Center for Vaccine Ethics and Policy
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Vaccines and Global Health: The Week in Review
17 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.

Comments and suggestions should be directed to
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WHO: Fifth Meeting of the IHR Emergency Committee concerning MERS-CoV

WHO statement
14 May 2014
[Full text; Editor's text bolding]

The fifth meeting of the Emergency Committee convened by the Director-General under the International Health Regulations (2005) concerning Middle East respiratory syndrome coronavirus (MERS-CoV) was held by teleconference on Tuesday, 13 May 2014, from 12:07 to 17:12 Geneva time (CEST).

In addition to Members of the Emergency Committee, three expert advisors participated in the informational session only1. These advisors did not participate in the formulation of advice to the Director-General.

Thirteen affected States Parties reporting cases of MERS-CoV or evidence of infection since December 2013, were also on the first part of the teleconference: Egypt, Greece, Jordan, Kuwait, Lebanon, Malaysia, Oman, Philippines, Qatar, Saudi Arabia, United Arab Emirates, United States of America, and Yemen.

The WHO Secretariat provided an update on and assessment of epidemiological and scientific developments, including a description of the recent increase in cases in communities and in hospitals, transmission patterns, and the main observations of a WHO mission to Saudi Arabia, conducted 28 April – 5 May 2014.

Affected countries gave information about recent events in their countries, including measures taken and their concerns about the current situation.

The Members of the Committee discussed the information provided. Based on current information, the Committee indicated that the seriousness of the situation had increased in terms of public health impact, but that there is no evidence of sustained human-to-human transmission. As a result of their deliberations, the Committee concluded that the conditions for a Public Health Emergency of International Concern (PHEIC) have not yet been met.

However, the Committee emphasized that its concern about the situation had significantly increased. Their concerns centred on the recent sharp rise in cases; systemic weaknesses in infection prevention and control, as well as gaps in critical information; and possible exportation of cases to especially vulnerable countries.

The Committee strongly urged WHO and Member States to take immediate steps to:
:: improve national policies for infection prevention and control, and implement them in health-care facilities in all countries; this is most urgent for affected countries;
:: initiate and accelerate critical investigations, including case-control, serological, environmental, and animal studies, to better understand the epidemiology, especially risk factors and assess the effectiveness of control measures;
:: support countries that are particularly vulnerable, especially in sub-Saharan Africa, taking into account the regional challenges;
:: strengthen case and contact identification and management;
:: greatly enhance awareness and effective risk communication concerning MERS-CoV to the general public, health professionals, at-risk groups, and policy makers;
:: strengthen intersectoral collaboration and information sharing across ministries and with relevant international organizations, especially with the World Organization for Animal Health (OIE) and the Food and Agriculture Organization of the United Nations (FAO);
:: develop and disseminate advice regarding mass gatherings to prevent further spread of MERS-CoV;
:: share information in a timely manner with WHO, in accordance with the International Health Regulations (2005).

Based on the Committee's advice, and information currently available, the Director-General accepted the Committee's assessment. She thanked the Committee for its work.

The WHO Secretariat will continue to provide regular updates to the Committee Members and Advisors. In view of the Committee's concerns, the Emergency Committee will be reconvened in June 2014 or earlier if circumstances require.

CDC/MMWR Watch [to 17 May 2014]
http://www.cdc.gov/mmwr/mmwr_wk.html
:: **CDC Transcript: Second case of Middle East Respiratory Syndrome Coronavirus infection (MERS) in the United States - Transcript**
Monday, May 12, 2014, 5:00 PM
Transcipt of the telebriefing detailing a second imported case of Middle East Respiratory Syndrome (MERS) which was confirmed late night on May 11 in a traveler to the United States. This patient is a healthcare worker who resides and works in Saudi Arabia.
:: **CDC announces second imported case of Middle East Respiratory Syndrome (MERS) in the United States - Press Release**
Monday, May 12, 2014, 5:00 PM
A second imported case of Middle East Respiratory Syndrome (MERS) was confirmed late night

on May 11 in a traveler to the United States. This patient is a healthcare worker who resides and works in Saudi Arabia.
MMWR, May 16, 2014 / Vol. 63 / No. 19
:: First Confirmed Cases of Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Infection in the United States, Updated Information on the Epidemiology of MERS-CoV Infection, and Guidance for the Public, Clinicians, and Public Health Authorities — May 2014

WHO Europe: Middle East respiratory syndrome coronavirus (MERS-CoV) update: cases reported in the Netherlands, and implications for the European Region
16 May 2014
Excerpt
…Situation in the European Region
In the European Region, since April 2012, in total 12 laboratory-confirmed cases have been reported by France, Germany, Greece, Italy, the Netherlands and the United Kingdom. With the exception of three cases who were close contacts of laboratory-confirmed cases in France and the United Kingdom, all the other cases have been returning travellers or residents of countries of the Middle East. The most recent cases were reported by Greece (1 case reported to WHO on 18 April 2014) and by the Netherlands (2 cases reported to WHO on 14 and 15 May 2014). The Greek case is a Greek citizen living in Saudi Arabia who came to Greece on holiday and was diagnosed in Athens on arrival. The two cases in the Netherlands were returning travellers from countries of the Middle East. Extensive tracing of contacts of these cases has been conducted or is under way to ensure that any new cases are detected in a timely fashion….

WHO: Global Alert and Response (GAR) – *Disease Outbreak News* *[to 17 May 2014]*
http://www.who.int/csr/don/en/
:: Middle East respiratory syndrome coronavirus (MERS-CoV) – update 15 May 2014
:: Human infection with avian influenza A(H7N9) virus – update 15 May 2014
:: Ebola virus disease, West Africa – update 15 May 2014
:: Ebola virus disease, West Africa – update 12 May 2014

Polio [to 17 May 2014]
GPEI Update: Polio this week - *As of 14 May 2014*
Global Polio Eradication Initiative
Full report: http://www.polioeradication.org/Dataandmonitoring/Poliothisweek.aspx
[Editor's extract and bolded text]
:: The 67th World Health Assembly, the world's highest health policy setting body, is set to meet from 19-24 May. The report of the polio eradication programme to the Assembly is available here.
:: A case of polio due to wild poliovirus type 1 (WPV1) was reported this week from the Nigerian state of Yobe with onset of paralysis on 19 April. This is the first case in this state since July 2013. Genetic sequencing is ongoing to determine the origin of the virus.
Nigeria
:: A case of polio due to wild poliovirus type 1 (WPV1) was reported this week from the Nigerian state of Yobe with onset of paralysis on 19 April. This is the first case in this state since July 2013. Genetic sequencing is ongoing to determine the origin of the virus. The total number of WPV1 cases for 2014 is three

Pakistan

:: Two new WPV1 cases were reported in the past week (one from North Waziristan, Federally Administered Tribal Areas - FATA - and one from Gadap, greater Karachi), bringing the total number of WPV1 cases for 2014 to 61. The most recent WPV1 case had onset of paralysis on 20 April (from North Waziristan).

Pakistan: Polio vaccine a must for exit travelers

Associated Press
May 13, 2014 12:35 PM

ISLAMABAD (AP) — Pakistan will require all travelers leaving the country to obtain a polio vaccination from June 1, 2014, the health ministry said Tuesday.

A statement from the ministry said the restrictions comply with a decision by the World Health Organization advising travelers of all ages to be vaccinated by next month.

It says all provinces have been provided necessary guidance and material to set up special counters at hospitals and airports for polio vaccination and certification.

The ministry spokesman Sajid Shah says pregnant women traveling abroad are not exempted from the restrictions and the vaccination is not injurious for them…

The Lancet
Volume 383, Issue 9930, Pages 1697 - 1698, 17 May 2014
doi:10.1016/S0140-6736(14)60751-0

Beyond expectations: 40 years of EPI

Margaret Chan

[Full text]

The Expanded Programme on Immunization (EPI) was established by the World Health Assembly in 1974 at a time of great optimism for public health. The imminent certification for the eradication of smallpox was taken as proof of the power of vaccines, delivered in well-managed programmes, to permanently improve the world.[1]

When EPI was established, only about 5% of the world's children were protected from six diseases (polio, diphtheria, tuberculosis, pertussis, measles, and tetanus) targeted by four vaccines. Today, that figure is 83%, with some low-income countries reaching 99% immunisation coverage.[2] The number of public health vaccines being used for universal protection has more than doubled since 1974. Almost all countries include vaccines against hepatitis B and Haemophilus influenzae type b in addition to the original six diseases, and quality-assured vaccines are used in 97% of all countries.[3] Today, WHO estimates that immunisation programmes save the lives of 2·5 million people each year and protect many millions more from illness and disability.[4] With the certification of WHO's South-East Asia Region as polio-free, 80% of the world's population now lives in a country where polio has been eradicated.[5]

What accounts for this success? Does EPI offer lessons of broader relevance as the world prepares for the post-2015 era? EPI had some advantages from the outset. The prevention of childhood deaths has great public and political appeal, and that helped create momentum within individual countries and the international community to support immunisation programmes. Vaccines are scheduled interventions that can be delivered even in the absence of well functioning health systems, and even in places where capacities are weak and skilled health workers are scarce. The costs of the initial six EPI antigens against polio, diphtheria, tuberculosis, pertussis, measles, and tetanus were low.

