Vaccines and Global Health: The Week in Review
30 July 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
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***Request an email version:** Vaccines and Global Health: The Week in Review is published as a single email summary, scheduled for release each Saturday evening before midnight (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

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Zika virus [to 30 July 2016]
Public Health Emergency of International Concern (PHEIC)
http://www.who.int/emergencies/zika-virus/en/

Zika situation report – 28 July 2016
Full report: http://apps.who.int/iris/bitstream/10665/246261/1/zikasitrep28Jul2016-eng.pdf?ua=1
Summary [Excerpt]
:: As of 27 July 2016, 67 countries and territories (Fig. 1, Table 1) have reported evidence of mosquito-borne Zika virus transmission since 2007 (64 of these countries and territories have reported evidence of mosquito-borne Zika virus transmission since 2015):
…50 countries and territories with a first reported outbreak from 2015 onwards (Table 1).
…Four countries are classified as having possible endemic transmission or have reported evidence of local mosquito-borne Zika infections in 2016.
..13 countries and territories have reported evidence of local mosquito-borne Zika infections in or before 2015, but without documentation of cases in 2016, or with the outbreak terminated…

Zika Open [to 30 July 2016]
[Bulletin of the World Health Organization]
:: All papers available here
No new papers identified.

CDC [to 30 July 2016]
http://www.cdc.gov/media/index.html
Transcript
SATURDAY, JULY 30, 2016
Transcript for CDC Telebriefing: Zika Virus Update - July 29
Transcript for CDC telebriefing that to provided an update on the Zika virus.

Press Release
FRIDAY, JULY 29, 2016
Florida investigation links four recent Zika cases to local mosquito-borne virus transmission
The Centers for Disease Control and Prevention (CDC) has been informed by the State of Florida that Zika virus infections in four people were likely caused by bites of local...

Press Release
FRIDAY, JULY 29, 2016
Zika infections increasing rapidly in Puerto Rico
As of July 7, Zika has been diagnosed in 5,582* people, including 672 pregnant women, in Puerto Rico according to a new report published today in the Morbidity and Mortality...

CDC adds Saba to interim travel guidance related to Zika virus - Media Statement
TUESDAY, JULY 26, 2016

CDC Issues Updated Zika Recommendations: Interim Guidance for healthcare providers caring for pregnant women with possible exposure to Zika virus; Interim Guidance for the prevention of sexually transmitted Zika virus - Media Statement
MONDAY, JULY 25, 2016

MMWR Weekly July 29, 2016 / No. 29
;; Mumps Outbreak at a University and Recommendation for a Third Dose of Measles-Mumps-Rubella Vaccine — Illinois, 2015–2016
:: Update: Interim Guidance for Health Care Providers Caring for Pregnant Women with Possible Zika Virus Exposure — United States, July 2016
:: Update: Interim Guidance for Prevention of Sexual Transmission of Zika Virus — United States, July 2016

FDA [to 30 July 2016]
http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/default.htm
July 28, 2016
FDA Statement
Statement from Peter Marks, M.D., Ph.D., Director, FDA's Center for Biologics Evaluation and Research
FDA Statement -
July 28, 2016
The FDA is tasked with taking important steps to respond to Zika cases in the United States. One of the agency's key public health responsibilities is to help ensure the safety of the nation's blood supply.

Recently, the Office of the Florida Department of Health State Surgeon General announced that it is conducting an epidemiological investigation into a number of non-travel related cases of Zika virus in Miami-Dade and Broward Counties. These may be the first cases of local Zika virus transmission by mosquitoes in the continental United States. Miami-Dade County and Broward Counties are adjacent counties in South Florida.

In consideration of the possibility of local transmission of the Zika virus, and as a prudent measure to help assure the safety of blood and blood products, the FDA is requesting that all blood establishments in Miami-Dade County and Broward County cease collecting blood immediately until the blood establishments implement testing of each individual unit of blood collected in the two counties with an available investigational donor screening test for Zika virus RNA or until the blood establishments implement the use of an approved or investigational pathogen inactivation technology.

Additionally, the FDA recommends that adjacent and nearby counties implement the precautions above to help maintain the safety of the blood supply as soon as possible.
The FDA is also working closely with companies that are making blood screening tests available under an Investigational New Drug application (IND) to ensure that these companies are ready to expand testing as needed. Blood collection establishments in the rest of the United States may also choose now or in the future to participate in testing under IND, even in the absence of local mosquito-borne transmission of Zika virus. The FDA continues to support those regions of the United States at risk of local mosquito-borne Zika transmission that have already started screening their blood supply for Zika virus and encourages other areas at high risk to begin doing so.

The FDA will continue to monitor this potential outbreak in cooperation with the Centers for Disease Control and Prevention (CDC) and Florida State public health authorities, and will provide updates as additional information becomes available.

In addition to protecting the nation's blood supply, the FDA is prioritizing the development of diagnostic tests that may be useful for identifying infection with the virus, helping to facilitate the development and evaluation of investigational vaccines and therapeutics, and reviewing technology that may help suppress populations of the mosquitoes that can spread the virus.

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EBOLA/EVD [to 30 July 2016]
"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]

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POLIO [to 30 July 2016]
Public Health Emergency of International Concern (PHEIC)

Polio this week as of 27 July 2016
:: Nigeria celebrated two years without a case of wild poliovirus on 24 July. This is an important milestone for polio eradication efforts in the African region, but much still remains to be done to keep the country and region polio-free. More.

:: The Independent Monitoring Board and the Strategy Committee of the GPEI met in London last week to assess progress towards polio eradication.

:: In Pakistan, both the oral polio vaccine and the inactivated poliovirus vaccine are being used hand in hand to boost immunity; and committed healthcare workers are going to great lengths to build trust and ensure every child is vaccinated. More

:: The Africa Regional Certification Commission for the eradication of polio met to assess progress towards the certification of the region as polio-free.

:: Selected Country Updates [excerpted]
No new cases at country level reported.

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Yellow Fever [to 30 July 2016]

http://www.who.int/emergencies/yellow-fever/en/

Yellow Fever - Situation Report – 28 July 2016

Full Report:
http://apps.who.int/iris/bitstream/10665/246262/1/yellowfeversitrep-28Jul2016-eng.pdf?ua=1
Excerpt
Risk assessment

:: The outbreak in Angola is receding and no confirmed case has been reported in the country during July (as of 21 July). The confirmed case with the most recent date of symptom onset, 23 June, was reported in Cuanhama district in Cunene province. However, a high level of vigilance needs to be maintained throughout the country.

:: In DRC, the situation remains concerning as the outbreak has spread to three provinces. Given the presence and activity of the vector Aedes in the country, the outbreak might extend to other provinces, in particular Kasai, Kasai Central and Lualaba.

:: Transmission of yellow fever in Angola and DRC is mainly concentrated in cities; however, there is a high risk of spread and local transmission to other provinces in both countries. In addition, the risk of potential spread to bordering countries, especially those classified as low-risk (i.e. Namibia, Zambia) and where the population, travelers and foreign workers are not vaccinated for yellow fever.

WHO: Mobile labs deliver faster yellow fever test results

29 July 2016 -- In order to strengthen and fast track diagnosis of yellow fever, WHO has supported the deployment of a mobile laboratory to Democratic Republic of the Congo. This mobile lab brings much-needed equipment and supplies for testing blood samples for yellow fever. Packaged into several boxes, the lab is portable and easy to set-up within any existing health facility or building.

NIH [to 30 July 2016]
http://www.nih.gov/news-events/news-releases
July 27, 2016

NIH launches early-stage yellow fever vaccine trial

Yellow fever virus is found in tropical and subtropical, and caused an estimated 29,000 to 60,000 deaths in 2013

The National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health, has begun an early-stage clinical trial of an investigational vaccine designed to protect against yellow fever virus. The Phase 1 study is evaluating whether an experimental vaccine developed by the Danish biopharmaceutical company Bavarian Nordic is safe, tolerable and has the potential to prevent yellow fever virus infection…

Bavarian Nordic's experimental yellow fever vaccine, dubbed MVA-BN-YF, is based on the company's proprietary MVA-BN platform, which uses an attenuated (weakened) version of the Modified Vaccinia Ankara (MVA) virus as a vaccine vector to carry yellow fever virus genes into the body. According to Bavarian Nordic, more than 7,600 people, including 1,000 individuals who are immunocompromised, have been safely vaccinated with MVA-BN-based vaccines.

The placebo-controlled, double-blinded clinical trial will enroll 90 healthy men and women ages 18 to 45 who have never been infected with a flavivirus, the family of viruses that includes yellow fever virus, West Nile virus, dengue and Zika virus, among others. Participants will be

divided into six groups: One will receive the currently licensed yellow fever vaccine (15 participants) and five groups (15 participants each) will receive the investigational Bavarian Nordic vaccine, either with or without an adjuvant, a substance that is added to a vaccine to increase the body's immune response to the vaccine. The investigational vaccine will be administered intramuscularly while the licensed yellow fever vaccine will be administered subcutaneously. Trial participants will receive one or two doses of vaccine or placebo, separated by a month.

Previous laboratory and animal studies have suggested that combining MVA-BN with ISA 720, an experimental immune-boosting adjuvant that has been used in prior clinical trials, induces a strong immune response after a single dose of vaccine. One goal of the study will be to assess whether two doses of unadjuvanted vaccine or a single dose of ISA 720 adjuvanted vaccine could provide protection against yellow fever.

The multi-site clinical trial will be conducted by NIAID-funded Vaccine and Treatment Evaluation Units (VTEUs) at the University of Iowa in Iowa City and Saint Louis University in Missouri. Emory Vaccine Center in Decatur, Georgia will assist in evaluating data. Additional details about the trial can be found at ClinicalTrials.gov using the identifier NCT02743455…

New England Journal of Medicine
July 28, 2016 Vol. 375 No. 4
http://www.nejm.org/toc/nejm/medical-journal
Perspective
Yellow Fever in Angola and Beyond - The Problem of Vaccine Supply and Demand
Alan D.T. Barrett, Ph.D.
N Engl J Med 2016; 375:301-303 July 28, 2016 DOI: 10.1056/NEJMp1606997
[See full article in Journal Watch below]

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MERS-CoV [to 30 July 2016]

Disease Outbreak News (DONs)
25 July 2016
Middle East respiratory syndrome coronavirus (MERS-CoV) – Saudi Arabia

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WHO & Regional Offices [to 30 July 2016]

Weekly Epidemiological Record (WER) 29 July 2016, vol. 91, 30 (pp. 349–364)
Contents:
349 Dengue vaccine: WHO position paper – July 2016

Increasing knowledge of, and access to testing for, hepatitis

25 July 2016 – A staggering 95% of people infected with hepatitis B or C do not know they are infected, often living without symptoms for many years. Ahead of World Hepatitis Day, 28 July 2016, WHO and its partner, Social Entrepreneurship for Sexual Health (SeSH), recently launched a global contest to find innovative ways to reach different populations and encourage testing for hepatitis.

