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

This weekly summary targets news and events in global vaccines ethics and policy gathered from key governmental, NGO and industry sources, key journals and other sources. This summary supports ongoing initiatives of the Center for Vaccine Ethics & Policy, and is not intended to be exhaustive in its coverage. Vaccines: The Week in Review is now also posted in pdf form and as a set of blog posts at http://centerforvaccineethicsandpolicy.wordpress.com/. This blog allows full-texting searching of some 1,600 items.

Comments and suggestions should be directed to
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Editor's Note: *Vaccines: The Week in Review* will resume publication on 29 August 2011 following a vacation break.

Merck and Serum Institute of India announced an agreement "to work together to develop and commercialize a pneumococcal conjugate vaccine (PCV) for use in the emerging and developing world countries." Merck and Serum said they will form a Product Advisory Committee to oversee the activities required to develop and seek approval for PCV and pursue World Health Organization (WHO) prequalification. Under the terms of the agreement, Merck, through an affiliate, will receive specific rights to market PCV in certain designated territories and Serum will receive specific rights in other territories. Both companies will contribute to the development and manufacture of PCV. Merck and Serum noted that the specific financial details of this agreement are confidential, and that the collaboration "does not impact the on-going vaccine development programs in both the organizations."

Cyrus Poonawalla, CMD, Chairman, Serum Institute, commented, "Serum Institute is committed to improving access to and affordability of vaccines for children throughout the world. In working closely with Merck in the development of this collaboration it became clear that we share parallel public health goals and that our passion for getting

vaccines to everyone who needs them is made even stronger by working together." Julie L. Gerberding, president, Merck Vaccines, said, "Working side by side with Serum gives us the best chance of developing and bringing a product to the market that will help to protect more babies and children. Expanding vaccine access to emerging and developing markets is a top priority and we feel strongly that this collaboration will be a giant step toward impacting the devastation of pneumococcal disease."
http://www.businesswire.com/news/home/20110803005528/en/Merck-Serum-Institute-Announce-Collaboration-Develop-Expand

The International Vaccine Institute (IVI) and Inviragen, Inc. announced the signing of a memorandum of understanding "with the ultimate objective of making a dengue vaccine widely accessible to people in countries where this disease is endemic." The IVI, through the Dengue Vaccine Initiative (DVI), "is developing strategies to raise awareness of the need to invest in research and development of a dengue vaccine, and to finance the development and distribution of vaccines, goals which will be furthered through this collaboration with Inviragen." As part of the collaboration, IVI and Inviragen "also aim to strengthen the regulatory and policy environments to accelerate dengue vaccine development and introduction, and to raise funding to assist low- and middle-income countries with procuring available vaccine candidates." The announcement noted that "no specific treatment or reliable prevention method exists for the infection whose reach, already endemic in more than 120 countries, continues to grow. A safe, effective and affordable dengue vaccine would represent a powerful tool against this major public health threat, which is the world's most important vector borne viral disease." Earlier this year, IVI announced the launch of the DVI, in collaboration with the Sabin Vaccine Institute, the Johns Hopkins University, and the World Health Organization. The DVI "aims to increase the global priority given to dengue vaccines through evidence-based research to inform policy."
http://www.businesswire.com/news/home/20110802007473/en/CORRECTING-REPLACING-International-Vaccine-Institute-Inviragen-Announce

The Measles Initiative announced that it "has helped vaccinate one billion children in more than 60 developing countries since 2001, making significant gains in the global effort to stop measles," noting that the child who received the history-making measles vaccination was one of 3.5 million immunized in Mozambique this May. The immunization campaign was sponsored by the Measles Initiative's five founding partners – the American Red Cross, United Nations Foundation, U.S. Centers for Disease Control and Prevention (CDC), UNICEF, and World Health Organization (WHO).

