Center for Vaccine Ethics and Policy
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# Vaccines and Global Health: The Week in Review
**24 May 2014**
**Center for Vaccine Ethics & Policy (CVEP)**

*This weekly summary targets news, events, announcements, articles and research in the vaccine and global health 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.*

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## WHO: Sixty-seventh World Health Assembly [WHA]

*[Editor's Note: The Sixty-seventh World Health Assembly concluded today, Saturday, 24 May. Closing remarks by DG Margaret Chan are included below followed by news releases issued during the WHA. Key interviews, video, the WHA Journal and all documentation available here: http://www.who.int/mediacentre/events/2014/wha67/en/. The Week in Review will summarize key WHA developments in next week's issue]*

### Closing remarks at the Sixty-seventh World Health Assembly

Dr Margaret Chan, Director-General of the World Health Organization
24 May 2014 Geneva, Switzerland
*[Full text, Editor's text bolding]*

Mister President, Excellences, honourable ministers, distinguished delegates, ladies and gentlemen,

This has been an intense Assembly, with a record-breaking number of agenda items, documents, and resolutions, and nearly 3,500 registered delegates. This is a reflection of the growing number and complexity of health issues, and your deep interest in addressing them.

Delegates journeyed from different parts of the world to Geneva eager to share their experiences, ideas, concerns, and specific needs for WHO support. Doing so takes time, and we did not have enough time.

Thanks to your President, with his commitment and constant engagement, the skills of the committee chairs, and your own discipline, you were able to complete an especially heavy

agenda. I congratulate all concerned, including our Regional Directors, the Deputy Director-General, and WHO staff, especially our all-night backroom staff. I also thank the interpreters.

**This Assembly was big in a second sense. From the very first day, it was clear that Member States are deeply concerned about two big trends with major consequences for health: climate change and the rise of antimicrobial resistance.**

For antimicrobial resistance, you have given WHO some important work to do in leading the response. As the Intergovernmental Panel on Climate Change concluded, strengthening basic health services and extending their coverage is an essential route to resilience. This is precisely what we are doing. Your deliberations during this session have taken us some steps forward. You had some other deep concerns. You are worried about the costs of new vaccines and medicines. Many of you described these costs, especially for hepatitis C medicines, as "astronomical". **You are worried about the anti-vaccine movement and the impact this has on the demand for vaccines, but also on social perceptions of autism spectrum disorders.**

You have brought these problems to our attention, and you have asked us to take action. We will do so.

You want to do everything possible to protect the integrity of this Organization from undue influence and conflicts of interest. You looked long and hard at the most appropriate arrangements for securing this protection. These issues will be taken forward by the Regional Committees, which offer one of the most inclusive ways to engage further discussion.

You are deeply concerned about the rise of noncommunicable diseases, the challenges of early detection, and the crippling costs of long-term care. You are determined to do more for prevention.

**You are likewise concerned about some striking changes in the communicable disease situation, notably the setback for polio eradication and the continuing surge in the number of MERS cases. For polio, I thank you for the tremendous spirit of solidarity and determination demonstrated during discussion of this item.**

For MERS, cases now clearly involve transmission within hospital settings, and are spreading beyond the Eastern Mediterranean Region. The very limited onward transmission following imported cases is a good sign of high levels of vigilance and preparedness.

Given these concerns, it comes as no surprise that you want health to have a prominent and correctly positioned place in the post-2015 development agenda.

Finally, you have asked WHO to do much more, but you have also demonstrated the good use of existing WHO instruments for practical support to countries, from the WHO Framework Convention on Tobacco Control, the International Health Regulations, and the Model Lists of Essential Medicines, right down to the designation of Baby-Friendly Hospitals as a way to boost exclusive breastfeeding.

As I conclude, let me wish all of you a safe journey home as we continue to work together to lift the standards of health care around the world.

Thank you.

***67th WHA News Releases:***

:: World Health Assembly progress on noncommunicable diseases and traditional medicine 23 May 2014

:: World Health Assembly approves resolution on hepatitis and mechanism to coordinate noncommunicable disease response 22 May 2014

:: World Health Assembly approves monitoring framework for maternal and child nutrition 21 May 2014

:: World Health Assembly guest speakers focus on gender-based violence and newborn health 20 May 2014
:: World Health Assembly opens: Director-General announces new initiative to end childhood obesity 19 May 2014
:: Sixty-seventh World Health Assembly opens in Geneva 18 May 2014

**GAVI Watch** [to 24 May 2014]
http://www.gavialliance.org/library/news/press-releases/
**:: Press Release: GAVI Alliance sets out opportunity to save up to six million lives through immunisation**
*Fully funded Alliance programmes would enable developing countries to protect a further 300 million children with vaccines by 2020*
*[Excerpt, Editor's text bolding]*

Brussels, 20 May 2014 – The GAVI Alliance today called on donors to back ambitious plans to immunise an additional 300 million children against potentially fatal diseases between 2016 and 2020 and save a further five to six million lives.

By investing together in a healthy future, Alliance partners can build on the unprecedented success which has put developing countries on track to immunise close to half a billion additional children between 2000 and 2015, saving approximately six million lives. Additional investments for the 2016-2020 period could double the total number of lives saved through GAVI-supported vaccines since 2000.

An acceleration is necessary because, despite an unprecedented increase in vaccine programmes in developing countries, 1.5 million children die each year of vaccine-preventable diseases and one in five children worldwide do not receive a full course of even the most basic vaccines.

The GAVI Alliance today set out an investment case that demonstrates how donors can support the world's poorest countries to secure and expand their immunisation programmes, which protect children against illnesses such as pneumococcal disease and rotavirus, the leading vaccine-preventable causes of pneumonia and diarrhoea, between 2016 and 2020.

**The economic benefits of fully funded, sustainable vaccine programmes would result in US $80 to $100 billion in gains for developing countries through increased productivity and reductions in the cost of treating illnesses that would have been prevented through immunisation.**

As GAVI-supported countries grow more prosperous, they can assume greater responsibility for their immunisation programmes. Between 2011 and 2015, countries have contributed approximately US$ 470 million. This will grow to US$ 1.2 billion in the 2016-20 period, making developing countries one of the largest contributors to the Alliance. By 2020, it is projected that 22 countries will have graduated and taken over full financing of their GAVI-supported vaccines, marking a new era of increased sustainability…

…The overwhelming benefits of investing in the Alliance were set out at a meeting hosted today in Brussels by European Development Commissioner Andris Piebalgs. The meeting was opened with a keynote speech from José Manuel Barroso, President of the European Commission, who demonstrated the EU's long-term commitment to supporting the GAVI Alliance to save lives through immunisation by pledging an additional €175 million for the period 2014-2020…

**…The GAVI Alliance is today asking donors to invest an additional US$ 7.5 billion to support developing countries' immunisation programmes from 2016 to 2020.**

**These commitments would be added to the US$ 2 billion already available to GAVI for the period to ensure that Alliance-supported programmes are fully funded up to 2020…**
**:: Statement: Germany to host key GAVI Alliance replenishment event**

**Voice of America News: CIA: Vaccination Programs Won't be Used for Spying**
May 20, 2014 2:55 AM
*Excerpt*

The White House has pledged that the CIA will no longer use vaccination programs as a cover for spying operations, three years after the agency used the ruse in Pakistan before the U.S. raid that killed Osama bin Laden.

A White House spokesperson said President Barack Obama's top counterterrorism adviser, Lisa Monaco, responded to a letter from the deans of about a dozen prominent public health schools last week who were concerned the ruse could cause serious consequences to public health efforts.

Monaco told the deans the CIA has agreed it would no longer use vaccination programs or workers for intelligence purposes. The CIA also agreed not to use genetic materials obtained through such programs…

**WHO: Statement on the United States Government's announcement on vaccination campaigns**
20 May 2014
*[Full text*]

WHO and UNICEF appreciate the commitment by the United States Government to stop making operational use of immunization campaigns.

Immunization averts approximately 2 to 3 million deaths each year and is an essential tool in public health. Humanitarian workers and programmes, especially life-saving vaccination campaigns, should never be used by any government for intelligence or military purposes.

***Polio*** [to 24 May 2014]
**GPEI Update: Polio this week - *As of 21 May 2014***
Global Polio Eradication Initiative
Full report: http://www.polioeradication.org/Dataandmonitoring/Poliothisweek.aspx
:: The 67th World Health Assembly, the WHO's highest decision-making body, is meeting this week in Geneva. The report of the polio eradication programme to the Assembly is available here, and is scheduled to be discussed on Friday. On the sidelines of WHA, Bruce Aylward, WHO Assistant Director-General for Polio and Emergencies, discussed polio eradication at the World Health +SocialGood digital event on Monday. The recorded discussion can be watched here (start at 1:04:00).
:: In a statement published on 13 May, the Government of Pakistan announced that it had initiated implementation of the Temporary Recommendations to reduce the international spread of wild poliovirus as recently issued by WHO. Health facilities across Pakistan are now vaccinating prospective travelers and issuing the required vaccination certificates.
:: An Extraordinary Technical Advisory Group on Polio convened for the WHO Americas Region has agreed with the objectives of the polio endgame, including the phased removal of oral polio vaccine from the routine immunization schedule.
***Nigeria***

:: Two new cVDPV2 cases were reported in the past week from Damboa LGA, Borno state. The most recent cVDPV2 case had onset of paralysis on 20 April. The total number of cVDPV2 cases for 2014 is three, and for 2013 is four.

***Pakistan***

:: Five new WPV1 cases were reported in the past week from the Federally Administered Tribal Areas (FATA), including three cases from North Waziristan, one from South Waziristan, and one from Khyber agency, bringing the total number of WPV1 cases reported from Pakistan for 2014 to 66. The most recent WPV1 case had onset of paralysis on 1 May (from Khyber agency).

**Polio issue to be raised at Taliban talks**
Business Recorder (Pakistan)
May 23, 2014
MUSHTAQ GHUMMAN
*Excerpt*

Government has decided to take up polio immunisation with Taliban in the ongoing peace talks and incentives vaccination program in focused areas through Benazir Income Support Program (BISP), official sources told Business Recorder. This decision was taken at a recent meeting of Federal Cabinet presided over by Prime Minister Nawaz Sharif.

"Take up polio immunisation in the ongoing talks with militants as the key challenge to polio eradication is the resistance to polio vaccination in North and South Waziristan. All children leaving the tribal areas should be vaccinated at checkposts and permanent transit points," the sources quoted the Prime Minister as saying in the meeting.

Official documents reveal that the Prime Minister - from the outset of briefing - stated that vigorous work was required for polio eradication as the prestige of the country was at stake. He informed the Cabinet that the Governor Khyber Pakhtunkhwa and the Chief of the Army Staff had been directed to provide security to vaccinators…

*See also in Media Watch below:*
:: **Polio - An unwelcome return** **[**Economist]
:: **Pakistan's polio puzzle** **[**Al Jazeera]

**WHO: Global Alert and Response (GAR) – *Disease Outbreak News*** [to 24 May 2014]
http://www.who.int/csr/don/en/
:: Middle East respiratory syndrome coronavirus (MERS-CoV) – update 23 May 2014
:: Middle East respiratory syndrome coronavirus (MERS-CoV) – update 22 May 2014
:: Human infection with avian influenza A(H7N9) virus – update 22 May 2014

**UNICEF Watch** [to 24 May 2014]
http://www.unicef.org/media/media_71724.html
**:: Cholera cases rapidly multiplying in South Sudan**
JUBA, South Sudan, 19 May 2014 – The caseload of cholera is rapidly increasing in South Sudan and the deadly, highly contagious disease appears to be spreading, UNICEF said today.
**:: UNICEF fears the worst for hundreds of thousands of children in South Sudan**
OSLO, 18 May 2014 – On the eve of the Oslo Humanitarian Pledging Conference, UNICEF

warned that hundreds of thousands of children in South Sudan's three most conflict-affected states are at imminent risk of death and disease, including the threat of cholera.

