



Vaccines and Global Health: The Week in Review
3 September 2016
Center for Vaccine Ethics & Policy (CVEP)

This weekly digest 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 8,000 entries.*

Comments and suggestions should be directed to

David R. Curry, MS

Editor and

Executive Director

Center for Vaccine Ethics & Policy

david.r.curry@centerforvaccineethicsandpolicy.org

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 (EST/U.S.). If you would like to receive the email version, please send your request to david.r.curry@centerforvaccineethicsandpolicy.org.*

Contents *[click on link below to move to associated content]*

A. [Zika; Ebola/EVD; Polio; MERS-Cov; Yellow Fever](#)

B. [WHO; CDC](#)

C. [Announcements/Milestones/Perspectives](#)

D. [Reports/Research/Analysis](#)

E. [Journal Watch](#)

F. [Media Watch](#)



[Experts in Dengue Control Form New Alliance to Bridge Vaccine and Vector Approaches and Expand Efforts to Zika and other Aedes-Transmitted Diseases](#)

Mexico City, Mexico – August 31, 2016 – Today, four leading institutions at the forefront of dengue prevention and control—the **International Vaccine Institute (IVI)**, the **International Vaccine Access Center (IVAC)** of the Johns Hopkins University, the **Partnership for Dengue Control Foundation (PDC)** and the **Sabin Vaccine Institute**—

announced a new global alliance to integrate approaches to fight dengue and other Aedes-transmitted diseases under one strategic umbrella. Named the Global Dengue and Aedes-transmitted Diseases Consortium (GDAC), this new partnership will expand its expertise in dengue to other Aedes-transmitted diseases including Zika, chikungunya and yellow fever, responding to the urgent need for coordination in the currently fragmented efforts to control the diseases transmitted by one of the world's most dangerous animals—the Aedes mosquito.

“Dengue has emerged as one of the most important infectious diseases over the past 40 years, today infecting 400 million people worldwide each year in over 100 countries. Efforts to reverse this trend have fallen short for many reasons, but limited funding, lack of effective tools, and fragmented leadership have been among the most important” said Dr. In-Kyu Yoon, Deputy Director General of Science at the International Vaccine Institute and now Director of GDAC. “Other rapidly spreading Aedes-borne infections such as Zika and chikungunya remind us that Aedes-transmitted diseases will continue to spread as irreversible global trends such as population growth, urbanization and globalization continue to provide the ideal conditions to promote the spread of these diseases. We need a global, unified strategy to prevent and control known and as yet unknown Aedes-transmitted diseases.”

Today we are entering a new era in the fight against dengue and other Aedes-transmitted diseases, with the recent licensure of the first dengue vaccine and recent innovations in mosquito control and diagnostics. Many of these new technologies will become available for use in the next three to five years, but when used alone none will be as effective as when they are used in combination. GDAC proposes the use of these methods in combination to substantially decrease transmission and prevention of major epidemics of dengue and other Aedes-transmitted viruses.

Working closely with the World Health Organization (WHO), GDAC will provide scientific evidence to facilitate comprehensive Aedes-transmitted disease control, incorporating research and public health projects, technical meetings and consultancies, regulatory and policy support, financing frameworks and communications and advocacy. GDAC’s key objectives are to accelerate innovation and application of vaccines, vector control, antivirals, clinical management, therapeutics, diagnostics and surveillance, and licensure and post-marketing oversight of vaccines. GDAC will also focus on strengthening social mobilization, advocacy and capacity building. It will continue its members’ work with vaccine early adopter countries to develop integrated control strategies specific to those countries. GDAC will work with all stakeholders to develop strategies designed to prevent outbreaks caused by other viruses transmitted by Aedes mosquitoes.

“We propose to provide the leadership for integrated program implementation under one umbrella, working closely with the WHO and international funders, to reverse the trend of expanding epidemic dengue and other Aedes-transmitted viruses as public health problems” said Prof. Duane J Gubler, Chairperson of GDAC and Prof. Emeritus of the Program in Emerging Infectious Diseases, Duke-NUS Medical School. While much has been achieved in the past decade in developing new tools, it is unlikely that any of these new tools will be successful in controlling these diseases when used alone. Success will largely depend on integration of tools, effective partnerships, and coordinated leadership in program implementation. Our collective efforts are essential to eliminating the Aedes-mosquito as a public health threat worldwide.”

GDAC brings together the Dengue Vaccine Initiative (DVI) and the Partnership for Dengue Control (PDC). Established in 2011 by IVI, IVAC, Sabin and the WHO, DVI focused on accelerating the development and introduction of safe and protective dengue vaccines into public-sector programs, especially for the poor, stimulating the development of safe and effective dengue vaccines. PDC was created in 2013 by a group of international dengue and public health experts to build synergies among exciting new tools in the development pipeline. Hosted by Fondation Merieux, its mission is to promote development and implementation of innovative integrated approaches for the prevention and control of dengue.

Now as GDAC, the four partners will combine their expertise across major spheres within global health, including epidemiology, health economics, advocacy and communication and surveillance. With a global presence, spanning Asia, America and Europe, they will build a common agenda to lead the new era for Aedes-transmitted diseases prevention and control.

.....
.....

Zika virus [to 3 September 2016]

Public Health Emergency of International Concern (PHEIC)

<http://www.who.int/emergencies/zika-virus/en/>

Fourth meeting of the Emergency Committee under the International Health Regulations (2005) regarding microcephaly, other neurological disorders and Zika virus

WHO statement

2 September 2016

[Editor's text bolding]

The fourth meeting of the Emergency Committee (EC) on Zika and microcephaly convened by the Director-General under the International Health Regulations (2005) regarding microcephaly, other neurological disorders and Zika virus was held by teleconference on 1 September 2016, from 13:15 to 15:45 Central European Time.

The Committee was briefed on the implementation of the Temporary Recommendations issued by the Director-General on advice from the three previous EC meetings. The Committee was updated on the situation during and after the Olympic Games held in Brazil, the latest developments on Zika virus geographic spread, natural history, epidemiology, microcephaly and other neonatal complications associated with Zika virus, Guillain-Barré syndrome (GBS) and current knowledge on sexual transmission of Zika virus.

The following States Parties provided information on microcephaly, GBS and other neurological disorders occurring in the presence of Zika virus transmission as well as control measures being implemented: Brazil, the United States of America and Singapore.

The Committee congratulated Brazil on their successful application of appropriate public health measures during the Olympic Games. To date, there have been no reports of confirmed cases of Zika virus among people who attended the Games, both during the games and since their return. The lack of cases supports the conclusions of the risk assessment regarding the Olympic Games made during the 3rd EC meeting.

Having considered the evidence presented, the Committee agreed that due to continuing geographic expansion and considerable gaps in understanding of the virus and its consequences, Zika virus infection and its associated congenital and other neurological disorders continues to be a Public Health Emergency of International Concern (PHEIC).

The Committee restated the advice it provided to the Director-General in its previous meetings in the areas of public health research on microcephaly, other neurological disorders and Zika virus, surveillance, vector control, risk communications, clinical care, travel measures, research and product development related to vaccines, therapeutics, and laboratory tests. The Committee noted that activities based on this advice remain in place and are all being implemented. The Committee also reaffirmed its previous advice that there should be no general restrictions on travel and trade with countries, areas and/or territories with Zika virus transmission, including the cities in Brazil that will be hosting the Paralympic Games.

Furthermore, acknowledging that the impact of Zika virus is a long term concern, the Committee recommended that the Director General considers developing an appropriate infrastructure and response plan within the World Health Organization to provide longer term coordination and accountability for ensuring an effective response.

The Committee emphasized the need for a better scientific understanding of Zika virus epidemiology, clinical disease, and prevention, recommending focus on several new research issues along with other issues recommended previously, in order to:

- :: enhance understanding of the different viral lineages, including cross reactivity and cross-immunity between them as well as their clinical implications
 - :: assess possible co-factors or risk factors that might impact disease severity
 - :: better understand the natural history of the disease in children who are congenitally infected, pregnant women, and other children and adults
 - : determine length and location of viral persistence in humans, and its impact on transmissibility
 - :: better establish the risk of infection and modes of transmission
- assess the utility of effective vector control tools and their operational feasibility
- :: continue development of safe and effective prevention measure (e.g., vaccine)

Recognizing the impact that Zika virus disease and its consequences will have on weak health systems, the Committee also recommended that WHO provide appropriate guidance on effective surveillance and management of Zika virus disease in countries with high vulnerability, low capacity.

Based on this advice, the Director-General declared the continuation of the Public Health Emergency of International Concern (PHEIC). The Director-General reissued the Temporary Recommendations from the 2nd and the 3rd meeting of the Committee, endorsed the additional advice from the Committee's 4th meeting, and issued them as Temporary Recommendations under the IHR (2005). The Director-General thanked the Committee Members and Advisors for their advice. The Committee will reconvene in 3 months.

Watch the press conference

Zika situation report – 1 September 2016

Full report: <http://apps.who.int/iris/bitstream/10665/249597/1/zikasitrep1Sept16-eng.pdf?ua=1>

Key updates

:: Countries and territories reporting mosquito-borne Zika virus infections for the first time in the past week:

...British Virgin Islands and Singapore

:: Countries and territories reporting microcephaly and other central nervous system (CNS) malformations potentially associated with Zika virus infection for the first time in the past week:

...None

:: Countries and territories reporting Guillain-Barré syndrome (GBS) cases associated with Zika virus infection for the first time in the past week:

...None

:: Operational updates from the WHO Regional Office for the Americas:

...WHO provided technical advice on the detection of and response to congenital syndromes, and the care of pregnant women and newborn children in the Dominican Republic.

:: The 2016 Summer Paralympic Games will be held in Rio de Janeiro, Brazil, from 7 to 18 September. WHO continues to provide technical support to the Ministry of Health to ensure the 2016 Summer Paralympic Games are as safe as possible for all athletes, volunteers, visitors and residents.

:: Genetic sequencing of Zika virus isolates from four samples collected in Guinea-Bissau has preliminarily identified that these are related to the African lineage of the virus.

Zika Open [to 3 September 2016]

[Bulletin of the World Health Organization]

:: *All papers available [here](#)*

No new papers identified.

CDC/ACIP [to 3 September 2016]

<http://www.cdc.gov/media/index.html>

Press Release

FRIDAY, SEPTEMBER 2, 2016

CDC awards \$2.4 million to five jurisdictions to fight Zika

The Centers for Disease Control and Prevention (CDC) has awarded \$2.4 million to Chicago, Houston, New York City, Philadelphia, and Los Angeles County to establish, enhance, and maintain information-gathering systems to rapidly detect microcephaly—a serious birth defect of the brain—and other adverse outcomes linked to Zika virus infection.

This funding is in addition to the \$16.4 million recently awarded to states and territories for surveillance of microcephaly and other adverse outcomes and will enable these local areas to participate in these important activities in coordination with state efforts. The funds will allow these local areas to:

:: Enhance information-gathering to carry out strategies for real-time, population-based monitoring for microcephaly and other birth defects caused by Zika virus

:: Enhance capacity development through partner collaboration and infrastructure improvements

:: Provide referral of infants and families to health and social resources

:: Participate in CDC data reporting

:: Expand access to examination of health and monitoring of developmental outcomes of children born to women with positive or inconclusive Zika virus test results...

Press Release

FRIDAY, SEPTEMBER 2, 2016

[CDC and the Instituto Nacional de Salud of Colombia collaborate to understand long-term effects of Zika virus infection during pregnancy](#)

CDC Director Tom Frieden, MD, MPH, and Martha Lucía Ospina Martínez, MD, MPH, MBA, Director General of Colombia's Instituto Nacional de Salud (INS), have signed a Memorandum of Understanding (MOU) to collaborate on Zika virus response activities in Colombia, particularly the effect of Zika virus during pregnancy. The new MOU includes collaboration between CDC and the INS on public health surveillance, epidemiology, laboratory, vector, and other public health response activities related to Zika virus in Colombia...

[Traces of Ebola Virus Linger Longer than Expected in Semen - Press Release](#)

TUESDAY, AUGUST 30, 2016

[CDC adds Singapore to interim travel guidance related to Zika virus - Media Statement](#)

TUESDAY, AUGUST 30, 2016

[CDC adds The British Virgin Islands to interim travel guidance related to Zika virus - Media Statement](#)

TUESDAY, AUGUST 30, 2016

[MMWR Weekly September 2, 2016 / No. 34](#)

:: [Epidemiology of Varicella During the 2-Dose Varicella Vaccination Program — United States, 2005–2014](#)

:: [Guillain-Barré Syndrome During Ongoing Zika Virus Transmission — Puerto Rico, January 1–July 31, 2016](#)

:: [Likely Sexual Transmission of Zika Virus from a Man with No Symptoms of Infection — Maryland, 2016](#)

:: [Hearing Loss in Infants with Microcephaly and Evidence of Congenital Zika Virus Infection — Brazil, November 2015–May 2016](#)

NIH [to 3 September 2016]

<http://www.nih.gov/news-events/news-releases>

August 29, 2016

[NIH collaboration helps advance potential Zika treatments](#)

Researchers at the National Center for Advancing Translational Sciences (NCATS) recently identified compounds that potentially can be used to inhibit Zika virus replication and reduce its ability to kill brain cells. These compounds now can be studied by the broader research community to help combat the Zika public health crisis. NCATS is part of the National Institutes of Health.

Using NCATS' drug repurposing screening robots, researchers identified two classes of compounds effective against Zika: one is antiviral, and the other prevents Zika-related brain cell

death. The compounds include emricasan, an investigational drug currently being evaluated in a clinical trial to reduce liver injury and fibrosis, and niclosamide, a U. S. Food and Drug Administration-approved drug for use in humans to treat worm infections. In addition, the researchers identified nine cyclin-dependent kinase (CDK) inhibitors. CDK usually is involved in regulation of cellular processes as well as normal brain development, but the Zika virus can negatively affect this process.

NCATS' work was a collaborative effort with Johns Hopkins University, Baltimore, (JHU) and Florida State University, Tallahassee, (FSU), and the study results were published in the August 29 issue of Nature Medicine. The NCATS screening effort builds on the initial research by JHU and FSU scientists, who discovered that the Zika virus infects brain cells early in development. Infection by the Zika virus may be related to fetal microcephaly, an abnormally small head resulting from an underdeveloped and/or damaged brain...

Takeda to develop Zika Vaccine with up to \$312 million in funding from US Government

September 01, 2016 01:26 PM Eastern Daylight Time

:: The World Health Organization declared Zika virus a Public Health Emergency of International Concern on February 1, 2016; and the virus has spread in recent years with devastating impact into more than 60 countries and territories including the US1

:: Initial contract of \$19.8 million includes pre-clinical research and vaccine manufacturing in preparation for and through Phase 1 clinical trials in 2017

:: Takeda's work with BARDA, a division of the Office of the Assistant Secretary for Preparedness and Response within the US Department of Health and Human Services, demonstrates the power of global partnerships and innovation to tackle the most challenging emerging infectious diseases

OSAKA, Japan--(BUSINESS WIRE)--Takeda Pharmaceutical Company Limited today announced that BARDA, the Biomedical Advanced Research and Development Authority, has selected Takeda's Vaccine Business Unit to develop a vaccine to support the Zika response in the US and affected regions around the world. Initial funding from BARDA, which is a division of the Office of the Assistant Secretary for Preparedness and Response (ASPR) within the US Department of Health and Human Services, is for \$19.8 million to cover the vaccine development through Phase 1, with potential funding of up to \$312 million if ASPR/BARDA exercises all options to take the vaccine through Phase 3 trials and filing of the Biologics License Application (BLA) in the US.

On February 1, 2016, the World Health Organization declared the Zika outbreak to be a Public Health Emergency of International Concern. On February 8, 2016 the Centers for Disease Control and Prevention (CDC) elevated its Zika response efforts to its highest response level, Level 1. There is no vaccine or medicine for Zika2, and infection during pregnancy can cause a serious birth defect called microcephaly and other severe fetal brain defects. Current research suggests that Guillain-Barre syndrome (GBS), which is an uncommon sickness of the nervous system, is strongly associated with Zika; however, only a small proportion of people with recent Zika virus infection get GBS. Many people infected with Zika will have no symptoms or mild symptoms that last several days to a week. The virus has spread in recent years into more than 60 countries and territories including the US.

