Center for Vaccine Ethics and Policy
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Vaccines: The Week in Review
18 May 2013
Center for Vaccine Ethics & Policy (CVEP)

This weekly summary targets news, events, announcements, articles and research in the global vaccine ethics and policy space and is aggregated from key governmental, NGO, international organization and industry sources, key peer-reviewed journals, and other media channels. This summary proceeds from the broad base of themes and issues monitored by the Center for Vaccine Ethics & Policy in its work: it is not intended to be exhaustive in its coverage. Vaccines: The Week in Review is also posted in pdf form and as a set of blog posts at http://centerforvaccineethicsandpolicy.wordpress.com/. This blog allows full-text searching of over 3,500 entries.

Comments and suggestions should be directed to
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WHO: Landmark reached with tetanus elimination achieved in over half of 59 priority countries

The Maternal and Neonatal Tetanus (MNT) Elimination Initiative announced that tetanus has been eliminated in over half of 59 priority countries. Since 1999, more than 118 million women of child-bearing age have been vaccinated against tetanus in 52 countries. Many of these women received their tetanus vaccine as part of an integrated campaign which included other life-saving interventions for children including immunization against measles, vitamin A supplements, deworming tablets and information on umbilical cord care. The MNT Elimination Initiative is an international private-public partnership that includes national governments, WHO, UNFPA, UNICEF, GAVI Alliance, USAID/Immunization Basics, CDC, UNICEF National Committees, the Government of Japan, Save the Children, PATH, RMHC, Bill & Melinda Gates Foundation, Kiwanis International, Pampers – a division of Procter & Gamble, and BD.

Countries that have eliminated MNT include: Bangladesh; Benin; Burkina Faso; Burundi; Cameroon; China; Comoros; Congo; Cote d' Ivoire; Egypt; Eritrea; Ghana; Guinea Bissau; Iraq; Liberia; Malawi; Mozambique; Myanmar; Namibia; Nepal; Rwanda; Senegal; South Africa; Tanzania (United Republic of); Timor Leste; Togo; Turkey; Uganda; Viet Nam; Zambia and Zimbabwe.

Priority countries "still working toward elimination" include Afghanistan; Angola; Cambodia; Central African Republic; Chad; Congo (Democratic Republic of the); Equatorial Guinea; Ethiopia; Gabon; Guinea; Haiti; India; Indonesia; Kenya; Lao People's Democratic Republic; Madagascar; Mali; Mauritania; Niger; Nigeria; Pakistan; Papua New Guinea; Philippines; Sierra Leone; Somalia; South Sudan; Sudan; and Yemen
http://www.who.int/immunization/newsroom/Landmark_reached_in_fight_against_tetanus/en/index.html

The Government of India's Department of Biotechnology (DBT) and Bharat Biotech announced positive results from a Phase III clinical trial of a rotavirus vaccine developed and manufactured in India. The clinical study "demonstrates for the first time that the India-developed rotavirus vaccine is efficacious in preventing severe rotavirus diarrhoea in low-resource settings in India." DBT Secretary Dr K. Vijay Raghavan commented, "This is an important scientific breakthrough against rotavirus infections, the most severe and lethal cause of childhood diarrhoea, responsible for approximately 100,000 deaths of small children in India each year. The clinical results indicate that the vaccine, if licensed, could save the lives of thousands of children each year in India."

The vaccine was developed through a unique social innovation partnership that brought together the experience and expertise of Indian and international researchers as well as the public and private sectors. The vaccine originated from an attenuated (weakened) strain of rotavirus that was isolated from an Indian child at the All India Institute of Medical Sciences in New Delhi in 1985-86. Since then, partners have included DBT, Bharat Biotech, the US National Institutes of Health (NIH), the US Centers for Disease Control and Prevention (CDC), Stanford University School of Medicine, and the nongovernmental organization, PATH.

The randomized, double-blind, placebo-controlled Phase III clinical trial enrolled 6,799 infants in India (aged six to seven weeks at the time of enrollment) at three sites—the Centre for Health Research and Development, Society for Applied Studies (SAS) in New Delhi; Shirdi Sai Baba Rural Hospital, KEM Hospital Research Centre in Vadu, Pune; and Christian Medical College (CMC) in Vellore…

Full announcement: http://www.defeatdd.org/sites/default/files/node-images/ROTAVAC%20press%20release_FINAL_0.pdf

Results of the ROTAVAC Rotavirus Vaccine Study in India - Statement of Anthony S. Fauci, M.D.

Director, National Institute of Allergy and Infectious Diseases, National Institutes of Health

Excerpt

We congratulate the Program for Appropriate Technology in Health (PATH), Bharat Biotech International, Ltd., and the scientists, government and people of India on the important results from the ROTAVAC rotavirus vaccine study.

Highly contagious rotaviruses are the leading cause of severe diarrheal illnesses among infants and young children in both developed and resource-limited countries. Each year, rotavirus-induced diarrheal disease kills roughly 435,000 children younger than 5 years old and hospitalizes an estimated two million children worldwide, largely in developing countries. The youngest children — those between 6 months and 2 years of age — are most vulnerable. Since 2006, two oral rotavirus vaccines have been licensed and available in North and South American, European and Eastern Mediterranean countries, where they have significantly reduced the burden of rotavirus-induced diarrhea. Based on that success, the World Health Organization recommended in 2009 the inclusion of rotavirus vaccine in all national immunization programs. However, access to vaccines can be slow and limited in the areas of the world where they are needed most.

ROTAVAC is a new rotavirus vaccine that consists of a strain of the virus that was isolated, manufactured and tested in India. The ROTAVAC trial represents a significant victory for India's scientific community. Based on the study's successful findings, infants in India will gain access

to a licensed vaccine and its significant protection against severe rotavirus-induced gastroenteritis.

The National Institute of Allergy and Infectious Diseases (NIAID), part of the U.S. National Institutes of Health, was a partner in the public/private collaboration to develop and test this important vaccine. In the early 1990s, NIAID established an interagency agreement with the Centers for Disease Control and Prevention, and made several grant awards through the NIAID Indo-U.S. Vaccine Action Program….

Full media release: http://www.nih.gov/news/health/may2013/niaid-14.htm

PATH congratulates the government of India's Department of Biotechnology and Bharat Biotech on their release of positive phase 3 clinical trial results for ROTAVAC®, the first efficacious rotavirus vaccine to be developed exclusively in India. Results demonstrate the vaccine successfully protects against rotavirus infections, one of the most lethal forms of diarrhea in young children.

"The clinical study results showing ROTAVAC to be safe and efficacious are tremendously exciting," said Steve Davis, PATH president and CEO. "This unique social innovation partnership, which brought together a consortium of scientists and experts from a range of agencies and sectors in India and the United States, provides a great collaborative model for meeting a public health need—a more affordable rotavirus vaccine…PATH is pleased and honored to have played a role in reaching this incredible milestone, and we congratulate all of the partners involved on these positive clinical trial results."

PATH provided technical assistance to Bharat Biotech and the consortium on issues such as vaccine stability, the development of special harvesting techniques, using cleaner preparation methods, and designing and implementing clinical trials that meet international standards…

Full announcement: http://www.path.org/news/an130514-rotavac-results.php

WHO SAGE: Yellow fever vaccination booster not needed

News release - Excerpt

Dr Helen Rees, chair of SAGE, commented, "The conventional guidance has been that the yellow fever vaccination has had to be boosted after ten years. Looking at really very good evidence, it was quite clear to SAGE that in fact a single dose of yellow fever vaccine is effective. This is extremely important for countries where yellow fever is endemic, because it will allow them to reconsider their vaccine scheduling. It is also important for travelers." There are an estimated 200 000 cases of yellow fever worldwide each year. About 15% of people infected with yellow fever progress to a severe form of the illness, and up to half of those will die, as there is no cure for yellow fever. The treatment is "aimed simply at reducing patients' discomfort"...

http://www.who.int/mediacentre/news/releases/2013/yellow_fever_20130517/en/index.html

The Weekly Epidemiological Record (WER) for 17 May 2013, vol. 88, 20 (pp. 201–216) includes:

- Meeting of the Strategic Advisory Group of Experts on immunization, April 2013 – conclusions and recommendations

http://www.who.int/entity/wer/2013/wer8820.pdf

Update: Polio this week - *As of 15 May 2013*
Global Polio Eradication Initiative
http://www.polioeradication.org/Dataandmonitoring/Poliothisweek.aspx
[Editor's extract and bolded text]

- The Taliban in Afghanistan have released a statement supporting health programmes in the country, with particular reference to polio vaccination campaigns. The World Health Organization (WHO) welcomes this statement, notes the request to respect local conditions, and supports all efforts to protect the children of Afghanistan from polio and other diseases. [see below]
- A wild poliovirus type 1 (WPV1) case has been confirmed in Somalia, the first in the country since 2007. Outbreak response activities have been launched. Please see 'Horn of Africa' section below for more.

Nigeria

- Four new WPV cases were reported in the past week (WPV1s from Borno, Kano, Taraba and Yobe), bringing the total number of cases for 2013 to 22. The cases from Borno and Taraba are the most recent WPV cases in the country, both with onset of paralysis on 24 April.

Pakistan

- Two new WPV cases were reported in the past week (WPV1s from Khyber Pakhtunkhwa – KP, and Federally Administered Tribal Areas – FATA), bringing the total number of WPV cases for 2013 to eight. The case from FATA is the most recent WPV case in the country (and the first WPV from FATA in 2013), and had onset of paralysis on 24 April.
- Two new positive environmental samples were confirmed this week, WPV1s from Gadap, Sindh (collected 11 April) and Peshawar, KP (collected 12 April). This year, 16 environmental samples positive for WPV1 have been reported (of which 11 were collected in Peshawar and Hyderabad, Sindh).
- The security situation continues to be monitored closely, in consultation with law enforcement agencies. Immunization activities continue to be implemented, in some areas staggered or postponed, depending on the security situation at the local level.