**WHO: Humanitarian Health Action** [to 24 May 2014]
http://www.who.int/hac/en/
**:: Cholera in Juba, South Sudan.**
- Read the latest cholera outbreak situation report - 21 May 2014
  pdf, 2.13Mb
- Read the Ministry of Health press release
  pdf, 299kb

The **Weekly Epidemiological Record (WER) for 23 May 2014**, vol. 89, 21 (pp. 221–236) includes:
:: Meeting of the Strategic Advisory Group of Experts on immunization, April 2014 – conclusions and recommendations
http://www.who.int/entity/wer/2014/wer8921.pdf?ua=1

**Global Fund Watch** [to 24 May 2014]
**:: News Release: WHO and Global Fund Strengthen Partnership**
20 May 2014
GENEVA – The World Health Organization and the Global Fund today strengthened their long established partnership with a new technical agreement to support countries in developing more strategic investments in the fight against HIV, tuberculosis and malaria.
Margaret Chan, Director-General, WHO, and Mark Dybul, Executive Director of the Global Fund, both stressed the importance of expanding partnerships to let country-led programs maximize the impact of health investments.
"This renewed partnership between WHO and the Global Fund will allow us to increase impact and reach more people by working together more closely with countries," said Dr. Chan…
…Under the agreement, WHO will provide technical assistance to Global Fund applicants under the new funding model ahead of the submission of their grant applications, or concept notes. The new funding model promotes opportunities for health interventions with a bigger impact, so robust concept notes and sound national strategic plans in specific geographic areas are strongly encouraged.
"The new funding model captures the promise of partnership that is our core belief," said Dr. Dybul. "This agreement gives us a clear focus, and reinvigorates the spirit of working together." Country Coordinating Mechanisms and civil society organizations can apply for WHO technical assistance. WHO will provide assistance through its country or regional offices and with the Roll Back Malaria and STOP TB partnerships…
**:: Announcement: Luxembourg Signs Multi-Year Contribution to Global Fund**
22 May 2014
*Excerpt*
Luxembourg and the Global Fund today signed a multi-year contribution agreement for €7.5 million (US$10.2 million) for 2014-2016, signaling joint commitment to efforts to defeat AIDS, tuberculosis and malaria.

The agreement was signed at the Global Fund offices in Geneva by Romain Schneider, Minister of Development Cooperation and Humanitarian Action, and Mark Dybul, Executive Director of the Global Fund.

"The Global Fund is a key partner in realizing our new health sector strategy," said Minister Schneider. "We appreciate the alignment of the Global Fund's strategy and the new funding model on national priorities and strategies…

**CDC/MMWR Watch** [to 24 May 2014]
http://www.cdc.gov/mmwr/mmwr_wk.html
*No new content identified.*

**European Medicines Agency Watch** [to 24 May 2014]
http://www.ema.europa.eu/ema/
*No new content identified.*

**UN Watch** [to 24 May 2014]
Selected meetings, press releases, and press conferences relevant to immunization, vaccines, infectious diseases, global health, etc. http://www.un.org/en/unpress/
*No new relevant content identified.*

**World Bank/IMF Watch** [to 24 May 2014]
Selected media releases and other selected content relevant to immunization, vaccines, infectious diseases, global health, etc. http://www.worldbank.org/en/news/all
*No new relevant content identified.*

**Industry Watch** [to 24 May 2014]
Selected media releases and other selected content from industry.
**Media Release: GSK announces new commitment to improve access to vaccines with 5-year price freeze for countries graduating from GAVI Alliance support**
20 May 2014
*Excerpt*
…Speaking today at a European Commission/GAVI Alliance event in Brussels, Sir Andrew Witty, CEO of GSK paid tribute to the GAVI Alliance leadership and its partners including governments, donors, charities and vaccine manufacturers which together have enabled millions of children in the world's poorest countries to receive innovative, life-saving vaccines.

Sir Andrew Witty said: "The achievements of the GAVI Alliance are remarkable with 6 million lives saved since its formation in 2000. Successful vaccination programmes have no doubt also helped countries to develop in this time. For countries that are doing well and are moving out of GAVI, I'm pleased that we are able to offer governments a price freeze to help ensure that children continue to be protected by national immunisation programmes. At the same time, GSK remains fully committed to supporting GAVI to expand and accelerate access to vaccines for children in the countries that still require the support of the Alliance."

By 2020, 22 countries with growing economies will graduate from GAVI support. This process allows GAVI to focus resources on the poorest countries, while enabling governments to take increasing responsibility and ownership for vaccination programmes over time. GSK is the first company to commit to maintaining lowest prices for five years as countries take this step, enabling governments to plan for financing the full cost of their immunisation programmes.

"Sustainability is a central pillar in the long-term success of GAVI Alliance-supported vaccine programmes," said Dr Seth Berkley, CEO of the GAVI Alliance. "GSK is taking strong steps towards supporting developing countries whose growing economies mean they are no longer eligible for Alliance support and is leading the way in longer-term access to low prices for rotavirus, pneumococcal and human papillomavirus vaccines for these countries."..

GSK is one of the largest contributors of vaccines to the GAVI Alliance, supplying innovative vaccines, such as those for rotavirus, pneumococcal disease and cervical cancer, at significantly reduced prices to help accelerate access in developing countries. GSK has committed to provide more than 850 million vaccine doses that will help protect up to 300 million children and young girls in the developing world by 2024. GSK delivers over 2 million vaccines each day; over a year, 80% of our vaccine doses go to developing countries…

## ***Reports/Research/Analysis/Commentary/Conferences/Meetings/Book Watch/Tenders***

*Vaccines and Global Health: 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

**Report: Towards a Sustainable, Intersectoral Approach to Viral Hepatitis**

The International Federation of Pharmaceutical Manufacturers and Associations (IFPMA)
20 May 2014

*Excerpt from Announcement*

The IFPMA published today a new report and recommendations on Hepatitis encouraging a comprehensive approach to fighting this silent epidemic...

Hepatitis B and C (HBV, HCV) are devastating viral diseases which are more common than HIV/AIDS. The virus progresses very slowly over the years. As a result many patients are unaware they are infected until serious complications emerge. 15-30% of people with chronic HCV infection will develop cirrhosis; HCV is the major cause of liver cancer. Viral hepatitis is responsible for 1.6 million deaths each year causing individual suffering and putting a huge cost to society in terms of lost productivity and cost of healthcare services.

Eduardo Pisani, IFPMA Director General, commented, "We have devoted substantial efforts to developing prevention and treatment options and are making all necessary efforts to bring up solutions that further increase cure rates and reduce treatment duration and toxicity. However, treatment is only part of the picture. Experience our industry gained through health partnerships in low- and middle-income countries makes it clear that to address hepatitis we need a comprehensive approach that combines research, prevention, screening and care. We need to act together to stop this silent epidemic"…

Full announcement: http://www.ifpma.org/news/news-releases/news-details/article/stop-silent-epidemic-research-based-pharmac.html

## ***Journal Watch***

*Vaccines and Global Health: 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*

**The American Journal of Bioethics**
Volume 14, Issue 6, 2014
http://www.tandfonline.com/toc/uajb20/current
[Reviewed earlier]

**American Journal of Infection Control**
Vol 42 | No. 5 | May 2014 | Pages 465-584
http://www.ajicjournal.org/current
[Reviewed earlier]

**American Journal of Preventive Medicine**
Volume 46, Issue 6, p543-660, e53-e60 June 2014
http://www.ajpmonline.org/current
**Influenza Vaccination Coverage Among Adult Survivors of Pediatric Cancer**
Rohit P. Ojha, DrPH, Tabatha N. Offutt-Powell, DrPH, James G. Gurney, PhD
DOI: http://dx.doi.org/10.1016/j.amepre.2014.01.007
*Abstract*
Background
A large proportion of long-term survivors of childhood cancer have treatment-related adverse cardiac and pulmonary late-effects, with related mortality. Consequently, this population of approximately 379,000 individuals in the U.S. is at high risk of complications from influenza infections.
Purpose
To estimate influenza vaccination coverage overall and among subgroups of adult survivors of pediatric cancer aged 18–64 years and to compare coverage with the general adult U.S. population.
Methods
Data from the 2009 Behavioral Risk Factor Surveillance System were analyzed in 2013 using binomial regression to estimate influenza vaccination coverage differences (CDs) and corresponding 95% confidence limits (CLs) between adult survivors of pediatric cancer and the general U.S. population. Analyses were stratified by demographic characteristics and adjusted for design effects, non-coverage, and non-response.
Results
Influenza vaccination coverage was 37% for adult pediatric cancer survivors overall and 31% for the general adult U.S. population (CD=6.3%, 95% CL=0.04%, 13%). Dramatically lower coverage was observed for non-Hispanic black survivors (6%) than for non-Hispanic blacks in the general U.S. population (26%; CD=−18%, 95% CL=−25%, −11%).
Conclusions

Although influenza vaccination coverage was modestly higher among adult survivors of pediatric cancer than the general U.S. population, coverage was less than desirable for a population with a high prevalence of cardiopulmonary conditions and early mortality, and far lower than the Healthy People 2010 goal of 60% or Healthy People 2020 goal of 80% for the general population.

**American Journal of Public Health**
Volume 104, Issue S3 (June 2014)
http://ajph.aphapublications.org/toc/ajph/current
*Issue Focus: Health of American Indians and Alaska Natives*

**American Journal of Tropical Medicine and Hygiene**
May 2014; 90 (5)
http://www.ajtmh.org/content/current
[Reviewed earlier]

**Annals of Internal Medicine**
20 May 2014, Vol. 160. No. 10
http://annals.org/issue.aspx
***Original Research* | 20 May 2014**
**Health and Economic Benefits of Early Vaccination and Nonpharmaceutical Interventions for a Human Influenza A (H7N9) Pandemic: A Modeling Study**
Nayer Khazeni, MD, MS; David W. Hutton, MS, PhD; Cassandra I.F. Collins, MPH; Alan M. Garber, MD, PhD; and Douglas K. Owens, MD, MS
Article and Author Information
Ann Intern Med. 2014;160(10):684-694. doi:10.7326/M13-2071
*Abstract*
Background:
Vaccination for the 2009 pandemic did not occur until late in the outbreak, which limited its benefits. Influenza A (H7N9) is causing increasing morbidity and mortality in China, and researchers have modified the A (H5N1) virus to transmit via aerosol, which again heightens concerns about pandemic influenza preparedness.
Objective:
To determine how quickly vaccination should be completed to reduce infections, deaths, and health care costs in a pandemic with characteristics similar to influenza A (H7N9) and A (H5N1).
Design:
Dynamic transmission model to estimate health and economic consequences of a severe influenza pandemic in a large metropolitan city.
Data Sources:
Literature and expert opinion.
Target Population:
Residents of a U.S. metropolitan city with characteristics similar to New York City.
Time Horizon:
Lifetime.
Perspective:

Societal.
Intervention:
Vaccination of 30% of the population at 4 or 6 months.
Outcome Measures:
Infections and deaths averted and cost-effectiveness.
Results of Base-Case Analysis:
In 12 months, 48 254 persons would die. Vaccinating at 9 months would avert 2365 of these deaths. Vaccinating at 6 months would save 5775 additional lives and $51 million at a city level. Accelerating delivery to 4 months would save an additional 5633 lives and $50 million.
Results of Sensitivity Analysis:
If vaccination were delayed for 9 months, reducing contacts by 8% through nonpharmaceutical interventions would yield a similar reduction in infections and deaths as vaccination at 4 months.
Limitation:
The model is not designed to evaluate programs targeting specific populations, such as children or persons with comorbid conditions.
Conclusion:
Vaccination in an influenza A (H7N9) pandemic would need to be completed much faster than in 2009 to substantially reduce morbidity, mortality, and health care costs. Maximizing non-pharmaceutical interventions can substantially mitigate the pandemic until a matched vaccine becomes available.
Primary Funding Source:
Agency for Healthcare Research and Quality, National Institutes of Health, and Department of Veterans Affairs.