Highlights

Two years free from wild polio in Nigeria

July 2016 -- The 24th of July marks 2 years with no cases of wild poliovirus in Nigeria – a milestone for the polio eradication programme. Innovation has underpinned this progress, including novel strategies and the incredible commitment of tens of thousands of health workers.

:: WHO Regional Offices

Selected Press Releases, Announcements

WHO African Region AFRO

:: Mobile labs deliver faster yellow fever test results

WHO Region of the Americas PAHO

:: PAHO and U.K. Overseas Territories in the Caribbean map future technical cooperation (07/29/2016)
:: PAHO/WHO encourages countries to act now to reduce deaths from viral hepatitis and to enhance prevention and treatment (07/27/2016)
:: OAS and PAHO Launch a Plan of Action for People of African Descent (07/26/2016)

WHO South-East Asia Region SEARO

:: Scale up efforts against hepatitis 27 July 2016

WHO European Region EURO

:: Intersectoral high-level dialogue in Belarus focuses on increasing efficiency and effectiveness of primary care services for noncommunicable diseases 26-07-2016
:: Speaking out on hepatitis, the silent killer 26-07-2016
:: WHO mission assesses response to viral hepatitis in Kyrgyzstan 26-07-2016

WHO Eastern Mediterranean Region EMRO

:: WHO calls to put hepatitis C medicines within the reach of patients

24 July 2016 – Every year in the Eastern Mediterranean Region, around 400 000 people are newly infected with hepatitis C virus. Over two thirds of those people will develop chronic hepatitis C, which is one of the main causes of liver cancer. Currently, nearly 16 million people live with chronic hepatitis C in the Region.

WHO Western Pacific Region

:: WHO appeals for strengthened efforts to eradicate hepatitis in the Western Pacific Region

MANILA, 28 July 2016 – On World Hepatitis Day, which is observed today, the World Health Organization (WHO) in the Western Pacific Region calls on policy-makers, health workers and the public to work towards the complete elimination of hepatitis by 2030. Viral hepatitis is a

major killer worldwide, claiming an estimated 1.5 million lives each year, a toll that is greater than worldwide deaths from HIV/AIDS, malaria or tuberculosis.
:: Mosquito borne diseases: Mosquitoes cause thousands of deaths every year
July 2016
Mosquitoes are one of the deadliest animals in the world. Their ability to carry and spread disease to humans causes thousands of deaths every year. In 2015 malaria alone caused 438 000 deaths. The worldwide incidence of dengue has risen 30-fold in the past 30 years, and more countries are reporting their first outbreaks of the disease. Zika, dengue, chikungunya, and yellow fever are all transmitted to humans by the Aedes aegypti mosquito.

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CDC/ACIP [to 30 July 2016]
http://www.cdc.gov/media/index.html
Transcript
SATURDAY, JULY 30, 2016
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As of July 7, Zika has been diagnosed in 5,582* people, including 672 pregnant women, in Puerto Rico according to a new report published today in the Morbidity and Mortality...

CDC funding accelerates antibiotic resistance efforts - Media Statement
WEDNESDAY, JULY 27, 2016

CDC adds Saba to interim travel guidance related to Zika virus - Media Statement
TUESDAY, JULY 26, 2016

CDC Issues Updated Zika Recommendations: Interim Guidance for healthcare providers caring for pregnant women with possible exposure to Zika virus; Interim Guidance for the prevention of sexually transmitted Zika virus - Media Statement
MONDAY, JULY 25, 2016

MMWR Weekly July 29, 2016 / No. 29
:: Mumps Outbreak at a University and Recommendation for a Third Dose of Measles-Mumps-Rubella Vaccine — Illinois, 2015–2016

:: Update: Interim Guidance for Health Care Providers Caring for Pregnant Women with Possible Zika Virus Exposure — United States, July 2016
:: Update: Interim Guidance for Prevention of Sexual Transmission of Zika Virus — United States, July 2016

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Announcements/Milestones/Perspectives

Gavi [to 30 July 2016]
http://www.gavi.org/library/news/press-releases/
27 July 2016
Sudan: first to introduce life-saving meningitis A vaccine into routine immunization
Children in Sudan are set to become the first in the Meningitis belt to benefit from the introduction of Meningitis A vaccine into a routine immunization programme.

PATH [to 30 July 2016]
http://www.path.org/news/index.php
Announcement | July 27, 2016
MenAfriVac® vaccine poised to begin entry into routine national immunization programs
Routine African introduction to begin in Sudan
Sudan will this month incorporate MenAfriVac into its routine childhood immunization program, ensuring that children throughout the country are protected against deadly meningitis A. Sudan will be the first country in the African meningitis belt to take this important step.
"This is an historic step in the MenAfriVac® story," said Steve Davis, president and CEO of PATH. "By introducing the vaccine into the routine immunization schedule, Sudan is solidifying a commitment to protect its children for generations to come from one of the most devastating diseases in Africa."
MenAfriVac® is a conjugate vaccine against serogroup A meningococcal meningitis, the strain of meningitis that has plagued sub-Saharan Africa with debilitating epidemics for more than a century.
Since MenAfriVac®'s introduction in 2010 via mass vaccination campaign, more than 235 million people in 17 different countries have been vaccinated. Meningitis A has virtually disappeared wherever the vaccine has been used…

Press release | July 25, 2016
New agreement will build a healthier future for more children in Mozambique
A Global Development Alliance (GDA) between the United States Agency for International Development, the Conrad N. Hilton Foundation, and PATH–an international health organization–adds early childhood development to health systems and communities in three provinces of Mozambique.

Sabin Vaccine Institute [to 30 July 2016]
http://www.sabin.org/updates/ressreleases

Thursday, July 28, 2016
Q&A with Mike McQuestion on Sustainable Immunization Financing

IVI - International Vaccine Institute [to 30 July 2016]
http://www.ivi.org/web/www/home
2016.07.28
Challenges in MenB vaccine development
In an editorial published in The New England Journal of Medicine, IVI Director General Jerome Kim looks at the challenges and possible solutions.
Read it here:http://www.nejm.org/doi/pdf/10.1056/NEJMe1606015

NIH [to 30 July 2016]
http://www.nih.gov/news-events/news-releases
July 27, 2016
NIH launches early-stage yellow fever vaccine trial
Yellow fever virus is found in tropical and subtropical, and caused an estimated 29,000 to 60,000 deaths in 2013
[See Yellow Fever section above for more detail]

July 29, 2016
NIH-led researchers develop software that could facilitate drug development
AptaTRACE can identify aptamers, potentially speed drug advancement.

FDA [to 30 July 2016]
http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/default.htm
July 28, 2016
FDA Statement
Statement from Peter Marks, M.D., Ph.D., Director, FDA's Center for Biologics Evaluation and Research *[Blood supply- Florida]*
[See Zika section above for more detail]

What's New for Biologics
:: Advice to Blood Collection Establishments on Non-Travel Related Cases of Zika Virus in Florida Posted: 7/27/2016
:: Influenza Virus Vaccine for the 2016-2017 Season Posted: 7/27/2016
:: Federal Register Notice: Blood Donor Deferral Policy for Reducing the Risk of Human Immunodeficiency Virus Transmission by Blood and Blood Products; Establishment of a Public Docket; Request for Comments (PDF - 251KB)
Posted: 7/26/2016

European Vaccine Initiative [to 30 July 2016]
http://www.euvaccine.eu/news-events
News - 29 July 2016

ExpreS2ion Biotech announces clinical trial update for the PamVac (Placental Malaria Vaccine) phase I study

Press release

ExpreS2ion Biotech announces the second successful evaluation of safety by the independent safety monitoring board for the phase Ia clinical trial of the placental malaria vaccine candidate, PAMVAC. Due to the trial's staggered approach, the second evaluation allows initiation of the phase Ib clinical trial to be conducted in Benin, Africa. The clinical trial is funded by the EU under the FP7 program and coordinated by associate professor Morten A Nielsen at University of Copenhagen in collaboration with University of Tubingen, Université d'Abomey-Calavi, European Vaccine Initiative, Institut de Recherche pour le Développement, and ExpreS2ion Biotech.

News -

Alexander-von-Humboldt foundation awards

This year's Sofja Kovalevskaja awardees have been anounced. Dr. Faith Osier (Kenya Medical Research Institute (KEMRI), Kilifi) is among them. Her project in the Parasitology Department at the UniversitatsKlinikum Heidelberg will commence in November 2016. For further information on the laureates see Humboldt homepage

European Medicines Agency [to 30 July 2016]

http://www.ema.europa.eu/

29/07/2016

Modelling and simulation in the development and regulatory review of medicines

Comments on new guidance invited until 31 January 2017 ...

29/07/2016

Building a leaner, more streamlined organisation

EMA updates organisational structure …

28/07/2016

Better identification of medicinal products

Webinar on new ISO standards to take place on 4 August 2016 ...

EDCTP [to 30 July 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.

29 July 2016

EDCTP to conduct survey of its training and fellowship programmes (2003-2015)

We are contacting our former fellows and trainees via an online survey to find out about their experiences as an EDCTP fellow or trainee, how their fellowship or training contributed to the next steps in their career, what their views are on research careers in Africa.

Research capacity development is an integral part of EDCTP's funding strategy in order to develop African expertise and leadership in clinical trials. Under its first programme (2003-

2015), EDCTP supported the long-term training and career development of more than 500 African researchers at Master's, PhD and post-doctoral level. Through this survey, EDCTP intends to collect information on the career paths of the students and fellows supported under its first programme. We will also explore whether there is an interest to join an EDCTP Alumni network…

Industry Watch [to 30 July 2016]

:: **Merck Receives Breakthrough Therapy Designation from FDA and PRIME Status from EMA for Investigational Ebola Zaire Vaccine (V920)**

July 25, 2016

KENILWORTH, N.J.--(BUSINESS WIRE)--Merck (NYSE:MRK), known as MSD outside the United States and Canada, today announced two regulatory milestones for the company's investigational vaccine for Ebola Zaire, V920 (rVSVΔG-ZEBOV-GP, live attenuated): the U.S. Food and Drug Administration (FDA) has granted the vaccine candidate Breakthrough Therapy Designation, and the European Medicines Agency (EMA) has granted PRIME (PRIority MEdicines) status.

The FDA's Breakthrough Therapy Designation is intended to expedite the development and review of a candidate that is planned for use, alone or in combination, to treat a serious or life-threatening disease or condition when preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints.

PRIME is an approach from the European Medicines Agency (EMA) to enhance support for the development of medicines that target an unmet medical need. PRIME is intended to optimize development plans and speed up assessment of the medicine's application so these medicines may potentially reach patients earlier. PRIME focuses on medicines that may offer a major therapeutic advantage over existing treatments, or benefit patients without treatment options. These medicines are considered priority medicines by EMA. To be accepted for PRIME, a medicine has to show its potential to benefit patients with unmet medical needs based on early clinical data.