Dr. Rajeev Venkayya, Corporate Officer and President of the Global Vaccine Business Unit at Takeda, said: "The Zika emergency demands swift action by governments, public health agencies, medical and scientific communities, industry and others, and partnerships are essential for success. Working with BARDA, Takeda is deploying its world-class expertise and capabilities in vaccine development for emerging infectious diseases, and our outstanding team and manufacturing facilities in Hikari, Japan. This Zika vaccine program joins our work in dengue, norovirus, our partnership with the Japanese Government on pandemic influenza, and the recently announced partnership with the Bill & Melinda Gates Foundation to help eradicate polio. These efforts to develop a vaccine against the Zika virus reinforce Takeda's commitment to the health of people everywhere, including the most vulnerable populations that are threatened by Zika."

Given the Japanese Government's commitment to preparedness for outbreaks of infectious diseases, recently reinforced by Prime Minister Abe at the G7 Summit in Ise-Shima, Japan, Takeda is in discussions with the Cabinet Secretariat of the Prime Minister Office regarding potential participation of Japanese health agencies in this collaboration. Takeda is working with ASPR/BARDA and the Japanese Government to explore these opportunities further. Under the agreement, Takeda will develop an inactivated, adjuvanted, whole Zika virus vaccine. The objectives of the first stage of the work include developing and producing the investigational vaccine and completing pre-clinical studies, submission of an Investigational New Drug Application (IND) to the US Food and Drug Administration, and execution of a Phase 1 clinical trial. Manufacturing of the vaccine will occur at Takeda's facilities in Hikari, Japan...

.....
.....

EBOLA/EVD [to 3 September 2016]

<http://www.who.int/csr/disease/ebola/en/>

"Threat to international peace and security" (UN Security Council)

[Editor's Note:

No new content identified. We deduce that WHO has suspended issuance of new Situation Reports after resuming them for several weekly cycles. The most recent report posted is EBOLA VIRUS DISEASE – Situation Report - 10 JUNE 2016]

.....
.....

POLIO [to 3 September 2016]

Public Health Emergency of International Concern (PHEIC)

Polio this week as of 31 August 2016

: Launching soon: the new look of the Global Polio Eradication Initiative web site! Keep a lookout for the new design, which will allow visitors to see the latest information on the programme, interactive data visualizations and media content including photo essays and videos. Existing resources from our current website will be available on the new site as well.

:: The GPEI seeks nominations for members of the new Independent Monitoring Board (IMB) that will monitor and guide polio transition ('legacy') planning. The closing date for nominations is Friday 9 September 2016. This new Transition IMB is separate from the current IMB, which monitors and guides progress towards interruption of transmission. Further information [here](#).

:: Selected Country Updates [excerpts]

Afghanistan

:: Two new cases of wild poliovirus type 1 (WPV1) were reported in the past week, from Paktika (on the border with Pakistan) and Kabul provinces. The cases had onset of paralysis on 2 and 8 October respectively and bring the total number of WPV1 cases for 2016 to eight.

Pakistan

:: One new WPV1 environmental positive sample was reported in the past week, from Balochistan (Pichin district), collected on 2 August.

Massive polio vaccination campaign in Afghanistan targets over 9.5 million children

Kabul, 29 August 2016 – The Ministry of Public Health, with the support of WHO and UNICEF, launched today a national polio immunization campaign to vaccinate every child in Afghanistan under the age of 5.

What makes this particular campaign important is that most cases of polio occur in September and October, during Afghanistan's high transmission season" for wild poliovirus circulation. These warm months are when the poliovirus is most active and dangerous and typically the period when Afghan children are most at risk of becoming paralysed or killed.

During the campaign all children under 5 will also be given vitamin A capsules. Vitamin A is essential to the functioning of a child's immune system. Lack of vitamin A increases the severity of childhood diseases, such as measles and diarrhoea: child deaths increase by around 20% if children are suffering from vitamin A deficiency. These capsules have been distributed to Afghan children twice a year for over 20 years.

The campaign will be carried out by around 65 000 trained health workers. These vaccinators and other frontline health workers are trusted members of the community and they have been chosen because they care about children.

The vaccination campaign will run throughout Afghanistan from 29 to 31 August, with a catch-up day to revisit missed children on 2 September. After this, children who are still missed should be brought to a nearby health centre to be vaccinated.

Vaccination teams have also been deployed to border crossings to vaccinate children travelling from Pakistan to Afghanistan. The number of returnees travelling to Afghanistan is on the rise with more than 5000 Afghans returning from Pakistan each day. Over 140,000 Afghans have returned from Pakistan since the beginning of the year and WHO-supported vaccination teams are ensuring that all children crossing the border are vaccinated against polio...

.....
.....

Yellow Fever [to 3 September 2016]
<http://www.who.int/emergencies/yellow-fever/en/>

Second meeting of the Emergency Committee under the International Health Regulations (2005) concerning yellow fever

WHO statement

31 August 2016

[Editor's text bolding]

The second meeting of the Emergency Committee (EC) regarding yellow fever was convened by the Director-General under the International Health Regulations (2005) (IHR 2005) by teleconference on 31 August 2016, from 13:00 to 17:30 Central European Time.

The WHO Secretariat briefed the Committee on the status of, and response to, the outbreaks of yellow fever in Angola and the Democratic Republic of the Congo, on other countries reporting international spread or at high risk, and provided an update on the status of the global stockpile of yellow fever vaccine.

The following States Parties presented country updates to the Committee: Angola, the Democratic Republic of Congo (DRC), and the Republic of the Congo.

The Committee noted the concerted efforts and progress made by affected countries and partners to contain the yellow fever outbreaks in Angola and the DRC. No confirmed cases have been reported in Angola since 23 June and in DRC since 12 July. Despite there being no confirmation of cases in the Republic of Congo to date, there was concern that intense population movements between the DRC and the Republic of the Congo pose a risk of expansion of the outbreak. The Committee was reassured to hear that the outbreak in Uganda is now over, and the imported cases in China and Kenya have not led to further transmission.

The Committee noted that the exceptional use of the fractional dose strategy for yellow fever vaccination during the recent campaign in Kinshasa, DRC, achieved very high population coverage. The impact of this campaign, including duration of immunity of the fractional dose, will now be assessed.

After discussion and consideration of the information provided, it was the view of the Committee that the current status of the yellow fever outbreaks in Angola and the Democratic Republic of the Congo does not constitute a Public Health Emergency of International Concern (PHEIC). However, despite the considerable progress made, the Committee concluded that the outbreak remains a serious public health event which warrants continued national action and international support. Furthermore, the imminent onset of the rainy season will intensify vector activity, thus raising subregional risks of yellow fever transmission.

Members of the Committee offered technical advice on immediate actions for the consideration of WHO and Member States in the following areas:

For affected countries (Angola and DRC):

:: Further strengthening of surveillance and laboratory capacity, completion of mass vaccination, continuing risk communications, community mobilization, integrated vector control and case management measures.

:: There should be thorough documentation of the operational aspects of the fractional dose campaign and sharing of interim results on the study on duration of immunity;

:: Reinforcement of the need for yellow fever vaccination of all travellers, and especially migrant workers to and from areas with ongoing yellow fever virus activity.

Other advice:

:: Strengthening of yellow fever vaccination as part of routine childhood immunization programmes where appropriate;

:: The intensification of surveillance and preparedness activities, including verification of yellow fever vaccination in travellers, risk communications and strengthening of systematic cross border collaboration in at-risk countries, particularly countries having land borders with the affected countries;

:: Further consideration should be given to a pre-emptive vaccination campaign in high-risk areas in the Republic of the Congo.

:: WHO and partners must continue efforts to ensure a carefully planned and maintained yellow fever vaccine stockpile.

The Committee also emphasized the need to rapidly manage any new yellow fever cases, imported or locally acquired.

Going forward, the Committee welcomed the current revision of the global strategy for preventing urban yellow fever outbreaks, including a review of yellow fever vaccine security, in keeping with WHO's assessment that the risk of such events is increasing.

Based on these views and the currently available information, the Director-General accepted the Committee's assessment that the event does not constitute a Public Health Emergency of International Concern at this time but requires sustained scaled up response activities and close monitoring.

The Director-General thanked the Committee for its advice on priority actions for affected and at-risk countries, and on further yellow fever risk management work for WHO. The Director-General appreciated the concurrence of the Committee to be reconvened if needed.

Yellow Fever - Situation Report – 2 September 2016

Full Report:

<http://apps.who.int/iris/bitstream/10665/249603/1/yellowfeversitrep2Sept16-eng.pdf?ua=1>

Key updates

Angola epidemiological update (as of 25 August):

:: There have been no new confirmed cases since 23 June.

: As of 29 August, 2,761,104 people had been vaccinated in Angola. As of 1 September, 9,048 541 people have been vaccinated for Health Zones in DRC.

:: The outbreak in Angola and DRC continues to not constitute a Public Health Emergency of International Concern but remains a serious public health event.

DRC epidemiological update (as of 1 September 2016):

:: 2513 suspected cases from eight of 26 provinces

:: 75 confirmed cases have been identified from 2164 suspected cases that have been laboratory tested, with 16 deaths (CFR: 21.33%);

:: Of the 75 confirmed cases, reported from seven provinces, 57 acquired infection in Angola, 13 are autochthonous, and five are cases of sylvatic transmission (not related to the outbreak).

Vaccination against yellow fever

The second meeting of the Emergency Committee regarding yellow fever was convened on 31 August 2016. It was the view of the Committee that the yellow fever outbreak in Angola and DRC continues to not constitute a Public Health Emergency of International Concern.

Mass reactive vaccination campaigns in Angola have been implemented in areas with confirmed local transmission. In addition, a pre-emptive vaccination campaign was launched on 15 August. Phase I of the campaign was completed and, as of 29 August, 2 761 104 people had been vaccinated. This represents 93% of the target population of approximately three million people in at-risk areas.

A pre-emptive vaccination campaign was launched in DRC on 17 August. As of 1 September, 7 807 653 people have been vaccinated (103% of the target population) in 32 Health Zones in Kinshasa province. 2 582 056 people have been vaccinated in Kasai Central, Kasai, Kongo Central, Kwango and Lualaba for health zones that have reported. The campaign is ongoing in Kasai and Kwango.

WHO: [Millions protected in Africa's largest-ever emergency yellow fever vaccination campaign](#)

September 2016 – A major part of the largest emergency vaccination campaign against yellow fever ever attempted in Africa has been completed, with more than 7.7 million people vaccinated in record time in the city of Kinshasa, Democratic Republic of Congo (DRC).

.....
.....

MERS-CoV [to 3 September 2016]

<http://www.who.int/emergencies/mers-cov/en/>

No new information posted.

.....
.....

WHO & Regional Offices [to 3 September 2016]

Highlights

[Halting cholera in the Democratic Republic of the Congo](#)

September 2016 – Equateur province in the Democratic Republic of the Congo has recorded 1954 suspected cholera cases and 78 fatalities since late August 2016. To stop the spread of epidemic cholera outbreaks, WHO is supporting local authorities to control the present epidemic in health districts where a large number of cholera cases have been recorded.

[New guidelines for chlamydia, gonorrhoea and syphilis](#)

30 August 2016 – In response to the growing threat of antibiotic resistance, WHO has issued new treatment guidelines for 3 common sexually transmitted infections: chlamydia, gonorrhoea and syphilis. All 3 are generally curable with antibiotics, however they are becoming more difficult to treat, as some antibiotics are now failing due to misuse and overuse. The new recommendations are based on the latest available evidence.

[Weekly Epidemiological Record \(WER\) 2 September 2016](#), vol. 91, 35 (pp. 405–420)

Contents

405 Global leprosy update, 2015: time for action, accountability and inclusion

:: WHO Regional Offices

Selected Press Releases, Announcements

WHO African Region AFRO

No new digest content identified.

WHO Region of the Americas PAHO

:: PAHO/WHO is training Caribbean health professionals in clinical management of neurological complications related to Zika (09/01/2016)

WHO South-East Asia Region SEARO

:: South-East Asia Health Ministers meet in Colombo next week 1 September 2016

WHO European Region EURO

:: WHO accelerates preparedness and response for natural disasters 02-09-2016

:: WHO/Europe Regional Committee App now available 01-09-2016

WHO Eastern Mediterranean Region EMRO

:: Polio vaccination campaign in Afghanistan targets over 9.5 million children 30 August 2016

:: New guidelines for chlamydia, gonorrhoea and syphilis 30 August 2016

WHO Western Pacific Region

:: Growing antibiotic resistance forces updates to recommended treatment for sexually transmitted infections 30 August 2016

.....

.....

Announcements/Milestones/Perspectives

American Academy of Pediatrics

<https://www.aap.org>

Policy Statement - American Academy of Pediatrics

Medical Versus Nonmedical Immunization Exemptions for Child Care and School Attendance

COMMITTEE ON PRACTICE AND AMBULATORY MEDICINE, COMMITTEE ON INFECTIOUS DISEASES, COMMITTEE ON STATE GOVERNMENT AFFAIRS, COUNCIL ON SCHOOL HEALTH, SECTION ON ADMINISTRATION AND PRACTICE MANAGEMENT

Pediatrics - August 2016

Pdf: <http://pediatrics.aappublications.org/content/early/2016/08/25/peds.2016-2145.full-text.pdf>

Abstract

Routine childhood immunizations against infectious diseases are an integral part of our public health infrastructure. They provide direct protection to the immunized individual and indirect protection to children and adults unable to be immunized via the effect of community immunity. All 50 states, the District of Columbia, and Puerto Rico have regulations requiring proof of immunization for child care and school attendance as a public health strategy to protect children in these settings and to secondarily serve as a mechanism to promote timely immunization of children by their caregivers. Although all states and the District of Columbia have mechanisms to exempt school attendees from specific immunization requirements for medical reasons, the majority also have a heterogeneous collection of regulations and laws that allow nonmedical exemptions from childhood immunizations otherwise required for child care and school attendance. The American Academy of Pediatrics (AAP) supports regulations and laws requiring certification of immunization to attend child care and school as a sound means of providing a safe environment for attendees and employees of these settings. The AAP also supports medically indicated exemptions to specific immunizations as determined for each individual child. The AAP views nonmedical exemptions to school-required immunizations as inappropriate for individual, public health, and ethical reasons and advocates for their elimination.

Pediatricians Say Parents' Concerns About Vaccines Have Shifted In Past Decade

8/29/2016

New study examining annual American Academy of Pediatrics member surveys finds more parents request to delay or refuse vaccines, but the reasons vary

A national survey of pediatricians illuminates shifting concerns that parents express about their children's immunizations compared to a decade ago.

The study in the September 2016 Pediatrics, "Vaccine Delays, Refusals, and Patient Dismissals: A Survey of Pediatricians," (published online August 29) compared data from the American Academy of Pediatrics (AAP) Periodic Survey of Fellows in 2006 and 2013. The surveys were sent to random samples of AAP members. The study included responses from pediatricians who routinely provide patient care including immunizations. A total of 629 pediatricians participated in 2006, and 627 participated in 2013.

In 2013, 87 percent of respondents encountered vaccine refusals, up from 75 percent in 2006. Pediatricians perceive the reasons parents delayed vaccines differed from the reasons they refused vaccines; in 2013, they perceived parents who delayed vaccines most commonly acted out of concerns for their child's discomfort and immune system burden, while they said they felt that parents who refused vaccines more often considered vaccines unnecessary. Overall, the number of pediatricians who said they perceived parents refused vaccines because they didn't see a need for them rose by 10 percent between the time periods studied. However, three of the top six reasons for vaccine refusal significantly declined in frequency, including the concern

about autism and/or thimerosal (74 percent in 2006 versus 64 percent in 2013).

The 2006 survey was distributed just after the first Human Papillomavirus (HPV) vaccine was approved but before it was widely offered by pediatricians. Despite that vaccine's proven effectiveness against cervical and other cancers, it continues to have lower acceptance rate than other recommended vaccines. Study authors said the perceived increase in refusals may be, in part, because the HPV vaccine was recommended when the follow-up survey was conducted.

"The perceived rise in refusals and delays does not seem to be solely attributable to any one vaccine, because pediatricians reported increased rates of parents who refused just one vaccine and those who refused more than one immunization," said study author Catherine Hough-Telford, MD, FAAP. This supports prior research findings that suggest the public's collective memory of vaccine-preventable diseases may be fading, she said. "Clearly, though, additional research is needed to evaluate vaccine hesitancy and how it relates to different vaccines," she said.

The study also found that the number of pediatricians who dismiss patients whose parents refuse vaccines has increased. In 2006, 6 percent of pediatricians reported "always" dismissing patients for continued vaccine refusal, and by 2013, that increased to nearly 12 percent.

The study's findings illustrate a need for pediatricians to ask why a parent is refusing a vaccine, authors said, and tailor educational guidance to address specific concerns.

