Center for Vaccine Ethics and Policy
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Vaccines and Global Health: The Week in Review
14 March 2015
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 and Global Health: 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 6,500 entries.*

Comments and suggestions should be directed to
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Executive Director
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***Request an email version:** Vaccines and Global Health: The Week in Review is published as a single email summary, scheduled for release each Saturday evening before midnight (EDT in the U.S.). If you would like to receive the email version, please send your request to david.r.curry@centerforvaccineethicsandpolicy.org.*

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EBOLA/EVD [to 14 March 2015]
Public Health Emergency of International Concern (PHEIC); "Threat to international peace and security" (UN Security Council)

WHO: Ebola Situation Report - 11 March 2015
SUMMARY
:: **A total of 116 new confirmed cases of Ebola virus disease (EVD) were reported in the week to 8 March, compared with 132 the previous week**. Liberia reported no new confirmed cases for the second consecutive week. New cases in Guinea and Sierra Leone occurred in a geographically contiguous arc around the coastal capital cities of Conakry and Freetown, with a total of 11 districts reporting cases. Although there has been no significant decline in overall case incidence since late January, the recent contraction in the geographical distribution of cases is a positive development, enabling response efforts to be focused on a smaller area.

:: Guinea reported 58 new confirmed cases in the week to 8 March, compared with 51 cases the previous week. Cases were clustered in an area around and including the capital Conakry (13 cases), with the nearby prefectures of Boffa (2 cases), Coyah (8 cases), Dubreka (5 cases), Forecariah (28 cases), and Kindia (2 cases) the only other prefectures to report cases.

:: Sierra Leone reported 58 new confirmed cases in the week to 8 March; the first time since June 2014 that weekly incidence has not exceeded that of Guinea. Cases were reported from 5 north and western districts clustered around the capital Freetown, which reported 27 new confirmed cases. The neighbouring districts of Bombali (6 cases), Kambia (7 cases), Port Loko (12 cases) and Western Rural (6 cases) also reported cases.

:: In the 4 days to 5 March there were 90 reported suspected cases in Liberia, none of whom tested positive for EVD, indicating that vigilance is being maintained. A total of 102 contacts were being followed up.

:: The number of confirmed EVD deaths occurring in the community has risen for the past 3 weeks in Guinea, suggesting that there are still significant challenges in terms of contact tracing and community engagement. Of a total of 40 EVD-positive deaths reported in the week to 8 March, 24 occurred in the community. By contrast, a far smaller proportion of EVD-positive deaths occurred in the community in Sierra Leone: 11 of 83. A total of 13 unsafe burials were reported from Guinea and 2 from Sierra Leone over the same period.

:: In the week to 1 March, 7 of 51 (14%) confirmed cases of EVD reported from Guinea arose among known contacts of previous cases, indicating that there are a large number of untraced contacts associated with known chains of transmission, and that unknown chains of transmission persist. In Sierra Leone, by contrast, 52 of 81 (64%) of confirmed EVD cases arose among known contacts over the same period. The average daily number of contacts traced in the week to 8 March was 1433 in Guinea, compared with 7934 in Sierra Leone.

:: The relatively low proportion of cases arising among known contacts, the relatively high proportion of EVD-positive deaths that occur in the community, and the continued occurrence of unsafe burials in Guinea are all indicative of continued difficulties engaging effectively with affected communities. A total of 7 Guinean prefectures reported at least one security incident in the week to 8 March.

:: During the week to 1 March, five cross-border meetings took place, including a coordination meeting in Kambia and Forecariah to facilitate communication, share best practices, and align strategies.

:: In the week to 8 March, 1 new health worker infection was reported in Guinea, bringing the total number of health worker infections reported across the three most-affected countries since the start of the outbreak to 840, with 491 deaths.

COUNTRIES WITH WIDESPREAD AND INTENSE TRANSMISSION

:: **There have been over 24,000 reported confirmed, probable, and suspected cases of EVD in Guinea, Liberia and Sierra Leone (table 1), with almost 10,000 reported deaths (**outcomes for many cases are unknown). A total of 58 new confirmed cases were

reported in Guinea, 0 in Liberia, and 58 in Sierra Leone in the 7 days to 8 March (4 days to 5 March for Liberia).

:: The total number of confirmed and probable cases is similar in males and females (table 2). Compared with children (people aged 14 years and under), people aged 15 to 44 are approximately three times more likely to be affected. People aged 45 and over are nearly four times more likely to be affected than children.

:: A total of 840 confirmed health worker infections have been reported in the 3 intense-transmission countries; there have been 491 reported deaths…

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Speech: From crisis to sustainable development: lessons from the Ebola outbreak
Dr Margaret Chan, Director-General of the World Health Organization
London School of Hygiene and Tropical Medicine. Women in Science Lecture Series
10 March 2015
[Full text: http://www.who.int/dg/speeches/2015/ebola-lessons-lecture/en/]

WHO: A panel of independent experts to assess WHO's response in the Ebola outbreak
Announcement
9 March 2015

The WHO Director-General has commissioned a panel of outside independent experts to undertake an assessment on all aspects of WHO's response in the Ebola outbreak. This is in response to a resolution passed during the Ebola Special Session of the Executive Board in January 2015.

Dame Barbara Stocking will chair the panel. She was formerly Chief Executive of Oxfam GB (2001-13) and during this time led major humanitarian responses. Currently she is President of Murray Edwards College, University of Cambridge, UK.

The other panel members are: Professor Jean-Jacques Muyembe-Tamfun, Director-General of the National Institute for Biomedical Research, Democratic Republic of the Congo; Dr Faisal Shuaib, Head of the National Ebola Emergency Operations Center, Nigeria; Dr Carmencita Alberto-Banatin, independent consultant and advisor on health emergencies and disasters, Philippines; Professor Julio Frenk, Dean of the Faculty, Harvard T. H. Chan School of Public Health, Boston, Massachusetts, USA; and Professor Ilona Kickbusch, Director of the Global Health Programme at the Graduate Institute of International and Development Studies, Geneva, Switzerland.

The panel will present a first progress report on its work to the 68th World Health Assembly in May 2015.
Biographies: A panel of independent experts to assess WHO's response in the Ebola outbreak

WHO: Public consultation on emergency use assessment and listing procedures for medical products during public health emergencies

Given the extent and unprecedented gravity of the current Ebola epidemic, WHO has established an emergency use assessment and listing procedure (EUAL) for three product

streams: diagnostics, vaccines and medicines, that can be used in the current Ebola outbreak or in future public health emergencies of international concern. This procedure will ensure acceptable quality, safety and performance standards for products procured by UN agencies, and provide guidance to WHO product utilization advisory committees, national regulatory authorities (NRAs), and others involved in efforts to control public health emergencies of international concern. It is modelled on similar procedures that various NRAs have implemented for emergency use authorization within their own jurisdictions.

WHO Member States and all relevant stakeholders are invited to comment on the procedures (still undergoing internal review) until COB Friday 27 March 2015.

Comments and suggestions will be evaluated and considered for possible inclusion in the current procedures if warranted. Final versions of the procedures will be made available on the WHO website after review.

Comment on the procedures for the three product streams by following the links below:

:: DIAGNOSTICS (IVDs)
Read the Procedures document for In Vitro Diagnostics (IVDs)
Comment on In Vitro Diagnostics (IVDs)
Login name: call2015
Password: call2015

:: MEDICINES
Read the Procedures document for Medicines
Comment on Medicines
Login name: call2015
Password: call2015

:: VACCINES
Read the Procedures document for Vaccines
Comment on Vaccines
Login name: call2015
Password: call2015

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UNMEER [to 14 March 2015]
https://ebolaresponse.un.org/un-mission-ebola-emergency-response-unmeer
:: 12 Mar 2015 - West African economies feeling ripple effects of Ebola, says UN

:: 11 Mar 2015 - WHO and World Food Programme join forces to reach zero Ebola cases

:: UN Mission Situation Reports: 09-13 March 2015 - https://ebolaresponse.un.org/resources

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New trial of TKM-Ebola treatment to start in Sierra Leone

Wellcome Trust Press Release: 11 March 2015
A clinical trial of a potential Ebola therapy called TKM-Ebola-Guinea will start today in Sierra Leone.

The phase II study, led by Professor Peter Horby of the University of Oxford on behalf of the International Severe Acute Respiratory and Emerging Infection Consortium (ISARIC), is the second drug trial to be funded through the Wellcome Trust's £3.2 million Ebola therapeutics platform.

TKM-Ebola-Guinea, developed and manufactured by Tekmira Pharmaceuticals, is a synthetic small interfering RNA (siRNA) therapeutic designed specifically to target the strain of the Ebola virus responsible for the present outbreak in Guinea, Liberia and Sierra Leone. It works by blocking certain genes of the virus, thereby reducing viral replication.

An earlier version of the TKM-Ebola drug (targeted at a different strain) has been tested in healthy human volunteers. The efficacy of the Guinea version will now be evaluated in patients with a confirmed diagnosis of Ebola virus infection in a single-arm study called RAPIDE-TKM (Phase II Rapid Assessment of Potential Interventions & Drugs for Ebola-TKM). Results of the trial are expected in the second half of 2015.

The RAPIDE-TKM study will be led by the University of Oxford in partnership with the Sierra Leone College of Medicine and Allied Health Sciences, the Sierra Leone Ministry for Health, the WHO-based Special Programme for Research and Training in Tropical Diseases (TDR), the UK Department for International Development (DFID), Public Health England and GOAL Global. Professor Peter Horby, Associate Professor of Infectious Diseases and Global Health at University of Oxford, who is leading the trial, said: "There are still around 10 new cases of Ebola being diagnosed every day in Sierra Leone. It's therefore essential that we push forward with clinical trials while we still have a realistic chance of getting answers about which, if any, of the candidate treatments can save lives in this, and in future outbreaks."

Colonel Professor Foday Sahr, Commanding Officer of the joint medical unit in Sierra Leone and a principal investigator on the study, said: "The start of this trial is a very important event for Sierra Leone and the other countries affected by Ebola, it is an exciting development because research is essential in this outbreak so that we can determine what might work for these cases. This clinical trial is a highly collaborative effort and we are working closely with international partners so that together we can get the evidence that is needed. The team working with the patients in the treatment centres demonstrate this partnership in action because they are a mix of local and overseas staff who are working side by side to deliver these trial treatments to the patients."

Dr Jeremy Farrar, Director of the Wellcome Trust, which is funding the trial, added: "The recent surge in new Ebola infections in Guinea and Sierra Leone should serve as a stark warning that this epidemic is far from over. Almost a year on from the first confirmed case, we've reached a crucial stage where several large scale trials are gathering steam, but we still don't have any proven treatments. It's therefore heartening to see this latest trial of TKM-Ebola getting underway after so much hard work from the research team and partner agencies. We're very proud to be supporting their important work."

The Wellcome Trust Ebola therapeutics platform was set up in September 2014 to enable multiple partners to quickly establish clinical trials at existing Ebola treatment centres. TKM-Ebola-Guinea is the second candidate drug to be evaluated through the platform. A previous

trial of the antiviral brincidofovir was abandoned earlier this year following a sharp fall in the number of Ebola cases at the study site in Liberia.

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NIH Watch [to 14 March 2015]
http://www.nih.gov/news/index.html
:: UPDATE: American healthcare worker with Ebola virus disease arrives safely at NIH Clinical Center
March 13, 2015 — Patient admitted to NIH Clinical Center's high-containment facility.

:: NIH to admit American healthcare worker with Ebola virus disease
March 12, 2015 — Patient will be treated at the NIH Clinical Center's high-containment facility.

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Ebola: EU assists with the evacuation of health workers
13/03/2015
Over recent days, the EU has facilitated the evacuation of six international health workers from Ebola-hit West Africa to equipped European hospitals. "We pay tribute to the tremendous courage of the healthcare workers who are risking their lives...