"The granting of Breakthrough Therapy Designation by the FDA and PRIME status by the EMA will enable us to continue to accelerate development of V920, and we greatly appreciate the collaboration of these agencies in moving this vaccine candidate forward in potentially meeting this public health need," said Paula Annuziato, M.D., vice president for clinical research, Merck Research Laboratories…

:: **Sanofi Pasteur Ships First of its 2016-2017 Seasonal Influenza Vaccine Doses in United States**

PR Newswire, SWIFTWATER, Pa. – July 26, 2016

Sanofi Pasteur, the vaccines division of Sanofi (EURONEXT: SAN and NYSE: SNY), announced today that its first doses of Fluzone® (Influenza Vaccine) for the 2016-2017 influenza ("flu") season have been released by the U.S. Food and Drug Administration (FDA) for shipment. This represents the first of more than 65 million total doses of seasonal influenza vaccine manufactured by Sanofi Pasteur that will be delivered to U.S. health care providers and

pharmacies beginning in July and continuing throughout the remainder of the year. Sanofi Pasteur plans to increase its supply to respond to the shifting pediatric public health needs…

:: **Access Campaign: MSF calls for affordable pneumonia vaccines ahead of Pfizer's patent hearing in India**
28 July 2016

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AERAS [to 30 July 2016]
http://www.aeras.org/pressreleases
No new digest content identified.

BMGF - Gates Foundation [to 30 July 2016]
http://www.gatesfoundation.org/Media-Center/Press-Releases
No new digest content identified.

Fondation Merieux [to 30 July 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
No new digest content identified.

GHIT Fund [to 30 July 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

Global Fund [to 30 July 2016]
http://www.theglobalfund.org/en/news/?topic=&type=NEWS;&country=
Selected News Releases
No new digest content identified.

Hilleman Laboratories [to 30 July 2016]
http://www.hillemanlabs.org/news.aspx
No new digest content identified

Human Vaccines Project [to 30 July 2016]
humanvaccinesproject.org
[Website in development]

IAVI – International AIDS Vaccine Initiative [to 30 July 2016]
https://www.iavi.org/
No new digest content identified.

UNICEF [to 30 July 2016]
http://www.unicef.org/media/media_89711.html
No new digest content identified

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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

Vaccine Confidence Project
Commentary
Another vaccine confidence breaker in Asia: Indonesia
Heidi Larson | 28 July 2016

Last month another vaccine scandal story broke in Asia, just when the news on China's multi-million dollar, multi-year vaccine scandal was starting to wane. This time, an illegal vaccine operation was uncovered in Indonesia well over a decade after it opened for business and continued unchecked. The two four-month apart scandals attracted global attention to the risks of inadequate regulatory systems and their consequences for public trust…

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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
August 2016 Volume 44, Issue 8, p857-962, e125-e144
http://www.ajicjournal.org/current
Online Only Articles
Improving health care workers' protection against infection of Ebola hemorrhagic fever through video surveillance
Huijun Xi, Jie Cao, Jingjing Liu, Zhaoshen Li, Xiangyu Kong, Yonghua Wang, Jing Chen, Su Ma, Lingjuan Zhang
p922–924

Published online: April 21, 2016
Preview
Ebola virus disease, previously known as Ebola hemorrhagic fever, is a highly lethal infectious disease caused by Ebola virus infection.1 Mortality can be as high as 40%-90%. The virus spreads by direct contact through body fluids.2 Because of close contact with patients, health care workers are among the most high-risk groups.3 Also, because target drugs and vaccines remain lacking, Ebola virus disease is still considered to be a worldwide threat to public health.4-6 It is not only a serious threat to people's health in infected countries, but also to medical staff who provide medical service

American Journal of Preventive Medicine
August 2016 Volume 51, Issue 2, p151-280, e27-e56
http://www.ajpmonline.org/current
Research Articles
Influence of Gender and Gender-Specific Recommendations on Adolescent Human Papillomavirus Vaccination
Randi L. Teplow-Phipps, Vikki Papadouka, Denise H. Benkel, Stephen Holleran, Rajasekhar Ramakrishnan, Susan L. Rosenthal, Karen Soren, Melissa S. Stockwell
p161–169
Published online: March 28, 2016
Preview
The human papillomavirus (HPV) vaccine was introduced for female adolescents prior to male adolescents. Understanding coverage patterns related to gender-specific recommendations and factors associated with early adoption and timely completion may be important for future vaccines.

American Journal of Public Health
Volume 106, Issue 8 (August 2016)
http://ajph.aphapublications.org/toc/ajph/current
AJPH LAW & ETHICS
Ethical and Psychosocial Considerations in Informing HIV-Exposed Uninfected Children That They Were Exposed to HIV and Antiretroviral Medications In Utero
Robert Klitzman, MD, Claude A. Mellins, PhD, Morgan M. Philbin, PhD, Elaine J. Abrams, MD, and Robert H. Remien, PhD
Robert Klitzman is with the Masters of Bioethics Program, Columbia University, New York, NY. Claude A. Mellins, Morgan M. Philbin, and Robert H. Remien are with the HIV Center for Clinical and Behavioral Studies and Department of Psychiatry, Columbia University and the New York State Psychiatric Institute, New York, NY. Elaine J. Abrams is with the Mailman School of Public Health, International Center for AIDS Care and Treatment Programs, Columbia University.
Abstract
We build on what is known about the potential long-term health effects of perinatal antiretroviral medication exposure to examine ethical and psychosocial issues associated with disclosure by applying lessons from other health conditions, theories of child and adolescent development and rights, and the relevant literature and legal contexts.

We present 2 cases to highlight potential issues; apply a bioethical framework that includes principles of autonomy, beneficence, nonmaleficence, and justice; and explore other factors, including the current uncertainty about these exposures' possible long-term health risks. This ethical framework can help clinicians and researchers consider and balance relevant concerns in deciding whether to inform offspring of HIV and related exposures.

HEPATITIS B VIRUS AJPH RESEARCH

Increasing Hepatitis B Vaccine Prevalence Among Refugee Children Arriving in the United States, 2006–2012

Katherine Yun, MD, MHS, Kailey Urban, MPH, Blain Mamo, MPH, Jasmine Matheson, MPH, Colleen Payton, MPH, Kevin C. Scott, MD, Lihai Song, MS, William M. Stauffer, MD, MSPH, Barbara L. Stone, MSPH, Janine Young, MD, and Henry Lin, MD

At the time the work was conducted, Katherine Yun was with PolicyLab, Division of General Pediatrics, The Children's Hospital of Philadelphia, Philadelphia, PA, and Department of Pediatrics, Perelman School of Medicine, University of Pennsylvania, Philadelphia. Kailey Urban and Blain Mamo were with the Refugee Health Program, Minnesota Department of Health, Saint Paul. Jasmine Matheson was with the Refugee Health Program, Washington State Department of Health, Shoreline. Colleen Payton and Kevin C. Scott were with Family and Community Medicine, Thomas Jefferson University, Philadelphia, PA. Lihai Song was with the Healthcare Analytics Unit, Center for Pediatric Clinical Effectiveness, and PolicyLab, The Children's Hospital of Philadelphia. William M. Stauffer was with the Departments of Medicine and Pediatrics, University of Minnesota, Minneapolis. Barbara L. Stone was with the Refugee Health Program, Colorado Department of Public Health and Environment, Denver. Janine Young was with General Pediatrics, Denver Health and Hospitals, Denver, CO. Henry Lin was with the Division of Gastroenterology, The Children's Hospital of Philadelphia.

Abstract

Objectives. To determine whether the addition of hepatitis B virus (HBV) vaccine to national immunization programs improved vaccination rates among refugee children, a marginalized population with limited access to care.

Methods. The sample included 2291 refugees younger than 19 years who completed HBV screening after arrival in the United States. Children were categorized by having been born before or after the addition of the 3-dose HBV vaccine to their birth country's national immunization program. The outcome was serological evidence of immunization.

Results. The odds of serological evidence of HBV immunization were higher for children born after the addition of HBV vaccine to their birth country's national immunization program (adjusted odds ratio = 2.54; 95% confidence interval = 2.04, 3.15).

Conclusions. National HBV vaccination programs have contributed to the increase in HBV vaccination coverage observed among US-bound refugee children.

Public Health Implications. Ongoing public health surveillance is needed to ensure that vaccine rates are sustained among diverse, conflict-affected, displaced populations.

American Journal of Tropical Medicine and Hygiene

June 2016; 94 (6)
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Research article
The impact of primary care reform on health system performance in Canada: a systematic review
We aimed to synthesize the evidence of a causal effect and draw inferences about whether Canadian primary care reforms improved health system performance based on measures of health service utilization, proces...
Renee Carter, Bruno Riverin, Jean-Frédéric Levesque, Geneviève Gariepy and Amélie Quesnel-Vallée
BMC Health Services Research 2016 16:324
Published on: 30 July 2016

Research article
Measurement and valuation of health providers' time for the management of childhood pneumonia in rural Malawi: an empirical study
Human resources are a major cost driver in childhood pneumonia case management. Introduction of 13-valent pneumococcal conjugate vaccine (PCV-13) in Malawi can lead to savings on staff time and salaries due to...
Fiammetta Maria Bozzani, Matthias Arnold, Timothy Colbourn, Norman Lufesi, Bejoy Nambiar, Gibson Masache and Jolene Skordis-Worrall
BMC Health Services Research 2016 16:314
Published on: 28 July 2016

BMC Infectious Diseases
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Research article
Where there is hope: a qualitative study examining patients' adherence to multi-drug resistant tuberculosis treatment in Karakalpakstan, Uzbekistan
Treatment for multi-drug resistant tuberculosis (MDR-TB) is lengthy, has severe side effects, and raises adherence challenges. In the Médecins Sans Frontières (MSF) and Ministry of Health (MoH) programme in Ka...