The announcement noted that since 2009, widespread outbreaks affecting 30 countries in sub-Saharan Africa, including the Democratic Republic of the Congo and Ethiopia, have resulted in more than 320,000 new measles cases and more than 2,400 measles-related deaths. In the past year, several European nations have faced their worst measles outbreaks in more than 10 years, with more than 30 000 estimated cases across the region. The U.S. is also experiencing its largest measles outbreak since 1996,

with more than 150 reported cases, the announcement said. "The steady march toward a measles-free world is now facing a setback," said Dr Brent Burkholder, director of the CDC's global immunization division. "Outbreaks in Africa, a high number of deaths in India and global funding gaps threaten the gains made in the last ten years and will hinder efforts to eradicate measles and achieve MDG4."
http://www.who.int/immunization/newsroom/press/measles_initiative_vaccinates_billion_4august2011/en/index.html

The **Weekly Epidemiological Record (WER) for 5 August 2011**, vol. 86, 32 (pp 341–352) includes Meeting of the International Task Force for Disease Eradication, April 2011 http://www.who.int/entity/wer/2011/wer8632.pdf

Twitter Watch

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

pahowho PAHO/WHO
Costa Rica Hosts Regional Consultation on Social Determinants of Health bit.ly/rqCTgW

gatesfoundation Gates Foundation
RT @gatespolio "Our greatest responsibility is to be good ancestors." Jonas Salk, #polio vaccine developer

EndPolioNow EndPolioNow
Famine in #HornofAfrica makes children more susceptible polio. RI polio partner, #UNICEF, increases immunizations. http://cot.ag/p3KXkF

GAVIAlliance GAVI Alliance
Milestone: The #Measles Initiative has helped vaccinate 1 billion children in 60+ countries since '01! http://ht.ly/5V9aF h/t @UNFoundation

gatesfoundation Gates Foundation
Progress & Partnerships | Our 2010 Annual Report: http://gates.ly/pwFBGx

GAVISeth Seth Berkley
Excited to be heading to Geneva tonight to start as CEO of GAVI. Such an exciting time in vaccines with so much to do!

Medic Medic Mobile
by MalariaVaccine
Breakthrough: New #malaria vaccine found to be safe, well tolerated in Tanzanian children http://bit.ly/q6tCMt #globalhealth #hcsm

Journal Watch

[Editor's Note]

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

Annals of Internal Medicine

August 2, 2011; 155 (3)

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

[No relevant content]

British Medical Bulletin

Volume 98 Issue 1 June 2011

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

[Reviewed earlier; No relevant content]

British Medical Journal

6 August 2011 Volume 343, Issue 7818

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

Editor's Choice

Don't forget tuberculosis

Fiona Godlee, editor, BMJ

Extract

Not so long ago tuberculosis was seen as an "old" disease, one that had been conquered in large parts of the world and might even be eliminated. No longer. HIV/AIDS, poverty, travel, and migration have seen tuberculosis re-emerge as a global pandemic. It now affects a third of the world's population, and although there is optimism about reaching the millennium development goal target—that global incidence should be falling by 2015, no country or region has elimination realistically in its sights.

Analysis

Tuberculosis in the UK—time to regain control

Ibrahim Abubakar, Marc Lipman, Charlotte Anderson, Peter Davies, Alimuddin Zumla

BMJ 2011;343:doi:10.1136/bmj.d4281 (Published 31 July 2011)

Clinical Infectious Diseases

Volume 53 Issue 4 August 15, 2011

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

[No relevant content]

Cost Effectiveness and Resource Allocation
(accessed 8 August 2011)
http://www.resource-allocation.com/
[No new relevant content]

Emerging Infectious Diseases
Volume 17, Number 8–August 2011
http://www.cdc.gov/ncidod/EID/index.htm
[Reviewed earlier]