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Science
13 March 2015 vol 347, issue 6227, pages 1169-1284
http://www.sciencemag.org/current.dtl
In Depth
Infectious Diseases
As Ebola fades, a new threat
Leslie Roberts
A second, often overlooked, public health crisis is brewing in the countries hardest hit by Ebola, epidemiologists warn. The Ebola epidemic has devastated already weak public health systems and disrupted childhood vaccinations in Liberia, Guinea, and Sierra Leone. As a result, unless action is taken quickly, preventable childhood diseases will likely soar. Measles, in particular, is considered a sentinel of a broken health system, often hitting early and hard in the aftermath of a disaster. In a paper in this week's issue of Science, researchers put some sobering numbers on the size of a potential measles outbreak in the region post-Ebola. In the worst case, they warn, a measles outbreak could kill thousands more people than Ebola has.
Report
Reduced vaccination and the risk of measles and other childhood infections post-Ebola
Saki Takahashi1, C. Jessica E. Metcalf1,2, Matthew J. Ferrari3, William J. Moss4, Shaun A. Truelove4, Andrew J. Tatem5,6,7, Bryan T. Grenfell1,6, Justin Lessler4,*
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4Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD 21205, USA.
5Department of Geography and Environment, University of Southampton, Southampton SO17 1BJ, UK.
6Fogarty International Center, National Institutes of Health, Bethesda, MD 20892, USA.
7Flowminder Foundation, 17177 Stockholm, Sweden.
Abstract
The Ebola epidemic in West Africa has caused substantial morbidity and mortality. The outbreak has also disrupted health care services, including childhood vaccinations, creating a second public health crisis. We project that after 6 to 18 months of disruptions, a large connected cluster of children unvaccinated for measles will accumulate across Guinea, Liberia, and Sierra Leone. This pool of susceptibility increases the expected size of a regional measles outbreak from 127,000 to 227,000 cases after 18 months, resulting in 2000 to 16,000 additional deaths (comparable to the numbers of Ebola deaths reported thus far). There is a clear path to avoiding outbreaks of childhood vaccine-preventable diseases once the threat of Ebola begins to recede: an aggressive regional vaccination campaign aimed at age groups left unprotected because of health care disruptions.

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POLIO [to 14 March 2015]
Public Health Emergency of International Concern (PHEIC)

GPEI Update: Polio this week - *As of 11 March 2015*
Global Polio Eradication Initiative
[Editor's Excerpt and text bolding]
Full report: http://www.polioeradication.org/Dataandmonitoring/Poliothisweek.aspx
:: On International Women's Day 2015 we celebrated the essential role women play in polio eradication efforts around the world. More

Pakistan
:: Three new wild poliovirus type 1 (WPV1) cases were reported in the past week. One case was reported in Peshawar district in Khyber Pakhtunkhwa province; 1 in Dadu district in Sindh; and one in Lorelai district in Balochistan. The latter two districts were previously uninfected with WPV in 2015. The total number of WPV1 cases in 2014 remains 306, and 16 for 2015. The most recent onset of paralysis was on 10 February in Dadu district.

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PATH Watch [to 14 March 2015]
http://www.path.org/news/index.php
March 12, 2015
India rolls out ROTAVAC® in private sector
On Monday, March 9, 2015, India's Prime Minister Narenda Modi rolled out an indigenously developed and manufactured rotavirus vaccine, ROTAVAC®, for the private market.
ROTAVAC®'s Phase 3 clinical trial data demonstrated excellent safety and efficacy, with reductions of severe rotavirus diarrhea by more than half – 56 percent during the first year of

life, with protection continuing into the second year of life. This compares favorably with the efficacy of currently globally available rotavirus vaccines in low-resource countries.

PATH, a key partner in the development of ROTAVAC® since 2001, worked with the Indian Department of Biotechnology, the Society for Applied Studies, and Bharat Biotech on the clinical trials that demonstrated the safety and efficacy of the vaccine. PATH welcomed the news that Bharat Biotech launched ROTAVAC® in the private sector as "an exciting and encouraging first step towards the public health goal of improving the supply of affordable rotavirus vaccine, both in India and worldwide."

In July 2014, Prime Minister Modi announced the introduction of ROTAVAC® into India's publically funded Universal Immunization Programme (UIP), and in September 2014, Dr. Harsh Vardhan, India's Minister of Health and Family Welfare at the time, confirmed the Indian government's commitment to introduce rotavirus vaccines into the UIP during opening remarks at the International Rotavirus Symposium, held in New Delhi. The Government of India is currently developing a plan for a phased roll-out of the vaccine in the UIP, which will benefit the poorest populations who are most at-risk of severe illness or death from rotavirus diarrhea

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WHO & Regionals [to 14 March 2015]

:: **WHO issues its first hepatitis B treatment guidelines**

12 March 2015 -- Today, WHO issued its first-ever guidance for the treatment of chronic hepatitis B, a viral infection which is spread through blood and body fluids, attacking the liver and resulting in an estimated 650 000 deaths each year. Worldwide, some 240 million people have chronic hepatitis B virus and are at increased risk of dying from cirrhosis and liver cancer. Effective medicines exist that can prevent people developing these conditions so they live longer.

- Read the press release
- Read the guidelines on hepatitis B treatment

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

- 13 March 2015 Meningococcal disease - Nigeria
- 11 March 2015 Human infection with avian influenza A(H7N9) virus – China
- 11 March 2015 Middle East respiratory syndrome coronavirus (MERS-CoV) – Qatar
- 11 March 2015 Middle East respiratory syndrome coronavirus (MERS-CoV) – Saudi Arabia
- 9 March 2015 Middle East respiratory syndrome coronavirus (MERS-CoV) – Germany

:: The **Weekly Epidemiological Record (WER) 13 March 2015**, vol. 90, 11 (pp. 97–108) includes:

- Recommended composition of influenza virus vaccines for use in the 2015–2016 northern hemisphere influenza season

:: WHO Regional Offices

WHO African Region AFRO

:: WHO and World Food Programme join forces to reach zero Ebola cases

11 March 2015 ¦ GENEVA - WHO and the United Nations World Food Programme (WFP) are combining their forces in a new partnership in the Ebola-affected countries of Guinea, Liberia and Sierra Leone. The arrangement combines the logistics strength of WFP with WHO's public

health expertise to help get the current Ebola outbreak down to zero cases in West Africa. The platform also establishes an alert and response infrastructure for future crises.

WHO Region of the Americas PAHO
:: PAHO and Latin American Society of Nephrology call for increased prevention and better access to treatment for kidney disease (03/09/2015)

WHO South-East Asia Region SEARO
No new digest content identified.

WHO European Region EURO
No new digest content identified.

WHO Eastern Mediterranean Region EMRO
:: WHO Regional Director inaugurates primary health care centre and hands over urgently needed mobile medical clinics and ambulances to health authorities in Dohuk, Iraq
Erbil, Iraq, 14 March 2015 – WHO's Regional Director for the Eastern Mediterranean Dr Ala Alwan visited Dohuk governorate of the Kurdistan region of Iraq to officially hand over 15 ambulances and 2 mobile medical clinics to Dohuk health authorities. The donation will provide health services and medical treatments for more than 60 000 beneficiaries for three months.

WHO Western Pacific Region
No new digest content identified.

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European Vaccine Initiative Watch [to 14 March 2015]
http://www.euvaccine.eu/news-events
:: EDUFLUVAC Workshop
13 March 2015
The EDUFLUVAC partners, as part of their work programme on the development of a broadly reactive influenza vaccine, are organising a workshop on immunoassays that can be used to assess broadly reactive or universal influenza vaccines and their standardisation.

:: Published: Proceedings and video report of the High-Level Launch Event for EDCTP2
12 March 2015
The proceedings of the High-level Launch Event for the second EDCTP programme (EDCTP2) in Cape Town, South Africa on 2 December 2014, are now available. Additionally, a short video report of the meeting is also available on the EDCTP web site.

:: FLUCOP launched 1 March 2015
10 March 2015
To improve the toolbox available to evaluate seasonal flu vaccines, European public and private research institutions are joining together in FLUCOP, a €13.9M project funded by the Innovative Medicines Initiative (IMI). Full Press Release

:: Global Health and Vaccine Research (GLOBAC)
17 - 18 March 2015 - Oslo

The 9th GLOBVAC conference "How can research inform the post-2015 agenda for women's and children's health and rights?" will be hosted by Interfaculty research programme - LEVE (Livelihoods in developing countries) at the University of Oslo.

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CDC/MMWR Watch [to 14 March 2015]
http://www.cdc.gov/media/index.html
No new digest content identified.

UNICEF Watch [to 14 March 2015]
No new digest content identified.

GAVI [to 14 March 2015]
http://www.gavialliance.org/library/news/press-releases/
No new digest content identified.

BMGF – Gates Foundation Watch [to 14 March 2015]
http://www.gatesfoundation.org/Media-Center/Press-Releases
No new digest content identified.

Sabin Vaccine Institute Watch [to 14 March 2015]
http://www.sabin.org/updates/pressreleases
No new digest content identified.

IVI Watch [to 14 March 2015]
http://www.ivi.org/web/www/home
No new digest content identified.

Global Fund [to 14 March 2015]
http://www.theglobalfund.org/en/mediacenter/newsreleases/
No new digest content identified.

FDA Watch [to 14 March 2015]
http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/default.htm
No new digest content identified.

European Medicines Agency Watch [to 14 March 2015]
http://www.ema.europa.eu/ema/
No new digest content identified.

Industry Watch [to 14 March 2015]
No new digest content identified.

DCVMN / PhRMA / EFPIA / IFPMA / BIO Watch [to 14 March 2015]
No new digest 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

No new content identified.

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 15, Issue 2, 2015
http://www.tandfonline.com/toc/uajb20/current
[Reviewed earlier]

American Journal of Infection Control
March 2015 Volume 43, Issue 3, p199-312
http://www.ajicjournal.org/current
[Reviewed earlier]

American Journal of Preventive Medicine
March 2015 Volume 48, Issue 3, p241-364, e1-e4
http://www.ajpmonline.org/current
[Reviewed earlier]

American Journal of Public Health
Volume 105, Issue 3 (March 2015)
http://ajph.aphapublications.org/toc/ajph/current
[Reviewed earlier]

American Journal of Tropical Medicine and Hygiene
March 2015; 92 (3)
http://www.ajtmh.org/content/current
[Reviewed earlier]

Annals of Internal Medicine
3 March 2015, Vol. 162. No. 5
http://annals.org/issue.aspx
[New issue; No relevant content]

BMC Health Services Research
http://www.biomedcentral.com/bmchealthservres/content
(Accessed 14 March 2015)
[No new relevant content]

BMC Infectious Diseases
http://www.biomedcentral.com/bmcinfectdis/content
(Accessed 14 March 2015)
Research article
Spatial clustering of measles cases during endemic (1998–2002) and epidemic (2010) periods in Lusaka, Zambia
Jessie Pinchoff1, James Chipeta2*, Gibson Chitundu Banda2, Samuel Miti2, Timothy Shields3, Frank Curriero3 and William John Moss13
Author Affiliations
BMC Infectious Diseases 2015, 15:121 doi:10.1186/s12879-015-0842-y
Published: 10 March 2015
Abstract (provisional)
Background
Measles cases may cluster in densely populated urban centers in sub-Saharan Africa as susceptible individuals share spatially dependent risk factors and may cluster among human immunodeficiency virus (HIV)-infected children despite high vaccination coverage.
Methods
Children hospitalized with measles at the University Teaching Hospital (UTH) in Lusaka, Zambia were enrolled in the study. The township of residence was recorded on the questionnaire and mapped; SaTScan software was used for cluster detection. A spatial-temporal scan statistic was used to investigate clustering of measles in children hospitalized during an endemic period (1998 to 2002) and during the 2010 measles outbreak in Lusaka, Zambia.
Results
Three sequential and spatially contiguous clusters of measles cases were identified during the 2010 outbreak but no clustering among HIV-infected children was identified. In contrast, a space-time cluster among HIV-infected children was identified during the endemic period. This cluster occurred prior to the introduction of intensive measles control efforts and during a period between seasonal peaks in measles incidence.

Conclusions
Prediction and early identification of spatial clusters of measles will be critical to achieving measles elimination. HIV infection may contribute to spatial clustering of measles cases in some epidemiological settings.