Shona Horter, Beverley Stringer, Jane Greig, Akhmet Amangeldiev, Mirzagaleb N. Tillashaikhov, Nargiza Parpieva, Zinaida Tigay and Philipp du Cros
BMC Infectious Diseases 2016 16:362
Published on: 28 July 2016

Review
Convergence of a diabetes mellitus, protein energy malnutrition, and TB epidemic: the neglected elderly population
On a global scale, nearly two billion persons are infected with Mycobacterium tuberculosis. From this vast reservoir of latent tuberculosis (TB) infection, a substantial number will develop active TB during th...
Sonia Menon, Rodolfo Rossi, Leon Nshimyumukiza, Aibibula Wusiman, Natasha Zdraveska and Manal Shams Eldin
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Research article
A global assessment of the gender gap in self-reported health with survey data from 59 countries
Ties Boerma, Ahmad Reza Hosseinpoor, Emese Verdes and Somnath Chatterji
BMC Public Health 2016 16:675
Published on: 30 July 2016
Abstract
Background

While surveys in high-income countries show that women generally have poorer self-reported health than men, much less is known about gender differences in other regions of the world. Such data can be used to examine the determinants of sex differences.
Methods
We analysed data on respondents 18 years and over from the World Health Surveys 2002–04 in 59 countries, which included multiple measures of self-reported health, eight domains of functioning and presumptive diagnoses of chronic conditions. The age-standardized female excess fraction was computed for all indicators and analysed for five regional groups of countries. Multivariate regression models were used to examine the association between country gaps in self-reported health between the sexes with societal and other background characteristics.
Results
Women reported significantly poorer health than men on all self-reported health indicators. The excess fraction was 15 % for the health score based on the eight domains, 28 % for "poor" or "very poor" self-rated health on the single question, and 26 % for "severe" or "extreme" on a single question on limitations. The excess female reporting of poorer health occurred at all ages, but was smaller at ages 60 and over. The female excess was observed in all regions, and was smallest in the European high-income countries. Women more frequently reported problems in specific health domains, with the excess fraction ranging from 25 % for vision to 35 % for mobility, pain and sleep, and with considerable variation between regions. Angina, arthritis and depression had female excess fractions of 33, 32 and 42 % respectively. Higher female prevalence of the presumptive diagnoses was observed in all regional country groups. The main factors affecting the size of the gender gap in self-reported health were the female-male gaps in the prevalence of chronic conditions, especially arthritis and depression and gender characteristics of the society.
Conclusions
Large female-male differences in self-reported health and functioning, equivalent to a decade of growing older, consistently occurred in all regions of the world, irrespective of differences in mortality levels or societal factors. The multi-country study suggests that a mix of biological factors and societal gender inequalities are major contributing factors to gender gap in self-reported measures of health.

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May 2016 Volume 42, Issue 3 Pages 297–454
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July/August 2016 Volume 21, Issue 6 Pages 1–459
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August 2016 - Volume 29 - Issue 4 pp: v-vi,319-431
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July 2016 Volume 40, Issue 3 Pages 385–588
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Volume 26, Issue 3, 1 June 2016
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Rapid communications
Detection of Zika virus in Brazilian patients during the first five days of infection – urine versus plasma
by R Pessôa, JV Patriota, MdL de Souza, A Abd El Wahed, SS Sanabani

Research Articles
Influenza epidemiology, vaccine coverage and vaccine effectiveness in children admitted to sentinel Australian hospitals in 2014: the Influenza Complications Alert Network (FluCAN)
by CC Blyth, KK Macartney, S Hewagama, S Senenayake, ND Friedman, G Simpson, J Upham, T Kotsimbos, P Kelly, AC Cheng
Abstract

The Influenza Complications Alert Network (FluCAN) is a sentinel hospital-based surveillance programme operating in all states and territories in Australia. We summarise the epidemiology of children hospitalised with laboratory-confirmed influenza in 2014 and reports on the effectiveness of inactivated trivalent inactivated vaccine (TIV) in children. In this observational study, cases were defined as children admitted with acute respiratory illness (ARI) with influenza confirmed by PCR. Controls were hospitalised children with ARI testing negative for influenza. Vaccine effectiveness (VE) was estimated as 1 minus the odds ratio of vaccination in influenza positive cases compared with test-negative controls using conditional logistic regression models. From April until October 2014, 402 children were admitted with PCR-confirmed influenza. Of these, 28% were aged < 1 year, 16% were Indigenous, and 39% had underlying conditions predisposing to severe influenza. Influenza A was detected in 90% of cases of influenza; influenza A(H1N1)pdm09 was the most frequent subtype (109/141 of subtyped cases) followed by A(H3N2) (32/141). Only 15% of children with influenza received antiviral therapy. The adjusted VE of one or more doses of TIV for preventing hospitalised influenza was estimated at 55.5% (95% confidence intervals (CI): 11.6–77.6%). Effectiveness against influenza A(H1N1)pdm09 was high (91.6% , 95% CI: 36.0–98.9%) yet appeared poor against H3N2. In summary, the 2014 southern hemisphere TIV was moderately effective against severe influenza in children. Significant VE was observed against influenza A(H1N1)pdm09.

Global Health: Science and Practice (GHSP)
June 2016 | Volume 4 | Issue 2
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[Reviewed earlier]

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Volume 11, Issue 7-8, 2016
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[Reviewed earlier]

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http://www.globalizationandhealth.com/
[Accessed 30 July 2016]
Editorial
Health partnership research and the assessment of effectiveness
Dan Ritman
Globalization and Health201612:43
DOI: 10.1186/s12992-016-0181-9
Introduction
Health partnerships are flourishing between institutions in the UK and low- and middle-income countries. Over the past five years, the Health Partnership Scheme (HPS), a UK government-funded programme managed by UK NGO THET, has supported health partnerships to undertake more than 200 projects in low- and middle-income countries [1]. All HPS-funded health

partnerships, and most others, undertake monitoring and evaluation to generate high quality information and insights for effective management, stakeholder engagement, accountability and advocacy. There are many descriptive and reflective accounts of health partnerships in the literature (eg [2, 3, 4, 5]) and a huge volume of grey literature in the form of project reports and evaluations.

With greater interest and investment comes higher profile and closer scrutiny. While this can manifest as pressure to generate evidence of short-term, measurable achievements, rather than long-term, sustainable impact [6], some health partnerships have responded by rigorously strengthening their evaluation and research activities. Emerging questions about the mechanisms, efficiency and effectiveness of health partnerships have prompted a stream of published evaluations and research papers from clinicians [1], social scientists [7], health systems researchers, economists and others. These questions relate to two topics: what health partnerships are, and what health partnerships do…

Research

Aspirations and realities in a North-South partnership for health promotion: lessons from a program to promote safe male circumcision in Botswana

Masego Katisi, Marguerite Daniel and Maurice B. Mittelmark

Globalization and Health 2016 12:42

Published on: 28 July 2016

Abstract

Background

International donors support the partnership between the Government of Botswana and two international organisations: U.S. Centers for Disease Control and Prevention and Africa Comprehensive HIV/AIDS Partnership to implement Voluntary Medical Male Circumcision with the target of circumcising 80 % of HIV negative men in 5 years. Botswana Government had started integration of the program into its health system when international partners brought in the Models for Optimizing Volume and Efficiency to strengthen delivery of the service and push the target. The objective of this paper is to use a systems model to establish how the functioning of the partnership on Safe Male Circumcision in Botswana contributed to the outcome.

Methods

Data were collected using observations, focus group discussions and interviews. Thirty participants representing all three partners were observed in a 3-day meeting; followed by three rounds of in-depth interviews with five selected leading officers over 2 years and three focus group discussions.

Results

Financial resources, "ownership" and the target influence the success or failure of partnerships. A combination of inputs by partners brought progress towards achieving set program goals. Although there were tensions between partners, they were working together in strategising to address some challenges of the partnership and implementation. Pressure to meet the expectations of the international donors caused tension and challenges between the in-country partners to the extent of Development Partners retreating and not pursuing the mission further.

Conclusion

Target achievement, the link between financial contribution and ownership expectations caused antagonistic outcome. The paper contributes enlightenment that the functioning of the visible in-country partnership is significantly influenced by the less visible global context such as the target setters and donors.

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Theme: ACA Coverage, Health Spending & More
[New issue; No relevant content identified]

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in collaboration with the International Human Rights Clinic, University of Chicago Law School
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H. L. Colquhoun, E. Helis, D. Lowe, D. Belanger, S. Hill, A. Mayhew, M. Taylor and J. M. Grimshaw
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Volume 45 Issue 2 April 2016
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July 2016 Volume 48, p1-124 Open Access
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July 26, 2016, Vol 316, No. 4
http://jama.jamanetwork.com/issue.aspx
Viewpoint
The Potential to Advance Health Care in the US Criminal Justice System
Newton E. Kendig, MD
This Viewpoint discusses potential opportunities to advance health care in the US criminal justice system based on recent developments.
An unprecedented confluence of medical, sociologic, and political factors has created a unique opportunity to advance health care in the US criminal justice system. In this Viewpoint, important developments supporting this potential opportunity are discussed.

Editorial

Improving Birth Outcomes Key to Improving Global Health
Catherine Y. Spong, MD
Optimizing birth outcomes is critical to improving global health not only for children, but also for the mother and family. Children who are born small, which is common in preterm births and complicated pregnancies, have a higher risk of heart disease and diabetes later in life.1 Similarly, some pregnancy complications, such as preeclampsia, have been found to increase the risk of maternal cardiac disease.2 Improving birth outcomes by optimizing pregnancy, reducing pregnancy complications, and delivering at the appropriate time can improve lifelong health for the mother and child, thereby benefitting the family unit and the broader community.

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July 2016, Vol 170, No. 7
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Volume 27, Number 2, May 2016 Supplement
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Volume 18, Issue 4, August 2016
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Vol 18, No 7 (2016): July
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Volume 3, Issue 2 (2016)
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[Reviewed earlier]

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Volume 5 Issue 2 June 2016
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[Reviewed earlier]

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July 2016, volume 90, issue 14
http://jvi.asm.org/content/current
[Reviewed earlier]

The Lancet
Jul 23, 2016 Volume 388 Number 10042 p307-436
http://www.thelancet.com/journals/lancet/issue/current
Editorial
Halting the Olympics-Zika virus bandwagon
The Lancet
DOI: http://dx.doi.org/10.1016/S0140-6736(16)31204-1
Summary
For Rio 2016, the XXXI Olympics taking place from Aug 5–21 and Paralympics from Sept 7–18, the sporting activity cannot start soon enough. Even by Olympic standards, there has been unprecedented controversy in the lead-up to the games: the Russian doping scandal, Brazil's economic difficulties, pollution in Rio's Guanabara Bay, and in a media-fuelled furore concerning Zika virus.

Zika virus has dominated global health and international media coverage this year, after WHO declared the Zika virus epidemic a Public Health Emergency of International Concern 6 months ago (reassessed in a World Report this week). Rio 2016 has therefore been the focus of global health attention ever since. WHO, the US Centers for Disease Control and Prevention, and the Pan-American Health Association, among others, have all issued guidelines for Olympic competitors and to the anticipated 500 000 visitors to the games to mitigate the risk of Zika virus transmission: pregnant women are advised to avoid travelling to the games; visitors are advised to use mosquito repellents and to cover up where possible; and safe sex messaging is being clearly promoted (up to 8 weeks after the games for asymptomatic individuals, or for 6 months if Zika virus disease symptoms have developed).

In a letter in The Lancet published on June 17, Brazilian scientists estimate Zika virus transmission in Rio during August as around one to three per 100,000, suggesting that there could be up to 15 possible Zika cases resulting from attendance at the games. There remains some legitimate concern about the possibility of Zika virus being exported from Rio to vulnerable regions of Africa. But overall, there would seem to be a general consensus that Zika virus, while clearly devastating in its potential to cause microcephaly in pregnancy, does not represent a public health threat at the Olympics.

