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

This weekly summary targets news, announcements, articles and events in global vaccines ethics and policy gathered from key governmental, NGO and industry sources, key journals and other sources. This summary supports ongoing initiatives of the Center for Vaccine Ethics & Policy, and is not intended to be exhaustive in its coverage. Vaccines: The Week in Review is also posted in pdf form and as a set of blog posts at http://centerforvaccineethicsandpolicy.wordpress.com/. This blog allows full-text searching of some 2,500 entries..

Comments and suggestions should be directed to
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[Editor's Note: The 65th World Health Assembly concluded in Geneva earlier today. Full documentation from the WHA continues to be posted here http://www.who.int/mediacentre/events/2012/wha65/en/index.html We highlight just a few items of interest here sourced from the WHA Journal and Daily Notes, and will provide a fuller summary in our next issue]

Sixty-fifth World Health Assembly: daily notes on proceedings - Notes: Friday, 25 May 2012

Intensification of the global polio eradication initiative

Committee A today approved a draft resolution (EB130.R10) which declares the completion of poliomyelitis eradication a programmatic emergency for global public health. India was once again congratulated for stopping indigenous wild poliovirus circulation. However, three countries still face endemic transmission of wild polio virus; unless poliovirus transmission is stopped in these countries, there will be a global resurgence of the disease with a real risk of severe outbreaks in areas that have long been polio-free. The approved resolution requires the full implementation of current and new eradication strategies, the institution of strong national oversight and accountability mechanisms for all areas infected with poliovirus, and the application of appropriate vaccination recommendations for all travellers to and from areas infected with poliovirus. Member States with poliovirus transmission are urged to declare such transmission to be a "national public health emergency", requiring the development and full implementation of emergency action plans. Pakistan, Nigeria and Afghanistan have already established national emergency plans for polio eradication and shifted their national polio eradication initiatives to an emergency status, with an all-of-government and society approach to ensure all children are reached and vaccinated. During the discussion, partners reiterated their support to the polio eradication initiative and the importance of

treating polio eradication as a programmatic emergency, and urged all partners to be fully committed in their action and their financing.
http://www.who.int/mediacentre/events/2012/wha65/journal/en/index1.html

SIXTY-FIFTH WORLD HEALTH ASSEMBLY (Draft) A65/55
26 May 2012
Third report of Committee A
(Draft)
Committee A held its eighth, ninth and tenth meetings on 25 May 2012. These meetings were held under the chairmanship of Mr Herbert Barnard (Netherlands) and Dr Zangley Dukpa (Bhutan).
It was decided to recommend to the Sixty-fifth World Health Agenda item 13.10
Poliomyelitis: intensification of the global eradication initiative
The Sixty-fifth World Health Assembly,
- Having considered the report on poliomyelitis: intensification of the global eradication initiative;
- Recalling resolution WHA61.1 on poliomyelitis: mechanism for management of potential risks to eradication, which, inter alia, requested the Director-General to develop a new strategy to reinvigorate the fight to eradicate poliovirus and to develop appropriate strategies for managing the long-term risks of reintroduction of poliovirus and re-emergence of poliomyelitis, including the eventual cessation of use of oral poliovirus vaccine in routine immunization programmes;
- Recognizing the need to make rapidly available the necessary financial resources to eradicate the remaining circulating polioviruses and to minimize the risks of reintroduction of poliovirus and reemergence of poliomyelitis after interruption of wild poliovirus transmission;
- Noting the finding by the Independent Monitoring Board of the Global Polio Eradication Initiative finding in its report of October 2011 that "polio simply will not be eradicated unless it receives a higher priority – in many of the polio-affected countries, and across the world"1 and its recommendation in its April 2011 report that the World Health Assembly "considers a resolution to declare the persistence of polio a global health emergency";
- Noting the report of the meeting in November 2011 of the Strategic Advisory Group of Experts on immunization at which it stated "unequivocally that the risk of failure to finish global polio eradication constitutes a programmatic emergency of global proportions for public health and is not acceptable under any circumstances";
- Recognizing the need for Member States to engage all levels of political and civil society so as to ensure that all children are vaccinated in order to eradicate poliomyelitis;
- Having noted the current high cost and limited supplies of inactivated polio vaccine that are hampering the introduction and scaling-up of inactivated polio vaccine, resulting in major programmatic and financial implications to developing countries;
- Noting that the technical feasibility of poliovirus eradication has been proved through the full application of new strategic approaches;
- Noting that continuing poliovirus transmission anywhere will continue to pose a risk to poliomyelitis-free areas until such time as all poliovirus transmission is interrupted globally;

1. DECLARES the completion of poliovirus eradication a programmatic emergency for global public health, requiring the full implementation of current and new eradication strategies, the institution of strong national oversight and accountability mechanisms for all areas infected with poliovirus, and the application of appropriate vaccination recommendations for all travellers to and from areas infected with poliovirus;1

2. URGES Member States with poliovirus transmission to declare such transmission to be a "national public health emergency" making poliovirus eradication a national priority programme, requiring the development and full implementation of emergency action plans, to be updated every six months, until such time as poliovirus transmission has been interrupted;

3. URGES all Member States:

(1) to eliminate the unimmunized areas and to maintain very high population immunity against polioviruses through routine immunization programmes and, where necessary, supplementary immunization activities;

(2) to maintain vigilance for poliovirus importations, and the emergence of circulating vaccine-derived polioviruses, by achieving and sustaining certification-standard surveillance and regular risk assessment for polioviruses;

(3) to make available urgently the financial resources required for the full and continued implementation, to the end of 2013, of the necessary strategic approaches to interrupt wild poliovirus transmission globally, and to initiate planning for the financing to the end of 2018 of the polio endgame strategy;

(4) to engage in multilateral and bilateral cooperation, including exchanging epidemiologic information, laboratory monitoring data, and carrying out supplementary immunization activities simultaneously as appropriate;

4. REQUESTS the Director-General:

(1) to plan for the renewed implementation through 2013 of the approaches for eradicating wild polioviruses outlined in the Global Polio Eradication Initiative Strategic Plan 2010–2012 and any new tactics that are deemed necessary to complete eradication, including the enhancement of the existing global polio eradication initiative within the Organization;

(2) to strengthen accountability and monitoring mechanisms to ensure optimal implementation of eradication strategies at all levels;

(3) to undertake the development, scientific vetting, and rapid finalization of a comprehensive polio eradication and endgame strategy and inform Member States of the potential timing of a switch from trivalent to bivalent oral poliovirus vaccine for all routine immunization programmes; and includes budget scenarios to the end of 2018 that include risk management;

(4) to coordinate with all relevant partners including vaccine manufacturers, to promote the research, production and supply of vaccines, in particular inactivated polio vaccines, to enhance their affordability, effectiveness and accessibility;

(5) to continue mobilizing and deploying the necessary financial and human resources for the strategic approaches required through 2013 for wild poliovirus eradication, and for the eventual implementation of a polio endgame strategy to the end of 2018;

(6) to report to the Sixty-sixth World Health Assembly and the subsequent two Health Assemblies, through the Executive Board, on progress in implementing this resolution.