But EPI's success must be attributed to more than these advantages. During the past four decades, EPI has encouraged new models of international cooperation, found new sources of funding, and stimulated innovation in technology and the operational performance of national immunisation programmes.[3] EPI has also pioneered improvements in surveillance and monitoring as a contribution to accountability for results.[3] Fundamental public health capacities have also been strengthened; as just one example, there are nearly 700 laboratories, in 164 countries, accredited by WHO to undertake laboratory-based surveillance for measles and other vaccine-preventable epidemic-prone diseases.[6]

The establishment of the GAVI Alliance in 2000 helped launch the most innovative EPI decade to date.[7] Since the start of this century, WHO, UNICEF, and the GAVI Alliance have worked to change the dynamics of the market for public health vaccines, making supplies more plentiful, predictable, and affordable.[8] Collaboration with the pharmaceutical industry also intensified, leading not only to new vaccines against the world's biggest childhood diseases, but also to new product designs and formulations that simplified safe administration in resource-constrained settings.[9]

A commitment to fairness has always been a driving force for the expansion of immunisation coverage and the introduction of new products. GAVI, with support from WHO, UNICEF, and others, has increased equitable access through rapid introduction of the newer and more expensive vaccines into the routine immunisation programmes of low-income countries. In 1997, for example, only 29 countries, mostly wealthy, used Haemophilus influenzae type b (Hib) vaccines in their national programmes, but by 2014 that number had increased to about 190 countries, including nearly all low-income countries. Financial sustainability for national immunisation programmes, however, remains a concern in several countries.

For public health, the previous century was an era of treatment that relied on technology-driven medicine to combat infectious diseases. With chronic non-communicable diseases now responsible for most deaths worldwide,[10] the 21st century must be an era of prevention. Immunisation programmes—a prime model for prevention—have dealt with the problems of poor procurement policies, weak supply chains, infrequent supportive supervision, insufficient planning, and inadequate engagement of community leaders.[3] Any goals set for health in the post-2015 era will need to address similar problems.

In this the Decade of Vaccines, EPI and its community of partners are focused on the estimated 22 million children who are still not reached by immunisation programmes.[11] In doing so, they are guided by the Global Vaccine Action Plan, which aims to extend the full benefits of immunisation to all people.[12, 13] Beyond the eradication of polio and the elimination of measles, rubella, and tetanus, the framework calls for all countries to reach 90% national immunisation coverage and 80% coverage in every district, with provision of essential vaccines, including vaccines against pneumococcal disease and rotavirus diarrhoea. Doing so will avert an estimated 24—26 million deaths by 2020, improving the world beyond EPI's initial expectations.[12]

I see many signs that this desire to aim ever higher, with ambitious yet feasible goals, such as exceeding the Millennium Development Goal for reducing childhood mortality, eliminating a number of the neglected tropical diseases, and reducing tuberculosis deaths by 75%, will characterise the post-2015 era for public health. The future of global health can benefit from the pioneering work done by EPI in many respects—for example, finding new ways to secure and increase funding, fostering cooperation between multiple partners to work together with shared yet flexible strategies, stimulating industry innovation, and promoting country ownership through the streamlining of programmatic demands. Above all, EPI carved out pathways and strategies to achieve universal access to immunisation services. This legacy provides guidance

for reforms that move health systems towards universal coverage, another worthy ambition for the future.

I am Director-General of WHO. I declare that I have no competing interests.

References

1 Okwo-Bele JM, Cherian T. The expanded programme on immunization: a lasting legacy of smallpox eradication. Vaccine 2011; 29 (suppl 4): D74-D79. PubMed

2 WHO. WHO/UNICEF coverage estimates for 1980—2012. Geneva: World Health Organization, 2012. http://www.who.int/immunization/monitoring_surveillance/data/coverage_estimates_series.xls. (accessed May 5, 2014).

3 WHO. Global vaccine action plan: monitoring, evaluation and accountability. Secretariat Annual Report 2013. Geneva: World Health Organization, 2013. http://www.who.int/immunization/global_vaccine_action_plan/GVAP_secretariat_report_2013.pdf?ua=1. (accessed May 5, 2014).

4 Duclos P, Okwo-Bele JM, Gacic-Dobo M, Cherian T. Global immunization: status, progress, challenges and future. BMC Int Health Hum Rights 2009; 9 (suppl 1): S2. PubMed

5 WHO. Media release: WHO South-East Asia Region certified polio-free. http://www.searo.who.int/mediacentre/releases/2014/pr1569/en/. (accessed May 5, 2014).

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7 GAVI Alliance. GAVI's impact. http://www.gavialliance.org/about/mission/impact/. (accessed March 24, 2014).

8 Chan M. Keynote lecture on research for universal health coverage. Global vaccine and immunization research forum. http://who.int/dg/speeches/2014/research-uhc/en/. (accessed May 5, 2014).

9 Mansoor OD, Kristensen D, Meek A, et al. Vaccine presentation and packaging advisory group: a forum for reaching consensus on vaccine product attributes. Bull World Health Organ 2013; 91: 75-78. PubMed

10 WHO. Global action plan for the prevention and control of noncommunicable diseases 2013—2020. Geneva: World Health Organization, 2013.

11 WHO. Global routine immunization coverage, 2012. Wkly Epidemiol Rec 2013; 88: 482-486. PubMed

12 WHO. Global vaccine action plan 2011—2020. Geneva: World Health Organization, 2013. http://www.who.int/immunization/global_vaccine_action_plan/en/. (accessed March 24, 2014).

13 WHO. Strategic Advisory Group of Experts on Immunization Assessment Report 2013. Geneva: World Health Organization, 2013. http://www.who.int/immunization/global_vaccine_action_plan/OMS-IVB-AssessmentReport-20131212v5.pdf?ua=1. (accessed April 10, 2014).

a World Health Organization, 1211 Geneva 27, Switzerland

IAVI Statement: Together, We Can Achieve a World Without AIDS

World AIDS Vaccine Day – 18 May 2014

Full text

Do you remember the world before HIV/AIDS? Where will you be when the shadow of this disease is finally gone?

We have seen major advances in preventing and treating HIV/AIDS – but millions of people are still becoming infected and dying. In East and Southern Africa, 10.5 million children have lost one or both parents to HIV/AIDS. As the number-one killer of women of reproductive age, this epidemic takes an enormous human toll on individuals, families and communities, and an enormous economic toll in terms of healthcare costs and lost productivity.

For every three people put on treatment, four others contract HIV. And even if sufficient funding materializes to maximize access and adherence to existing treatment and prevention approaches, "best case" estimates are that low- and middle-income countries will still see more than half a million new infections a year come 2050.

Adding and successfully implementing a vaccine with 60-percent efficacy could reduce new HIV infections by 25 percent in its first decade and by almost half in 25 years, averting up to 22 million infections, according to modelling by IAVI, AVAC and Futures Institute.

Science is closing in on an AIDS vaccine. Researchers daily learn more about how HIV changes in the body and varies by geography; what the potential targets are on this highly elusive and mutating virus; how antibodies and our own T-cells could help prevent and even clear HIV infection; and how different vectors might be used to make a future vaccine more effective and longer-lasting. Studies are being prepared to build on the landmark RV144 vaccine trial; other exciting breakthroughs are advancing development of second-generation vaccines with even higher, longer-lasting and broader efficacy, and many new candidates are entering early development.

A vaccine will be transformative for so many people, cutting through barriers of stigma and gender inequity that stand between many individuals and the power to protect their own health. Yet global spending on AIDS vaccine research and development has been flat in recent years, despite the promising scientific advances. Sustained commitment will be critical to translating today's and tomorrow's promising science into a rich pipeline of vaccine candidates with the best chance of success.

This World AIDS Vaccine Day, we stand proudly beside our many partners and supporters, and together reaffirm our commitment to finding a vaccine that will help rid the world of HIV/AIDS.

UNICEF Watch [to 17 May 2014
http://www.unicef.org/media/media_71724.html
No new relevant content

GAVI Watch [to 17 May 2014]
http://www.gavialliance.org/library/news/press-releases/

WHO: Humanitarian Health Action [to 17 May 2014]
http://www.who.int/hac/en/
No new content

European Medicines Agency Watch [to 17 May 2014]
http://www.ema.europa.eu/ema/
No new content identified.

UN Watch [to 17 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 17 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 17 May 2014]
Selected media releases and other selected content from industry.
No new relevant content identified.