Health Affairs
August 2011; Volume 30, Issue 8
New Perspectives On Substance Abuse
http://content.healthaffairs.org/content/current
Global Health Financing
Economic Perspectives On The Advance Market Commitment For Pneumococcal Vaccines
Christopher M. Snyder, Wills Begor, and Ernst R. Berndt
Health Aff August 2011 30:1508-1517; doi:10.1377/hlthaff.2011.0403
Abstract
Pharmaceutical companies have long been reluctant to invest in producing new vaccines for the developing world because they have little prospect of earning an attractive return. One way to stimulate such investment is the use of an advance market commitment, an innovative financing program that guarantees manufacturers a long-term market. Under this arrangement, international donors pay a premium for initial doses sold to developing countries. In exchange, companies agree to continue supplying the vaccine over the longer term at more sustainable prices. This article provides a preliminary economic analysis of a pilot advance market commitment program for pneumococcal vaccines, explaining the principles behind the program's design and assessing its early performance. Spurred by the advance market commitment—and other contemporaneous initiatives that also increased resources to vaccine suppliers—new, second-generation pneumococcal vaccines have experienced a much more rapid rollout in developing countries than older first-generation vaccines.
Global Pharmaceutical Pricing
Setting Cost-Effectiveness Thresholds As A Means To Achieve Appropriate Drug Prices In Rich And Poor Countries
Patricia M. Danzon, Adrian Towse, and Andrew W. Mulcahy
Health Aff August 2011 30:1529-1538; doi:10.1377/hlthaff.2010.0902
Abstract
Finding better mechanisms to enable differential pricing that reflects different degrees of willingness to pay across countries with different income levels is an important challenge for drug manufacturers and policy makers. Drug prices must be high enough to meet manufacturers' needs—covering costs and ensuring adequate investment in research

and development, as well as producing a profit—but low enough to allow consumers access to medicines that they need. Examining drug pricing, we found that in rich countries, insurance coverage can make consumers insensitive to price, which means that manufacturers' prices are largely unrestrained unless payers intervene. In middle- and low-income countries, where most consumers pay for drugs out of pocket, we found that the poorest countries face the highest prices, relative to their mean per capita income. We recommend that countries and payers set their own cost-effectiveness thresholds to reflect how much they are willing to pay for "health gain"—in other words, for a measured improvement in the health of a person or a population. Adopting this approach broadly should lead to appropriate price differences across and within countries, benefiting consumers and manufacturers alike.

Health Economics, Policy and Law
Volume 6 - Issue 03 - 2011 http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue
[Reviewed earlier]

Human Vaccines
Volume 7, Issue 8 August 2011
http://www.landesbioscience.com/journals/vaccines/toc/volume/7/issue/7/
Reviews
Meningococcal disease: The advances and challenges of meningococcal disease prevention
Ram Yogev and Tina Tan
Abstract
Vaccination as a means to prevent meningococcal disease caused by Neisseria meningitidis is critical given the abrupt onset and rapid progression of this disease. Five serogroups-A, B, C, W-135, and Y-are responsible for the majority of cases. In developed countries, infants have the greatest risk of disease, with a smaller secondary peak observed in late adolescence. Vaccines utilizing the polysaccharide capsule are poorly immunogenic in young children but can reduce the incidence of meningococcal carriage in high risk groups. In contrast, protein conjugate vaccines to polysaccharide capsules A, C, W-135, and Y have broadened the population protection from disease but their effect on meningococcal carriage and transmission is yet unknown except for monovalent meningococcal C conjugate that has been shown to reduce carriage. Challenges remain in providing direct protection to infants and protection against meningococcal B disease. To date, outer membrane vesicle vaccines have been used to control meningococcal B disease in epidemic settings and vaccine candidates against subcapsular antigens are in development, but a vaccine that confers long-lasting protection is unavailable.
Factors associated with increased vaccination in 2009 H1N1 school-located influenza vaccination programs
Open Access Article
Christopher S. Ambrose and Frangiscos Sifakis
Abstract