**BMC Health Services Research**
(Accessed 24 May 2014)
http://www.biomedcentral.com/bmchealthservres/content
[No new relevant content]

**BMC Public Health**
(Accessed 24 May 2014)
http://www.biomedcentral.com/bmcpublichealth/content
***Research article***
**"Knowledge and attitudes of spanish adolescent girls towards human papillomavirus infection: where to intervene to improve vaccination coverage"**
Pedro Navarro-Illana, Javier Diez-Domingo, Esther Navarro-Illana, José Tuells, Sara Alemán and Joan Puig-Barberá
Author Affiliations
BMC Public Health 2014, 14:490 doi:10.1186/1471-2458-14-490
Published: 22 May 2014
*Abstract* (provisional)
Background
HPV vaccine coverage is far from ideal in Valencia, Spain, and this could be partially related to the low knowledge about the disease and the vaccine, therefore we assessed these, as well as the attitude towards vaccination in adolescent girls, and tried to identify independently

associated factors that could potentially be modified by an intervention in order to increase vaccine coverage.

Methods

A cross sectional study was conducted in a random selection of schools of the Spanish region of Valencia. We asked mothers of 1278 girls, who should have been vaccinated in the 2011 campaign, for informed consent. Those that accepted their daughters' participation, a questionnaire regarding the Knowledge of HPV infection and vaccine was passed to the girls in the school.

Results

833 mothers (65.1%) accepted participation. All their daughters' responded the questionnaire. Of those, 89.9% had heard about HPV and they associated it to cervical cancer. Only 14% related it to other problems like genital warts. The knowledge score of the girls who had heard about HPV was 6.1/10. Knowledge was unrelated to the number of contacts with the health system (Pediatrician or nurse), and positively correlated with the discussions with classmates about the vaccine. Adolescents Spanish in origin or with an older sister vaccinated, had higher punctuation. 67% of the girls thought that the vaccine prevented cancer, and 22.6% felt that although prevented cancer the vaccine had important safety problems. 6.4% of the girls rejected the vaccine for safety problems or for not considering themselves at risk of infection. 71.5% of the girls had received at least one vaccine dose. Vaccinated girls scored higher knowledge ($p = 0.05$).

Conclusion

Knowledge about HPV infection and vaccine was fair in adolescents of Valencia, and is independent to the number of contacts with the health system, it is however correlated to the conversations about the vaccine with their peers and the vaccination status. An action to improve HPV knowledge through health providers might increase vaccine coverage in the adolescents.

***Research article***

**What have we learned about communication inequalities during the H1N1 pandemic: a systematic review of the literature**

Leesa Lin, Elena Savoia, Foluso Agboola and Kasisomayajula Viswanath

Author Affiliations

BMC Public Health 2014, 14:484 doi:10.1186/1471-2458-14-484

Published: 21 May 2014

*Abstract* (provisional)

Background

During public health emergencies, public officials are busy in developing communication strategies to protect the population from existing or potential threats. However, population's social and individual determinants (i.e. education, income, race/ethnicity) may lead to inequalities in individual or group-specific exposure to public health communication messages, and in the capacity to access, process, and act upon the information received by specific sub-groups- a concept defined as communication inequalities.

The aims of this literature review are to: 1) characterize the scientific literature that examined issues related to communication to the public during the H1N1 pandemic, and 2) summarize the knowledge gained in our understanding of social determinants and their association with communication inequalities in the preparedness and response to an influenza pandemic.

Methods

Articles were searched in eight major communication, social sciences, and health and medical databases of scientific literature and reviewed by two independent reviewers by following the

PRISMA guidelines. The selected articles were classified and analyzed in accordance with the Structural Influence Model of Public Health Emergency Preparedness Communications.
Results
A total of 118 empirical studies were included for final review. Among them, 78% were population-based studies and 22% were articles that employed information environment analyses techniques. Consistent results were reported on the association between social determinants of communication inequalities and emergency preparedness outcomes. Trust in public officials and source of information, worry and levels of knowledge about the disease, and routine media exposure as well as information-seeking behaviors, were related to greater likelihood of adoption of recommended infection prevention practices. When addressed in communication interventions, these factors can increase the effectiveness of the response to pandemics.
Conclusions
Consistently across studies, a number of potential predictors of behavioral compliance to preventive recommendations during a pandemic were identified. Our findings show the need to include such evidence found in the development of future communication campaigns to ensure the highest rates of compliance with recommended protection measures and reduce communication inequalities during future emergencies.

**British Medical Bulletin**
Volume 109 Issue 1 March 2014
http://bmb.oxfordjournals.org/content/current
[Reviewed earlier; No relevant content]

**British Medical Journal**
24 May 2014 (Vol 348, Issue 7959)
http://www.bmj.com/content/348/7959
***Editorial***
**Delayed publication of vaccine trials**
BMJ 2014; 348 doi: http://dx.doi.org/10.1136/bmj.g3259 (Published 16 May 2014)
Christopher W Jones, attending physician1, Timothy F Platts-Mills, assistant professor2
*Excerpt*
*Why are we waiting? Sponsors, authors, and editors all contribute to delays*
Among medical interventions to improve human health, vaccination has been and remains one of the most important.1 Given the huge number of deaths from influenza pandemics in recent history, the ability to rapidly develop effective vaccines for new strains of influenza is particularly critical. Making and testing a new influenza vaccine that can be administered to the public takes six months or less.2 For example, the pandemic A/H1N1 2009 influenza strain was first identified in April of 2009; four vaccines were approved by the US Food and Drug Administration in September. After the approval of a vaccine, however, important questions remain regarding dosage, effectiveness, and safety. These questions are best answered by randomized clinical trials, and getting complete results from these trials to policy makers, clinicians, and the general public in a timely manner is essential.
The problems of delayed publication and non-publication of clinical trials have been described in a variety of settings.3 4 5 In this issue of The BMJ, Manzoli and colleagues

(doi:10.1136/bmj.g3058) examine delays to publication and non-publication for the vitally important area of vaccine trials.6…

***Research***

**Non-publication and delayed publication of randomized trials on vaccines: survey**

BMJ 2014; 348 doi: http://dx.doi.org/10.1136/bmj.g3058 (Published 16 May 2014)
Cite this as: BMJ 2014;348:g3058

Lamberto Manzoli, associate professor12, Maria Elena Flacco, resident physician13, Maddalena D'Addario, resident physician45, Lorenzo Capasso, PhD student12, Corrado De Vito, assistant professor6, Carolina Marzuillo, assistant professor6, Paolo Villari, professor6, John P A Ioannidis, professor78

Accepted 24 April 2014

*Abstract*

Objective

To evaluate the extent of non-publication or delayed publication of registered randomized trials on vaccines, and to investigate potential determinants of delay to publication.

Design

Survey.

Data sources

Trials registry websites, Scopus, PubMed, Google.

Study selection

Randomized controlled trials evaluating the safety or the efficacy or immunogenicity of human papillomavirus (HPV), pandemic A/H1N1 2009 influenza, and meningococcal, pneumococcal, and rotavirus vaccines that were registered in ClinicalTrials.gov, Current Controlled Trials, WHO International Clinical Trials Registry Platform, Clinical Study Register, or Indian, Australian-New Zealand, and Chinese trial registries in 2006-12. Electronic databases were searched up to February 2014 to identify published manuscripts containing trial results. These were reviewed and classified as positive, mixed, or negative. We also reviewed the results available in ClinicalTrials.gov.

Main outcome measures

Publication status of trial results and time from completion to publication in peer reviewed journals.

Data synthesis

Cox proportional hazards regression was used to evaluate potential predictors of publication delay.

Results

We analysed 384 trials (85% sponsored by industry). Of 355 trials (404,758 participants) that were completed, 176 (n=151,379) had been published in peer reviewed journals. Another 42 trials (total sample 62 \,765) remained unpublished but reported results in ClinicalTrials.gov. The proportion of trials published 12, 24, 36, and 48 months after completion was 12%, 29%, 53%, and 73%, respectively. Including results posted in ClinicalTrials.gov, 48 months after study completion results were available for 82% of the trials and 90% of the participants. Delay to publication between non-industry and industry sponsored trials did not differ, but non-industry sponsored trials were 4.42-fold (P=0.008) more likely to report negative or mixed findings. Negative results were reported by only 2% of the published trials.

Conclusions

Most vaccine trials are published eventually or the results posted in ClinicalTrials.gov, but delays to publication of several years are common. Actions should focus on the timely dissemination of data from vaccine trials to the public.

**Bulletin of the World Health Organization**
Volume 92, Number 5, May 2014, 309-384
http://www.who.int/bulletin/volumes/92/5/en/
[Reviewed earlier]

**Clinical Infectious Diseases (CID)**
Volume 58 Issue 11 June 1, 2014
http://cid.oxfordjournals.org/content/current

**Editorial Commentary: Pertussis Is Less Severe in Vaccinated Than in Unvaccinated Patients**

Jussi Mertsola
Author Affiliations
Department of Pediatrics, Turku University Hospital and Turku University, Finland
Correspondence: Jussi Mertsola, MD, PhD, Department of Paediatrics and Adolescent Medicine, Turku University Hospital, 20520 Turku, Finland *(See the Major Article by Barlow et al on pages 1523–9.)*

*Extract*

After the introduction of vaccines against pertussis, there was a dramatic decrease of the disease, and the problem was considered to have been solved. But it was not. Recently, large outbreaks have occurred in the United States, in several European countries, and in Australia [1, 2]. It is evident that there are still many unresolved questions in pertussis, the first of which is that we do not know enough about the exact pathogenesis of this infection and the real appearance of Bordetella pertussis organisms in vivo. We also do not know much about the intracellular living of the bacteria and possible transition between the virulent and nonvirulent phenotypes in the mucosal environment in the lungs. Perhaps we should again pay more attention to the old questions of molecular mimicry [3]. The infection cascade is very complex, and immunity is multifactorial. During and after the development of the acellular vaccine, the main focus has been on the extracellular living of B. pertussis and humoral immunity. In pertussis, the function of Th1 and Th17 cells seems to be very important [4]. Surprisingly, even some 100 years after the discovery of B. pertussis, we do not even understand the exact mechanism behind the typical paroxysmal cough in whooping cough.

Young infants are most vulnerable if they get B. pertussis infection. Historically, pertussis has been a serious killer, and recent outbreaks show that infants have a real risk of death and complications even today [1, 2]. One of the main problems is how to induce immunity against pertussis in young infants. The situation was so alarming in California in 2012 and in the United Kingdom that vaccinations against tetanus, diphtheria, and pertussis…

**Vaccinated Children and Adolescents With Pertussis Infections Experience Reduced Illness Severity and Duration, Oregon, 2010–2012**

Russell S. Barlow, Laura E. Reynolds, Paul R. Cieslak, and Amy D. Sullivan
Clin Infect Dis. (2014) 58 (11): 1523-1529 doi:10.1093/cid/ciu156

*Abstract*

We examined how vaccination status influenced the course of illness among persons infected with Bordetella pertussis in Oregon between 2010 and 2012. Our analyses provide evidence that vaccinated individuals have decreased disease severity and reduced illness duration.

