Vaccines: The Week in Review
23 January 2012
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/service/vaccine-education-center/home.html

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 2,000 content items.

Comments and suggestions should be directed to
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Editor and
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david.r.curry@centerforvaccineethicsandpolicy.org

WHO said that Dr. Margaret Chan was nominated today by the WHO's Executive Board for a second term as Director-General. The nomination will be submitted for approval to the Sixty-fifth World Health Assembly, scheduled to meet in Geneva from 21–26 May 2012. If confirmed by the World Health Assembly, Dr Chan's new term will begin on 1 July 2012 and continue until 30 June 2017.
http://www.who.int/mediacentre/news/releases/2012/dg_20120118/en/index.html

Speech: Dr Margaret Chan
Report by the WHO Director-General to the Executive Board at its 130th Session
16 January 2012
[Full text: http://www.who.int/dg/speeches/2012/eb_20120116/en/index.html]
Excerpt

"…Polio eradication is also on your agenda. Authoritative bodies, like the Independent Monitoring Board and the Strategic Advisory Group of Experts on immunization, tell us: we must stay the course.

Should commitment falter, polio will come roaring back. Should our resolve waver, this will be the most expensive failure in the history of public health.

You will be considering a draft resolution that proposes declaration of the completion of polio eradication as a "programmatic emergency for global public health." I urge you to consider this resolution with utmost urgency.

Implementation of the International Health Regulations is on your agenda, as are the framework for Pandemic Influenza Preparedness, and the Commission on Information and Accountability for Women's and Children's Health.

These items support my second observation. We see the success of WHO and its Member States in developing and implementing novel instruments for global health governance.

Let me comment on two.

The negotiations that culminated in the framework for Pandemic Influenza Preparedness were the most difficult and potentially explosive that I have ever witnessed in my 35 years in public health. But the spirit of consensus and fair play eventually won, and we got a square deal for everyone, including the pharmaceutical industry.

This tells us that countries really want risks to be proactively managed. They want rules of proper conduct, with clearly assigned responsibilities, and they want fairness, a square deal for everyone.

The framework for information and accountability is part of a chain of innovative mechanisms and instruments linked to the Global Strategy for Women's and Children's Health.

The Commission's sharp, smart, and lean recommendations are now supported by a detailed workplan for translating these recommendations into action. The workplan greatly facilities rapid action, especially to develop systems for vital registration, by identifying existing instruments, methodologies, guidelines, and best practices that can be used immediately or easily modified to fill gaps.

Oversight, which includes identifying the best value-for-money approaches, has been assigned to an independent Expert Review Group. The Group was established in September of last year and held its first meeting two months later.

With these developments, public health breaks new ground by tackling a long-standing need. That is: to build national capacity to generate and analyse basic health data.

Without information, at country level, we can never have accountability. Without information, we can never know what a "best" or a "wise" investment really means. Without information, we are working in the dark, pouring money into a black hole. This is totally unacceptable at a time when every dollar counts, and both donors and recipients must be held accountable…"

Rotary announced that, "despite a stagnant global economy," its clubs around the world succeeded in raising more than US$200 million in new funding for polio eradication. The fundraising milestone was reached in response to a US$355 million challenge grant from the Bill & Melinda Gates Foundation. All funds have been earmarked to support polio immunization activities in affected countries. Rotary Foundation Trustee John F. Germ noted, "We'll celebrate this milestone, but it doesn't mean that we'll stop raising money or spreading the word about polio eradication. We can't stop until our entire world is certified as polio free." Jeff Raikes, CEO of the Gates Foundation, said, "In recognition of Rotary's great work, and to inspire Rotarians in the future, the foundation is committing an additional $50 million to extend our partnership. Rotary started the global fight against polio, and continues to set the tone for private fundraising, grassroots engagement and maintaining polio at the top of the agenda with key policy makers."
http://www.prnewswire.com/news-releases/rotary-clubs-worldwide-meet-200-million-fundraising-challenge-for-polio-eradication-137526003.html

The Sabin Vaccine Institute announced the start of a Phase 1 clinical trial of its Na-GST-1 antigen, a candidate for the first human hookworm vaccine. The trial is described as a major milestone for the vaccine product development partnership (PDP) headquartered at Sabin. This trial advances Sabin's goal "to develop a safe, efficacious and low-cost vaccine to reduce the global burden of human hookworm, which infects nearly 600 million people worldwide." The trial is being conducted in Brazil, where the burden of human hookworm infection is high in endemic areas. Peter Hotez, M.D., Ph.D., president of the Sabin Vaccine Institute and director of the Texas Children's Hospital Center for Vaccine Development and dean of the National School of Tropical Medicine at Baylor College of Medicine, commented, "This vaccine trial is monumental, not just for us, but also for the children living in poverty who bear the burden of hookworm infection. After more than 10 years of research and development work and with the help of Sabin's PDP partners, especially our partners in Brazil, we are about to show that it's possible to produce a vaccine candidate using a relatively low-cost model. We are filling a gap to produce a vaccine for underrepresented populations, where no traditional commercial market currently exists."
http://www.sabin.org/news-resources/releases/2012/01/19/candidate-first-human-hookworm-vaccine-enters-phase-1-clinical-tr

WHO Global Alert and Response (GAR): Disease Outbreak News
Most recent news items:
20 January 2012
Avian influenza – situation in Viet Nam
19 January 2012
Avian influenza – situation in Indonesia - update
19 January 2012
Avian influenza - situation in Egypt - update
18 January 2012
Avian influenza – situation in Cambodia – update
http://www.who.int/csr/don/en/index.html

GAVI said that following separate investigations into the misuse of GAVI funding in Cameroon and Niger, both Ministries of Health "have cooperated fully and confirmed their commitment to take all necessary measures, including the reimbursement of misused funds." GAVI said the investigations began last year after GAVI's oversight processes "raised credible concerns" that funds were misused during the period 2007-2010. The findings suggest that up to US$4.2 million allocated for health systems strengthening (HSS) has been misused in Cameroon, and up to US$2.5 million allocated for immunisation services support (ISS) has been misused in Niger. Of these amounts, GAVI noted, approximately US$ 1.8 million in Cameroon and US$ 1.5 million in Niger are under investigation for theft. Also of concern are the other misused funds which were spent without sufficient documentation or used to pay for activities in the health sector but outside the scope of GAVI's grant agreements. GAVI originally announced the Niger and Cameroon investigations in 2011

and, at the same time, suspended funding to the affected cash-based programmes. Support to the rest of the two countries' childhood immunisation programmes have continued uninterrupted. Since its launch in 2000, GAVI has confirmed two other cases of misuse of its funds (in Uganda and Mali). Both cases have since been resolved and funds recovered.
http://www.gavialliance.org/library/news/statements/2012/gavi-works-with-cameroon-and-niger-to-recover-misused-funds/