In the United States, school-located influenza vaccination (SLIV) programs have increased significantly in recent years. In June 2010, the Office of Inspector General issued a report regarding 38 elementary school H1N1 SLIV programs conducted in 6 localities in November/December 2009. By locality, there was a mean of 14 to 46 first doses of vaccine administered per 100 students. The locality that conducted programs in early November had a higher uptake rate than localities with later programs (46 vs 21 per 100 students; P<.01). Among localities with programs in mid- to late-November, the locality with programs after school hours had a lower uptake rate than the two localities with programs during school hours (16 vs 28, P=.05, and 16 vs 30, P<.01, respectively). These data suggest that future SLIV programs may achieve higher uptake rates if conducted during school hours with advance parental consent and when parental *demand is highest.*

Commentary

Should Chickenpox vaccine be included in the National immunization schedule in India?

Ramesh Verma, Mohan Bairwa, Suraj Chawla, Shankar Prinja and Meena Rajput

Abstract

Varicella (chickenpox) is an acute, highly contagious viral disease with worldwide distribution. The highest prevalence occurs in the 4 - 10 year age group but tends to be more severe in adults. It may be fatal in neonates, immunocompromised persons, and normal adults, especially smokers. Varicella is usually a benign childhood disease, and rarely rated as an important public health problem, but this can be severe and even fatal in otherwise healthy children (<1 out of every 10,000 cases). Chickenpox can cause pneumonia (23 out of every 10,000 cases), and is an important risk factor for developing severe invasive "strep" (group A streptococcal disease). Complications of varicella include bacterial infections (up to 5% of cases), decreased platelets, arthritis, hepatitis, pneumonia (more commonly in adults) or encephalitis (1 in 10,000 cases), which may cause a failure of muscular coordination, sometimes resulting in persistent sequelae or death. Varicella is the leading cause of vaccine-preventable death in children. Universal vaccination can cause a dramatic reduction in the incidence of varicella, associated complications, hospitalizations and fatality rates. In India, due to the high cost of the vaccine, it would be difficult to vaccinate a large percentage of the children. The government of India should consider the inclusion of varicella vaccine in the National Immunization Schedule with the help of International agencies.

New generation typhoid vaccines: An effective preventive strategy to control typhoid fever in developing countries

Ramesh Verma, Mohan Bairwa, Suraj Chawla, Shankar Prinja and Meena Rajput

Abstract

Typhoid fever is a serious systemic infection, caused by the enteric pathogen Salmonella enterica serovar Typhi, a highly virulent and invasive enteric bacterium. This disease occurs in all parts of world where water supplies and sanitation are substandard. These pathogens then travel to food, drinks and water through house-flies and other vectors. Globally, an estimated 12 - 33 million cases of enteric fever occur with 216,000 - 600,000 deaths per year, almost exclusively in the developing countries. Health surveys conducted by the Health Ministry of India in the community development areas indicated a morbidity rate varying from 102-2219/100,000 population in different parts of the country. A limited study in an urban slum showed 1% of children up to 17 years of age suffer from typhoid fever annually. The continued high burden of typhoid fever and the

alarming spread of antibiotic resistant strains led the World Health Organization (WHO), almost ten years ago, to recommend immunization using the two new-generation vaccines in school- aged children in areas where typhoid fever posed a significant problem and where antibiotic resistant strains were prevalent. Morbidity and mortality due to high incidence of typhoid fever favors the introduction of typhoid vaccine in routine immunization in India. This vaccine should be given at the age of 2 years with Vi antigen vaccine and at least one more dose be given at 5 years of age.