However, opposition to Rio 2016 because of a perceived Zika virus threat has been resonating in the media for weeks. On May 20, 150 physicians, bioethicists, and public health "experts" published an open letter to WHO Director-General Margaret Chan in The Washington Post, calling for the Olympics to be postponed. One of the signatories, the lawyer Amir Attaran, from the Institute for Epidemiology and Population Health at the University of Ottawa, Canada, has been leading this movement, most recently in a colourful letter published last week in response to an Editorial in the June issue of The Lancet Infectious Diseases. Attaran criticised the Editorial for its "erroneous reasoning" in suggesting that Zika virus posed little threat, a position he says would "endorse a monstrous externalisation of risk, with indifference and inequity".

Attaran has pursued important and legitimate issues of human rights and bioethics in the past, several of which have been highlighted in this journal. But Attaran's latest stance has helped to stoke fear and create exagerated international headlines. Let us repeat: the best available evidence indicates that, with appropriate precautions, Zika virus poses no serious public health danger to those taking part in or attending the Olympics. Furthermore, postponing Rio 2016 would have had a negative effect on Brazil's economy, with an impact more damaging to the country's public health system than Zika virus. Media coverage of Zika virus and the Olympics has taken the spotlight away from more important concerns about global health security, including the potential of mass migration to reignite recently halted measles and rubella transmission in Brazil, and to trigger the spread of influenza from Brazil to other countries. Brazil, not long ago an emerging economic powerhouse, has an economy in crisis, compounding well known weaknesses in its sanitation system, which makes water-borne infections a threat to Rio's visitors and an ongoing health threat to millions of Brazilians long after the Olympics and Paralympics have left town.

Rio, like London in 2012 and every Olympic city before that, will be evaluated for the legacy the games will leave on its host city and nation. For Brazil this should include the impact of the games on a fragile public health system. But, more optimistically, there is an obvious yet often overlooked benefit that the Olympics can bring every 4 years—translating the power of sporting

achievement into increased physical activity and health worldwide. This is easy to say, and difficult to achieve, as highlighted in 's second Series on this subject, launched on July 28. This Series describes a global pandemic of inactivity and rightly views the global shop window of the Olympics as an opportunity (not a threat) for public health. Consequently, now is the time to halt the misguided Olympics-Zika virus bandwagon, and to get behind Rio 2016, and Brazil.

Editorial

HPV vaccination: a decade on

The Lancet
DOI: http://dx.doi.org/10.1016/S0140-6736(16)31206-5

Summary

Human papillomavirus (HPV) causes almost all cervical cancers and most other anogenital cancers and warts in both men and women. Worldwide prevalence is 11·7% in women, causing 4·5% of new cancers in women each year. Despite an effective vaccine being licensed in 2006, only last week was it approved for girls in China and endorsed for boys in the USA.

In China, this unacceptable drug approval lag is not limited to HPV vaccination—the problem is deeply rooted in the Chinese drug approval system. Trial registration is lengthy, with no prioritisation mechanism in place. Additionally, similar to some other countries, no drug can be licensed in China until clinical trials have been done in the country. Trials were done between 2002 and 2005 in other Asian countries but were not accepted by the Chinese Government, with a Chinese trial started in 2008 finally leading to approval this year. Travel agencies even offer package deals from the mainland to Hong Kong for HPV vaccinations to circumvent the problem. Improvement efforts are underway, such as a so-called four-colour light strategy for prioritisation and hiring of more staff to wade through the application backlog.

In the USA, despite approval for girls in 2006 and boys in 2011, uptake has been shockingly low. In 2014, just 37% of girls received the three-dose course compared with 13% of boys. Misconceptions have driven the low uptake, including the belief that vaccination is only needed for sexually active individuals or that vaccination of preteens will cause them to become sexually active. These misunderstandings have weakened political will to mandate the vaccine. Often, parents have not heard about the vaccine or believe that it is not needed. Politicians, health-care professionals, and parents all need to understand the importance of the vaccine. To deny girls and boys the full protection of the vaccine can no longer be tolerated.

The HPV vaccine has proven efficacy. But a decade on, its uptake has been poor, with a worldwide coverage of only 1·4% of women. Vaccines are one of the strongest levers to improve public health; their study, licensing, and implementation require more urgency than China and the USA have so far displayed.

The Lancet Infectious Diseases

Jul 2016 Volume 16 Number 7 p753-866 e108-e138
http://www.thelancet.com/journals/laninf/issue/current
[Reviewed earlier]

Lancet Global Health

Jul 2016 Volume 4 Number 7 e427-e501
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Volume 20, Issue 8, August 2016
http://link.springer.com/journal/10995/20/8/page/1
[Reviewed earlier]

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July 2016; 36 (5)
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
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Nature
Volume 535 Number 7613 pp465-586 28 July 2016
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Editorial
More support for clinical trials in children
US lawmakers should give drug firms the confidence to test paediatric cancer therapies.
27 July 2016
A cancer diagnosis is a shock, but adults with the disease can take some comfort in the numerous treatments available to them — both through clinical trials and as drugs that are already on the market. Children cannot. Because they make up only 1% of US patients with cancer, children are a low priority for pharmaceutical companies that want to launch an effective drug quickly. The hassle of a paediatric clinical trial may not seem worth it until after the drug has proved to be safe and effective in adults. This process can take decades, leaving children with therapies that are sometimes almost obsolete.

To access therapies early, parents of these children can turn to compassionate-use programmes, in which companies give experimental drugs to people who are in desperate need. In the United States, firms that agree to provide medicines in this way will ask the Food and Drug Authority for emergency permission, which is almost always granted.

This system, although helpful for some, is rife with complications. Patients and their families report difficulties in applying for such programmes, and say that they rarely receive responses. Companies that withhold a drug — because it is in short supply or not right for a patient — can find themselves on the receiving end of critical social-media campaigns highlighting individual

patients. And firms worry that if a person dies or is harmed while taking a drug, it could hurt the drug's chances of being approved. No one knows how many requests parents make and how often companies approve them, but anecdotally, firms often deny drugs on the grounds that they have not been tested in children.

Proper clinical trials for childhood cancer drugs are scarce. Designing a clinical trial is never simple, but adding children to the picture complicates the process immensely. Children are not just 'small adults' — they metabolize drugs in very different ways. It is difficult to predict from adult or animal studies whether a chemotherapy drug will be more or less toxic in a child, and at what dose. The process of obtaining informed consent for children participating in a trial can also be more complicated. And companies fear that the death of a child — even if unrelated to the treatment — could bring bad publicity for a new drug.

Recent years have seen attempts to make more drugs available to treat children. In the United States, a 2003 law known as the Pediatric Research Equity Act (PREA) requires that companies develop a plan for how they will test experimental drugs in children, although many trials are exempted. A second law, called the Best Pharmaceuticals for Children Act, motivates companies to perform paediatric clinical trials by granting an extra six months of market exclusivity for the adult drug.

Overall, these laws have been successful, leading to hundreds of drug labels being updated with information for use in children. But legal loopholes often prevent children with cancer from accessing new drugs. For instance, therapies for conditions that do not affect children — such as Alzheimer's disease — are exempt from the PREA. And exemptions intended for such diseases have been broadly applied to cancer. For example, therapies that are being trialled in adults with breast cancer are exempted because children do not get that cancer, even if the drug could treat a childhood cancer in a different organ.

Also exempted are drugs for 'orphan' diseases that affect fewer than 200,000 people in the United States. The number of orphan designations has skyrocketed in recent years — the improved ability to define the molecular basis of an individual's cancer means that diagnoses have become increasingly subdivided, and the majority of approved cancer drugs now carry this orphan designation.

Legislation is now attempting to close those loopholes. The Research to Accelerate Cures and Equity (RACE) for Children Act, introduced to the US Congress on 14 July, would require companies to apply the PREA to any therapy with a molecular target that is relevant to both an adult and a childhood disease. It would also end the exemption for orphan diseases. Last July, the European Medicines Agency passed similar rules to make it more difficult for companies to avoid testing drugs in children. This applies when the disease has a common mechanism in adults and children, unless the drug is likely to be unsafe in children.

With Congress now out of session and focused on the upcoming US election, the RACE for Children Act is unlikely to advance before next year. But when lawmakers pick it up, they should also address problems with compassionate-use programmes — and ensure a transparent and useful process for people to gain access to unapproved drugs. They should also encourage companies to make more drugs available through market incentives, and provide increased protection should something go wrong.

Nature Medicine
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http://www.nature.com/nm/journal/v22/n6/index.html
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Nature Reviews Immunology
July 2016 Vol 16 No 7
http://www.nature.com/nri/journal/v16/n6/index.html
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New England Journal of Medicine
July 28, 2016 Vol. 375 No. 4
http://www.nejm.org/toc/nejm/medical-journal
Perspective
Yellow Fever in Angola and Beyond — The Problem of Vaccine Supply and Demand
Alan D.T. Barrett, Ph.D.
N Engl J Med 2016; 375:301-303 July 28, 2016 DOI: 10.1056/NEJMp1606997
Audio Interview
Dr. Alan D.T. Barrett on the current yellow fever epidemic and lessons about vaccine supply and global health. (8:12) Listen Download

Yellow fever, caused by yellow fever virus, is a mosquito-borne flavivirus disease; it is found in sub-Saharan Africa and tropical South America, where approximately 1 billion people in 46 countries are at risk for it. A live attenuated vaccine (strain 17D) was developed by Max Theiler and colleagues in the 1930s — work that earned Theiler a Nobel Prize. An excellent vaccine, it has been in use since 1937; more than 650 million doses have been distributed in the past 75 years, and 1 dose probably confers lifelong protective immunity. The disease, however, has not been conquered: there are still an estimated 180,000 cases and 78,000 resulting deaths every year.1

In the past 6 months, we've seen a major resurgence of yellow fever disease that has proved difficult to control in multiple African countries. As a result, the World Health Organization (WHO) announced on May 19 that it had convened an emergency committee under the International Health Regulations to review the situation. That committee decided that the current epidemic is a "serious public health concern" but does not, unlike the current Zika virus epidemic, constitute a Public Health Emergency of International Concern.2

How did this situation arise? In December 2015, a yellow fever outbreak was identified in Angola. That outbreak continues, despite distribution of nearly 12 million doses of vaccine in the country, and as of May 20, 2016, a total of 2420 suspected cases, including 298 deaths, had been reported. Alarmingly, the cases are not limited to Angola: the virus has spread, by way of infected travelers from Angola, to the Democratic Republic of Congo (DRC), Kenya, and China, further demonstrating the difficulty of controlling infectious diseases in this era of unprecedented mobility.