Standard & Poor's (S&P) downgraded the IFFIm (International Finance Facility for Immunisation Company) to AA+ from AAA with a negative outlook, following S&P's rating actions announced on 13 January 2012, for euro zone countries that provide grants to IFFIm. Earlier, S&P said in an analysis of IFFIm that it considers IFFIm's credit rating to be closely associated with the rating of its largest grantors. France is IFFIm's second-largest grantor, representing about 25% of the outstanding present value of IFFIm's total grants. In all, euro zone countries represent about 39% of grants to IFFIm. The largest grantor to IFFIm is the UK (rated AAA/Aaa/AAA), representing 48% of IFFIm's total grants. IFFIm is currently rated Aaa by Moody's; AAA by Fitch, which updated IFFIm's outlook to negative on 19 December 2011 when it changed France's outlook to negative; and AA+ by S&P with negative outlook.

IFFIm was created in 2006 "to help the international community achieve the Millennium Development Goals. IFFIm's financial base consists of legally binding grant payments from its sovereign grantors (the UK, France, Italy, Norway, Australia, Spain, The Netherlands, Sweden and South Africa). IFFIm has about US$ 6.3 billion in legally-binding payment obligations from its donors and has raised US$ 3.6 billion in the capital markets."
http://www.iffim.org/library/news/press-releases/2012/rating-action-by-standard-and-poors-follows-sovereign-donor-downgrades/

Twitter Watch

Items of interest from a variety of twitter feeds associated with immunization, vaccines and global public health. This capture is highly selective and is by no means intended to be exhaustive.

GAVIAlliance GAVI Alliance
3 days until @WEF! This 3 minute long video speaks to the power of #vaccines- ht.ly/8Ca9C
1 hour ago

WHO WHO
WHO Executive Board passed a resolution to combat noncommunicable diseases bit.ly/xsvVXB #EB130 #NCDs
21 Jan

AmerMedicalAssn AMA
RT @VMethics Should Participation in Vaccine Clinical Trials be Mandated? bit.ly/wAfbB0
20 Jan

UNICEF UNICEF
UNICEF's Executive Board elects a new President for 2012 uni.cf/zHrJhT
20 Jan

AmerMedicalAssn AMA
RT @VMethics The National Childhood Vaccine Injury Act and the Supreme Court's Interpretation bit.ly/yvC5px
20 Jan

WHO WHO
WHO Executive Board passed a resolution to reduce child mortality and improve maternal #health bit.ly/A9jTEo #EB130 #MDGs
20 Jan

Forbes Forbes
Bill Gates: The 7 Most Influential Vaccine Heroes onforb.es/wycTli
13 Jan

pahowho PAHO/WHO
Presentation of Preliminary Findings from the Global Burden of Disease Study 2010 - bit.ly/Ax4jjY
19 Jan

unfoundation UN Foundation
Congrats! RT @endpolionow: Rotary clubs worldwide meet $200 million fundraising challenge for polio eradication. bit.ly/zzYQJM
19 Jan

PublicHealth APHA
Hospitals can be a setting for measles transmission, 2009 Pennsylvania outbreak shows: goo.gl/KXE0D
19 Jan

sabinvaccine Sabin Vaccine Inst.
Dengue vaccine by 2015? Phase II clinical trial begins in Malaysia bit.ly/yi6TT8
19 Jan

ECDC_EU ECDC
ECDC updated measles maps show #measles cases reported monthly by #EU and EEA countries. bit.ly/wQvmSk
17 Jan

MeaslesInit Measles Initiative

CDC study: measles can spread fast in a hospital when parents choose not to vaccinate & workers are not fully immunized 1.usa.gov/xNkghp

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
January 17, 2012; 156 (2)
http://www.annals.org/content/current
[No relevant content]

British Medical Bulletin
Volume 100 Issue 1 December 2011
http://bmb.oxfordjournals.org/content/current
[Reviewed earlier; No relevant content]

British Medical Journal
21 January 2012 (Vol 344, Issue 7840)
http://www.bmj.com/content/current
[No relevant content]

Cost Effectiveness and Resource Allocation
(Accessed 22 January 2012)
http://www.resource-allocation.com/
[No new relevant content]

Emerging Infectious Diseases
Volume 18, Number 1—January 2012
http://www.cdc.gov/ncidod/EID/index.htm
[Reviewed earlier]

Global Health

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

Globalization and Health
[Accessed 22 January 2012]
http://www.globalizationandhealth.com/
[No new relevant content]

Health Affairs
January 2012; Volume 31, Issue 1
http://content.healthaffairs.org/content/current
[Reviewed last week]

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

Health Economics, Policy and Law
Volume 7 - Special Issue 01 - January 2012
http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue
[Reviewed earlier]

Health Policy and Planning
Volume 27 Issue 1 January 2012
http://heapol.oxfordjournals.org/content/current
[Reviewed earlier]

Human Vaccines & Immunotherapeutics (formerly Human Vaccines)
Volume 8, Issue 1 January 2012
http://www.landesbioscience.com/journals/vaccines/toc/volume/8/issue/1/
[Reviewed earlier]

International Journal of Infectious Diseases
Volume 16, Issue 2 pp. e75-e150 (February 2012)
http://www.sciencedirect.com/science/journal/12019712
Reviews
Impact of the implementation of a vaccination strategy on hepatitis B virus infections in China over a 20-year period

Review Article
Pages e82-e88
Zhuanbo Luo, Lanjuan Li, Bing Ruan
Summary
Hepatitis B virus (HBV) vaccination has been recommended for all neonates in China since 1992. This article reviews the impact of HBV vaccination throughout the past 20 years in China. Before the introduction of the HBV vaccination program, approximately 9.8% of the general Chinese population tested positive for hepatitis B virus surface antigen (HBsAg). Since 1992, vaccination coverage has increased each year. In 1999, a National Expanded Programme on Immunization (EPI) review showed that the immunization coverage with three doses of HBV vaccine was 70.7%, and reached 99.0% in Beijing. The HBsAg carrier rate in the general population decreased to 7.2% in 2006. In particular, the prevalence of HBsAg decreased to 2.3% among children aged 5–14 years and to 1.0% among children younger than 5 years. In addition, the administration of the HBV vaccine may have reduced the risk of hepatocellular carcinoma among adults. Despite the administration of hepatitis B immunoglobulin and the HBV vaccine to children with HBsAg-positive mothers, the failure rate of HBV immunoprophylaxis was 5–10%. In China, vaccine failure was related to HBV S gene mutation and inadequate administration of HBV vaccine. The prevalence of HBV carriers in China was markedly reduced after the introduction of the universal HBV vaccination program. If we immunize all susceptible individuals with the hepatitis B vaccine (especially children), interrupt transmission, and provide antiviral treatment for existing HBV carriers, the number of new cases may be reduced to close to zero in the future and this may eventually result in the eradication of HBV.