**Clinical Therapeutics**
Volume 36, Issue 5, p613-816 May 2014
http://www.clinicaltherapeutics.com/current
**Pneumococcal Vaccination in Europe: Schedule Adherence**
Alain Gervaix, MD, Filippo Ansaldi, MD, António Brito-Avô, MD, Chiara Azzari, MD, Markus Knuf, PhD, Federico Martinón-Torres, PhD, David Tuerlinckx, MD, Myint Tin Tin Htar, MD, George A. Syrogiannopoulos, MD
Accepted: March 10, 2014; Published Online: April 16, 2014
DOI: http://dx.doi.org/10.1016/j.clinthera.2014.03.001
*Abstract*

Nonadherence to recommended pneumococcal conjugate vaccine (PCV) schedules may have implications for protection against pneumococcal disease. In this commentary, we have assessed adherence to the recommended dosing schedules (the completion of the primary PCV and booster series) in different European countries. We found that adherence with the PCV schedule was lower than that for diphtheria-tetanus-acellular pertussis (DTaP) and that higher adherence was observed in countries where PCV vaccination is recommended and funded. Adherence with the booster dose is often lower than that with the primary series completion, and it is often given after the recommended age. These data highlight the need to encourage timely vaccination of children with PCV, in line with local immunization schedules. There is no single solution to improve adherence; actions need to be tailored to the context of individual countries through initiatives at the national, regional, and local levels and should target different stakeholders.

**Cost Effectiveness and Resource Allocation**
(Accessed 24 May 2014)
http://www.resource-allocation.com/
[No new relevant content]

**Current Opinion in Infectious Diseases**
June 2014 - Volume 27 - Issue 3 pp: v-v 211-302
http://journals.lww.com/co-infectiousdiseases/pages/currenttoc.aspx
[Reviewed earlier]

**Developing World Bioethics**
April 2014 Volume 14, Issue 1 Pages ii–ii, 1–57
http://onlinelibrary.wiley.com/doi/10.1111/dewb.2014.14.issue-1/issuetoc
[Reviewed earlier]

**Development in Practice**
Volume 24, Issue 1, 2014
http://www.tandfonline.com/toc/cdip20/current
[No relevant content]

**Emerging Infectious Diseases**
Volume 20, Number 6—June 2014
http://www.cdc.gov/ncidod/EID/index.htm
***Commentaries***
**Unraveling the Mysteries of Middle East Respiratory Syndrome Coronavirus**
PDF Version [PDF - 2.22 MB - 3 pages]
J. T. Watson et al.
Podcast - Unraveling the Mysteries of Middle East Respiratory Syndrome Coronavirus

**The European Journal of Public Health**
Volume 24 Issue 3 June 2014
http://eurpub.oxfordjournals.org/content/current
[Reviewed earlier]

**Eurosurveillance**
Volume 19, Issue 20, 22 May 2014
http://www.eurosurveillance.org/Public/Articles/Archives.aspx?PublicationId=11678
**Rotavirus vaccination coverage and adherence to recommended age among infants in Flanders (Belgium) in 2012**
by T Braeckman, H Theeten, T Lernout, N Hens, M Roelants, K Hoppenbrouwers, P Van Damme

**Global Health: Science and Practice (GHSP)**
May 2014 | Volume 2 | Issue 2
http://www.ghspjournal.org/content/current
[No relevant content]

**Globalization and Health**
[Accessed 24 May 2014]
http://www.globalizationandhealth.com/
[No new relevant content]

**Global Public Health**
Volume 9, Issue 4, 2014
http://www.tandfonline.com/toc/rgph20/current#.Uq0DgeKy-F9
[Reviewed earlier]

**Health Affairs**
May 2014; Volume 33, Issue 5
http://content.healthaffairs.org/content/current
*Theme: US Hospitals: Responding To An Uncertain Environment*
[No relevant content]

**Health and Human Rights**
Volume 15, Issue 2
http://www.hhrjournal.org/
[Reviewed earlier]

**Health Economics, Policy and Law**
Volume 9 / Issue 02 / April 2014
http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue
[Reviewed earlier]

**Health Policy and Planning**
Volume 29 Issue 3 May 2014
http://heapol.oxfordjournals.org/content/current
[Reviewed earlier]

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May 2014 Volume 10, Issue 5
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[Reviewed earlier]

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[Accessed 24 May 2014]
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http://www.idpjournal.com/content
[Accessed 24 May 2014]
[No new relevant content]

**International Journal of Epidemiology**
Volume 43 Issue 2 April 2014
http://ije.oxfordjournals.org/content/current
[Reviewed earlier]

**International Journal of Infectious Diseases**
Vol 23 Complete | June 2014 | Pages 1-108
http://www.ijidonline.com/current

**Community Case Clusters of Middle East Respiratory Syndrome Coronavirus in Hafr Al-Batin, Kingdom of Saudi Arabia: A Descriptive Genomic study**

Ziad A. Memish, Matthew Cotten, Simon J. Watson, Paul Kellam, Alimuddin Zumla, Rafat F. Alhakeem, Abdullah Assiri, Abdullah A. Al Rabeeah, Jaffar A. Al-Tawfiq

published online 02 April 2014.

*Abstract*

*Summary*

The Middle East respiratory syndrome coronavirus (MERS-CoV) was first described in September 2012 and to date 86 deaths from a total of 206 cases of MERS-CoV infection have been reported to the WHO. Camels have been implicated as the reservoir of MERS-CoV, but the exact source and mode of transmission for most patients remain unknown. During a 3 month period, June to August 2013, there were 12 positive MERS-CoV cases reported from the Hafr Al-Batin region district in the north east region of the Kingdom of Saudi Arabia. In addition to the different regional camel festivals in neighboring countries, Hafr Al-Batin has the biggest camel market in the entire Kingdom and hosts an annual camel festival. Thus, we conducted a detailed epidemiological, clinical and genomic study to ascertain common exposure and transmission patterns of all cases of MERS-CoV reported from Hafr Al-Batin. Analysis of previously reported genetic data indicated that at least two of the infected contacts could not have been directly infected from the index patient and alternate source should be considered. While camels appear as the likely source, other sources have not been ruled out. More detailed case control studies with detailed case histories, epidemiological information and genomic analysis are being conducted to delineate the missing pieces in the transmission dynamics of MERS-CoV outbreak.

**Impacts of a mass vaccination campaign against pandemic H1N1 2009 influenza in Taiwan: a time-series regression analysis**

Un-In Wu, Jann-Tay Wang, Shan-Chwen Chang, Yu-Chung Chuang, et al.

09 April 2014

Summary: Objectives: A multicenter, hospital-wide, clinical and epidemiological study was conducted to assess the effectiveness of the mass influenza vaccination program during the 2009 H1N1 influenza...

**JAMA**

May 21, 2014, Vol 311, No. 19

http://jama.jamanetwork.com/issue.aspx

[No relevant content]

**JAMA Pediatrics**

May 2014, Vol 168, No. 5

http://archpedi.jamanetwork.com/issue.aspx

[Reviewed earlier; No relevant content]

**Journal of Community Health**

Volume 39, Issue 3, June 2014

http://link.springer.com/journal/10900/39/3/page/1

[Reviewed earlier]

**Journal of Global Ethics**
Volume 10, Issue 1, 2014
http://www.tandfonline.com/toc/rjge20/current#.U2V-Elf4L0l
**Tenth Anniversary Forum: The Future of Global Ethics**

**Journal of Health Organization and Management**
Volume 28 issue 2 - Latest Issue
http://www.emeraldinsight.com/journals.htm?issn=1477-7266&show=latest
[No relevant content]

**Journal of Infectious Diseases**
Volume 209 Issue 11 June 1, 2014
http://jid.oxfordjournals.org/content/current
[Reviewed earlier]

**Journal of Global Infectious Diseases (JGID)**
Volume 6 | Issue 2 Page Nos. 57-92 April-June 2014
http://www.jgid.org/currentissue.asp?sabs=n
[Reviewed earlier]

**Journal of Immigrant and Minority Health**
Volume 16, Issue 3, June 2014
http://link.springer.com/journal/10903/16/3/page/1
[Reviewed earlier]

**Journal of Medical Ethics**
June 2014, Volume 40, Issue 6
http://jme.bmj.com/content/current
[No relevant content]

**Journal of Medical Microbiology**
June 2014; 63 (Pt 6)
http://jmm.sgmjournals.org/content/current
**Vaccine against tuberculosis: a view**
Om Parkash
Author Affiliations
Scientist- E (Immunology), National JALMA Institute for Leprosy and Other Mycobacterial Diseases, Tajganj, Agra-282004, India
*Excerpt*

Tuberculosis (TB), a disease caused by Mycobacterium tuberculosis, continues to be a big health problem (WHO, 2013), particularly given the emergence of multidrug-resistant, extensively drug-resistant and totally drug-resistant strains of M. tuberculosis, which makes it more difficult to treat the infected individuals (Velayati et al., 2009; Falzon et al., 2011; Zignol et al., 2012). Moreover, the global epidemic of human immunodeficiency virus (HIV)/AIDS has added to the load of TB patients, further worsening the problem (Harries et al., 2010). According to a WHO report of 2013, TB afflicted about 8.6 million individuals and it caused death in more than 1.3 million cases in that year (WHO, 2013), indicating that it is a major scourge amongst infectious diseases. Chemotherapy of active TB saved the lives of many millions of patients, but extending it to chemoprophylaxis of latently infected subjects has not been implemented due to the excessive cost that would be involved. Hence, the availability of an effective vaccine could prove to be an affordable tool, with a major impact on the TB epidemic and thereby on the global elimination of the disease. Therefore, a search for the development of an effective vaccine has attracted a great deal of attention over the years. Thus far, Bacille Calmette–Guérin (BCG) remains the only licensed vaccine which has been used worldwide (Colditz et al., 1994; Zwerling et al., 2011). Its administration soon after birth can prevent severe forms of childhood TB. However, there is general agreement that BCG confers insufficient protection against TB in adolescents and adults. Currently, several candidate prophylactic vaccines have reached clinical trials (Kaufmann, 2013), but as yet, no new approved vaccine is available for immunoprophylactic use in the population. A major challenge for developing more efficacious vaccines against TB is the incomplete understanding of the mechanism of immunity and the mechanisms of immune evasion and subversion by M. tuberculosis….

…In conclusion, it is argued that despite inducing potent Th1 memory, anti-TB vaccines may not be protective against TB. This view is supported by the known inconsistent efficacy of BCG vaccination (Andersen & Doherty, 2005), the uncertainties regarding candidate vaccines (Kaufmann et al., 2010; Kaufmann, 2013) and the recent failure of a phase 2b TB vaccine trial in infants (Tameris et al., 2013). In all the foregoing approaches, generation of Th1-mediated protective immunity was the major aim to make the vaccines effective. What could be the remedy when Th1-mediated immunity fails? Probably, the answer may be sought by exploring alternative approaches, involving CD8+ T-cells, natural killer T-cells and γδ T-cells (Yoshikai, 2006; Barnes et al., 2009; Cooper, 2009) for generation of protective immunity by candidate vaccines. The reasons supporting this suggestion are that: (i) these cells are understood to contribute towards protection against M. tuberculosis; also, (ii) these cells do not require antigen presentation in association with MHC-II molecules. However, these still rely on antigen presentation in association with MHC-I or CD1, which could also be affected by M. tuberculosis (Baena & Porcelli, 2009). Regarding antibodies, there are several pieces of evidence indicating their contribution towards protection against TB (Achkar & Casadevall, 2013). However, their role in protecting against TB is controversial, as yet. Nevertheless, with vaccination, antibodies can be generated prior to infection, and for production of antibodies, processing and presentation of M. tuberculosis antigens are not required. Moreover, there is evidence that antibodies can affect downstream processing and presentation of antigens for generation of CMI. Therefore, the humoral response may help in preventing infection and is worth considering for developing an anti-TB vaccine. Thus, a combined approach, involving multiple antigens targeting multiple cells, deserves attention for further research for developing an anti-TB vaccine. Probably, such a formulation may lead to a better alternative anti-TB vaccine by providing a greater ability for the host to recognize a wider range of M. tuberculosis antigens.

