-HV7-2-policy.pdf

Spotlight

MMR vaccination and autism controversy: Learnings and implications

Rajan R. Patil

The Lancet has indeed taken an unprecedented action by retracting a research paper published by Dr. Wakefield citing misconduct and ethical fraud [1]. The paper published in 1998 indicated possible linkage between MMR vaccine and autism [2]. With this, The Lancet has done great service to the cause of public health, especially to developing world where the immunization is the only credible health insurance that could be offered to their citizens. With developing countries already struggling to provide measles vaccine coverage beyond 50% to children, the majority of whom are undernourished caught in the unending vicious cycle of infection, malnutrition and early child mortality.

Reviews

Current experience with school-located influenza vaccination programs in the United States: A review of the medical literature

Harry F. Hull and Christopher S. Ambrose

In the United States, all children 6 months through 18 years of age are recommended to be vaccinated against influenza annually. However, the existing pediatric immunization infrastructure does not have the capacity to vaccinate a high proportion of children each year. School-located influenza vaccination (SLIV) programs provide an opportunity to immunize large numbers of school-age children. We reviewed the medical literature in order to document the current U.S. experience to benefit future SLIV programs.

Published reports or abstracts for 36 SLIV programs were identified, some of which spanned multiple years. The programs immunized between 70–128,228 students. While most programs vaccinated 40–50% of students, coverage ranged from 7–73%. Higher percentages of elementary students were vaccinated compared with middle and high school students. While many programs offered only intranasal vaccine, several programs have successfully used both the intranasal and injectable vaccines. Faculty and staff were immunized in some programs and uptake in this group varied considerably. Students were vaccinated quickly during school hours. Costs, where reported, ranged from approximately $20–$27 per dose delivered, including both vaccine and administration costs. The greatest need for future U.S. SLIV program implementation is the development of a financially sustainable model that can be replicated annually on a national scale.

Long term protection against cervical infection with the human papillomavirus: Review of currently available vaccines

Barbara Romanowski

Two vaccines against HPV are commercially available: an HPV-16/18 (bivalent) and an HPV-6/11/16/18 (quadrivalent) vaccine. Vaccination programs have been and will be implemented before the full duration of protection is known. Whether booster doses will be required is also unknown at this time. Meanwhile, predictions rely upon phase III studies and mathematical modelling. In a head to head study, the bivalent vaccine induced a higher, more sustained immune response than the quadrivalent vaccine. Immunogenicity of the bivalent vaccine against HPV-16 and HPV-18 has been demonstrated up to 8.4 years. For the quadrivalent vaccine, immunogenicity data up to 5 years show that the immune response against HPV-18 wanes after approximately 4 years. Efficacy against infection and cervical lesions associated with HPV-16/18 has been shown up to 8.4 and 5 years with the bivalent and quadrivalent vaccine, respectively. Cross-protection against non-vaccine types appears stronger with the bivalent vaccine. However, both vaccines may provide sufficient immunogenicity to confer long-term protection. Ongoing monitoring is essential.

RESEARCH PAPERS

Pertussis knowledge, attitude and practices among European health care professionals in charge of adult vaccination

Muriel Hoffait, David Hanlon, Bernd Benninghoff and Stijn Calcoen

Despite successful infant vaccination programmes, pertussis remains endemic in many countries. Waning immunity leaves adolescents and adults susceptible to disease and potential reservoirs of infection allowing transmission to vulnerable infants. Misdiagnosis leads to significant underestimation of disease burden and inappropriate treatment. This online survey of 517 European health care professionals (HCP) examined their knowledge, attitudes and practices regarding pertussis and adult vaccination. Compared with other vaccine-preventable diseases, HCPs did not perceive pertussis as a serious disease in adults and there was a low perceived need for adult vaccination; only 17% mentioned pertussis as a disease they would usually vaccinate adults against. Pertussis incidence was considered to be low. Although the majority of HCPs agreed that vaccination is useful to prevent pertussis transmission from adults to susceptible infants, respondents discussed pertussis vaccination with ≤5% of patients; 58% respondents had never prescribed a pertussis vaccine to adults. The perceived low incidence of pertussis in adults and the lack of official guidelines/ recommendations were cited as key reasons for not administering pertussis boosters. Despite only taking place in four

countries, our results suggest that the incidence and burden of adult pertussis is not reflected in the attitudes of European HCPs to the disease. Awareness of adult pertussis, its diagnosis and guidance on pertussis boosters should be raised to protect adults and vulnerable infants and to manage the consequences of waning pertussis immunity.