Original Reports

Impact of rotavirus vaccination on childhood gastroenteritis-related mortality and hospital discharges in Panama

Original Research Article
Pages e94-e98
Vicente Bayard, Rodrigo DeAntonio, Rodolfo Contreras, Olga Tinajero, Maria Mercedes Castrejon, Eduardo Ortega-Barría, Romulo E. Colindres
Summary
Background
Rotavirus vaccination was introduced in Panama in March 2006. This study was carried out in order to describe the trends in gastroenteritis-related (GER) hospitalizations and mortality in children <5 years of age during the pre- and post-vaccination periods.
Methods
Data from the Expanded Program on Immunization (Ministry of Health) were used to calculate vaccine coverage. GER mortality and hospitalizations were obtained through database review of the Contraloría General de la República and hospital discharge databases of five sentinel hospitals, for the period 2000–2008. Mean rates of GER mortality and mean numbers of hospitalizations during the baseline pre-vaccination period (2000-2005) were compared to those of 2007 and 2008.
Results
National coverage for the second rotavirus vaccine dose increased from 30% in 2006 to 62% in 2007 and 71% in 2008, varying from 62% in the West region to 77% in the Panama region. Overall, at 2-years post-vaccine introduction, the GER mortality rate in Panama had decreased by 50% (95% confidence interval (CI) 46–54). During 2000–

2005, the GER mortality rate in children (<1 year) was 73/100 000, decreasing by 45% (95% CI 40–51) in 2008. In children aged 1–4 years, the GER mortality rate was 20.3/100 000 (2000–2005), decreasing by 54% (95% CI 48–60) in 2008. The Panama region registered the highest mortality rate reduction (69%; 95% CI 58–81) for 2008. During 2008, GER hospitalizations among children <5 years of age decreased by 30% (95% CI 21–37) from the mean number of hospitalizations during 2000–2005.
Conclusions
A substantial reduction in GER mortality and hospitalizations was observed following the introduction of rotavirus vaccine in Panama.

Evaluation of the mass measles vaccination campaign in Guangdong Province, China

Original Research Article
Pages e99-e103
Zhi Qiang Peng, Wei Shi Chen, Qun He, Guo Wen Peng, Cheng Gang Wu, Ning Xu, Zhan Jie Zhao, Jun Shu, Qiu Tan, Hui Zhen Zheng, Li Feng Lin, Hui Hong Deng, Jin Yan Lin, Yong Hui Zhang

Summary
Objective
To evaluate the mass measles vaccination campaign of 2009 in Guangdong Province, China.
Methods
Data on the campaign implementation, measles surveillance, and serological surveillance were reviewed and analyzed by statistical methods.
Results
Rapid coverage surveys showed that 98.09% of children were vaccinated during the campaign. The coverage of migrant children increased significantly from 67.10% to 97.32% ($p < 0.01$). From May to December 2009, after the campaign, the number of measles cases was reduced by 93.04% compared with the same period of 2008. The antibody positive rate in children aged less than 15 years reached above 95%. More than 1 million migrant children were identified and vaccinated during the campaign. Flyers, notices of information from doctors, and television programs were the best methods to inform parents of the campaign. Awareness of the campaign by residents increased significantly from 91.86% to 97.10% ($p < 0.01$) through the use of social mobilization materials.
Conclusions
A massive vaccination campaign approach for controlling measles in a developing region like Guangdong Province with a vast migrant population has proved effective. Comprehensive mobilization, communication with the mass media, and support from government departments were critical to the success of the campaign.

Gender inequities, relationship power, and childhood immunization uptake in Nigeria: a population-based cross-sectional study

Original Research Article
Pages e136-e145
Diddy Antai

Summary
Background
This study aimed to simultaneously examine the association between multiple dimensions of gender inequities and full childhood immunization.

Methods
A multilevel logistic regression analysis was performed on nationally representative sample data from the 2008 Nigeria Demographic and Health Survey, which included 33 385 women aged 15–49 years who had a total of 28 647 live-born children; 24 910 of these children were included in this study.
Results
A total of 4283 (17%) children had received full immunization. Children of women whose spouse did not contribute to household earnings had a higher likelihood of receiving full childhood immunization (odds ratio (OR) 1.96, 95% confidence interval (95% CI) 1.02–3.77), and children of women who lacked decision-making autonomy had a lower likelihood of receiving full childhood immunization (OR 0.74, 95% CI 0.60–0.91). The likelihood of receiving full childhood immunization was higher among female children (OR 1.28, 95% CI 1.06–1.54), Yoruba children (OR 2.45, 95% CI 1.19–4.26), and children resident in communities with low illiteracy (OR 1.82, 95% CI 1.06–3.12), but lower for children of birth order 5 or above (OR 0.64, 95% CI 0.45–0.96), children of women aged ≤24 years (OR 0.66, 95% CI 0.50–0.87) and 25–34 years (OR 0.79, 95% CI 0.63–0.99), children of women with no education (OR 0.33, 95% CI 0.21–0.54) and primary education (OR 0.66, 95% CI 0.45–0.97), as well as children of women resident in communities with high unemployment (OR 0.34, 95% CI 0.20–0.57).
Conclusions
The woman being the sole provider for her family (i.e., having a spouse who did not contribute to household earnings) was associated with a higher likelihood of fully immunizing the child, and the woman lacking decision-making autonomy was associated with a lower likelihood of fully immunizing the child. These findings draw attention to the need for interventions aimed at promoting women's employment and earning possibilities, whilst changing gender-discriminatory attitudes within relationships, communities, and society in general.

JAMA
January 18, 2012, Vol 307, No. 3, pp 223-320
http://jama.ama-assn.org/current.dtl

Letters

Mandatory HPV Vaccination

Melissa B. Gilkey,
Noel T. Brewer

JAMA. 2012;307(3):252-253.doi:10.1001/jama.2011.2018

Extract

To the Editor: Mr Gostin's Commentary questioned whether mandates for human papillomavirus (HPV) vaccination are effective enough to risk alienating the public.1 Data in studies he cites address this matter. In the 2 places that have adopted mandates, Virginia and the District of Columbia, coverage remains modest. Compared with 49% of female adolescents nationwide, just 54% of those in Virginia and 58% of those in the District of Columbia had received 1 or more doses of HPV vaccine by 2010 according to medical records.2 Existing mandates include generous opt-out provisions that, in the case of the District of Columbia, more than 40% of parents used to circumvent the policy.