.....

Global Fund [to 3 September 2016]

<http://www.theglobalfund.org/en/news/?topic=&type=NEWS;&country=>

01 September 2016

Global Fund Report Shows 20 Million Lives Saved

01 September 2016

GENEVA – Programs supported by the Global Fund to Fight AIDS, Tuberculosis and Malaria have saved 20 million lives, according to a report released today.

The Global Fund Results Report 2016, with cumulative results through the end of 2015, shows there have been one-third fewer deaths from AIDS, TB and malaria in the countries where the Global Fund invests. The Global Fund partnership, which brings together governments, civil society, the private sector and people affected by the diseases, is on track to reach 22 million lives saved by the end of 2016.

"These figures represent what's possible when partners from around the globe come together to fight these three diseases," said Mark Dybul, the Executive Director of the Global Fund. "At a time of global social and economic upheaval, this is proof positive that when we unite behind bold, ambitious goals we can transform lives and build more just societies."

Programs supported by the Global Fund, which are designed and implemented by local experts, provided 9.2 million people with antiretroviral therapy for HIV, 15.1 million people with testing and treatment for TB, and 659 million mosquito nets to prevent malaria. As a result of prevention and control interventions in more than 100 countries, Global Fund-supported programs averted 146 million new infections from the three diseases since 2012 alone.

Since the peak of the crisis in 2005, the number of deaths caused by AIDS has declined by 45 percent in the countries where the Global Fund invests. The number of deaths from TB declined 31 percent between 2000 and 2015 in countries with Global Fund-supported programs. The number of deaths caused by malaria declined 50 percent in the countries where the Global Fund invested between 2000 and 2015; with continued support, 21 countries could eliminate malaria by 2020.

"These results show the incredible dividends the Global Fund partnership is paying back – now we need to increase our effort to reach the people most at risk and end the epidemics for good," said Dr. Dybul...

31 August 2016

Global Fund Welcomes U.S. Leadership in Global Health

GENEVA - The Global Fund to Fight AIDS, Tuberculosis and Malaria warmly welcomed an announcement by the United States Government to contribute up to US\$4.3 billion to the Global Fund, a demonstration of outstanding commitment to global health.

The announcement, made today in Washington D.C., comes shortly before a Global Fund Replenishment Conference in Montreal on September 16-17 gathers world leaders and decision-makers to set funding for the next three years.

"We are committing to match one dollar for every two dollars in pledges made by other donors through September 30th, 2017," said U.S. National Security Advisor Susan E. Rice in a statement. "We are calling on all partners to contribute generously in order to leverage our matching pledge to reach the Global Fund's replenishment goal of \$13 billion for the three year period from 2017 to 2019."...

.....

FDA [to 3 September 2016]

<http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/default.htm>

September 02, 2016 – FDA News Release

FDA issues final rule on safety and effectiveness of antibacterial soaps

Rule removes triclosan and triclocarban from over-the-counter antibacterial hand and body washes

The U.S. Food and Drug Administration today issued a final rule establishing that over-the-counter (OTC) consumer antiseptic wash products containing certain active ingredients can no longer be marketed. Companies will no longer be able to market antibacterial washes with these ingredients because manufacturers did not demonstrate that the ingredients are both safe for long-term daily use and more effective than plain soap and water in preventing illness and the spread of certain infections. Some manufacturers have already started removing these ingredients from their products.

This final rule applies to consumer antiseptic wash products containing one or more of 19 specific active ingredients, including the most commonly used ingredients – triclosan and triclocarban. These products are intended for use with water, and are rinsed off after use. This rule does not affect consumer hand "sanitizers" or wipes, or antibacterial products used in health care settings.

"Consumers may think antibacterial washes are more effective at preventing the spread of germs, but we have no scientific evidence that they are any better than plain soap and water," said Janet Woodcock, M.D., director of the FDA's Center for Drug Evaluation and Research

(CDER). "In fact, some data suggests that antibacterial ingredients may do more harm than good over the long-term."...

.....

Industry Watch [to 3 September 2016]

:: [IVI-DCVMN jointly fostering professional training for vaccine manufacturers from developing countries](#)

31 August 2016

The International Vaccine Institute (IVI) and the Developing Countries Vaccine Manufacturers Network (DCVMN) co-hosted a meeting from June 28 to July 1 for vaccine industry professionals mainly from developing countries. Over 50 industry professionals representing 10 companies in Asia, from five different countries and territories, including China, India, Vietnam, Taiwan, Thailand and South Korea, met in Seoul to review and discuss global concepts of Quality by Design for manufacturing and registration of vaccines globally.

Dr. Yeowon Sohn, Director General of the National Institute of Food and Drug Safety Evaluation of the Korean Ministry of Food and Drug Safety, delivered the opening speech, which was followed by presentations and discussions moderated by international experts in the areas of Good Manufacturing Practice and global vaccine registration of vaccines, particularly in the context of developing countries. Dr. Sohn highlighted that "swift information sharing and streamlined cooperative systems among experts across the world should be further strengthened". She added that the workshop was a great opportunity for the attendees to learn from global experts in quality design and global registration, who joined as trainers.

The DCVMN-led training initiative aims to foster dialogue among manufacturers from different countries, providing opportunities for manufacturers to access the knowledge, tools, and skills required to achieve and maintain WHO prequalification status for high-priority vaccines. Participants commit to disseminate the learnings of the four days' discussions to their collaborators, peers, and supervisors when they return to their facilities, in the form of an informational meeting, and ensure follow-up on practical implementation of discussed topics.

.....

EDCTP [to 3 September 2016]

<http://www.edctp.org/>

The European & Developing Countries Clinical Trials Partnership (EDCTP) aims to accelerate the development of new or improved drugs, vaccines, microbicides and diagnostics against HIV/AIDS, tuberculosis and malaria as well as other poverty-related and neglected infectious diseases in sub-Saharan Africa, with a focus on phase II and III clinical trials.

31 August 2016

[EDCTP Annual Report 2015 available online](#)

The EDCTP 2015 Annual Report "Gaining Momentum" is now available online. 2015 was a very busy year with two programmes

.....

.....

AERAS [to 3 September 2016]
<http://www.aeras.org/pressreleases>
No new digest content identified.

European Medicines Agency [to 3 September 2016]
<http://www.ema.europa.eu/>
No new digest content identified.

European Vaccine Initiative [to 3 September 2016]
<http://www.euvaccine.eu/news-events>
No new digest content identified.

Fondation Merieux [to 3 September 2016]
Mission: Contribute to global health by strengthening local capacities of developing countries to reduce the impact of infectious diseases on vulnerable populations.
<http://www.fondation-merieux.org/news>
See announcement above on Global Dengue and Aedes-transmitted Diseases Consortium (GDAC)

Gavi [to 3 September 2016]
<http://www.gavi.org/library/news/press-releases/>
No new digest content identified

GHIT Fund [to 3 September 2016]
<https://www.ghitfund.org/>
GHIT was set up in 2012 with the aim of developing new tools to tackle infectious diseases that devastate the world's poorest people. Other funders include six Japanese pharmaceutical companies, the Japanese Government and the Bill & Melinda Gates Foundation.
No new digest content identified

Hilleman Laboratories [to 3 September 2016]
<http://www.hillemanlabs.org/news.aspx>
No new digest content identified

Human Vaccines Project [to 3 September 2016]
humanvaccinesproject.org
[Website in development]

IAVI – International AIDS Vaccine Initiative [to 3 September 2016]
<https://www.iavi.org/>
No new digest content identified

IVI - International Vaccine Institute [to 3 September 2016]
<http://www.ivi.org/web/www/home>
See announcement above on Global Dengue and Aedes-transmitted Diseases Consortium (GDAC)

PATH [to 3 September 2016]

<http://www.path.org/news/index.php>

No new digest content identified

UNICEF [to 3 September 2016]

http://www.unicef.org/media/media_89711.html

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 digest 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

American Journal of Infection Control

September 2016 Volume 44, Issue 9, p963-1082, e145-e166

<http://www.ajicjournal.org/current>

September 01 2016

APIC publishes updated Professional and Practice Standards for infection preventionists

Preview

In response to changes in the infection preventionist (IP) profession brought about by the increasing complexity of health care delivery, the Association for Professionals in Infection Control and Epidemiology (APIC) published updated Professional and Practice Standards for IPs in the July issue of the American Journal of Infection Control.¹

Persistent racial and ethnic disparities in flu vaccination coverage: Results from a population-based study

Christopher V. Almario, Folasade P. May, Allison E. Maxwell, Wanmeng Ren, Ninez A. Ponce, Brennan M.R. Spiegel

p1004–1009

Published online: June 29, 2016

Preview

Influenza (flu) is a significant cause of morbidity and mortality among adults in the United States.^{1,2} Although the Advisory Committee on Immunization Practices (ACIP) recommends annual flu vaccination for all individuals ≥ 6 months of age,³ prior research has noted evidence of racial and ethnic disparities in flu vaccination coverage.^{4–16} Namely, there is robust evidence that blacks^{4–12,15,16} and Latinos^{4–9,11,13–15} are less likely to receive the flu vaccination than whites. However, there are limited data for Asian Americans, a growing part of the U.S.

Vaccination for child clients and employees in St Louis childcare agencies: Vaccine uptake and policies versus parents' perceptions

Terri Rebmann, Lauren D. Arnold, Michael B. Elliott, Philip G. Gilbertson, Mary Wakefield

p1010–1015

Published online: May 27, 2016

Preview

Little is known about childcare agency staff vaccination requirements, parents' perceptions of these requirements, or vaccine uptake in these populations.

Association of increased influenza vaccination in health care workers with a reduction in nosocomial influenza infections in cancer patients

Elizabeth Frenzel, Roy F. Chemaly, Ella Ariza-Heredia, Ying Jiang, Dimpy P. Shah, Georgia Thomas, Linda Graviss, Issam Raad

p1016–1021

Preview

All cancer patients, particularly those with hematologic malignancies or recipients of hematopoietic cell transplant, are susceptible to community respiratory viruses, such as influenza. These patient populations have significant mortality rates (range, 15%–28%) after the influenza infection progresses to a lower respiratory tract infection or after respiratory superinfections develop.^{1,2} Antiviral therapy is available for influenza infections, but prevention remains the cornerstone to protect these susceptible immunocompromised patients.

American Journal of Preventive Medicine

September 2016 Volume 51, Issue 3, p281–410, e57–e90

<http://www.ajpmonline.org/current>

Research Articles

Cost Effectiveness of Influenza Vaccine for U.S. Children: Live Attenuated and Inactivated Influenza Vaccine

Eunha Shim, Shawn T. Brown, Jay DePasse, Mary Patricia Nowalk, Jonathan M. Raviotta, Kenneth J. Smith, Richard K. Zimmerman

p309–317

Published online: April 11, 2016

Preview

Prior studies showed that live attenuated influenza vaccine (LAIV) is more effective than inactivated influenza vaccine (IIV) in children aged 2–8 years, supporting the Centers for Disease Control and Prevention (CDC) recommendations in 2014 for preferential LAIV use in this age group. However, 2014–2015 U.S. effectiveness data indicated relatively poor effectiveness of both vaccines, leading CDC in 2015 to no longer prefer LAIV.

Review Articles

Human Papillomavirus Vaccination and Sexual Disinhibition in Females: A Systematic Review

Purnima Madhivanan, Dudith Pierre-Victor, Soumyadeep Mukherjee, Prasad Bhoite, Brionna Powell, Naomie Jean-Baptiste, Rachel Clarke, Tenesha Avent, Karl Krupp

p373–383

Published online: April 26, 2016

Preview

Some parents believe human papillomavirus (HPV) vaccination increases the chance of risky sexual behaviors among adolescents. This review summarizes the evidence available on adolescent girls and women engaging in risky sexual activity following HPV vaccination.

...Conclusions

This review did not find sufficient evidence to support compensatory sexual risk behaviors following HPV vaccination among adolescent girls or women

American Journal of Public Health

Volume 106, Issue 9 (September 2016)

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

[New issue; No relevant digest content identified]

American Journal of Tropical Medicine and Hygiene

September 2016; 95 (3)

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

Perspective Pieces

Integrating Neglected Tropical Disease and Immunization Programs: The Experiences of the Tanzanian Ministry of Health

Upendo John Mwingira, Arianna Rubin Means, Maria Chikawe, Bernard Kilembe, Dafrossa Lyimo, Kathryn Crowley, Neema Rusibamayila, Andreas Nshala, and Alex Mphuru

Am J Trop Med Hyg 2016 95:505-507; Published online May 31, 2016, doi:10.4269/ajtmh.15-0724

Abstract

Global health practitioners are increasingly advocating for the integration of community-based health-care platforms as a strategy for increasing the coverage of programs, encouraging program efficiency, and promoting universal health-care goals. To leverage the strengths of compatible programs and avoid geographic and temporal duplications in efforts, the Tanzanian Ministry of Health and Social Welfare coordinated immunization and neglected tropical disease programs for the first time in 2014. Specifically, a measles and rubella supplementary vaccine campaign, mass drug administration (MDA) of ivermectin and albendazole, and Vitamin A were provisionally integrated into a shared community-based delivery platform. Over 21 million people were targeted by the integrated campaign, with the immunization program and MDA

program reaching 97% and 93% of targeted individuals, respectively. The purpose of this short report is to share the Tanzanian experience of launching and managing this integrated campaign with key stakeholders.

Meeting Report

Visceral Leishmaniasis Control and Elimination: Is There a Role for Vaccines in Achieving Regional and Global Goals?

Annie X. Mo, John Pesce, and B. Fenton Hall

Am J Trop Med Hyg 2016 95:514-521; Published online August 1, 2016, doi:10.4269/ajtmh.16-0184

Abstract

In September 2015, the National Institute of Allergy and Infectious Diseases organized a workshop to address the roles of vaccines in achieving regional and global goals for visceral leishmaniasis (VL) control and elimination, a critical step in determining desired product characteristics as well as research and development needs and opportunities. Although current regional programs and strategies are making progress to control and perhaps eliminate the disease in some endemic areas, such as India, Bangladesh, and Nepal, workshop participants concluded that vaccines would still be necessary to sustain elimination efforts and ultimately block and reduce transmission. In addition, vaccines would be valuable and even critical tools for other areas of the world, such as east Africa, where treatment options are more limited and control programs for VL are less effective. Because different disease foci present different epidemiological features, product characteristics should be carefully designed to reflect vaccines that either target common antigens for all forms of VL or are tailored to fit regional needs.

Health-Care Workers' Perspectives on Ebola Virus Vaccine: A Focus Group and In-Depth Interview Interventional Study

Dorothy O. Esangbedo, Maduka D. Ughasoro, Beckie N. Tagbo, Adebiyi Olowu, Chukwuemeka Anikene, and Chimaobi C. Iwegbulam

Am J Trop Med Hyg 2016 95:654-662; Published online July 5, 2016, doi:10.4269/ajtmh.16-0206

Abstract

Health-care workers (HCWs) will require Ebola virus vaccine (EVV) when it is introduced because of the high risk of exposure to the disease. Evaluations of factors that facilitate or limit vaccine uptake are critical for a successful vaccine program. Nigerian HCWs were interviewed to evaluate their knowledge, levels of acceptance, determinants of acceptance, and willingness to pay for EVV. The significance level was set at $P \leq 0.05$. None of the 193 participating HCWs had correct knowledge of EVV; 34.7% (67/193) of workers thought that EVV was an extract of the serum of Ebola virus patients. About 77.3% (51/66) of workers in a region that reported Ebola cases (Lagos) were willing to be vaccinated, compared with 4.7% (3/61) in Enugu and 13.6% (9/66) in Abia ($P=0.0001$). After health education, the proportion of HCWs willing to receive EVV increased ($P=0.006$) except for doctors ($P<0.1$). The percentage of HCWs willing to pay for EVV was 86.4%, 72.1%, and 59% in Lagos, Enugu, and Abia, respectively. The workers had fears about EVV based on nonfactual assumptions. Therefore, the EVV introduction strategy should include a strong awareness campaign with adequate explanation about the content of EVV.