**Journal of the Pediatric Infectious Diseases Society (JPIDS)**
Volume 3 Issue 2 June 2014
http://jpids.oxfordjournals.org/content/current
**Meningococcal Disease: Epidemiology and Early Effects of Immunization Programs**
Marco Aurelio P. Sáfadi, Eitan N. Berezin, and Luiza Helena F. Arlant
J Ped Infect Dis (2014) 3 (2): 91-93 doi:10.1093/jpids/piu027
Extract Full Text (HTML) Full Text (PDF)

**Journal of Pediatrics**
Vol 164 | No. 6 | June 2014 | Pages 1245-1504
http://www.jpeds.com/current
**Antibody Persistence and Booster Response of a Quadrivalent Meningococcal Conjugate Vaccine in Adolescents**
Roger Baxter, MD, Keith Reisinger, MD, Stanley L. Block, MD, Allen Izu, MS, Tatjana Odrljin, D, PhD, Peter Dull, MD
Objective: To evaluate the tolerability and immunogenicity of a booster dose of the quadrivalent meningococcal conjugate vaccine MenACWY-CRM (Menveo, Novartis Vaccines and Diagnostics, Siena, Italy)

**Journal of Public Health Policy**
Volume 35, Issue 2 (May 2014)
http://www.palgrave-journals.com/jphp/journal/v35/n2/index.html
[Reviewed earlier]

**Journal of the Royal Society – Interface**
July 6, 2014; 11 (96)
http://rsif.royalsocietypublishing.org/content/current
[No relevant content]

**Journal of Virology**
June 2014, volume 88, issue 11
http://jvi.asm.org/content/current
[No relevant content]

**The Lancet**
May 24, 2014 Volume 383 Number 9931 p1781 – 1860
http://www.thelancet.com/journals/lancet/issue/current
[No relevant content]

**The Lancet Global Health**
Jun 2014 Volume 2 Number 6 e301 - 363

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

**Detention, denial, and death: migration hazards for refugee children**

Mina Fazel, Unni Karunakara, Elizabeth A Newnham

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Organised violence, persecution, and community instability cause millions of children to flee their native countries every year. About 7·6 million people were newly displaced by conflict or persecution in 20121 (the highest number in a decade), of which approximately half were younger than 18 years. Regions prone to disaster and adversity often have disproportionately young populations, and thus larger numbers of children and adolescents are now moving across country borders, with or without their families.

**Global causes of maternal death: a WHO systematic analysis**

Dr Lale Say MD a, Doris Chou MD a, Alison Gemmill MPH a b, Özge Tunçalp MD a, Ann-Beth Moller MSc a, Jane Daniels PhD c, A Metin Gülmezoglu MD a, Marleen Temmerman MD a, Leontine Alkema PhD d

*Summary*

Background

Data for the causes of maternal deaths are needed to inform policies to improve maternal health. We developed and analysed global, regional, and subregional estimates of the causes of maternal death during 2003—09, with a novel method, updating the previous WHO systematic review.

Methods

We searched specialised and general bibliographic databases for articles published between between Jan 1, 2003, and Dec 31, 2012, for research data, with no language restrictions, and the WHO mortality database for vital registration data. On the basis of prespecified inclusion criteria, we analysed causes of maternal death from datasets. We aggregated country level estimates to report estimates of causes of death by Millennium Development Goal regions and worldwide, for main and subcauses of death categories with a Bayesian hierarchical model.

Findings

We identified 23 eligible studies (published 2003—12). We included 417 datasets from 115 countries comprising 60 799 deaths in the analysis. About 73% (1 771 000 of 2 443 000) of all maternal deaths between 2003 and 2009 were due to direct obstetric causes and deaths due to indirect causes accounted for 27·5% (672 000, 95% UI 19·7—37·5) of all deaths. Haemorrhage accounted for 27·1% (661 000, 19·9—36·2), hypertensive disorders 14·0% (343 000, 11·1—17·4), and sepsis 10·7% (261 000, 5·9—18·6) of maternal deaths. The rest of deaths were due to abortion (7·9% [193 000], 4·7—13·2), embolism (3·2% [78 000], 1·8—5·5), and all other direct causes of death (9·6% [235 000], 6·5—14·3). Regional estimates varied substantially.

Interpretation

Between 2003 and 2009, haemorrhage, hypertensive disorders, and sepsis were responsible for more than half of maternal deaths worldwide. More than a quarter of deaths were attributable to indirect causes. These analyses should inform the prioritisation of health policies, programmes, and funding to reduce maternal deaths at regional and global levels. Further efforts are needed to improve the availability and quality of data related to maternal mortality.

Funding

USAID, the US Fund for UNICEF through a grant from the Bill & Melinda Gates Foundation to CHERG, and The UNDP/UNFPA/UNICEF/WHO/The World Bank Special Programme of Research, Development, and Research Training in Human Reproduction (HRP), Department of Reproductive Health and Research.

**The Lancet Infectious Diseases**
Jun 2014 Volume 14 Number 6 p441 - 532
http://www.thelancet.com/journals/laninf/issue/current

***Comment***

## In for the long haul: 20 years of malaria surveillance

Chris Drakeley, Jo Lines

Preview | Full Text | PDF

The past 20 years have seen many changes in malaria control. In most countries where malaria is endemic, first-line treatment has switched several times as drug resistance has developed, moving from chloroquine through to artemisinin-based combination therapies. In the past decade, thanks to increased funding through the Global Fund to Fight AIDS, Tuberculosis and Malaria, coverage of long-lasting insecticide-treated nets (LLINs) has massively expanded. These efforts have led to a substantial reduction in the incidence of malaria mortality,1 with a cumulative total of about 3·3 million deaths prevented since 2001, according to the 2013 World Malaria Report.

## The rise and fall of malaria in a west African rural community, Dielmo, Senegal, from 1990 to 2012: a 22 year longitudinal study

Dr Jean-François Trape MD a, Adama Tall MD b, Cheikh Sokhna PhD a, Alioune Badara Ly MD c, Nafissatou Diagne PhD a, Ousmane Ndiath PhD a, Catherine Mazenot PhD a, Vincent Richard MD b, Abdoulaye Badiane BSc b, Fambaye Dieye-Ba BSc a, Joseph Faye BSc b, Gora Ndiaye a, Fatoumata Diene Sarr MD b, Clémentine Roucher PhD a, Charles Bouganali a, Hubert Bassène BSc a, Aissatou Touré-Baldé PhD d, Christian Roussilhon PhD d e, Ronald Perraut PhD d e, Prof André Spiegel MD b, Jean-Louis Sarthou PhD d, Prof Luiz Pereira da Silva e, Odile Mercereau-Puijalon PhD e, Pierre Druilhe MD e, Prof Christophe Rogier MD b f

*Summary*

Background

A better understanding of the effect of malaria control interventions on vector and parasite populations, acquired immunity, and burden of the disease is needed to guide strategies to eliminate malaria from highly endemic areas. We monitored and analysed the changes in malaria epidemiology in a village community in Senegal, west Africa, over 22 years.

Methods

Between 1990 and 2012, we did a prospective longitudinal study of the inhabitants of Dielmo, Senegal, to identify all episodes of fever and investigate the relation between malaria host, vector, and parasite. Our study included daily medical surveillance with systematic parasite detection in individuals with fever. We measured parasite prevalence four times a year with cross-sectional surveys. We monitored malaria transmission monthly with night collection of mosquitoes. Malaria treatment changed over the years, from quinine (1990—94), to chloroquine (1995—2003), amodiaquine plus sulfadoxine-pyrimethamine (2003—06), and finally artesunate plus amodiaquine (2006—12). Insecticide-treated nets (ITNs) were introduced in 2008.

Findings

We monitored 776 villagers aged 0—101 years for 2 378 150 person-days of follow-up. Entomological inoculation rate ranged from 142·5 infected bites per person per year in 1990 to 482·6 in 2000, and 7·6 in 2012. Parasite prevalence in children declined from 87% in 1990 to 0·3 % in 2012. In adults, it declined from 58% to 0·3%. We recorded 23 546 fever episodes during the study, including 8243 clinical attacks caused by Plasmodium falciparum, 290 by Plasmodium malariae, and 219 by Plasmodium ovale. Three deaths were directly attributable to malaria, and two to severe adverse events of antimalarial drugs. The incidence of malaria

attacks ranged from 1·50 attacks per person-year in 1990 to 2·63 in 2000, and to only 0·046 in 2012. The greatest changes were associated with the replacement of chloroquine and the introduction of ITNs.
Interpretation
Malaria control policies combining prompt treatment of clinical attacks and deployment of ITNs can nearly eliminate parasite carriage and greatly reduce the burden of malaria in populations exposed to intense perennial malaria transmission. The choice of drugs seems crucial. Rapid decline of clinical immunity allows rapid detection and treatment of novel infections and thus has a key role in sustaining effectiveness of combining artemisinin-based combination therapy and ITNs despite increasing pyrethroid resistance.
Funding
Pasteur Institutes of Dakar and Paris, Institut de Recherche pour le Développement, and French Ministry of Cooperation.

**Medical Decision Making (MDM)**
May 2014; 34 (4)
http://mdm.sagepub.com/content/current
[Reviewed earlier]

**The Milbank Quarterly**
*A Multidisciplinary Journal of Population Health and Health Policy*
March 2014 Volume 92, Issue 1 Pages 1–166
http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1468-0009/currentissue
[Reviewed earlier]

**Nature**
Volume 509 Number 7501 pp399-526 22 May 2014
http://www.nature.com/nature/current_issue.html
[No relevant content]

**Nature Immunology**
June 2014, Volume 15 No 6 pp483-587
http://www.nature.com/ni/journal/v15/n6/index.html
*Focus on Post-Transcriptional and Post-Translational Control of Immunity*
Editorial
**Modifying immunity** - p483
doi:10.1038/ni.2896
*Post-transcriptional and post-translational modifications exert subtle yet profound influences on all aspects of immunity.*
Full Text - Modifying immunity | PDF (191 KB)

**Nature Medicine**
May 2014, Volume 20 No 5 pp451-560

http://www.nature.com/nm/journal/v20/n5/index.html
[No relevant content]

**Nature Reviews Immunology**
May 2014 Vol 14 No 5
http://www.nature.com/nri/journal/v14/n5/index.html
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**New England Journal of Medicine**
May 22, 2014 Vol. 370 No. 21
http://www.nejm.org/toc/nejm/medical-journal
[No relevant content]

**OMICS: A Journal of Integrative Biology**
May 2014, 18(5)
http://online.liebertpub.com/toc/omi/18/5
[No new relevant content]

**The Pediatric Infectious Disease Journal**
June 2014 - Volume 33 - Issue 6 pp: 549-673,e135-e161
http://journals.lww.com/pidj/pages/currenttoc.aspx
**Safety and Immunogenicity of an Inactivated Quadrivalent Influenza Vaccine in Children 6 Months through 8 Years of Age**
Greenberg, David P.; Robertson, Corwin A.; Landolfi, Victoria A.; More
Free Access Supplemental Author Material Abstract
**Changes in Childhood Pneumonia and Infant Mortality Rates Following Introduction of the 13-valent Pneumococcal Conjugate Vaccine in Nicaragua**
Becker-Dreps, Sylvia; Amaya, Erick; Liu, Lan; More
Free Access Abstract
**Primary Immunization of Infants and Toddlers in Thailand with Japanese Encephalitis Chimeric Virus Vaccine in Comparison with SA14-14-2: A Randomized Study of Immunogenicity and…**
Feroldi, Emmanuel; Pancharoen, Chitsanu; Kosalaraksa, Pope; More
Free Access Abstract