Gostin suggested widespread educational campaigns and mandates without generous opt-outs as a last resort, but we think this focus on the public is likely misguided. Numerous surveys indicate that many people already agree with HPV vaccination mandates. Most recently, …

Mandatory HPV Vaccination

Lynn C. Berger, Debra Blog, Guthrie S. Birkhead

JAMA. 2012;307(3):253-254.doi:10.1001/jama.2011.2019

Extract

To the Editor: Mr Gostin,1 in his Commentary, highlighted the unique issues and controversies surrounding the institution of a state vaccination law, or mandate, with regard to the HPV vaccine. The Commentary provided a much-needed focus on the undisputed safety and efficacy of the HPV vaccine in light of recent negative public attention.

We think, however, that it is important to clarify the author's statement that "research on the effectiveness of mandates is unavailable."1 While specific evidence does not yet exist regarding the effectiveness of school mandates on HPV vaccination rates, it is clear that school mandates have uniformly increased state vaccination rates for other vaccines. In 1999, the Task Force on Community Preventive Services concluded, after a review of all available studies on the effectiveness of school-entry vaccination laws, that these laws are both effective at reducing disease rates and outbreaks as well as increasing overall vaccination …

Mandatory HPV Vaccination

Lucija Tomljenovic, Christopher A. Shaw

JAMA. 2012;307(3):254.doi:10.1001/jama.2011.2020

Extract

To the Editor: Mr Gostin made an important point in his Commentary on mandatory HPV vaccination: "Above all, health policy must be driven by science."1 However, the author's recommendation that "if voluntary vaccination proves unsuccessful, states should seriously consider compulsory vaccination laws without generous exemptions" appears premature. As Gostin noted, clinical trial evidence has not demonstrated that HPV vaccines can actually prevent invasive cervical cancer, let alone cervical cancer deaths.2,3 Because HPV vaccines were specifically developed to protect against cervical cancer, we conclude that in the absence of long-term data, their true benefits remain speculative. The Food and Drug Administration acknowledges that "It is believed that prevention of cervical precancerous lesions is highly likely to result in the prevention of those cancers."4

Clinical trials show that HPV vaccine efficacy against persistent HPV infection and precancerous lesions only lasts for 8.4 and 5 years for Cervarix …

Mandatory HPV Vaccination—Reply

Lawrence O. Gostin

JAMA. 2012;307(3):254-255.doi:10.1001/jama.2011.2021

Extract

In Reply: This collection of 3 letters in response to my Commentary vividly demonstrates the political and social divisiveness of HPV vaccination, which sets it apart from most childhood immunizations. Each letter is thoughtful, and yet all 3 letters come to distinctly different policy conclusions. Drs Gilkey and Brewer find that health system factors such as cost and enhanced access are more effective than mandates; Dr Berger and colleagues urge immediate state adoption of HPV mandates with limited opt-outs;

and Drs Tomljenovic and Shaw reject HPV mandates as a flawed policy. Each letter expresses strong agreement with my view, "Above all, health policy must be driven by science," and yet each draws different conclusions based on the available scientific evidence. How is this possible?

Gilkey and Brewer cite studies showing strong parental support for mandates—either with generous opt-outs (84%-92%) or without (47%-59%). But these polls have underlying flaws. First, the …

Journal of Infectious Diseases
Volume 205 Issue 3 February 1, 2012
http://www.journals.uchicago.edu/toc/jid/current
[Reviewed last week]

The Lancet
Jan 21, 2012 Volume 379 Number 9812 p193 – 286 e - 19
http://www.thelancet.com/journals/lancet/issue/current
Editorial
Global health in 2012: development to sustainability
The Lancet

In 2012 there will be a major strategic shift in global health, away from development and towards sustainability. Since 2000, the Millennium Development Goals (MDGs), driven by a macroeconomic diagnosis of global poverty, have focused on investment in a small number of diseases as the most effective approach to decrease poverty. Institutions such as the Global Fund to Fight AIDS, Tuberculosis and Malaria, Roll Back Malaria, and GAVI have been created to respond to that diagnosis.

But this approach is now delivering diminishing returns. The AIDS epidemic has peaked, both in terms of deaths and new infections, non-communicable diseases (NCDs) are increasing, and the climate change crisis is an ever present threat. India is a good example of a country facing these new challenges. It has an NCD epidemic and yet still endures the highest number of maternal and child deaths in the world. The old macroeconomic approach to solving poverty-related disease is simply insufficient to meet the demand of countries. At the same time, institutional tensions are growing—the Global Fund is in difficulty and WHO is facing a financial emergency. And there are new concepts forcing their way into global health agendas—such as integration and accountability. There is a view among some development experts that health has had its decade. It is time now for other sectors to take centre stage, such as agriculture or energy.

All these issues will come into sharp focus later this year at Rio+20, the UN Conference on Sustainable Development in Rio de Janeiro, Brazil (June 20—22). The summit marks the 20th anniversary of the 1992 UN Conference on Environment and Development and the tenth anniversary of the 2002 World Summit on Sustainable Development. World leaders, stakeholders from the public and private sectors, as well as representatives from environment and development communities will convene to define a new roadmap towards economic growth, social equity, and environmental protection. The objectives of Rio+20 will be to review progress on sustainable development from previous summits, identify gaps in implementation, renew political

commitment on past action plans, and find ways to safeguard the planet from future destruction from emerging threats. The two core themes will be a move towards a green economy (in the context of sustainable development and poverty eradication) and strengthening the institutional framework for sustainable development, which to date has not fulfilled its potential because of a lack of coordination and coherence. The zero draft outcome document published last week lists seven priority areas for Rio+20. They are: job creation, food security, water, energy, sustainable cities, oceans, and disasters. There will be ten new sustainable development goals to be decided by governments just before the meeting—and introduced in 2015 as part of the post-2015 UN development agenda. There will be no legally binding agreements and countries will set their own targets, working voluntarily towards them. Disappointingly, health is hardly mentioned in this draft.

It is vital that this major shift from development to sustainability is governed by a clear set of principles and values. One report to draw from is The Lancet's 2010 Commission titled: The Millennium Development Goals: a cross-sectoral analysis and principles for goal setting after 2015. The authors of this multidisciplinary analysis represent many different sectors, and explain that much more could have been achieved if the MDGs were better integrated. They conclude that future goals should be built on a shared vision of development across the lifecourse, and suggest five principles: holism, equity, sustainability, ownership, and global obligation. Their report exemplifies the positive contribution the health community can make to sustainability after 2015.