1 International travel and health. Geneva, World Health Organization, 2012 edition.

Sixty-fifth World Health Assembly: daily notes on proceedings
- Notes: Saturday, 26 May 2012

Financing research and development

The Health Assembly unanimously adopted the resolution on the Consultative Expert Working Group on Research and Development: Financing and Coordination in the form presented as draft by the drafting group and circulated yesterday.

Implementation of International Health Regulations (2005)

The annual report on the implementation of the International Health Regulations (2005) was presented in Committee A. Tools are available for State Parties to monitor their national core capacities and to identify areas that require further action. Information collected for 2011 shows State Parties are making fair progress for a number of core capacities, notably surveillance, response, laboratory and zoonotic events. Most regions reported relatively low capacities in human resources and for preparedness to chemical and radiological events.

Many State Parties have requested or will request a two-year extension to the mid-2012 deadline for establishing core capacities under IHR. Delegates made references to the difficulties in implementing measures related to points of entry as well as the need for engaging stakeholders outside the health sector and enhancing regional and trans-regional networks. The draft resolution was approved with a recommendation for developing further progress reports.

Pandemic influenza preparedness

Member States acknowledged that the pandemic influenza preparedness (PIP) framework is a crucial development for global health security, based on the lessons from the 2009 influenza pandemic. Committee A reviewed some of the procedures and processes behind that framework and its future direction. Many delegates highlighted the need for WHO to be flexible. Delegates recognized that industry and other partners play important roles in the development of mass vaccines to counter outbreaks.

Delegates agreed on a 70% and 30% share of resources between preparedness and response respectively, but that this would be regularly reviewed. They welcomed the role of the advisory group which was described as strong and robust, but stressed the need for extra resources – both human and financial – to support WHO capacity and leadership so that the PIP framework can be fully implemented.

Global mass gatherings

Committee A considered and approved the report by the Secretariat on "Global mass gatherings: implications and opportunities for global health security". The discussions were spearheaded by delegates from countries which hosted mass gatherings in the recent past or host such events on a regular basis. Delegates expressed the need to exchange experiences to ensure lessons learned on adequate preparedness and management. Member States representatives also stressed the need for efficient preventive measures and interventions such as surveillance through mobile teams and laboratories to identify and respond rapidly to outbreaks. They identified mass gatherings as opportunities to reinforce multi-sectoral collaboration and strengthen their health systems.

Progress reports

Committee A welcomed and approved the following progress reports:
- Health system strengthening;

- WHO's role and responsibilities in health research;
- Global strategy and plan of action on public health, innovation and intellectual property;
- Smallpox eradication: destruction of variola virus stocks;
- Eradication of dracunculiasis;
- Chagas disease: control and elimination;
- Viral hepatitis;
Prevention and control of multidrug-resistant tuberculosis and extensively drug-resistant tuberculosis;
- Cholera: mechanisms for control and prevention;
- Control of human African trypanosomiasis;
- Global health sector strategy on HIV/AIDS, 2011–2015;
- Prevention and control of sexually transmitted infections: global strategy…
http://www.who.int/mediacentre/events/2012/wha65/journal/en/index.html

65th World Health Assembly
Journal, Number 6
26 May 2012
pdf, 171kb
Fourth meeting of Committee B
Chairman: Dr Mohammad Hossein Nicknam (Islamic Republic of Iran)
Later: Dr Enrique Tayag (Philippines),Vice-Chairman
Item 13 (continued) Technical and health matters (Subitems transferred from Committee A)
Item 13.12 (continued) – **Draft global vaccine action plan**
The Chairman reopened the subitem. The Secretariat read the amendments to draft resolution entitled World Immunization Week. The Committee approved the resolution contained in document EB130.R12 as amended. The Secretariat read the amendments to draft resolution entitled Global vaccine action plan. The Committee approved the resolution contained in document A65/22 as amended.

- World Health Assembly Endorses New Plan to Increase Global Access to Vaccines (Decade of Vaccines Collaboration)

- The Measles & Rubella Initiative Welcomes World Health Assembly Commitment to Measles and Rubella Elimination Goal
http://www.unicef.org/media/media_62517.html

- Statement of Support for New Global Vaccine Action Plan [Sabin Vaccine Institute]

- Statement by Bill Gates on the Occasion of the World Health Assembly Resolutions Declaring Completion of Polio Eradication a Global Emergency and Endorsing the Global Vaccine Action Plan

The Global Polio Eradication Initiative (GPEI) announced the Emergency Action Plan (EAP) developed in coordination with new country national emergency plans. The plan builds on India's successes and outlines a range of new strategies and initiatives to better support eradication efforts, including:
- Intensified focus on worst-performing areas of Nigeria, Pakistan and Afghanistan to increase vaccination coverage by end of 2012 to levels needed to stop transmission;
- New approaches tailored to each country to tackle persistent challenges and improve polio vaccination campaign performance;
- Heightened accountability, coordination and oversight to ensure success at every level of government and within every partner agency and organization.
- Surge of technical assistance and social mobilization capacity.

GPEI noted that the EAP is currently hindered by a critical funding gap of nearly US$1 billion through 2013, with funding shortages already forcing the GPEI to cancel or scale-back critical vaccination activities in 24 high-risk countries.
Global Emergency Action Plan (EAP) 2012-2013
http://www.prnewswire.com/news-releases/polio-eradication-shifts-into-emergency-mode-153533405.html

WHO - Meningococcal disease: situation in the African Meningitis Belt
24 May 2012

From 1 January to 17 April 2012 (epidemiologic week 17), outbreaks of meningococcal disease have been reported in 42 districts in 10 of the 14 countries of the African Meningitis Belt 1. These outbreaks have been detected as part of the enhanced surveillance.

The 10 countries (Benin, Burkina Faso, Chad, Central African Republic, Côte d'Ivoire, Gambia, Ghana, Mali, Nigeria and Sudan) reported a total of 11 647 meningitis cases including 960 deaths resulting in a case fatality ratio of 8.2%. The outbreaks were mainly caused by the W135 serogroup of Neisseria meningitidis (Nm) bacteria.
In response to the outbreaks, the Ministries of Health implemented a series of preventive and control measures which included enhancement of surveillance, case management, sensitization of the population, strengthening of cross border collaboration and provision of vaccines through the International Coordinating Group on Vaccine Provision for Epidemic Meningitis Control (ICG).