JAMA
February 2, 2011, Vol 305, No. 5, pp 437-522
http://jama.ama-assn.org/current.dtl
[No relevant content]

Journal of Infectious Diseases
Volume 203 Issue 5 March 1, 2011
http://www.journals.uchicago.edu/toc/jid/current
[No relevant content]

The Lancet
Feb 05, 2011 Volume 377 Number 9764 Pages 439 - 526
http://www.thelancet.com/journals/lancet/issue/current
Editorial
Supporting the Global Fund to fight fraud
The Lancet
Preview
The idea seemed sensible enough. As a multilateral aid agency, be active in rooting out corruption, be transparent about your findings, and act swiftly to correct any problems. What could go wrong? Sadly, a lot, if donors start backing out of commitments. Last week, Germany's Development Minister, Dirk Niebel, announced that the country will suspend its payments to the Global Fund to Fight AIDS, Tuberculosis and Malaria until it gets answers about the corruption allegations recently reported by the Associated Press (AP).
World Report
GAVI takes steps to address funding woes
Original Text
Ann Danaiya Usher
The GAVI Alliance aims to accelerate the distribution of pneumococcal and rotavirus vaccines over the next 5 years, but faces a daunting US$3·7 billion funding gap.
A year ago, GAVI's funding gap looked serious. $2·6 billion would be needed up to 2015, the Alliance said, to finance the roll out of two expensive new vaccines against pneumonia, the rotavirus vaccine, and the expansion of other immunisation programmes. GAVI had hoped that donors would pledge new money by the Millennium Development Goal Summit in September, 2010. But the summit came and went without any big new grants, and GAVI now sets its sites on a pledging meeting to be hosted by the UK in June, 2011.
The amount that needs to be raised has, in the meantime, been revised upwards to $3·7 billion. Jeff Rowland, head of communications at GAVI, explains that $1·2 billion of this constitutes funds that the agency expects to receive based on donor support in

recent years. If GAVI's donors maintain their current funding up to 2015, the $1·2 billion will be assured. But because of global financial uncertainties, GAVI is not taking this money for granted. $2·5 billion, needed to cover all costs up to 2015, comes on top of this.

In the months ahead, the new chair of GAVI, the Norwegian Dagfinn Høybråten will be travelling around the world talking to key donors. He says the case for GAVI is compelling. "I think it is quite rare that you can present such a clear cut case, where you get almost guaranteed value for money."

In his fund-raising tour, Høybråten will be able to point to a key development in GAVI's immunisation support: On Dec 12, 2010, Nicaragua became the first developing country to introduce a new vaccine against pneumonia as part of its routine immunisation programme. Kenya and six other countries—Honduras, Guyana, Sierra Leone, Yemen, the Democratic Republic of the Congo, and Mali—are expected to start using the vaccine in the course of this year.

This marks a success for GAVI and an important milestone for the innovative funding mechanism, the Advance Market Commitment (AMC), which made distribution of the pneumococcal vaccine possible. Officially launched in June, 2009, the AMC involved a $1·5 billion donor-financed subsidy for vaccine manufacturers that agree to provide new pneumococcal vaccine at a fixed price over 10 years. Funding for the AMC was provided by six donors—the UK, Russia, Canada, Italy, Norway, and the Bill & Melinda Gates Foundation.

The pneumococcal vaccine being used in Nicaragua costs a fraction of what it does in the rich world, GAVI points out. But critics of the AMC say the price per dose—US$7—is still far too high. And GAVI does not have the money it needs for a full roll out of the vaccine.

The agency has made a couple of moves to reduce its own costs in view of the funding crisis. One measure taken by the Board in 2010 was to tighten the country eligibility criteria. When GAVI was started 10 years ago, countries had to have a per head income of less than $1000 to receive GAVI support. The board has now raised the threshold to $1500.