BMC Medical Ethics
(Accessed 14 March 2015)
http://www.biomedcentral.com/bmcmedethics/content
[No new relevant content]

BMC Public Health
(Accessed 14 March 2015)
http://www.biomedcentral.com/bmcpublichealth/content
Research article
Association between gender inequality index and child mortality rates: a cross-national study of 138 countries
Ethel Mary Brinda1, Anto P Rajkumar23* and Ulrika Enemark1
Author Affiliations
BMC Public Health 2015, 15:97 doi:10.1186/s12889-015-1449-3
Published: 9 March 2015
Abstract
Background
Gender inequality weakens maternal health and harms children through many direct and indirect pathways. Allied biological disadvantage and psychosocial adversities challenge the survival of children of both genders. United Nations Development Programme (UNDP) has recently developed a Gender Inequality Index to measure the multidimensional nature of gender inequality. The global impact of Gender Inequality Index on the child mortality rates remains uncertain.
Methods
We employed an ecological study to investigate the association between child mortality rates and Gender Inequality Indices of 138 countries for which UNDP has published the Gender Inequality Index. Data on child mortality rates and on potential confounders, such as, per capita gross domestic product and immunization coverage, were obtained from the official World Health Organization and World Bank sources. We employed multivariate non-parametric robust regression models to study the relationship between these variables.
Results
Women in low and middle income countries (LMICs) suffer significantly more gender inequality ($p < 0.001$). Gender Inequality Index (GII) was positively associated with neonatal ($\beta = 53.85$; 95% CI 41.61-64.09), infant ($\beta = 70.28$; 95% CI 51.93-88.64) and under five mortality rates ($\beta = 68.14$; 95% CI 49.71-86.58), after adjusting for the effects of potential confounders ($p < 0.001$).
Conclusions
We have documented statistically significant positive associations between GII and child mortality rates. Our results suggest that the initiatives to curtail child mortality rates should extend beyond medical interventions and should prioritize women's rights and autonomy. We discuss major pathways connecting gender inequality and child mortality. We present the socio-

economic problems, which sustain higher gender inequality and child mortality in LMICs. We further discuss the potential solutions pertinent to LMICs. Dissipating gender barriers and focusing on social well-being of women may augment the survival of children of both genders.

BMC Research Notes
(Accessed 14 March 2015)
http://www.biomedcentral.com/bmcresnotes/content
Research article

Understanding whose births get registered: a cross sectional study in Bauchi and Cross River states, Nigeria

Atam E Adi[1], Tukur Abdu[1], Amir Khan[12], Musa Haruna Rashid[3], Ubi E Ebri[4], Anne Cockcroft[5]* and Neil Andersson[6]
Author Affiliations

BMC Research Notes 2015, 8:79 doi:10.1186/s13104-015-1026-y
Published: 13 March 2015

Abstract (provisional)
Background
It is a recognized child right to acquire a name and a nationality, and birth registration may be necessary to allow access to services, but the level of birth registration is low in Nigeria. A household survey about management of childhood illnesses provided an opportunity to examine actionable determinants of birth registration of children in Bauchi and Cross River states of Nigeria.
Methods
Trained field teams visited households in a stratified random cluster sample of 90 enumeration areas in each state. They administered a questionnaire to women 14–49 years old which included questions about birth registration of their children 0–47 months old and about socio-economic and other factors potentially related to birth registration, including education of the parents, poverty (food sufficiency), marital status of the mother, maternal antenatal care and place of delivery of the last pregnancy. Bivariate then multivariate analysis examined associations with birth registration. Facilitators later conducted separate male and female focus group discussions in the same 90 communities in each state, discussing the reasons for the findings about levels of birth registration.
Results
Nearly half (45%) of 8602 children in Cross River State and only a fifth (19%) of 9837 in Bauchi State had birth certificates (seen or unseen). In both states, children whose mothers attended antenatal care and who delivered in a government health facility in their last pregnancy were more likely to have a birth certificate, as were children of more educated parents, from less poor households, and from urban communities. Focus group discussions revealed that many people did not know about birth certificates or where to get them, and parents were discouraged from getting birth certificates because of the unofficial payments involved.
Conclusion
There are low levels of birth registration in Bauchi and Cross River states, particularly among disadvantaged households. As a result of this study, both states have planned interventions to increase birth registration, including closer collaboration between the National Population Commissions and state health services.

British Medical Journal
14 March 2015(vol 350, issue 7999)
http://www.bmj.com/content/350/7999
Editorials
Germany, the G7, and global health
BMJ 2015; 350 doi: http://dx.doi.org/10.1136/bmj.h1210 (Published 05 March 2015) Cite this as: BMJ 2015;350:h1210
Gavin Yamey, lead1, Sabine Campe, associate director2, Sara Fewer, policy and programme manager1
Author affiliations
Health systems, new tools, and delivery science should top the agenda

Remember global health? It had a fantastic 10 years from 2002-12—the "golden decade" of rising health aid1—but is now slipping down the international agenda. Some development experts argue that other sectors, such as agriculture, should "take centre stage."2 This is misguided. Health investment is the largest contributor to sustainable development.3 And a retreat from health would threaten the impressive gains of the past decade in reducing infectious disease, maternal, and child mortality.4

Fortunately, there are some promising signs that Germany, this year's chair of the G7 group of large advanced economies, may spend some of its political capital on pushing health back up the global agenda. It got off to a strong start, hosting a conference in Berlin in January at which donors pledged $7.5bn (£4.9bn; €6.7bn) to Gavi, the vaccine alliance, an amount that exceeded expectations and that could fund immunisations for an additional 300 million children.5 It has identified three global health priorities for the G7 in 2015: neglected tropical diseases, pandemics, and antimicrobial resistance.6 What should we make of these priorities, and does the G7 really have the clout to effect global change?...

Bulletin of the World Health Organization
Volume 93, Number 3, March 2015, 133-208
http://www.who.int/bulletin/volumes/93/3/en/
[Reviewed earlier]

Clinical Infectious Diseases (CID)
Volume 60 Issue 6 March 15, 2015
http://cid.oxfordjournals.org/content/current
[Reviewed earlier]

Clinical Therapeutics
February 2015 Volume 37, Issue 2, p243-480
http://www.clinicaltherapeutics.com/current
[Reviewed earlier]

Complexity
January/February 2015 Volume 20, Issue 3 Pages fmi–fmi, 1–92
http://onlinelibrary.wiley.com/doi/10.1002/cplx.v20.3/issuetoc

[Reviewed earlier]

Conflict and Health
[Accessed 14 March 2015]
http://www.conflictandhealth.com/
[No new relevant content]

Contemporary Clinical Trials
Volume 41, In Progress (March 2015)
[Reviewed earlier]

Cost Effectiveness and Resource Allocation
(Accessed 14 March 2015)
http://www.resource-allocation.com/
[No new relevant content]

Current Opinion in Infectious Diseases
April 2015 - Volume 28 - Issue 2 pp: v-v,117-198
http://journals.lww.com/co-infectiousdiseases/pages/currenttoc.aspx
[Reviewed earlier]

Developing World Bioethics
April 2015 Volume 15, Issue 1 Pages ii–iii, 1–57
http://onlinelibrary.wiley.com/doi/10.1111/dewb.2015.15.issue-1/issuetoc
[Reviewed earlier]

Development in Practice
Volume 25, Issue 2, 2015
http://www.tandfonline.com/toc/cdip20/current
[New issue; No relevant content]

Emerging Infectious Diseases
Volume 21, Number 3—March 2015
http://wwwnc.cdc.gov/eid/
[Reviewed earlier]

Epidemics
Volume 11, In Progress (June 2015)
http://www.sciencedirect.com/science/journal/17554365
[Reviewed earlier]

Epidemiology and Infection
Volume 143 - Issue 06 - April 2015
http://journals.cambridge.org/action/displayIssue?jid=HYG&tab=currentissue
Original Papers
Vaccine studies
The introduction of dengue vaccine may temporarily cause large spikes in prevalence
A. PANDEYa1 c1 and J. MEDLOCKa2
a1 Department of Mathematical Sciences, Clemson University, Clemson, SC, USA
a2 Department of Biomedical Sciences, Oregon State University, Corvallis, OR, USA
SUMMARY
A dengue vaccine is expected to be available within a few years. Once vaccine is available, policy-makers will need to develop suitable policies to allocate the vaccine. Mathematical models of dengue transmission predict complex temporal patterns in prevalence, driven by seasonal oscillations in mosquito abundance. In particular, vaccine introduction may induce a transient period immediately after vaccine introduction where prevalence can spike higher than in the pre-vaccination period. These spikes in prevalence could lead to doubts about the vaccination programme among the public and even among decision-makers, possibly impeding the vaccination programme. Using simple dengue transmission models, we found that large transient spikes in prevalence are robust phenomena that occur when vaccine coverage and vaccine efficacy are not either both very high or both very low. Despite the presence of transient spikes in prevalence, the models predict that vaccination does always reduce the total number of infections in the 15 years after vaccine introduction. We conclude that policy-makers should prepare for spikes in prevalence after vaccine introduction to mitigate the burden of these spikes and to accurately measure the effectiveness of the vaccine programme

The European Journal of Public Health
Volume 25, Issue 1, 01 February 2015
http://eurpub.oxfordjournals.org/content/25/suppl_1
Theme: Unwarranted variations in health care performance across Europe: Lessons from the ECHO Project
[Reviewed earlier]

Eurosurveillance
Volume 20, Issue 10, 12 March 2015
http://www.eurosurveillance.org/Public/Articles/Archives.aspx?PublicationId=11678
Surveillance and outbreak reports
Impact of 10- and 13-valent pneumococcal conjugate vaccines on incidence of invasive pneumococcal disease in children aged under 16 years in Germany, 2009 to 2012
by S Weiss, G Falkenhorst, M van der Linden, M Imöhl, R von Kries

Global Health: Science and Practice (GHSP)

March 2015 | Volume 3 | Issue 1
http://www.ghspjournal.org/content/current
[Reviewed earlier]

Global Health Governance
[Accessed 14 March 2015]
http://blogs.shu.edu/ghg/category/complete-issues/summer-2013/
[No new relevant content]

Global Public Health
Volume 10, Issue 4, 2015
http://www.tandfonline.com/toc/rgph20/current#.VPudJy5nBhU
[Reviewed earlier]

Globalization and Health
[Accessed 14 March 2015]
http://www.globalizationandhealth.com/
[No new relevant content]

Health Affairs
March 2015; Volume 34, Issue 3
http://content.healthaffairs.org/content/current
[Reviewed earlier]

Health and Human Rights
Volume 16, Issue 2 December 2014
http://www.hhrjournal.org/volume-16-issue-2/
Papers in Press: Special Issue on Health Rights Litigation
[Reviewed earlier]

Health Economics, Policy and Law
Volume 10 - Issue 02 - April 2015
http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue
[Reviewed earlier]

Health Policy and Planning
Volume 30 Issue 2 March 2015
http://heapol.oxfordjournals.org/content/current
[Reviewed earlier]

Health Research Policy and Systems
http://www.health-policy-systems.com/content
[Accessed 14 March 2015]
Review

A systematic review of implementation frameworks of innovations in healthcare and resulting generic implementation framework

Joanna C Moullin1*, Daniel Sabater-Hernández12, Fernando Fernandez-Llimos3 and Shalom I Benrimoj1
Author Affiliations
Health Research Policy and Systems 2015, 13:16 doi:10.1186/s12961-015-0005-z
Published: 14 March 2015
Abstract (provisional)
Background
Implementation science and knowledge translation have developed across multiple disciplines with the common aim of bringing innovations to practice. Numerous implementation frameworks, models, and theories have been developed to target a diverse array of innovations. As such, it is plausible that not all frameworks include the full range of concepts now thought to be involved in implementation. Users face the decision of selecting a single or combining multiple implementation frameworks. To aid this decision, the aim of this review was to assess the comprehensiveness of existing frameworks.
Methods
A systematic search was undertaken in PubMed to identify implementation frameworks of innovations in healthcare published from 2004 to May 2013. Additionally, titles and abstracts from Implementation Science journal and references from identified papers were reviewed. The orientation, type, and presence of stages and domains, along with the degree of inclusion and depth of analysis of factors, strategies, and evaluations of implementation of included frameworks were analysed.
Results
Frameworks were assessed individually and grouped according to their targeted innovation. Frameworks for particular innovations had similar settings, end-users, and 'type' (descriptive, prescriptive, explanatory, or predictive). On the whole, frameworks were descriptive and explanatory more often than prescriptive and predictive. A small number of the reviewed frameworks covered an implementation concept(s) in detail, however, overall, there was limited degree and depth of analysis of implementation concepts. The core implementation concepts across the frameworks were collated to form a Generic Implementation Framework, which includes the process of implementation (often portrayed as a series of stages and/or steps), the innovation to be implemented, the context in which the implementation is to occur (divided into a range of domains), and influencing factors, strategies, and evaluations.
Conclusions
The selection of implementation framework(s) should be based not solely on the healthcare innovation to be implemented, but include other aspects of the framework's orientation, e.g., the setting and end-user, as well as the degree of inclusion and depth of analysis of the implementation concepts. The resulting generic structure provides researchers, policy-makers, health administrators, and practitioners a base that can be used as guidance for their implementation efforts.