The ICG released a total of 11,000 vials of antibiotic (Ceftriaxone) and 1,665,673 doses of vaccines to six countries (see table below 2) most affected by the epidemic, upon requests. The vaccines released include 919,023 doses of polysaccharide ACW/ACYW vaccine, 746,650 doses of meningitis A conjugate vaccine and 81,418 doses of polysaccharide AC vaccine.

The ICG is working with manufacturers and partners to ensure the stockpiles of the appropriate vaccines are maintained in sufficient quantities, for responding effectively to epidemics in the future. ICG partners include WHO, International Federation of Red Cross and Red Crescent Societies (IFRC), United Nations Children Fund (UNICEF), and Médecins Sans Frontières (MSF).

The emergency stockpile was established with the support of Global Alliance for Vaccines and Immunization (GAVI). The vaccination campaigns were conducted with the

support of MSF, UNICEF, IFRC, the European Community Humanitarian Aid Office (ECHO), and the United Nations through its Central Emergency Response Fund (CERF). WHO continues to monitor the epidemiological situation closely, in collaboration with partners and Ministries of Health in the affected countries.

1 The 14 countries in the African Meningitis Belt with enhanced surveillance for meningococcal disease include Benin, Burkina Faso, Cameroon, the Central African Republic, Chad, Côte d'Ivoire, the Democratic Republic of the Congo, Ethiopia, Ghana, Mali, Niger, Nigeria, Sudan and Togo.
http://www.who.int/csr/don/2012_05_24/en/index.html

Merck (MSD outside the United States and Canada) said it welcomed the launch in Rwanda of Africa's first national rotavirus vaccination program with ROTATEQ (rotavirus vaccine, live, oral, pentavalent). Merck noted that the first infants will receive ROTATEQ at a health center in Musanze District, Northern Province, Rwanda. Following the initial launch, ROTATEQ will be routinely administered to all infants in Rwanda as part of its national vaccination program. During 2012, the Government of Rwanda Ministry of Health expects more than 100,000 children will receive the vaccine. Mark Feinberg, M.D., Ph.D., chief public health and science officer, Merck Vaccines, said, "We congratulate the Government of Rwanda for the launch of this important public health initiative and applaud its efforts to help protect Rwanda's children against rotavirus-associated diarrhea through a comprehensive initiative including vaccination and other public health efforts. Rwanda is committed to the vaccination of their children and their accomplishments to date have been impressive. Given the impact of rotavirus gastroenteritis in children, working to help reduce severe rotavirus disease represents a critically important public health goal and we're pleased to be able to work with the GAVI Alliance to make ROTATEQ available to Rwanda and other GAVI-eligible countries worldwide."
http://www.businesswire.com/news/home/20120525005315/en/Government-Rwanda-Introduces-Mercks-ROTATEQ%C2%AE-Rotavirus-Vaccine

The **Weekly Epidemiological Record (WER) for 25 May 2012**, vol. 87, 21 (pp 201–216) includes: Meeting of the Strategic Advisory Group of Experts on immunization, April 2012 – conclusions and recommendations
http://www.who.int/entity/wer/2012/wer8721.pdf

Report/Research/Book Watch

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

Opportunity for Public Comment: *Study Designs for the Safety Evaluation of Different Childhood Immunization Schedules*

The Committee on Assessment of Studies of Health Outcomes Related to the Recommended Childhood Immunization Schedule has commissioned a paper from a consultant, Martin Kulldorff, Ph.D. We will be inviting comments and reactions to the paper to inform the committee discussion. The comment period will be open from May 14th until May 31st, 2012, and can be accessed on http://www.iom.edu/HealthOutcomesCommissionedPaper

Please note that any comments that you submit to the committee, including your name and identifying information, will not be kept confidential and will be included in a Public Access File in compliance with Section 15 of the Federal Advisory Committee Act (FACA). The National Academies shall be authorized to use any such comments or submissions in accordance with the National Academies' Terms of Use Statement. The responsibility for the content of the paper rests with the author and does not necessarily represent the views of the Institute of Medicine or its committees and convening bodies.

For more information, please visit the Committee on Assessment of Studies of Health Outcomes Related to the Recommended Childhood Immunization Schedule's webpage: http://www.iom.edu/Activities/PublicHealth/ChildhoodImmunization.aspx

Journal Watch

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

If you would like to suggest other journal titles to include in this service, please contact David Curry at: david.r.curry@centerforvaccineethicsandpolicy.org

Annals of Internal Medicine
May 15, 2012; 156 (10)
http://www.annals.org/content/current
[Reviewed earlier]

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

British Medical Journal
26 May 2012 (Vol 344, Issue 7858)
http://www.bmj.com/content/344/7858
Editorial
Influenza vaccination in healthcare professionals
BMJ 2012; 344 doi: 10.1136/bmj.e2217 (Published 28 March 2012)
Cite this as: BMJ 2012;344:e2217
Harish Nair, Alison Holmes, Igor Rudan, Josip Car
Extract
Should be mandatory
There is clear evidence that healthcare workers play an important role in transmitting infections to their patients.1 The World Health Organization and national immunisation guidelines in 60% of developed and emerging economies strongly recommend annual vaccination against seasonal influenza for all healthcare workers in acute and long term care facilities.2 However, unlike other prophylactic measures targeted at healthcare workers, such as hepatitis B vaccination, the uptake of flu vaccine has been generally poor. In the United States, two decades of consistent advocacy by the Centers for Disease Control and Prevention achieved a self reported vaccine coverage of only 64% among healthcare workers by 2010-1.3 In the United Kingdom, despite recommendations by the Department of Health, uptake of seasonal flu vaccine was a dismal 35% among frontline healthcare workers in the same year.4
Flu contributes greatly to global mortality and morbidity and has important economic consequences. Each year, seasonal flu affects 5-10% of the world's population, causing 3-5 million severe infections and resulting in 250 000-500 000 deaths. Young children (especially those under 1 year); pregnant …

Bulletin of the World Health Organization
Volume 90, Number 5, May 2012, 321-400
http://www.who.int/bulletin/volumes/90/5/en/index.html
Special theme: e-health
[Reviewed earlier]

Cost Effectiveness and Resource Allocation
(Accessed 26 May 2012)
http://www.resource-allocation.com/
[No new relevant content]

Emerging Infectious Diseases
Volume 18, Number 6—June 2012
http://www.cdc.gov/ncidod/EID/index.htm
[No relevant content]