Horn of Africa

- One new WPV case was reported in the past week (WPV1 from Banadir, Somalia), with onset of paralysis on 18 April. It is the first WPV in Somalia since March 2007. It is the first outbreak outside of an endemic country in 2013.
- The child is a 32-month-old girl from Banadir region.
- In large areas of south-central Somalia, immunization campaigns have not been implemented since 2009 due to inaccessibility, affecting more than 500,000 children aged <5 years. Populations in this area are at particular risk of this polio outbreak. This is also the area affected by an ongoing cVDPV2 outbreak, which has resulted in 18 cases in the country since 2009 (most recent cVDPV2 case had onset of paralysis on 9 January 2013).

WHO: Afghanistan Taliban's 'Declaration regarding Polio Eradication'
13 May 2013
Supporting efforts which work "for the health care of the helpless people of our country"

"The Taliban in Afghanistan have released a statement supporting all health programs in the country, with particular reference to polio vaccination campaigns. WHO welcomes this statement, notes the request to respect local conditions, and supports all efforts to protect the children of Afghanistan from polio and other diseases.

Full text of the statement:

According to the latest international medicine science, the polio disease can only be cured by preventive measures i.e. the anti-polio drops and the vaccination of children against this disease.

The Islamic Emirate of Afghanistan supports and lends a hand to all those programs which works for the health care of the helpless people of our country. The Islamic Emirate of Afghanistan advises in the existing war situation of the country to the campaigning organizations i.e. WHO and UNICEF to employ unbiased people in the region. The foreign employees should refrain from going to the region and similarly the campaign should be harmonized with the regional conditions, Islamic values and local cultural traditions. In case of compliance with these rudiments, all the associated workers (Mujahidin) of the Islamic Emirate of Afghanistan are directed, not to create any kind of trouble for them, rather they should be provided with all necessary support.

Islamic Emirate of Afghanistan

http://www.polioeradication.org/Mediaroom/Newsstories/Newsstories2013/tabid/488/iid/296/Default.aspx

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

http://www.who.int/csr/don/2013_03_12/en/index.html

Human infection with avian influenza A(H7N9) virus – *update 17 May 2013*

17 May 2013 - Since 8 May 2013, no new laboratory-confirmed cases of human infection with avian influenza A(H7N9) have been reported to WHO by the National Health and Family Planning Commission, China. However, four additional deaths have been reported from previously laboratory-confirmed cases.

To date, WHO has been informed of a total of 131 laboratory-confirmed cases, including 36 deaths…

Novel coronavirus infection – *update 15 May 2013*

15 May 2013 - The Ministry of Health in Saudi Arabia has informed WHO of an additional two laboratory-confirmed cases with infection of the novel coronavirus (nCoV).

The two patients are health care workers who were exposed to patients with confirmed nCoV. The first patient is a 45-year-old man who became ill on 2 May 2013 and is currently in a critical condition. The second patient is a 43-year-old woman with a coexisting health condition, who became ill on 8 May 2013 and is in a stable condition.

Although health care associated transmission has been observed before with nCoV (in Jordan in April 2012), this is the first time health care workers have been diagnosed with nCoV infection after exposure to patients. Health care facilities that provide care for patients with suspected nCoV infection should take appropriate measures to decrease the risk of transmission of the virus to other patients and health care workers. Health care facilities are reminded of the importance of systematic implementation of infection prevention and control (IPC)…

WHO - Humanitarian Health Action

http://www.who.int/hac/en/index.html

-No new relevant updates published

UN Watch to 18 May 2013

Selected meetings, press releases, and press conferences relevant to immunization, vaccines, infectious diseases, etc. http://www.un.org/en/unpress/
-No new relevant content.

The Global Fund to Fight AIDS, Tuberculosis and Malaria said it agreed to participate in the Pledge Guarantee for Health, a new partnership "to leverage private sector funding to speed delivery and expand access to health supplies such as contraceptives, bed nets, and medicines." The program is a "new financing mechanism that will help increase the impact of each dollar of donor funding and ultimately improve healthcare access and outcomes for millions of people." Developed and incubated by the United Nations Foundation, The Pledge Guarantee for Health "facilitates innovative financing that expedites the disbursement of donor funds, making global health supplies more accessible and more affordable for developing countries." The United States Agency for International Development and the Swedish International Agency for Development Cooperation are providing a 5-year partial guarantee to help speed up the procurement of essential medicines and health supplies by governments and civil society partners. In collaboration with commercial banking partners, this partial guarantee enables the Pledge Guarantee for Health to access $100 million in credit that, over 5 years, can mobilize tremendous lending capacity…
Full Release: 17 May 2013 http://www.theglobalfund.org/en/mediacenter/newsreleases/2013-05-17_Global_Fund_Joins_New_Innovative_Financing_Partnership/

The Global Fund published a report on preventing and detecting possible misuse of funds in countries where it makes grants. The report, prepared by Chief Risk Officer Cees Klumper, "outlines actions that the Global Fund has taken over the past year to reduce risk and improve oversight." Mr. Klumper pointed out that "investing in developing countries means taking calculated risks. In order to manage those risks, significant measures are in place with a particular focus on fraud prevention and detection." While 1.9 percent of Global Fund grants have been determined to have been misspent, fraudulently misappropriated or inadequately accounted for, the Global Fund "does not tolerate any misuse of funds, no matter how minor." The proportion of the grant portfolio accounted for by fraudulent misappropriation is 0.3 percent. Starting in 2012, the Fund "has begun to apply a systematic approach to grant risk management that can be considered leading practice. All risks that determine a grant's success are captured, documented and assessed on a regular basis. These risk assessments inform specific risk mitigation measures, including for fraud risks, grant-by-grant…"
http://www.theglobalfund.org/en/mediacenter/announcements/2013-05-17_Global_Fund_Report_on_Preventing_and_Detecting_Possible_Misuse_of_Funds/

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

Sixty-sixth World Health Assembly (WHA)
20–28 May 2013
Geneva, Switzerland
Provisional Agenda: http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_1-en.pdf
WHA 66 Documentation
Editor's Excerpt
A66/8 - Draft comprehensive global monitoring framework and targets for the prevention and control of noncommunicable diseases
Formal Meeting of Member States to conclude the work on the comprehensive global monitoring framework, including indicators, and a set of voluntary global targets for the prevention and control of noncommunicable diseases
A66/13 - Monitoring the achievement of the health-related Millennium Development Goals
A66/14 - Follow-up actions to recommendations of the high-level commissions convened to advance women's and children's health
A66/15 - Social determinants of health
A66/16 - Implementation of the International Health Regulations (2005)
A66/17 - Pandemic influenza preparedness: sharing of influenza viruses and access to vaccines and other benefits/Pandemic Influenza Preparedness Framework 2013 biennial report
A66/17 Add.1 - Pandemic influenza preparedness: sharing of influenza viruses and access to vaccines and other benefits/Report of the meeting of the Pandemic Influenza Preparedness Framework Advisory Group
A66/18 - Poliomyelitis: intensification of the global eradication initiative
A66/19 - Global vaccine action plan
A66/20 - Neglected tropical diseases; Prevention, control, elimination and eradication
A66/21 - Malaria

WHO: *World Health Statistics 2013*
Contains WHO's annual compilation of health-related data for its 194 Member States, and includes a summary of the progress made towards achieving the health-related Millennium Development Goals (MDGs) and associated targets.
This year, it also includes highlight summaries on the topics of reducing the gaps between the world's most-advantaged and least-advantaged countries, and on current trends in official development assistance (ODA) for health.
http://who.int/gho/publications/world_health_statistics/2013/en/index.html

Report: *PUTTING PROGRESS AT RISK? MDG spending in developing countries*
Government Spending Watch report
May 2013
Development Finance International (DFI) and Oxfam International
http://www.governmentspendingwatch.org/images/pdfs/GSW-Report-Progress-at-risk-MDG_160513.pdf
Excerpt from Executive Summary
Thirty-two months remain until the 2015 deadline set by world leaders for reaching the Millennium Development Goals (MDGs). This Government Spending Watch (GSW) report is the first ever to track how much developing countries are spending on the MDGs. It is based on data compiled by Development Finance International (DFI) and Oxfam, covering 52 low- and

lower-middle income countries… Future reports will extend the analysis to 34 more countries. The data, research, and information on current campaigns on MDG spending, are available from the GSW website:
www.governmentspendingwatch.org

Report: ***Progress on sanitation and drinking-water***
2013 update: Joint Monitoring Programme for Water Supply and Sanitation
WHO, UNICEF
JMP 2013 update: Progress on sanitation and drinking-water
Overview
JMP 2013 update presents country, regional and global estimates for the year 2011. Drinking-water coverage in 2011 remains at 89% – which is 1% above the MDG drinking-water target. In 2011, 768 million people relied on unimproved drinking-water sources.
http://www.who.int/water_sanitation_health/publications/2013/jmp_report/en/index.html

2.4 billion people will lack improved sanitation in 2015; World will miss MDG target

13 May 2013 | GENEVA/NEW YORK - Some 2.4 billion people – one-third of the world's population – will remain without access to improved sanitation in 2015, according to a joint WHO/UNICEF report issued today.

The report, entitled Progress on sanitation and drinking-water 2013 update, warns that, at the current rate of progress, the 2015 Millennium Development Goal (MDG) target of halving the proportion of the 1990 population without sanitation will be missed by 8% – or half a billion people.