The board argues that $1500 today is roughly equivalent to $1000 in 2000, the year the eligibility policy was first applied. Another consideration is that "in the current constrained economic climate it makes sense that GAVI retain fewer eligible countries". Board documents show that tightening the threshold for eligibility will save GAVI $1·4 billion between now and 2020.

As a result of the decision, the following countries will "graduate" from GAVI: Angola, Armenia, Azerbaijan, Bhutan, Bolivia, Republic of Congo, Cuba, Georgia, Honduras, Indonesia, Kiribati, Moldavia, Mongolia, Sri Lanka, Timor-Leste, and Ukraine. They will continue to receive GAVI support until 2015, but will not be able to apply for new support during the remaining period.

Another response to the funding crisis has been to put on hold plans to launch a second AMC. The proposal for an AMC-2 was put in motion a year ago by the UK. But the prospect of raising billions more dollars from donors—in addition to the $3·7 billion—now seems fairly bleak. "The main reason for this decision was the recognition of the current funding challenge which obliges GAVI to focus its resources and time on existing commitments", Rowland says.

World Report

Dagfinn Høybråten—new Board Chair of GAVI Alliance

Priya Shetty

Original Text

Politicians are no strangers to fund raising, but former Norwegian Minister of Health Dagfinn Høybråten is facing one of the hardest fund raising challenges of his career. As the new Board Chair of the GAVI Alliance, which implements global vaccination programmes, Høybråten must now convince philanthropic organisations, aid agencies, and world leaders to raise the US$3·7 billion funding shortfall that the alliance is facing between now and 2015.

While global aid coffers are still fairly empty, Høybråten does at least have a strong case for investment; guaranteed results are rare in global health, but GAVI focuses on vaccines, which Høybråten describes as the "best buy" in public health. Now, the organisation is about to begin the rollout of two new vaccines against rotavirus and pneumococcus, which are major childhood killers in the developing world. Preventing rotavirus, which causes severe diarrhoea, could save half a million lives a year.

According to GAVI, its entire immunisation programme could, if fully funded, prevent 4·2 million future deaths, mostly in children.

Høybråten's own political sensibilities were forged early in life, coming as he does from a strongly political and socially aware household. His father was a national politician and his great-grandfather was a doctor who built a hospital in China. As a young politician, after a degree in political science from the University of Oslo, Høybråten says he realised that life "is not just about yourself and making a career but it's also about what you can do for others". He became involved in politics as a means to enact social change, knowing that he wanted to "fight for the disadvantaged" and become involved in development and environment issues.

Høybråten's appointment at GAVI seems appropriate—after all, Norway was the first funder of the GAVI Alliance and still leads the way in global aid. While Høybråten's own career has focused on Norwegian politics, his interest in preventive health stands him in good stead for helping to lead an organisation working to eliminate vaccine-preventable diseases. Høybråten, who has been on the GAVI Board since 2006, takes over from politician Mary Robinson, who has a strong human rights background and is responsible for implementing GAVI's gender policy intended to increase health equity for women and children. Høybråten says that Robinson leaves a strong legacy of reminding world leaders that health is a human right. He also praises her leadership: "Mary Robinson has skillfully led GAVI through the challenging transition from being a pioneer to being an effective, streamlined organisation."

Høybråten is likely to stamp his mark on GAVI too. His expertise extends well beyond health. Like most politicians, he has over the course of his career, held positions in different ministries. Having been Minister of Labour and State Secretary for Finance for the Norwegian Government, Høybråten is well acquainted with the need for intersectoral collaboration, which global health experts agree is desperately needed in health programmes in developing countries.

During his time as Minister of Health, between 1997 and 2004, he is most notably remembered for a then-controversial campaign to introduce a smoking ban in indoor public places such as shops or restaurants. "This was seen as very radical at the time. There was almost a political riot against it. I had a very rough time", he recalls. But once the bill was introduced, he says, it was accepted fairly easily. "I actually get expressions of gratitude for it on the street every day". Høybråten was also instrumental in

reforming Norway's primary care system to ensure that more people had access to primary care doctors, and in reforming the country's mental health system.