Human Vaccines & Immunotherapeutics (formerly Human Vaccines)

Volume 11, Issue 1, 2015
http://www.tandfonline.com/toc/khvi20/11/1#.VPJsQS5nBhU
[Reviewed earlier]

Infectious Agents and Cancer
[Accessed 14 March 2015]
http://www.infectagentscancer.com/content
[No new relevant content]

Infectious Diseases of Poverty
[Accessed 14 March 2015]
http://www.idpjournal.com/content
[No new relevant content]

International Health
Volume 7 Issue 2 March 2015
http://inthealth.oxfordjournals.org/content/current
Special issue: Digital methods in epidemiology
[Reviewed earlier]

International Journal of Epidemiology
Volume 44 Issue 1 February 2015
http://ije.oxfordjournals.org/content/current
[Reviewed earlier]

International Journal of Infectious Diseases
April 2015 Volume 33, p1
http://www.ijidonline.com/current
[Reviewed earlier]

JAMA
March 10, 2015, Vol 313, No. 10
http://jama.jamanetwork.com/issue.aspx
[New issue; No relevant content]

JAMA Pediatrics
March 2015, Vol 169, No. 3
http://archpedi.jamanetwork.com/issue.aspx
[Reviewed earlier]

Journal of Community Health
Volume 40, Issue 2, April 2015
http://link.springer.com/journal/10900/40/2/page/1
[Reviewed earlier]

Journal of Epidemiology & Community Health
March 2015, Volume 69, Issue 3
http://jech.bmj.com/content/current
[Reviewed earlier]

Journal of Global Ethics
Volume 10, Issue 3, 2014
http://www.tandfonline.com/toc/rjge20/.U2V-Elf4L0I#.VAJEj2N4WF8
Tenth Anniversary Forum: The Future of Global Ethics
[Reviewed earlier]

Journal of Global Infectious Diseases (JGID)
January-March 2015 Volume 7 | Issue 1 Page Nos. 1-50
http://www.jgid.org/currentissue.asp?sabs=n
[Reviewed earlier]

Journal of Health Care for the Poor and Underserved (JHCPU)
Volume 26, Number 1, February 2015
http://muse.jhu.edu/journals/journal_of_health_care_for_the_poor_and_underserved/toc/hpu.26.1.html
[Reviewed earlier]

Journal of Health Organization and Management
Volume 17, Issue 1, February 2015
http://link.springer.com/journal/10903/17/1/page/1
[Reviewed earlier]

Journal of Immigrant and Minority Health
Volume 17, Issue 1, February 2015
http://link.springer.com/journal/10903/17/1/page/1
[Reviewed earlier]

Journal of Immigrant & Refugee Studies
Volume 13, Issue 1, 2015
http://www.tandfonline.com/toc/wimm20/current#.VQS0KOFnBhW
[New issue; No relevant content]

Journal of Infectious Diseases
Volume 211 Issue 5 March 1, 2015
http://jid.oxfordjournals.org/content/current
[Reviewed earlier]

The Journal of Law, Medicine & Ethics
Winter 2014 Volume 42, Issue 4 Pages 408–602
http://onlinelibrary.wiley.com/doi/10.1111/jlme.2014.42.issue-4/issuetoc
Special Issue: SYMPOSIUM: The Buying and Selling of Health Care
[Reviewed earlier]

Journal of Medical Ethics
March 2015, Volume 41, Issue 3
http://jme.bmj.com/content/current
[Reviewed earlier]

Journal of Medical Internet Research
Vol 17, No 2 (2015): February
http://www.jmir.org/2015/2
[Reviewed earlier]

Journal of Medical Microbiology
March 2015; 64 (Pt 3)
http://jmm.sgmjournals.org/content/current
[New issue; No relevant content]

Journal of the Pediatric Infectious Diseases Society (JPIDS)
Volume 4 Issue 1 March 2015
http://jpids.oxfordjournals.org/content/current
[Reviewed earlier]

Journal of Pediatrics
March 2015 Volume 166, Issue 3, p507-782
http://www.jpeds.com/current
[Reviewed earlier]

Journal of Public Health Policy
Volume 36, Issue 1 (February 2015)
http://www.palgrave-journals.com/jphp/journal/v36/n1/index.html

[Reviewed earlier]

Journal of the Royal Society – Interface
06 April 2015; volume 12, issue 105
http://rsif.royalsocietypublishing.org/content/current
[New issue; No relevant content]

Journal of Virology
April 2015, volume 89, issue 7
http://jvi.asm.org/content/current
[New issue; No relevant content]

The Lancet
Mar 14, 2015 Volume 385 Number 9972 p915-1044 e21-e22
http://www.thelancet.com/journals/lancet/issue/current
Editorial
The future of health in Nigeria
The Lancet
Summary
In a letter in today's issue, Seye Abimbola and colleagues highlight the health effects of the 6 year Boko Haram insurgency in Nigeria. The militant group now controls three states in the northeast of the country. Maternal and child mortality are worse in these states than in the rest of Nigeria, there are fears about undetected polio cases, and more than 980 000 people are internally displaced. Conditions are dire for the internally displaced population who live in informal and formal camps with minimum access to health care and other basic needs, such as food and clean water.
Special Report
Syrian crisis: health experts say more can be done
Sophie Cousins
DOI: http://dx.doi.org/10.1016/S0140-6736(15)60515-3
As the Syrian conflict enters its fifth year this month, doctors and public health experts highlight the major health problems and the actions needed to address them. Sophie Cousins reports.
Global trends and projections for tobacco use, 1990–2025: an analysis of smoking indicators from the WHO Comprehensive Information Systems for Tobacco Control
Ver Bilano, Stuart Gilmour, Trevor Moffiet, Edouard Tursan d'Espaignet, Gretchen A Stevens, Alison Commar, Frank Tuyl, Irene Hudson, Kenji Shibuya
Global surveillance of cancer survival 1995–2009: analysis of individual data for 25 676 887 patients from 279 population-based registries in 67 countries (CONCORD-2)
Claudia Allemani, Hannah K Weir, Helena Carreira, Rhea Harewood, Devon Spika, Xiao-Si Wang, Finian Bannon, Jane V Ahn, Christopher J Johnson, Audrey Bonaventure, Rafael Marcos-Gragera, Charles Stiller, Gulnar Azevedo e Silva, Wan-Qing Chen, Olufemi J Ogunbiyi, Bernard Rachet, Matthew J Soeberg, Hui You, Tomohiro Matsuda, Magdalena Bielska-Lasota, Hans Storm, Thomas C Tucker, Michel P Coleman, the CONCORD Working Group

Open Access

The Lancet Global Health
Volume 3, No. 3, e162–e168, March 2015
http://www.thelancet.com/journals/langlo/issue/current
[Reviewed earlier]

The Lancet Infectious Diseases
Mar 2015 Volume 15 Number 3 p249-360
http://www.thelancet.com/journals/laninf/issue/current
[Reviewed earlier]

Maternal and Child Health Journal
Volume 19, Issue 3, March 2015
http://link.springer.com/journal/10995/19/3/page/1
[Reviewed earlier]

Medical Decision Making (MDM)
February 2015; 35 (2)
http://mdm.sagepub.com/content/current
[Reviewed earlier]

The Milbank Quarterly
A Multidisciplinary Journal of Population Health and Health Policy
March 2015 Volume 93, Issue 1 Pages 1–222
http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1468-0009/currentissue
[Reviewed earlier]

Nature
Volume 519 Number 7542 pp129-256 12 March 2015
http://www.nature.com/nature/current_issue.html
Comment
Global change: Put people at the centre of global risk management
Jan Willem Erisman, Guy Brasseur, Philippe Ciais, Nick van Eekeren & Thomas L. Theis
11 March 2015
An individual focus is needed to assess interconnected threats and build resilience worldwide, urge Jan Willem Erisman and colleagues.

Globalization is changing the nature of risk. Natural and social systems — from climate to energy, food, water and economies — are tightly coupled. Abrupt changes in one have a domino effect on others. Floods in Thailand in 2010, for example, led to a global shortage of computer hard disks as a result of factories closing, as well as more than US$330 million in damage and around 250 deaths.

The exposure of people and assets to risks is increasing worldwide. From 1980 to 2012, annual economic losses from environmental disasters rose more than sevenfold, from about $20 billion to $150 billion a year1.

Yet most risk assessments ignore networked threats2, 3. The annual Global Risks report of the World Economic Forum considers risks qualitatively, based on the views of experts4. But global outlooks remain sectorial and too coarse to guide individuals, organizations, municipalities or nations.

Risk reports also neglect the collective impacts of personal choices3. For example, eating more beef causes deforestation and biodiversity loss in the Amazon. Local dams for hydropower or water storage alter sediment flows to fertile coastal regions. The movement of people from the countryside to cities affects water, food, climatic and energy systems planet-wide.

Understanding networked risks is essential for achieving the United Nations Sustainable Development Goals, which are being defined this year5. The 17 proposed goals are interdependent. For example, the stimulation of renewable energies and biofuels to address climate change also affects food production and water resources…

Nature Medicine
March 2015, Volume 21 No 3 pp199-294
http://www.nature.com/nm/journal/v21/n3/index.html
[Reviewed earlier]

Nature Reviews Immunology
March 2015 Vol 15 No 3
http://www.nature.com/nri/journal/v15/n3/index.html
[New issue; No relevant content]

New England Journal of Medicine
March 5, 2015 Vol. 372 No. 10
http://www.nejm.org/toc/nejm/medical-journal
Special Article
Compliance with Results Reporting at ClinicalTrials.gov
Monique L. Anderson, M.D., Karen Chiswell, Ph.D., Eric D. Peterson, M.D., M.P.H., Asba Tasneem, Ph.D., James Topping, M.S., and Robert M. Califf, M.D.
N Engl J Med 2015; 372:1031-1039 March 12, 2015
DOI: 10.1056/NEJMsa1409364
Abstract
Background
The Food and Drug Administration Amendments Act (FDAAA) mandates timely reporting of results of applicable clinical trials to ClinicalTrials.gov. We characterized the proportion of applicable clinical trials with publicly available results and determined independent factors associated with the reporting of results.
Full Text of Background...
Methods
Using an algorithm based on input from the National Library of Medicine, we identified trials that were likely to be subject to FDAAA provisions (highly likely applicable clinical trials, or

HLACTs) from 2008 through 2013. We determined the proportion of HLACTs that reported results within the 12-month interval mandated by the FDAAA or at any time during the 5-year study period. We used regression models to examine characteristics associated with reporting at 12 months and throughout the 5-year study period.
Full Text of Methods...
Results
From all the trials at ClinicalTrials.gov, we identified 13,327 HLACTs that were terminated or completed from January 1, 2008, through August 31, 2012. Of these trials, 77.4% were classified as drug trials. A total of 36.9% of the trials were phase 2 studies, and 23.4% were phase 3 studies; 65.6% were funded by industry. Only 13.4% of trials reported summary results within 12 months after trial completion, whereas 38.3% reported results at any time up to September 27, 2013. Timely reporting was independently associated with factors such as FDA oversight, a later trial phase, and industry funding. A sample review suggested that 45% of industry-funded trials were not required to report results, as compared with 6% of trials funded by the National Institutes of Health (NIH) and 9% of trials that were funded by other government or academic institutions.
Full Text of Results...
Conclusions
Despite ethical and legal obligations to disclose findings promptly, most HLACTs did not report results to ClinicalTrials.gov in a timely fashion during the study period. Industry-funded trials adhered to legal obligations more often than did trials funded by the NIH or other government or academic institutions. (Funded by the Clinical Trials Transformation Initiative and the NIH.)