Five-Year Eradication of Hepatitis B Infection After an Outreach Immunization Program in the Waorani Population in the Ecuadorian Amazon

Edy Quizhpe, Gladys Ñauta, Juan Antonio Córdoba-Doña, and Enrique Teran
Am J Trop Med Hyg 2016 95:670-673; Published online July 5, 2016, doi:10.4269/ajtmh.16-

Hepatitis B Virus Infection in Indonesia 15 Years After Adoption of a Universal Infant Vaccination Program: Possible Impacts of Low Birth Dose Coverage and a Vaccine-Escape Mutant

Priyo Budi Purwono, Juniastuti, Mochamad Amin, Rendra Bramanthi, Nursidah, Erika Maria Resi, Rury Mega Wahyuni, Yoshihiko Yano, Soetjipto, Hak Hotta, Yoshitake Hayashi, Takako Utsumi, and Maria Inge Lusida

Am J Trop Med Hyg 2016 95:674-679; Published online July 11, 2016, doi:10.4269/ajtmh.15-

Decline in Child Hospitalization and Mortality After the Introduction of the 7-Valent Pneumococcal Conjugative Vaccine in Rwanda

Janvier Rurangwa and Nadine Rujeni

Am J Trop Med Hyg 2016 95:680-682; Published online July 18, 2016, doi:10.4269/ajtmh.15-

Annals of Internal Medicine

16 August 2016, Vol. 165. No. 4

<http://annals.org/issue.aspx>

[Reviewed earlier]

BMC Cost Effectiveness and Resource Allocation

<http://resource-allocation.biomedcentral.com/>

(Accessed 3 September 2016)

[No new content]

BMC Health Services Research

<http://www.biomedcentral.com/bmchealthservres/content>

(Accessed 3 September 2016)

Research article

The economic burden of chronic non-communicable diseases in rural Malawi: an observational study

Evidence from population-based studies on the economic burden imposed by chronic non-communicable diseases (CNCDs) is still sparse in Sub-Saharan Africa. Our study aimed to fill this existing gap in knowledge ...

Qun Wang, Stephan Brenner, Olivier Kalmus, Hastings Thomas Banda and Manuela De Allegri

BMC Health Services Research 2016 16:457

Published on: 1 September 2016

Research article

An exploratory study on equity in funding allocation for essential medicines and health supplies in Uganda's public sector

To ascertain equity in financing for essential medicines and health supplies (EMHS) in Uganda, this paper explores the relationships among government funding allocations for EMHS, patient load, and medicines availability across facilities at different levels of care... Inequity in EMHS

allocation is demonstrated by the wide range of funding allocations per patient and the corresponding disparities in medicines availability. We show that using patient load to calculate EMHS allocations has the potential to improve equity significantly. However, more research in this area is urgently needed.

Donna Kusemererwa, Anita Alban, Ocwa Thomas Obua and Birna Trap

BMC Health Services Research 2016 16:453

Published on: 30 August 2016

BMC Infectious Diseases

<http://www.biomedcentral.com/bmcinfectdis/content>

(Accessed 3 September 2016)

[No new relevant content identified]

BMC Medical Ethics

<http://www.biomedcentral.com/bmcmedethics/content>

(Accessed 3 September 2016)

Research article

[Young people's views about the purpose and composition of research ethics committees: findings from the PEARL qualitative study](#)

Avon Longitudinal Study of Parents and Children (ALSPAC) is a birth cohort study within which the Project to Enhance ALSPAC through Record Linkage (PEARL) was established to enrich the ALSPAC resource through ...

Suzanne Audrey, Lindsey Brown, Rona Campbell, Andy Boyd and John Macleod

BMC Medical Ethics 2016 17:53

Published on: 2 September 2016

Abstract

Background

Avon Longitudinal Study of Parents and Children (ALSPAC) is a birth cohort study within which the Project to Enhance ALSPAC through Record Linkage (PEARL) was established to enrich the ALSPAC resource through linkage between ALSPAC participants and routine sources of health and social data. PEARL incorporated qualitative research to seek the views of young people about data linkage, including their opinions about appropriate safeguards and research governance. In this paper we focus on views expressed about the purpose and composition of research ethics committees.

Methods

Digitally recorded interviews were conducted with 48 participants aged 17–19 years. Participants were asked about whether medical research should be monitored and controlled, their knowledge of research ethics committees, who should sit on these committees and what their role should be. Interview recordings were fully transcribed and anonymised. Thematic analysis was undertaken, assisted by the Framework approach to data management.

Results

The majority of interviewees had little or no specific knowledge of ethics committees. Once given basic information about research ethics committees, only three respondents suggested there was no need for such bodies to scrutinise research. The key tasks of ethics committees were identified as monitoring the research process and protecting research participants. The difficulty of balancing the potential to inhibit research against the need to protect research

participants was acknowledged. The importance of relevant research and professional expertise was identified but it was also considered important to represent wider public opinion, and to counter the bias potentially associated with self-selection possibly through a selection process similar to 'jury duty'.

Conclusions

There is a need for more education and public awareness about the role and composition of research ethics committees. Despite an initial lack of knowledge, interviewees were able to contribute their ideas and balance the rights of individuals with the wider benefits from research. The suggestion that public opinion should be represented through random selection similar to jury duty may be worth pursuing in the light of the need to ensure diversity of opinion and establish trust amongst the general public about the use of 'big data' for the wider public good.

BMC Medicine

<http://www.biomedcentral.com/bmcmed/content>

(Accessed 3 September 2016)

Research article

[Investigating the pertussis resurgence in England and Wales, and options for future control](#)

In 2012 England and Wales experienced a resurgence of pertussis and an increase in infant deaths. This occurred 8 years after acellular pertussis (aP) vaccine replaced whole cell (wP) primary vaccine despite c...

Yoon Hong Choi, Helen Campbell, Gayatri Amirthalingam, Albert Jan van Hoek and Elizabeth Miller

BMC Medicine 2016 14:121

Published on: 1 September 2016

BMC Pregnancy and Childbirth

<http://www.biomedcentral.com/bmcpregnancychildbirth/content>

(Accessed 3 September 2016)

[No new relevant content identified]

BMC Public Health

<http://bmcpublichealth.biomedcentral.com/articles>

(Accessed 3 September 2016)

Research article

[Parental knowledge, attitudes and perception of pneumococcal disease and pneumococcal conjugate vaccines in Singapore: a questionnaire-based assessment](#)

Under the National Childhood Immunisation Schedule (NCIS) in Singapore most vaccines are provided free while some, including pneumococcal conjugate vaccines (PCV), added to the NCIS in October 2009, are not fr...

Choon How How, Priscilla Phua See Chun, Fakrudeen Shafi and Rupert W. Jakes

BMC Public Health 2016 16:923

Published on: 2 September 2016

Research article

The relationship between education and health among incarcerated men and women in the United States

This paper contributes to research on the education-health association by extending the scope of inquiry to adult inmates. Not only are inmates excluded from most nationally representative studies of health bu...

Kathryn M. Nowotny, Ryan K. Masters and Jason D. Boardman

BMC Public Health 2016 16:916

Published on: 1 September 2016

Research article

Effectiveness of a smartphone app on improving immunization of children in rural Sichuan Province, China: a cluster randomized controlled trial

The aim of this study was to assess the effectiveness of an EPI smartphone application (EPI app) on improving vaccination coverage in rural Sichuan Province, China.

Li Chen, Xiaozhen Du, Lin Zhang, Michelle Helena van Velthoven, Qiong Wu, Ruikan Yang, Ying Cao, Wei Wang, Lihui Xie, Xiuqin Rao, Yanfeng Zhang and Jeanne Catherine Koepsell

BMC Public Health 2016 16:909

Published on: 31 August 2016

Research article

Immunisation coverage and its determinants among children aged 12-23 months in Atakumosa-west district, Osun State Nigeria: a cross-sectional study

Routine immunisation (RI) contributes immensely to reduction in mortality from vaccine preventable diseases (VPD) among children. The Nigerian Demographic and Health Survey, 2008 revealed that only 58 % of chi...

Elizabeth B. Adedire, Ikeoluwapo Ajayi, Olufunmilayo I. Fawole, Olufemi Ajumobi, Simon Kasasa, Peter Wasswa and Patrick Nguku

BMC Public Health 2016 16:905

Published on: 30 August 2016

BMC Research Notes

<http://www.biomedcentral.com/bmcresnotes/content>

(Accessed 3 September 2016)

[No new relevant content identified]

BMJ Open

2016, Volume 6, Issue 9

<http://bmjopen.bmj.com/content/current>

[New issue; No new relevant content identified]

Bulletin of the World Health Organization

Volume 94, Number 9, September 2016, 633-708

<http://www.who.int/bulletin/volumes/94/9/en/>

Editorial

Rabies vaccine stockpile: fixing the supply chain

Bernadette Abela-Ridder, Stephen Martin, Gyanendra Gongal & Dirk Engels

<http://dx.doi.org/10.2471/BLT.16.183012>

[Excerpt]

...The world has many competing disease-control priorities, and rabies has fallen off the global health agenda. Rabies control requires two complementary interventions. Mass dog vaccination programmes are needed to break dog-to-human transmission and people who are exposed to rabies need prompt and effective treatment. Such treatment includes wound care, immunoglobulin and vaccination. WHO, with its partners and stakeholders, are quantifying the resources required to implement these programmes on a scale sufficient to end human rabies deaths.

WHO's current rabies vaccine position paper⁷ states that four to five courses of the vaccine must be given with rabies immunoglobulin to all people who have sustained bites that perforate the skin. Immunoglobulins provide passive immunity until the vaccine has stimulated the immune system. However, rabies immunoglobulins are expensive. One vial is about 39 United States dollars, and two or more vials are usually needed.⁸ Immunoglobulins have to be maintained at 2–8 °C, and are difficult to procure in most countries. Because it is a biological product, rabies immunoglobulin is not covered by WHO's prequalification procedures. Currently four vaccines are pre-qualified by WHO.⁹

WHO's Strategic Advisory Group of Experts on Immunization has initiated a review of its rabies position paper. This group will review the use and scheduling of rabies vaccines and immunoglobulins in view of scientific evidence, programmatic feasibility and clinical practice in countries with a high incidence of dog bites. The group will also assess evidence for new vaccines and for those vaccines in the process of obtaining WHO prequalification or national market authorization.

Human rabies vaccine is not included in the routine vaccines covered by the expanded programme on immunization. Many countries therefore have difficulty measuring and forecasting demand for rabies vaccine. A lack of good data causes procurement delays and stock shortages. In desperation, countries may source vaccines from manufacturers that do not have WHO prequalification, buying vaccines at inflated prices and without the quality assurance that prequalification brings.

To provide a reliable source of vaccines for countries facing these difficulties in procurement, WHO is planning to create a human rabies vaccine stockpile to match the dog rabies vaccine bank established by OIE.¹⁰ By the end of 2017, countries will be able to rapidly obtain quality-assured vaccines. As has happened with other vaccine stockpiles,¹¹ this mechanism will generate a demand and supply cycle that can be reliably quantified. By drawing on WHO's stockpile, countries will contribute to stabilizing demand for manufacturers. In aggregating global requirements, WHO will be able to broker reliable supplies and assist countries in forecasting their needs.

The world has all the tools needed to prevent human deaths from rabies. These tools need to be on hand where and when people are exposed. The risk of contracting rabies from animal bites needs to be reduced by animal vaccination and bite prevention programmes. Vaccines,

immunoglobulins and wound care have to be provided in all settings where people are exposed. The animal and human health sectors must coordinate efforts and improve community awareness and engagement. More money and political commitment will prevent deaths from this zoonotic disease. WHO and its partners are working to improve the evidence, update technical guidance and create a vaccine stockpile that will help countries reach the global target of preventing human deaths from rabies.

A retrospective analysis of oral cholera vaccine use, disease severity and deaths during an outbreak in South Sudan

Cavin Epie Bekolo, Joris Adriaan Frank van Loenhout, Jose Manuel Rodriguez-Llanes, John Rumunu, Otim Patrick Ramadan & Debarati Guha-Sapir

<http://dx.doi.org/10.2471/BLT.15.166892>

Abstract

Objective

To determine whether pre-emptive oral cholera vaccination reduces disease severity and mortality in people who develop cholera disease during an outbreak.

Methods

The study involved a retrospective analysis of demographic and clinical data from 41 cholera treatment facilities in South Sudan on patients who developed cholera disease between 23 April and 20 July 2014 during a large outbreak, a few months after a pre-emptive oral vaccination campaign. Patients who developed severe dehydration were regarded as having a severe cholera infection. Vaccinated and unvaccinated patients were compared and multivariate logistic regression analysis was used to identify factors associated with developing severe disease or death.

Findings

In total, 4115 cholera patients were treated at the 41 facilities: 1946 (47.3%) had severe disease and 62 (1.5%) deaths occurred. Multivariate analysis showed that patients who received two doses of oral cholera vaccine were 4.5-fold less likely to develop severe disease than unvaccinated patients (adjusted odds ratio, aOR: 0.22; 95% confidence interval, CI: 0.11–0.44). Moreover, those with severe cholera were significantly more likely to die than those without (aOR: 4.76; 95% CI: 2.33–9.77).

Conclusion

Pre-emptive vaccination with two doses of oral cholera vaccine was associated with a significant reduction in the likelihood of developing severe cholera disease during an outbreak in South Sudan. Moreover, severe disease was the strongest predictor of death. Two doses of oral cholera vaccine should be used in emergencies to reduce the disease burden.

Zika: the origin and spread of a mosquito-borne virus

Mary Kay Kindhauser, Tomas Allen, Veronika Frank, Ravi Shankar Santhana & Christopher Dye

<http://dx.doi.org/10.2471/BLT.16.171082>

The International Finance Facility for Immunisation: stakeholders' perspectives

Tim Crocker-Buque & Sandra Mounier-Jack

<http://dx.doi.org/10.2471/BLT.15.166553>

Abstract

Objective

To evaluate stakeholders' understanding and opinions of the International Finance Facility for Immunisation (IFFIm); to identify factors affecting funding levels; and to explore the future use of IFFIm.

Methods

Between July and September 2015, we interviewed 33 individuals from 25 organizations identified as stakeholders in IFFIm. In total 22.5 hours of semi-structured interviews were recorded, transcribed and analysed using a framework method.

Findings

Stakeholders' understanding of IFFIm's financing mechanism and its outcomes varied and many stakeholders wanted more information. Participants highlighted that the change in the macro-economic environment following the 2008 financial crisis affected national policy in donor countries and subsequently the number of new commitments IFFIm received. Since Gavi is now seen as a successful and mature organization, participants stated that donors prefer to donate directly to Gavi. The pharmaceutical industry valued IFFIm for providing funding stability and flexibility. Other stakeholders valued IFFIm's ability to access funds early and enable Gavi to increase vaccine coverage. Overall, stakeholders thought IFFIm was successful, but they had divergent views about IFFIm's on-going role. Participants listed two issues where bond financing mechanisms may be suitable: emergency preparedness and outcome-based time-limited interventions.

Conclusion

The benefit of pledging funds through IFFIm needs to be re-evaluated. There are potential uses for bond financing to raise funds for other global health issues, but these must be carefully considered against criteria to establish effectiveness, with quantifiable pre-defined outcome indicators to evaluate performance.