**Pediatrics**
May 2014, VOLUME 133 / ISSUE 5
http://pediatrics.aappublications.org/current.shtml
[Reviewed earlier]

**Pharmaceutics**
Volume 6, Issue 2 (June 2014), Pages 195-

http://www.mdpi.com/1999-4923/6/1
[Reviewed earlier; No relevant content]

**Pharmacoeconomics**
Volume 32, Issue 5, May 2014
http://link.springer.com/journal/40273/32/5/page/1
[Reviewed earlier]

**PLoS One**
[Accessed 24 May 2014]
http://www.plosone.org/
**Predominance of Norovirus and Sapovirus in Nicaragua after Implementation of Universal Rotavirus Vaccination**
Filemón Bucardo, Yaoska Reyes, Lennart Svensson, Johan Nordgren
Research Article | published 21 May 2014 | PLOS ONE 10.1371/journal.pone.0098201
*Abstract*
Background
Despite significant reduction of rotavirus (RV) infections following implementation of RotaTeq vaccination in Nicaragua, a large burden of patients with diarrhea persists.
Methods
We conducted a community- and hospital-based study of the burden of RV, norovirus (NV) and sapovirus (SV) infections as cause of sporadic acute gastroenteritis (GE) among 330 children ≤ 5 years of age between September 2009 and October 2010 in two major cities of Nicaragua with a RotaTeq coverage rate of 95%.
Results
We found that NV, SV and RV infections altogether accounted for 45% of cases of GE. Notably, NV was found in 24% (79/330) of the children, followed by SV (17%, 57/330) and RV (8%, 25/330). The detection rate in the hospital setting was 27%, 15% and 14% for NV, SV and RV respectively, whereas in the community setting the detection rate of RV was < 1%. Among each of the investigated viruses one particular genogroup or genotype was dominant; GII.4 (82%) for NV, GI (46%) for SV and G1P[8] (64%) in RV. These variants were also found in higher proportions in the hospital setting compared to the community setting. The GII.4.2006 Minerva strain circulating globally since 2006 was the most common among genotyped NV in this study, with the GII.4-2010 New Orleans emerging in 2010.
Conclusions
This study shows that NV has become the leading viral cause of gastroenteritis at hospital and community settings in Nicaragua after implementation of RV vaccination.

**PLoS Medicine**
http://www.plosmedicine.org/
(Accessed 24 May 2014)
**Ethical Alternatives to Experiments with Novel Potential Pandemic Pathogens**
Marc Lipsitch Alison P. Galvani
Published: May 20, 2014
DOI: 10.1371/journal.pmed.1001646

*Summary Points*
:: "Gain of function" experiments involving the creation and manipulation of novel potential pandemic pathogens (PPPs) deserve ethical scrutiny regarding the acceptability of the risks of accidental or deliberate release and global spread.
:: The Nuremberg Code, a seminal statement of clinical research ethics, mandates that experiments that pose a risk to human life should be undertaken only if they provide humanitarian benefits that sufficiently offset the risks and if these benefits are unachievable by safer means.
:: A novel PPP research program of moderate size would pose substantial risks to human life, even optimistically assuming a low probability that a pandemic would ensue from a laboratory accident.
:: Alternative approaches would not only be safer but would also be more effective at improving surveillance and vaccine design, the two purported benefits of gain-of-function experiments to create novel, mammalian-transmissible influenza strains.
:: A rigorous, quantitative, impartial risk–benefit assessment should precede further novel PPP experimentation. In the case of influenza, we anticipate that such a risk assessment will show that the risks are unjustifiable. Given the risk of a global pandemic posed by such experiments, this risk assessment should be part of a broader international discussion involving multiple stakeholders and not dominated by those with an interest in performing or funding such research.

**PLoS Neglected Tropical Diseases**
April 2014
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**
http://www.pnas.org/content/early/
(Accessed 24 May 2014)
[No new relevant content]

**Pneumonia**
Vol 4 (2014)
https://pneumonia.org.au/index.php/pneumonia/issue/current
[Reviewed earlier]

**Public Health Ethics**
Volume 7 Issue 1 April 2014
http://phe.oxfordjournals.org/content/current
[Reviewed earlier]

**Qualitative Health Research**

June 2014; 24 (6)
http://qhr.sagepub.com/content/current
[No relevant content]

**Revista Panamericana de Salud Pública/Pan American Journal of Public Health (RPSP/PAJPH)**
March 2014 Vol. 35, No. 3
http://www.paho.org/journal/index.php?option=com_content&view=article&id=141&Itemid=235&lang=en
[Reviewed earlier]

**Risk Analysis**
May 2014 Volume 34, Issue 5 Pages 789–980
http://onlinelibrary.wiley.com/doi/10.1111/risa.2014.34.issue-5/issuetoc
[No relevant content]

**Science**
23 May 2014 vol 344, issue 6186, pages 773-936
http://www.sciencemag.org/current.dtl
***Introduction to Special Issue***
**The Science of Inequality: What the numbers tell us**
Gilbert Chin, Elizabeth Culotta
Author Affiliations
Gilbert Chin is a senior editor for Science and Elizabeth Culotta is a deputy news editor for Science.

In 2011, the wrath of the 99% kindled Occupy movements around the world. The protests petered out, but in their wake an international conversation about inequality has arisen, with tens of thousands of speeches, articles, and blogs engaging everyone from President Barack Obama on down. Ideology and emotion drive much of the debate. But increasingly, the discussion is sustained by a tide of new data on the gulf between rich and poor.

This special issue uses these fresh waves of data to explore the origins, impact, and future of inequality around the world. Archaeological and ethnographic data are revealing how inequality got its start in our ancestors (see pp. 822 and 824). New surveys of emerging economies offer more reliable estimates of people's incomes and how they change as countries develop (see p. 832). And in the past decade in developed capitalist nations, intensive effort and interdisciplinary collaborations have produced large data sets, including the compilation of a century of income data and two centuries of wealth data into the World Top Incomes Database (WTID) (see p. 826 and Piketty and Saez, p. 838).

It is only a slight exaggeration to liken the potential usefulness of this and other big data sets to the enormous benefits of the Human Genome Project. Researchers now have larger sample sizes and more parameters to work with, and they are also better able to detect patterns in the flood of data. Collecting data, organizing it, developing methods of analysis, extracting causal inferences, formulating hypotheses—all of this is the stuff of science and is more possible with economic data than ever before. Even physicists have jumped into the game, arguing that physical laws may help explain why inequality seems so intractable (see p. 828).

In the United States, the new information suggests a wide rift between top and bottom. Tax data from the WTID suggest that today the top 1% control nearly 20% of U.S. income, up from about 8% in the 1970s. But inequality is increasing within the 99%, too, as a consequence of a growing premium on college and postgraduate education: The fates of the tech-savvy worker at Google and the blue-collar employee at General Motors have been decoupled (see Autor, p. 843). According to surveys by the Census Bureau, in 2012 the richest 20% of Americans enjoyed more than 50% of the nation's total income, up from 43% in 1967. The middle 20%—the actual middle class—received only about 14% of all income, and the poorest got a mere 3% (see p. 820).

Flip to a world map, and America's inequality, despite reaching levels last seen in the Gilded Age, turns out to be far from extreme. Many nations, especially emerging economies, have even larger chasms between the super-rich and the poor. One widely used metric, the Gini coefficient, estimates inequality as an index between 0—at which point everyone has exactly equal incomes—to 1, in which a single person takes all the income and the rest get nothing. The U.S. Gini, at 0.40 in 2010, seems relatively high compared with, for example, Japan at 0.32. But South Africa is a sky-high 0.7.

Many assume that governments in emerging economies have chosen to favor growth even at the cost of inequality on the grounds that "a rising tide lifts all boats." But evidence that this trade-off is necessary is sparse, and recent data show that policies to reduce inequality need not stymie growth (see Ravallion, p. 851).

What of those at the bottom? Research has established a base of knowledge about the harmful effects of disadvantageous circumstances on education and health. These influences can begin early in life, even prenatally (see Aizer and Currie, p. 856). But researchers are still exploring whether the stress of being low-ranked itself adds to the poor's burden, causing illness and even early death (see p. 829). In addition, psychological mechanisms may spur a negative feedback loop in which poor individuals behave in ways that help keep them poor (see Haushofer and Fehr, p. 862).

Harsh as life can be for those at the bottom, the opportunity to move up the ladder can compensate. Newly available data from taxes and other records promise to yield insights into intergenerational mobility, in which children advance from their parents' socioeconomic status. But so far, researchers have a relatively limited view of how and why people move into different social, as well as economic, classes (see p. 836 and http://scim.ag/sci_inequality; also see Corak, p. 812).

Few would deny that excessive inequality can be unhealthy for societies and economies, but the new data don't pinpoint a desirable level. They do show that the forces that foster inequality—from the patchy distribution of resources among ancient hunter-gatherers to the sheer earning power of capital today—are many and potent. It is up to society to decide whether, and how, to restrain them (see p. 783).

[Selected articles from special issue]

***Review***

## Income inequality in the developing world

Martin Ravallion

Author Affiliations

Department of Economics, Georgetown University, Washington, DC 20057, and National Bureau of Economic Research, Cambridge, MA 02138, USA.

*Abstract*

Should income inequality be of concern in developing countries? New data reveal less income inequality in the developing world than 30 years ago. However, this is due to falling inequality

between countries. Average inequality within developing countries has been slowly rising, though staying fairly flat since 2000. As a rule, higher rates of growth in average incomes have not put upward pressure on inequality within countries. Growth has generally helped reduce the incidence of absolute poverty, but less so in more unequal countries. High inequality also threatens to stall future progress against poverty by attenuating growth prospects. Perceptions of rising absolute gaps in living standards between the rich and the poor in growing economies are also consistent with the evidence.

***Review***

**On the psychology of poverty**

Johannes Haushofer1,2,3,4,*, Ernst Fehr3,*
Author Affiliations
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4Department of Psychology and Woodrow Wilson School of Public and International Affairs, Princeton University, Princeton, NJ 08544, USA.

*Abstract*

Poverty remains one of the most pressing problems facing the world; the mechanisms through which poverty arises and perpetuates itself, however, are not well understood. Here, we examine the evidence for the hypothesis that poverty may have particular psychological consequences that can lead to economic behaviors that make it difficult to escape poverty. The evidence indicates that poverty causes stress and negative affective states which in turn may lead to short-sighted and risk-averse decision-making, possibly by limiting attention and favoring habitual behaviors at the expense of goal-directed ones. Together, these relationships may constitute a feedback loop that contributes to the perpetuation of poverty. We conclude by pointing toward specific gaps in our knowledge and outlining poverty alleviation programs that this mechanism suggests.

**Social Science & Medicine**
Volume 113, In Progress (July 2014)

**Valuing QALYs at the end of life**

Original Research Article
Pages 5-14

Jose-Luis Pinto-Prades, Fernando-Ignacio Sánchez-Martínez, Belen Corbacho, Rachel Baker

*Abstract*

The possibility of weighting QALYs differently for different groups of patients has been a source of debate. Most recently, this debate has been extended to the relative value of QALYs at the end of life (EoL). The objective of this study is to provide evidence of societal preferences in relation to this topic. Three cross-sectional surveys were conducted amongst Spanish general population (n = 813). Survey 1 compared increases in life expectancy for EoL patients with health gains from temporary health problems. Survey 2 compared health gains for temporary health problems with quality of life gains at the EoL (palliative care). Survey 3 compared increases in life expectancy with quality of life gains, both for EoL patients. Preferences were elicited using Person Trade-Off (PTO) and Willingness to pay (WTP) techniques presenting two different durations of health benefit (6 and 18 months). Health benefits, measured in QALYs, were held constant in all comparisons.