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

WHO: Sixty-seventh World Health Assembly

The Sixty-seventh session of the World Health Assembly (WHA) takes place in Geneva during 19–24 May 2014. The WHA is the supreme decision-making body of WHO. It is attended by delegations from all WHO Member States and focuses on a specific health agenda prepared by the Executive Board. The main functions of the WHA are to determine the policies of the Organization, appoint the Director-General, supervise financial policies, and review and approve the proposed programme budget. The Health Assembly is held annually in Geneva, Switzerland.
:: WHA67 pre-session documentation planning profile, March-May 2014
:: Provisional agenda
:: Journal: Preliminary number - 9 May 2014
:: All documentation

WHO: World Health Statistics 2014 - *Large gains in life expectancy*
News release
Excerpt

15 May 2014 | GENEVA - People everywhere are living longer, according to the "World Health Statistics 2014" published today by WHO. Based on global averages, a girl who was born in 2012 can expect to live to around 73 years, and a boy to the age of 68. This is six years longer than the average global life expectancy for a child born in 1990.

WHO's annual statistics report shows that low-income countries have made the greatest progress, with an average increase in life expectancy by 9 years from 1990 to 2012. The top six countries where life expectancy increased the most were Liberia which saw a 20-year increase (from 42 years in 1990 to 62 years in 2012) followed by Ethiopia (from 45 to 64 years),

Maldives (58 to 77 years), Cambodia (54 to 72 years), Timor-Leste (50 to 66 years) and Rwanda (48 to 65 years).

"An important reason why global life expectancy has improved so much is that fewer children are dying before their fifth birthday," says Dr Margaret Chan, WHO Director-General. "But there is still a major rich-poor divide: people in high-income countries continue to have a much better chance of living longer than people in low-income countries."
: World Health Statistics 2014

Statement: Sabin Vaccine Institute: A rare spotlight for a neglected disease

May 13, 2014

Regarding New York Times May 11, 2014 Front Page Article

Schistosomiasis, a parasitic disease transmitted by freshwater snails, infects more than 200 million people worldwide, causing horrific symptoms, especially in girls and women. Schistosomiasis is the second deadliest parasitic disease after malaria, killing an estimated 300,000 people annually, and has been linked as a co-factor in the spread of HIV/AIDS in sub-Saharan Africa and the incidence of bladder cancer.

Despite its prevalence among the world's poor, schistosomiasis has been largely neglected as a major disease by global media and policymakers. Yesterday, the New York Times featured a front-page profile of efforts to control and eliminate schistosomiasis as part of an examination of the links between the disease and HIV/AIDS.

In response to the article, Ambassador Michael W. Marine, CEO of Sabin Vaccine Institute, today issued the following statement:

"We applaud the New York Times for giving schistosomiasis the front page spotlight it deserves in 'A Simple Theory, and a Proposal, on H.I.V. in Africa,' by Donald G. McNeil Jr. Greater attention for the disease's devastating social and economic impact on individuals and entire communities, and increased examination of its cross-cutting impact – particularly its role in increasing the risk of diseases such as HIV in girls and women – are crucial.

Currently, global partners are racing to meet the World Health Organization's 2020 goal of controlling schistosomiasis by advancing commitments made in the landmark 2012 London Declaration on NTDs. To meet this deadline and sustain advances already made, we must all take urgent measures, such as expanding mass drug administration programs that treat and protect against schistosomiasis and other NTDs with safe medicines donated by pharmaceutical companies. Innovative partnerships that reach across development sectors and capitalize on cost-effective integration opportunities also will drive success.

Yet, we remain convinced that ultimately the world needs a schistosomiasis vaccine that can offer the promise of protection to millions of people worldwide and help achieve elimination of the disease. Under the leadership of Peter Hotez, MD, we are developing such an intervention through the Sabin Product Development Partnership's Schistosomiasis Vaccine Initiative, a joint venture with the Texas Children's Hospital and the Baylor College of Medicine in Houston. Our schistosomiasis vaccine will soon enter Phase 1 clinical trials, to be carried out at Baylor's Vaccine and Treatment Evaluation Unit (VTEU), funded by the National Institutes of Health. Our schistosomiasis research and development endeavors would not be possible without generous support from Mr. and Mrs. Morton Hyman, the Blavatnik Family Foundation, the Michelson Medical Research Foundation and Texas Children's Hospital.

We are thankful for the New York Times' comprehensive feature on schistosomiasis and hope that it energizes the NTD movement to drive momentum forward and overcome remaining challenges."

IVI Hosts 14th Advanced Vaccinology Course to Increase Developing Countries' Capacity in Vaccine Research and Immunization

:: 71 trainees from 20 countries participate in this year's course, which runs from May 12-16 at IVI headquarters
:: Course helps better equip healthcare professionals and policy-makers in developing nations with latest knowledge in vaccine science, vaccination, and shared practical experience
:: More than 30 experts from international agencies, research institutions, industry and non-profit organizations, including IVI, the World Health Organization and the U.S. National Institutes of Health will serve as faculty members

Excerpt

May 12, 2014, Seoul, South Korea— The International Vaccine Institute (IVI), the first international organization hosted by the Republic of Korea, convenes the 14th Advanced Vaccinology Course in the Asia-Pacific Region from May 12 to 16. The annual course aims to build capacity of health professionals and decision-makers, especially those from developing countries, in the entire vaccine continuum spanning vaccine development, evaluation, production and policy.

This year, the highly subscribed course brings together 71 trainees from 20 countries worldwide including Sudan, Yemen, Ethiopia, Ghana, Nepal, China, and Spain. The trainees are a diverse mix of scientists, public health officials, and policymakers from the private and public sectors. They include 15 developing country participants who are invited through fellowships funded by course sponsors…

WHO: Call for Consultants

:: Development and production of materials and communications to support the strengthening of immunization programmes
Terms of reference - closing date 19 May 2014
pdf, 229kb
:: Immunization Supply Chain Optimization and Economics
Terms of reference - closing date 5 June 2014
pdf, 325kb

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

Patient and Citizen Participation in Health: The Need for Improved Ethical Support

Laura Williamson

pages 4-16

DOI: 10.1080/15265161.2014.900139
Published online: 08 May 2014

Abstract

Patient and citizen participation is now regarded as central to the promotion of sustainable health and health care. Involvement efforts create and encounter many diverse ethical challenges that have the potential to enhance or undermine their success. This article examines different expressions of patient and citizen participation and the support health ethics offers. It is contended that despite its prominence and the link between patient empowerment and autonomy, traditional bioethics is insufficient to guide participation efforts. In addition, the turn to a "social paradigm" of ethics in examinations of biotechnologies and public health does not provide an account of values that is commensurable with the pervasive autonomy paradigm. This exacerbates rather than eases tensions for patients and citizens endeavoring to engage with health. Citizen and patient participation must have a significant influence on the way we do health ethics if its potential is to be fulfilled.

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 5, p433-542, e49-e52 May 2014

http://www.ajpmonline.org/current

[No relevant content]

American Journal of Public Health

Volume 104, Issue 5 (May 2014)

http://ajph.aphapublications.org/toc/ajph/current

[Reviewed earlier]

American Journal of Tropical Medicine and Hygiene

May 2014; 90 (5)

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

[Reviewed earlier]

Annals of Internal Medicine

6 May 2014, Vol. 160. No. 9

http://annals.org/issue.aspx

[No relevant content]

BMC Health Services Research
(Accessed 17 May 2014)
http://www.biomedcentral.com/bmchealthservres/content
[No new relevant content]

BMC Public Health
(Accessed 17 May 2014)
http://www.biomedcentral.com/bmcpublichealth/content
Research article
Expanded program of immunization coverage and associated factors among children age 12 - 23 months in Arba Minch town and ZuriaDistrict, Southern Ethiopia, 2013
Worku Animaw, Wondimagegn Taye, Behailu Merdekios, Marilign Tilahun and Gistane Ayele
Abstract (provisional)
Background
Immunization averts an estimated 2 to 3 million deaths every year globally. In Ethiopia only quarter of children are fully immunized; the rest are remained at risk for vaccine-preventable mortality. To increase the immunization, its coverage and predictors has to be identified. This study has measured immunization coverage and identified the predictors.
Methods
Cross-sectional community based study has been conducted within 630 age 12-23 months children in 15 districts of Arba Minch town and Arba Minch Zuria district, Southern Ethiopia in March 2013. Census was done to identify eligible children. The 2005 world health organization expanded program of immunization cluster sampling method has been used. Data were collected using semi-structured pretested Amharic version questionnaire by interviewing index children's mothers/caretakers, copying from vaccine card and observing BCG vaccine scar. Data were processed using SPSS version 16. Associations between dependent and independent variables has been assessed and presented using three consecutive logistic regression models.
Result: Nearly three fourth (73.2%) of children in Arba Minch Town and Arba Minch Zuria district were fully immunized. The rest 20.3% were partially immunized and 6.5% received no vaccine. Mother education, mothers' perception to accessibility of vaccines, mothers' knowledge to vaccine schedule of their site, place of delivery and living altitude were independent predictors of children immunization status.
Conclusion
Expanded program of immunization (EPI) coverage at Arba Minch town and Arba Minch Zuria district is better than the national immunization coverage but still below the goal. Educating mother, promoting institution delivery could help to maintain and enhance current immunization coverage. More emphasis should be given to the highland areas of the area.
Research article
Parents' preferences for vaccinating daughters against human papillomavirus in the Netherlands: a discrete choice experiment
Robine Hofman, Esther W de Bekker-Grob, Hein Raat, Theo JM Helmerhorst, Marjolein van Ballegooijen and Ida J Korfage
*Abstract (*provisional)
Background