International Journal of Infectious Diseases
Volume 15, Issue 8 pp. e509-e582 (August 2011)
http://www.sciencedirect.com/science/journal/12019712
Perspectives
Super-spreaders in infectious diseases
Pages e510-e513
Richard A. Stein
Summary
Early studies that explored host–pathogen interactions assumed that infected individuals within a population have equal chances of transmitting the infection to others. Subsequently, in what became known as the 20/80 rule, a small percentage of individuals within any population was observed to control most transmission events. This empirical rule was shown to govern inter-individual transmission dynamics for many pathogens in several species, and individuals who infect disproportionately more secondary contacts, as compared to most others, became known as super-spreaders. Studies conducted in the wake of the severe acute respiratory syndrome (SARS) pandemic revealed that, in the absence of super-spreading events, most individuals infect few, if any, secondary contacts. The analysis of SARS transmission, and reports from other outbreaks, unveil a complex scenario in which super-spreading events are shaped by multiple factors, including co-infection with another pathogen, immune suppression, changes in airflow dynamics, delayed hospital admission, misdiagnosis, and inter-hospital transfers. Predicting and identifying super-spreaders open significant medical and public health challenges, and represent important facets of infectious disease management and pandemic preparedness plans.

JAMA
August 3, 2011, Vol 306, No. 5, pp 461-568
http://jama.ama-assn.org/current.dtl
Theme Issue: Violence/Human Rights
[No relevant content]

Journal of Infectious Diseases
Volume 204 Issue 4 August 15, 2011
http://www.journals.uchicago.edu/toc/jid/current
[Reviewed last week]

The Lancet
Aug 06, 2011 Volume 378 Number 9790 p457 - 540
http://www.thelancet.com/journals/lancet/issue/current

Comment

What is the future of epidemiology?
Raj Bhopal, Gary J Macfarlane, William Cairns Smith, Robert West, on behalf of the Management Executive Committee for the XIX World Congress of Epidemiology
Preview
Epidemiology is thriving. The striking features of contemporary epidemiology are diversity, change, and global reach: from society to the molecule, responding to technical advances and changing patterns of disease. The two main challenges are: translating epidemiology into evidence, practice, and ultimately better health; and strengthening epidemiology research capacity, particularly in low-income and middle-income countries.

Is immunisation child protection?
Adam Finn, Julian Savulesc
Preview
The Lancet's Series entitled new decade of vaccines shows the great opportunities for, and many challenges that face, successful development and implementation of vaccines in the coming decades. The Series emphasises recent advances in biomedical sciences, particularly molecular microbiology, immunology, and genetics. But the biggest hurdle to realisation of this potential could instead relate to failure of parental acceptance of safe and effective vaccination.

Review

Mathematical models in the evaluation of health programmes
Geoffrey P Garnett, Simon Cousens, Timothy B Hallett, Richard Steketee, Neff Walker
Preview
Modelling is valuable in the planning and evaluation of interventions, especially when a controlled trial is ethically or logistically impossible. Models are often used to calculate the expected course of events in the absence of more formal assessments. They are also used to derive estimates of rare or future events from recorded intermediate points. When developing models, decisions are needed about the appropriate level of complexity to be represented and about model structure and assumptions.

The Lancet continues to re-publish in its weekly edition selected content from its *Lancet Series* titled: **New Decade of Vaccines** dated 9 June 2011 available at: http://www.thelancet.com/series/new-decade-of-vaccines

The Lancet Infectious Disease
Aug 2011 Volume 11 Number 8 p579 - 650
http://www.thelancet.com/journals/laninf/issue/current
[Reviewed last week]

Medical Decision Making (MDM)
July/August 2011; 31 (4)
http://mdm.sagepub.com/content/current
[Reviewed earlier]

Nature
Volume 476 Number 7358 pp5-120 4 August 2011
http://www.nature.com/nature/current_issue.html
[No relevant content]

Nature Medicine
August 2011, Volume 17 No 8
http://www.nature.com/nm/index.html
Editorial
Difficult decisions
doi:10.1038/nm0811-901
Conditional approval aims to speed the delivery of drugs to patients in need. But when full approval is denied, complications arise for patients, companies and regulatory agencies alike.