PERSPECTIVES

Detecting Guillain-Barré syndrome caused by Zika virus using systems developed for polio surveillance

Nirmal Kandel, Jaya Lamichhane, Rudolf H Tangermann & Guenael RM Rodier
<http://dx.doi.org/10.2471/BLT.16.171504>

Child Care, Health and Development

September 2016 Volume 42, Issue 5 Pages 603–773

<http://onlinelibrary.wiley.com/doi/10.1111/cch.v42.5/issuetoc>

[Reviewed earlier]

Clinical Therapeutics

August 2016 Volume 38, Issue 8, p1773-1922

<http://www.clinicaltherapeutics.com/current>

[New issue: No relevant content identified]

Complexity

July/August 2016 Volume 21, Issue 6 Pages 1–459

<http://onlinelibrary.wiley.com/doi/10.1002/cplx.v21.6/issuetoc>

[Reviewed earlier]

Conflict and Health

<http://www.conflictandhealth.com/>

[Accessed 3 September 2016]

[No new content identified]

Contemporary Clinical Trials

Volume 50, In Progress (September 2016)

<http://www.sciencedirect.com/science/journal/15517144/50>

[New issue: No relevant content identified]

Current Opinion in Infectious Diseases

October 2016 - Volume 29 - Issue 5 pp: v-vi,433-537

<http://journals.lww.com/co-infectiousdiseases/pages/currenttoc.aspx>

[New issue: No relevant content identified]

Developing World Bioethics

August 2016 Volume 16, Issue 2 Pages 61–120

<http://onlinelibrary.wiley.com/doi/10.1111/dewb.2016.16.issue-2/issuetoc>

[Reviewed earlier]

Development in Practice

Volume 24, Number 8

<http://www.developmentinpractice.org/journals/volume-24-number-8>

[Reviewed earlier]

Disasters

July 2016 Volume 40, Issue 3 Pages 385–588

<http://onlinelibrary.wiley.com/doi/10.1111/disa.2016.40.issue-3/issuetoc>

[Reviewed earlier]

Emerging Infectious Diseases

Volume 22, Number 9—September 2016

<http://wwwnc.cdc.gov/eid/>

[Reviewed earlier]

Epidemics

Volume 16, In Progress (September 2016)

<http://www.sciencedirect.com/science/journal/17554365>

[Reviewed earlier]

Epidemiology and Infection

Volume 144 - Issue 12 - September 2016

<http://journals.cambridge.org/action/displayIssue?jid=HYG&tab=currentissue>

[Reviewed earlier]

The European Journal of Public Health

Volume 26, Issue 4, 1 August 2016

<http://eurpub.oxfordjournals.org/content/26/4>

[Reviewed earlier]

Eurosurveillance

Volume 21, Issue 35, 01 September 2016

<http://www.eurosurveillance.org/Public/Articles/Archives.aspx?PublicationId=11678>

[No relevant content identified]

Global Health: Science and Practice (GHSP)

June 2016 | Volume 4 | Issue 2

<http://www.ghspjournal.org/content/current>

[Reviewed earlier]

Global Public Health

Volume 11, Issue 9, 2016

<http://www.tandfonline.com/toc/rgph20/current>

[Reviewed earlier]

Globalization and Health

<http://www.globalizationandhealth.com/>

[Accessed 3 September 2016]

[No new content identified]

Health Affairs

August 2016; Volume 35, Issue 8

<http://content.healthaffairs.org/content/current>

Disparities, Hospital Financing & More

[Reviewed earlier]

Health and Human Rights

Volume 18, Issue 1, June 2016

<http://www.hhrjournal.org/>

Special Section: Tuberculosis and the Right to Health

in collaboration with the International Human Rights Clinic, University of Chicago Law School
[Reviewed earlier]

Health Economics, Policy and Law

Volume 11 - Issue 03 - July 2016

<http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue>

[Reviewed earlier]

Health Policy and Planning

Volume 31 Issue 7 September 2016

<http://heapol.oxfordjournals.org/content/current>

[Reviewed earlier]

Health Research Policy and Systems

<http://www.health-policy-systems.com/content>

[Accessed 3 September 2016]

[Reviewed earlier]

Humanitarian Exchange Magazine

Number 66 April 2016

<http://odihpn.org/magazine/humanitarian-innovation/>

Special Focus: Humanitarian Innovation

by Humanitarian Practice Network and Kim Scriven April 2016

[Reviewed earlier]

Infectious Agents and Cancer

<http://www.infectagentscancer.com/content>

[Accessed 3 September 2016]

[No new content identified]

Infectious Diseases of Poverty

<http://www.idpjournal.com/content>

[Accessed 3 September 2016]

[No new relevant content identified]

International Health

Volume 8 Issue 4 July 2016

<http://inthealth.oxfordjournals.org/content/current>

[Reviewed earlier]

International Journal of Epidemiology

Volume 45 Issue 2 April 2016

<http://ije.oxfordjournals.org/content/current>

[Reviewed earlier]

International Journal of Infectious Diseases

August 2016 Volume 49, p1-210 Open Access

<http://www.ijidonline.com/current>

Reviews

[Randomized controlled trials for influenza drugs and vaccines: a review of controlled human infection studies](#)

Shobana Balasingam, Annelies Wilder-Smith

p18–29

Published online: May 18, 2016

Preview

Controlled human infection (CHI) studies, in which volunteers are intentionally infected with a pathogen, have historically been used to advance understanding of the pathogenesis, prevention, and treatment of a variety of infectious diseases.¹ CHI, also called human challenge studies, go back several centuries. Scientific status was achieved in 1776 when Edward Jenner demonstrated protection against smallpox by deliberately infecting a young boy first with cowpox virus and then smallpox.² The advantages of CHI approaches are that baseline status, host factors, timing, and the inoculation dose of infection are known and the pathogen is well-characterized.

[The recent outbreaks and reemergence of poliovirus in war and conflict-affected areas](#)

Luma Akil, H. Anwar Ahmad

p40–46

Published online: May 27, 2016

Highlights

:: Polio was found to be high in areas with high levels of conflict and instability.

:: Wars and conflict have also resulted in the reappearance of polio in countries that have been polio-free for decades.

:: Conflict, political instability, hard-to-reach populations, and poor infrastructure continue to pose challenges to eradicating polio; each country has a unique set of challenges, which require local solutions.

:: Vaccination problems in some of the endemic countries, in addition to environmental and demographic characteristics related to crowding, population movement and sanitation, are also likely to play a role in the spread of poliovirus.

Summary

Background

Poliomyelitis is a highly infectious disease caused by poliovirus, which becomes difficult to manage/eradicate in politically unstable areas. The objectives of this study were to determine the movement and management of such polio outbreaks in endemic countries and countries with reoccurring cases of polio and to determine the effect of political instability on polio eradication.

Methods

In this study, the extent of polio outbreaks was examined and modeled using statistical methodologies and mapped with GIS software. Data on polio cases and immunization were collected for countries with polio cases for the period 2011 to 2014. Weekly data from the Global Polio Eradication Initiative were collected for selected countries. The recent virus origin and current movement was mapped using GIS. Correlations between immunization rates, the Global Peace Index (GPI), and other indicators of a country's political stability with polio outbreaks were determined. Data were analyzed using SAS 9.4 and ArcGIS 10.

Results

For several reasons, Pakistan remains highly vulnerable to new incidences of polio (306 cases in 2014). Overall immunization rates showed a steady decline over time in selected countries. Countries with polio cases were shown to have high rates of infant mortality, and their GPI ranked between 2.0 and 3.3; displaced populations, level of violent crime rating, and political instability also were ranked high for several countries.

Conclusion

Polio was shown to be high in areas with increased conflict and instability. Displaced populations living in hard-to-reach areas may lack access to proper vaccination and health care. Wars and conflict have also resulted in the reemergence of polio in otherwise polio-free countries.

Measles immunity among pregnant women aged 15–44 years in Namibia, 2008 and 2010

Cristina V. Cardemil, Anna Jonas, Anita Beukes, Raydel Anderson, Paul A. Rota, Bettina Bankamp, Howard E. Gary Jr, Souleymane Sawadogo, Sadhna V. Patel, Sikota Zeko, Clementine Muroua, Esegel Gaeb, Kathleen Wannemuehler, Sue Gerber, James L. Goodson
p189–195

Preview

xGlobally, the number of reported measles cases decreased by 73% from 2000 to 2014.¹ In the World Health Organization (WHO) African Region, estimated measles deaths decreased during this period by 86%; nonetheless, outbreaks continued to occur in this region and accounted for 73 914 cases and an estimated 48 000 deaths in 2014, representing 42% of the global measles mortality burden.¹

Rubella immunity among pregnant women aged 15–44 years, Namibia, 2010

Anna Jonas, Cristina V. Cardemil, Anita Beukes, Raydel Anderson, Paul A. Rota, Bettina Bankamp, Howard E. Gary Jr, Souleymane Sawadogo, Sadhna V. Patel, Sikota Zeko, Clementine Muroua, Esegel Gaeb, Kathleen Wannemuehler, Sue Gerber, James L. Goodson
p196–201

Published online: May 16, 2016

Preview

Rubella is a vaccine-preventable viral disease that is characterized by a febrile illness and rash.¹ Rubella infection in pregnant women can lead to congenital rubella syndrome (CRS), which can result in severe illness, disability, and death in the fetus.² Worldwide, more than 100 000 children are born each year with CRS.^{3,4}

JAMA

August 23/30, 2016, Vol 316, No. 8

<http://jama.jamanetwork.com/issue.aspx>
[New issue; No new relevant content identified]

JAMA Pediatrics

August 2016, Vol 170, No. 8
<http://archpedi.jamanetwork.com/issue.aspx>
[Reviewed earlier]

Journal of Community Health

Volume 41, Issue 4, August 2016
<http://link.springer.com/journal/10900/41/4/page/1>
[Reviewed earlier]

Journal of Epidemiology & Community Health

July 2016, Volume 70, Issue 7
<http://jech.bmj.com/content/current>
[Reviewed earlier]

Journal of Global Ethics

Volume 12, Issue 2, 2016
<http://www.tandfonline.com/toc/rjge20/current>
[Reviewed earlier]

Journal of Global Infectious Diseases (JGID)

July-September 2016 Volume 8 | Issue 3 Page Nos. 95-126
<http://www.jgid.org/currentissue.asp?sabs=n>
[Reviewed earlier]

Journal of Health Care for the Poor and Underserved (JHCPU)

Volume 27, Number 3, August 2016
<https://muse.jhu.edu/issue/33980>
[Reviewed earlier]

Journal of Immigrant and Minority Health

Volume 18, Issue 4, August 2016
<http://link.springer.com/journal/10903/18/4/page/1>
Issue focus: Mental Health and Substance Use
[Reviewed earlier]

Journal of Immigrant & Refugee Studies

Volume 14, Issue 3, 2016

<http://www.tandfonline.com/toc/wimm20/current>

Special Issue: Social Mobilization and Political Participation in the Diaspora During the "Arab Spring"

[Reviewed earlier]

Journal of Infectious Diseases

Volume 214 Issue 3 August 1, 2016

<http://jid.oxfordjournals.org/content/current>

[Reviewed earlier]

The Journal of Law, Medicine & Ethics

Winter 2015 Volume 43, Issue 4 Pages 673–913

<http://onlinelibrary.wiley.com/doi/10.1111/jlme.2015.43.issue-4/issuetoc>

Special Issue: SYMPOSIUM: Harmonizing Privacy Laws to Enable International Biobank Research: Part I

[14 articles]

[Reviewed earlier]

Journal of Medical Ethics

September 2016, Volume 42, Issue 9

<http://jme.bmj.com/content/current>

[New issue; No relevant digest content identified]

Journal of Medical Internet Research

Vol 18, No 7 (2016): July

<http://www.jmir.org/2016/7>

[Reviewed earlier]

Journal of Medical Microbiology

Volume 65, Issue 8, August 2016

<http://jmm.microbiologyresearch.org/content/journal/jmm/65/8;jsessionid=8n8h02en4abqh.x-sgm-live-02>

[New issue; No relevant digest content identified]

Journal of Patient-Centered Research and Reviews

Volume 3, Issue 3 (2016)

<http://digitalrepository.aurorahealthcare.org/jpcrr/>

[Reviewed earlier]

Journal of the Pediatric Infectious Diseases Society (JPIDS)

Volume 5 Issue 3 September 2016
<http://jpids.oxfordjournals.org/content/current>
[Reviewed earlier]

Journal of Pediatrics

September 2016 Volume 176, p1-228
<http://www.jpeds.com/current>
[New issue; No relevant digest content identified]

Journal of Public Health Policy

Volume 37, Issue 3, August 2016
<http://link.springer.com/journal/41271/37/3/page/1>
[Reviewed earlier]

Journal of the Royal Society – Interface

01 June 2016; volume 13, issue 119
<http://rsif.royalsocietypublishing.org/content/current>
[Reviewed earlier]

Journal of Virology

September 2016, volume 90, issue 18
<http://jvi.asm.org/content/current>
[New issue; No relevant digest content identified]

The Lancet

Sep 03, 2016 Volume 388 Number 10048 p935-1024
<http://www.thelancet.com/journals/lancet/issue/current>
[New issue; No relevant digest content identified]

Lancet Global Health

Sep 2016 Volume 4 Number 9 e579-e662
<http://www.thelancet.com/journals/langlo/issue/current>
[Reviewed earlier]

The Lancet Infectious Diseases

Sep 2016 Volume 16 Number 9 p981-1084 e178-e201
<http://www.thelancet.com/journals/laninf/issue/current>
[Reviewed earlier]

Maternal and Child Health Journal

Volume 20, Issue 9, September 2016
<http://link.springer.com/journal/10995/20/9/page/1>
[New issue; No relevant digest content identified]

Medical Decision Making (MDM)

August 2016; 36 (6)
<http://mdm.sagepub.com/content/current>
[Reviewed earlier]

The Milbank Quarterly

A Multidisciplinary Journal of Population Health and Health Policy
June 2016 Volume 94, Issue 2 Pages 225–435
<http://onlinelibrary.wiley.com/doi/10.1111/1468-0009.2016.94.issue-2/issuetoc>
[Reviewed earlier]

Nature

Volume 537 Number 7618 pp7-128 1 September 2016
http://www.nature.com/nature/current_issue.html

Editorial

[Don't redirect Ebola cash to Zika vaccines](#)

The US government should not focus funds on the Zika virus at the expense of other health priorities.

Nature Medicine

August 2016, Volume 22 No 8 pp823-961
<http://www.nature.com/nm/journal/v22/n8/index.html>
[Reviewed earlier]

Nature Reviews Immunology

September 2016 Vol 16 No 9
<http://www.nature.com/nri/journal/v16/n9/index.html>
[New issue; No relevant digest content identified]

New England Journal of Medicine

September 1, 2016 Vol. 375 No. 9
<http://www.nejm.org/toc/nejm/medical-journal>
Perspective
[From AIDS to Opioids — How to Combat an Epidemic](#)
Arthur R. Williams, M.D., M.B.E., and Adam Bisaga, M.D.
N Engl J Med 2016; 375:813-815
September 1, 2016
DOI: 10.1056/NEJMp1604223

[Initial text]

The United States is facing a vast epidemic of opioid-related deaths. More than 2.4 million Americans have a severe opioid-use disorder (OUD) involving dependence on pain medications, heroin, or both, and rates of drug-overdose deaths in this country have outpaced mortality from motor vehicle accidents since 2013. The rising death toll has been rivaled in modern history only by that at the peak of the AIDS epidemic in the early 1990s. Although these epidemics differ in nature, the large-scale, highly coordinated response to AIDS that was eventually mounted may be instructive for combating the opioid epidemic...

Original Article

Antiretroviral Therapy for the Prevention of HIV-1 Transmission

Myron S. Cohen, M.D., Ying Q. Chen, Ph.D., Marybeth McCauley, M.P.H., Theresa Gamble, Ph.D., Mina C. Hosseinipour, M.D., Nagalingeswaran Kumarasamy, M.B., B.S., James G. Hakim, M.D., Johnstone Kumwenda, F.R.C.P., Beatriz Grinsztejn, M.D., Jose H.S. Pilotto, M.D., Sheela V. Godbole, M.D., Suwat Chariyalertsak, M.D., Breno R. Santos, M.D., Kenneth H. Mayer, M.D., Irving F. Hoffman, P.A., Susan H. Eshleman, M.D., Ph.D., Estelle Piwowar-Manning, M.T., Leslie Cottle, B.S., Xinyi C. Zhang, Ph.D., Joseph Makhema, M.B., B.Ch., Lisa A. Mills, M.D., Ravindre Panchia, M.B., B.Ch., Sharlaa Faesen, M.B., B.Ch., Joseph Eron, M.D., Joel Gallant, M.D., Diane Havlir, M.D., Susan Swindells, M.B., B.S., Vanessa Elharrar, M.D., David Burns, M.D., Taha E. Taha, M.B., B.S., Karin Nielsen-Saines, M.D., David D. Celentano, Sc.D., Max Essex, D.V.M., Sarah E. Hudelson, B.S., Andrew D. Redd, Ph.D., and Thomas R. Fleming, Ph.D., for the HPTN 052 Study Team*

N Engl J Med 2016; 375:830-839

September 1, 2016

DOI: 10.1056/NEJMoa1600693

Abstract

Background

An interim analysis of data from the HIV Prevention Trials Network (HPTN) 052 trial showed that antiretroviral therapy (ART) prevented more than 96% of genetically linked infections caused by human immunodeficiency virus type 1 (HIV-1) in serodiscordant couples. ART was then offered to all patients with HIV-1 infection (index participants). The study included more than 5 years of follow-up to assess the durability of such therapy for the prevention of HIV-1 transmission.

Methods

We randomly assigned 1763 index participants to receive either early or delayed ART. In the early-ART group, 886 participants started therapy at enrollment (CD4+ count, 350 to 550 cells per cubic millimeter). In the delayed-ART group, 877 participants started therapy after two consecutive CD4+ counts fell below 250 cells per cubic millimeter or if an illness indicative of the acquired immunodeficiency syndrome (i.e., an AIDS-defining illness) developed. The primary study end point was the diagnosis of genetically linked HIV-1 infection in the previously HIV-1–negative partner in an intention-to-treat analysis.