To generate knowledge about potential improvements to human papillomavirus (HPV) vaccination information and organization strategies, we assessed how aspects of HPV vaccination are associated with parents' preferences for their daughters' uptake, and which trade-offs parents are willing to make between these aspects.
Methods
A discrete choice experiment (DCE) was conducted among parents with a daughter aged 10-12 years. Panel mixed logit regression models were used to determine parents' preferences for vaccination. Trade-offs were quantified between four vaccination programme aspects: degree of protection against cervical cancer, duration of protection, risk of serious side-effects, and age of vaccination.
Results
Total response rate was 302/983 (31%). All aspects influenced respondents' preferences for HPV vaccination ($p < 0.05$). Respondents preferred vaccination at age 14 years instead of at a younger age. Respondents were willing to trade-off 11% of the degree of protection to obtain life-time protection instead of 25 years. To obtain a vaccination with a risk of serious side-effects of 1/750,000 instead of 1/150,000, respondents were willing to trade-off 21%.
Conclusions
Uptake may rise if the age ranges for free HPV vaccinations are broadened. Based on the trade-offs parents were willing to make, we conclude that uptake would increase if new evidence indicated outcomes are better than are currently understood, particularly for degree and duration of protection.

Research article

Knowledge, attitudes, beliefs and behaviours of older adults about pneumococcal immunization, a Public Health Agency of Canada / Canadian Institutes of Health Research Influenza Research Network (PCIRN) investigation

Amy Schneeberg, Julie A Bettinger, Shelly McNeil, Brian J Ward, Marc Dionne, Curtis Cooper, Brenda Coleman, Mark Loeb, Ethan Rubinstein, Janet McElhaney, David W Scheifele and Scott A Halperin

*Abstract (*provisional)
Background
Fewer Canadian seniors are vaccinated against pneumococcal disease than receive the influenza vaccine annually. Improved understanding of factors influencing pneumococcal vaccination among older adults is needed to improve vaccine uptake.
Methods
A self-administered survey measuring knowledge, attitudes, beliefs and behaviours about pneumococcal vaccination was administered to a cohort of seniors participating in a clinical trial of seasonal influenza vaccines at eight centers across Canada. Eligible participants were ambulatory adults 65?years of age or older, in good health or with stable health conditions, previously given influenza vaccine. The primary outcome was self-reported receipt of pneumococcal vaccination. Multi-variable logistic regression was used to determine factors significantly associated with pneumococcal vaccine receipt.
Results
A total of 863 participants completed questionnaires (response rate 92%); 58% indicated they had received the pneumococcal vaccine. Being offered the vaccine by a health care provider had the strongest relationship with vaccine receipt (AOR 23.4 (95% CI 13.4-40.7)). Other variables that remained significantly associated with vaccine receipt in the multivariable model included having heard of the vaccine (AOR 10.1(95% CI 4.7-21.7)), and strongly agreeing that

it is important for adults?>?65 to be vaccinated against pneumococcus (AOR 3.3 (95% CI 1.2-9.2)). Participants who were?<?70?years of age were less likely to be vaccinated.
Conclusions
These results indicate healthcare recommendation significantly influenced vaccine uptake in this population of older adults. Measures to encourage healthcare providers to offer the vaccine may help increase coverage.

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

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17 May 2014 (Vol 348, Issue 7958)
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Volume 92, Number 5, May 2014, 309-384
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Volume 58 Issue 17 May 15, 2014
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[Reviewed earlier]

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Volume 36, Issue 4, p459-612 April 2014
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Cost Effectiveness and Resource Allocation
(Accessed 17 May 2014)
http://www.resource-allocation.com/
Research
Multi-criteria decision analysis of breast cancer control in low- and middle- income countries: development of a rating tool for policy makers
Kristie Venhorst, Sten G Zelle, Noor Tromp and Jeremy A Lauer
Abstract (provisional)
Background

The objective of this study was to develop a rating tool for policy makers to prioritize breast cancer interventions in low- and middle- income countries (LMICs), based on a simple multi-criteria decision analysis (MCDA) approach. The definition and identification of criteria play a key role in MCDA, and our rating tool could be used as part of a broader priority setting exercise in a local setting. This tool may contribute to a more transparent priority-setting process and fairer decision-making in future breast cancer policy development.
Methods
First, an expert panel (n = 5) discussed key considerations for tool development. A literature review followed to inventory all relevant criteria and construct an initial set of criteria. A Delphi study was then performed and questionnaires used to discuss a final list of criteria with clear definitions and potential scoring scales. For this Delphi study, multiple breast cancer policy and priority-setting experts from different LMICs were selected and invited by the World Health Organization. Fifteen international experts participated in all three Delphi rounds to assess and evaluate each criterion.
Results
This study resulted in a preliminary rating tool for assessing breast cancer interventions in LMICs. The tool consists of 10 carefully crafted criteria (effectiveness, quality of the evidence, magnitude of individual health impact, acceptability, cost-effectiveness, technical complexity, affordability, safety, geographical coverage, and accessibility), with clear definitions and potential scoring scales.
Conclusions
This study describes the development of a rating tool to assess breast cancer interventions in LMICs. Our tool can offer supporting knowledge for the use or development of rating tools as part of a broader (MCDA based) priority setting exercise in local settings. Further steps for improving the tool are proposed and should lead to its useful adoption in LMICs.

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June 2014 - Volume 27 - Issue 3 pp: v-v 211-302
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[Reviewed earlier]

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April 2014 Volume 14, Issue 1 Pages ii–ii, 1–57
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Volume 24, Issue 1, 2014
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Volume 24 Issue 2 April 2014
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[Reviewed earlier]

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February 2014 | Volume 2 | Issue 1
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[Accessed 17 May 2014]
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Research
Patient factors to target for elimination of mother-to-child transmission of HIV
Coceka N Mnyani, Adonia Simango, Joshua Murphy, Matthew Chersich and James A McIntyre
Abstract (provisional)
Background
There is great impetus to achieve elimination of mother-to-child transmission of HIV (eMTCT) by 2015, and part of this is to identify factors to target to achieve the goal. This study thus identified key patient factors for MTCT in a high HIV prevalence setting in Johannesburg, South Africa. Between November 2011 and May 2012, we conducted a case-control study among HIV-infected women with HIV-infected (cases) and uninfected (controls) infants diagnosed around six weeks of age as part of routine, early infant diagnosis. Mothers and infants were identified through registers in six healthcare facilities that provide antenatal, postpartum and HIV care. Structured interviews were conducted with a focus on history of HIV infection, antenatal, intrapartum and immediate postpartum management of the mother-infant pair. Patient-related risk factors for MTCT were identified.
Results
A total of 77 women with HIV-infected infants and 154 with -uninfected infants were interviewed. Among HIV-infected cases, 13.0% of the women knew their HIV status prior to conception, and 83.1% reported their pregnancies as unplanned. Antenatal antiretroviral coverage was high in the control group - only 1/154 (0.7%) reported receiving no prophylaxis or treatment compared with 17/74 (22.9%) of cases. In multivariate analysis, key patient-related risks for HIV transmission were: unknown HIV status prior to conception (adjusted odds ratio [AOR] = 6.6; 95%CI = 2.4 - 18.4; $p < 0.001$); accessing antenatal care after 20 weeks gestation (AOR = 4.3; 95%CI = 2.0 - 9.3; $p < 0.001$); less than 12 years of formal education

(AOR = 3.4; 95%CI = 1.6 - 7.5; p = 0.002); and unplanned pregnancy (AOR = 2.7; 95%CI = 1.2 to 6.3; p = 0.022). Mean age at first HIV test was 6.6 weeks (SD = 3.5) for infants who were diagnosed as HIV-infected, and the mean age at antiretroviral treatment initiation was 10.8 weeks (SD = 4.4). HIV-uninfected infants were diagnosed at a mean age of 6.0 weeks (SD = 0.2).

Conclusions

Undiagnosed maternal HIV infection prior to conception, unplanned pregnancies, delays in accessing antenatal care, and low levels of education were the most significant patient risk factors associated with MTCT. While the emphasis has been on increasing availability and coverage of efficacious antiretroviral regimens, and strengthening health systems within eMTCT initiatives, there is a need to also address patient-related factors if we are to achieve eMTCT goals.

Research

Translation, cultural adaptation and field-testing of the Thinking Healthy Program for Vietnam

Jane Fisher, Hau Nguyen, Priya Mannava, Ha Tran, Thao Dam, Huong Tran, Thach Tran, Kelly Durrant, Atif Rahman and Stanley Luchters

Abstract (provisional)

Background

Depression and anxiety are prevalent among women in low- and lower-middle income countries who are pregnant or recently delivered. There is promising evidence that culturally-adapted, evidence-informed, perinatal psycho-educational programs implemented in local communities are effective in reducing mental health problems. The Thinking Healthy Program (THP) has proved effective in Pakistan. The aims were to adapt the THP for rural Vietnam; establish the program's comprehensibility, acceptability and salience for universal use, and investigate whether administration to small groups of women might be of equivalent effectiveness to administration in home visits to individual women.