While UNICEF and WHO announced last year that the MDG drinking water target had been met and surpassed by 2010, the challenge to improve sanitation and reach those in need has led to a consolidated call for action to accelerate progress.
http://www.who.int/mediacentre/news/notes/2013/sanitation_mdg_20130513/en/index.html

Report: ***Capital for the Future: Saving and Investment in an Interdependent World***
World Bank - Global Development Horizons (GDH)
http://siteresources.worldbank.org/EXTDECPROSPECTS/Resources/476882-1368197310537/CapitalForTheFuture.pdf
Announcement Excerpt

Capital for the Future, the second edition of the series, explores saving, investment, and capital flows through 2030. It finds that developing economies are fast becoming major investors in the world economy, and by 2030 will account for more than 60 cents of every dollar invested. This represents a fundamental shift with respect to historical performance: for 4 decades (through the 1990s), developing countries had been accounting for just about 20 cents for every dollar of global saving and investment. Before 2020, total investment in the developing world is expected to overtake that in high income countries. Developing countries will—for the first time in history—become major sources, destinations, and potentially also intermediaries of global gross capital flows.

Future trends in investment, saving, and capital flows will affect economic conditions from the household level to the global macroeconomic level, with implications not only for national governments but also for international institutions and policy coordination. Without timely efforts, some countries will be left behind. And, more importantly, even within otherwise

successful countries, some people will be left behind. Policy makers preparing for this change will thus benefit from a better understanding of the unfolding dynamics of global capital and wealth in the future…
Full overview:
http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:23413150~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html

Global Assessment Report on Disaster Risk Reduction 2013
From Shared Risk to Shared Value: the Business Case for Disaster Risk Reduction
United Nations Office for Disaster Risk Reduction
May 2013
http://www.preventionweb.net/english/hyogo/gar/2013/en/home/index.html
The third edition of this biennial publication highlights how the transformation of the global economy over the last forty years has led to rapid increases in disaster risk in low, medium and high income countries, affecting businesses and societies.
Download Full Report and Sections:
http://www.preventionweb.net/english/hyogo/gar/2013/en/home/download.html

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

American Journal of Infection Control
Vol 41 | No. 5 | May 2013 | Pages 389-480
http://www.ajicjournal.org/current
[Reviewed earlier]

American Journal of Public Health
Volume 103, Issue 6 (June 2013)
http://ajph.aphapublications.org/toc/ajph/current
[Reviewed earlier]

Annals of Internal Medicine
7 May 2013, Vol. 158. No. 9
http://www.annals.org/content/current

[Reviewed earlier; No relevant content]

BMC Public Health
(Accessed 18 May 2013)
http://www.biomedcentral.com/bmcpublichealth/content
[No new relevant content]

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

British Medical Journal
18 May 2013 (Vol 346, Issue 7908)
http://www.bmj.com/content/346/7908
[No relevant content]

Bulletin of the World Health Organization
Volume 91, Number 5, May 2013, 313-388
http://www.who.int/bulletin/volumes/91/5/en/index.html
[Reviewed earlier]

Clinical Therapeutics
Vol 35 | No. 4 | April 2013 | Pages 351-540
http://www.clinicaltherapeutics.com/current
[Reviewed earlier]

Cost Effectiveness and Resource Allocation
(Accessed 18 May 2013)
http://www.resource-allocation.com/
[No new relevant content]

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

Development in Practice
Volume 23, Issue 3, 2013
http://www.tandfonline.com/toc/cdip20/current

[Reviewed earlier; No relevant content]

Emerging Infectious Diseases
Volume 19, Number 5—May 2013
http://www.cdc.gov/ncidod/EID/index.htm
[Reviewed earlier; No relevant content]

Eurosurveillance
Volume 18, Issue 20, 16 May 2013
http://www.eurosurveillance.org/Public/Articles/Archives.aspx?PublicationId=11678
Perspectives
Outbreak with a novel avian influenza A(H7N9) virus in China - scenarios and triggers for assessing risks and planning responses in the European Union, May 2013
by C Schenk, D Plachouras, N Danielsson, A Nicoll, E Robesyn, D Coulombier
Surveillance and outbreak reports
Analysis of national measles surveillance data in Italy from October 2010 to December 2011 and priorities for reaching the 2015 measles elimination goal
by A Filia, A Bella, MC Rota, A Tavilla, F Magurano, M Baggieri, L Nicoletti, S Iannazzo, MG Pompa, S Declich

Forum for Development Studies
Volume 40, Issue 1, 2013
http://www.tandfonline.com/toc/sfds20/current
[Reviewed earlier]

Global Health Governance
Volume VI, Issue 1: Fall 2012
– December 31, 2012
[Reviewed earlier]

Globalization and Health
[Accessed 18 May 2013]
http://www.globalizationandhealth.com/
Research
Ownership and use of mobile phones among health workers, caregivers of sick children and adult patients in Kenya: cross-sectional national survey
Zurovac D, Otieno G, Kigen S, Mbithi AM, Muturi A, Snow RW and Nyandigisi A Globalization and Health 2013, 9:20 (14 May 2013)
Abstract (provisional)
Background
The rapid growth in mobile phone penetration and use of Short Message Service (SMS) has been seen as a potential solution to improve medical and public health practice in Africa.

Several studies have shown effectiveness of SMS interventions to improve health workers? practices, patients? adherence to medications and availability of health facility commodities. To inform policy makers about the feasibility of facility-based SMS interventions, the coverage data on mobile phone ownership and SMS use among health workers and patients are needed.
Methods
In 2012, a national, cross-sectional, cluster sample survey was undertaken at 172 public health facilities in Kenya. Outpatient health workers and caregivers of sick children and adult patients were interviewed. The main outcomes were personal ownership of mobile phones and use of SMS among phone owners. The predictors analysis examined factors influencing phone ownership and SMS use.
Results
The analysis included 219 health workers and 1,177 patients? respondents (767 caregivers and 410 adult patients). All health workers possessed personal mobile phones and 98.6% used SMS. Among patients? respondents, 61.2% owned phones and 71.4% of phone owners used SMS. The phone ownership and SMS use was similar between caregivers of sick children and adult patients. The respondents who were male, more educated, literate and living in urban area were significantly more likely to own the phone and use SMS. The youngest respondents were less likely to own phones, however when the phones were owned, younger age groups were more likely to use SMS. Respondents living in wealthier areas were more likely to own phones; however when phones are owned no significant association between the poverty and SMS use was observed.
Conclusions
Mobile phone ownership and SMS use is ubiquitous among Kenyan health workers in the public sector. Among patients they serve the coverage in phone ownership and SMS use is lower and disparities exist with respect to gender, age, education, literacy, urbanization and poverty. Some of the disparities on SMS use can be addressed through the modalities of mHealth interventions and enhanced implementation processes while further growth in mobile phone penetration is needed to reduce the ownership gap.
http://www.globalizationandhealth.com/content/9/1/20/abstract
The complete article is available as a provisional PDF. The fully formatted PDF and HTML versions are in production.

Health Affairs
May 2013; Volume 32, Issue 5
http://content.healthaffairs.org/content/current
Theme: *Tackling The Cost Conundrum*
[No specific relevant content on vaccines/immunization]

Health and Human Rights
Vol 14, No 2 (2012)
http://hhrjournal.org/index.php/hhr
[Reviewed earlier]

Health Economics, Policy and Law
Volume 8 - Issue 02 - April 2013

http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue
[Reviewed earlier]

Health Policy and Planning
Volume 28 Issue 3 May 2013
http://heapol.oxfordjournals.org/content/current
[Reviewed earlier]

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

Infectious Diseases of Poverty
http://www.idpjournal.com/content
[Accessed 18 May 2013]
[No new relevant content]

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

International Journal of Infectious Diseases
Vol 17 | No. 7 | July 2013
http://www.ijidonline.com/current
Latest outbreak news from ProMED-mail. Yellow fever outbreak—Darfur Sudan and Chad
Thomas M. Yuill, John P. Woodall, Susan Baekeland
Received 14 March 2013; accepted 16 March 2013. published online 02 May 2013.
Summary
The recent yellow fever outbreak in Darfur has been the worst in Africa in 20 years. It began on 2 September 2012. However, it was not until 30 October that samples were sent to a reference laboratory in Senegal for confirmation of the disease. On 9 November 2012, the World Health Organization (WHO) Sudan reported 266 suspected cases and 85 fatalities in 20 localities for a case fatality rate of 32%, with Central Darfur state the area hardest hit. The yellow fever vaccination plan to cover 3.5 million persons was finalized. On 13 November 2012 the WHO reported laboratory confirmation of yellow fever in two samples. Mass vaccination began in the region on 20 November. On 10 January 2013 a report was jointly released by the Ministry of Health and the WHO that stated that 171 people had died of the disease as of 9 January 2013 and that there had been 849 suspected cases in Darfur since 2 September 2012. It was estimated that 35 out of the 64 localities of Darfur had been affected by the disease. On 14 February 2013, the WHO reported two confirmed yellow fever cases in Chad in December 2012,

an apparent spill-over from Darfur. The Ministry of Health of Chad launched an emergency mass vaccination campaign against yellow fever starting 22 February 2013.
http://www.ijidonline.com/article/S1201-9712%2813%2900138-0/abstract

Don't forget how severe varicella can be—complications of varicella in children in a defined Polish population

Ewelina Gowinemail, Jacek Wysocki, Michał Michalak

Summary

Background

This study aimed to analyze the causes of hospitalization in children with varicella, based on a defined Polish population.