Foreign Affairs
May/June 2012 Volume 91, Number 3

http://www.foreignaffairs.com/
[Reviewed earlier]

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

Globalization and Health
[Accessed 26 May 2012]
http://www.globalizationandhealth.com/
[No new relevant content]

Health Affairs
May 2012; Volume 31, Issue 5
http://content.healthaffairs.org/content/current
Theme: Coverage Expansion & Implications
[No relevant content]

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

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

Health Policy and Planning
Volume 27 Issue 3 May 2012
http://heapol.oxfordjournals.org/content/current
[Reviewed earlier]

Human Vaccines & Immunotherapeutics (formerly Human Vaccines)
Volume 8, Issue 5 May 2012
http://www.landesbioscience.com/journals/vaccines/toc/volume/8/issue/5/
[Reviewed earlier]

International Journal of Infectious Diseases

Volume 16, Issue 6 pp. e413-e468 (June 2012)
http://www.sciencedirect.com/science/journal/12019712
[Reviewed earlier]

JAMA
May 23, 2012, Vol 307, No. 20
http://jama.ama-assn.org/current.dtl

Viewpoint

Assessing Value in Health Care Programs

Kevin G. Volpp, MD, PhD; George Loewenstein, PhD; David A. Asch, MD, MBA
JAMA. 2012;307(20):2153-2154. doi:10.1001/jama.2012.3619

Many health care services provided in the United States are of low value, meaning that the cost of providing those services is high relative to the health care benefit they confer. In some cases, the care provided may have no value or even, on average, may be harmful. Examples of low- or negative-value services include unnecessary surgery or diagnostic imaging that will not change management. Given estimates that 30% of the $2.5 trillion the United States spends on health care services each year may provide little benefit,[1] there is a widespread eagerness to enhance the ratio of benefits to costs.

Because value matters in health care, when new health care programs are proposed it has become common to ask, "What is the return on investment from implementing this new program?" Implicit in this question is that programs should be supported if they save money but not otherwise. Positive return on investment, meaning that more money is saved than is spent, has become the standard by which new initiatives are evaluated. This standard has been used to evaluate new programs such as the primary care medical home, disease management, and the projects submitted for the new Center for Medicare & Medicaid Services Innovation Challenge.

Although asking about return on investment might seem to make sense given concerns about health care cost and value, asking about return on investment is the wrong question when assessing whether a health care program is successful. What would happen if the rule were applied to every health care decision that is made? Besides childhood vaccination and flu shots for the elderly, few health care services save money.[2] The positive return-on-investment criterion is not applied to most health care services because almost nothing satisfies it. Medicare is prohibited by law from considering cost in coverage decisions, and other insurers tend to follow suit, even if the benefits are small and the costs very large. Would anyone ever ask, "What is the return on investment in treatment of this patient's cancer?" This is not a meaningless question, but almost certainly one that most people would think inappropriate to ask.

Cost is important and should be considered in many more settings for both existing and new services. Clinicians and policy makers should not apply one standard when tacitly continuing the status quo and a different standard when evaluating innovative programs that might be implemented. It certainly does not make sense to use one criterion—Are there clinical benefits?—for coverage decisions for treatments and a different criterion—Are health care savings greater than program costs?—for preventive services or for delivery system innovations designed to improve health. Programs designed to improve health and prevent disease should be evaluated based on whether they improve health at a reasonable price, essentially comparing whether improvements

in health are achieved for less resources than through alternatives, eg, expenditures on health care services.

Health care reimbursement tends to be disease fixated and should be evaluated the same way based on the value of expenditures in achieving improvements in health.[3] If an employer spends $100 000 treating late-stage emphysema or lung cancer for its employees—an expenditure with a negative return on investment but one that adds value to employees' lives—should that employer be willing to spend money on smoking cessation programs? The answer is almost undoubtedly yes. However, if health promotion programs or health system delivery innovations are required to save money, they will likely be labeled failures even if they improve health at a lower price than many of the services that we now willingly pay for under Medicare and private insurance. If we continue with the approach of insisting on a positive return on investment to fund such programs, low-value spending will persist at higher rates than would otherwise be the case.

For example, consider a program that would improve medication adherence after acute myocardial infarction (AMI). Adherence rates to β-blockers, statins, angiotensin-converting enzyme inhibitors or angiotensin-receptor blockers after an AMI event is poor; a recent large-scale study showed that even when copayments were lowered to $0 among insured patients, average adherence for these medications was only about 45%.[4] If a new program could increase adherence to 70%, it is plausible that the program could significantly reduce the rate of hospital admissions for MI, stroke, and revascularization procedures. If the average cost of health events requiring hospitalization in the 12 months following a hospital admission for a new MI is about $20 000 and the new program reduced the rate of events requiring hospitalization by 10%, the new program could cost up to $2000 per year and still save money. Does that mean the program should not be adopted if it costs $3000? At that point, the calculated return on investment for the program is negative because it costs more than it saves. But wouldn't this program still be a much better use of money than letting those MIs occur (mortality rates from AMI are typically more than 10% among hospitalized patients in the 30 days after admission, and many patients die before making it to a hospital)? If this is deemed not a good use of resources, then why are so many other services covered that yield lower value?[5] Many insurers, including Medicare, are continuing to cover bevacizumab for metastatic breast cancer, despite the unanimous recommendation by a US Food and Drug Administration panel that it not be covered because it is not helping patients to live longer, does not control their tumors, and exposes them to serious adverse effects[6] and despite an average annual cost of $99 000.[7]

There are political, ethical, and emotional challenges to making explicit resource allocation issues in treating diseases and applying the same metrics used to evaluate the effectiveness of programs that prevent diseases in largely unidentified patients. It is always more difficult to shut down existing programs than to say no to new ones, a phenomenon related to inertia, also known as status quo bias.[8] It is also more difficult to justify investments in prevention across broad populations than investments in the treatment of identifiable patients, a phenomenon known as the rule of rescue.[9] Changing the criteria used to evaluate health system delivery innovations might help overcome these tendencies. Evaluating success using the same criteria—whether a preventive service, delivery system innovation, or treatment—may be the best way to

ensure the maximal value in terms of improvements in health for the resources expended on health care services.

A recent conversation with a benefits manager from a medium-sized employer brought this point home. She reported that when asked by the chief financial officer, "What is the return on investment in putting in place this $125 000 wellness program?" she responded, "What is the return on investment on the $28 million we are spending on treating disease through our health benefits?" If cost is not considered when thinking about the value of covered treatments, it does not make sense to use positive return on investment as a criterion for determining whether promising new delivery system innovations should be covered. A better approach would be to adopt similar metrics for treatment and prevention for current and proposed care, for which the goal in all cases is achieving the most improvement possible with the resources available.