Methods

The THP Handbook and Calendar were made available in English by the program developers and translated into Vietnamese. Cultural adaptation and field-testing were undertaken using WHO guidance. Field-testing of the four sessions of THP Module One was undertaken in weekly sessions with a small group in a rural commune and evaluated using baseline, process and endline surveys.

Results

The adapted Vietnamese version of the Thinking Healthy Program (THP-V) was found to be understandable, meaningful and relevant to pregnant women, and commune health centre and Women's Union representatives in a rural district. It was delivered effectively by trained local facilitators. Role-play, brainstorming and small-group discussions to find shared solutions to common problems were appraised as helpful learning opportunities.

Conclusions

The THP-V is safe and comprehensible, acceptable and salient to pregnant women without mental health problems in rural Vietnam. Delivery in facilitated small groups provided valued opportunities for role-play rehearsal and shared problem solving. Local observers found the content and approach highly relevant to local needs and endorsed the approach as a mental health promotion strategy with potential for integration into local universal maternal and child health services. These preliminary data indicate that the impact of the THP-V should be tested in its complete form in a large scale trial.

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Volume 9, Issue 4, 2014
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May 2014; Volume 33, Issue 5
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Theme: US Hospitals: Responding To An Uncertain Environment
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Volume 15, Issue 2
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Volume 9 / Issue 02 / April 2014
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Volume 29 Issue 3 May 2014
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May 2014 Volume 10, Issue 5
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Infectious Agents and Cancer
http://www.infectagentscancer.com/content
[Accessed 17 May 2014]
Review
Human papillomavirus genotypes in cervical cancer and vaccination challenges in Zimbabwe
Nyasha Chin¿ombe, Natasha L Sebata, Vurayai Ruhanya and Hilda T Matarira
*Abstract (*provisional)
Cervical cancer is one of the major causes of morbidity and mortality in women in Zimbabwe. This is mainly due to the high prevalence of high-risk human papillomavirus (HPV) genotypes in

the population. So far, few studies have been done that showed the presence of high-risk genital HPV genotypes such as 16, 18, 31, 33, 52, 58 and 70 in Zimbabwean women with cervical cancer. The prevalence of HPV DNA in women with cervical cancer has been shown to range from 63% to 98%. The high-risk HPV 16, 18, 31, 33 and 58 were the most common genotypes in all the studies. The introduction of the new HPV vaccines, HPV2 and HPV4, which protect against HPV genotypes 16 and 18 into Zimbabwe is likely to go a long way in reducing deaths due to cervical cancer. However, there are few challenges to the introduction of the vaccines. The target population for HPV vaccination is at the moment not well-defined. The other challenge is that the current HPV vaccines confer only type-specific (HPV 16 and 18) immunity leaving a small proportion of Zimbabwean women unprotected against other high-risk HPV genotypes such as 31, 33 and 58. Future HPV vaccines such as the nanovalent vaccine will be more useful to Zimbabwe as they will protect women against more genotypes.

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[Accessed 17 May 2014]
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Volume 43 Issue 2 April 2014
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Vol 17 | No. 12 | December 2013
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May 14, 2014, Vol 311, No. 18
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http://archpedi.jamanetwork.com/issue.aspx
[Reviewed earlier; No relevant content]

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Volume 39, Issue 3, June 2014
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Volume 10, Issue 1, 2014
http://www.tandfonline.com/toc/rjge20/current#.U2V-Elf4L0l
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Volume 28 issue 2 - Latest Issue
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Volume 209 Issue 11 June 1, 2014
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Volume 16, Issue 3, June 2014
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[Reviewed earlier]

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May 2014, Volume 40, Issue 5
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May 2014; 63 (Pt 5)
http://jmm.sgmjournals.org/content/current
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Journal of the Pediatric Infectious Diseases Society (JPIDS)
Volume 3 Issue 1 March 2014
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Vol 164 | No. 5 | May 2014 | Pages 949-1244
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Volume 35, Issue 2 (May 2014)
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[Reviewed earlier]

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July 6, 2014; 11 (96)
http://rsif.royalsocietypublishing.org/content/current
[No relevant content]

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

The Lancet
May 17, 2014 Volume 383 Number 9930 p1693 - 1780
http://www.thelancet.com/journals/lancet/issue/current
Comment
Mandatory polio vaccination for travellers: protecting global public health
Paul D Rutter, Liam J Donaldson
Full Text
The goal of following smallpox eradication with another programme to eliminate a disease from the planet was too compelling to resist and, in 1988, the World Health Assembly set its sights on polio.1 26 years later, the dream is not yet a reality. On May 5, 2014, WHO issued strong recommendations that Pakistan, Syria, and Cameroon should ensure that their residents and long-term visitors have up-to-date vaccination against polio before they travel internationally, and that each individual is issued with an International Certificate of Vaccination or Prophylaxis as proof of this.
Beyond expectations: 40 years of EPI
Margaret Chan
Full Text
[See full text above]
Use of vaccines as probes to define disease burden
Dr Daniel R Feikin MD a b, Prof J Anthony G Scott c d, Bradford D Gessner MD e
Summary

Vaccine probe studies have emerged in the past 15 years as a useful way to characterise disease. By contrast, traditional studies of vaccines focus on defining the vaccine effectiveness or efficacy. The underlying basis for the vaccine probe approach is that the difference in disease burden between vaccinated and unvaccinated individuals can be ascribed to the vaccine-specific pathogen. Vaccine probe studies can increase understanding of a vaccine's public health value. For instance, even when a vaccine has a seemingly low efficacy, a high baseline disease incidence can lead to a large vaccine-preventable disease burden and thus that population-based vaccine introduction would be justified. So far, vaccines have been used as probes to characterise disease syndromes caused by Haemophilus influenzae type b, pneumococcus, rotavirus, and early infant influenza. However, vaccine probe studies have enormous potential and could be used more widely in epidemiology, for example, to define the vaccine-preventable burden of malaria, typhoid, paediatric influenza, and dengue, and to identify causal interactions between different pathogens.

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May 2014 Volume 2 Number 5 e242 - 300
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[Reviewed earlier]

The Lancet Infectious Diseases
May 2014 Volume 14 Number 5 p359 - 440
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[Reviewed earlier]

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May 2014; 34 (4)
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A Multidisciplinary Journal of Population Health and Health Policy
March 2014 Volume 92, Issue 1 Pages 1–166
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[Reviewed earlier]

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Volume 509 Number 7500 pp259-394 15 May 2014
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May 2014, Volume 15 No 5 pp 403-481

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May 2014, Volume 20 No 5 pp451-560
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May 2014 Vol 14 No 5
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New England Journal of Medicine
May 15, 2014 Vol. 370 No. 20
http://www.nejm.org/toc/nejm/medical-journal
Perspective
Treating Hepatitis C in Lower-Income Countries
Channa R. Jayasekera, M.D., Michele Barry, M.D., Lewis R. Roberts, M.B., Ch.B., Ph.D., and Mindie H. Nguyen, M.D.
N Engl J Med 2014; 370:1869-1871May 15, 2014DOI: 10.1056/NEJMp1400160
Excerpt
With costs that may exceed $90,000 per course, effective new hepatitis C treatments seem beyond the reach of low- and middle-income countries. But the global rollout of HIV treatment teaches us that it's possible to make these agents broadly available and affordable.
Editorial
Advancing the Treatment for Chagas' Disease
Pedro Albajar-Viñas, M.D., Ph.D., and João Carlos P. Dias, M.D.
N Engl J Med 2014; 370:1942-1943May 15, 2014DOI: 10.1056/NEJMe1403689
Excerpt
It is estimated that 8 million people are infected with Trypanosoma cruzi worldwide, with the majority of cases occurring in the Latin American countries in which the parasite is endemic. However, cases of Chagas' disease have been increasingly detected in the United States, Canada, many European countries, and some Western Pacific countries, owing primarily to an increase in population movements between Latin America and other continents. Moreover, some countries in which the parasite is not endemic have higher estimated numbers of cases than many endemic countries in Latin America (e.g., >300,000 cases in the United States and >50,000 in Spain). . . .