Methods

This was a retrospective analysis of causes of hospitalization in children under 18 years of age with varicella, treated on the Infectious Diseases Ward of the Children's Hospital in Poznan, Poland from January 2007 to June 2012. The ward serves almost the entire child population of the Greater Poland region (10% of the Polish population – almost 600 000 children). The analysis was based on hospital records. Patients were identified using the International Classification of Diseases Tenth Revision (ICD-10) codes. The case definition consisted of physical evidence of varicella.

Results

A total of 224 children were hospitalized for varicella complications. The median age of admitted patients was 37.5 months (range 6 days to 17 years). Rates of hospitalization decreased with age. The highest rates were among children during their first year. Ninety-two percent of children were healthy prior to hospitalization (no chronic diseases). The most common complications were respiratory tract infections (26%), followed by skin infections (21%) and neurological symptoms (18%). Twenty-five patients (11%) had more than one complication. The most common coexisting conditions were dehydration and otitis media.

Conclusions

The results presented here serve to remind us that varicella may to lead to severe complications in unvaccinated children and adolescents, and demonstrate the benefits of varicella vaccination. Most children hospitalized with varicella were immunologically healthy. Meningitis was more common in older children (>6 years of age). Streptococcus pyogenes was the most commonly identified bacterial pathogen.

http://www.ijidonline.com/article/S1201-9712%2812%2901317-3/abstract

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May 15, 2013, Vol 309, No. 19

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May 2013, Vol 167, No. 5

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[Reviewed earlier; No relevant content]

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June 2013; 62 (Pt 6)
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[Reviewed earlier; No relevant content]

The Lancet
May 18, 2013 Volume 381 Number 9879 p1687 – 1788 e12 - 15
http://www.thelancet.com/journals/lancet/issue/current
Editorial
GAVI injects new life into HPV vaccine rollout
The Lancet
Preview | Full Text | PDF
Effect of women's groups and volunteer peer counselling on rates of mortality, morbidity, and health behaviours in mothers and children in rural Malawi (MaiMwana): a factorial, cluster-randomised controlled trial
Sonia Lewycka, Charles Mwansambo, Mikey Rosato, Peter Kazembe, Tambosi Phiri, Andrew Mganga, Hilda Chapota, Florida Malamba, Esther Kainja, Marie-Louise Newell, Giulia Greco, Anni-Maria Pulkki-Brännström, Jolene Skordis-Worrall, Stefania Vergnano, David Osrin, Anthony Costello
Summary
Background
Women's groups and health education by peer counsellors can improve the health of mothers and children. We assessed their effects on mortality and breastfeeding rates in rural Malawi.
Methods
We did a 2×2 factorial, cluster-randomised trial in 185 888 people in Mchinji district. 48 equal-sized clusters were randomly allocated to four groups with a computer-generated number sequence. 24 facilitators guided groups through a community action cycle to tackle maternal and child health problems. 72 trained volunteer peer counsellors made home visits at five timepoints during pregnancy and after birth to support breastfeeding and infant care. Primary outcomes for the women's group intervention were maternal, perinatal, neonatal, and infant mortality rates (MMR, PMR, NMR, and IMR, respectively); and for the peer counselling were IMR and exclusive breastfeeding (EBF) rates. Analysis was by intention to treat. The trial is registered as ISRCTN06477126.
Findings
We monitored outcomes of 26 262 births between 2005 and 2009. In a factorial model adjusted only for clustering and the volunteer peer counselling intervention, in women's group areas, for years 2 and 3, we noted non-significant decreases in NMR (odds ratio 0·93, 0·64—1·35) and MMR (0·54, 0·28—1·04). After adjustment for parity, socioeconomic quintile, and baseline measures, effects were larger for NMR (0·85, 0·59—1·22) and MMR (0·48, 0·26—0·91). Because of the interaction between the two interventions, a stratified analysis was done. For women's groups, in adjusted analyses, MMR fell by 74% (0·26, 0·10—0·70), and NMR by 41% (0·59, 0·40—0·86) in areas with no peer counsellors, but there was no effect in areas with counsellors (1·09, 0·40—2·98, and 1·38, 0·75—2·54). Factorial analysis for the peer counselling intervention for years 1—3 showed a fall in IMR of 18% (0·82, 0·67—1·00) and an improvement in EBF rates (2·42, 1·48—3·96). The results of the stratified, adjusted analysis showed a 36% reduction in IMR (0·64, 0·48—0·85) but no effect on EBF (1·18, 0·63—2·25) in areas without women's groups, and in areas with women's groups there was no effect on IMR (1·05, 0·82—1·36) and an increase in EBF (5·02, 2·67—9·44). The cost of women's groups was

US$114 per year of life lost (YLL) averted and that of peer counsellors was $33 per YLL averted, using stratified data from single intervention comparisons.

Interpretation

Community mobilisation through women's groups and volunteer peer counsellor health education are methods to improve maternal and child health outcomes in poor rural populations in Africa.

Funding

Saving Newborn Lives, UK Department for International Development, and Wellcome Trust.

http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2812%2961959-X/abstract

Women's groups practising participatory learning and action to improve maternal and newborn health in low-resource settings: a systematic review and meta-analysis

Audrey Prost, Tim Colbourn, Nadine Seward, Kishwar Azad, Arri Coomarasamy, Andrew Copas, Tanja A J Houweling, Edward Fottrell, Abdul Kuddus, Sonia Lewycka, Christine MacArthur, Dharma Manandhar, Joanna Morrison, Charles Mwansambo, Nirmala Nair, Bejoy Nambiar, David Osrin, Christina Pagel, Tambosi Phiri, Anni-Maria Pulkki-Brännström, Mikey Rosato, Jolene Skordis-Worrall, Naomi Saville, Neena Shah More, Bhim Shrestha, Prasanta Tripathy, Amie Wilson, Anthony Costello

Preview | Summary | Full Text | PDF

Moving beyond essential interventions for reduction of maternal mortality (the WHO Multicountry Survey on Maternal and Newborn Health): a cross-sectional study

João Paulo Souza, Ahmet Metin Gülmezoglu, Joshua Vogel, Guillermo Carroli, Pisake Lumbiganon, Zahida Qureshi, Maria José Costa, Bukola Fawole, Yvonne Mugerwa, Idi Nafiou, Isilda Neves, Jean-José Wolomby-Molondo, Hoang Thi Bang, Kannitha Cheang, Kang Chuyun, Kapila Jayaratne, Chandani Anoma Jayathilaka, Syeda Batool Mazhar, Rintaro Mori, Mir Lais Mustafa, Laxmi Raj Pathak, Deepthi Perera, Tung Rathavy, Zenaida Recidoro, Malabika Roy, Pang Ruyan, Naveen Shrestha, Surasak Taneepanichsku, Nguyen Viet Tien, Togoobaatar Ganchimeg, Mira Wehbe, Buyanjargal Yadamsuren, Wang Yan, Khalid Yunis, Vicente Bataglia, José Guilherme Cecatti, Bernardo Hernandez-Prado, Juan Manuel Nardin, Alberto Narváez, Eduardo Ortiz-Panozo, Ricardo Pérez-Cuevas, Eliette Valladares, Nelly Zavaleta, Anthony Armson, Caroline Crowther, Carol Hogue, Gunilla Lindmark, Suneeta Mittal, Robert Pattinson, Mary Ellen Stanton, Liana Campodonico, Cristina Cuesta, Daniel Giordano, Nirun Intarut, Malinee Laopaiboon, Rajiv Bahl, Jose Martines, Matthews Mathai, Mario Merialdi, Lale Say

Preview | Summary | Full Text | PDF

Trends in contraceptive need and use in developing countries in 2003, 2008, and 2012: an analysis of national surveys

Jacqueline E Darroch, Susheela Singh

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Effect of HIV infection on pregnancy-related mortality in sub-Saharan Africa: secondary analyses of pooled community-based data from the network for Analysing Longitudinal Population-based HIV/AIDS data on Africa (ALPHA)

Basia Zaba, Clara Calvert, Milly Marston, Raphael Isingo, Jessica Nakiyingi-Miiro, Tom Lutalo, Amelia Crampin, Laura Robertson, Kobus Herbst, Marie-Louise Newell, Jim Todd, Peter Byass, Ties Boerma, Carine Ronsmans

Preview | Summary | Full Text | PDF

Reproductive health priorities: evidence from a resource tracking analysis of official development assistance in 2009 and 2010

Justine Hsu, Peter Berman, Anne Mills

Preview | Summary | Full Text | PDF

The Lancet Infectious Diseases
May 2013 Volume 13 Number 5 p377 - 464
http://www.thelancet.com/journals/laninf/issue/current

Online First
Comment
May 13, 2013
Inoculating communities against vaccine scare stories
Natasha Sarah Crowcroft, Kwame Julius McKenzie
Preview
The biggest threat facing the success of immunisation might be public lack of confidence in vaccines, repeatedly undermined by safety concerns promulgated in social and news media.1 In The Lancet Infectious Diseases, Heidi Larson and colleagues' study examines how a typology of concerns can be applied within an established global surveillance system, HealthMap, to track and characterise vaccine news stories.2,3 The usefulness of systematically tracking online media stories was first established for disease surveillance through a Canadian project, the Global Public Health Information Network,4 followed by several other systems including HealthMap.