New England Journal of Medicine
August 4, 2011 Vol. 365 No. 5
http://content.nejm.org/current.shtml
Perspectives
Developing the Nation's Biosimilars Program
S. Kozlowski, J. Woodcock, K. Midthun, and R. Behrman Sherman
Free full text
Extract
Biologic products developed over the past three decades and approved by the Food and Drug Administration (FDA) now provide important therapeutic options for a variety of serious clinical conditions (see graph Numbers of FDA-Approved Biologic Products of Various Types Available for Treating or Preventing Various Conditions.). Therapeutic biologics such as genetically engineered recombinant proteins and monoclonal antibodies represent a large portion of newly approved therapies for conditions such as chronic inflammatory diseases and cancer. Biologic enzyme-replacement therapies provide clinical benefits in previously untreatable genetic disorders. Although typically more structurally complex than the small-molecule drugs more prevalent in today's market, biologics vary in complexity from cellular therapies to small, highly purified proteins. Unfortunately, access to such products may be limited, not infrequently because of their cost….

The Pediatric Infectious Disease Journal
August 2011 - Volume 30 - Issue 8 pp: A9-A10,633-728,e130-e154
http://journals.lww.com/pidj/pages/currenttoc.aspx
[Reviewed earlier]

Pediatrics

August 2011, VOLUME 128 / ISSUE 2
http://pediatrics.aappublications.org/current.shtml

Articles

Near Elimination of Varicella Deaths in the US After Implementation of the Vaccination Program

Mona Marin, John X. Zhang, and Jane F. Seward

Pediatrics 2011; 128:214-220

Abstract

OBJECTIVE: Varicella has been preventable by vaccination in the United States since 1995. Previous studies reported a 66% decline in mortality rate during the first 6 years of the program. Since then, vaccination coverage has increased substantially. We updated the analysis of US varicella mortality for 2002–2007 and assessed the impact of the first 12 years of the US varicella vaccination program on varicella deaths.

METHODS: National data on deaths for which varicella was listed as an underlying or contributing cause were obtained from the Mortality Multiple Cause-of-Death records from the US National Center for Health Statistics. We calculated the age-adjusted and age-specific mortality rates for 2002–2007 and trends since the prevaccine years.

RESULTS: During the 12 years of the mostly 1-dose US varicella vaccination program, the annual average mortality rate for varicella listed as the underlying cause declined 88%, from 0.41 per million population in 1990–1994 to 0.05 per million population in 2005–2007. The decline occurred in all age groups, and there was an extremely high reduction among children and adolescents younger than 20 years (97%) and among subjects younger than 50 years overall (96%). In the last 6 years analyzed (2002–2007), a total of 3 deaths per age range were reported among children aged 1 to 4 and 5 to 9 years, compared with an annual average of 13 and 16 deaths, respectively, during the prevaccine years.

CONCLUSIONS: The impressive decline in varicella deaths can be directly attributed to successful implementation of the 1-dose vaccination program. With the current 2-dose program, there is potential that these most severe outcomes of a vaccine-preventable disease could be eliminated.

Effectiveness of Pentavalent Rotavirus Vaccine Against Severe Disease

Mary Allen Staat, Daniel C. Payne, Stephanie Donauer, Geoffrey A. Weinberg, Kathryn M. Edwards, Peter G. Szilagyi, Marie R. Griffin, Caroline B. Hall, Aaron T. Curns, Jon R. Gentsch, Shelia Salisbury, Gerry Fairbrother, Umesh D. Parashar, and the New Vaccine Surveillance Network (NVSN)

Pediatrics 2011; 128:e267-e275

Abstract

OBJECTIVE: To determine the vaccine effectiveness (VE) of complete and partial vaccination with the pentavalent rotavirus vaccine (RV5) in the prevention of rotavirus acute gastroenteritis (AGE) hospitalizations and emergency department visits during the first 3 rotavirus seasons after vaccine introduction.