In addition, cases in Angola and the DRC are found in cities, which suggests that transmission may be occurring through an "urban yellow fever" cycle, in which the virus is transmitted between humans by means of the bite of Aedes aegypti mosquitoes, rather than the traditional "jungle yellow fever" cycle of monkey–mosquito–monkey transmission in which humans are incidental hosts. Further complicating the situation, there appears to be a separate outbreak in Uganda concurrent swith the Angola-based outbreak.

The identification in China of 11 travelers who returned from Angola with yellow fever infection is also particularly troubling, since yellow fever has never been found in Asia even though laboratory studies have demonstrated that Asian A. aegypti mosquitoes are vector-competent. The reason for the absence of yellow fever from Asia is unknown and has been a subject of much speculation.3 Although it is very worrisome that people are returning from Angola with yellow fever, it is somewhat reassuring that China manufactures 17D vaccine for the domestic market and would probably be able to control an outbreak. The importations, however, indicate that there are weaknesses in the current International Health Regulations, which require persons entering a region with potential for yellow fever outbreaks to provide evidence of immunization.

Given that we have a highly effective yellow fever vaccine that confers lifelong immunity with one dose, why is yellow fever still a problem? Much of the answer comes down to vaccine supply and demand.

The 17D vaccine is a "legacy" vaccine produced in embryonated chicken eggs using technology that has changed little since the 1940s, when the seed-lot system was introduced. Three 17D substrains (17D-204, 17DD, and 17D-213) are used as vaccines. They have minor differences in genome sequences, but all have proved to be excellent vaccines. Currently, there are only six manufacturers of yellow fever vaccine worldwide, and they collectively produce approximately 50 million to 100 million doses each year; four (Institut Pasteur, Senegal; Bio-Manguinhos/Fiocruz, Brazil; Chumakov Institute of Poliomyelitis and Viral Encephalitides, Russia; and Sanofi Pasteur, France) are "prequalified" by the WHO to distribute vaccine internationally and two (Sanofi Pasteur, United States; and Wuhan Institute of Biological Products, China) make vaccine for domestic markets. Thus, the number of producers and the manufacturing process limit the amount of vaccine available.

Furthermore, there is a requirement for a minimum amount of virus in a dose (103.0 IU) but no maximum amount per dose, and some manufacturers' lots contain 106.5 IU per dose (over 1000 times the minimum). Although all vaccines have proved efficacious overall, the potency of the vaccines produced by the six manufacturers varies. Currently, approximately 6 million doses are kept in reserve for emergencies. That quantity is adequate for most years, but occasionally — now, for instance, or during the 2008 epidemic in South America — these reserves are insufficient to meet the demand from large outbreaks, particularly when they affect areas where yellow fever is not seen very often, as in Angola, which had gone decades without an urban outbreak.

Clearly, there is a need to increase the vaccine supply, but a number of approaches could improve the situation in the future. First, we can increase the reserve stockpile kept for emergencies. Second, regulators and the WHO could set a maximum for the amount of vaccine

in a dose. Studies have shown that 3000 IU (1/50 of the quantity in a dose of at least one current vaccine)[4] or less is sufficient to stimulate protective immunity. Consequently, vaccine bulk could be diluted in manufacturing freeze-dried vaccine, but studies would be needed to investigate the stability of diluted versus undiluted vaccine and the duration of protective immunity.

Relatedly, a dose-sparing approach has been suggested, in which a fraction of the current dose could be given to vaccinees once a vaccine vial had been opened. This approach would have to be evaluated carefully to ensure that vaccinees received the appropriate quantity of diluted vaccine. In addition, the vaccine is recommended for persons 9 months of age or older (6 months or older in epidemic situations), and studies would be needed to determine whether dose-sparing vaccination was equivalent in children and adults.

Similarly, some experts have suggested using intradermal immunization rather than the traditional intramuscular or subcutaneous route.[5] Although that option seems promising, the limited studies that have been conducted included no comparison between intradermal and conventional subcutaneous immunization with the same dose of vaccine. Moreover, these studies have involved vaccine from only two of the six manufacturers.

A third approach is to shift manufacturing from embryonated chicken eggs to a continuous cell line. This possibility proved unsuccessful when it was investigated in the 1980s, but cell-culture technology has greatly improved in the past 30 years. Notably, Sanofi Pasteur manufactures its chimeric yellow fever 17D-dengue (Dengvaxia) and chimeric yellow fever 17D-Japanese encephalitis (Imojev) vaccines in monkey kidney Vero cells, which suggests that Vero cells could be used to manufacture 17D vaccine. Of course, the immunogenicity and safety profile of such a Vero-cell–derived vaccine would need to be compared with that of currently licensed egg-derived vaccines.

Finally, there have been no systematic studies investigating the genome sequences of wild-type yellow fever virus strains from outbreaks to elucidate the evolution of the virus and help model the potential for outbreaks. There are 40 genomic sequences of wild-type yellow fever virus isolates in GenBank, of which 12 are from Brazil and 14 from Senegal, though the virus is currently found in 44 other countries. We still have much to learn about wild-type yellow fever virus.

In the short term, there will be difficulties in ensuring that sufficient vaccine is available to fight this major public health problem, but we have the opportunity to avoid vaccine shortfalls in the future. Toward that end, the WHO periodically reviews "Recommendations to Assure the Quality, Safety and Efficacy of Live Attenuated Yellow Fever Vaccines." Now may be the time to revisit these requirements, which were last reviewed in 2010.

Pediatrics
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Volume 34, Issue 7, July 2016
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[Reviewed earlier]

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PLoS Neglected Tropical Diseases
http://www.plosntds.org/
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Viewpoints
Human Rabies Survivors in India: An Emerging Paradox?
Reeta Subramaniam (Mani)
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There is an acute shortage of rabies biologicals, especially RIG, reported from time to time from several states in India. The WHO also reports a critical shortage of RIG worldwide. This is because both equine and human RIG can be manufactured only in limited quantities for several reasons. In India, only equine RIG is indigenously manufactured because of high production costs for human RIG. In the recent past, various studies and clinical trials have reported the production and evaluation of human monoclonal antibodies that are equally or more potent than RIG and have been found to be promising substitutes that can bring down the cost of PEP considerably [13,14,15]. One of these products [15], manufactured by Serum Institute of India, is set to be launched this year and will hopefully resolve the RIG crisis in India, at least to some extent.

To address the shortage of vaccines, India needs to scale up indigenous production of modern cell culture vaccines. More importantly, intradermal vaccination, which brings down the cost of PEP significantly, should be expanded to more areas across various states. This can be achieved by training of medical and nursing staff in this technique. The Global Alliance for Vaccines and Immunization (GAVI) does not currently support funding for rabies vaccines or immunoglobulins; however, recently it has decided to invest in research on feasibility of GAVI support for rabies vaccines.

Rabies deaths are scattered and, sadly, never manage to garner the critical attention that an epidemic or outbreak can achieve, which is one of the reasons why rabies continues to be a neglected disease in India despite continuing to cause significant human mortality. Recently, however, the Ministry of Health and Family Welfare, Government of India has initiated the National Rabies Control Programme under the 12th 5-year plan, which has both animal and human components. Increasing awareness of rabies and PEP among the public and health care professionals should be foremost on their agenda to prevent tragic human deaths…

Editorial

The World's Great Religions and Their Neglected Tropical Diseases

Peter J. Hotez

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New information based on data released by the World Health Organization (WHO) indicates that practically everyone infected with a major neglected tropical disease (NTD) lives in a Christian-, Muslim-, or Hindu-majority nation. The finding has implications for engaging religious leaders in NTD control and elimination activities.

Today, of the estimated 7.4 billion (thousand million)_people living [1], approximately one-half to two-thirds are linked to the three largest religions: Christianity (2.0–2.2 billion people), Islam (1.2–1.6 billion), and Hinduism (0.8–1.0 billion) [2,3]. As shown in Fig 1, the world's religions are not evenly distributed. The Muslim-majority countries that comprise the Organization of Islamic Cooperation (OIC) are found in the Middle East and North Africa region, extending down to the African Sahel, as well as in Southeast Asia. Christian-majority countries comprise those in the Western Hemisphere, Europe, central and southern Africa, Philippines, and Australia. The Hindu-majority countries are composed of India, Nepal, and Mauritiu

In previous papers published in PLOS Neglected Tropical Diseases, we have pointed out the disproportionate impact of NTDs on Muslim-majority countries [4,5], Christian-majority countries [6,7], and in India [8,9]…

…Linking NTDs to religion has potential importance because it invites prominent international religious leaders to have a greater role in advocating for and supporting NTD control [9]. For instance, for the OIC nations, the Islamic Development Bank, and some of the wealthier nations of the Gulf Cooperation Council could look at opportunities to contribute to MDA as well as supporting research and development (R&D) for new technologies. Through the United States Science Envoy program, we recently embarked on a cooperative R&D agreement between the Sabin Vaccine Institute and King Saud University for NTD vaccine development. Similarly, Pope Francis has been a staunch advocate for the poor and could add NTDs into the portfolio of activities for the Papacy, while leaders in India and Nepal can expand their existing commitments to NTDs, especially for intestinal helminth infections, LF, leishmaniasis, and other conditions. At the local level, religious leaders in churches, mosques, and temples could have important roles in raising awareness about NTDs and their health impact and could even promote indigenous control and elimination efforts.

Finally, there remains the interfaith opportunity to bring these three great religions together in order to cooperate on reducing the global burden of NTDs. NTD control and elimination represents one of the most effective and cost-efficient means to reduce poverty and relieve global suffering.

PLoS One
http://www.plosone.org/
[Accessed 30 July 2016]
Research Article
Influence of Immunology Knowledge on Healthcare and Healthy Lifestyle
Noor Lide Abu Kassim, Afiqah Binti Saleh Huddin, Jamal Ibrahim Daoud, Mohammad Tariqur Rahman
| published 28 Jul 2016 | PLOS ONE
http://dx.doi.org/10.1371/journal.pone.0159767
Abstract
Completing a course in Immunology is expected to improve health care knowledge (HCK), which in turn is anticipated to influence a healthy lifestyle (HLS), controlled use of health care services (HCS) and an awareness of emerging health care concerns (HCC). This cross-sectional study was designed to determine whether these interrelationships are empirically supported. Participants involved in this study were government servants from two ministries in Malaysia (n = 356) and university students from a local university (n = 147). Participants were selected using the non-random purposive sampling method. Data were collected using a self-developed questionnaire, which had been validated in a pilot study involving similar subjects. The questionnaire items were analyzed using Rasch analysis, SPSS version 21 and AMOS version 22. Results have shown that participants who followed a course in Immunology (CoI) had a higher primary HCK (Mean = 0.69 logit, SD = 1.29 logits) compared with those who had not (Mean = -0.27logit, SD = 1.26 logits). Overall, there were significant correlations among the HLS, the awareness of emerging HCC, and the controlled use of HCS ($p < 0.001$). However, no significant correlations were observed between primary HCK and the other variables. However, significant positive correlation was observed between primary HCK and controlled use of HCS for the group without CoI. Path analysis showed that the awareness of emerging HCC exerted a positive influence on controlled use of HCS ($\beta = 0.156$, $p < .001$) and on HLS ($\beta = 0.224$, $p < .001$). These findings suggest that having CoI helps increase primary HCK which influences controlled use of HCS but does not necessarily influence HLS. Hence, introducing Immunology at various levels of education and increasing the public awareness of emerging HCC might help to improve population health en masse. In addition, further investigations on the factors affecting HLS is required to provide a better understanding on the relationship between primary HCK and HLS.