The health sector has a vital part to play during the next 12 months. We need to make a strong case for health as part of sustainable development and future sustainable development goals—to protect the gains of the past decade and ensure that the unfinished agenda of the past decade is continued. However, we also need to embrace a new and emerging health agenda—one that includes NCDs and climate change. And we must sharpen our advocacy for health as we rightly integrate other sectors into this broader vision. We have an extraordinary opportunity to re-vivify global health. But we are unprepared to do so. We must identify the lessons learned from the MDGs, as well as bringing to the fore evidence for new threats and emerging challenges. The Lancet plans to be a strong partner in shaping this future health and sustainability agenda—towards finding equitable solutions to improve the health and lives of people worldwide.

The Lancet Infectious Disease
Jan 2012 Volume 12 Number 1 p1 - 88
http://www.thelancet.com/journals/laninf/issue/current
[Reviewed earlier]

Medical Decision Making (MDM)
November/December 2011; 31 (6)
http://mdm.sagepub.com/content/current
[Reviewed earlier; No relevant content]

Nature
Volume 481 Number 7381 pp237-404 19 January 2012

http://www.nature.com/nature/current_issue.html
Preventing pandemics: The fight over flu
Nature 481, 257–259 (19 January 2012)
doi:10.1038/481257a
Published online 15 January 2012
A proposal to restrict the planned publication of research on a potentially deadly avian influenza virus is causing a furor. Ten experts suggest ways to proceed.
Ron Fouchier & AB Osterhaus: Globalize the discussion
John Steinbruner: A system for redacted papers
Kwok-Yung Yuen: The Hong Kong perspective
D. A. Henderson: The ultimate biological threat
Lynn Klotz & Ed Sylvester: Worry about lab infections
Jeffery K. Taubenberger: Study how viruses swap hosts
Richard H. Ebright: Mitigate the risks of release
David L. Heymann: We will always need vaccines

Nature Medicine
January 2012, Volume 18 No 1
http://www.nature.com/nm/journal/v18/n1/index.html
[Reviewed earlier; No relevant content]

Nature Reviews Immunology
January 2012 Vol 12 No 1
http://www.nature.com/nri/journal/v12/n1/index.html
[Reviewed earlier]

New England Journal of Medicine
January 19, 2012 Vol. 366 No. 3
http://content.nejm.org/current.shtml
[No relevant content]

OMICS: A Journal of Integrative Biology
http://www.liebertonline.com/toc/omi/15/11
Volume 15, Number 12
[No relevant content]

The Pediatric Infectious Disease Journal
February 2012 - Volume 31 - Issue 2 pp: A11-A12,109-214,e37-e51
http://journals.lww.com/pidj/pages/currenttoc.aspx
Clinical Presentation of Invasive Pneumococcal Disease in Spain in the Era of Heptavalent Conjugate Vaccine
de Sevilla, Maria F.; García-García, Juan-José; Esteva, Cristina; Moraga, Fernando; Hernández, Sergi; Selva, Laura; Coll, Francisco; Ciruela, Pilar; Planes, Ana Maria;

Codina, Gemma; Salleras, Luis; Jordan, Iolanda; Domínguez, Angela; Muñoz-Almagro, Carmen
Pediatric Infectious Disease Journal. 31(2):124-128, February 2012.
doi: 10.1097/INF.0b013e318241d09e
Abstract:

Background: The aim of this study was to analyze the rate of incidence, clinical presentation, serotype, and clonal distribution of invasive pneumococcal disease (IPD) in the era of heptavalent pneumococcal conjugate vaccine (PCV7) in Barcelona, Spain.

Methods: This was a prospective study comprising all children <5 years with IPD who were managed in 2 tertiary-care, pediatric hospitals between January 2007 and December 2009. IPD was defined as the presence of clinical findings of infection together with isolation or detection of DNA of Streptococcus pneumoniae in a sterile fluid sample.

Results: In this study, 319 patients (53.3% male), mean age 29.6 months, were included. Comparing rates in 2007 and 2009 (76.2 and 109.9 episodes/100,000 population, respectively), an increase of 44% (95% confidence interval, 10%–89%) was observed. The main clinical presentation was pneumonia (254 episodes, 79.6%), followed by meningitis (29, 9.1%), and bacteremia (25, 7.8%).The diagnosis was made by positive culture in 123 (38.6%) patients and in 196 (61.4%) by real-time polymerase chain reaction. Serotype study was performed in 300 episodes, and 273 (91%) were non-PCV7 serotypes. The most frequent serotypes were 1 (20.7%), 19A (15.7%), and 3 (12.3%). A minimal inhibitory concentration ≥0.12 μg/mL to penicillin was detected in 34.4% of isolates. Sequence type 306 expressing serotype 1 was the most frequent clonal type detected (20.3% of studied strains).

Conclusions: IPD continues to increase in Barcelona, and the rate is higher than previously reported as a result of low sensitivity of bacterial culture. Non-PCV7 serotypes were responsible for 91% of episodes and pneumonia was the main clinical presentation.

Attitudes of Pediatricians and Primary Health Center Physicians in India Concerning Routine Immunization, Barriers to Vaccination, and Missed Opportunities to Vaccinate

Gargano, Lisa M.; Thacker, Naveen; Choudhury, Panna; Weiss, Paul S.; Pazol, Karen; Bahl, Sunil; Jafari, Hamid S.; Arora, Manisha; Orenstein, Walter A.; Hughes, James M.; Omer, Saad B.
Pediatric Infectious Disease Journal. 31(2):e37-e42, February 2012.
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Abstract:

Background: India has some of the lowest immunization rates in the world. The objective of this study was to determine the attitudes and practices of pediatricians and physicians working in primary health centers (PHCs) regarding routine immunization and identify correlates of missed opportunities to vaccinate children. We focused on Uttar Pradesh and Bihar, which has faced some of the greatest challenges to achieving high routine immunization coverage.

Methods: A sample of pediatricians from Uttar Pradesh and Bihar was selected from the national membership of the Indian Academy of Pediatrics to participate in either a phone or mail survey. For the sampling frame, the PHCs within selected blocks were enumerated to provide a list from which individuals could be randomly sampled. In all, 614 PHCs in Uttar Pradesh and 159 PHCs were selected for in-person surveys.