METHODS: Active, prospective population-based surveillance for AGE and acute respiratory infection (ARIs) in inpatient and emergency department settings provided subjects for a case-control evaluation of VE in 3 US counties from January 2006 through June 2009. Children with laboratory-confirmed rotavirus AGE (cases) were matched according to date of birth and onset of illness to 2 sets of controls: children with rotavirus-negative AGE and children with ARI. The main outcome measure was VE with complete (3 doses) or partial (1 or 2 doses) RV5 vaccination.

RESULTS: Of age-eligible children enrolled, 18% of cases, 54% of AGE controls, and 54% of ARI controls received ≥1 dose of RV5. The VE of RV5 for 1, 2, and 3 doses against all rotavirus genotypes with the use of rotavirus-negative AGE controls was 74% (95% confidence interval [CI]: 37%–90%), 88% (95% CI: 66%–96%), and 87% (95% CI: 71%–94%), respectively, and with the use of ARI controls was 73% (95% CI: 43%–88%), 88% (95% CI: 68%–95%), and 85% (95% CI: 72%–91%), respectively. The overall VE estimates were comparable during the first and second years of life and against AGE caused by different rotavirus strains.
CONCLUSION: RV5 was highly effective in preventing severe rotavirus disease, even after a partial series, with protection persisting throughout the second year of life.

Pharmacoeconomics
August 1, 2011 - Volume 29 - Issue 8 pp: 637-730
http://adisonline.com/pharmacoeconomics/pages/currenttoc.aspx
[Reviewed earlier]

PLoS One
[Accessed 8 August 2011]
http://www.plosone.org/article/browse.action;jsessionid=577FD8B9E1F322DAA533C413369CD6F3.ambra01?field=date
[No relevant content]

PLoS Medicine
(Accessed 8 August 2011)
http://www.plosmedicine.org/article/browse.action?field=date
[No relevant content]

Science
5 August 2011 vol 333, issue 6043, pages 661-792
http://www.sciencemag.org/current.dtl
[No relevant content]

Science Translational Medicine
3 August 2011 vol 3, issue 94
http://stm.sciencemag.org/content/current
Perspective
Hepatitis C Virus
Progress Toward Development of a Hepatitis C Vaccine with Broad Shoulders
Ranjit Ray
Abstract
Hepatitis C virus (HCV) infection in humans can cause progressive and end-stage liver disease. As such, preventive measures against HCV, including vaccine development, are a priority among researchers in the field. The report from Garrone et al. describes the

development of a vaccine platform to generate HCV-neutralizing antibodies that are based on retrovirus-derived virus-like particles (VLPs) pseudotyped with heterologous viral envelope proteins. Immunization with these VLPs induced neutralizing antibodies in mouse and macaque models. These results, when considered in the context of an earlier clinical trial that used recombinant HCV E1/E2 purified protein as a subunit vaccine and additional findings from the VLP strategy, may lead to a new HCV vaccine that induces a neutralizing antibody response.

Tropical Medicine & International Health
September 2011 Volume 16, Issue 9 Pages 1043–1189
http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-3156/currentissue

Child Health

Can lay health workers increase the uptake of childhood immunisation? Systematic review and typology (pages 1044–1053)

Claire Glenton, Inger B. Scheel, Simon Lewin and George H. Swingler
Article first published online: 28 JUN 2011 | DOI: 10.1111/j.1365-3156.2011.02813.x
Free full-text
Summary

Objectives Lay health workers (LHWs) are used in many settings to increase immunisation uptake among children. However, little is known about the effectiveness of these interventions. The objective of this review was to assess the effects of LHW interventions on childhood immunisation uptake.