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May 2014, 18(5)
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May 2014 - Volume 33 - Issue 5 pp: 431-548,e121-e134
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Volume 32, Issue 5, May 2014
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[Reviewed earlier]

PLoS One
[Accessed 17 May 2014]
http://www.plosone.org/
A Randomized Trial of an Early Measles Vaccine at 4½ Months of Age in Guinea-Bissau: Sex-Differential Immunological Effects
Kristoffer Jarlov Jensen, Mia Søndergaard, Andreas Andersen, Erliyani Sartono, Cesario Martins, May-Lill Garly, Jesper Eugen-Olsen, Henrik Ullum, Maria Yazdanbakhsh, Peter Aaby, Christine Stabell Benn, Christian Erikstrup
Research Article | published 16 May 2014 | PLOS ONE 10.1371/journal.pone.0097536
Abstract
Background
After measles vaccine (MV), all-cause mortality is reduced more than can be explained by the prevention of measles, especially in females.
Objective
We aimed to study the biological mechanisms underlying the observed non-specific and sex-differential effects of MV on mortality.
Methods
Within a large randomised trial of MV at 4.5 months of age blood samples were obtained before and six weeks after randomisation to early MV or no early MV. We measured concentrations of cytokines and soluble receptors from plasma (interleukin-1 receptor agonist (IL-1Ra), IL-6, IL-8, IL-10, tumor necrosis factor (TNF)-α, monocyte chemoattractant protein (MCP)-1, soluble urokinase-type plasminogen activator receptor), and secreted cytokines (interferon-γ, TNF-α, IL-5, IL-10, IL-13, IL-17) after in vitro challenge with innate agonists and recall antigens. We

analysed the effect of MV in multiple imputation regression, overall and stratified by sex. The majority of the infants had previously been enrolled in a randomised trial of neonatal vitamin A. Post hoc we explored the potential effect modification by neonatal vitamin A.
Results
Overall, MV versus no MV was associated with higher plasma MCP-1 levels, but the effect was only significant among females. Additionally, MV was associated with increased plasma IL-1Ra. MV had significantly positive effects on plasma IL-1Ra and IL-8 levels in females, but not in males. These effects were strongest in vitamin A supplemented infants. Vitamin A shifted the effect of MV in a pro-inflammatory direction.
Conclusions
In this explorative study we found indications of sex-differential effects of MV on several of the plasma biomarkers investigated; in particular MV increased levels in females, most strongly in vitamin A recipients. The findings support that sex and micronutrient supplementation should be taken into account when analysing vaccine effects.
Trial Registration
clinicaltrials.gov number NCT 00168545

The Effects of School Closures on Influenza Outbreaks and Pandemics: Systematic Review of Simulation Studies

Charlotte Jackson, Punam Mangtani, Jeremy Hawker, Babatunde Olowokure, Emilia Vynnycky
Research Article | published 15 May 2014 | PLOS ONE 10.1371/journal.pone.0097297

Women Have a Preference for Their Male Partner to Be HPV Vaccinated

Diane Medved Harper, Natalie Marya Alexander, Debra Ann Ahern, Johanna Claire Comes, Melissa Smith Smith, Melinda Ann Heutinck, Sandra Martin Handley
Research Article | published 14 May 2014 | PLOS ONE 10.1371/journal.pone.0097119

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Vol 4 (2014)
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Volume 7 Issue 1 April 2014
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May 2014; 24 (5)
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May 2014 Volume 34, Issue 5 Pages 789–980
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16 May 2014 vol 344, issue 6185, pages 665-772
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Volume 110, Pages 1-96 (June 2014)
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Vaccine

Volume 32, Issue 26, Pages 3115-3340 (30 May 2014)
http://www.sciencedirect.com/science/journal/0264410X/32

Consultation on dengue vaccines: Progress in understanding protection, 26–28 June 2013, Rockville, Maryland

Conference Report

Pages 3115-3121

M. Cristina Cassetti, Scott B. Halstead

Abstract

There is an unmet need for a dengue vaccine to further prevent the spread of this disease and contain the growing pandemic. To this end several vaccine companies and academic groups are actively pursuing the development of a tetravalent vaccine to prevent dengue. In the last few years progress has been made in this area, including the first results of a vaccine efficacy trial and improved understanding of the immune responses to the infection. Despite this progress, development of dengue vaccines faces important challenges including the need for a vaccine that induces balanced immune responses against all dengue strains and an incomplete understanding of the mechanism(s) of protection against infection and disease. This is a summary of a Consultation on dengue vaccines held in June 26–28, 2013 by the National Institute of Allergy and Infectious Diseases (part of the US National Institutes of Health) and the Dengue Vaccine Initiative (part of the International Vaccine Institute). The primary goal of this consultation was to review the progress in dengue vaccine development, evaluate the known mechanism of protection of dengue vaccines and discuss avenues for future research.

Safety of influenza vaccination during pregnancy: A review of subsequent maternal obstetric events and findings from two recent cohort studies

Review Article

Pages 3122-3127

Allison L. Naleway, Stephanie A. Irving, Michelle L. Henninger, De-Kun Li, Pat Shifflett, Sarah Ball, Jennifer L. Williams, Janet Cragan, Julianne Gee, Mark G. Thompson, for the Vaccine Safety Datalink and Pregnancy and Influenza Project

Abstract

Pregnant women and their infants are vulnerable to severe disease and secondary complications from influenza infection. For this reason, annual influenza vaccination is recommended for all pregnant women in the United States. Women frequently cite concerns about vaccine safety as a barrier to vaccination. This review describes the safety of inactivated influenza vaccination during pregnancy with a focus on maternal obstetric events, including hypertensive disorders, gestational diabetes, and chorioamnionitis. Included in the review are new findings from two studies which examined the safety of seasonal inactivated influenza vaccination during pregnancy. The first study enrolled 641 pregnant women during the 2010–2011 season and prospectively followed them until delivery or pregnancy termination. The second study enrolled 1616 pregnant women during the 2010–2011 influenza season, and followed the women and their infants for six months after delivery. No associations between inactivated influenza vaccination and gestational diabetes, gestational hypertension, preeclampsia/eclampsia, or chorioamnionitis were observed in either cohort. When considered as a whole, these studies should further reassure women and clinicians that influenza vaccination during pregnancy is safe for mothers.

Vaccine preventable disease incidence as a complement to vaccine efficacy for setting vaccine policy

Review Article
Pages 3133-3138
Bradford D. Gessner, Daniel R. Feikin
Abstract
Traditionally, vaccines have been evaluated in clinical trials that establish vaccine efficacy (VE) against etiology-confirmed disease outcomes, a measure important for licensure. Yet, VE does not reflect a vaccine's public health impact because it does not account for relative disease incidence. An additional measure that more directly establishes a vaccine's public health value is the vaccine preventable disease incidence (VPDI), which is the incidence of disease preventable by vaccine in a given context. We describe how VE and VPDI can vary, sometimes in inverse directions, across disease outcomes and vaccinated populations. We provide examples of how VPDI can be used to reveal the relative public health impact of vaccines in developing countries, which can be masked by focus on VE alone. We recommend that VPDI be incorporated along with VE into the analytic plans of vaccine trials, as well as decisions by funders, ministries of health, and regulatory authorities.

Anaphylaxis after vaccination of children: Review of literature and recommendations for vaccination in child and school health services in Belgium

Review Article
Pages 3147-3154
Anouk Vanlander, Karel Hoppenbrouwers
Abstract
Background
Concerns about the very small, but real risk of anaphylaxis after vaccination, has given rise to specific questions about the safe administration of vaccines to children and adolescents in the context of preventive settings (i.e. well baby clinics and school health services). As a support to preventive health professionals a guideline based on scientific evidence and supported by professional consensus was developed in Belgium.
Methods
First, a draft of guideline was written based on a review of international literature. Second, through several rounds of consultation professional consensus about the document was obtained across the Belgian communities and professional groups, and in a final version endorsed by the Belgian Superior Health Council in July 2012.
Results
In a literature overview information is given about the definition of anaphylaxis, allergens in vaccines potentially causing anaphylaxis, published incidence rates of anaphylaxis after vaccination, and strategies for first-aid management of anaphylaxis. The Belgian guideline on the prevention of anaphylaxis after vaccination includes recommendations on prevaccination risk assessment, the content of the emergency kit, measures to be taken after vaccination, differential diagnosis and first-aid management of anaphylaxis.
Conclusion
The guideline, summarized as a flowchart for the prevention and first-aid management of anaphylaxis, is considered as the actual state of the art in Belgium for vaccination of children and youngsters in preventive health services, and may inspire governmental bodies and/or professional groups in other countries to adopt similar recommendations.

Therapeutic vaccines for tuberculosis—A systematic review

Review Article
Pages 3162-3168

Matthias I. Gröschel, Satria A. Prabowo, Père-Joan Cardona, John L. Stanford, Tjip S van der Werf

Abstract

For eradication of tuberculosis (TB) by 2050, the declared aim of the Stop TB Partnership, novel treatment strategies are indispensable. The emerging epidemic of multi-drug resistant (MDR) TB has fuelled the debate about TB vaccines, as increasing numbers of patients can no longer be cured by pharmacotherapy. Of several proposed modalities, TB vaccines administered in therapeutic manner represents a promising alternative, despite the controversial history due to the occurrence of exacerbated immune response. A modified concept of immunotherapy is required in order to justify further exploration. In this paper we systematically reviewed the most advanced therapeutic vaccines for TB. We address the rationale of immunotherapeutic vaccination combined with optimized pharmacotherapy in active TB. We summarize preclinical and patient data regarding the five most advanced therapeutic vaccines currently in the pipeline. Of the five products that have been tested in animal models and in humans during active or latent TB, the quality of the published clinical reports of two of these products justify further studies in patients with active TB. This systematic review fuels further clinical evaluation eventually including head-to-head comparative studies.