Journal of Health Organization and Management
Volume 26 issue 4 - Latest Issue
Published: 2012
http://www.emeraldinsight.com/journals.htm?issn=1477-7266&show=latest
[No relevant content]

Journal of Infectious Diseases
Volume 206 Issue 1 July 1, 2012
http://www.journals.uchicago.edu/toc/jid/current
EDITORIAL COMMENTARIES
Michelle Clarke and H. Marshall
Editor's choice: Rotavirus Vaccination for Prevention of Serious Acute Gastroenteritis and the Importance of Postlicensure Safety Monitoring
J Infect Dis. (2012) 206(1): 3-5 doi:10.1093/infdis/jis318
(See the major article by Yen et al, on pages 41–8.)
Extract

With the ability to save millions of lives each year in both the developed and developing nations, vaccination against childhood infectious diseases is a priority area for global health. An essential aspect of the success of any vaccination program is the careful monitoring following implementation to ensure that the benefits of the program outweigh any risks to the recipients or the community. Infant rotavirus vaccination programs are an important example of the collaborative expertise required for effective and timely monitoring and reporting of any adverse events following implementation. Rotavirus vaccines have been instrumental in reducing morbidity from rotavirus infection. Prior to the introduction of rotavirus vaccine, it is estimated that >500 000 rotavirus-related child deaths occurred globally each year [1]. Studies assessing the impact of rotavirus vaccine on incidence of rotavirus hospitalizations have occurred in numerous countries, including Australia and the United States, with dramatic reductions in the incidence of rotavirus hospitalizations (up to 80% reduction) shown following implementation of the rotavirus vaccination programs and suggestions of herd immunity benefits for older, unvaccinated populations [2–6]. The development of vaccines to prevent serious infectious diseases has been a global triumph, but large-scale

postlicensure studies are essential to ensure that vaccination programs deliver the anticipated benefits.

In response to the overwhelming global burden of rotavirus infections, particularly in children aged <5 years, a live, attenuated tetravalent rotavirus vaccine (RotaShield) was licensed for routine use in infants in 1998, before being withdrawn in 1999 due to concerns about an increased risk of intussusception in vaccine recipients …

Catherine Yen, Jacqueline E. Tate, Claudia A. Steiner, Margaret M. Cortese, Manish M. Patel, and Umesh D. Parashar

Editor's choice: Trends in Intussusception Hospitalizations Among US Infants Before and After Implementation of the Rotavirus Vaccination Program, 2000–2009

J Infect Dis. (2012) 206(1): 41-48 doi:10.1093/infdis/jis314

Abstract

Background. Although US data have not documented an intussusception risk with current rotavirus vaccines, international data indicate a possible low risk, primarily after the first dose.

Methods. Among infants in 26 US states comprising 75% of the birth cohort, we examined age-specific trends in population-level intussusception hospitalization rates before (2000–2005) and after (2007–2009) rotavirus vaccine introduction.

Results. Compared with 2000–2005 (35.3 per 100 000), the rate was greater in 2007 (39.0 per 100 000; rate ratio [RR], 1.10; 95% confidence interval [CI], 1.04–1.18), similar in 2008 (33.4 per 100 000; RR, 0.95; 95% CI, .89–1.01), and lower in 2009 (32.9 per 100 000; RR, 0.93; 95% CI, .87–.99). Among infants aged 8–11 weeks, compared with 2000–2005 (6.9 per 100 000), a small, significant increase was observed in each of 2007 (11.4 per 100 000; RR, 1.64; 95% CI, 1.08–2.50), 2008 (12.2 per 100 000; RR, 1.76; 95% CI, 1.17–2.65), and 2009 (11.0 per 100 000; RR, 1.59; 95% CI, 1.04–2.44).

Conclusions. Following rotavirus vaccine introduction, a small increase in intussusception rates was seen among US infants aged 8–11 weeks, to whom most first doses of vaccine are given; no sustained population-level change in overall rates was observed.

Journal of Global Infectious Diseases (JGID)

January-March 2012 Volume 4 | Issue 1 Page Nos. 1-92

http://www.jgid.org/currentissue.asp?sabs=n

[Reviewed earlier]

The Lancet

May 26, 2012 Volume 379 Number 9830 p1923 – 2022 e53 - 54

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

Comment

The US Global Health Initiative: where does it stand?

Jennifer Kates, Josh Michaud

Preview

In May, 2009, shortly after taking office, President Barack Obama announced the Global Health Initiative (GHI), which was to be a 6-year (2009–14), US$63 billion effort to refocus US global health activities by developing the first comprehensive US Government

global health strategy.1 The GHI was conceived as a "whole of government approach"2 to act as an umbrella over existing US global health programmes—most notably, the President's Emergency Plan for AIDS Relief. As President Obama said at the time, "We cannot simply confront individual preventable illnesses in isolation.

The Lancet Infectious Disease
Jun 2012 Volume 12 Number 6 p423 - 496
http://www.thelancet.com/journals/laninf/issue/current

Editorial

The rise and fall of bioterrorism research

The Lancet Infectious Diseases

In the months after the September 11, 2001, attacks in New York, USA, the world was on heightened awareness for terrorist attacks of all kind. The anthrax scares in the USA in the final months of that year led to a focus on bioterrorism. A decade ago this threat was viewed as one of the key areas for infectious disease research: the topic dominated the agendas at academic and clinical conferences at the time, and governments devised plans to address the threat of bioterrorism, often involving substantial investments in research. But a decade on, are we any more prepared for bioterrorist attacks, and what have we gained from the huge resources invested in the research?

Bioterrorism is defined by the US Centers for Diseases Control and Prevention as "the deliberate release of viruses, bacteria, toxins or other harmful agents used to cause illness or death in people, animals, or plants"; although this clearly leads to a murky distinction from biological warfare, and research into both goes hand in hand. Attempts in the early 20th century to weaponise biological agents quickly led to the realisation of the potency of such tactics as terrorist devices. And an arms race developed with governments simultaneously aiming to produce weapons with these agents and the countermeasures to use when faced with their deployment.

Despite a long history of research, the use of biological weapons in warfare and terrorism has been uncommon: the major downsides to their use are their lack of specificity and an inability to contain an infection within a target population. An infectious agent used against one group will almost inevitably infect unintended victims, even those who originally deployed the weapon.

However, in the late 20th century the face of terrorism changed, from one of targeted attacks to the use of indiscriminate tactics, in which the collateral damage of deaths on the aggressor's side was accepted. In the late 1990s, the threat of bioterrorism was generating serious interest. The topic was a key theme at the 1998 International Conference on Emerging Infectious Diseases, at which experts warned that the growing interest in and proliferation of biological weapons was not being matched by investment in research to counter the effects of such attacks. But the watershed moment was the 9/11 attacks on New York.