Online First
Articles
May 13, 2013
Measuring vaccine confidence: analysis of data obtained by a media surveillance system used to analyse public concerns about vaccines
Heidi J Larson, David MD Smith, Pauline Paterson, Melissa Cumming, Elisabeth Eckersberger, Clark C Freifeld, Isaac Ghinai, Caitlin Jarrett, Louisa Paushter, John S Brownstein, Lawrence C Madoff
Summary
Background
The intensity, spread, and effects of public opinion about vaccines are growing as new modes of communication speed up information sharing, contributing to vaccine hesitancy, refusals, and disease outbreaks. We aimed to develop a new application of existing surveillance systems to detect and characterise early signs of vaccine issues. We also aimed to develop a typology of concerns and a way to assess the priority of each concern.
Methods
Following preliminary research by The Vaccine Confidence Project, media reports (eg, online articles, blogs, government reports) were obtained using the HealthMap automated data collection system, adapted to monitor online reports about vaccines, vaccination programmes, and vaccine-preventable diseases. Any reports that did not meet the inclusion criteria—any reference to a human vaccine or vaccination campaign or programme that was accessible online—were removed from analysis. Reports were manually analysed for content and categorised by concerns, vaccine, disease, location, and source of report, and overall positive or negative sentiment towards vaccines. They were then given a priority level depending on the seriousness of the reported event and time of event occurrence. We used descriptive statistics to analyse the data collected during a period of 1 year, after refinements to the search terms and processes had been made.
Findings

We analysed data from 10 380 reports (from 144 countries) obtained between May 1, 2011, and April 30, 2012. 7171 (69%) contained positive or neutral content and 3209 (31%) contained negative content. Of the negative reports, 1977 (24%) were associated with impacts on vaccine programmes and disease outbreaks; 1726 (21%) with beliefs, awareness, and perceptions; 1371 (16%) with vaccine safety; and 1336 (16%) with vaccine delivery programmes. We were able to disaggregate the data by country and vaccine type, and monitor evolution of events over time and location in specific regions where vaccine concerns were high.
Interpretation
Real-time monitoring and analysis of vaccine concerns over time and location could help immunisation programmes to tailor more effective and timely strategies to address specific public concerns.
Funding
Bill & Melinda Gates Foundation.
http://www.thelancet.com/journals/laninf/article/PIIS1473-3099%2813%2970108-7/abstract

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Volume 497 Number 7449 pp287-402 16 May 2013
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Comment
Philanthropy: The difficult art of giving
William H. Schneider reflects on the centenary of the Rockefeller Foundation, which began the postdoc and the grant, and led to the World Health Organization.
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May 2013, Volume 19 No 5 pp507-651
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[Reviewed earlier; No relevant content]

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May 2013 Vol 13 No 5
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[Reviewed earlier; No relevant content]

New England Journal of Medicine
May 16, 2013 Vol. 368 No. 20
http://www.nejm.org/toc/nejm/medical-journal
Perspective
Government's Role in Protecting Health and Safety
Thomas R. Frieden, M.D., M.P.H.
N Engl J Med 2013; 368:1857-1859May 16, 2013DOI: 10.1056/NEJMp1303819

What is the appropriate role of governmental public health action? Law and public opinion recognize protection of health and safety as a core government function, but public health actions are sometimes characterized as inappropriately intrusive. Such criticism has a long history, but today we accept many public health measures that were once considered misguided, intrusive, or controversial. Public health initiatives include efforts to promote free and open information to facilitate informed decision making, protect individuals from being harmed by other individuals and groups, and facilitate societal action to promote and protect health (see tablePotential Public Health Actions of a Responsive Government.).

Free and open information empowers people to make informed choices and reduces the likelihood that misinformation or hidden information will endanger health. Laws may require disclosure of factual information (e.g., product content), provide for government transparency (freedom of information), or prevent dissemination of inaccurate or misleading information. Newer applications of this principle include calorie labeling in restaurants, which appears to encourage some companies to offer and some people to choose more healthful food options.1 The initial costs to restaurants to perform nutritional analyses and reprint menus and menu boards are the focus of most objections, but these costs may be counterbalanced by lower health care costs and increased productivity. Some people value the transparency that such laws require, regardless of the health effects.

Another example of the power of information is the graphic warnings on tobacco packages and antitobacco advertising to encourage smoking cessation.2 Pack warnings convey clear information about the health effects of tobacco use, creating a visual and visceral counter to the aggressive and often misleading information spread by tobacco companies, which have been convicted of deliberately deceiving the public about the health effects of tobacco. Antitobacco advertising helps counteract the industry's efforts to undermine science and its massive marketing expenditures. Opposition to such government efforts may have financial as well as philosophical or legal bases.

A second key role of government is to protect individuals from preventable harm caused by other individuals or groups. An individual's right to engage in particular conduct may affect others ("your right to swing your fist ends at my nose"). Government has a responsibility to protect individuals from unhealthy environments, whether the sources of health risks are natural (e.g., mosquito infestation) or created by people or organizations. Few Americans now

question government's role in preventing sales of contaminated food, water, and medications; reducing alcohol-impaired driving; or protecting workers and communities from industrial toxins.

For some issues, government may be the only entity capable of promoting the greater good by reconciling social and economic interests. Limiting promotion of tobacco and alcohol helps individuals by reducing consumption and benefits business by increasing workforce productivity and reducing health care costs. Although increased use of their products benefits tobacco and alcohol companies' employees and shareholders, other companies and society bear increased medical, economic, and social costs, as well as the illness and deaths caused by use of these products.

Opinions vary about whether a given behavior's risk to others is sufficient to warrant governmental action. But where there are clear ways to prevent substantial harms, government may have a responsibility to act. Smokefree laws illustrate the growing acceptance of actions that protect people from others' behavior. Such laws are often controversial when introduced, with opponents predicting reduced hospitality-industry profits and decrying infringement of personal freedoms, but they gain acceptance as people see their health benefits — and no economic harm to businesses. Smoke-free laws cost little to implement, improve health, reduce health care costs, increase productivity, save lives, and do not reduce overall business revenues or tax receipts.3 A large majority of the U.S. public now favors such laws.4

Newer examples of actions that prevent harm by others are the elimination of artificial trans fats from the food supply, which protects people against a contributor to cardiovascular disease, and ignition interlock devices in vehicles, which can protect the public from convicted drunk drivers.

A third key role of government is to protect and promote health through population-wide action. Governmental action is often a more effective and efficient means of protecting public health than the actions of individuals. Immunization mandates, fluoridation of water, iodization of salt, and micronutrient fortification of flour are all classic examples of this type of action; many were controversial initially but are widely accepted today because they save money and reduce illness, disability, and death.

More recent and controversial examples of societal action include zoning laws that require or provide incentives to create bicycling and walking paths or that reduce the neighborhood density of liquor stores. These actions serve entire communities, and individuals cannot feasibly implement them on their own — characteristics that also apply to efforts to reduce sodium in processed and restaurant foods. Objections to such actions usually focus on their costs, effectiveness, or importance, but the appropriate role of government and the relative costs and benefits are also debated. Controversy can be reduced by providing data documenting the health burden and building consensus about the problem and the action's efficacy. Government action need not consist solely of mandates: micronutrient fortification of food has often been accomplished through voluntary industry actions coordinated through public–private partnerships.

The most controversial public health actions seek to regulate the behavior of adults in such a way as to improve their own health. Public health agencies operate on the belief that government has a valid interest in a healthier populace, but many argue that people have the right to knowingly make decisions that may result in harm to their health. Taxing, decreasing access to, or limiting portion sizes of sugar-sweetened beverages is one example of recent controversial proposals of this type. Seatbelt and motorcycle-helmet laws exemplify the balancing act between health benefits and individual rights: these laws have financial costs for enforcement and the purchase of helmets and perceived societal costs in loss of personal freedom, but they prevent traffic injuries and deaths and reduce societal costs, including health

care costs and lost productivity. Such measures may be best enacted at the local or state level, where government's proper role can be debated; deliberations will be fairest if there are no major vested financial interests, as is generally the case with helmet laws.

Beyond the societal costs in health care and lost productivity, actions to protect health are supported by the recognition that although many people express remorse over past behavior, we tend to assign limited weight to future events or conditions — a pattern behavioral economists call "hyperbolic discounting." Action by democratically elected leaders may therefore be needed to protect public health over the long term.

Opponents of specific public health actions may believe that the health burden is low, the intervention is too costly or is likely to be ineffective, and that therefore the expected benefits don't warrant the costs. The costs cited may include financial costs to government, industry, and the economy and to individuals who might not benefit personally. There may also be philosophical objections, such as perceived loss of personal autonomy or the belief that these actions will undermine self-reliance or individual choice. Some opponents fear a slippery slope toward "sabotaging our rights on all fronts."5

The potential benefits of public health action include economic, health care, and productivity gains, as well as the intrinsic benefit of longer, healthier lives. The dissemination of accurate information on costs and benefits may be the best way to reduce opposition and implement effective public health actions. When government fails to protect and improve people's health, society suffers. Opponents of public health action often fail to acknowledge the degree to which individual actions are influenced by marketing, promotion, and other external factors. They also may underestimate the health costs of inaction and overestimate the financial or other costs of action. For-profit corporations have a fiduciary responsibility to increase return on investment; some (e.g., tobacco companies) have incentives to oppose actions that may harm their business, even if these actions would promote overall economic development and benefit other businesses. And in some cases, current judicial philosophies may limit possibilities for public health action in the United States.

Government has a responsibility to implement effective public health measures that increase the information available to the public and decision makers, protect people from harm, promote health, and create environments that support healthy behaviors. The health, financial, and productivity gains from public health actions benefit individuals and society as a whole.
http://www.nejm.org/doi/full/10.1056/NEJMp1303819

Perspective

Global Concerns Regarding Novel Influenza A (H7N9) Virus Infections

Timothy M. Uyeki, M.D., M.P.H., M.P.P., and Nancy J. Cox, Ph.D.