Research Article
Stimulating Influenza Vaccination via Prosocial Motives
Meng Li, Eric G. Taylor, Katherine E. Atkins, Gretchen B. Chapman, Alison P. Galvani
| published 26 Jul 2016 | PLOS ONE
http://dx.doi.org/10.1371/journal.pone.0159780
Abstract
Objective
Americans do not vaccinate nearly enough against Influenza (flu) infection, despite severe health and economic burden of influenza. Younger people are disproportionately responsible for

transmission, but do not suffer severely from the flu. Thus, to achieve herd immunity, prosocial motivation needs to be a partial driver of vaccination decisions. Past research has not established the causal role of prosociality in flu vaccination, and the current research evaluates such causal relationship by experimentally eliciting prosociality through messages about flu victims.
Methods
In an experimental study, we described potential flu victims who would suffer from the decision of others to not vaccinate to 3952 Internet participants across eight countries. We measured sympathy, general prosociality, and vaccination intentions. The study included two identifiable victim conditions (one with an elderly victim and another with a young victim), an unidentified victim condition, and a no message condition.
Results
We found that any of the three messages increased flu vaccination intentions. Moreover, this effect was mediated by enhanced prosocial motives, and was stronger among people who were historical non-vaccinators. In addition, younger victim elicited greater sympathy, and describing identifiable victims increased general sympathy and prosocial motives.
Conclusions
These findings provide direct experimental evidence on the causal role of prosocial motives in flu vaccination, by showing that people can be prompted to vaccinate for the sake of benefiting others.

PLoS Pathogens
http://journals.plos.org/plospathogens/
(Accessed 30 July 2016)
Research Article
Open Source Drug Discovery with the Malaria Box Compound Collection for Neglected Diseases and Beyond
Wesley C. Van Voorhis, John H. Adams, Roberto Adelfio, Vida Ahyong, Myles H. Akabas, Pietro Alano, Aintzane Alday, Yesmalie Alemán Resto, Aishah Alsibaee, Ainhoa Alzualde, Katherine T. Andrews, Simon V. Avery, Vicky M. Avery, Lawrence Ayong, Mark Baker, Stephen Baker, Choukri Ben Mamoun, Sangeeta Bhatia, Quentin Bickle, Lotfi Bounaadja, Tana Bowling, Jürgen Bosch, Lauren E. Boucher, Fabrice F. Boyom, Jose Brea, Marian Brennan, Audrey Burton, Conor R. Caffrey, Grazia Camarda, Manuela Carrasquilla, Dee Carter, Maria Belen Cassera, Ken Chih-Chien Cheng, Worathad Chindaudomsate, Anthony Chubb, Beatrice L. Colon, Daisy D. Colón-López, Yolanda Corbett, Gregory J. Crowther, Noemi Cowan, Sarah D'Alessandro, Na Le Dang, Michael Delves, Joseph L. DeRisi, Alan Y. Du, Sandra Duffy, Shimaa Abd El-Salam El-Sayed, Michael T. Ferdig, José A. Fernández Robledo, David A. Fidock, Isabelle Florent, Patrick V. T. Fokou, Ani Galstian, Francisco Javier Gamo, Suzanne Gokool, Ben Gold, Todd Golub, Gregory M. Goldgof, Rajarshi Guha, W. Armand Guiguemde, Nil Gural, R. Kiplin Guy, Michael A. E. Hansen, Kirsten K. Hanson, Andrew Hemphill, Rob Hooft van Huijsduijnen, Takaaki Horii, Paul Horrocks, Tyler B. Hughes, Christopher Huston, Ikuo Igarashi, Katrin Ingram-Sieber, Maurice A. Itoe, Ajit Jadhav, Amornrat Naranuntarat Jensen, Laran T. Jensen, Rays H. Y. Jiang, Annette Kaiser, Jennifer Keiser, Thomas Ketas, Sebastien Kicka, Sunyoung Kim, Kiaran Kirk, Vidya P. Kumar, Dennis E. Kyle, Maria Jose Lafuente, Scott Landfear, Nathan Lee, Sukjun Lee, Adele M. Lehane, Fengwu Li, David Little, Liqiong Liu, Manuel Llinás, Maria I. Loza, Aristea Lubar, Leonardo Lucantoni, Isabelle Lucet, Louis Maes, Dalu Mancama, Nuha R. Mansour, Sandra March, Sheena McGowan, Iset Medina Vera, Stephan Meister, Luke Mercer, Jordi Mestres, Alvine N. Mfopa, Raj

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http://dx.doi.org/10.1371/journal.ppat.1005763

Abstract

A major cause of the paucity of new starting points for drug discovery is the lack of interaction between academia and industry. Much of the global resource in biology is present in universities, whereas the focus of medicinal chemistry is still largely within industry. Open source drug discovery, with sharing of information, is clearly a first step towards overcoming this gap. But the interface could especially be bridged through a scale-up of open sharing of physical compounds, which would accelerate the finding of new starting points for drug discovery. The Medicines for Malaria Venture Malaria Box is a collection of over 400 compounds representing families of structures identified in phenotypic screens of pharmaceutical and academic libraries against the Plasmodium falciparum malaria parasite. The set has now been distributed to almost 200 research groups globally in the last two years, with the only stipulation that information from the screens is deposited in the public domain. This paper reports for the first time on 236 screens that have been carried out against the Malaria Box and compares these results with 55 assays that were previously published, in a format that allows a meta-analysis of the combined dataset. The combined biochemical and cellular assays presented here suggest mechanisms of action for 135 (34%) of the compounds active in killing multiple life-cycle stages of the malaria parasite, including asexual blood, liver, gametocyte, gametes and insect ookinete stages. In addition, many compounds demonstrated activity against other pathogens, showing hits in assays with 16 protozoa, 7 helminths, 9 bacterial and mycobacterial species, the dengue fever mosquito vector, and the NCI60 human cancer cell line panel of 60 human tumor cell lines. Toxicological, pharmacokinetic and metabolic properties were collected on all the compounds, assisting in the selection of the most promising candidates for murine proof-of-concept experiments and medicinal chemistry programs. The data for all of these assays are presented and analyzed to show how outstanding leads for many indications can be selected. These results reveal the immense potential for translating the dispersed expertise in biological assays involving human pathogens into drug discovery starting points, by providing open access to new families of molecules, and emphasize how a small additional investment made to help acquire and distribute compounds, and sharing the data, can catalyze drug discovery for dozens of different indications. Another lesson is that when multiple screens from different groups are run on the same library, results can be integrated quickly to select the most valuable starting points for subsequent medicinal chemistry efforts.

Author Summary
Malaria leads to the loss of over 440,000 lives annually; accelerating research to discover new candidate drugs is a priority. Medicines for Malaria Venture (MMV) has distilled over 25,000 compounds that kill malaria parasites in vitro into a group of 400 representative compounds, called the "Malaria Box". These Malaria Box sets were distributed free-of-charge to research laboratories in 30 different countries that work on a wide variety of pathogens. Fifty-five groups compiled >290 assay results for this paper describing the many activities of the Malaria Box compounds. The collective results suggest a potential mechanism of action for over 130 compounds against malaria and illuminate the most promising compounds for further malaria drug development research. Excitingly some of these compounds also showed outstanding activity against other disease agents including fungi, bacteria, other single-cellular parasites, worms, and even human cancer cells. The results have ignited over 30 drug development programs for a variety of diseases. This open access effort was so successful that MMV has begun to distribute another set of compounds with initial activity against a wider range of infectious agents that are of public health concern, called the Pathogen Box, available now to scientific labs all over the world (www.PathogenBox.org).

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Volume 88, Pages 1-240 (July 2016)
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[Reviewed earlier]

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Volume 9 Issue 30 July 2016
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[Reviewed earlier]

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Volume 131 Issue Number 4 July/August 2016
http://www.publichealthreports.org/issuecontents.cfm?Volume=131&Issue=3
Commentary
An Approach to Achieving the Health Equity Goals of the National HIV/AIDS Strategy for the United States Among Racial/Ethnic Minority Communities
Donna Hubbard McCree, PhD, MPH, RPh / Linda Beer, PhD / Cynthia Prather, PhD / Zanetta Gant, PhD, MS / Norma Harris, PhD, MSPH / Madeline Sutton, MD, MPH / Catlainn Sionean, PhD / Erica Dunbar, MPH / Jennifer Smith, MSPH / Pascale Wortley, MD, MPH

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July 2016 Volume 36, Issue 7 Pages 1287–1509
http://onlinelibrary.wiley.com/doi/10.1111/risa.2016.36.issue-7/issuetoc
Special Series: Issue focused on Measles and Rubella
Systematic Review of Health Economic Analyses of Measles and Rubella Immunization Interventions (pages 1297–1314)
Kimberly M. Thompson and Cassie L. Odahowski
Version of Record online: 24 DEC 2014 | DOI: 10.1111/risa.12331
Abstract
Economic analyses for vaccine-preventable diseases provide important insights about the value of prevention. We reviewed the literature to identify all of the peer-reviewed, published economic analyses of interventions related to measles and rubella immunization options to assess the different types of analyses performed and characterize key insights. We searched PubMed, the Science Citation Index, and references from relevant articles for studies in English and found 67 analyses that reported primary data and quantitative estimates of benefit-cost or cost-effectiveness analyses for measles and/or rubella immunization interventions. We removed

studies that we characterized as cost-minimization analyses from this sample because they generally provide insights that focused on more optimal strategies to achieve the same health outcome. The 67 analyses we included demonstrate the large economic benefits associated with preventing measles and rubella infections using vaccines and the benefit of combining measles and rubella antigens into a formulation that saves the costs associated with injecting the vaccines separately. Despite the importance of population immunity and dynamic viral transmission, most of the analyses used static models to estimate cases prevented and characterize benefits, although the use of dynamic models continues to increase. Many of the analyses focused on characterizing the most significant adverse outcomes (e.g., mortality for measles, congenital rubella syndrome for rubella) and/or only direct costs, and the most complete analyses present data from high-income countries.