Høybråten's zeal for health-care reform means that he is also in favour of GAVI's involvement in helping countries sustain their health services to ensure the delivery of vaccines. But while GAVI has given countries cash grants for this purpose, it seems for now that it will not expand its remit to engage more fully with revitalising health-care systems. "The economic climate is tight right now so we have to maintain our focus on delivering the vaccines that developing countries are demanding", he says. GAVI's success as a vertical health programme is undeniable. Over the past decade, it has immunised about 288 million children and saved more than 5 million lives. Høybråten puts its success down to the "GAVI Alliance's pragmatic mix of private and public partners that combines public health knowledge with financial astuteness".

Its financial pragmatism is most evident in a high-profile initiative to stimulate research and development into vaccines for the poor by promising sales to pharmaceutical companies. These advanced market commitments have garnered some criticism from organisations such as Médecins Sans Frontières, who say that a US$1·5 billion commitment of donor money was far in excess of the US$900 million actually needed. Høybråten maintains that while, as GAVI Board Chair, he would work constructively with pharmaceutical companies, he will continue to press for vaccine prices to fall. However, he says, without "these funding mechanisms, these vaccines would probably not exist now; in my relatively long time in public health, I've never seen an opportunity like this".

Series

Health care and equity in India

Y Balarajan, S Selvaraj, SV Subramanian

Summary

In India, despite improvements in access to health care, inequalities are related to socioeconomic status, geography, and gender, and are compounded by high out-of-pocket expenditures, with more than three-quarters of the increasing financial burden of health care being met by households. Health-care expenditures exacerbate poverty, with about 39 million additional people falling into poverty every year as a result of such expenditures. We identify key challenges for the achievement of equity in service provision, and equity in financing and financial risk protection in India. These challenges include an imbalance in resource allocation, inadequate physical access to high-quality health services and human resources for health, high out-of-pocket health expenditures, inflation in health spending, and behavioural factors that affect the demand for appropriate health care. Use of equity metrics in monitoring, assessment, and strategic planning; investment in development of a rigorous knowledge base of health-systems research; development of a refined equity-focused process of deliberative decision making in health reform; and redefinition of the specific responsibilities and accountabilities of key actors are needed to try to achieve equity in health care in India. The implementation of these principles with strengthened public health and primary-care services will help to ensure a more equitable health care for India's population.

The Lancet Infectious Disease

Feb 2011 Volume 11 Number 2 Pages 73 - 152

http://www.thelancet.com/journals/laninf/issue/current

[Reviewed last week]

Nature
Volume 470 Number 7332 pp5-134 3 February 2011
http://www.nature.com/nature/current_issue.html

Editorial

Tough on truth

"Fraud plagues global health fund," screamed the title of an article published last month by the Associated Press, which alleged that: "A $21.7 billion development fund backed by celebrities and hailed as an alternative to the bureaucracy of the United Nations sees as much as two-thirds of some grants eaten up by corruption, The Associated Press has learned."

Journalistic scrutiny of aid is welcome and revelations of widespread and large-scale fraud by recipients of grants from the Global Fund to Fight AIDS, Tuberculosis and Malaria would be a big deal. The fund, created by the highly industrialized countries of the G8 forum in 2002, now accounts for one-quarter of all international financing to fight AIDS, two-thirds of that for tuberculosis, and three-quarters of that for malaria. But despite using the phrase "has learned" — journalist shorthand for a scoop — the Associated Press (AP) article's central claims contained no new revelations. The frauds mentioned — involving grants to Mali, Mauritania, Djibouti and Zambia — had already been made public by the fund itself.

The sums involved in the reported fraud cases amount to US$39 million, of $13 billion that the fund has disbursed, but other fraud cases have no doubt so far gone undetected. Although any corruption is too much, to keep it down to these levels would be an achievement, given the realities of putting large amounts of money into any country or project, not least those where corruption can be rife.

Nonetheless, Sweden, Germany and Ireland have responded with suggestions they may suspend their pledges to the fund for the period covering 2011–13. As fund members they are well aware of how it handles corruption, so their response is probably partly a reaction to the wide publicity that the AP article received in the international media, and the sensationalist and exaggerated claims about the scale of the problem — no government, accountable as it is to taxpayers, wants to be seen as lax on corruption. As Nature went to press, reports suggested that funding from these countries would be restored, while Sweden has also since said that it is happy with the way the Global Fund is dealing with the problem.