Formal training in vaccine safety to address parental concerns not routinely conducted in U.S. pediatric residency programs

Original Research Article

Pages 3175-3178

S. Elizabeth Williams, Rebecca Swan

Abstract

Objective

To determine if U.S. pediatric residency programs provide formal training in vaccine safety to address parental vaccine concerns.

Methods

An electronic survey was mailed to all members of the Association of Pediatric Program Directors (APPD) to assess (1) if U.S. pediatric residency programs were providing formal vaccine safety training, (2) the content and format of the training if provided, and (3) interest in a training module for programs without training. Two follow-up surveys were mailed at 2 week intervals. Responses to the survey were collected at 4 weeks following the last mailing and analyzed. Logistic regression was used to assess the impact of program size on the likelihood of vaccine safety training. Pearson's chi square was used to compare programs with and without formal vaccine safety training in 5 U.S. regions.

Results

The survey was sent to 199 APPD members; 92 completed the survey (response rate 46.2%). Thirty-eight respondents (41%) had formal training in vaccine safety for pediatric residents at their programs; 54 (59%) did not. Of those that did not, the majority (81.5%) were interested in formal vaccine safety training for their residents. Of all respondents, 78% agreed that training in vaccine safety was a high priority for resident education. Thirty-five percent of all respondents agreed that local parental attitudes about vaccines influenced the likelihood of formal vaccine safety training.

Conclusion

Most pediatric residency programs surveyed do not include formal training on vaccine safety; yet, such training is supported by pediatric residency program directors as a priority for pediatric residents.

Planning for human papillomavirus (HPV) vaccination in sub-Saharan Africa: A modeling-based approach

Original Research Article
Pages 3316-3322
J. Kathleen Tracy, Nicholas H. Schluterman, Christina Greene, Samba O. Sow, Holly D. Gaff
Abstract
Background
Human papillomavirus (HPV) vaccines have the potential to reduce cervical cancer incidence and mortality, particularly in the parts of the developing world that bear the greatest burden of disease. This research sought to predict the impact and cost-effectiveness of an HPV vaccination program in an example low-resource country with a high burden of cervical cancer: Mali, West Africa.
Methods
Novel compartmental mathematical models projected the impact of adolescent HPV vaccination in urban and rural areas of Mali. The models accounted for two high-risk vaccine-types: HPV 16 and 18. We then attached comprehensive real cost and cost-effectiveness estimates.
Results
Our models predict that HPV vaccination in Mali will reduce cervical cancer burden by a factor roughly equal to vaccine coverage. A point vaccination program was simulated in a cohort of 333,146 urban and 588,982 rural Malian women, age 10–14. Vaccination of 50% of girls reduced the peak prevalence of HPV 16/18 to 5.0% in the urban setting and 9.6% in the rural setting, down from 11.7% and 22.0%, respectively, with no vaccination. The 50% vaccination scenario averted 1145 cervical cancer deaths in the urban group and 2742 in the rural group. The cost per discounted life-year saved in this scenario was 1030 US dollars (urban) and 725 dollars (rural). The cost per life-year saved was higher at 90% coverage, but was still in the range of a "cost-effective" public health intervention.
Conclusions
This research yielded the most comprehensive real cost estimates of HPV vaccination yet published for sub-Saharan Africa. Our models indicate that HPV vaccination in Mali will be cost-effective when introduced. To maximize the benefit using limited resources, vaccination programs may begin with a target coverage of about 50%. We anticipate that costs of reaching late adopters after the First Vaccinated Wave of vaccination will be higher, but worthwhile.

Vaccine perception among acceptors and non-acceptors in Sokoto State, Nigeria

Original Research Article
Pages 3323-3327
Bola Murele, Rui Vaz, Alex Gasasira, Pascal Mkanda, Tesfaye Erbeto, Joseph Okeibunor
Abstract
Vaccine perceptions among acceptors and non-acceptors of childhood vaccination were explored. Seventy-two care givers, among them, acceptors and non-acceptors were interviewed in-depth with an interview guide that assessed vaccine acceptance, social and personality factors, and health belief model (HBM) categories in relation to oral polio vaccine (perceived susceptibility, severity, cost barriers, general barriers, benefits, knowledge, and engagement in preventative health behaviours). Community leaders were purposively selected while parents were selected on the basis of availability while ensuring the different attitude to vaccines was covered. Results showed that the HBM framework was found to be appropriate for identifying and distinguishing vaccine acceptors and non-acceptors. In addition, the HBM categories of benefits and susceptibility were found to influence oral polio vaccine acceptance. Second, the opinion of family members about the oral polio vaccine moderated the relationship between

number of social ties and vaccine acceptance. Further, oral polio vaccine acceptance was related to outbreaks of paralysis of any sort, but not aggregate scores of other preventative health behaviours. Implications of this study include the investigation of vaccine acceptance in a high risk population. Research was done to investigate vaccine acceptance.

Toward more specific and transparent research and development costs: The case of seasonal influenza vaccines

Original Research Article
Pages 3336-3340
Ayman Chit, Jayson Parker, Scott A. Halperin, Manny Papadimitropoulos, Murray Krahn, Paul Grootendorst

Abstract
Background
The ability to calculate the development costs for specific medicines and vaccines is important to inform investments in innovation. Unfortunately, the literature is predominated by non-reproducible studies only measuring aggregate level drug research and development (R&D) costs. We describe methodology that improves the transparency and reproducibility of primary indication expected R&D expenditures.
Methods
We used publically accessible clinical trial data to investigate the fate of all seasonal influenza vaccine candidates that entered clinical development post year 2000. We calculated development times and probabilities of success for these candidates through the various phases of clinical development. Clinical trial cost data obtained from university based clinical researchers were used to estimate the costs of each phase of development. The cost of preclinical development was estimated using published literature.
Results
A vaccine candidate entering pre-clinical development in 2011 would be expected to achieve licensure in 2022; all costs are reported in 2022 Canadian dollars (CAD). After applying a 9% cost of capital, the capitalized total R&D expenditure amounts to $474.88 million CAD.
Conclusion
Clinical development costs for vaccines and drugs can be estimated with increased specificity and transparency using public sources of data. The robustness of these estimates will only increase over time due to public disclosure incentives first introduced in the late 1990s. However, preclinical development costs remain difficult to estimate from public data.

Vaccine: Development and Therapy
(Accessed 17 May 2014)
http://www.dovepress.com/vaccine-development-and-therapy-journal
[No new relevant content]

Vaccines — Open Access Journal
(Accessed 17 May 2014)
http://www.mdpi.com/journal/vaccines
[No new relevant content]

Value in Health

Vol 17 | No. 2 | March 2014 | Pages 141-306
http://www.valueinhealthjournal.com/current
[Reviewed earlier]

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

Philosophical Transactions of the Royal Society B
http://rstb.royalsocietypublishing.org/content/current
June 19, 2014; 369 (1645)
Theme Issue 'After 2015: infectious diseases in a new era of health and development' compiled and edited by Christopher Dye and Anne O'Garra
June 19, 2014; 369 (1645)
Preface
The science of infectious diseases
Christopher Dye1 and Anne O'Garra2,3
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[Full text]

The United Nations (UN) Millennium Development Goals (MDGs) have provided a framework for accelerating the decline of infectious diseases, backed by a massive injection of foreign investment in low-income countries. The MDG era is credited with numerous successes: between 1990 and 2012 the proportion of people living in extreme poverty was halved, and the proportion of slum dwellers in cities is also in decline. Over 2 billion people gained access to clean drinking water. Malaria death rates fell by more than a quarter, and deaths in childhood (less than 5 years) by almost one half [1].

Despite these accomplishments, infectious diseases (plus maternal and nutritional disorders) remain the commonest cause of death in the world's poorest countries, whose inhabitants still suffer greatly from diarrhoeal diseases, pneumonia, HIV/AIDS, tuberculosis, malaria and helminth infections, among others. One hundred and fifty years after Europe's 'sanitation revolution', an astonishing 2.4 billion people (more than one in three) still do not have piped drinking water, and more than 1 billion people are without sanitation. Adding to the predictable burden of endemic disease, the threat of pandemics from domestic and wild animals is ever-present and global. Under-nutrition, intimately linked to infection, still affects hundreds of millions of people worldwide. The eradication of polio and Guinea worm, repeatedly promised, hang in the balance. Infections are contributing to the growing burden of chronic diseases, notably cancers associated with hepatitis B and C viruses (liver), human papilloma virus (cervix) and Helicobacter pylori (stomach). Infectious diseases have been quelled, but they are far from conquered.

After 2015, the MDGs will be replaced by a new set of goals that focus on poverty reduction and sustainable development [2,3]. Health is central to the well-being of individuals and to the development of populations, and the post-2015 agenda will put health in broad context. More

explicitly than the MDGs, it will take on non-communicable diseases, nutritional disorders, mental health and injuries. There will be a marked shift in political support and funding, and infectious diseases are likely to have a lower profile. At this critical juncture, this issue of papers1 explores the frontiers of infection biology at the level of individuals (molecular, cellular, genetic, immune) and populations (demography, ecology, epidemiology). It asks how efforts to investigate and control infections will fare in the era of sustainable development, and how science can help to meet the challenge.