Results: The response rate for pediatricians was 47% (238/505) and 93% for PHC physicians (719/773). The greatest barrier to vaccinating children with routine immunizations, reported by both pediatricians (95.7%) and PHC physicians (95.1%), was parents' lack of awareness of their importance. Correlates of missing an opportunity to vaccinate for PHC physicians included holding other health care workers responsible for vaccination. PHC physicians were 50% to 70% less likely to vaccinate a child themselves if they thought another type of health care worker was responsible.

Conclusions: Future interventions to increase vaccination coverage should address parental knowledge about the importance of vaccines. Understanding and addressing factors associated with missed opportunities to vaccinate may help improve vaccine coverage in Uttar Pradesh and Bihar.

Pediatrics
January 2012, VOLUME 129 / ISSUE 1
http://pediatrics.aappublications.org/current.shtml
[Reviewed earlier]

Pharmacoeconomics
February 1, 2012 - Volume 30 - Issue 2 pp: 83-170
http://adisonline.com/pharmacoeconomics/pages/currenttoc.aspx
Editorial
Health Utility Elicitation: Is There Still a Role for Direct Methods?
Prosser, Lisa A.; Grosse, Scott D.; Wittenberg, Eve
Pharmacoeconomics. 30(2):83-86, February 1, 2012.
doi: 10.2165/11597720-000000000-00000
[No abstract or preview]

PLoS One
[Accessed 22 January 2012]
http://www.plosone.org/article/browse.action;jsessionid=577FD8B9E1F322DAA533C413369CD6F3.ambra01?field=date
Whom and Where Are We Not Vaccinating? Coverage after the Introduction of a New Conjugate Vaccine against Group A Meningococcus in Niger in 2010
Sung Hye Kim, Lorenzo Pezzoli, Harouna Yacouba, Tiekoura Coulibaly, Mamoudou H. Djingarey, William A. Perea, Thomas F. Wierzba
Research Article, published 20 Jan 2012 10.1371/journal.pone.0029116
Abstract
MenAfriVac is a new conjugate vaccine against Neisseria meningitidis serogroup A developed for the African "meningitis belt". In Niger, the first two phases of the MenAfriVac introduction campaign were conducted targeting 3,135,942 individuals aged 1 to 29 years in the regions of Tillabéri, Niamey, and Dosso, in September and December 2010. We evaluated the campaign and determined which sub-populations or areas had low levels of vaccination coverage in the regions of Tillabéri and Niamey. After Phase I, conducted in the Filingué district, we estimated coverage using a 30×15 cluster-sampling survey and nested lot quality assurance (LQA) analysis in the clustered

samples to identify which subpopulations (defined by age 1–14/15–29 and sex) had unacceptable vaccination coverage (<70%). After Phase II, we used Clustered Lot Quality Assurance Sampling (CLQAS) to assess if any of eight districts in Niamey and Tillabéri had unacceptable vaccination coverage (<75%) and estimated overall coverage. Estimated vaccination coverage was 77.4% (95%CI: 84.6–70.2) as documented by vaccination cards and 85.5% (95% CI: 79.7–91.2) considering verbal history of vaccination for Phase I; 81.5% (95%CI: 86.1–77.0) by card and 93.4% (95% CI: 91.0–95.9) by verbal history for Phase II. Based on vaccination cards, in Filingué, we identified both the male and female adult (age 15–29) subpopulations as not reaching 70% coverage; and we identified three (one in Tillabéri and two in Niamey) out of eight districts as not reaching 75% coverage confirmed by card. Combined use of LQA and cluster sampling was useful to estimate vaccination coverage and to identify pockets with unacceptable levels of coverage (adult population and three districts). Although overall vaccination coverage was satisfactory, we recommend continuing vaccination in the areas or sub-populations with low coverage and reinforcing the social mobilization of the adult population.

Population-Based Incidence of Typhoid Fever in an Urban Informal Settlement and a Rural Area in Kenya: Implications for Typhoid Vaccine Use in Africa

Robert F. Breiman, Leonard Cosmas, Henry Njuguna, Allan Audi, Beatrice Olack, John B. Ochieng, Newton Wamola, Godfrey M. Bigogo, George Awiti, Collins W. Tabu, Heather Burke, John Williamson, Joseph O. Oundo, Eric D. Mintz, Daniel R. Feikin and a Rural Area in Kenya: Implications for Typhoid Vaccine ... Population-Based Incidence of Typhoid Fever in an Urban Informal Settlement and a Rural Area in Kenya: Implications for Typhoid Vaccine Use in Africa ... of typhoid vaccines in increasingly urban Africa

PLoS ONE: Research Article, published 19 Jan 2012 10.1371/journal.pone.0029119

Abstract

Background

High rates of typhoid fever in children in urban settings in Asia have led to focus on childhood immunization in Asian cities, but not in Africa, where data, mostly from rural areas, have shown low disease incidence. We set out to compare incidence of typhoid fever in a densely populated urban slum and a rural community in Kenya, hypothesizing higher rates in the urban area, given crowding and suboptimal access to safe water, sanitation and hygiene.

Methods

During 2007-9, we conducted population-based surveillance in Kibera, an urban informal settlement in Nairobi, and in Lwak, a rural area in western Kenya. Participants had free access to study clinics; field workers visited their homes biweekly to collect information about acute illnesses. In clinic, blood cultures were processed from patients with fever or pneumonia. Crude and adjusted incidence rates were calculated.

Results

In the urban site, the overall crude incidence of Salmonella enterica serovar Typhi (S. Typhi) bacteremia was 247 cases per 100,000 person-years of observation (pyo) with highest rates in children 5–9 years old (596 per 100,000 pyo) and 2–4 years old (521 per 100,000 pyo). Crude overall incidence in Lwak was 29 cases per 100,000 pyo with low rates in children 2–4 and 5–9 years old (28 and 18 cases per 100,000 pyo, respectively). Adjusted incidence rates were highest in 2–4 year old urban children

(2,243 per 100,000 pyo) which were >15-fold higher than rates in the rural site for the same age group. Nearly 75% of S. Typhi isolates were multi-drug resistant.
Conclusions
This systematic urban slum and rural comparison showed dramatically higher typhoid incidence among urban children <10 years old with rates similar to those from Asian urban slums. The findings have potential policy implications for use of typhoid vaccines in increasingly urban Africa.