The reputation of the fund — which by its own estimates saved more than 4.9 million lives by 2009 — has been unfairly tarnished, and its fund-raising efforts perhaps hampered at a time when the economic crisis is already making donors reconsider the size of their contributions.

When it comes to being transparent over problems of corruption in recipient countries the Global Fund has been far better than most aid donors or agencies. It has openly tackled corruption — with a 'zero tolerance' policy, suspending grants at the first whiff of wrong-doing, and working with recipient countries to bring fraudsters to justice and recover what misdirected money it can. Could it do more? Yes: for example, by strengthening oversight further. But it is already well down the road to effectively tackling corruption.

The same cannot be said for many of the alphabet-soup of aid agencies, which choose not to publicise their own uncovered fraud cases, perhaps out of fear of damaging their image, and losing donors. Several observers have been quick to point out that if the AP article has an upside, it is to have drawn renewed attention to fraudulent use of funds by such agencies. The fight against aid corruption has generally improved markedly since the 1990s, but many agencies still fall far below the high bar set by the Global Fund. Meanwhile, astonishingly, the fund's own fraud investigations have been hampered because the United Nations Development Programme, which manages some of its grants, has refused to allow the fund access to its records. Scrutiny should be welcomed, but honesty should not carry so high a price.

Nature Medicine
February 2011, Volume 17 No 2
http://www.nature.com/nm/index.html
Editorial
The scientific social network
doi:10.1038/nm0211-137
A joint statement from 17 funding agencies urges biomedical researchers to openly share data obtained from population-based studies. Although this will foster more collaboration, new web technologies need to be harnessed, and the attribution of credit must change to facilitate this transition.
News and Views
Tuberculosis vaccines—a new kid on the block
Stefan H E Kaufmann
doi:10.1038/nm0211-159
New tuberculosis vaccines are urgently needed to reduce the threat of this devastating disease. An approach consisting of a fusion protein of three tuberculosis antigens provides significant protection in before- and after-exposure challenge mouse models, representing a crucial step forward in tackling tuberculosis in latently infected individuals
Articles
A multistage tuberculosis vaccine that confers efficient protection before and after exposure
Claus Aagaard, Truc Hoang, Jes Dietrich, Pere-Joan Cardona, Angelo Izzo, Gregory Dolganov, Gary K Schoolnik, Joseph P Cassidy, Rolf Billeskov & Peter Andersen
doi:10.1038/nm.2285
There is an essential need for vaccines that can prevent primary infection by Mycobacterium tuberculosis and control its reactivation in individuals with latent disease. Claus Aagaard et al. now report the development of a dual-function vaccine that shows protective efficacy in mice by both inhibiting infection upon initial pathogen exposure and by impairing reactivation of latent infection with M. tuberculosis.

New England Journal of Medicine
February 3, 2011 Vol. 364 No. 5
http://content.nejm.org/current.shtml
Perspective
Focus on Research

Weighing the Benefits and Costs of HPV Vaccination of Young Men

Jane J. Kim, Ph.D.

[This article has no abstract; the first 100 words appear below.]

Sexually transmitted human papillomavirus (HPV) infections contribute to approximately 20,000 cases of invasive cancer in the United States each year; about 50% are cervical cancers, and the rest involve the vagina, vulva, penis, anus, or oral cavity or oropharynx.1 Less than 25% of HPV-related cancers occur in men. However, some subgroups, such as men who have sex with men, have markedly higher rates of HPV-related diseases such as anal cancer. Oncogenic types of HPV cause nearly all cases of cervical cancer, 90% of cases of anal cancer, and a smaller proportion of the remaining cancers. The majority of these cancers . . .