Pediatrics
March 2015, VOLUME 135 / ISSUE 3
http://pediatrics.aappublications.org/current.shtml
[Reviewed earlier]

Pharmaceutics
Volume 7, Issue 1 (March 2015), Pages 1-
http://www.mdpi.com/1999-4923/6/4
[No new relevant content]

Pharmacoeconomics
Volume 33, Issue 3, March 2015
http://link.springer.com/journal/40273/33/3/page/1
[No relevant content]

PLoS Currents: Outbreaks
http://currents.plos.org/outbreaks/
(Accessed 14 March 2015)
Modeling the 2014 Ebola Virus Epidemic – Agent-Based Simulations, Temporal Analysis and Future Predictions for Liberia and Sierra Leone
March 9, 2015 · Research

We developed an agent-based model to investigate the epidemic dynamics of Ebola virus disease (EVD) in Liberia and Sierra Leone from May 27 to December 21, 2014. The dynamics of the agent-based simulator evolve on small-world transmission networks of sizes equal to the population of each country, with adjustable densities to account for the effects of public health intervention policies and individual behavioral responses to the evolving epidemic. Based on time series of the official case counts from the World Health Organization (WHO), we provide estimates for key epidemiological variables by employing the so-called Equation-Free approach. The underlying transmission networks were characterized by rather random structures in the two countries with densities decreasing by ~19% from the early (May 27-early August) to the last period (mid October-December 21). Our estimates for the values of key epidemiological variables, such as the mean time to death, recovery and the case fatality rate, are very close to the ones reported by the WHO Ebola response team during the early period of the epidemic (until September 14) that were calculated based on clinical data. Specifically, regarding the effective reproductive number Re, our analysis suggests that until mid October, Re was above 2.3 in both countries; from mid October to December 21, Re dropped well below unity in Liberia, indicating a saturation of the epidemic, while in Sierra Leone it was around 1.9, indicating an ongoing epidemic. Accordingly, a ten-week projection from December 21 estimated that the epidemic will fade out in Liberia in early March; in contrast, our results flashed a note of caution for Sierra Leone since the cumulative number of cases could reach as high as 18,000, and the number of deaths might exceed 5,000, by early March 2015. However, by processing the reported data of the very last period (December 21, 2014-January 18, 2015), we obtained more optimistic estimates indicative of a remission of the epidemic in Sierra Leone, as reflected by the derived Re (~0.82, 95% CI: 0.81-0.83)

PLoS Medicine
(Accessed 14 March 2015)
http://www.plosmedicine.org/
Policy Forum
A Public Health Approach to Hepatitis C Control in Low- and Middle-Income Countries
Amitabh B. Suthar, Anthony D. Harries
Published: March 10, 2015
DOI: 10.1371/journal.pmed.1001795
Summary Points
:: New oral short-duration regimens using direct-acting antiviral medicines for hepatitis C virus (HCV) have the potential to facilitate treatment and improve outcomes.
:: Translating scientific advances into reduced disease burden requires well-designed programmes encompassing prevention, screening, treatment, and strategic information.
:: Engagement from countries, civil society, donors, and policymakers is needed to generate political commitment, mobilise resources, and reduce diagnostic and medicine costs for HCV.
:: Countries should estimate the resources required to implement planned HCV prevention, screening, and treatment strategies and their expected health, societal, and financial benefits to mobilise domestic and international funding.
:: Countries could integrate HCV prevention, screening, treatment, and strategic information into HIV/AIDS programmes for financial, infrastructural, and health workforce efficiencies.

PLoS Neglected Tropical Diseases
http://www.plosntds.org/
(Accessed 14 March 2015)

Flexibility of Oral Cholera Vaccine Dosing—A Randomized Controlled Trial Measuring Immune Responses Following Alternative Vaccination Schedules in a Cholera Hyper-Endemic Zone

Suman Kanungo, Sachin N. Desai, Ranjan Kumar Nandy, Mihir Kumar Bhattacharya, Deok Ryun Kim, Anuradha Sinha, Tanmay Mahapatra, Jae Seung Yang, Anna Lena Lopez, Byomkesh Manna, Barnali Bannerjee, Mohammad Ali, Mandeep Singh Dhingra, Ananga Mohan Chandra, John D. Clemens, Dipika Sur, Thomas F. Wierzba

Research Article | published 12 Mar 2015 | PLOS Neglected Tropical Diseases
10.1371/journal.pntd.0003574

Abstract

Background

A bivalent killed whole cell oral cholera vaccine has been found to be safe and efficacious for five years in the cholera endemic setting of Kolkata, India, when given in a two dose schedule, two weeks apart. A randomized controlled trial revealed that the immune response was not significantly increased following the second dose compared to that after the first dose. We aimed to evaluate the impact of an extended four week dosing schedule on vibriocidal response.

Methodology/Principal Findings

In this double blind randomized controlled non-inferiority trial, 356 Indian, non-pregnant residents aged 1 year or older were randomized to receive two doses of oral cholera vaccine at 14 and 28 day intervals. We compared vibriocidal immune responses between these schedules. Among adults, no significant differences were noted when comparing the rates of seroconversion for V. cholerae O1 Inaba following two dose regimens administered at a 14 day interval (55%) vs the 28 day interval (58%). Similarly, no differences in seroconversion were demonstrated in children comparing the 14 (80%) and 28 day intervals (77%). Following 14 and 28 day dosing intervals, vibriocidal response rates against V. cholerae O1 Ogawa were 45% and 49% in adults and 73% and 72% in children respectively. Responses were lower for V. cholerae O139, but similar between dosing schedules for adults (20%, 20%) and children (28%, 20%).

Conclusions/Significance

Comparable immune responses and safety profiles between the two dosing schedules support the option for increased flexibility of current OCV dosing. Further operational research using a longer dosing regimen will provide answers to improve implementation and delivery of cholera vaccination in endemic and epidemic outbreak scenarios.

Author Summary

The five year efficacy results of the bivalent, killed whole cell oral cholera vaccine was shown to offer 65% protection in cholera endemic Kolkata. Currently, two oral cholera vaccines (OCV) are prequalified by the World Health Organization: the whole cell recombinant cholera toxin B subunit vaccine (Dukoral), and the bivalent killed whole cell only OCV (Shanchol). Shanchol, which is less expensive and possibly associated with longer protection, is recommended in a two dose schedule to be given at two weeks apart. Large scale cholera outbreaks often affect vulnerable populations with limited access to care. Strict dosing schedules can create further logistical barriers, hindering proper vaccine delivery to affected residents returning for their second OCV dose. In this study, 356 participants aged 1 year or older were randomized to receive two doses of OCV at 14 or 28 day intervals, for which vibriocidal immune responses

were compared. Similar immune responses were demonstrated between a two and four week OCV dosing schedule, which can increase flexibility when offered as part of a targeted vaccination program. This can further serve to increase adherence and completion of the recommended dosing regimen, as well as providing a platform to increase coverage of other beneficial non-vaccine interventions.

Viewpoints

Good and Bad News about Ebola

A. Townsend Peterson

Published: March 12, 2015
DOI: 10.1371/journal.pntd.0003509

[Concluding text]

…If the present situation with Ebola is to offer any lessons, they are that the only hope for serious investment in reducing the incidence and impact of such diseases is via spread to developed countries. Once such spread occurs, research and pharmaceutical investment will most likely follow. Ebola is a positive example, and clearly Ebola research will enter a new phase of progress, innovation, funding, production of key pharmaceuticals, and improved care, hopefully for all who might be infected by this virus.

In effect, what Ebola did was to cross the line between being a "neglected tropical disease" and being an "emerging infection." The former set of diseases collectively exert an enormous burden in the developing world that may be constant or episodic, but are rather ubiquitous in those regions, affecting the affluent only when they venture into those regions [13,14]. The latter, on the other hand, are much less predictable, but garner more immediate attention on the world scene, precisely because they may affect affluent countries. How many other neglected diseases must await this process of spread to affluent regions and infection of affluent people, making the transition from neglected tropical disease to emerging infection, before they also will see investment and innovation?

PLoS One

[Accessed 14 March 2015]

http://www.plosone.org/

A Survey of UK Healthcare Workers' Attitudes on Volunteering to Help with the Ebola Outbreak in West Africa

Lance Turtle, Fiona McGill, Judy Bettridge, Claire Matata, Rob Christley, Tom Solomon

Research Article | published 11 Mar 2015 | PLOS ONE 10.1371/journal.pone.0120013

1. *Abstract*

Objective

To understand the barriers and enablers for UK healthcare workers who are considering going to work in the current Ebola outbreak in West Africa, but have not yet volunteered.

Design

After focus group discussions, and a pilot questionnaire, an anonymous survey was conducted using SurveyMonkey to determine whether people had considered going to West Africa, what factors might make them more or less likely to volunteer, and whether any of these were modifiable factors.

Participants

The survey was publicised among doctors, nurses, laboratory staff and allied health professionals. 3109 people answered the survey, of whom 472 (15%) were considering going to work in the epidemic but had not yet volunteered. 1791 (57.6%) had not considered going, 704

(22.6%) had considered going but decided not to, 53 (1.7%) had volunteered to go and 14 (0.45%) had already been and worked in the epidemic.
Results
For those considering going to West Africa, the most important factor preventing them from volunteering was a lack of information to help them decide; fear of getting Ebola and partners' concerns came next. Uncertainty about their potential role, current work commitments and inability to get agreement from their employer were also important barriers, whereas clarity over training would be an important enabler. In contrast, for those who were not considering going, or who had decided against going, family considerations and partner concerns were the most important factors.
Conclusions
More UK healthcare workers would volunteer to help tackle Ebola in West Africa if there was better information available, including clarity about roles, cover arrangements, and training. This could be achieved with a well-publicised high quality portal of reliable information.

Cost Evaluation of Reproductive and Primary Health Care Mobile Service Delivery for Women in Two Rural Districts in South Africa

Kathryn Schnippel, Naomi Lince-Deroche, Theo van den Handel, Seithati Molefi, Suann Bruce, Cynthia Firnhaber
Research Article | published 09 Mar 2015 | PLOS ONE 10.1371/journal.pone.0119236
Abstract
Background
Cervical cancer screening is a critical health service that is often unavailable to women in under-resourced settings. In order to expand access to this and other reproductive and primary health care services, a South African non-governmental organization established a van-based mobile clinic in two rural districts in South Africa. To inform policy and budgeting, we conducted a cost evaluation of this service delivery model.
Methods
The evaluation was retrospective (October 2012–September 2013 for one district and April–September 2013 for the second district) and conducted from a provider cost perspective. Services evaluated included cervical cancer screening, HIV counselling and testing, syndromic management of sexually transmitted infections (STIs), breast exams, provision of condoms, contraceptives, and general health education. Fixed costs, including vehicle purchase and conversion, equipment, operating costs and mobile clinic staffing, were collected from program records and public sector pricing information. The number of women accessing different services was multiplied by ingredients-based variable costs, reflecting the consumables required. All costs are reported in 2013 USD.
Results
Fixed costs accounted for most of the total annual costs of the mobile clinics (85% and 94% for the two districts); the largest contributor to annual fixed costs was staff salaries. Average costs per patient were driven by the total number of patients seen, at $46.09 and $76.03 for the two districts. Variable costs for Pap smears were higher than for other services provided, and some services, such as breast exams and STI and tuberculosis symptoms screening, had no marginal cost.
Conclusions
Staffing costs are the largest component of providing mobile health services to rural communities. Yet, in remote areas where patient volumes do not exceed nursing staff capacity, incorporating multiple services within a cervical cancer screening program is an approach to potentially expand access to health care without added costs.