Results

Index participants were followed for 10,031 person-years; partners were followed for 8509 person-years. Among partners, 78 HIV-1 infections were observed during the trial (annual incidence, 0.9%; 95% confidence interval [CI], 0.7 to 1.1). Viral-linkage status was determined for 72 (92%) of the partner infections. Of these infections, 46 were linked (3 in the early-ART group and 43 in the delayed-ART group; incidence, 0.5%; 95% CI, 0.4 to 0.7) and 26 were unlinked (14 in the early-ART group and 12 in the delayed-ART group; incidence, 0.3%; 95%

CI, 0.2 to 0.4). Early ART was associated with a 93% lower risk of linked partner infection than was delayed ART (hazard ratio, 0.07; 95% CI, 0.02 to 0.22). No linked infections were observed when HIV-1 infection was stably suppressed by ART in the index participant.

Conclusions

The early initiation of ART led to a sustained decrease in genetically linked HIV-1 infections in sexual partners. (Funded by the National Institute of Allergy and Infectious Diseases; HPTN 052 ClinicalTrials.gov number, NCT00074581.)

Review Article

The Changing Face of Clinical Trials: The Primary Outcome Fails — What Next?

Stuart J. Pocock, Ph.D., and Gregg W. Stone, M.D.

N Engl J Med 2016; 375:861-870

September 1, 2016

DOI: 10.1056/NEJMr1510064

[Initial text]

A well-designed trial derives its credibility from the inclusion of a prespecified, a priori hypothesis that helps its authors avoid making potentially false positive claims on the basis of an exploratory analysis of the data. Nevertheless, an unreasonable yet widespread practice is the labeling of all randomized trials as either positive or negative on the basis of whether the P value for the primary outcome is less than 0.05. This view is overly simplistic. P values should be interpreted as a continuum wherein the smaller the P value, the greater the strength of the evidence for a real treatment effect.¹⁻³ Confidence intervals are also useful in indicating the range of uncertainty around the estimated treatment effect. Moreover, the interpretation of any trial should depend on the totality of the evidence (i.e., the primary, secondary, and safety outcomes), not just a single end point.

Herein we outline the thought processes to follow when the primary outcome of a trial is first perceived as negative. In a subsequent issue of the Journal, we will review the questions to ask when the outcomes of a trial appear to be positive. We illustrate our points with examples from trials — primarily from cardiovascular studies, which constitute our sphere of expertise — but the underlying issues apply to the whole of medicine...

Pediatrics

September 2016, VOLUME 138 / ISSUE 3

<http://pediatrics.aappublications.org/content/138/2?current-issue=y>

Article

Intussusception Rates Before and After the Introduction of Rotavirus Vaccine

JE Tate, C Yen, CA Steiner, MM Cortese, UD Parashar

Abstract

BACKGROUND: Recent US studies have identified a small increased risk of intussusception after rotavirus vaccination, mainly after the first dose. We examined trends in intussusception hospitalizations before (2000–2005) and after (2007–2013) rotavirus vaccine introduction to assess whether this observed temporal risk translates into more hospitalized cases at the population level.

METHODS: Intussusception hospitalizations in children <12 months of age were abstracted from the State Inpatient Database maintained by the Healthcare Cost and Utilization Project for 26 states that provided data from 2000 to 2013. Rates were calculated using bridged-race postcensal population estimates. Trends were analyzed by age groups (6–14 weeks, 15–24

weeks, and 25–34 weeks) based on the recommended ages for vaccine administration as well as 8–11 weeks when the majority of first doses are given. Rate ratios were calculated by using Poisson regression.

RESULTS: No consistent change in intussusception hospitalization rates was observed among all children <12 months of age and among children 15 to 24 weeks and 25 to 34 weeks of age. The intussusception hospitalization rate for children aged 8 to 11 weeks was significantly elevated by 46% to 101% (range: 16.7–22.9 per 100 000) in all postvaccine years except 2011 and 2013 compared with the prevaccine baseline (11.7 per 100 000).

CONCLUSIONS: The increase in the intussusception hospitalization rate in children 8 to 11 weeks when the majority of first doses of vaccine are given is consistent with recent US postlicensure studies. Given the magnitude of declines in rotavirus disease compared with this small increase in intussusception, the benefits of rotavirus vaccination outweigh the increase risk of intussusception.

Schedules for Pneumococcal Vaccination of Preterm Infants: An RCT

Alison Kent, Shamez N. Ladhani, Nick J. Andrews, Tim Scorrer, Andrew J. Pollard, Paul Clarke, Stephen M. Hughes, Carrie Heal, Esse Menson, John Chang, Prakash Satodia, Andrew C. Collinson, Saul N. Faust, David Goldblatt, Elizabeth Miller, Paul T. Heath, on behalf of the PUNS Study Group

Pediatrics Sep 2016, 138 (3) e20153945; DOI: 10.1542/peds.2015-3945

Abstract

BACKGROUND AND OBJECTIVE: Premature infants have a higher risk of invasive pneumococcal disease and are more likely to have lower vaccine responses compared with term infants. Increasingly, immunization schedules are including a reduced, 2-dose, pneumococcal conjugate vaccine priming schedule. Our goal was to assess the immunogenicity of 3 commonly used 13-valent pneumococcal conjugate vaccine (PCV13) priming schedules in premature infants and their response to a 12-month booster dose.

METHODS: Premature infants (<35 weeks' gestation) were randomized to receive PCV13 at 2 and 4 months (reduced schedule); 2, 3, and 4 months (accelerated schedule); or 2, 4, and 6 months (extended schedule). All infants received a 12-month PCV13 booster. Serotype-specific pneumococcal immunoglobulin G (IgG) for PCV13 serotypes was measured by using enzyme-linked immunosorbent assay 1 month after the primary and booster vaccinations.

RESULTS: A total of 210 infants (median birth gestation, 29+6 weeks; range, 23+2–34+6 weeks) were included. After the primary vaccination, 75% (95% confidence interval [CI], 62–85), 88% (95% CI, 76–95), and 97% (95% CI, 87–99) of participants had protective antibody concentrations for at least one-half the PCV13 serotypes for the reduced, accelerated, and extended schedules, respectively. After the booster vaccination, participants receiving the extended schedule had significantly lower ($P < .05$) geometric mean concentrations compared with reduced (for 9 of 13 serotypes) and accelerated (for 4 of 13 serotypes) schedules, but nearly all participations, regardless of schedule or serotype, had seroprotective IgG concentrations.

CONCLUSIONS: A reduced priming schedule of PCV13 resulted in higher post-booster IgG concentrations but lower post-primary concentrations. The optimum vaccine schedule for preterm infants will therefore depend on when they are most at risk for invasive pneumococcal disease.

Vaccine Delays, Refusals, and Patient Dismissals: A Survey of Pediatricians

Catherine Hough-Telford, David W. Kimberlin, Inmaculada Aban, William P. Hitchcock, Jon Almquist, Richard Kratz, Karen G. O'Connor
Pediatrics Sep 2016, 138 (3) e20162127; DOI: 10.1542/peds.2016-2127

Abstract

BACKGROUND: Parental noncompliance with the American Academy of Pediatrics and Centers for Disease Control and Prevention immunization schedule is an increasing public health concern. We examined the frequency of requests for vaccine delays and refusals and the impact on US pediatricians' behavior.

METHODS: Using national American Academy of Pediatrics Periodic Surveys from 2006 and 2013, we describe pediatrician perceptions of prevalence of (1) vaccine refusals and delays, (2) parental reasons for refusals and/or delays, and (3) physician dismissals. Questions about vaccine delays were asked only in 2013. We examined the frequency, reasons for, and management of both vaccine refusals and delays by using bivariate and multivariable analyses, which were controlled for practice characteristics, demographics, and survey year.

RESULTS: The proportion of pediatricians reporting parental vaccine refusals increased from 74.5% in 2006 to 87.0% in 2013 ($P < .001$). Pediatricians perceive that parents are increasingly refusing vaccinations because parents believe they are unnecessary (63.4% in 2006 vs 73.1% in 2013; $P = .002$). A total of 75.0% of pediatricians reported that parents delay vaccines because of concern about discomfort, and 72.5% indicated that they delay because of concern for immune system burden. In 2006, 6.1% of pediatricians reported "always" dismissing patients for continued vaccine refusal, and by 2013 that percentage increased to 11.7% ($P = .004$).

CONCLUSIONS: Pediatricians reported increased vaccine refusal between 2006 and 2013. They perceive that vaccine-refusing parents increasingly believe that immunizations are unnecessary. Pediatricians continue to provide vaccine education but are also dismissing patients at higher rates.

Discontinuation and Nonpublication of Randomized Clinical Trials Conducted in Children

Natalie Pica, Florence Bourgeois

Pediatrics Sep 2016, 138 (3) e20160223; DOI: 10.1542/peds.2016-0223

Abstract

BACKGROUND: Trial discontinuation and nonpublication represent potential waste in research resources and lead to compromises in medical evidence. Pediatric trials may be particularly vulnerable to these outcomes given the challenges encountered in conducting trials in children. We aimed to determine the prevalence of discontinuation and nonpublication of randomized clinical trials (RCTs) conducted in pediatric populations.

METHODS: Retrospective, cross-sectional study of pediatric RCTs registered in ClinicalTrials.gov from 2008 to 2010. Data were collected from the registry and associated publications identified (final search on September 1, 2015).

RESULTS: Of 559 trials, 104 (19%) were discontinued early, accounting for an estimated 8369 pediatric participants. Difficulty with patient accrual (37%) was the most commonly cited reason for discontinuation. Trials were less likely to be discontinued if they were funded by industry compared with academic institutions (odds ratio [OR] 0.46, 95% confidence interval [CI] 0.27–0.77). Of the 455 completed trials, 136 (30%) were not published, representing 69 165 pediatric participants. Forty-two unpublished trials posted results on ClinicalTrials.gov. Trials funded by industry were more than twice as likely to result in nonpublication at 24 and 36 months (OR 2.21, 95% CI 1.35–3.64; OR 3.12, 95% CI 1.6–6.08, respectively) and had a

longer mean time to publication compared with trials sponsored by academia (33 vs 24 months, $P < .001$).

CONCLUSIONS: In this sample of pediatric RCTs, discontinuation and nonpublication were common, with thousands of children exposed to interventions that did not lead to informative or published findings. Trial funding source was an important determinant of these outcomes, with both academic and industry sponsors contributing to inefficiencies.

Commentaries

Rotavirus Vaccine and Intussusception Hospitalizations

Emmanuel B. Walter, Mary Allen Staat

Pediatrics Sep 2016, 138 (3) e20161952; DOI: 10.1542/peds.2016-1952

Pneumococcal Vaccines in Preterm Infants: Are More Doses Better? Implications for Other Vaccines

Mark H. Sawyer, Mobeen Rathore

Pediatrics Sep 2016, 138 (3) e20160975; DOI: 10.1542/peds.2016-0975

Medical Versus Nonmedical Immunization Exemptions for Child Care and School Attendance

COMMITTEE ON PRACTICE AND AMBULATORY MEDICINE, COMMITTEE ON INFECTIOUS DISEASES, COMMITTEE ON STATE GOVERNMENT AFFAIRS, COUNCIL ON SCHOOL HEALTH, SECTION ON ADMINISTRATION AND PRACTICE MANAGEMENT

Pediatrics Sep 2016, 138 (3) e20162145; DOI: 10.1542/peds.2016-2145

Countering Vaccine Hesitancy

Kathryn M. Edwards, Jesse M. Hackell, THE COMMITTEE ON INFECTIOUS DISEASES, THE COMMITTEE ON PRACTICE AND AMBULATORY MEDICINE

Pediatrics Sep 2016, 138 (3) e20162146; DOI: 10.1542/peds.2016-2146

Recommendations for Serogroup B Meningococcal Vaccine for Persons 10 Years and Older

COMMITTEE ON INFECTIOUS DISEASES

Pediatrics Sep 2016, 138 (3) e20161890; DOI: 10.1542/peds.2016-1890

Pharmaceutics

Volume 8, Issue 2 (June 2016)

<http://www.mdpi.com/1999-4923/8/2>

[Reviewed earlier]

PharmacoEconomics

Volume 34, Issue 9, September 2016

<http://link.springer.com/journal/40273/34/9/page/1>

[Reviewed earlier]

PLOS Currents: Disasters

<http://currents.plos.org/disasters/>

[Accessed 3 September 2016]

[The 2016 World Humanitarian Summit Report Card: Both Failing Marks and Substantive Gains for an Increasingly Globalized Humanitarian Landscape](#)

August 30, 2016 · Discussion

Outcomes of the World Humanitarian Summit were mixed with some refreshing new directions being endorsed and a lack of systemic reform. The selective agenda and OCHAs lack of success in engaging pre-meeting political participation not only hampered the Summit's ability to deal with global issues and institutional reform, but also alienated it from leading aid agencies and governments. The UN's failure to commit to humanitarian principles and global disarray of the humanitarian system indicates the need for extensive reform or a new global humanitarian body. This agency needs to employ a decentralized model to manage aid funds, assume coordination of international responses, resolve civil-military coordination, cater for people affected by both conflict and disasters, and professionalize the humanitarian career.

PLoS Currents: Outbreaks

<http://currents.plos.org/outbreaks/>

(Accessed 3 September 2016)

[No new content identified]

PLoS Medicine

<http://www.plosmedicine.org/>

(Accessed 3 September 2016)

[No new relevant content identified]

PLoS Neglected Tropical Diseases

<http://www.plosntds.org/>

[Accessed 3 September 2016]

Research Article

[A Unified Framework for the Infection Dynamics of Zoonotic Spillover and Spread](#)

Giovanni Lo Iacono, Andrew A. Cunningham, Elisabeth Fichet-Calvet, Robert F. Garry, Donald S. Grant, Melissa Leach, Lina M. Moses, Gordon Nichols, John S. Schieffelin, Jeffrey G. Shaffer, Colleen T. Webb, James L. N. Wood

Research Article | published 02 Sep 2016 PLOS Neglected Tropical Diseases

<http://dx.doi.org/10.1371/journal.pntd.0004957>

Abstract

A considerable amount of disease is transmitted from animals to humans and many of these zoonoses are neglected tropical diseases. As outbreaks of SARS, avian influenza and Ebola have demonstrated, however, zoonotic diseases are serious threats to global public health and are not just problems confined to remote regions. There are two fundamental, and poorly studied, stages of zoonotic disease emergence: 'spillover', i.e. transmission of pathogens from animals to humans, and 'stuttering transmission', i.e. when limited human-to-human infections occur, leading to self-limiting chains of transmission. We developed a transparent, theoretical framework, based on a generalization of Poisson processes with memory of past human infections, that unifies these stages. Once we have quantified pathogen dynamics in the

reservoir, with some knowledge of the mechanism of contact, the approach provides a tool to estimate the likelihood of spillover events. Comparisons with independent agent-based models demonstrates the ability of the framework to correctly estimate the relative contributions of human-to-human vs animal transmission. As an illustrative example, we applied our model to Lassa fever, a rodent-borne, viral haemorrhagic disease common in West Africa, for which data on human outbreaks were available. The approach developed here is general and applicable to a range of zoonoses. This kind of methodology is of crucial importance for the scientific, medical and public health communities working at the interface between animal and human diseases to assess the risk associated with the disease and to plan intervention and appropriate control measures. The Lassa case study revealed important knowledge gaps, and opportunities, arising from limited knowledge of the temporal patterns in reporting, abundance of and infection prevalence in, the host reservoir.

Author Summary

Many dangerous diseases emerge via spillover from animals, with limited human-to-human infection (stuttering-transmission) often being the first stage of human disease spread. Understanding the conditions (biological, environmental and socio-economic factors) that regulate spillover and disease spread is key to its mitigation. Here we are interested in questions such as: If we have quantified pathogen dynamics in the reservoir, with some knowledge of the mechanism of contact, can we estimate the likelihood of spillover events? Can we tease apart how much the disease is transmitted by animals and how much by humans? We developed a unified mathematical framework, based on Poisson processes with memory of past events, to understand the dynamics of spillover and stuttering-transmission. This framework, which can be applied across the disease transmission spectrum, allows the teasing apart of the disease burden attributed to animal-human and human-human transmission. Using this model, we can infer human disease risk based on knowledge of infection patterns in the animal reservoir host and the contact mechanisms required for transmission to humans.