Original Article

Efficacy of Quadrivalent HPV Vaccine against HPV Infection and Disease in Males

Anna R. Giuliano, Ph.D., Joel M. Palefsky, M.D., Stephen Goldstone, M.D., Edson D. Moreira, Jr., M.D., Mary E. Penny, M.D., Carlos Aranda, M.D., Eftyhia Vardas, M.D., Harald Moi, M.D., Heiko Jessen, M.D., Richard Hillman, M.D., Yen-Hwa Chang, M.D., Daron Ferris, M.D., Danielle Rouleau, M.D., Janine Bryan, Ph.D., J. Brooke Marshall, Ph.D., Scott Vuocolo, Ph.D., Eliav Barr, M.D., David Radley, M.S., Richard M. Haupt, M.D., and Dalya Guris, M.D.

Background

Infection with human papillomavirus (HPV) and diseases caused by HPV are common in boys and men. We report on the safety of a quadrivalent vaccine (active against HPV types 6, 11, 16, and 18) and on its efficacy in preventing the development of external genital lesions and anogenital HPV infection in boys and men.

Methods

We enrolled 4065 healthy boys and men 16 to 26 years of age, from 18 countries in a randomized, placebo-controlled, double-blind trial. The primary efficacy objective was to show that the quadrivalent HPV vaccine reduced the incidence of external genital lesions related to HPV-6, 11, 16, or 18. Efficacy analyses were conducted in a per-protocol population, in which subjects received all three vaccinations and were negative for relevant HPV types at enrollment, and in an intention-to-treat population, in which subjects received vaccine or placebo, regardless of baseline HPV status.

Results

In the intention-to-treat population, 36 external genital lesions were seen in the vaccine group as compared with 89 in the placebo group, for an observed efficacy of 60.2% (95% confidence interval [CI], 40.8 to 73.8); the efficacy was 65.5% (95% CI, 45.8 to 78.6) for lesions related to HPV-6, 11, 16, or 18. In the per-protocol population, efficacy against lesions related to HPV-6, 11, 16, or 18 was 90.4% (95% CI, 69.2 to 98.1). Efficacy with respect to persistent infection with HPV-6, 11, 16, or 18 and detection of related DNA at any time was 47.8% (95% CI, 36.0 to 57.6) and 27.1% (95% CI, 16.6 to 36.3), respectively, in the intention-to-treat population and 85.6% (97.5% CI, 73.4 to 92.9) and 44.7% (95% CI, 31.5 to 55.6) in the per-protocol population. Injection-site pain was significantly more frequent among subjects receiving quadrivalent HPV vaccine than among those receiving placebo (57% vs. 51%, $P<0.001$).

Conclusions

Quadrivalent HPV vaccine prevents infection with HPV-6, 11, 16, and 18 and the development of related external genital lesions in males 16 to 26 years of age. (Funded by Merck and others; ClinicalTrials.gov number, NCT00090285.)

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February 2011 - Volume 30 - Issue 2
http://journals.lww.com/pidj/pa ges/currenttoc.aspx
[Reviewed earlier]

Pediatrics
February 2011 / VOLUME 127 / ISSUE 2
http://pediatrics.aappublications.org/current.shtml
Articles
Impact of Rotavirus Vaccination on Hospital-Acquired Rotavirus Gastroenteritis in Children
Evan J. Anderson, Angela Rupp, Stanford T. Shulman, Deli Wang, Xiaotian Zheng, and Gary A. Noskin
Pediatrics 2011; 127: e264-e270.
OBJECTIVE Data show that after the implementation of routine rotavirus vaccination for infants in the United States, community-acquired (CA) rotavirus cases declined substantially in the 2007–2008 season. The impact of community-based rotavirus vaccination on the substantial burden of hospital-acquired (HA) rotavirus has not been documented.
PATIENTS AND METHODS We assessed CA and HA rotavirus, respiratory syncytial virus, and influenza infections at Children's Memorial Hospital for 5 winter seasons (defined as occurring from September through May) from 2003 to 2008. We also report rotavirus data from the 2008–2009 season.
RESULTS A similar dramatic decline (>60% compared with the median of previous seasons) occurred in the rates of cases of both CA ($P < .0001$) rotavirus hospitalizations and HA ($P < .01$) rotavirus infections in the 2007–2008 season compared with previous seasons, whereas the rates of CA and HA influenza and respiratory syncytial virus, respectively, remained stable. Improvements in hand-hygiene compliance did not correlate with a reduction in the transmission rate of rotavirus in the hospital. Both CA and HA rotavirus rates remained much lower in the 2008–2009 than in the 2003–2007 seasons.
CONCLUSIONS Community-based rotavirus vaccination is associated with a substantial reduction in the number of children who are admitted with rotavirus. These data also indicate that routine community-based rotavirus infant vaccination protects hospitalized children from acquiring rotavirus. Vaccination efforts should be encouraged as a strategy to affect the substantial burden of HA rotavirus.
Varicella-Related Hospitalizations in the United States, 2000–2006: The 1-Dose Varicella Vaccination Era
Adriana S. Lopez, John Zhang, Cedric Brown, and Stephanie Bialek
Pediatrics 2011; 127: 238-245.
OBJECTIVE To describe the effect of the mature 1-dose varicella vaccination program on varicella morbidity, we analyzed 2 national databases for varicella-related