The introductory paper [4] sets the scene by offering, among other things, a reminder that UN development goals are part of a much longer process in public health: they are the latest and biggest, concerted effort to accelerate the demographic and epidemiological transitions, setting a course towards optimal fertility and minimal premature mortality in stable populations. Then the first group of four papers examines the disease process within individual hosts. With reference to diseases caused by a major bacterial (tuberculosis) and viral infection (HIV/AIDS), these reviews discuss how studying changes in gene expression during infection could lead to new diagnostic and prognostic tests [5], how investigating genetic variation could mitigate pathogenicity [6], how understanding latent infection could stop the progression to active disease [7] and how immunology provides insights into viral cure [8].

The second group of six papers is concerned with the development of interventions against infectious diseases, and how they can be deployed at population level. These are drugs for bacterial [9] and helminth infections [10,11], vaccines for pathogens of all kinds [12], and insecticides [13] and the manipulation of heritable characteristics for mosquito control [14]. This short collection of papers is inevitably selective, both with respect to the topics covered and the choice of pathogens and their vectors. There is little mention of, for example, the risk of pandemic influenza [15], the geographical spread of dengue [16], the role of the microbiome in health [17] or the economics of disease control [18]. Nonetheless, the chosen subjects home in on some key questions about the control of infectious diseases today. Where will the next generation of antibiotics come from? How can we improve diagnosis and drug efficacy to improve the control of infectious diseases? Why has not low-cost, mass treatment of helminth infections already been more successful? Can highly efficacious vaccines bypass some of the limitations of weak health systems in low-income countries? Could insecticide resistance be as big a threat to malaria control as resistance to artemisinin-based drug combinations? Is a cure for HIV/AIDS a fantasy or the realistic outcome of current research?

At a time when infectious diseases must compete for attention on a crowded international health agenda, these papers send out the message that infection biology, at the level of pathogen, host and population, is as exciting and challenging as ever, and that the ensuing discoveries could be profoundly important for public health.

References at link above

After 2015: infectious diseases in a new era of health and development

Christopher Dye

Phil. Trans. R. Soc. B. *2014 369 20130426; doi:10.1098/rstb.2013.0426 (published 12 May 2014)*

Abstract

Running over timescales that span decades or centuries, the epidemiological transition provides the central narrative of global health. In this transition, a reduction in mortality is followed by a reduction in fertility, creating larger, older populations in which the main causes of illness and death are no longer acute infections of children but chronic diseases of adults. Since the year 2000, the Millennium Development Goals (MDGs) have provided a framework for accelerating the decline of infectious diseases, backed by a massive injection of foreign investment to low-

income countries. Despite the successes of the MDGs era, the inhabitants of low-income countries still suffer an enormous burden of disease owing to diarrhoea, pneumonia, HIV/AIDS, tuberculosis, malaria and other pathogens. Adding to the predictable burden of endemic disease, the threat of pandemics is ever-present and global. With a view to the future, this review spotlights five aspects of the fight against infection beyond 2015, when the MDGs will be replaced by a new set of goals for poverty reduction and sustainable development. These aspects are: exploiting the biological links between infectious and non-infectious diseases; controlling infections among the new urban majority; enhancing the response to international health threats; expanding childhood immunization programmes to prevent acute and chronic diseases in adults; and working towards universal health coverage. By scanning the wider horizon now, infectious disease specialists have the chance to shape the post-2015 era of health and development.

Review article

The contribution of vaccination to global health: past, present and future

Brian Greenwood

Phil. Trans. R. Soc. B. 2014 369 20130433; doi:10.1098/rstb.2013.0433 (published 12 May 2014)

Abstract

Vaccination has made an enormous contribution to global health. Two major infections, smallpox and rinderpest, have been eradicated. Global coverage of vaccination against many important infectious diseases of childhood has been enhanced dramatically since the creation of WHO's Expanded Programme of Immunization in 1974 and of the Global Alliance for Vaccination and Immunization in 2000. Polio has almost been eradicated and success in controlling measles makes this infection another potential target for eradication. Despite these successes, approximately 6.6 million children still die each year and about a half of these deaths are caused by infections, including pneumonia and diarrhoea, which could be prevented by vaccination. Enhanced deployment of recently developed pneumococcal conjugate and rotavirus vaccines should, therefore, result in a further decline in childhood mortality. Development of vaccines against more complex infections, such as malaria, tuberculosis and HIV, has been challenging and achievements so far have been modest. Final success against these infections may require combination vaccinations, each component stimulating a different arm of the immune system. In the longer term, vaccines are likely to be used to prevent or modulate the course of some non-infectious diseases. Progress has already been made with therapeutic cancer vaccines and future potential targets include addiction, diabetes, hypertension and Alzheimer's disease.

Gender & Society

June 2014; 28 (3)

http://gas.sagepub.com/content/current

Neoliberal Mothering and Vaccine Refusal Imagined Gated Communities and the Privilege of Choice

Imagined Gated Communities and the Privilege of Choice

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May 9, 2014

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Abstract
Neoliberal cultural frames of individual choice inform mothers' accounts of why they refuse state-mandated vaccines for their children. Using interviews with 25 mothers who reject recommended vaccines, this article examines the gendered discourse of vaccine refusal. First, I show how mothers, seeing themselves as experts on their children, weigh perceived risks of infection against those of vaccines and dismiss claims that vaccines are necessary. Second, I explicate how mothers see their own intensive mothering practices—particularly around feeding, nutrition, and natural living—as an alternate and superior means of supporting their children's immunity. Third, I show how they attempt to control risk through management of social exposure, as they envision disease risk to lie in "foreign" bodies outside their networks, and, therefore, individually manageable. Finally, I examine how these mothers focus solely on their own children by evaluating—and often rejecting—assertions that their choices undermine community health, while ignoring how their children benefit from the immunity of others. By analyzing the gendered discourse of vaccines, this article identifies how women's insistence on individual maternal choice as evidence of commitment to their children draws on and replicates structural inequality in ways that remain invisible, but affect others.

Specialty Newsletters
RotaFlash: Rotavirus Vaccine Update
PATH May 16, 2014
Headline
Europe's use of rotavirus vaccines yields substantial public health benefits
More European countries prepare to introduce as data demonstrates impact and safety in Europe

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 17 May 2014
[No new, unique, relevant content]

The Atlantic
http://www.theatlantic.com/magazine/

Accessed 17 May 2014
[No new, unique, relevant content]

BBC
http://www.bbc.co.uk/
Accessed 17 May 2014
17 May 2014 Last updated at 19:28 ET
Eradicating polio one step at a time
By Vikas Pandey BBC Monitoring
A few years ago, India accounted for half the world's cases of polio. Today it is officially clear of the disease. This remarkable feat is largely down to an army of women who, one step at a time, have crisscrossed the country on foot to give the under-fives polio vaccines.

Brookings
http://www.brookings.edu/
Accessed 17 May 2014
[No new, unique, relevant content]

Council on Foreign Relations
http://www.cfr.org/
Accessed 17 May 2014
[No new, unique, relevant content]

Economist
http://www.economist.com/
Accessed 17 May 2014
[No new, unique, relevant content]

Financial Times
http://www.ft.com
Accessed 17 May 2014
[No new, unique, relevant content]

Forbes
http://www.forbes.com/
Accessed 17 May 2014
[No new, unique, relevant content]

Foreign Affairs
http://www.foreignaffairs.com/
Accessed 17 May 2014

Foreign Policy
http://www.foreignpolicy.com/
Accessed 17 May 2014
[No new, unique, relevant content]

The Guardian

http://www.guardiannews.com/
Accessed 17 May 2014

The Huffington Post
http://www.huffingtonpost.com/
Accessed 17 May 2014
[No new, unique, relevant content]

Le Monde
http://www.lemonde.fr/
Accessed 17 May 2014
[No new, unique, relevant content]

New Yorker
http://www.newyorker.com/
Accessed 17 May 2014
[No new, unique, relevant content]

New York Times
http://www.nytimes.com/
Accessed 17 May 2014
[No new, unique, relevant content]

Reuters
http://www.reuters.com/
Accessed 17 May 2014
[No new, unique, relevant content]

Wall Street Journal
http://online.wsj.com/home-page?_wsjregion=na,us&_homepage=/home/us
Accessed 17 May 2014
[No new, unique, relevant content]

Washington Post
http://www.washingtonpost.com/
Accessed 17 May 2014
[No new, unique, relevant content]

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vaccine industry leaders including Janssen, Pfizer, and *Sanofi Pasteur U.S. (list in formation), as well as the Developing Countries Vaccine Manufacturers Network (DCVMN). Support is also provided by a growing list of individuals who use this service to support their roles in public health, clinical practice, government, NGOs and other international institutions, academia and research organizations, and industry.*

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