PLoS Pathogens
http://journals.plos.org/plospathogens/
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PNAS - Proceedings of the National Academy of Sciences of the United States of America
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http://www.pnas.org/content/early/
Human Ebola virus infection results in substantial immune activation
Anita K. McElroya,b, Rama S. Akondyc,d, Carl W. Davisc,d, Ali H. Ellebedyc,d, Aneesh K. Mehtae, Colleen S. Krafte,f, G. Marshall Lyone, Bruce S. Ribnere, Jay Varkeye, John Sidneyg, Alessandro Setteg, Shelley Campbella, Ute Ströhera, Inger Damona, Stuart T. Nichola, Christina F. Spiropouloua,1, and Rafi Ahmedc,d,1
Author Affiliations
Contributed by Rafi Ahmed, February 7, 2015 (sent for review January 6, 2015; reviewed by Lawrence Corey and Barton F. Haynes)
Significance
In 2014, Ebola virus became a household term. The ongoing outbreak in West Africa is the largest Ebola virus outbreak ever recorded, with over 20,000 cases and over 8,000 deaths to date. Very little is known about the human cellular immune response to Ebola virus infection, and this lack of knowledge has hindered development of effective therapies and vaccines. In this study, we characterize the human immune response to Ebola virus infection in four patients. We define the kinetics of T- and B-cell activation, and determine which viral proteins are targets of the Ebola virus-specific T-cell response in humans.
Abstract
Four Ebola patients received care at Emory University Hospital, presenting a unique opportunity to examine the cellular immune responses during acute Ebola virus infection. We found striking activation of both B and T cells in all four patients. Plasmablast frequencies were 10–50% of B cells, compared with less than 1% in healthy individuals. Many of these proliferating plasmablasts were IgG-positive, and this finding coincided with the presence of Ebola virus-specific IgG in the serum. Activated CD4 T cells ranged from 5 to 30%, compared with 1–2% in healthy controls. The most pronounced responses were seen in CD8 T cells, with over 50% of the CD8 T cells expressing markers of activation and proliferation. Taken together, these results suggest that all four patients developed robust immune responses during the acute phase of Ebola virus infection, a finding that would not have been predicted based on our current assumptions about the highly immunosuppressive nature of Ebola virus. Also, quite surprisingly, we found sustained immune activation after the virus was cleared from the plasma, observed most strikingly in the persistence of activated CD8 T cells, even 1 mo after the patients' discharge from the hospital. These results suggest continued antigen stimulation after resolution of the disease. From these convalescent time points, we identified CD4 and CD8 T-cell responses to several Ebola virus proteins, most notably the viral nucleoprotein. Knowledge of the viral proteins targeted by T cells during natural infection should be useful in designing vaccines against Ebola virus.
The effects of reputational and social knowledge on cooperation

Edoardo Galloa,b,1,2 and Chang Yanc,1,2
Author Affiliations
Edited by Martin A. Nowak, Harvard University, Cambridge, MA, and accepted by the Editorial Board February 5, 2015 (received for review August 18, 2014)
Significance
Cooperation is essential for societies to prosper. Recent experiments show that cooperation emerges in dynamic networks in which subjects can select their connections. However, these studies fixed the amount of reputation information available and did not display the network to subjects. Here, we systematically vary the knowledge available to subjects about reputation and the network to investigate experimentally their roles in determining cooperation in dynamic networks. Common knowledge about everyone's reputation is the main driver of cooperation leading to dense and clustered networks. The addition of common knowledge about the network affects the distribution of cooperative activity: cooperators form a separate community and achieve a higher payoff from within-community interactions than members of the less cooperative community.
Abstract
The emergence and sustenance of cooperative behavior is fundamental for a society to thrive. Recent experimental studies have shown that cooperation increases in dynamic networks in which subjects can choose their partners. However, these studies did not vary reputational knowledge, or what subjects know about other's past actions, which has long been recognized as an important factor in supporting cooperation. They also did not give subjects access to global social knowledge, or information on who is connected to whom in the group. As a result, it remained unknown how reputational and social knowledge foster cooperative behavior in dynamic networks both independently and by complementing each other. In an experimental setting, we show that global reputational knowledge is crucial to sustaining a high level of cooperation and welfare. Cooperation is associated with the emergence of dense and clustered networks with highly cooperative hubs. Global social knowledge has no effect on the aggregate level of cooperation. A community analysis shows that the addition of global social knowledge to global reputational knowledge affects the distribution of cooperative activity: cooperators form a separate community that achieves a higher cooperation level than the community of defectors. Members of the community of cooperators achieve a higher payoff from interactions within the community than members of the less cooperative community.

Pneumonia
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Proceedings of the Royal Society B
07 March 2015; volume 282, issue 1802
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Public Health Ethics
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Special Symposium on Dual Loyalities: Health Providers Working for the State
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Qualitative Health Research
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Special Issue: Perceptions of Caregivers
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Revista Panamericana de Salud Pública/Pan American Journal of Public Health (RPSP/PAJPH)
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http://www.paho.org/journal/index.php?option=com_content&view=article&id=151&Itemid=266&lang=en
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Risk Analysis
January 2015 Volume 35, Issue 1 Pages 1–177
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[Reviewed earlier]

Science
13 March 2015 vol 347, issue 6227, pages 1169-1284
http://www.sciencemag.org/current.dtl
In Depth
Infectious Diseases
As Ebola fades, a new threat
Leslie Roberts
A second, often overlooked, public health crisis is brewing in the countries hardest hit by Ebola, epidemiologists warn. The Ebola epidemic has devastated already weak public health systems and disrupted childhood vaccinations in Liberia, Guinea, and Sierra Leone. As a result, unless action is taken quickly, preventable childhood diseases will likely soar. Measles, in particular, is considered a sentinel of a broken health system, often hitting early and hard in the aftermath of a disaster. In a paper in this week's issue of Science, researchers put some sobering numbers on the size of a potential measles outbreak in the region post-Ebola. In the worst case, they warn, a measles outbreak could kill thousands more people than Ebola has.
Report
Reduced vaccination and the risk of measles and other childhood infections post-Ebola
Saki Takahashi1, C. Jessica E. Metcalf1,2, Matthew J. Ferrari3, William J. Moss4, Shaun A. Truelove4, Andrew J. Tatem5,6,7, Bryan T. Grenfell1,6, Justin Lessler4,*
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7Flowminder Foundation, 17177 Stockholm, Sweden.
Abstract
The Ebola epidemic in West Africa has caused substantial morbidity and mortality. The outbreak has also disrupted health care services, including childhood vaccinations, creating a second public health crisis. We project that after 6 to 18 months of disruptions, a large connected cluster of children unvaccinated for measles will accumulate across Guinea, Liberia, and Sierra Leone. This pool of susceptibility increases the expected size of a regional measles outbreak from 127,000 to 227,000 cases after 18 months, resulting in 2000 to 16,000 additional deaths (comparable to the numbers of Ebola deaths reported thus far). There is a clear path to avoiding outbreaks of childhood vaccine-preventable diseases once the threat of Ebola begins to recede: an aggressive regional vaccination campaign aimed at age groups left unprotected because of health care disruptions.
Review
Modeling infectious disease dynamics in the complex landscape of global health
Hans Heesterbeek1,*, Roy M. Anderson2, Viggo Andreasen3, Shweta Bansal4, Daniela De Angelis5, Chris Dye6, Ken T. D. Eames7, W. John Edmunds7, Simon D. W. Frost8, Sebastian Funk4, T. Deirdre Hollingsworth9,10, Thomas House11, Valerie Isham12, Petra Klepac8, Justin Lessler13, James O. Lloyd-Smith14, C. Jessica E. Metcalf15, Denis Mollison16, Lorenzo Pellis11, Juliet R. C. Pulliam17,18, Mick G. Roberts19, Cecile Viboud18, Isaac Newton Institute IDD Collaboration
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Abstract
BACKGROUND
Despite many notable successes in prevention and control, infectious diseases remain an enormous threat to human and animal health. The ecological and evolutionary dynamics of pathogens play out on a wide range of interconnected temporal, organizational, and spatial scales that span hours to months, cells to ecosystems, and local to global spread. Some pathogens are directly transmitted between individuals of a single species, whereas others circulate among multiple hosts, need arthropod vectors, or persist in environmental reservoirs. Many factors, including increasing antimicrobial resistance, human connectivity, population growth, urbanization, environmental and land-use change, as well as changing human behavior, present global challenges for prevention and control. Faced with this complexity, mathematical models offer valuable tools for understanding epidemiological patterns and for developing and evaluating evidence for decision-making in global health.
ADVANCES
During the past 50 years, the study of infectious disease dynamics has matured into a rich interdisciplinary field at the intersection of mathematics, epidemiology, ecology, evolutionary biology, immunology, sociology, and public health. The practical challenges range from establishing appropriate data collection to managing increasingly large volumes of information. The theoretical challenges require fundamental study of many-layered, nonlinear systems in which infections evolve and spread and where key events can be governed by unpredictable pathogen biology or human behavior. In this Review, we start with an examination of real-time outbreak response using the West African Ebola epidemic as an example. Here, the challenges range from underreporting of cases and deaths, and missing information on the impact of control measures to understanding human responses. The possibility of future zoonoses tests our ability to detect anomalous outbreaks and to estimate human-to-human transmissibility against a backdrop of ongoing zoonotic spillover while also assessing the risk of more dangerous strains evolving. Increased understanding of the dynamics of infections in food webs and ecosystems where host and nonhost species interact is key. Simultaneous multispecies infections are increasingly recognized as a notable public health burden, yet our understanding of how different species of pathogens interact within hosts is rudimentary. Pathogen genomics has become an essential tool for drawing inferences about evolution and transmission and, here but also in general, heterogeneity is the major challenge. Methods that depart from simplistic assumptions about random mixing are yielding new insights into the dynamics of transmission and control. There is rapid growth in estimation of model parameters from mismatched or incomplete data, and in contrasting model output with real-world observations. New data streams on social connectivity and behavior are being used, and combining data collected from very different sources and scales presents important challenges.
All these mathematical endeavors have the potential to feed into public health policy and, indeed, an increasingly wide range of models is being used to support infectious disease control, elimination, and eradication efforts.

OUTLOOK
Mathematical modeling has the potential to probe the apparently intractable complexity of infectious disease dynamics. Coupled to continuous dialogue between decision-makers and the multidisciplinary infectious disease community, and by drawing on new data streams, mathematical models can lay bare mechanisms of transmission and indicate new approaches to prevention and control that help to shape national and international public health policy.

Social Science & Medicine
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http://www.sciencedirect.com/science/journal/02779536/131
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Tropical Medicine and Health
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Tropical Medicine & International Health
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[Reviewed earlier]

Vaccine
Volume 33, Issue 13, Pages 1507-1628 (24 March 2015)
http://www.sciencedirect.com/science/journal/0264410X/33/13
Conference report
Safety of vaccine adjuvants: Focus on autoimmunity
Pages 1507-1514
Jan Willem van der Laan, Sarah Gould, Jennifer Y. Tanir, ILSI HESI Vaccines and Adjuvants Safety Project Committe
Highlights
:: Industrial, academic, and governmental experts studied vaccine adjuvants safety.
:: Evidence of signals for autoimmune disorders associated with adjuvants was reviewed.
:: Existing adjuvants (used in marketed vaccines) and novel adjuvants were included.
:: The focus was on oil-in-water emulsion and toll-like receptor agonist adjuvants.
:: No compelling evidence was found associating adjuvants and autoimmunity in humans
Abstract
Questions have been recently raised regarding the safety of vaccine adjuvants, particularly in relation to autoimmunity or autoimmune disease(s)/disorder(s) (AID). The International Life Sciences Institute (ILSI) Health and Environmental Sciences Institute (HESI) formed a scientific committee and convened a 2-day workshop, consisting of technical experts from around the world representing academia, government regulatory agencies, and industry, to investigate and openly discuss the issues around adjuvant safety in vaccines. The types of adjuvants considered included oil-in-water emulsions and toll-like receptor (TLR) agonists. The state of science

around the use of animal models and biomarkers for the evaluation and prediction of AID were also discussed. Following extensive literature reviews by the HESI committee, and presentations by experts at the workshop, several key points were identified, including the value of animal models used to study autoimmunity and AID toward studying novel vaccine adjuvants; whether there is scientific evidence indicating an intrinsic risk of autoimmunity and AID with adjuvants, or a higher risk resulting from the mechanism of action; and if there is compelling clinical data linking adjuvants and AID. The tripartite group of experts concluded that there is no compelling evidence supporting the association of vaccine adjuvants with autoimmunity signals. Additionally, it is recommended that future research on the potential effects of vaccine adjuvants on AID should consider carefully the experimental design in animal models particularly if they are to be used in any risk assessment, as an improper design and model could result in misleading information. Finally, studies on the mechanistic aspects and potential biomarkers related to adjuvants and autoimmunity phenomena could be developed.