N Engl J Med 2013; 368:1862-1864May 16, 2013DOI: 10.1056/NEJMp1304661

Severe disease in humans caused by a novel influenza A virus that is distinct from circulating human influenza A viruses is a seminal event. It might herald sporadic human infections from an animal source — e.g., highly pathogenic avian influenza (HPAI) A (H5N1) virus; or it might signal the start of an influenza pandemic — e.g., influenza A(H1N1)pdm09 virus. Therefore, the discovery of novel influenza A (H7N9) virus infections in three critically ill patients reported in the Journal by Gao and colleagues (pages 1888–1897) is of major public health significance. Chinese scientists are to be congratulated for the apparent speed with which the H7N9 virus was identified, and whole viral genome sequences were made publicly available in relatively short order. Because this H7N9 virus has not been detected in humans or animals previously, the situation raises many urgent questions and global public health concerns.

The key question for pandemic risk assessment is whether there is evidence of either limited or, more important, sustained human-to-human transmission — the latter being indicative of an

emerging pandemic. If human-to-human transmission occurs, transmission dynamics, modes of transmission, basic reproductive number, and incubation period must all be determined. It is possible that these severely ill patients represent the tip of the iceberg and that there are many more as-yet-undetected mild and asymptomatic infections. Determining the spectrum of illness will help us understand the scope of the problem and assess severity. Enhanced surveillance for H7N9 virus infection is therefore urgently needed among hospitalized patients and outpatients of all ages with less severe respiratory illness. Other useful information can be derived from monitoring close contacts of patients with confirmed H7N9 cases to assess whether family members or health care personnel who provided care for patients with H7N9 virus infection have respiratory illness and laboratory-confirmed H7N9 virus infection. Such investigations will clarify whether H7N9 virus transmission in people appears efficient, or whether limited, nonsustained human-to-human transmission is occurring in persons with prolonged unprotected exposures, such as in clusters of HPAI H5N1 cases in blood-related family members. So far, the information provided by Chinese health officials provides reassurance that sustained human-to-human transmission is not occurring.

In addition to causing severe illness and deaths, the novel H7N9 viruses reported by Gao and colleagues have genetic characteristics that are of concern for public health. The hemagglutinin (HA) sequence data suggest that these H7N9 viruses are a low-pathogenic avian influenza A virus and that infection of wild birds and domestic poultry would therefore result in asymptomatic or mild avian disease, potentially leading to a "silent" widespread epizootic in China and neighboring countries. If H7N9 virus infection is primarily zoonotic, as reports currently suggest, transmission is expected to occur through exposure to clinically normal but infected poultry, in contrast to HPAI H5N1 virus infection, which typically causes rapid death in infected chickens.

The gene sequences also indicate that these viruses may be better adapted than other avian influenza viruses to infecting mammals. For example, the presence of Q226L in the HA protein has been associated with reduced binding to avian-like receptors bearing sialic acids linked to galactose by α-2,3 linkages found in the human lower respiratory tract,1 and potentially an enhanced ability to bind to mammalian-like receptors bearing sialic acids linked to galactose by α-2,6 linkages located in the human upper airway.1 Equally troubling is that Q226L in HA has been shown to be associated with transmission of HPAI H5N1 viruses by respiratory droplets in ferrets, one of the animal models for assessing pathogenicity and transmissibility of influenza viruses.2,3 These H7N9 viruses also possess the E627K substitution in the PB2 protein, which has also been associated with mammalian adaptation and respiratory-droplet transmission of HPAI H5N1 virus in ferrets.3 This H7N9 virus is a novel reassortant with HA and neuraminidase (NA) genes from an ancestral avian H7N9 virus and the six other genes from an avian H9N2 virus. The animal reservoir now appears to be birds, but many experts are asking whether these viruses might also be able to infect pigs, another common reservoir for zoonotic infections. The viral sequence data indicate antiviral resistance to the adamantanes and susceptibility to neuraminidase inhibitors, except for an R292K mutation in the NA protein of the A/Shanghai/1/2013 virus. Because this mutation has been associated with in vitro resistance to neuraminidase inhibitors in another N9 NA subtype virus, additional analyses must be undertaken to understand its significance. It is not known whether this mutation arose de novo in the host or is associated with oseltamivir treatment. Ongoing surveillance is crucial to assessing the emergence and prevalence of H7N9 viruses resistant to available antivirals.

Since available diagnostic assays used in clinical care (e.g., rapid influenza diagnostic tests) may lack sensitivity to identify H7N9 virus and since existing molecular assays will identify H7N9 virus as a nonsubtypeable influenza A virus, a critical public health issue is the rapid

development, validation, and deployment of molecular diagnostic assays that can specifically detect H7N9 viral RNA. Such assays have been developed in China and are in development in many countries including the United States, and they will be deployed as they were for the 2009 H1N1 pandemic.4 Having available H7-specific assays will facilitate surveillance of H7N9 virus infections and help address key questions such as the duration of viral shedding, the infectious period, the optimal clinical specimens for laboratory confirmation, and the spectrum of clinical illness.

The clinical features described in the three patients with H7N9 virus infection, including fulminant pneumonia, respiratory failure, acute respiratory distress syndrome (ARDS), septic shock, multiorgan failure, rhabdomyolysis, and encephalopathy, are very troubling. Clinical care of severely ill patients should be focused on evidence-based supportive management of complications such as ARDS. Adherence to recommended infection-control measures in clinical settings to reduce the risk of nosocomial transmission cannot be overemphasized.

All three patients with H7N9 virus infection reported by Gao and colleagues received late treatment with oseltamivir starting on day 7 or 8 of illness while critically ill. Data related to human infections with seasonal, pandemic, and HPAI H5N1 viruses indicate that the earlier antiviral treatment is initiated, the greater the clinical benefit. Therefore, oral oseltamivir or inhaled zanamivir should be administered to patients with suspected or confirmed H7N9 virus infection as soon as possible. Secondary invasive bacterial infections associated with influenza can cause severe and fatal complications, and appropriate empirical antibiotic treatment for community-acquired bacterial infections may be indicated for initial management of severe H7N9 pneumonia. Caution should be exercised regarding the use of glucocorticoids, which are not indicated for routine treatment of influenza. Clinical research, including randomized, controlled trials and observational studies, is urgently needed on new antiviral agents, including parenteral neuraminidase inhibitors and drugs with different mechanisms of action, combination antiviral treatment, and immunotherapy. To inform clinical management, rapid clinical data collection, data sharing, analysis, and timely feedback are needed worldwide.5

Because H7N9 virus infections have not occurred in humans before, it is expected that persons of all ages might be susceptible worldwide. Serologic assays must be developed so that studies can be conducted to determine whether some people have cross-reactive antibodies to these viruses from prior influenza A virus infections. Existing H7-vaccine viruses are not well matched to this novel H7N9 virus, and extensive efforts are under way to develop potential H7N9 vaccines as quickly as possible. These efforts have started worldwide using the H7N9 sequence data obtained from these early cases, and sharing of H7N9 viruses will further facilitate vaccine development. There are many challenges to making H7N9 vaccines available. Previously studied H7 vaccines were poorly immunogenic in humans, and clinical trials to assess the safety and immunogenicity of H7N9 vaccine candidates will be needed. But even if new vaccine manufacturing technologies, such as tissue-cell-culture–derived vaccine antigens, are utilized, the process from vaccine development to availability will probably take many months.

The 2009 H1N1 pandemic taught us many lessons, including that a pandemic virus can emerge from an animal reservoir in an unexpected location and be spread rapidly through air travel. The focus on critically ill adults early in the pandemic led to elevated public concern about pandemic severity. Clear communication of key messages to the public and the clinical community is critical in implementing successful prevention and control activities. The detection of human H7N9 virus infections is yet another reminder that we must continue to prepare for the next influenza pandemic. The coming weeks will reveal whether the epidemiology reflects only a widespread zoonosis, whether an H7N9 pandemic is beginning, or something in between.

The key is intensified surveillance for H7N9 virus in humans and animals to help answer important questions. We cannot rest our guard.
http://www.nejm.org/doi/full/10.1056/NEJMp1304661
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[Accessed 18 May 2013]
http://www.plosone.org/

Risk Perception, Preventive Behaviors, and Vaccination Coverage in the Korean Population during the 2009–2010 Pandemic Influenza A (H1N1): Comparison between High-Risk Group and Non–High-Risk Group

Jung Yeon Heo, Soung Hoon Chang, Min Jung Go, Young Mee Kim, Sun Hye Gu, Byung Chul Chun Research Article | published 17 May 2013 | PLOS ONE 10.1371/journal.pone.0064230

Abstract

Background

This study was carried out to estimate the vaccination coverage, public perception, and preventive behaviors against pandemic influenza A (H1N1) and to understand the motivation and barriers to vaccination between high-risk and non–high-risk groups during the outbreak of pandemic influenza A (H1N1).

Methodology/Principal Findings

A cross-sectional nationwide telephone survey of 1,650 community-dwelling Korean adults aged 19 years and older was conducted in the later stage of the 2009–2010 pandemic influenza A (H1N1) outbreak. The questionnaire identified the demographics, vaccination status of participants and all household members, barriers to non-vaccination, perceived threat, and preventive behaviors. In Korea, the overall rate of pandemic influenza vaccination coverage in the surveyed population was 15.5%; vaccination coverage in the high-risk group and non–high-risk group was 47.3% and 8.0%, respectively. In the high-risk group, the most important triggering event for vaccination was receiving a notice from a public health organization. In the non–high-risk group, vaccination was more strongly influenced by previous experience with influenza or mass media campaigns. In both groups, the most common reasons for not receiving vaccination was that their health was sufficient to forgo the vaccination, and lack of time. There was no significant difference in how either group perceived the threat or adopted preventive behavior. The predictive factors for pandemic influenza vaccination were being elderly (age ≥65 years), prior seasonal influenza vaccination, and chronic medical disease.