In survey 1 mean WTP was higher for life extending treatments than for temporary health problems and the majority of respondents prioritised life extension over temporary health problems in response to the PTO questions. In survey 2 mean WTP was higher for palliative care than for temporary health problems and 83% prioritized palliative care (for both durations) in the PTO questions. In survey 3 WTP values were higher for palliative care than for life extending treatments and more than 60% prioritized palliative care in the PTO questions. Our results suggest that QALYs gained from EoL treatments have a higher social value than QALYs gained from treatments for temporary health problems. Further, we found that people attach greater weight to improvements in quality of life than to life extension at the end of life.

**Are public–private partnerships a healthy option? A systematic literature review**

Original Research Article

Pages 110-119

Jens K. Roehrich, Michael A. Lewis, Gerard George

*Abstract*

Governments around the world, but especially in Europe, have increasingly used private sector involvement in developing, financing and providing public health infrastructure and service delivery through public–private partnerships (PPPs). Reasons for this uptake are manifold ranging from rising expenditures for refurbishing, maintaining and operating public assets, and increasing constraints on government budgets stifle, seeking innovation through private sector acumen and aiming for better risk management. Although PPPs have attracted practitioner and academic interest over the last two decades, there has been no attempt to integrate the general and health management literature to provide a holistic view of PPPs in healthcare delivery. This study analyzes over 1400 publications from a wide range of disciplines over a 20-year time period. We find that despite the scale and significance of the phenomenon, there is relatively limited conceptualization and in-depth empirical investigation. Based on bibliographic and content analyses, we synthesize formerly dispersed research perspectives into a comprehensive multi-dimensional framework of public-private partnerships. In so doing, we provide new directions for further research and practice.

Volume 112, Pages 1-88 (July 2014)

http://www.sciencedirect.com/science/journal/02779536/112

**Attitudes to vaccination: A critical review**

Review Article

Pages 1-11

Ohid Yaqub, Sophie Castle-Clarke, Nick Sevdalis, Joanna Chataway

*Abstract*

This paper provides a consolidated overview of public and healthcare professionals' attitudes towards vaccination in Europe by bringing together for the first time evidence across various vaccines, countries and populations. The paper relies on an extensive review of empirical literature published in English after 2009, as well as an analysis of unpublished market research data from member companies of Vaccines Europe. Our synthesis suggests that hesitant attitudes to vaccination are prevalent and may be increasing since the influenza pandemic of 2009. We define hesitancy as an expression of concern or doubt about the value or safety of vaccination. This means that hesitant attitudes are not confined only to those who refuse vaccination or those who encourage others to refuse vaccination. For many people, vaccination attitudes are shaped not just by healthcare professionals but also by an array of other information sources, including online and social media sources. We find that healthcare professionals report increasing challenges to building a trustful relationship with patients,

through which they might otherwise allay concerns and reassure hesitant patients. We also find a range of reasons for vaccination attitudes, only some of which can be characterised as being related to lack of awareness or misinformation. Reasons that relate to issues of mistrust are cited more commonly in the literature than reasons that relate to information deficit. The importance of trust in the institutions involved with vaccination is discussed in terms of implications for researchers and policy-makers; we suggest that rebuilding this trust is a multi-stakeholder problem requiring a coordinated strategy.

**Tropical Medicine and Health**
Vol. 42(2014) No. 1
https://www.jstage.jst.go.jp/browse/tmh/42/1/_contents
[No relevant content]

**Vaccine**
Volume 32, Issue 28, Pages 3469-3568 (12 June 2014)
http://www.sciencedirect.com/science/journal/0264410X/32/28
**Social inequalities in vaccination uptake among children aged 0–59 months living in Madagascar: An analysis of Demographic and Health Survey data from 2008 to 2009**
Original Research Article
Pages 3533-3539
S. Clouston, R. Kidman, T. Palermo
*Abstract*
Background
Socioeconomic inequalities in vaccination can reduce the ability and efficiency of global efforts to reduce the burden of disease. Vaccination is particularly critical because the poorest children are often at the greatest risk of contracting preventable infectious diseases, and unvaccinated children may be clustered geographically, jeopardizing herd immunity. Without herd immunity, these children are at even greater risk of contracting disease and social inequalities in associated morbidity and mortality are amplified.
Methods
Data on vaccination for children under five came from the most recent Demographic and Health Survey in Madagascar (2008–2009). Vaccination status was available for diptheria, pertussis, tetanus, hepatitis B, measles, tuberculosis, poliomyelitis, and H. influenza type-B. Multilevel logistic regression was used to analyze childhood vaccination by parental socioeconomic status while accounting for shared district, cluster, and household variation. Maps were created to serve as a roadmap for efforts to increase vaccination.
Findings
Geographic variation in vaccination rates was substantial. Districts that were less covered were near other districts with limited coverage. Most districts lacked herd immunity for diphtheria, pertussis, poliomyelitis and measles. Full herd immunity was reached in a small number of districts clustered near the capital. While within-district variation in coverage was substantial; parental education and wealth were independently associated with vaccination.
Interpretation
Socioeconomic inequalities in vaccination reduce herd immunity and perpetuate inequalities by allowing infectious diseases to disproportionately affect the most vulnerable populations. Findings indicated that most districts had low immunization coverage rates and unvaccinated

children were geographically clustered. The result was inequalities in vaccination and reduced herd immunity. To further improve coverage, interventions must take a multilevel approach that focuses on both supply- and demand-side barriers to delivering vaccination to underserved regions, and to the poorest children in those regions.

Volume 32, Issue 27, Pages 3341-3468 (5 June 2014)
http://www.sciencedirect.com/science/journal/0264410X/32/27

**Predictors of optional immunization uptake in an urban south Indian population**

Original Research Article

Pages 3417-3423

Kalpana Manthiram, Emily A. Blood, Vasanthan Kuppuswamy, Yolanda Martins, Athi Narayan, Kelly Burmeister, K. Parvathy, Areej Hassan

*Abstract*

Background

In Tamil Nadu, India, bacille Calmette–Guérin, diphtheria–tetanus–pertussis, oral poliomyelitis, hepatitis B, and measles vaccines are part of the routine immunization schedule and are available free from government health centers. All other vaccines are optional and available in the private sector at a cost to families. This study assesses immunization rates of routine and optional vaccines and examines parental attitudes toward vaccines in Pallavapuram, Tamil Nadu.

Methods

The cluster sampling method was used to estimate immunization coverage. Seven children 18 to 36 months old were selected from 30 clusters for a total sample of 210 children. Demographics and vaccination data were collected from interviews and immunization records. Predictors of vaccination status were identified with logistic regression models. In addition, 21 parents participated in semi-structured interviews regarding their attitudes toward vaccination. Interviews were analyzed qualitatively for themes.

Results

Eighty one percent of children were fully immunized with routine vaccines. However, only 21% received all "major" optional vaccines, defined as 3 doses of Haemophilus influenzae type b vaccine, one dose of measles, mumps, rubella vaccine, and one dose of varicella zoster virus vaccine. Birth in a private hospital (OR 5.6, 95% CI 1.3 to 22.9, $P < 0.01$), higher income ($P = 0.03$), and maternal completion of high school (OR 6.4, 95% CI 1.5 to 27.6, $P < 0.01$) were significant predictors of receiving all major optional vaccines. Elucidated themes from interviews included (1) strong parental support for immunizations, (2) low concern for side effects, and (3) low uptake of optional vaccines due to high cost and lack of awareness.

Conclusions

Coverage of optional vaccines is low despite positive attitudes toward immunizations. Efforts to reduce cost and increase awareness of these vaccines particularly among low-income families or to include these vaccines in the routine schedule may increase uptake and reduce morbidity and mortality from vaccine-preventable diseases.

**Decomposing socioeconomic inequality in child vaccination: Results from Ireland**

Original Research Article

Pages 3438-3444

Edel Doherty, Brendan Walsh, Ciaran O'Neill

*Abstract*

Background

There is limited knowledge of the extent of or factors underlying inequalities in uptake of childhood vaccination in Ireland. This paper aims to measure and decompose socioeconomic inequalities in childhood vaccination in the Republic of Ireland.
Methods
The analysis was performed using data from the first wave of the Growing Up in Ireland survey, a nationally representative survey of the carers of over 11,000 nine-month old babies collected in 2008 and 2009. Multivariate analysis was conducted to explore the child and parental factors, including socioeconomic factors that were associated with non-vaccination of children. A concentration index was calculated to measure inequality in childhood vaccination. Subsequent decomposition analysis identified key factors underpinning observed inequalities.
Results
Overall the results confirm a strong socioeconomic gradient in childhood vaccination in the Republic of Ireland. Concentration indices of vaccination (CI = −0.19) show a substantial pro-rich gradient. Results from the decomposition analysis suggest that a substantial proportion of the inequality is explained by household level variables such as socioeconomic status, household structure, income and entitlement to publicly funded care (29.9%, 24% 30.6% and 12.9% respectively). Substantial differences are also observed between children of Irish mothers and immigrant mothers from developing countries.
Conclusions
Vaccination was less likely in lower than in higher income households. Access to publicly funded services was an important factor in explaining inequalities.

**Vaccine: Development and Therapy**
(Accessed 24 May 2014)
http://www.dovepress.com/vaccine-development-and-therapy-journal
[No new relevant content]

**Vaccines — Open Access Journal**
(Accessed 24 May 2014)
http://www.mdpi.com/journal/vaccines
[No new relevant content]

**Value in Health**
Vol 17 | No. 3 | May 2014
http://www.valueinhealthjournal.com/current
[Reviewed earlier]

**WHO South-East Asia Journal of Public Health**
Volume 3, Issue 1, January-March 2014, 1-122
http://www.searo.who.int/publications/journals/seajph/issues/whoseajphv3n1/en/
*Special Issue on Vector-borne diseases*
***Editorial***
**Vector-borne diseases in South-East Asia: burdens and key challenges to be addressed**

**pdf, 734kb**
Page 2-4
Rajesh Bhatia, Leonard Ortega, A P Dash, Ahmed Jamsheed Mohamed

## ***From Google Scholar & other sources: Selected Journal Articles, Newsletters, Dissertations, Theses, Commentary***

**ASIAN JOURNAL OF MEDICAL SCIENCES**
Oct-Dec 2014 | Vol 5 | Issue 4
[PDF] **Knowledge, attitude and perceptions of mothers with children under five years of age about vaccination in Mangalore, India**
Soundarya Mahalingam1, Abhijna Soori2, Pradhum Ram2, Basavaprabhu Achappa3, Mukta Chowta4, Deepak Madi3
1Associate Professor, Paediatrics, Kasturba Medical College, Mangalore, Affiliate to Manipal University, 2Final Year MBBS Student, Kasturba Medical College, Mangalore, Affiliate to Manipal University, 3Associate Professor, Internal Medicine, Kasturba Medical College, Mangalore, Affiliate to Manipal University, 4Additional Professor, Pharmacology, Kasturba Medical College, Mangalore, Affiliate to Manipal University
*Abstract*
Objective: Vaccination is a cost-effective intervention to prevent major illnesses that contribute to child mortality in the country. Increase in parental knowledge about vaccination will lead to increase in vaccination rates of children The main aim of our study was to assess the Knowledge (K), attitudes (A) and perceptions (KAP) of mothers with children under five years of age about vaccination. We also compared the KAP data between urban and rural setup.