PLoS One

<http://www.plosone.org/>

[Accessed 3 September 2016]

[No new relevant content identified]

PLoS Pathogens

<http://journals.plos.org/plospathogens/>

(Accessed 3 September 2016)

[No new relevant content identified]

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

<http://www.pnas.org/content/early/>

(Accessed 3 September 2016)

[No new relevant content identified]

Prehospital & Disaster Medicine

Volume 31 - Issue 04 - August 2016

<https://journals.cambridge.org/action/displayIssue?jid=PDM&tab=currentissue>

[Reviewed earlier]

Preventive Medicine

Volume 89, Pages 1-348 (August 2016)

<http://www.sciencedirect.com/science/journal/00917435/89>

[Reviewed earlier]

Proceedings of the Royal Society B

10 February 2016; volume 283, issue 1824

<http://rspb.royalsocietypublishing.org/content/283/1824?current-issue=y>

[Reviewed earlier]

Public Health Ethics

Volume 9 Issue 3 September 2016

<http://phe.oxfordjournals.org/content/current>

[Reviewed earlier]

Public Health Reports

Volume 131 Issue Number 4 July/August 2016

<http://www.publichealthreports.org/issuecontents.cfm?Volume=131&Issue=3>

[Reviewed earlier]

Qualitative Health Research

September 2016; 26 (11)

<http://qhr.sagepub.com/content/current>

Special Issue: HIV & Sexual Health [13 articles]

[Reviewed earlier]

Reproductive Health

<http://www.reproductive-health-journal.com/content>

[Accessed 3 September 2016]

[Reviewed earlier]

Revista Panamericana de Salud Pública/Pan American Journal of Public Health (RPSP/PAJPH)

Recently Published Articles - July

http://www.paho.org/journal/index.php?option=com_content&view=featured&Itemid=101

Original Research

Evaluación del espacio fiscal para salud en Perú [An assessment of fiscal space for public health in Peru]

Mauricio Matus-López, Lorena Prieto Toledo, y Camilo Cid Pedraza

| Published July 29 |

Abstract

Objective. To assess the fiscal space for public health in Peru so as to attain the goal of raising health spending to 6% of gross domestic product, as agreed upon by member countries of the Pan American Health Organization in 2014. Methods. The main sources of fiscal space were identified by means of a thorough literature review. Technical feasibility was determined from statistics and national and international surveys and by reviewing various documents and official reports. Political feasibility was ascertained by studying policy guidelines. Results. The sources showing the greatest technical and political feasibility are economic growth, a broadening of the personal income tax base, and an increase in tobacco- specific taxes. Decreasing informality in the job market and increasing contributory coverage are considered to be less politically feasible, but there is ample technical space for these measures. Conclusions. There is enough fiscal space to allow for an increase in public health spending. Nevertheless, the 6% target will be reached only if the timeline is extended, tax revenues are increased, and informality in the job market is reduced.

El debate de la regulación de medicamentos biotecnológicos: Colombia en el contexto internacional [The debate on regulating biotechnology drugs: Colombia in the international context]

Alejandro Gaviría, Claudia Patricia Vaca González, Carolina Gómez Muñoz y Álvaro Andrés Morales

Review | | Published July 29 |

Abstract

In September 2014, Colombia issued standards for the evaluation of biological drugs within the framework of the marketing authorization process. The Colombian approach explicitly includes a fast track for evaluating competing biologicals, which caused great national and international controversy. This article explains the context that justifies the need for this fast-track approach, critically analyzes comparability as a paradigm for the evaluation of biogenerics, and shows that Colombia's position is not isolated and is based on global regulatory trends.

Risk Analysis

August 2016 Volume 36, Issue 8 Pages 1511–1681

<http://onlinelibrary.wiley.com/doi/10.1111/risa.2016.36.issue-8/issuetoc>

Perspective

Values-Based Measures of Impacts to Indigenous Health (pages 1581–1588)

Robin Gregory, Doug Easterling, Nicole Kaechele and William Trousdale

Version of Record online: 2 DEC 2015 | DOI: 10.1111/risa.12533

Abstract

Values-based indicators of risks to Indigenous health have the potential to improve the accuracy and quality of a wide range of decisions affecting Native lands and cultures. Current health impact assessment approaches often omit important health priorities rooted in the history, social structures, and cultural context of Indigenous communities. Insights and methods from the decision sciences can be used to develop more culturally appropriate and context-relevant health indicators that can articulate and track changes to important dimensions of Indigenous

health. Identifying and addressing priority cultural, social, economic, and environmental contributors to the health of Indigenous communities will help to generate better project alternatives and foster more responsive choices.

Risk Management and Healthcare Policy

Volume 9, 2016

<https://www.dovepress.com/risk-management-and-healthcare-policy-archive56>

[Accessed 3 September 2016]

No new content identified]

Science

02 September 2016 Vol 353, Issue 6303

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

EDITORIAL

The science–policy interface

Peter Gluckman

Summary

How do we ensure the effective role of science in public policy-making? This well-worn, long-standing question reflects the fact that the answer is not simple. Later this month in Brussels, scientists and policy-makers will convene at the International Network for Government Science Advice (INGSA) Forum to consider the most promising ways forward.

In Depth U.K. SCIENCE

London's biomedical behemoth opens its doors

Erik Stokstad

Summary

The largest biomedical research building in Europe—the £650 million Francis Crick Institute in London—has nearly 93,000 square meters of floor space, top-flight instruments, a special lab for dangerous pathogens, and animal facilities with 35,000 cages. This week, the first of 1500 researchers and support staff begin moving in from two major biomedical institutes. Collaborators will join them from three universities in London and a pharmaceutical company. But the United Kingdom's vote in June to leave the European Union has dampened some of the elation. Restrictions on migration could make it more difficult to recruit from overseas, and limited access to EU research funds could squeeze the operating budget. Some domestic observers worry that it will suck up so much talent and funding that universities outside London will suffer, but supporters say the Crick will strengthen science nationwide.

Policy Forum

Benefits and risks of the Sanofi-Pasteur dengue vaccine: Modeling optimal deployment

By Neil M. Ferguson, Isabel Rodríguez-Barraquer, Ilaria Dorigatti, Luis Mier-y-Teran-Romero, Daniel J. Laydon, Derek A. T. Cummings

Science 02 Sep 2016 : 1033-1036

Abstract

The first approved dengue vaccine has now been licensed in six countries. We propose that this live attenuated vaccine acts like a silent natural infection in priming or boosting host immunity.

A transmission dynamic model incorporating this hypothesis fits recent clinical trial data well and predicts that vaccine effectiveness depends strongly on the age group vaccinated and local transmission intensity. Vaccination in low-transmission settings may increase the incidence of more severe “secondary-like” infection and, thus, the numbers hospitalized for dengue. In moderate transmission settings, we predict positive impacts overall but increased risks of hospitalization with dengue disease for individuals who are vaccinated when seronegative. However, in high-transmission settings, vaccination benefits both the whole population and seronegative recipients. Our analysis can help inform policy-makers evaluating this and other candidate dengue vaccines.

Science Translational Medicine

31 August 2016 Vol 8, Issue 354

<http://stm.sciencemag.org/>

[New issue: No relevant content identified]

Social Science & Medicine

Volume 160, Pages 1-130 (July 2016)

<http://www.sciencedirect.com/science/journal/02779536/160>

[Reviewed earlier]

Tropical Medicine & International Health

September 2016 Volume 21, Issue 9 Pages 1059–1196

<http://onlinelibrary.wiley.com/doi/10.1111/tmi.2016.21.issue-9/issuetoc>

Reviews

[Seroepidemiology: an underused tool for designing and monitoring vaccination programmes in low- and middle-income countries \(pages 1086–1098\)](#)

Felicity T. Cutts and Matt Hanson

Version of Record online: 1 JUL 2016 | DOI: 10.1111/tmi.12737

Summary

Seroepidemiology, the use of data on the prevalence of bio-markers of infection or vaccination, is a potentially powerful tool to understand the epidemiology of infection before vaccination and to monitor the effectiveness of vaccination programmes. Global and national burden of disease estimates for hepatitis B and rubella are based almost exclusively on serological data. Seroepidemiology has helped in the design of measles, poliomyelitis and rubella elimination programmes, by informing estimates of the required population immunity thresholds for elimination. It contributes to monitoring of these programmes by identifying population immunity gaps and evaluating the effectiveness of vaccination campaigns.

Seroepidemiological data have also helped to identify contributing factors to resurgences of diphtheria, Haemophilus Influenzae type B and pertussis. When there is no confounding by antibodies induced by natural infection (as is the case for tetanus and hepatitis B vaccines), seroprevalence data provide a composite picture of vaccination coverage and effectiveness, although they cannot reliably indicate the number of doses of vaccine received. Despite these potential uses, technological, time and cost constraints have limited the widespread application of this tool in low-income countries. The use of venous blood samples makes it difficult to obtain high participation rates in surveys, but the performance of assays based on less invasive

samples such as dried blood spots or oral fluid has varied greatly. Waning antibody levels after vaccination may mean that seroprevalence underestimates immunity. This, together with variation in assay sensitivity and specificity and the common need to take account of antibody induced by natural infection, means that relatively sophisticated statistical analysis of data is required. Nonetheless, advances in assays on minimally invasive samples may enhance the feasibility of including serology in large survey programmes in low-income countries. In this paper, we review the potential uses of seroepidemiology to improve vaccination policymaking and programme monitoring and discuss what is needed to broaden the use of this tool in low- and middle-income countries.

Vaccine

Volume 34, Issue 38, Pages 4461-4642 (31 August 2016)

<http://www.sciencedirect.com/science/journal/0264410X/34/38>

Conference report

Assessing dengue vaccination impact: Model challenges and future directions

Pages 4461-4465

Mario Recker, Kirsten Vannice, Joachim Hombach, Mark Jit, Cameron P. Simmons

Abstract

In response to the sharp rise in the global burden caused by dengue virus (DENV) over the last few decades, the WHO has set out three specific key objectives in its disease control strategy: (i) to estimate the true burden of dengue by 2015; (ii) a reduction in dengue mortality by at least 50% by 2020 (used as a baseline); and (iii) a reduction in dengue morbidity by at least 25% by 2020. Although various elements will all play crucial parts in achieving this goal, from diagnosis and case management to integrated surveillance and outbreak response, sustainable vector control, vaccine implementation and finally operational and implementation research, it seems clear that new tools (e.g. a safe and effective vaccine and/or effective vector control) are key to success. The first dengue vaccine was licensed in December 2015, Dengvaxia® (CYD-TDV) developed by Sanofi Pasteur. The WHO has provided guidance on the use of CYD-TDV in endemic countries, for which there are a variety of considerations beyond the risk–benefit evaluation done by regulatory authorities, including public health impact and cost-effectiveness. Population-level vaccine impact and economic and financial aspects are two issues that can potentially be considered by means of mathematical modelling, especially for new products for which empirical data are still lacking. In December 2014 a meeting was convened by the WHO in order to revisit the current status of dengue transmission models and their utility for public health decision-making. Here, we report on the main points of discussion and the conclusions of this meeting, as well as next steps for maximising the use of mathematical models for vaccine decision-making.

Reviews

A systematic review of serious video games used for vaccination

Review Article

Pages 4478-4483

Robin Ohannessian, Sarina Yaghobian, Pierre Verger, Philippe Vanhems

Abstract

Introduction

Vaccination is an effective and proven method of preventing infectious diseases. However, uptake has not been optimal with available vaccines partly due to vaccination hesitancy. Various

public health approaches have addressed vaccination hesitancy. Serious video games involving vaccination may represent an innovative public health approach. The aim of this study was to identify, describe, and review existing serious video games on vaccination.

Method

A systematic review was performed. Various databases were used to find data on vaccination-related serious video games published from January 1st 2000 to May 15th 2015. Data including featured medical and vaccination content, publication characteristics and games classification were collected for each identified serious game.

Results

Sixteen serious video games involved in vaccination were identified. All games were developed in high-income countries between 2003 and 2014. The majority of games were available online and were sponsored by educational/health institutions. All games were free of charge to users. Edugame was the most prevalent serious game subcategory. Twelve games were infectious disease-specific and the majority concerned influenza. The main objective of the games was disease control with a collective perspective. Utilization data was available for two games. Two games were formally evaluated.

Discussion

The use of serious video games for vaccination is an innovative tool for public health. Evaluation of vaccination related serious video games should be encouraged to demonstrate their efficacy and utility.

Complementary medicine and childhood immunisation: A critical review

Review Article

Pages 4484-4500

Jon Wardle, Jane Frawley, Amie Steel, Elizabeth Sullivan

Abstract

Background

Vaccination is one of the most significant and successful public health measures of recent times. Whilst the use of complementary medicine (CM) continues to grow, it has been suggested that CM practitioners hold anti-vaccination views. The objective of this critical review is to examine the evidence base in relation to CM practitioner attitudes to childhood vaccination alongside attitudes to vaccination among parents who visit CM practitioners and/or use CM products.

Methods

A database search was conducted in MEDLINE, PubMed, CINAHL, EMBASE and AMED for research articles published between January 2000 and September 2015 that evaluated either CM practitioner or CM user attitudes and intention towards childhood vaccination.

Results

A total of 23 articles were found that detailed the attitudes of CM practitioners to vaccination. A further 16 papers examined the association between the use of CM products and visits to CM practitioners, and immunisation. The interface between CM and vaccination is complex, multi-factorial and often highly individualised. The articles suggest that there is no default position on immunisation by CM practitioners or parents who use CM themselves, or for their children. Although CM use does seem positively associated with lower vaccination uptake, this may be confounded by other factors associated with CM use (such as higher income, higher education or distrust of the medical system), and may not necessarily indicate independent or predictive relationships.

Conclusions

Although anti-vaccination sentiment is significant amongst some CM practitioners, this review uncovers a more nuanced picture, and one that may be more agreeable to public health values than formerly assumed.

Are state laws granting pharmacists authority to vaccinate associated with HPV vaccination rates among adolescents?

Original Research Article

Pages 4514-4519

Justin G. Trogon, Paul R. Shafer, Parth D. Shah, William A. Calo

Abstract

Objectives

We explored whether state laws allowing pharmacists to administer human papillomavirus (HPV) vaccinations to adolescents are associated with a higher likelihood of HPV vaccine uptake.

Methods

We examined provider-reported HPV vaccination among 13–17 year olds in the National Immunization Survey-Teen: 2008–2014 for girls (N=48,754) and 2010–2014 for boys (N=31,802). Outcome variables were HPV vaccine initiation (>1 dose) and completion (≥ 3 doses). The explanatory variable of interest was a categorical variable for the type of pharmacist authority regarding HPV vaccination for adolescents (<18 years) in the state: not permitted (reference), by prescription, by collaborative practice protocol, or independent authority. We ran separate difference-in-difference regression models by sex.

Results

During 2008–2014, 15 states passed laws allowing pharmacists to administer HPV vaccine to adolescents. Pharmacist authority laws were not statistically significantly associated with increased HPV vaccine initiation or completion.

Conclusions

As currently implemented, state laws allowing pharmacists to administer HPV vaccine to adolescents were not associated with uptake. Possible explanations that need further research include restrictions on pharmacists' third-party billing ability and the lack of promotion of pharmacy vaccination services to age-eligible adolescents.

A phase 2b randomized, controlled trial of the efficacy of the GMZ2 malaria vaccine in African children

Original Research Article

Pages 4536-4542

Sodiomon B. Sirima, Benjamin Mordmüller, Paul Milligan, Ulysse Ateba Ngoa, Fred Kironde, Frank Atuguba, Alfred B. Tiono, Saadou Issifou, Mark Kaddumukasa, Oscar Bangre, Clare Flach, Michael Christiansen, Peter Bang, Roma Chilengi, Søren Jepsen, Peter G. Kremsner, Michael Theisen, The GMZ2 Trial Study Group

Abstract

Background

GMZ2 is a recombinant protein malaria vaccine, comprising two blood-stage antigens of *Plasmodium falciparum*, glutamate-rich protein and merozoite surface protein 3. We assessed efficacy of GMZ2 in children in Burkina Faso, Gabon, Ghana and Uganda.

Methods

Children 12–60 months old were randomized to receive three injections of either 100 µg GMZ2 adjuvanted with aluminum hydroxide or a control vaccine (rabies) four weeks apart and were

followed up for six months to measure the incidence of malaria defined as fever or history of fever and a parasite density $\geq 5000/\mu\text{L}$.

Results

A cohort of 1849 children were randomized, 1735 received three doses of vaccine (868 GMZ2, 867 control-vaccine). There were 641 malaria episodes in the GMZ2/Alum group and 720 in the control group. In the ATP analysis, vaccine efficacy (VE), adjusted for age and site was 14% (95% confidence interval [CI]: 3.6%, 23%, p-value = 0.009). In the ITT analysis, age-adjusted VE was 11.3% (95% CI 2.5%, 19%, p-value = 0.013). VE was higher in older children. In GMZ2-vaccinated children, the incidence of malaria decreased with increasing vaccine-induced anti-GMZ2 IgG concentration. There were 32 cases of severe malaria (18 in the rabies vaccine group and 14 in the GMZ2 group), VE 27% (95% CI -44%, 63%).