Methods We searched Cochrane Central Register of Controlled Trials, MEDLINE, EMBASE, CINAHL, British Nursing Index and Archive, AMED, POPLINE and WHOLIS, reference lists of included papers and relevant reviews, and contacted the authors of relevant papers. We selected randomised and non-randomised controlled trials, controlled before–after studies, and interrupted time series of any intervention delivered by LHWs and designed to increase childhood immunisation uptake. Two authors independently extracted data using a standard form and assessed risk of bias and evidence quality.

Findings We identified twelve studies, ten of which were randomised controlled trials. Seven studies were conducted among economically disadvantaged populations in high-income countries. Five studies were from low- and middle-income countries. In ten studies, LHWs promoted childhood immunisation. In two studies, LHWs vaccinated children themselves. In most of the studies, the control group populations received no intervention or standard care. Most of the studies showed that LHWs increased immunisation coverage. However, study settings were diverse, allowing us to carry out only one meta-analysis including four studies.

Conclusion LHWs could make an important contribution to achieving the Millennium Development Goal for child health. However, more high-quality studies are needed, particularly from LMICs. More studies are also needed to assess the effects of using LHWs to vaccinate children themselves.

Impact of rotavirus vaccination on diarrhoea mortality and hospital admissions in Brazil (pages 1180–1184)

Ricardo Q. Gurgel, Chinenye Ilozue, Jailson B. Correia, Chiara Centenari, Sandala M. T. Oliveira and Luis E. Cuevas
Article first published online: 12 JUL 2011 | DOI: 10.1111/j.1365-3156.2011.02844.x

Summary
Objective To analyse the data reported by the national surveillance system of Brazil, including data on diarrhoea mortality and hospital admissions before and after rotavirus vaccine introduction, and evaluate the impact of its widespread use under operational conditions.
Method Retrospective analysis of routinely collected data was reported by several surveillance systems of Brazil, comprising an 8-year period of all diarrhoea-related hospitalisations and deaths in children <5 years old (2002–2009). Linear regressions were used to compare trends of diarrhoea hospitalisations and deaths before and after vaccine introduction (2002–2005 vs. 2006–2009).
Results There was a long-term reduction in hospitalisations that preceded the introduction of the vaccine. This reduction was more marked in <1-year-old than in 1– to 4-year-old children. All-cause diarrhoea hospitalisations decreased further after vaccine introduction and the decrease was larger in <1-year-old (−35.6%) than in 1– to 4-year-old children (−12.3%). The number of deaths was decreasing before vaccine introduction, and the decrease also accelerated after vaccine introduction, with deaths halving in <1-year-old and decreasing by 32.9% in 1- to 4-year-old children. The linear relationships between hospitalisations and deaths were statistically different before and after vaccine introduction.
Conclusions The data demonstrate a decreasing trend in all-cause diarrhoea-related hospitalisations and deaths in children <5 years of age. These reductions were steeper between 2006 and 2009, highlighting the potential beneficial effect of the rotavirus vaccine associated with all-cause diarrhoeal disease.

Health policy

Political will for better health, a bottom-up process (pages 1185–1189)

Wim De Ceukelaire, Pol De Vos and Bart Criel
Article first published online: 24 JUN 2011 | DOI: 10.1111/j.1365-3156.2011.02817
Free full-text
Summary
Lately, different voices in the global public health community have drawn attention to the interaction between the State and civil society in the context of reducing health inequities. A rights-based approach empowers people not only to claim their rights but also to demand accountability from the State. Lessons from history show that economic growth does not automatically have positive implications for population health. It may even be disruptive in the absence of strong stewardship and regulation by national and local public health authorities. The field research in which we have been involved over the past 20 years in the Philippines, Palestine, Cuba, and Europe confirms that organized communities and people's organizations can effectively pressure the state into action towards realizing the right to health. Class analysis, influencing power relations, and giving the State a central role have been identified as three key strategies of relevant social movements and NGOs. More interaction between academia and civil society organizations could contribute to enhance and safeguard the societal relevance of public health researches. Our own experience made us discover that social movements and public health researchers have a lot to learn from one another.

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