Methodology: This cross sectional descriptive study was conducted on mothers attending the Urban Health Centre (in Mangalore city) and on mothers attending a Peripheral Health Centre (Bengre, outskirts of Mangalore) having children under five years of ageA semi structured pre validated questionnaire designed to assess the Knowledge, Attitudes and Perceptions about vaccination was administered to mothers attending the Urban Health Centre and on mothers attending a Peripheral Health Centre having children under five years of age.

Results: Among the study participants, 74 were from urban setup and 126 from rural set up. Around 8 (10.8%) from urban area and 78(61.9%) from rural area were illiterate. Mothers were the main decision makers regarding vaccination of the child in both urban and rural setup. The main source of information regarding vaccination differed among urban and rural setup, being the hospital and the anganwadi worker respectively. There was a statistically significant difference between urban and rural mothers when it was asked whether they knew why vaccination was important. A majority of the mothers both in the urban and rural areas believed that vaccines were safe. Among the urban mothers 90.5% and 62.7% of mother from rural were able to identify polio as a vaccine preventable disease. On a net analysis, 64(86.5%) mothers in the urban area and only 64 (50.8%) mothers in the rural area mothers found to have favourable knowledge, attitudes, perceptions and practices towards vaccination.

Conclusion: A significant number of mothers in rural areas were unaware about the vaccination and its implications. Even in the urban areas we found significant lacunae in the KAP of mothers towards childhood vaccination.

**Journal of Health Care for the Poor and Underserved (JHCPU)**
Volume 25, Number 2, May 2014
http://muse.jhu.edu/journals/journal_of_health_care_for_the_poor_and_underserved/toc/hpu.25.2.html

## Cervical Cancer and HPV: Knowledge, Attitudes, Beliefs, and Behaviors among Women Living in Guatemala

Amy Petrocy, Mira L. Katz

*Abstract:*
This study was conducted to explore knowledge, attitudes, and beliefs about cervical cancer, cervical cancer screening, human papillomavirus (HPV), and acceptance of the HPV vaccine. A purposive sample of 40 women was interviewed during August 2012. Fisher's exact test was used to evaluate differences among rural and urban women, and open-ended questions were coded independently by two individuals (Cohen's kappa coefficient of 0.816). Among the 22 rural and 18 urban women, there was limited knowledge about cervical cancer, screening, HPV, and the HPV vaccine. Cervical cancer was described in language related to gender, science, severity, or associated with having children, a uterus, or menstruation. All rural and most urban participants were interested in the HPV vaccine for themselves and their daughters. Limited awareness and knowledge about cervical cancer and HPV was common among Guatemalan women, highlighting the need for additional information prior to developing cancer prevention educational materials and programs.

## Fighting Cervical Cancer with Vaccines and Vinegar

Embassy of the United States of America in Gaborone, Botswana
[no issue date evident]

*Excerpt*

Gaborone, Botswana – Two years ago, Dr. Mmakgomo "Mimi" Raesima was put in charge of cervical cancer prevention at the Ministry of Health with the task of figuring out how to end its reign as the No. 1 cancer killer of women in Botswana.

This was no easy task given that cervical cancer accounts for more than a quarter of all cancer in Batswana women. Worldwide, about half a million women are diagnosed with cervical cancer every year and around 275,000 women die from the disease, 85% of whom live in low- and middle-income countries.

Undeterred by these challenges, Dr. Raesima has taken the reins and set into motion a new prevention and control strategy with some innovative and cost-effective techniques for fighting cervical cancer in Botswana, including two unlikely weapons: vaccines and vinegar.

With support from partners including the U.S. government, Dr. Raesima plans to scale-up "See and Treat" clinics where women are screened for cervical cancer, diagnosed and treated all in one visit. The clinics use a remarkably simple and low-cost acetic test – otherwise known as household vinegar – to screen for cancerous cells in women.

Meanwhile, plans are moving ahead to vaccinate young Batswana women against the human papillomavirus (HPV), the cause of cervical cancer. Last year, more than 2,000 girls between the ages of 9-11 were voluntarily vaccinated in a demonstration project in Molepolole schools. This year starting in March, the HPV vaccine was being offered in Kweneng East, Kweneng West and Selibe-Phikwe districts.

"Botswana is becoming a leader in the response to cervical cancer and that is exciting," Dr. Raesima said in a recent interview.

Partnerships between the Government of Botswana and the United States through the President's Emergency Plan for AIDS Relief (PEPFAR) and the Pink Ribbon Red Ribbon Initiative

(PRRR) have helped to put the strategy into motion, Raesima said. "The reason that we are moving ahead so quickly is because of this support. It's what's driving our strategy."…

***Media/Policy Watch***

This section is intended 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 in 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 24 May 2014*

***Opinion***

**Pakistan's polio puzzle**

*Why does Pakistan continue to suffer from polio, despite billions of dollars spent on eradication programmes?*

Last updated: 23 May 2014 10:00

Samia Altaf

Dr Samia Altaf, a public health physician, was the 2007-08 Pakistan Scholar at the Woodrow Wilson Center in Washington, DC. She is the author of So Much Aid, So Little Development: Stories from Pakistan published by the Johns Hopkins University Press in 2011.

*Excerpt*

…Conventional wisdom now offers a convenient excuse for Pakistan's failure to remove polio: Service-delivery challenges, such as the horrifying attacks on polio workers, and increased militancy and unrest throughout the country need to be addressed through the holy trinity of funding, technology and organisation. The situation has grown more challenging, but focusing attention on these new and immediate issues only helps to obscure the deeper underlying problem that has been present from the beginning.

What's been missing in Pakistan for so many decades is an understanding of the big picture - which means, in part, acknowledging that funding, technology and organisation do not exist in a vacuum, but are applied in particular ways to particular contexts.

If increasing amounts of funding, steadily developing science and modified organisational plans have consistently failed, the only logical step is an analysis of the context. To use a medical analogy: There is pathology here, and increasing doses of the old medicine have not worked. Before upping the dose again or changing the prescription, the disease has to be diagnosed.

The best place to look is in the design and implementation strategy of the polio-eradication programmes to which all the funding, technology and organisation have been applied.

Pakistan's Polio Eradication Programme was designed three decades ago and has not changed since.

It is now outmoded and radically out of sync with the local context. It is rigidly structured and inflexible, unable to respond to challenges either in the field or at the policy level. Management responsibility has been divided between United Nations agencies, non-governmental organisations, and the government - yet there are still significant overlaps between the tasks of the provincial and central government. Thus these efforts are uncoordinated and no one is truly accountable.

*Mistakes repeated*

In the past few decades, repeated trials of the same programme have replicated the same mistakes at each step. Donors prioritise how much money is spent, rather than how effectively it is spent - and in any case, there are many donors, NGOs and other agencies competing over the same turf. Inadequately trained staff are hired only for intensive campaigns of a few days, and therefore - despite the best of intentions and despite the incredible courage that has become increasingly necessary for them - they are poorly informed and not invested in the programme's overall success.

There is rarely any attempt to communicate effectively to the recipient population about the vaccinations. At best, printed brochures are distributed, but given that literacy rates are low in many of the at-risk communities (the literacy rate for women is barely above 50 percent in Punjab and is less than half that in Balochistan), these are largely useless.

The inability to even properly inform the population reflects a more disturbing problem: That polio eradication in Pakistan has consistently treated the recipients as little more than passive and recalcitrant targets. Their context has been brushed aside entirely, in a trend that is only growing worse. The dollars, the technology and the organisational changes are closely examined - but no one takes more than a glance at the men, women and children who are meant to benefit from them. There is, of course, no space for communities to have a say in the programmes themselves - no one has even thought to ask them the basic questions…

**The Atlantic**
http://www.theatlantic.com/magazine/
*Accessed 24 May 2014*
[No new, unique, relevant content]

**BBC**
http://www.bbc.co.uk/
*Accessed 24 May 2014*
[No new, unique, relevant content]

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**Polio - An unwelcome return**
[Babbage – Science and Technology]
May 21st 2014

IN 1988 polio caused huge concern: the disease, which leaves one victim in every 200 paralysed, was prevalent in more than 125 countries which together counted 350,000 cases annually. A quarter of a century and 2.5 billion vaccinated children later, the virus looked close to extinction: just five countries reported new instances of polio in 2012. The World Health Organisation (WHO) declared that by 2018 it should be history, alongside smallpox, another once-feared killer. And in March of this year India, which five years ago accounted for nearly half of all cases, was declared polio-free.

Yet the prospect that the whole world will achieve the same feat is now slipping away. In a change of tune, the WHO earlier this month declared polio a "public health emergency of international concern"—something it has done only once before, with the pandemic flu in 2009. So far this year 77 polio cases have been reported, up from 33 in the same period of 2013, despite it being the disease's low season. These are spread across eight countries: Pakistan, Afghanistan, Cameroon, Equatorial Guinea, Ethiopia, Iraq, Syria and Nigeria. Laboratory analyses of faecal samples show that three of the countries (Pakistan, Syria and Cameroon) have recently transmitted the virus to neighbours—particularly alarming for the WHO. Problems persist elsewhere too. Somalia had a case of polio as recently as December, and Israel has detected the virus in its sewage system.

Although children are more likely to catch polio, adults are helping to spread it. The WHO has asked all ten affected countries to encourage departing travellers to get vaccinated and told the three known to have exported it to refuse exit to anyone without a vaccination certificate. The fear is that the disease will spread to other politically unstable countries. The approach of the Asian monsoon season adds urgency: polio is transmitted more easily in humid conditions, and when already poor sanitations systems are overwhelmed.

Heidi Larson of the London School of Hygiene and Tropical Medicine puts the blame for fuelling the transmission of polio largely on Pakistan. It is the big backslider, accounting for the vast majority of cases (61 out of 77) this year, compared with just eight during the same period in 2013.

In recent years Pakistan has allowed some of its most lawless regions to become havens for the virus. Hardly any of the 290,000 children in the two Waziristans, for example, have been vaccinated since 2012—the year militant chieftains declared a ban on the work of vaccinators, most likely in retaliation for American drone strikes. The fact that the CIA is said to have used a fake vaccine campaing in the search for Osama Bin Laden has not helped the cause. (In response to a wave of deadly attacks on polio workers in the region, the American government said yesterday that the CIA has ended the use of vaccine programmes in its spying operations.) In addition, people in the region are exceptionally mobile, with large in- and outflows of jihadists, aid workers and refugees, all acting as possible couriers of the disease. Many of the strands found around the world, including in Israel and Afghanistan, originated in Pakistan. Beyond the steps proposed by the WHO, more health diplomacy and intelligent security efforts could help curb polio's spread by facilitating medical activities in conflict zones, says Dr Larson. But she admits that the Pakistani situation is far more complex than the one in northern Nigeria during the region's polio-vaccination boycott in 2003-04, which Dr Larson helped to end as part

of UNICEF's negotiating team. Internal conflict and tribal loyalties in Pakistan are complicating matters.

It is critical to combat polio quickly, while its resurgence is still small. The downside of the disease becoming so rare—even with the increase in the number of cases this year, the disease's occurrence has diminished by over 99% since 1988—is that people's natural resistance has also been reduced. A failure to eradicate the disease could lead to as many as 200,000 new cases per year within the next decade, warns the Gates Foundation, which spends a lot of money to fight polio. This would put huge strain on medical budgets: a worldwide vaccination campaign, for instance, costs around $1 billion per year. But as Benjamin Neuman, a virologist at the University of Reading, points out, "you need to eradicate wars before you can eradicate polio."

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