The following year, the World Health Assembly agreed that a concerted effort to address bioterrorism was needed. One of their acts was to drop the 2002 deadline for the destruction of smallpox virus stocks. The USA established several initiatives to address potential bioterrorist threats. Among them, the National Institutes of Health launched the National Science Advisory Board for Biosecurity (NSABB) to monitor potential dual-use research and the Department of Defense launched the Transformational Medical Technologies Initiative (TMTI), a US$1·5 billion initiative to

sequence the genomes of key microorganisms with bioterrorism potential and to develop one-size-fits-all measures against them.

For all the international concern and efforts to prepare, there has been no major bioterrorist attack. The TMTI has introduced no new antibiotics into clinical trials, the three drugs that have entered clinical trials are for single pathogens rather than providing multifaceted solutions, and now many of its projects have been redistributed to other defence departments. The NSABB has assessed just six papers. Furthermore, bioterrorism has dropped off the programmes of scientific conferences.
Nonetheless, the fear is still present, even if the threat has not materialised. In this month's Newsdesk, Kathryn Senior discusses two recent bioterrorism scares involving Bacillus anthracis spores, and the case of research in which investigators generated strains of H5N1 transmissible between mammals spawned much debate about dual-use research—as well as providing the NSABB with two of the six papers.

Groups that would willingly instigate a major bioterrorism attack undoubtedly exist. The consequences of widespread dissemination of anthrax spores or a haemorrhagic fever virus such as Ebola, or release of an engineered highly infective and highly pathogenic influenza are almost too dire to contemplate. However, bioterrorism research is perhaps a diversion—resources invested in combating bioterrorist threats would be well invested in research into the real and present damage of these pathogens in nature. Such research need not be viewed as a separate effort, but a much needed integrated effort in biodefence, since undoubtedly it would provide vital information, vaccines, and drugs for the fight against bioterrorism as well as combating natural infections.

Correspondence

Poliovirus eradication

Carlos Franco-Paredes

Preview |

Your Editorial in the October, 2011, issue covers the theme of polio eradication. Everyone that has a scientific or humanitarian interest in achieving the noble task of eliminating poliomyelitis remains confident that it is an attainable public-health goal in the near future. There is also an agreement that eradication should be a global effort that requires increased financial and political support. However, polio eradication efforts may be at risk of losing political and financial momentum in view of the persistent failures of the Global Polio Eradication Initiative (GPEI) and its inability to consistently reach target dates.

Poliovirus eradication

Masahiko Hachiya, Shinsaku Sakurada, Tomomi Mizuno, Yasuo Sugiura

Preview |

The Editorial,1 in the October, 2011, issue of The Lancet Infectious Diseases discusses innovations for polio eradication. We agree that social factors are one of the most important barriers to a polio eradication initiative. The essential problem is that the Global Polio Eradication Initiative (GPEI) is not consistent with current local priorities. Moreover, the Ministry of Health in Pakistan was devolved, and the relevant federal programme disappeared in June, 2011. Therefore, local governments take more responsibility for immunisation programmes than before.

Medical Decision Making (MDM)

May–June 2012; 32 (3)
http://mdm.sagepub.com/content/current
[Reviewed earlier]

Nature
Volume 485 Number 7399 pp415-540 24 May 2012
http://www.nature.com/nature/current_issue.html
[No relevant content]

Nature Immunology
June 2012 - Vol 13 No 6
http://www.nature.com/ni/journal/v13/n6/index.html
Commentary
Immune to addiction: the ethical dimensions of vaccines against substance abuse - pp521 - 524
Michael J Young, Dominic A Sisti, Hila Rimon-Greenspan, Jason L Schwartz & Arthur L Caplan
doi:10.1038/ni.2321
Abstract
Promising advances have been made in recent years for a unique class of immunotherapies that use vaccination to combat substance-use disorders. Although such vaccines are potentially useful for addictions, they raise a variety of ethical and social questions.

Nature Medicine
May 2012, Volume 18 No 5 pp631-834
http://www.nature.com/nm/journal/v18/n5/index.html
[Reviewed earlier]

Nature Reviews Immunology
May 2012 Vol 12 No 5
http://www.nature.com/nri/journal/v12/n5/index.html
[No relevant content]

New England Journal of Medicine
May 24, 2012 Vol. 366 No. 21
http://content.nejm.org/current.shtml
Perspective
From an Ethics of Rationing to an Ethics of Waste Avoidance
H. Brody
Extract [Free full text]
Bioethics has long approached cost containment under the heading of "allocation of scarce resources." Having thus named the nail, bioethics has whacked away at it with

the theoretical hammer of distributive justice. But in the United States, ethical debate is now shifting from rationing to the avoidance of waste. This little-noticed shift has important policy implications…

Beyond the "R Word"? Medicine's New Frugality

M.G. Bloche

Extract [Free full text]

Quietly, Washington policymakers have begun to concede the need to weigh health care's benefits against its costs if our country is to avert fiscal ruin. That costs must be counted against benefits is common sense in other domains — and among health policy professionals. But it's anathema in public discussion of medical care. To silence talk of tradeoffs, politicians invoke the "R word" — rationing…

OMICS: A Journal of Integrative Biology

May 2012, 16(5)

http://online.liebertpub.com/toc/omi/16/5

[Reviewed earlier]

The Pediatric Infectious Disease Journal

May 2012 - Volume 31 - Issue 5

pp: A7-A8,431-537,e73-e77

http://journals.lww.com/pidj/pages/currenttoc.aspx

[Reviewed earlier]

Pediatrics

May 2012, VOLUME 129 / ISSUE 5

http://pediatrics.aappublications.org/current.shtml

[Reviewed earlier]

Pharmacoeconomics

June 1, 2012 - Volume 30 - Issue 6 pp: 447-535

http://adisonline.com/pharmacoeconomics/pages/currenttoc.aspx

[Reviewed earlier]

PLoS One

[Accessed 26 May 2012]

http://www.plosone.org/article/browse.action;jsessionid=577FD8B9E1F322DAA533C413369CD6F3.ambra01?field=date

Individual and Contextual Factors Associated with Low Childhood Immunisation Coverage in Sub-Saharan Africa: A Multilevel Analysis

Charles S. Wiysonge, Olalekan A. Uthman, Peter M. Ndumbe, Gregory D. Hussey 5 Gregory D. Hussey 1 2 1 Vaccines for Africa ... -pertussis vaccine by one year of age. An evidence-based ... to 145 over the same period. Vaccine-preventable PLoS ONE: Research Article, published 25 May 2012 10.1371/journal.pone.0037905