Conclusions

GMZ2 is the first blood-stage malaria vaccine to be evaluated in a large multicenter trial. GMZ2 was well tolerated and immunogenic, and reduced the incidence of malaria, but efficacy would need to be substantially improved, using a more immunogenic formulation, for the vaccine to have a public health role

Contrasting female-male mortality ratios after routine vaccinations with pentavalent vaccine versus measles and yellow fever vaccine. A cohort study from urban Guinea-Bissau

Original Research Article

Pages 4551-4557

Ane B. Fisker, Sofie Biering-Sørensen, Najaaraq Lund, Queba Djana, Amabelia Rodrigues, Cesario L. Martins, Christine S. Benn

Abstract

Background

In addition to protection against the target diseases, vaccines may have non-specific effects (NSEs). Measles vaccine (MV) has beneficial NSEs, providing protection against non-measles deaths, most so for girls. By contrast, though protecting against diphtheria, tetanus and pertussis, DTP vaccine is associated with increased female mortality relative to male mortality. In 2008, Guinea-Bissau replaced DTP with the DTP-containing pentavalent vaccine (Penta; DTP-H. influenza type B-Hepatitis B) at 6, 10 and 14 weeks and yellow fever vaccine (YF) was to be given with MV. We investigated possible sex-differential mortality rates following Penta and MV+YF vaccination.

Methods

Bandim Health Project (BHP) registers vaccines given by the three government health centres in the study area and vital status through demographic surveillance. We assessed the association between sex and mortality by vaccination status in Cox proportional hazards models with age as underlying timescale. Follow-up was censored at a subsequent vaccination contact or after 6 months of follow-up.

Results

Between September 2008 and April 2011, we registered 23,448 vaccination contacts for children aged 42–365 days; 17,313 were for Penta and 3028 for MV (2907 co-administered with YF). During follow-up 112 children died. The female/male mortality rate ratio was 1.73 (1.11–2.70) following Penta and 0.38 (0.12–1.19) after MV (p = 0.02 for same effect). Adjusting for maternal education or weight-for-age at the time of vaccination did not change the estimates.

Conclusion

Penta appears to have the same negative effects on mortality as those seen for DTP. Assessing post-vaccination mortality for boys and girls is necessary to improve the vaccination programme.

Vaccine: Development and Therapy

<https://www.dovepress.com/vaccine-development-and-therapy-archive111>

(Accessed 3 September 2016)

[No new content]

Vaccines — Open Access Journal

<http://www.mdpi.com/journal/vaccines>

(Accessed 3 September 2016)

[No new relevant content]

Value in Health

July 2016–August 2016 Volume 19, Issue 5, p511-698

<http://www.valueinhealthjournal.com/current>

[Reviewed earlier]

* * * *

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

GJRA - GLOBAL JOURNAL FOR RESEARCH ANALYSIS

Volume-5, Issue-7, July - 2016 ISSN No 2277 - 8160

Original Research Paper

Awareness of Cervical Cancer and Hpv Vaccine Among Mother Attending Immunization Clinic in West Bengal

S Pal, S Banerjee, S Mukherjee, R Bhattacharjee

Abstract

Background: Cervical cancer is one of the most common causes of cancer mortality among women although largely preventable.

Objective: To evaluate regarding awareness of cervical cancer & HPV Vaccine among mother attending immunization clinic.

Method: It is cross sectional study conducted among mother attended immunization clinic.

Result: Despite limited knowledge 74% mother intended to accept HPV Vaccine for their daughter.

* * * *

Media/Policy Watch

Navigation: A. [Ebola/EVD](#); Polio; MERS-Cov B. [WHO](#); CDC C. [Announcements/Milestones/Perspectives](#)
D. [Reports/Research/Analysis](#) E. [Journal Watch](#) F. [Media 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.

The Atlantic

<http://www.theatlantic.com/magazine/>

[No new, unique, relevant content]

BBC

<http://www.bbc.co.uk/>

Accessed 3 September 2016

[No new, unique, relevant content]

The Economist

<http://www.economist.com/>

Accessed 3 September 2016

Putting shots in the locker: How to anticipate epidemics

03 September 2016

...Next time, though, they might be, for on August 31st a new organisation came into being. CEPI, the Coalition for Epidemic Preparedness Innovations, was founded this week in London, at the headquarters of the Wellcome Trust, a medical charity. It is the joint brainchild of the Wellcome, the Bill and Melinda Gates Foundation, the World Economic Forum and the government of Norway, and its purpose is precisely to forearm the world against future outbreaks of disease, without foreknowledge of what those outbreaks will be.

Paradoxically, part of the inspiration for CEPI's creation was not the failure to deliver an Ebola vaccine in time for it to be useful, but how close that project came to success. Creating a new vaccine from scratch is a long-winded undertaking, but in the case of Ebola several candidate vaccines were already on the shelf thanks to earlier, but stalled, work by America's army and that country's National Institutes of Health. There were also three pharma companies, GlaxoSmithKline, Johnson & Johnson and Merck, willing, pro bono publico, to take these candidates and try to turn them into the real thing as quickly as possible. That they succeeded in doing so by the summer of 2015 was, by most standards, extraordinary—and means vaccines are available the next time Ebola rears its ugly head. If a spontaneous lash-up could achieve such an outcome, the thinking went, an organised approach should do even better...

Financial Times

<http://www.ft.com/home/uk>

Accessed 3 September 2016

[No new, unique, relevant content]

Forbes

<http://www.forbes.com/>

Accessed 3 September 2016

[Are Vaccines Getting To Where They Need To Go?](#)

Aug 31, 2016

Bruce Y. Lee, Contributor

Improving vaccine supply chains could save costs and many lives as well as prevent much suffering.

... As Benjamin Schreiber, Senior Immunization Specialist at UNICEF who has led numerous vaccine supply chain evaluation and improvement initiatives, explains, "Suboptimal supply chains can delay vaccine introductions, leading to wastage of expensive vaccines (by exposing them to damaging temperature extremes), and bottlenecks in the system can reduce the availability of all vaccines at the access points—leaving children and families unprotected from vaccine-preventable disease"

Many vaccine supply chains around the world are outdated, similar to ill-fitting leisure suits. For example, numerous low- and middle-income countries have vaccine supply chains that were designed in the late 1970s and 1980s. Back then, pioneers such as Andrew Garnett, John Lloyd, James Cheyne, Anthony Battersby and Lionel Pierre helped design many vaccine supply chains around the world, benefiting countless children and mothers. But while these supply chains worked well at the time, since then, many things have changed. Populations have grown. Diseases have evolved. A number of new vaccines have reached the market. And pastel-colored Miami Vice leisure suits are no longer cool.

Foreign Affairs

<http://www.foreignaffairs.com/>

Accessed 3 September 2016

[No new, unique, relevant content]

Foreign Policy

<http://foreignpolicy.com/>

Accessed 3 September 2016

[No new, unique, relevant content]

The Guardian

<http://www.guardiannews.com/>

Accessed 3 September 2016

[India rolls out world's first leprosy vaccine as fight goes on 'war footing'](#)

Michael Safi in Delhi

1 September 2016

Country is officially leprosy free, meaning the disease afflicts fewer than one in 10,000 people, but specialists say true infection rate is far higher

...Today India accounts for more than 60% of the world's new leprosy cases and health officials have quietly moved to a "war footing" against it, one senior researcher says.

This week the government announced a major step: the world's first leprosy vaccine, developed in-country but tied up for years in testing, will be rolled out in Gujarat and Bihar, two states where the problem is sharpest....

New Yorker

<http://www.newyorker.com/>

Accessed 3 September 2016

[No new, unique, relevant content]

New York Times

<http://www.nytimes.com/>

Accessed 3 September 2016

Nigeria's Urgent Polio Vaccination Drive Targets 25 Million

...in northern Kano, Nigeria's second largest city. Over the years, the vaccination campaign has had to fight rumors that the vaccine was a plot to sterilize Muslims, which it overcame by winning over religious and traditional leaders

September 03, 2016 - By THE ASSOCIATED PRESS –

U.S. Funding for Fighting Zika Virus Is Nearly Spent, C.D.C. Says

away from biomedical research and antipoverty and health care programs, to keep the lights on August 31, 2016 - By SABRINA TAVERNISE -

In Reaction to Zika Outbreak, Echoes of Polio

Global Health By DONALD G. McNEIL Jr. AUG. 29, 2016

29 August 2016

Exactly 100 years ago this summer, New York City was hit by one of the worst epidemics it had ever seen: the first explosive American outbreak of infantile paralysis — a disease later known as polio. It was a mystifying, terrifying illness. Most victims were toddlers. Initially, they didn't even look terribly ill; often, they woke up feverish and cranky, saying their necks hurt...

Now that the Zika virus has landed in the continental United States, and now that polio has re-emerged in Africa after two years without a case, it may be instructive to look back at New York's early epidemic. It featured many of the problems that have bedeviled our response to the Zika epidemic: false rumors, ethnic prejudice and ineffective measures....

Wall Street Journal

<http://online.wsj.com/home-page?wsjregion=na,us&homepage=/home/us>

Accessed 3 September 2016

[No new, unique, relevant content]

Washington Post

<http://www.washingtonpost.com/>

Accessed 3 September 2016

Opinions

CDC and NIH officials: How not to fight the Zika virus

By Tom Frieden and Anthony S. Fauci

August 31, 2016

Tom Frieden is director of the Centers for Disease Control and Prevention. Anthony S. Fauci is director of the National Institute of Allergy and Infectious Diseases at the National Institutes of Health.

The Zika virus presents an unprecedented threat to the people of our nation, especially pregnant women. Thus far, there have been more than 16,800 cases of Zika infection reported to the Centers for Disease Control and Prevention in the United States and its territories, including more than 2,700 on the mainland. Laboratory tests have confirmed that

1,595 pregnant women have been infected with the virus, and tragically, 17 babies have been born in the United States with birth defects related to Zika. Zika has become a major outbreak in Puerto Rico and established active transmission in two neighborhoods in southern Florida. Other areas of the United States, particularly along the Gulf Coast, are especially vulnerable because of the weather this time of year and large numbers of mosquitoes. It is extremely disturbing to think that, as we write this, somewhere in this country a single mosquito bite may be changing the course of people's lives.

We have an obligation to meet the Zika threat and protect this country. Researchers at the National Institutes of Health have moved full speed ahead to find and develop a Zika vaccine and start clinical trials. The CDC has created diagnostic tests for Zika and helped state and local health departments track cases and control mosquitoes, and has deployed large numbers of doctors, lab experts, mosquito specialists and others to areas where local transmission of the virus is occurring.

Pending a supplemental appropriation to meet this emerging crisis, the Obama administration has twice repurposed or transferred funding away from other pressing health priorities — more than \$670 million in total. This has exacted its own cost. The most recently transferred funds supported the CDC's work to immunize children, fight HIV/AIDS, and stop other outbreaks. NIH had to take more than \$7 million out of its research into fighting cancer and more than \$4 million from our work to turn the tide on the illness that claims more American lives than any other: heart disease.

This "robbing Peter to pay Paul" approach to an emerging public health threat is detrimental to both the Zika response and to the important non-Zika activities being tapped. Furthermore, the redirected funding runs out at the end of September. Without additional funds, the path forward is unclear. Our progress against Zika will slow considerably. The CDC will have to reduce emergency response staff and support to communities fighting this virus. NIH may have to delay or halt its work on a vaccine. And it may even be necessary to cut off funding to pharmaceutical companies that have partnered with government to ensure that a vaccine will be widely available once we have completed the clinical trials and the licensing process.

The potential cost of a funding shortfall will be measured in human misery and even death. Every child born with microcephaly as a result of the Zika infection of the mother during pregnancy could require care that costs the family and our health-care system anywhere between \$1 million and \$10 million over the lifetime of the child. Every child born with microcephaly faces a difficult future, filled with intensive therapy and support. It is a price that no child — no mother, no father, no family — should have to pay, especially given that it can be avoided.

With the right resources, we can develop better ways to combat the mosquito that spreads Zika and other diseases. We can prevent families from having to go through the heartache of having a baby born with severe birth defects. We can find a vaccine that will protect those most at risk. Congress returns next week. In the past, it has shown that it understands the importance of safeguarding Americans' health and has supported biomedical research and vital public health priorities. It has proved that it can act in moments of crisis and in our nation's hours of need. We're asking Congress to do so again.

Think Tanks et al

Brookings

<http://www.brookings.edu/>

Accessed 3 September 2016

[No new relevant content]

Center for Global Development [to 3 September 2016]

<http://www.cgdev.org/page/press-center>

[No new relevant content]

Council on Foreign Relations

<http://www.cfr.org/>

Accessed 3 September 2016

[No new relevant content]

CSIS

<https://www.csis.org/>

Accessed 3 September 2016

30 August 2016

Polio Eradication's Biggest Threats: Insecurity and Complacency

The recently discovered wild poliovirus outbreak in Nigeria shows the wisdom of waiting three years after the last polio case before a region is certified as polio free, but also points to the difficulties in resisting complacency during that period. Just past the two-year anniversary marking Nigeria's last case of polio, the World Health Organization (WHO) announced two new paralytic polio cases in Borno state, a part of the country wracked with Boko Haram-instigated violence. Officials cite insecurity as a primary contributor to the outbreak since ongoing violence limits the actions of both polio vaccinators and disease surveillance staff. Terrorism also precipitates population movements as people attempt to flee, making it more difficult for vaccinators to track who has been immunized.

But there is another obstacle as well. While generally the WHO and others have praised Nigeria's recent successes in reducing polio cases, some warned that it would be difficult to maintain political momentum and resource mobilization for a disease seen as on the wane. Those concerns may have been borne out with the recent cases.

Eradication standards developed by WHO require that a region be without a polio case for at least three years before it can be officially certified as polio free. During the period between the last case and certification, immunization drives must continue and surveillance should intensify rather than relax to ensure all cases are caught. John Vertefeuille, U.S. Centers for Disease Control and Prevention's (CDC) polio eradication branch chief, said the Borno cases are a reminder for the entire program of the importance of stepping up surveillance activities in this critical period in the eradication effort. This year so far shows the lowest number of annual wild poliovirus cases ever, at 21 as of August 24, 2016. Nonetheless, the program's ultimate success rides on finding and extinguishing every case of the disease worldwide and surveillance indicators are not being met in some places, including in half of the African countries examined in a recent report.

In Nigeria, some say attention to the disease has decreased and the quality of polio program activities diminished, especially in security-compromised areas. The Independent Monitoring Board of the Global Polio Eradication Initiative said prophetically in its most recent report, based on a meeting held before the new cases were announced, that the program was showing signs of flagging. "Of caregivers in Borno, less than half see the need to give polio drops to their child 'every time,'" the report says, adding that 500,000 children in the state still are inaccessible to vaccinators because of insecurity. "All this should send a shiver down the spine of anyone in Nigeria who has been thinking, 'almost there,'" the report adds...

*	*	*	*
*	*	*	*

Vaccines and Global Health: The Week in Review is a service of the Center for Vaccines Ethics and Policy (CVEP) which is solely responsible for its content, and is an open access publication, subject to the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by-nc/3.0/>). Copyright is retained by CVEP.

CVEP is a program of the GE2P2 Global Foundation – whose purpose and mission is to advance ethical and scientific rigor in research and evidence generation for governance, policy and practice in health, human rights action, humanitarian response, heritage stewardship, education and sustainable development – serving governments, international agencies, INGOs, civil society organizations (CSOs), commercial entities, consortia and alliances. CVEP maintains an academic affiliation with the Division of Medical Ethics, NYU School of Medicine, and an operating affiliation with the Vaccine Education Center of Children's Hospital of Philadelphia [CHOP].

Support for this service is provided by the Bill & Melinda Gates Foundation; PATH; the International Vaccine Institute (IVI); and industry resource members Crucell/Janssen/J&J, Pfizer, PRAHS, Sanofi Pasteur U.S., Takeda, Valera (list in formation), and the Developing Countries Vaccine Manufacturers Network (DCVMN).

Support is also provided by a growing list of individuals who use this membership service to support their roles in public health, clinical practice, government, NGOs and other international institutions, academia and research organizations, and industry.

*	*	*	*
*	*	*	*