hospitalizations in the United States since implementation of the varicella vaccination program in 1995.
PATIENTS AND METHODS Data from the National Hospital Discharge Survey and Nationwide Inpatient Sample were analyzed to describe trends in varicella-related hospitalizations during the 1-dose vaccination era (2000–2006) compared with those in the prevaccination era (1988–1995). Varicella-related hospitalizations were defined by using International Classification of Diseases, Ninth Revision codes. Results were extrapolated to represent national estimates.
RESULTS Using National Hospital Discharge Survey data, 24 488 varicella-related hospitalizations were estimated to occur in the United States during the 1-dose vaccination era. The varicella-related hospitalization rate was 0.12 per 10 000 population during the 1-dose vaccination era versus 0.42 per 10 000 population in the prevaccination era ($P < .01$). During the 1-dose vaccination era, the estimated annual average number of varicella-related hospitalizations was significantly lower and decreased by ≥65% in all age groups compared with those in the prevaccination era ($P < .001$ in all age groups). The varicella-related hospitalization rate during the 1-dose vaccination era estimated from the Nationwide Inpatient Sample was 0.09 per 10 000 population.
CONCLUSIONS Varicella-related hospitalization numbers and rates declined significantly during the 1-dose varicella vaccination era. Assuming declines in varicella-related hospitalizations are due, mainly, to the routine childhood varicella vaccination program, these data suggest that varicella vaccination prevented ~50 000 varicella-related hospitalizations in the United States from 2000 to 2006.

Pharmacoeconomics
February 1, 2011 - Volume 29 - Issue 2 pp: 87-172
http://adisonline.com/pharmacoeconomics/pages/currenttoc.aspx
[No relevant content]

Pharmacoeconomics & Outcomes News
February 5, 2011 - Volume - Issue 621 pp: 1-11
http://adisonline.com/pecnews/pages/currenttoc.aspx
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PLoS Medicine
(Accessed 30 January 2011)
http://medicine.plosjournals.org/perlserv/?request=browse&issn=1549-1676&method=pubdate&search_fulltext=1&order=online_date&row_start=1&limit=10&document_count=1533&ct=1&SESSID=aac96924d41874935d8e1c2a2501181c#results
Intermittent Preventive Treatment of Malaria Provides Substantial Protection against Malaria in Children Already Protected by an Insecticide-Treated Bednet in Mali: A Randomised, Double-Blind, Placebo-Controlled Trial
Alassane Dicko, Abdoulbaki I. Diallo, Intimbeye Tembine, Yahia Dicko, Niawanlou Dara, Youssoufa Sidibe, Gaoussou Santara, Halimatou Diawara, Toumani Conaré, Abdoulaye Djimde, Daniel Chandramohan, Simon Cousens, Paul J. Milligan, Diadier A. Diallo,