Abstract
Background
In 2010, more than six million children in sub-Saharan Africa did not receive the full series of three doses of the diphtheria-tetanus-pertussis vaccine by one year of age. An evidence-based approach to addressing this burden of un-immunised children requires accurate knowledge of the underlying factors. We therefore developed and tested a model of childhood immunisation that includes individual, community and country-level characteristics.
Method and Findings
We conducted multilevel logistic regression analysis of Demographic and Health Survey data for 27,094 children aged 12–23 months, nested within 8,546 communities from 24 countries in sub-Saharan Africa. According to the intra-country and intra-community correlation coefficient implied by the estimated intercept component variance, 21% and 32% of the variance in unimmunised children were attributable to country- and community-level factors respectively. Children born to mothers (OR 1.35, 95%CI 1.18 to 1.53) and fathers (OR 1.13, 95%CI 1.12 to 1.40) with no formal education were more likely to be unimmunised than those born to parents with secondary or higher education. Children from the poorest households were 36% more likely to be unimmunised than counterparts from the richest households. Maternal access to media significantly reduced the odds of children being unimmunised (OR 0.94, 95%CI 0.94 to 0.99). Mothers with health seeking behaviours were less likely to have unimmunised children (OR 0.56, 95%CI 0.54 to 0.58). However, children from urban areas (OR 1.12, 95% CI 1.01 to 1.23), communities with high illiteracy rates (OR 1.13, 95% CI 1.05 to 1.23), and countries with high fertility rates (OR 4.43, 95% CI 1.04 to 18.92) were more likely to be unimmunised.
Conclusion
We found that individual and contextual factors were associated with childhood immunisation, suggesting that public health programmes designed to improve coverage of childhood immunisation should address people, and the communities and societies in which they live.

PLoS Medicine
(Accessed 26 May 2012)
http://www.plosmedicine.org/article/browse.action?field=date
[No relevant content]

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

PNAS - Proceedings of the National Academy of Sciences of the United States of America
(Accessed 26 May 2012)
http://www.pnas.org/content/early/recent

[No new relevant content]

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

Science
25 May 2012 vol 336, issue 6084, pages 949-1068
http://www.sciencemag.org/current.dtl
[No relevant content]

Science Translational Medicine
23 May 2012 vol 4, issue 135
http://stm.sciencemag.org/content/current
[No relevant content]

Tropical Medicine & International Health
June 2012 Volume 17, Issue 6 Pages 683–794
http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-3156/currentissue
Child Health
Unvaccinated children in years of increasing coverage: how many and who are they? Evidence from 96 low- and middle-income countries (pages 697–710)
Xavier Bosch-Capblanch, K. Banerjee and A. Burton
Article first published online: 22 MAY 2012 | DOI: 10.1111/j.1365-3156.2012.02989.x
Abstract
Objective While childhood immunisation coverage levels have increased since the 70s, inequities in coverage between and within countries have been widely reported. Unvaccinated children remain undetected by routine monitoring systems and strikingly unreported. The objective of this study was to provide evidence on the magnitude of the problem and to describe predictors associated with non-vaccination.
Methods Two hundred and forty-one nationally representative household surveys in 96 countries were analysed. Proportions and changes in time of 'unvaccinated' (children having not received a single dose of vaccine), 'partially vaccinated' and 'fully vaccinated' children were estimated. Predictors of non-vaccination were explored.
Results The percentage of unvaccinated children was 9.9% across all surveys. 66 countries had more than one survey: 38 showed statistically significant reductions in the proportion of unvaccinated children between the first and last survey, 10 countries showed increases and the rest showed no significant changes. However, while 18 of the 38 countries also improved in terms of partially and fully vaccinated, in the other 20 the proportion of fully vaccinated decreased. The predictors more strongly associated with being unvaccinated were education of the caregiver, education of caregiver's partner, caregiver's tetanus toxoid (TT) status, wealth index and type of family member

participation in decision-making when the child is ill. Multivariable logistic regression identified the TT status of the caregiver as the strongest predictors of unvaccinated children. Country-specific summaries were produced and sent to countries.
Conclusion The number of unvaccinated children is not negligible and their proportion and the predictors of non-vaccination have to be drawn from specific surveys. Specific vaccine indicators cannot properly describe the performance of immunisation programmes in certain situations. National immunisation programmes and national and international immunisation stakeholders should also consider monitoring the proportion of unvaccinated children (i.e. those who have received no vaccines at all) and draw specific plans on the determinants of non-vaccination.

Vaccine
http://www.sciencedirect.com/science/journal/0264410X
Volume 30, Issue 27 pp. 3983-4122 (8 June 2012)

Review

Nosocomial transmission of measles: An updated review

Review Article
Pages 3996-4001
E. Botelho-Nevers, P. Gautret, R. Biellik, P. Brouqui

Abstract
Despite a decrease in global incidence, measles outbreaks continue to occur in developed countries as a result of suboptimal vaccine coverage. Currently, an important mode of measles transmission appears to be nosocomial, especially in countries where measles is largely under control. We therefore conducted a review of the literature by searching PubMed for the term "measles" plus either "nosocomial" or "hospital acquired" between 1997 (the date of the last review in the field) and 2011. The reports indicate that measles is being transmitted from patients to health care workers (HCWs) and from HCWs to patients and colleagues. Here, we explain how outbreaks of measles occurring in healthcare settings differ in some ways from cases of community transmission. We also highlight the need for all HCWs to be immunized against measles.

Regular Papers

Correlates of 2009 H1N1 influenza vaccination among day care-aged children, Miami-Dade County

Original Research Article
Pages 4002-4006
Yessica Gomez, Fermin Leguen, Guoyan Zhang, Erin O'Conne

Abstract
Background
The aim of this study was to assess factors influencing 2009 H1N1 influenza vaccination among a demographically diverse group of day care-aged children. Day care children were chosen because they were an initial target group for vaccination and are at higher risk of influenza infection than children cared for at home.
Methods
A cross-sectional study was conducted from March to May 2010 among parents of day care aged children in 13 day care facilities in Miami-Dade County. Data was collected by an anonymous self-administered two-page 20 question survey which consisted of demographic variables and information regarding 2009 H1N1 influenza vaccine

knowledge, attitude and acceptance. Data was analyzed using SAS to conduct both bivariate and multivariate analyses.
Results
There were 773 participants in the study. The response rate ranged from 42% to 72.2% among day care centers. A total of 172 parents (22.3%) and 225 (29.1%) children had received the 2009 H1N1 influenza vaccine. Non-Hispanic White and Black parents were more likely to vaccinate their children than Hispanic and Haitian parents. Primary reasons for non-vaccination included vaccine safety (36.7%) and side effects (27.1%). Among parents who spoke with a health care professional, 274 (61.4%) stated the health care professional recommended the vaccine.
Conclusion
Misperceptions about influenza vaccination among parents created a barrier to 2009 H1N1 influenza vaccination. Parents who got the vaccine, who believed the vaccine was safe and whose children had a chronic condition were more likely to immunize their children. Clear, reliable and consistent vaccine information to the public and health care providers and initiatives targeting minority groups may increase vaccination coverage among this population.