Design of a Phase III cluster randomized trial to assess the efficacy and safety of a malaria transmission blocking vaccine

Review Article

Pages 1518-1526

Isabelle Delrieu, Didier Leboulleux, Karen Ivinson, Bradford D. Gessner, For the Malaria Transmission Blocking Vaccine Technical Consultation Group

Abstract

Vaccines interrupting Plasmodium falciparum malaria transmission targeting sexual, sporogonic, or mosquito-stage antigens (SSM-VIMT) are currently under development to reduce malaria transmission. An international group of malaria experts was established to evaluate the feasibility and optimal design of a Phase III cluster randomized trial (CRT) that could support regulatory review and approval of an SSM-VIMT. The consensus design is a CRT with a sentinel population randomly selected from defined inner and buffer zones in each cluster, a cluster size sufficient to assess true vaccine efficacy in the inner zone, and inclusion of ongoing assessment of vaccine impact stratified by distance of residence from the cluster edge. Trials should be conducted first in areas of moderate transmission, where SSM-VIMT impact should be greatest. Sample size estimates suggest that such a trial is feasible, and within the range of previously supported trials of malaria interventions, although substantial issues to implementation exist.

Assessing the economic benefits of vaccines based on the health investment life course framework: A review of a broader approach to evaluate malaria vaccination

Review Article

Pages 1527-1540

Dagna Constenla

Abstract

Background

Economic evaluations have routinely understated the net benefits of vaccination by not including the full range of economic benefits that accrue over the lifetime of a vaccinated person. Broader approaches for evaluating benefits of vaccination can be used to more accurately calculate the value of vaccination.

Methodology

This paper reflects on the methodology of one such approach – the health investment life course approach – that looks at the impact of vaccine investment on lifetime returns. The role of this approach on vaccine decision-making will be assessed using the malaria health investment life course model example.

Results

We describe a framework that measures the impact of a health policy decision on government accounts over many generations. The methodological issues emerging from this approach are illustrated with an example from a recently completed health investment life course analysis of malaria vaccination in Ghana. Beyond the results, various conceptual and practical challenges of applying this framework to Ghana are discussed in this paper.
Discussion and conclusions
The current framework seeks to understand how disease and available technologies can impact a range of economic parameters such as labour force participation, education, healthcare consumption, productivity, wages or economic growth, and taxation following their introduction. The framework is unique amongst previous economic models in malaria because it considers future tax revenue for governments. The framework is complementary to cost-effectiveness and budget impact analysis. The intent of this paper is to stimulate discussion on how existing and new methodology can add to knowledge regarding the benefits from investing in new and underutilized vaccines.

The complementary roles of Phase 3 trials and post-licensure surveillance in the evaluation of new vaccines

Review Article
Pages 1541-1548
Pier Luigi Lopalco, Frank DeStefano
Abstract
Vaccines have led to significant reductions in morbidity and saved countless lives from many infectious diseases and are one of the most important public health successes of the modern era. Both vaccines' effectiveness and safety are keys for the success of immunisation programmes. The role of post-licensure surveillance has become increasingly recognised by regulatory authorities in the overall vaccine development process. Safety, purity, and effectiveness of vaccines are carefully assessed before licensure, but some safety and effectiveness aspects need continuing monitoring after licensure; Post-marketing activities are a necessary complement to pre-licensure activities for monitoring vaccine quality and to inform public health programmes. In the recent past, the availability of large databases together with data-mining and cross-linkage techniques have significantly improved the potentialities of post-licensure surveillance. The scope of this review is to present challenges and opportunities offered by vaccine post-licensure surveillance. While pre-licensure activities form the foundation for the development of effective and safe vaccines, post-licensure monitoring and assessment, are necessary to assure that vaccines are effective and safe when translated in real world settings. Strong partnerships and collaboration at an international level between different stakeholders is necessary for finding and optimally allocating resources and establishing robust post-licensure processes.

Acceptability of human papillomavirus vaccines among women older than 26 years

Original Research Article
Pages 1556-1561
Amanda F. Dempsey, Sarah E. Brewer, Jennifer Pyrzanowski, Carter Sevick, Sean T. O'lea
Abstract
Objective
To examine older women's (>26 years) acceptance of the human papillomavirus (HPV) vaccine, and factors associated with this outcome.
Study design
A convenience sample of 872 women age 26–77 years were surveyed regarding the likelihood they would accept the HPV vaccine if offered to them by their provider, and factors associated

with this outcome. Binomial regression, Chi square and MacNemar's analyses were used to determine associations of this outcome with demographic, attitudinal, and experiential variables.
Results
The response rate was 60.8%. Half the respondents indicated they would want the vaccine, even if they had to pay for it. In multivariable analyses, the only factor associated with wanting the vaccine was higher self-reported knowledge about HPV (risk ratio 1.43, 95% Confidence Interval 1.12, 1.83). A majority of participants also believed that older women in general would want the vaccine if it were covered by insurance. However, this perspective was significantly diminished if the vaccine had to be paid for out of pocket (97% vs. 22% for 26–45 year olds; 84% vs. 20% for 46–65 year olds, 60% vs. 8% for 66+ year olds, $p < 0.001$). Nearly all (93%) believed primary care physicians should routinely discuss the vaccine with older women.
Conclusions
A high proportion of women over 26 would want the HPV vaccine if offered by their provider, even if they had to pay for it out of pocket. This suggests that if providers were to routinely offer the HPV vaccine to their older patients, many women would choose to get vaccinated.

Managing population immunity to reduce or eliminate the risks of circulation following the importation of polioviruses

Original Research Article
Pages 1568-1577
Kimberly M. Thompson, Dominika A. Kalkowska, Radboud J. Duintjer Tebbens
Abstract
Poliovirus importations into polio-free countries represent a major concern during the final phases of global eradication of wild polioviruses (WPVs). We extend dynamic transmission models to demonstrate the dynamics of population immunity out through 2020 for three countries that only used inactivated poliovirus vaccine (IPV) for routine immunization: the US, Israel, and The Netherlands. For each country, we explore the vulnerability to re-established transmission following an importation for each poliovirus serotype, including the impact of immunization choices following the serotype 1 WPV importation that occurred in 2013 in Israel. As population immunity declines below the threshold required to prevent transmission, countries become at risk for re-established transmission. Although importations represent stochastic events that countries cannot fully control because people cross borders and polioviruses mainly cause asymptomatic infections, countries can ensure that any importations die out. Our results suggest that the general US population will remain above the threshold for transmission through 2020. In contrast, Israel became vulnerable to re-established transmission of importations of live polioviruses by the late 2000s. In Israel, the recent WPV importation and outbreak response use of bivalent oral poliovirus vaccine (bOPV) eliminated the vulnerability to an importation of poliovirus serotypes 1 and 3 for several years, but not serotype 2. The Netherlands experienced a serotype 1 WPV outbreak in 1992–1993 and became vulnerable to re-established transmission in religious communities with low vaccine acceptance around the year 2000, although the general population remains well-protected from widespread transmission. All countries should invest in active management of population immunity to avoid the potential circulation of imported live polioviruses. IPV-using countries may wish to consider prevention opportunities and/or ensure preparedness for response. Countries currently using a sequential IPV/OPV schedule should continue to use all licensed OPV serotypes until global OPV cessation to minimize vulnerability to circulation of imported polioviruses.

Reduction in HPV 16/18-associated high grade cervical lesions following HPV vaccine introduction in the United States – 2008–2012

Original Research Article
Pages 1608-1613
Susan Hariri, Nancy M. Bennett, Linda M. Niccolai, Sean Schafer, Ina U. Park, Karen C. Bloch, Elizabeth R. Unger, Erin Whitney, Pamela Julian, Mary W. Scahill, Nasreen Abdullah, Diane Levine, Michelle L. Johnson, Martin Steinau, Lauri E. Markowitz, the HPV-IMPACT Working Group
Abstract
Background
Prevention of pre-invasive cervical lesions is an important benefit of HPV vaccines, but demonstrating impact on these lesions is impeded by changes in cervical cancer screening. Monitoring vaccine-types associated with lesions can help distinguish vaccine impact from screening effects. We examined trends in prevalence of HPV 16/18 types detected in cervical intraepithelial neoplasia 2, 3, and adenocarcinoma in situ (CIN2+) among women diagnosed with CIN2+ from 2008 to 2012 by vaccination status. We estimated vaccine effectiveness against HPV 16/18-attributable CIN2+ among women who received ≥1 dose by increasing time intervals between date of first vaccination and the screening test that led to detection of CIN2+ lesion.
Methods
Data are from a population-based sentinel surveillance system to monitor HPV vaccine impact on type-specific CIN2+ among adult female residents of five catchment areas in California, Connecticut, New York, Oregon, and Tennessee. Vaccination and cervical cancer screening information was retrieved. Archived diagnostic specimens were obtained from reporting laboratories for HPV DNA typing.
Results
From 2008 to 2012, prevalence of HPV 16/18 in CIN2+ lesions statistically significantly decreased from 53.6% to 28.4% among women who received at least one dose (Ptrend < .001) but not among unvaccinated women (57.1% vs 52.5%; Ptrend = .08) or women with unknown vaccination status (55.0% vs 50.5%; Ptrend = .71). Estimated vaccine effectiveness for prevention of HPV 16/18-attributable CIN2+ was 21% (95% CI: 1–37), 49% (95% CI: 28–64), and 72% (95% CI: 45–86) in women who initiated vaccination 25–36 months, 37–48 months, and >48 months prior to the screening test that led to CIN2+ diagnosis.
Conclusions
Population-based data from the United States indicate significant reductions in CIN2+ lesions attributable to types targeted by the vaccines and increasing HPV vaccine effectiveness with increasing interval between first vaccination and earliest detection of cervical disease.

HPV vaccine acceptance among adolescent males and their parents in two suburban pediatric practices

Original Research Article
Pages 1620-1624
Shalinee Khurana, Heather L. Sipsma, Rachel N. Caskey
Abstract
Purpose
To measure HPV vaccine acceptance among unvaccinated adolescent males and parents and correlate acceptance with knowledge, awareness, and personal experience.
Methods
Adolescent males ages 11–21 years old and their parents completed questionnaires measuring attitudes and knowledge about HPV vaccination and personal experience. Acceptance was

defined as wanting the vaccine and conditional acceptance as wanting the vaccine if it would protect against genital warts or cervical cancer.
Results
Adolescent (n = 154) and parent (n = 121) vaccine acceptance was low (16% and 34%, respectively); however, conditional acceptance was higher. While adolescents had similar conditional acceptance for a vaccine against genital warts and cervical cancer, parents reported higher conditional acceptance for protection against genital warts. Independent predictors of acceptance included personal experience and demographic variables.
Conclusions
HPV vaccine acceptance among adolescents and parents was low. Conditional acceptance levels highlight the importance of education about a few important benefits of HPV vaccination, which may increase vaccination rates.

Healthcare worker influenza immunization vaccinate or mask policy: Strategies for cost effective implementation and subsequent reductions in staff absenteeism due to illness

Original Research Article
Pages 1625-1628
P.G. Van Buynder, S. Konrad, F. Kersteins, E. Preston, P.D. Brown, D. Keen, N.J. Murray
Abstract
Background
A new policy requiring staff in clinical areas to vaccinate or wear a mask was implemented in British Columbia (BC) in the 2012/13 winter. This review assessed the impact of the policy on absenteeism in health care workers.
Methods
A retrospective cohort study of full-time HCW that worked prior to and during the 2012/13 influenza season in a health authority in BC. The rate of absenteeism due to all cause illness was compared between vaccinated and unvaccinated staff controlling for behaviors outside influenza season.
Results
Of the 10079 HCW, 77% were vaccinated. By comparison to absenteeism rates in the pre-influenza season, unvaccinated staff in winter had twice the increase in absenteeism due to all-cause illness than vaccinated staff.
Conclusion
After controlling for baseline differences between those vaccinated and unvaccinated, influenza vaccination was associated with reduced absenteeism, saving the Health Authority substantial money. Having regular staff in attendance increases the quality of care.