PLoS Medicine
(Accessed 22 January 2012)
http://www.plosmedicine.org/article/browse.action?field=date
Ensemble Modeling of the Likely Public Health Impact of a Pre-Erythrocytic Malaria Vaccine
Thomas Smith, Amanda Ross, Nicolas Maire, Nakul Chitnis, Alain Studer, Diggory Hardy, Alan Brooks, Melissa Penny, Marcel Tanner Research Article, published 17 Jan 2012
doi:10.1371/journal.pmed.1001157
Abstract
Background
The RTS,S malaria vaccine may soon be licensed. Models of impact of such vaccines have mainly considered deployment via the World Health Organization's Expanded Programme on Immunization (EPI) in areas of stable endemic transmission of Plasmodium falciparum, and have been calibrated for such settings. Their applicability to low transmission settings is unclear. Evaluations of the efficiency of different deployment strategies in diverse settings should consider uncertainties in model structure.
Methods and Findings
An ensemble of 14 individual-based stochastic simulation models of P. falciparum dynamics, with differing assumptions about immune decay, transmission heterogeneity, and treatment access, was constructed. After fitting to an extensive library of field data, each model was used to predict the likely health benefits of RTS,S deployment, via EPI (with or without catch-up vaccinations), supplementary vaccination of school-age children, or mass vaccination every 5 y. Settings with seasonally varying transmission, with overall pre-intervention entomological inoculation rates (EIRs) of two, 11, and 20 infectious bites per person per annum, were considered. Predicted benefits of EPI vaccination programs over the simulated 14-y time horizon were dependent on duration of protection. Nevertheless, EPI strategies (with an initial catch-up phase) averted the most deaths per dose at the higher EIRs, although model uncertainty increased with EIR. At two infectious bites per person per annum, mass vaccination strategies substantially reduced transmission, leading to much greater health effects per dose, even at modest coverage.
Conclusions
In higher transmission settings, EPI strategies will be most efficient, but vaccination additional to the EPI in targeted low transmission settings, even at modest coverage, might be more efficient than national-level vaccination of infants. The feasibility and economics of mass vaccination, and the circumstances under which vaccination will avert epidemics, remain unclear. The approach of using an ensemble of models provides more secure conclusions than a single-model approach, and suggests greater confidence in predictions of health effects for lower transmission settings than for higher ones.

Editors' Summary

Background

The World Health Organization estimates that there are over 200 million cases of malaria each year, and that more than three-quarters of a million people (mostly children living in sub-Saharan Africa) die as a result. Several Plasmodium parasites cause malaria, the most deadly being Plasmodium falciparum. Plasmodium parasites, which are transmitted to people through the bites of infected night-flying mosquitoes, cause recurring fever and can cause life-threatening organ damage. Malaria transmission can be prevented by using insecticides to control the mosquitoes that spread the parasite and by sleeping under insecticide-treated bed nets to avoid mosquito bites. Treatment with antimalarial drugs also reduces transmission. Together, these preventative measures have greatly reduced the global burden of malaria over recent years, but a malaria vaccine could be a valuable additional tool against the disease. At present there is no licensed malaria vaccine, but one promising vaccine—RTS,S—is currently undergoing phase III clinical trials (the last stage of testing before licensing) in infants and children in seven African countries.

Why Was This Study Done?

If the RTS,S vaccine fulfills its promise and is licensed, how should it be used to maximize its effect on the global malaria burden? Should it be given through the World Health Organization's Expanded Programme on Immunization (EPI), which aims to provide universal access to immunization against several infectious diseases during the first three months of life, for example, or through mass vaccination campaigns? Individual mathematical models have been used to investigate this type of question, but the predictions made by these models may be inaccurate because malaria immunity is poorly understood, because little is known about the levels of variability (heterogeneity) in host responses to malaria infection and in malaria transmission, and because it is unclear what the structure of models used to predict vaccine efficacy should be. In this study, the researchers use an "ensemble" approach to model the likely public health impact of the RTS,S malaria vaccine. That is, they simultaneously consider the effect of the vaccine in multiple models of P. falciparum dynamics. Ensemble modeling is widely used in weather forecasting and has been used to investigate several other infectious diseases.

What Did the Researchers Do and Find?

The researchers constructed an ensemble of 14 individual-based stochastic simulation models of P. falciparum dynamics that included different assumptions about immune decay, transmission heterogeneity, and access to treatment. Such models simulate the passage of thousands of hypothetical individuals through different stages of malaria infection; movement between stages occurs stochastically (by chance) at a probability based on field data. Each model was used to predict the health benefits over 14 years of RTS,S deployment through EPI (with and without catch-up vaccination for infants who were not immunized during their first three months of life), through EPI and supplementary vaccination of school children, and through mass vaccination campaigns every five years at malaria transmission levels of 2, 11, and 20 infectious bites per person per annum (low, medium, and high entomological inoculation rates [EIRs], respectively). The predicted benefits of EPI vaccination programs over the 14-year period were modest and similar over a wide range of settings. However, EPI with an initial catch-up phase averted the most deaths per vaccine dose at higher EIRs. At the

lowest EIR, mass vaccination strategies substantially reduced transmission, leading to much greater health effects per dose than other strategies, even at modest coverage.

What Do These Findings Mean?

The ensemble approach taken here suggests that targeted mass vaccination with RTS,S in low transmission settings may have greater health benefits than vaccination through national EPI programs. Importantly, this computer-intensive approach, which used computers made available over the internet by volunteers, provides more secure predictions than can be obtained using single models. In addition, it suggests that predictions made about the health effects of RTS,S vaccination for low transmission settings are more likely to be accurate than those made for higher transmission settings. However, this study only reports the first stages of using ensemble modeling to predict the health effects of RTS,S vaccination. Future studies will need to combine the outputs of multiple models with economic analyses to provide a rational basis for the design of vaccine-containing malaria control and elimination programs.

Monitoring the Introduction of Pneumococcal Conjugate Vaccines into West Africa: Design and Implementation of a Population-Based Surveillance System

Grant A. Mackenzie, Ian D. Plumb, Sana Sambou, Debasish Saha, Uchendu Uchendu, Bolanle Akinsola, Usman N. Ikumapayi, Ignatius Baldeh, Effua Usuf, Kebba Touray, Momodou Jasseh, Stephen R. C. Howie, Andre Wattiaux, Ellen Lee, Maria Deloria Knoll, Orin S. Levine, Brian M. Greenwood, Richard A. Adegbola, Philip C. Hill Health in Action, published 17 Jan 2012

doi:10.1371/journal.pmed.1001161

Summary Points

- Routine use of pneumococcal conjugate vaccines (PCVs) in developing countries is expected to lead to a significant reduction in childhood deaths. However, PCVs have been associated with replacement disease with non-vaccine serotypes.
- We established a population-based surveillance system to document the direct and indirect impact of PCVs on the incidence of invasive pneumococcal disease (IPD) and radiological pneumonia in those aged 2 months and older in The Gambia, and to monitor changes in serotype-specific IPD.
- Here we describe how this surveillance system was set up and is being operated as a partnership between the Medical Research Council Unit and the Gambian Government. This surveillance system is expected to provide crucial information for immunisation policy and serves as a potential model for those introducing routine PCV vaccination in diverse settings.