Ogobara K. Doumbo, Brian Greenwood Research Article, published 01 Feb 2011
doi:10.1371/journal.pmed.1000407
Intermittent Preventive Treatment of Malaria Provides Substantial Protection against Malaria in Children Already Protected by an Insecticide-Treated Bednet in Burkina Faso: A Randomised, Double-Blind, Placebo-Controlled Trial
Amadou T. Konaté, Jean Baptiste Yaro, Amidou Z. Ouédraogo, Amidou Diarra, Adama Gansané, Issiaka Soulama, David T. Kangoyé, Youssouf Kaboré, Espérance Ouédraogo, Alphonse Ouédraogo, Alfred B. Tiono, Issa N. Ouédraogo, Daniel Chandramohan, Simon Cousens, Paul J. Milligan, Sodiomon B. Sirima, Brian Greenwood, Diadier A. Diallo
Research Article, published 01 Feb 2011
doi:10.1371/journal.pmed.1000408
Two Strategies for the Delivery of IPTc in an Area of Seasonal Malaria Transmission in The Gambia: A Randomised Controlled Trial
Kalifa A. Bojang, Francis Akor, Lesong Conteh, Emily Webb, Ousman Bittaye, David J. Conway, Momodou Jasseh, Virginia Wiseman, Paul J. Milligan, Brian Greenwood
Research Article, published 01 Feb 2011
doi:10.1371/journal.pmed.1000409
Intermittent Preventive Treatment to Reduce the Burden of Malaria in Children: New Evidence on Integration and Delivery
James G. Beeson, Stephen J. Rogerson, Ivo Mueller, Jack S. Richards, Freya J. I. Fowkes
Perspective, published 01 Feb 2011
doi:10.1371/journal.pmed.1000410
Registering New Drugs for Low-Income Countries: The African Challenge
Mary Moran, Nathalie Strub-Wourgaft, Javier Guzman, Pascale Boulet, Lindsey Wu, Bernard Pecoul Policy Forum, published 01 Feb 2011
doi:10.1371/journal.pmed.1000411

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4 February 2011 vol 331, issue 6017, pages 497-638
http://www.sciencemag.org/current.dtl
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2 February 2011 vol 3, issue 68
http://stm.sciencemag.org/content/current
[No relevant content]

Vaccine
Volume 29, Issue 9 pp. 1727-1854 (17 February 2011)
http://www.sciencedirect.com/science/journal/0264410X
Regular Papers
Employee designation and health care worker support of an influenza vaccine mandate at a large pediatric tertiary care hospital *Original Research Article*
Pages 1762-1769

Kristen A. Feemster, Priya Prasad, Michael J. Smith, Chris Feudtner, Arthur Caplan, Paul Offit, Susan E. Coffin

Abstract

Aim

Determine predictors of support of a mandatory seasonal influenza vaccine program among health care workers (HCWs).

Scope

Cross-sectional anonymous survey of 2443 (out of 8093) randomly selected clinical and non-clinical HCWs at a large pediatric network after implementation of a mandatory vaccination program in 2009–10.

Results

1388 HCWs (58.2%) completed the survey and 75.2% of respondents reported agreeing with the new mandatory policy. Most respondents (72%) believed that the policy was coercive but >90% agreed that the policy was important for protecting patients and staff and was part of professional ethical responsibility. When we adjusted for attitudes and beliefs regarding influenza and the mandate, there was no significant difference between clinical and nonclinical staff in their support of the mandate (OR 1.08, 95% C.I. 0.94, 1.26).

Conclusions

Attitudes and beliefs regarding influenza and the mandate may transcend professional role. Targeted outreach activities can capitalize on beliefs regarding patient protection and ethical responsibility.

Primary care physician perspectives on providing adult vaccines *Original Research Article*

Pages 1850-1854

Gary L. Freed, Sarah J. Clark, Anne E. Cowan, Margaret S. Coleman

Abstract

Recently, several new vaccines have been recommended for adults. Little is known regarding the immunization purchase and stocking practices of adult primary care physicians. To determine the proportion of family practice and internal medicine physicians who routinely stock specific adult vaccines and their rationale for those decisions, we conducted a cross-sectional survey in 2009 of a national random sample of 993 family physicians (FPs) and 997 general internists (IMs) in the US. Of the 1109 respondents, 886 reported that they provide primary care to adults aged 19–64 years and 96% of these physicians stock at least one vaccine recommended for adults. Of those, 2% plan to stop and 12% plan to increase vaccine purchases; the rest plan to maintain status quo. Of the respondents, 27% (31% FPs vs 20% IMs) stocked all adult vaccines. We conclude that many primary care physicians who provide care to adults do not stock all recommended immunizations. Efforts to improve adult immunization rates must address this fundamental issue.