Vaccines — Open Access Journal
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http://www.mdpi.com/journal/vaccines
[No new relevant content]

Value in Health
March 2015 Volume 18, Issue 2, p137-354
http://www.valueinhealthjournal.com/current
Editorials

Clinical Trials Provide Essential Evidence, but Rarely Offer a Vehicle for Cost-Effectiveness Analysis

Mark Sculpher
p141–142
Preview
All health care systems that are collectively funded through taxation or insurance make funding and coverage decisions considering value for money. Over the past 25 years or so, more systems have started to use formal cost-effectiveness analysis (CEA) to inform decisions, particularly those relating to the funding of new prescription pharmaceuticals. Inevitably and correctly, decision makers augment CEA with their own judgments about the reliability and relevance of evidence and the consequences of interventions, which may be poorly reflected in CEA outcomes.

Cost-Effectiveness Analysis Alongside Clinical Trials II—An ISPOR Good Research Practices Task Force Report

Scott D. Ramsey, Richard J. Willke, Henry Glick, Shelby D. Reed, Federico Augustovski, Bengt Jonsson, Andrew Briggs, Sean D. Sullivan
p161–172
Preview
Clinical trials evaluating medicines, medical devices, and procedures now commonly assess the economic value of these interventions. The growing number of prospective clinical/economic trials reflects both widespread interest in economic information for new technologies and the regulatory and reimbursement requirements of many countries that now consider evidence of economic value along with clinical efficacy. As decision makers increasingly demand evidence of economic value for health care interventions, conducting high-quality economic analyses alongside clinical studies is desirable because they broaden the scope of information available on a particular intervention, and can efficiently provide timely information with high internal and, when designed and analyzed properly, reasonable external validity.

Fairness versus Efficiency of Vaccine Allocation Strategies

Ming Yi, PhD, Achla Marathe, PhD
Published Online: January 14, 2015
DOI: http://dx.doi.org/10.1016/j.jval.2014.11.009
Abstract
Objectives
To develop a framework to objectively measure the degree of fairness of any allocation rule aimed at distributing a limited stockpile of vaccines to contain the spread of influenza.
Methods
The trade-off between the efficiency and fairness of allocation strategies was demonstrated through an illustrative simulation study of an influenza epidemic in Southwestern Virginia. A Susceptible-Exposed-Infectious-Recovered model was used to represent the disease progression within the host.
Results
Our findings showed that among all the criteria considered here, the household size (largest first) combined with age (youngest first)-based strategy leads to the best outcome. At 80% fairness, highest efficiency can be achieved but in order to be 100% fair, disease prevalence will have to rise by approximately 1.5%.
Conclusions
This research provides a framework to objectively determine the degree of fairness of vaccine allocation strategies.

* * * *

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

Gynecologic Oncology Reports
Article in Press
Changes in knowledge of cervical cancer following introduction of human papillomavirus vaccine among women at high risk for cervical cancer
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Open Access
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Highlights
:: Women at high risk for cervical cancer have substantial knowledge gaps about prevention
:: Knowledge gaps improved after an intervention, but little additional improvement followed
:: Poor and less educated women have lower knowledge scores despite higher cancer risk
Abstract
Purpose
To describe changes in knowledge of cervical cancer prevention, human papillomavirus (HPV), and HPV vaccination among women at high risk for cervical cancer in the first five years after introduction of HPV vaccination.
Methods
In 2007, 2008–9, and 2011, women in a multicenter U.S. cohort study completed 44-item self-report questionnaires assessing knowledge of cervical cancer prevention, HPV, and HPV vaccination. Results across time were assessed for individuals, and three study enrollment cohorts were compared. Knowledge scores were correlated with demographic variables, measures of education and attention, and medical factors. Associations were assessed in multivariable models.
Results
In all, 974 women completed three serial questionnaires; most were minority, low income, and current or former smokers. The group included 652 (67%) HIV infected and 322 (33%) uninfected. Summary knowledge scores (possible range 0–24) increased from 2007 (12.8, S.D. 5.8) to 2008–9 (13.9, S.D. 5.3, $P < 0.001$) and to 2011 (14.3, S.D 5.2, $P < 0.0001$ vs 2007 and <0.04 vs 2008–9). Higher knowledge scores at first and follow-up administration of questionnaires, higher income, and higher education level were associated with improved knowledge score at third administration. Women not previously surveyed had scores similar to those of the longitudinal group at baseline.
Conclusion
Substantial gaps in understanding of HPV and cervical cancer prevention exist despite years of health education. While more effective educational interventions may help, optimal cancer prevention may require opt-out vaccination programs that do not require nuanced understanding.

The Journal of Infectious Diseases
Advance Access
A Kunjin Replicon Virus-like Particle Vaccine Provides Protection Against Ebola Virus Infection in Nonhuman Primates
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Abstract
The current unprecedented outbreak of Ebola virus (EBOV) disease in West Africa has demonstrated the urgent need for a vaccine. Here, we describe the evaluation of an EBOV vaccine candidate based on Kunjin replicon virus-like particles (KUN VLPs) encoding EBOV glycoprotein with a D637L mutation (GP/D637L) in nonhuman primates. Four African green monkeys (Cercopithecus aethiops) were injected subcutaneously with a dose of 109 KUN VLPs per animal twice with an interval of 4 weeks, and animals were challenged 3 weeks later intramuscularly with 600 plaque-forming units of Zaire EBOV. Three animals were completely protected against EBOV challenge, while one vaccinated animal and the control animal died from infection. We suggest that KUN VLPs encoding GP/D637L represent a viable EBOV vaccine candidate.

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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://america.aljazeera.com/search.html?q=vaccine
Accessed 14 March 2015
[No new, unique, relevant content]

Associated Press
Accessed 14 March 2015

Liberia removes Ebola crematorium as outbreak is contained
8 March 2015
Marking the progress in controlling its Ebola outbreak, the Liberian government dismantled a crematorium and removed drums containing the ashes of more than 3,000 Ebola victims cremated during the height of the epidemic, whose last patient was discharged last week.

The Atlantic
http://www.theatlantic.com/magazine/
Accessed 14 March 201
[No new, unique, relevant content]

BBC
http://www.bbc.co.uk/
Accessed 14 March 2015
[No new, unique, relevant content]

Brookings
http://www.brookings.edu/
Accessed 14 March 2015
Innovation
Using mobile technology to improve maternal health and fight Ebola
March 11, 2015, Darrell M. West
In a new paper, Darrell West examines how mobile technologies have improved maternal health care and helped deal with disease outbreaks in Africa.

Council on Foreign Relations
http://www.cfr.org/
Accessed 14 March 2015
[No new, unique, relevant content]

The Economist
http://www.economist.com/
Accessed 14 March 2015
[No new, unique, relevant content]

Financial Times
http://www.ft.com/home/uk
Accessed 14 March 2015
[No new, unique, relevant content]

Forbes
http://www.forbes.com/
Accessed 14 March 2015
Carlos Slim's Foundation Recognized For Work On Health, Research To Develop Anti-Chagas Vaccine
The Carlos Slim Foundation has been awarded two international awards in the past week in recognition of its contribution to public health and promotion of new technologies
Dolia Estevez, Contributor Mar 10, 2015

Naturopaths--Not What The Doctor Ordered For Vaccine Exemptions
There are lots of reasons why measles, having gone to Disneyland, is enjoying a comeback around the United States and Canada. Unfounded fears of autism scare some parents. Others buy the daffy conspiracy theory that pharmaceutical companies are just pushing vaccination to make a buck. Some parents invoke religious concerns [...]
Arthur Caplan, Contributor Feb 24, 2015

Foreign Affairs
http://www.foreignaffairs.com/
Accessed 14 March 2015
[No new, unique, relevant content]

The Guardian
http://www.guardiannews.com/
Accessed 14 March 2015
Meet the man leading Britain's fight against Ebola | World news
16 hours ago **...** From his lab in Liverpool, Professor Tom Solomon is heading UK efforts to combat Ebola. He's hopeful we'll have a treatment and vaccine ...

The Huffington Post
http://www.huffingtonpost.com/
Accessed 14 March 2015
[No new, unique, relevant content]

Mail & Guardian
http://mg.co.za/
Accessed 14 March 2015
[No new, unique, relevant content]

New Yorker
http://www.newyorker.com/
Accessed 14 March 2015
Why Doctors Give in on Vaccines - The New Yorker
Mar 5, 2015 ... Many parents are asking for their children's vaccinations to be delayed, and many physicians are agreeing, even though it puts patients at risk.

New York Times
http://www.nytimes.com/
Accessed 14 March 2015
Vaccines Face Same Mistrust That Fed Ebola
MONROVIA, Liberia — West Africa's Ebola epidemic may be waning, but another outbreak in the future is a near certainty, health officials say.
Now, the United States is helping to lead a large study of two vaccines against Ebola. But as researchers try to compress a clinical process that can take a decade into a fraction of the time, they are confronting the same volatile mix of skepticism, fear, false rumor and understandable mistrust that helped spread Ebola in the first place.

"When we look at Ebola, it came from America," said Sylvester George, a pastor's assistant, expressing doubts about the clinical trials at an information session. "It's a man-made virus. So why didn't they do this trial in America, but they decide to come to Liberia?"

Trials of Ebola drugs and vaccines are underway or planned in Liberia, Guinea and Sierra Leone, the three countries most affected by an epidemic that has claimed about 10,000 lives. But the study in Liberia of the two vaccines is the most ambitious, with American researchers from the National Institutes of Health and their Liberian counterparts hoping to enlist more than 27,000 participants under an agreement between their governments.

The trial's scale alone has posed tough ethical and practical questions. American and Liberian officials have debated how to attract so many volunteers, how much to pay them and how to mobilize the public to extinguish crippling rumors before they take root, like the one asserting that Ebola vaccines were being slipped into children's immunizations.

And there is an added layer of mistrust directed at one of the most important partners in the trial: the Liberian government.

After a government minister called on Liberians to "step up" and volunteer to test a new Ebola vaccine, angry callers on talk radio asked why no high-ranking government official had gotten a shot in the arm…

Americans Evacuated After Possible Ebola Contact

By SHERI FINK

MARCH 14, 2015

The first of a group of 10 American aid workers who may have come into contact with the Ebola virus in Sierra Leone were evacuated on Saturday, an American government official said. They will be the largest group of Americans to have returned home over fears of exposure to the virus since an outbreak in three West African countries was declared last year.

The 10 worked with the American medical aid group Partners in Health and were determined to have varying degrees of risk but no symptoms, said Sheila Davis, who leads Ebola response efforts for the charity. A medical worker for the charity was confirmed to have Ebola last week and returned to the United States Friday morning.

Another American aid worker with the group, who was showing signs of illness, arrived in the United States on Friday evening. She became sick last week, but tested negative for Ebola twice, said several officials unaffiliated with the charity, speaking on the condition of anonymity. She was sent to Emory University Hospital in Atlanta, which has a specialized unit for Ebola patients. The hospital had no information to provide on the patient, an Emory spokeswoman said Saturday…

Wall Street Journal

http://online.wsj.com/home-page?_wsjregion=na,us&_homepage=/home/us

Accessed 14 March 2015

Oregon Lawmaker Drops Bill to Ban Most Vaccine Exemptions

Legislation aiming to pressure Oregon parents to get their children vaccinated was abandoned because of formidable opposition in a state that has the nation's highest rate of nonmedical exemptions.

03/11/15

Washington Post

http://www.washingtonpost.com/

Accessed 14 March 2015

As Ebola's death toll surpasses 10,000, this is how grief and recovery look in West Africa

Ebola infections are down and Liberia has reported no new cases since last week. Yet, there is still grief over the tremendous -- and in some cases, ongoing -- loss.
Abby Phillip | National | Mar 13, 2015
American health-care worker with Ebola virus arrives at NIH Bethesda
Officials: A person was transported by a private charter plane from Sierra Leone.
Dana Hedgpeth | Local | Mar 13, 2015

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