PNAS - Proceedings of the National Academy of Sciences of the United States of America

(Accessed 22 January 2012)

http://www.pnas.org/content/early/recent

Knowledge Systems for Sustainable Development Special Feature Sackler Colloquium - Social Sciences - Sustainability Science

Lorrae van Kerkhoff and Nicole A. Szlezák

Abstract http://www.pnas.org/content/early/2012/01/13/0900541107.abstract

It is becoming increasingly recognized that our collective ability to tackle complex problems will require the development of new, adaptive, and innovative institutional

arrangements that can deal with rapidly changing knowledge and have effective learning capabilities. In this paper, we applied a knowledge-systems perspective to examine how institutional innovations can affect the generation, sharing, and application of scientific and technical knowledge. We report on a case study that examined the effects that one large innovative organization, The Global Fund to Fight AIDS, Tuberculosis, and Malaria, is having on the knowledge dimensions of decision-making in global health. The case study shows that the organization created demand for new knowledge from a range of actors, but it did not incorporate strategies for meeting this demand into their own rules, incentives, or procedures. This made it difficult for some applicants to meet the organization's dual aims of scientific soundness and national ownership of projects. It also highlighted that scientific knowledge needed to be integrated with managerial and situational knowledge for success. More generally, the study illustrates that institutional change targeting implementation can also significantly affect the dynamics of knowledge creation (learning), access, distribution, and use. Recognizing how action-oriented institutions can affect these dynamics across their knowledge system can help institutional designers build more efficient and effective institutions for sustainable development.

Commentary: Reorienting our view of particle-based adjuvants for subunit vaccines

Steven R. Little

PNAS 2012 ; published ahead of print January 17, 2012, doi:10.1073/pnas.1120993109

[No abstract] http://www.pnas.org/content/early/2012/01/09/1120993109.full.pdf+html

Science

20 January 2012 vol 335, issue 6066, pages 253-368

http://www.sciencemag.org/current.dtl

[No relevant content]

Science Translational Medicine

18 January 2012 vol 4, issue 117

http://stm.scienceag.org/content/mcurrent

[No relevant content]

Tropical Medicine & International Health

February 2012 Volume 17, Issue 2 Pages 143–261

http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-3156/currentissue

Medical Guidelines

Transfer of evidence-based medical guidelines to low- and middle-income countries (pages 144–146)

Stephan Ehrhardt and Christian G. Meyer

Article first published online: 21 OCT 2011 | DOI: 10.1111/j.1365-3156.2011.02910.x

[No abstract; Free full text]

Migrant Health

Mortality from infectious diseases among refugees and immigrants compared to native Danes: a historical prospective cohort study (pages 223–230)

M. Norredam, M. Olsbjerg, J. H. Petersen, I. Bygbjerg and A. Krasnik
Article first published online: 27 OCT 2011 | DOI: 10.1111/j.1365-3156.2011.02901.x
Summary
Objectives Refugees and immigrants are likely to be vulnerable to mortality from infectious diseases as a result of high prevalences in their countries of origin and barriers in access to healthcare in the recipient countries. Consequently, we aimed to compare and investigate differences in mortality from infectious diseases among refugees and immigrants and native Danes.
Methods A register-based, historical prospective cohort design. All refugees (n = 29 139) and family-reunited immigrants (n = 27 134) who, between 1 January1993 and 31 December1999, were granted the right to reside in Denmark were included and matched 1:4 on age and sex with native Danes. Civil registration numbers were cross-linked to the Register of Causes of Death, and fatalities owing to infectious diseases (based on ICD-10 diagnosis) were identified. Mortality ratios were estimated separately for men and women by migrant status and region of birth; adjusting for age and income; using a Cox regression model, after a mean follow-up of 10–12 years after arrival.
Results Female [hazard ratio (HR) = 4.15; 95% CI: 2.38, 7.25] and male (HR = 2.05; 95% CI: 1.27, 3.33) refugees experienced significantly higher mortality risks from infectious diseases than did native Danes, as was the case for male immigrants (HR = 2.39; 95% CI: 1.20, 4.76) but less so for female immigrants (HR = 1.23; 95% CI: 0. 50-3.01). Mortality by region of origin was notably higher for individuals from North Africa and sub-Saharan Africa.
Conclusions Higher mortality among refugees and immigrants than among the native population should lead to reflections on medical reception systems in recipient countries and subsequent possibilities of access to specialised diagnostic and curative healthcare.
Neonatal meningitis and the developing world (page 260)
Rashmi R. Das
Article first published online: 31 OCT 2011 | DOI: 10.1111/j.1365-3156.2011.02908_1.x
[No abstract]

Vaccine
http://www.sciencedirect.com/science/journal/0264410X
Volume 30, Issue 5 pp. 821-982 (20 January 2012)
[Reviewed earlier]

Value in Health
January 2012, Vol. 15, No. 1
http://www.valueinhealthjournal.com/home
CLINICAL OUTCOMES ASSESSMENT
Modeling the Effects of H1N1 Influenza Vaccine Distribution in the U.S.
Richard C. Larson, Anna Teytelman
Abstract
Objective
We analyzed the effects of the timing of vaccine distribution in 11 US states during the 2009 H1N1 influenza pandemic.

Methods
By using reported data on the fraction of patients presenting with flu-related symptoms, we developed a transformation that allowed estimation of the state-specific temporal flu wave curve, representing the number of new infections during each week. We also utilized data describing the weekly numbers of vaccine doses delivered and administered. By using a simple difference equations model of flu progression, we developed two influenza wave curves: first, an "observable" curve that included the beneficial effects of vaccinations, and second, an unobservable curve that depicted how the flu would have progressed with no vaccine administered. We fit the observable curve to match the estimated epidemic curve and early exponential growth associated with R0, the reproductive number. By comparing the number of infections in each scenario, we estimated the infections averted by the administration of vaccine.
Results
Southern states experienced peak infection several weeks before northern states, and most of the vaccine was delivered well after the peak of the southern flu wave. Our models suggest that the vaccine had minimal ameliorative impact in the southern states and measurable positive impact in the northern states. Vaccine delivery after peak also results in a smaller fraction of the population's seeking the vaccine.
Conclusions
Our analysis suggests that current Centers for Disease Control and Prevention policy of allocating flu vaccine over time in direct proportion to states' populations may not be best in terms of averting nationally the maximum possible number of infections.