Conclusions/Significance

With the exception of vaccination coverage, the preventive behaviors of the high-risk group were not different from those of the non–high-risk group during the 2009–2010 pandemic. For future pandemic preparedness planning, it is crucial to reinforce preventive behaviors to avoid illness before vaccination and to increase vaccination coverage in the high-risk group.

PLoS Medicine

(Accessed 18 May 2013)

http://www.plosmedicine.org/

Setting Research Priorities to Reduce Mortality and Morbidity of Childhood Diarrhoeal Disease in the Next 15 Years

Kerri Wazny, Alvin Zipursky, Robert Black, Valerie Curtis, Christopher Duggan, Richard Guerrant, Myron Levine, William A. Petri Jr, Mathuram Santosham, Rebecca Scharf, Philip M. Sherman, Evan Simpson, Mark Young, Zulfiqar A. Bhutta

Summary Points

This paper aims to identify research priorities, using the Child Health and Nutrition Research Initiative's (CHNRI's) method, for global childhood diarrhoeal disease over the next 15 years.

Ten teams were established, and over 150 experts participated on one or more teams, generating and scoring 466 research questions.

Research questions involving improving implementation, especially through behaviour change and other delivery strategies ranked highly; oral rehydration and zinc were also seen as

priorities, as research questions asking to identify driving factors of caregiver demand for oral rehydration solution (ORS) and zinc and development of an ORS formulation that reduces stool output were ranked highly.

Despite a range of discovery-related research topics, implementation research questions related to known interventions for childhood diarrhoeal diseases were ranked highly by most experts.

In tandem with the Global Action Plan for Pneumonia and Diarrhoea, concerted efforts by a range of stakeholders in implementation research will be needed to equitably scale up already proven, effective interventions.
http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001446

PLoS Neglected Tropical Diseases
April 2013
http://www.plosntds.org/article/browseIssue.action
[No new relevant content]

PNAS - Proceedings of the National Academy of Sciences of the United States of America
(Accessed 18 May 2013)
http://www.pnas.org/content/early/recent
Retrospective: Hilary Koprowski (1916–2013): Vaccine pioneer, art lover, and scientific leader
Carlo M. Croce
PNAS 2013 ; published ahead of print May 17, 2013, doi:10.1073/pnas.1307665110
http://www.pnas.org/content/early/2013/05/16/1307665110.full.pdf+html

Public Health Ethics
Volume 6 Issue 1 April 2013
http://phe.oxfordjournals.org/content/current
[Reviewed earlier]

Qualitative Health Research
July 2013; 23 (7)
http://qhr.sagepub.com/content/current
[No relevant content]

Risk Analysis
May 2013 Volume 33, Issue 5 Pages 751–944
http://onlinelibrary.wiley.com/doi/10.1111/risa.2013.33.issue-5/issuetoc
[Reviewed earlier; No relevant content]

Science

17 May 2013 vol 340, issue 6134, pages 777-892
http://www.sciencemag.org/current.dtl
[No relevant content]

Science Translational Medicine
15 May 2013 vol 5, issue 185
http://stm.sciencemag.org/content/current
Perspective
Aging
The Gracefully Aging Immune System
Diana Boraschi, M. Teresa Aguado, Catherine Dutel, Jörg Goronzy, Jacques Louis, Beatrix Grubeck-Loebenstein, Rino Rappuoli and Giuseppe Del Giudice
Abstract
Prolonged life expectancy in the 20th century has been one of humankind's greatest triumphs. However, the substantial increase in the human life span has ushered in a new concern: healthy aging. Because infectious diseases prominently contribute to morbidity in the particularly vulnerable elderly population, strategies for preventing these diseases would have a clear impact on improving healthy aging. Thus, vaccines and immunization strategies tailored for the elderly population are needed, and vaccines should be developed to take into consideration the peculiar age-induced variations of immune responsiveness. The conference "Ageing and Immunity" recently held in Siena, Italy, has reviewed and discussed several possible causes of immune senescence, as well as strategies for counteracting this waning of immune responsiveness and for restoring immunocompetence. In addition, examples of diseases that should be targeted by vaccination in the senior population were considered.
http://stm.sciencemag.org/content/5/185/185ps8.abstract
Vaccines
Synthetic Generation of Influenza Vaccine Viruses for Rapid Response to Pandemics
Philip R. Dormitzer, Pirada Suphaphiphat, Daniel G. Gibson, David E. Wentworth, Timothy B. Stockwell, Mikkel A. Algire, Nina Alperovich, Mario Barro, David M. Brown, Stewart Craig, Brian M. Dattilo, Evgeniya A. Denisova, Ivna De Souza, Markus Eickmann, Vivien G. Dugan, Annette Ferrari, Raul C. Gomila, Liqun Han, Casey Judge, Sarthak Mane, Mikhail Matrosovich, Chuck Merryman, Giuseppe Palladino, Gene A. Palmer, Terika Spencer, Thomas Strecker, Heidi Trusheim, Jennifer Uhlendorff, Yingxia Wen, Anthony C. Yee, Jayshree Zaveri, Bin Zhou, Stephan Becker, Armen Donabedian, Peter W. Mason, John I. Glass, Rino Rappuoli, and J. Craig Venter
15 May 2013: 185ra68
Abstract
During the 2009 H1N1 influenza pandemic, vaccines for the virus became available in large quantities only after human infections peaked. To accelerate vaccine availability for future pandemics, we developed a synthetic approach that very rapidly generated vaccine viruses from sequence data. Beginning with hemagglutinin (HA) and neuraminidase (NA) gene sequences, we combined an enzymatic, cell-free gene assembly technique with enzymatic error correction to allow rapid, accurate gene synthesis. We then used these synthetic HA and NA genes to transfect Madin-Darby canine kidney (MDCK) cells that were qualified for vaccine manufacture with viral RNA expression constructs encoding HA and NA and plasmid DNAs encoding viral backbone genes. Viruses for use in vaccines were rescued from these MDCK cells. We performed this rescue with improved vaccine virus backbones, increasing the yield of the

essential vaccine antigen, HA. Generation of synthetic vaccine seeds, together with more efficient vaccine release assays, would accelerate responses to influenza pandemics through a system of instantaneous electronic data exchange followed by real-time, geographically dispersed vaccine production.
http://stm.sciencemag.org/content/5/185/185ra68.abstract

Social Science & Medicine
Volume 85, Pages 1-112 (May 2013)
http://www.sciencedirect.com/science/journal/02779536/85
[No relevant content]

Vaccine
Volume 31, Issue 21, Pages 2481-2538 (17 May 2013)
http://www.sciencedirect.com/science/journal/0264410X
Theme: Human Immune Response to Vaccines in the First Year of Life
Edited by Professor Willem Hanekom, Assist.Prof.Tobias R. Kollmann and Assist.Prof.Ofer Levy
Vaccine-induced immunity in early life
Pages 2481-2482
Tobias R. Kollmann, Ofer Levy, Willem Hanekom
Human immune responses to vaccines in the first year of life: Biological, socio-economic and ethical issues – A viewpoint
Review Article
Pages 2483-2488
M.O.C. Ota, O.T. Idoko, E.O. Ogundare, M.O. Afolabi
Abstract
Human newborns are vulnerable to infectious diseases that account for majority of the morbidity and mortality, particularly in first year of life. Vaccines have become the most effective public health intervention strategy to curtail the prevalence of these infectious diseases. Although vaccines against a number of diseases exist, there are no vaccines against many other diseases that commonly affect children. The adequate assessment of immune responses to vaccines is an important step in the development of vaccines. However, a number of biological and "non-medical" socio-economic and ethical factors could influence either the administration and/or evaluation of vaccines in infants. Recognition and understanding of these determinants are crucial in planning interventions and for logical interpretations of results.
Oral and inactivated poliovirus vaccines in the newborn: A review
Review Article
Pages 2517-2524
Farrah J. Mateen, Russell T. Shinohara, Roland W. Sutter
Abstract
Background
Oral poliovirus vaccine (OPV) remains the vaccine-of-choice for routine immunization and supplemental immunization activities (SIAs) to eradicate poliomyelitis globally. Recent data from India suggested lower than expected immunogenicity of an OPV birth dose, prompting a review of the immunogenicity of OPV or inactivated poliovirus vaccine (IPV) when administered at birth.
Methods

We evaluated the seroconversion and reported adverse events among infants given a single birth dose (given ≤7 days of life) of OPV or IPV through a systematic review of published articles and conference abstracts from 1959 to 2011 in any language found on PubMed, Google Scholar, or reference lists of selected articles.
Results
25 articles from 13 countries published between 1959 and 2011 documented seroconversion rates in newborns following an OPV dose given within the first seven days of life. There were 10 studies that measured seroconversion rates between 4 and 8 weeks of a single birth dose of TOPV, using an umbilical cord blood draw at the time of birth to establish baseline antibody levels. The percentage of newborns who seroconverted at 8 weeks range from 6–42% for poliovirus type 1, 2–63% for type 2, and 1–35% for type 3. For mOPV type 1, seroconversion ranged from 10 to 76%; mOPV type 3, the range was 12–58%; and for the one study reporting bOPV, it was 20% for type 1 and 7% for type 3. There were four studies of IPV in newborns with a seroconversion rate of 8–100% for serotype 1, 15–100% for serotype 2, and 15–94% for serotype 3, measured at 4–6 weeks of life. No serious adverse events related to newborn OPV or IPV dosing were reported, including no cases of acute flaccid paralysis.
Conclusions
There is great variability of the immunogenicity of a birth dose of OPV for reasons largely unknown. Our review confirms the utility of a birth dose of OPV, particularly in countries where early induction of polio immunity is imperative. IPV has higher seroconversion rates in newborns and may be a superior choice in countries which can afford IPV, but there have been few studies of an IPV dose for newborns.