Influenza vaccination uptake amongst pregnant women and maternal care providers is suboptimal

Original Research Article
Pages 4055-4059
Angela B. Lu, Alia Abd Halim, Claire Dendle, Despina Kotsanas, Michelle L. Giles, Euan M. Wallace, Jim P. Buttery, Rhonda L. Stuart
Abstract
Objective
To assess the uptake of influenza vaccination by pregnant women and maternity care providers and explore their attitudes towards influenza vaccination.
Design, setting and participants
Cross-sectional survey administered in a Victorian tertiary level public hospital to 337 pregnant women and 96 maternity care providers.
Results
31.3% of patients planned to or had received influenza vaccination this year, but only a quarter had received education about influenza. Women were more likely to receive influenza vaccination if they had been vaccinated in the last two years (RR 4.5, 95% CI: 3.1–6.4, $p < 0.001$), received education about influenza (RR 2.3, 95% CI: 1.6–3.2, $p < 0.001$) or believed that they were at high risk of influenza-related complications while pregnant (RR 2.0, 95% CI: 1.4–2.7, $p < 0.001$). While only 56.8% of maternity care providers believed pregnant women were at high risk of influenza-related complications, 72.9% would recommend influenza vaccination to all pregnant women. Of the maternity care providers studied, 69% planned to or had been vaccinated in 2011, with this group more likely to recommend vaccination to their patients (RR 2.0, 95% CI: 1.3–3.0, $p < 0.001$). Significantly more maternity care providers indicated that they would routinely recommend influenza vaccination than the proportion of patients who reported receiving education.
Conclusions
Influenza vaccination rates in pregnant women are low, reflecting inadequate patient education despite most maternity care providers indicating that they would routinely

recommend influenza vaccination. Increasing influenza vaccination uptake by women in pregnancy will require better education of both women and maternity care providers.

Cost-effectiveness of routine vaccination of adolescent females against cytomegalovirus

Original Research Article
Pages 4060-4066
Amanda F. Dempsey, Heidi M. Pangborn, Lisa A. Prosser

Abstract
Background
Congenital cytomegalovirus (CMV) infection is associated with significant infant morbidity and mortality. A prophylactic vaccine to prevent congenital CMV infection is expected to be available in the near future, and will likely be targeted to adolescent females.
Methods
Using a decision tree, we compared the costs, potential clinical impacts, and cost-effectiveness of the current strategy of no CMV vaccination versus a strategy where all adolescent females are vaccinated against CMV prior to their first pregnancy. Both maternal outcomes related to vaccination, and infant outcomes related to congenital CMV infection, were considered in the model.
Results
Under base-case conditions, our analysis suggested that vaccinating all adolescent females against cytomegalovirus would be both less costly and with greater clinical benefits than not vaccinating. Among a population of 100,000 adolescent females, the vaccination strategy cost $32.3 million dollars less than not vaccinating, and avoided substantial numbers of infants affected with hearing loss, vision loss, and mental retardation, and 8 infant deaths. Our model was most sensitive to variations in vaccine efficacy. When vaccine efficacy against disease was less than 61%, not vaccinating became the preferred strategy because it was less expensive than vaccinating, without substantial changes in clinical benefits to the population.
Conclusions
Under a wide variety of conditions, universal vaccination of adolescent females to protect their future children against congenital CMV infection was cost effective. However, for this to be preferred over not vaccinating, our results suggest that vaccine efficacy against disease would need to be at least 61%.

Value in Health
Vol 15 | No. 4 | June 2012
http://www.valueinhealthjournal.com/current

New Concepts for Health Care Decision Making

Individual Decisions and Social Value: A Conceptual Framework to Explore Alternative Decision Making Approaches and the Value of Heterogeneity in the Era of Individualized Care

Preview
The value of understanding and incorporating heterogeneity in decisions based on cost-effectiveness has been matter of growing interest in healthcare. Recent contributions have been proposed to charac...

M.A. Espinoza, A. Manca, M.J. Sculpher, K. Claxton

Advancing the Methods of Cost-Effectiveness Analysis: Why It's Time to Move on from ICERs and Thresholds

Preview

Cost-effectiveness analysis of health technologies typically involves the calculation of incremental cost-effectiveness ratios (ICERs). In some jurisdictions, decision makers compare these ICERs to an...

M. Paulden

Minimizing the Costs of Analyzing the Value of Health Research

Preview

Value-of-information (VOI) analysis can establish the expected benefits from health research. This typically involves the modeling of a disease and its treatment to fully characterize the uncertainty ...

T. Hoomans, J. Seidenfeld, D. Meltzer A2

Cost-Effectiveness Analysis - Appropriate for All Situations?

Preview

Cost-effectiveness analysis (CEA) is routinely proposed to inform decision making, where a new intervention is evaluated against standard of care and the incremental investment per effect is compared ...

B. Standaert, O. Ethgen, R.A. Emerson

A Framework for Stakeholder Engagement in Comparative Effectiveness Research

Preview

Soliciting stakeholder input is becoming commonplace in comparative effectiveness research (CER), yet methods for stakeholder engagement in CER are evolving. Drawing from CMTP and University of Maryla...

D.M. Lavallee, P.J. Desai, C.D. Mullins, P.A.

World Journal of Vaccines

Volume 02, Number 01 (February 2012)

http://www.scirp.org/journal/Home.aspx?IssueID=1399#17225

[Reviewed earlier]

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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 CVEP co-founders – - Penn Center for Bioethics, The Wistar Institute Vaccine Center and Children's Hospital of Philadelphia Vaccine Education Center. Additional support is provided by the PATH Vaccine Development Program and the International Vaccine Institute (IVI), and by vaccine industry leaders including GSK, Merck, Pfizer, sanofi pasteur (list in formation), as well as the Developing Countries Vaccine Manufacturers Network (DCVMN). Support is also provided by a growing list of individuals who use this service to support their roles in public health, clinical practice, government, IGOs/NGOs, research, industry and academia.*

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