Immunization of newborns with bacterial conjugate vaccines
Review Article
Pages 2525-2530
Anita H.J. van den Biggelaar, William S. Pomat
Abstract
Bacterial conjugate vaccines are based on the principle of coupling immunogenic bacterial capsular polysaccharides to a carrier protein to facilitate the induction of memory T-cell responses. Following the success of Haemophilus influenzae type b conjugate vaccines in the 1980s, conjugate vaccines for Streptococcus pneumoniae and Neisseria meningitidis infections were developed and proven to be effective in protecting children against invasive disease. In this review, the use of conjugate vaccines in human newborns is discussed. Neonatal Haemophilus influenzae type b and pneumococcal conjugate vaccination schedules have been trialed and proven to be safe, with the majority of studies demonstrating no evidence for the induction of immune tolerance. Whether their neonatal administration also results in an earlier induction of clinical protection in the first 2–3 critical months of life is still to be demonstrated.

Vaccine: Development and Therapy
(Accessed 18 May 2013)
http://www.dovepress.com/vaccine-development-and-therapy-journal
[No new relevant content]

Value in Health
Vol 16 | No. 3 | May 2013

http://www.valueinhealthjournal.com/current
[Reviewed earlier]

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

... of Safety Signals in the Vaccine Adverse Event Reporting System (VAERS): A Case Study of Febrile Seizures after a 2010-2011 Seasonal Influenza Virus Vaccine.
D Martin, D Menschik, M Bryant-Genevier, R Ball - Drug safety: an international …, 2013
BACKGROUND: Reports of data mining results as an initial indication of a prospectively detected safety signal in the US Vaccine Adverse Event Reporting System (VAERS) have been limited. In April 2010 a vaccine safety signal for febrile seizures after Fluvax (Â®) ...

Immunogenicity and Safety of the Human Papillomavirus-6,-11,-16,-18 Vaccine in HIV-Infected Young Women
JA Kahn, J Xu, BG Kapogiannis, B Rudy, R Gonin… - Clinical Infectious Diseases, 2013
Background. The objective of this study was to determine whether the 3-dose quadrivalent (HPV-6,-11,-16,-18) HPV vaccine series is immunogenic and safe in HIV-infected young women. Methods. We enrolled 99 16-to 23-year-old women in a phase II, open-label, multi ...

[PDF] **Evaluating primary healthcare service revitalization interventions though a knowledge, practice and coverage survey in earthquake-affected areas in Pakistan**
RU Zaman, T Zulfiqar, R Nazir, S Allen, I Cheema… - Journal of Public Health, 2013
... A child was considered fully vaccinated if she/he received one dose of bacille calmette Guerin (BCG) vaccine against tuberculosis, three doses of diphtheria, pertussis, tetanus (DPT) for diphtheria, pertussis and tetanus, three doses of oral polio vaccine (OPV) for polio, and one ...

[PDF] **Determinants of suboptimal hepatitis B vaccine uptake among men in the Republic of Korea: where should our efforts be focused: results from cross-sectional study**
B Park, KS Choi, HY Lee, MS Kwak, JK Jun, EC Park - BMC Infectious Diseases, 2013
Background Liver cancer is the second most-frequent cause of cancer death in Korea. Hepatitis B virus (HBV) infection is a major cause of liver cancer, and this disease is effectively prevented by HBV vaccination. This study was conducted to investigate factors ...

Media/Policy Watch

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

We acknowledge the Western/Northern bias in this initial selection of titles and invite suggestions for expanded coverage. We are conservative in our outlook of adding news sources which largely report on primary content we are already covering above. Many electronic media

sources have tiered, fee-based subscription models for access. We will provide full-text where content is published without restriction, but most publications require registration and some subscription level.

Al Jazeera
http://www.aljazeera.com/Services/Search/?q=vaccine
Accessed 18 May 2013
[No new, unique, relevant content]

The Atlantic
http://www.theatlantic.com/magazine/
Accessed 18 May 2013
[No new, unique, relevant content]

BBC
http://www.bbc.co.uk/
Accessed 18 May 2013
[No new, unique, relevant content]

Brookings
http://www.brookings.edu/
Accessed 18 May 2013
[No new, unique, relevant content]

Economist
http://www.economist.com/
Accessed 18 May 2013
Flu vaccines and synthetic biology - Going viral
A speedy way to make a vaccine
May 18th 2013 |From the print edition

IF a new and deadly strain of influenza were to arise, putting together a vaccine against it in the least possible time would be a priority. To test how quickly that could be done a group of researchers have just had a race with themselves. They have not quite matched the show sometimes given by workers at the Venetian arsenal, who would assemble a galley in a single day in order to overawe visiting foreign dignitaries. But Philip Dormitzer, Craig Venter and their colleagues did create the crucial component of a flu jab in four days and four hours.

Dr Dormitzer, who works for Novartis, a drug company, and Dr Venter, eponymous founder of the J. Craig Venter Institute in San Diego, reported their record-breaking attempt in this week's Science Translational Medicine. It began with the transmission to them from America's Biomedical Advanced Research and Development Authority of the sequence data for the haemagglutinin and neuraminidase genes of a (to them) unknown flu virus.

The team took this information and used it to make DNA that contained both the gene sequences themselves and the genetic apparatus needed to let a cell read those sequences and produce proteins from them. They then put these pieces of synthetic DNA—which were, in effect, tiny chromosomes—into cell cultures derived from dog kidneys, which have been found particularly effective for this kind of work.

The dog-kidney cells duly churned out viruses, suitable for seeding the process of vaccine manufacture, that contained the proteins in question. Since these two proteins are the variable

elements that stop new strains of flu being recognised by the immune systems of people who have had influenza in the past, this is an important step forward. Experiments on ferrets (which are often used as stand-ins for people in tests of flu vaccines) showed that these seed viruses stimulated the animals' immune systems in the desired way, producing protective immunity.

Having a seed is not the same thing as being able to make a vaccine in large quantities. But it is an important first step. Novartis, in collaboration with the commercial arm of Dr Venter's enterprise, Synthetic Genomics, hopes to create a bank of seed viruses using this method. That will speed matters up even more. But the fact that something not actually in the bank could be knocked up at short notice if necessary is comforting.
http://www.economist.com/news/science-and-technology/21578026-speedy-way-make-vaccine-going-viral

Financial Times
http://www.ft.com
Accessed 18 May 2013
[No new, unique, relevant content]

Forbes
http://www.forbes.com/
Accessed 18 May 2013
[No new, unique, relevant content]

Foreign Affairs
http://www.foreignaffairs.com/
Accessed 18 May 2013
[No new, unique, relevant content]

Foreign Policy
http://www.foreignpolicy.com/
Accessed 18 May 2013
[No new, unique, relevant content]

The Guardian
http://www.guardiannews.com/
Accessed 18 May 2013
[No new, unique, relevant content]

The Hindu – Business Line
http://www.thehindubusinessline.com/
After $1 diarrhoea vaccine, Govt wants same for malaria, TB
A. M. Jigeesh
Partnership with industry helps pool research abilities, expertise
New Delhi, May 16:
Excerpt

Buoyed by the success of the public Private partnership experiment in developing the first indigenous rotavirus vaccine to combat a deadly form of viral diarrhoea, the Department of Biotechnology will now shift its focus to researching vaccines for dengue, tuberculosis and malaria.

Maintaining that affordability is the Government's main mantra, the Department is ready to co-operate with the pharmaceutical industry to make vaccines that prevent killer diseases.

Dr T.S. Rao, who heads the vaccines and diagnostics section of the Department, told Business Line that an inter-ministerial group has been formed to help the Rotavac, the one-dollar rotavirus vaccine, to get the necessary policy clearances…

Full story:
http://www.thehindubusinessline.com/companies/after-1-diarrhoea-vaccine-govt-wants-same-for-malaria-tb/article4721390.ece

The Huffington Post
http://www.huffingtonpost.com/
Accessed 18 May 2013
[No new, unique, relevant content]

Le Monde
http://www.lemonde.fr/
Accessed 18 May 2013
[No new, unique, relevant content]

New Yorker
http://www.newyorker.com/
Accessed 18 May 2013
[No new, unique, relevant content]

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

Reuters
http://www.reuters.com/
Accessed 18 May 2013
[No new, unique, relevant content]

Wall Street Journal
http://online.wsj.com/home-page
[No new, unique, relevant content]

Washington Post
http://www.washingtonpost.com/
Accessed 18 May 2013
Interview
Bill Gates: 'Death is something we really understand extremely well'
By Ezra Klein, Published: May 17, 2013
"I always use this chart of childhood death," Bill Gates says. "In 1960, 25% of kids died before the age of 5. And now we're down below 6% of kids dying before the age of 5."

We're sitting in a bare conference room at his foundation's D.C. headquarters. Gates — who Bloomberg News calculates is once again the world's richest man — is in town to talk to members of Congress about his top priority this year: Global health – and, in particular, the

total eradication of polio. He wants to drive that 6 percent even lower, and he believes he can. Wiping out a disease like polio sounds impossible. But it's actually, Gates tells me, completely achievable. Perhaps even by the end of 2013. This is a transcript of our conversation, edited for length and clarity.
http://www.washingtonpost.com/blogs/wonkblog/wp/2013/05/17/bill-gates-death-is-something-we-really-understand-extremely-well/

* * * *

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

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