The Costs and Valuation of Health Impacts of Measles and Rubella Risk Management Policies (pages 1357–1382)

Kimberly M. Thompson and Cassie L. Odahowski

Version of Record online: 5 AUG 2015 | DOI: 10.1111/risa.12459

Abstract

National and global health policymakers require good information about the costs and benefits of their investments in measles and rubella immunization programs. Building on our review of the existing measles and rubella health economics literature, we develop inputs for use in regional and global models of the expected future benefits and costs of vaccination, treatment, surveillance, and other global coordination activities. Given diversity in the world and limited data, we characterize the costs for countries according to the 2013 World Bank income levels using 2013 U.S. dollars (2013$US). We estimate that routine immunization and supplemental immunization activities will cost governments and donors over 2013$US 2.3 billion per year for the foreseeable future, with high-income countries accounting for 55% of the costs, to vaccinate global birth cohorts of approximately 134 million surviving infants and to protect the global population of over 7 billion people. We find significantly higher costs and health consequences of measles or rubella disease than with vaccine use, with the expected disability-adjusted life year (DALY) loss for case of disease generally at least 100 times the loss per vaccine dose. To support estimates of the economic benefits of investments in measles and/or rubella elimination or control, we characterize the probabilities of various sequelae of measles and rubella infections and vaccine adverse events, the DALY inputs for health outcomes, and the associated treatment costs. Managing measles and rubella to achieve the existing and future regional measles and rubella goals and the objectives of the Global Vaccine Action Plan will require an ongoing commitment of financial resources that will prevent adverse health outcomes and save the associated treatment costs.

Framework for Optimal Global Vaccine Stockpile Design for Vaccine-Preventable Diseases: Application to Measles and Cholera Vaccines as Contrasting Examples (pages 1487–1509)

Kimberly M. Thompson and Radboud J. Duintjer Tebbens

Version of Record online: 11 AUG 2014 | DOI: 10.1111/risa.12265

Abstract

Managing the dynamics of vaccine supply and demand represents a significant challenge with very high stakes. Insufficient vaccine supplies can necessitate rationing, lead to preventable adverse health outcomes, delay the achievements of elimination or eradication goals, and/or pose reputation risks for public health authorities and/or manufacturers. This article explores

the dynamics of global vaccine supply and demand to consider the opportunities to develop and maintain optimal global vaccine stockpiles for universal vaccines, characterized by large global demand (for which we use measles vaccines as an example), and nonuniversal (including new and niche) vaccines (for which we use oral cholera vaccine as an example). We contrast our approach with other vaccine stockpile optimization frameworks previously developed for the United States pediatric vaccine stockpile to address disruptions in supply and global emergency response vaccine stockpiles to provide on-demand vaccines for use in outbreaks. For measles vaccine, we explore the complexity that arises due to different formulations and presentations of vaccines, consideration of rubella, and the context of regional elimination goals. We conclude that global health policy leaders and stakeholders should procure and maintain appropriate global vaccine rotating stocks for measles and rubella vaccine now to support current regional elimination goals, and should probably also do so for other vaccines to help prevent and control endemic or epidemic diseases. This work suggests the need to better model global vaccine supplies to improve efficiency in the vaccine supply chain, ensure adequate supplies to support elimination and eradication initiatives, and support progress toward the goals of the Global Vaccine Action Plan.

Risk Management and Healthcare Policy
Volume 9, 2016
https://www.dovepress.com/risk-management-and-healthcare-policy-archive56
[Accessed 30 July 2016]
[No new relevant content identified]

Science
29 July 2016 Vol 353, Issue 6298
http://www.sciencemag.org/current.dtl
In Depth
Obstacles loom along path to the end of AIDS
By Jon Cohen
Science29 Jul 2016 : 432-433
International meeting highlights clash between ambitious goals and wobbly funding.
Summary
At the International AIDS Conference held in Durban, South Africa, last week sobering realities confronted the push to end the AIDS epidemic by 2030, a goal set by the Joint United Nations Programme on HIV/AIDS (UNAIDS). One huge obstacle is funding. There currently are 17 million people receiving antiretroviral (ARV) drugs, but nearly 20 million others are not. The two big organizations that bankroll most treatment around the world both have serious financial constraints. The U.S. governmental bilateral program the President's Emergency Plan for AIDS Relief has had a flat budget since 2009. The Global Fund to Fight Aids, Tuberculosis and Malaria, the other big player, is in the midst of a "replenishment drive" that is asking wealthy countries to donate $13 billion at a moment when the United States and many European countries are facing political uncertainty. The generic drug companies that supply the ARVs to three-fourths of the people in low- and middle-income countries say they also need a more stable marketplace to scale up to what amounts to double the production they're doing today. They also say they're being pressured to sell first-line treatment for less than $100 per person per year, which is not feasible given their slim profit margins. On top of these challenges, global

new infection rates have not dropped even with the massive roll out of treatment, and Eastern Europe and central Asia have seen an increase of 57% in new infections between 2010 and 2015. At the meeting's opening ceremony, UNAIDS Director Michel Sidibé summed up the widespread sentiment at the huge gathering. "I'm scared," Sidibé said.

Science Translational Medicine
27 July 2016 Vol 8, Issue 349
http://stm.sciencemag.org/
Perspective
Disciplined approach to drug discovery and early development
By Robert M. Plenge
Science Translational Medicine27 Jul 2016 : 349ps15
Drug R&D requires a disciplined approach anchored in causal human biology through proof-of-concept clinical trials.
Abstract
Our modern health care system demands therapeutic interventions that improve the lives of patients. Unfortunately, decreased productivity in therapeutics research and development (R&D) has driven drug costs up while delivering insufficient value to patients. Here, I discuss a model of translational medicine that connects four components of the early R&D pipeline—causal human biology, therapeutic modality, biomarkers of target modulation, and proof-of-concept clinical trials. Whereas the individual components of this model are not new, technological advances and a disciplined approach to integrating all four areas offer hope for improving R&D productivity.

Social Science & Medicine
Volume 159, Pages 1-180 (June 2016)
http://www.sciencedirect.com/science/journal/02779536/156
[Reviewed earlier]

Tropical Medicine & International Health
July 2016 Volume 21, Issue 7 Pages 819–935
http://onlinelibrary.wiley.com/doi/10.1111/tmi.2016.21.issue-6/issuetoc
[Reviewed earlier]

Vaccine
Volume 34, Issue 35, Pages 4087-4270 (29 July 2016)
http://www.sciencedirect.com/science/journal/0264410X/34/35
Reviews
Immunogenicity and safety of inactivated quadrivalent influenza vaccine in adults: A systematic review and meta-analysis of randomised controlled trials
Review Article
Pages 4092-4102
Aye M. Moa, Abrar A. Chughtai, David J. Muscatello, Robin M. Turner, C. Raina MacIntyre
Abstract

Background
A quadrivalent influenza vaccine (QIV) includes two A strains (A/H1N1, A/H3N2) and two B lineages (B/Victoria, B/Yamagata). The presence of both B lineages eliminate potential B lineage mismatch of trivalent influenza vaccine (TIV) with the circulating strain.
Methods
Electronic database searches of Medline, Embase, Cochrane Central Register of Controlled Trials (CCRCT), Scopus and Web of Science were conducted for articles published until June 30, 2015 inclusive. Articles were limited to randomised controlled trials (RCTs) in adults using inactivated intramuscular vaccine and published in English language only. Summary estimates of immunogenicity (by seroprotection and seroconversion rates) and adverse events outcomes were compared between QIV and TIV, using a risk ratio (RR). Studies were pooled using inverse variance weights with a random effect model and the I2 statistic was used to estimate heterogeneity.
Results
A total of five RCTs were included in the meta-analysis. For immunogenicity outcomes, QIV had similar efficacy for the three common strains; A/H1N1, A/H3N2 and the B lineage included in the TIV. QIV also showed superior efficacy for the B lineage not included in the TIV; pooled seroprotection RR of 1.14 (95%CI: 1.03–1.25, p = 0.008) and seroconversion RR of 1.78 (95%CI: 1.24–2.55, p = 0.002) for B/Victoria, and pooled seroprotection RR of 1.12 (95%CI: 1.02–1.22, p = 0.01) and seroconversion RR of 2.11 (95%CI: 1.51–2.95, p < 0.001) for B/Yamagata, respectively. No significant differences were found between QIV and TIV for aggregated local and systemic adverse events within 7 days post-vaccination. There were no vaccine-related serious adverse events reported for either QIV or TIV. Compared to TIV, injection-site pain was more common for QIV, with a pooled RR of 1.18 (95%CI: 1.03–1.35, p = 0.02).
Conclusion
In adults, inactivated QIV was as immunogenic as seasonal TIV, with equivalent efficacy against the shared three strains included in TIV, and a superior immunogenicity against the non-TIV B lineage.

Monitoring vaccination coverage: Defining the role of surveys

Review Article
Pages 4103-4109
Felicity T. Cutts, Pierre Claquin, M. Carolina Danovaro-Holliday, Dale A. Rhoda
Abstract

Vaccination coverage is a widely used indicator of programme performance, measured by registries, routine administrative reports or household surveys. Because the population denominator and the reported number of vaccinations used in administrative estimates are often inaccurate, survey data are often considered to be more reliable. Many countries obtain survey data on vaccination coverage every 3–5 years from large-scale multi-purpose survey programs. Additional surveys may be needed to evaluate coverage in Supplemental Immunization Activities such as measles or polio campaigns, or after major changes have occurred in the vaccination programme or its context.

When a coverage survey is undertaken, rigorous statistical principles and field protocols should be followed to avoid selection bias and information bias. This requires substantial time, expertise and resources hence the role of vaccination coverage surveys in programme monitoring needs to be carefully defined. At times, programmatic monitoring may be more appropriate and provides data to guide program improvement. Practical field methods such as

health facility-based assessments can evaluate multiple aspects of service provision, costs, coverage (among clinic attendees) and data quality. Similarly, purposeful sampling or censuses of specific populations can help local health workers evaluate their own performance and understand community attitudes, without trying to claim that the results are representative of the entire population. Administrative reports enable programme managers to do real-time monitoring, investigate potential problems and take timely remedial action, thus improvement of administrative estimates is of high priority. Most importantly, investment in collecting data needs to be complemented by investment in acting on results to improve performance.

A 16-year review of seroprevalence studies on measles and rubella

Review Article
Pages 4110-4118
Wayne Dimech, Mick N. Mulders
Abstract
The determination of the seroprevalence of vaccine-preventable diseases is critical in monitoring the efficacy of vaccination programmes and to assess the gaps in population immunity but requires extensive organisation and is time and resource intensive. The results of the studies are frequently reported in peer-reviewed scientific, government and non-government publications. A review of scientific literature was undertaken to advise the development of WHO guidelines for the assessment of measles and rubella seroprevalence. A search of the National Library of Medicine's PubMed online publications using key words of 'measles', 'rubella', combined with 'serosurvey', 'seroprevalence', 'immunity' and 'population immunity' was conducted. A total of 97 articles published between January 1998 and June 2014 were retrieved, 68 describing serosurveys for measles and 58 serosurveys for rubella, conducted in 37 and 36 different countries respectively. Only 13 (19%) and 8 (14%) respectively were UN classified "least developed countries". The study sample varied markedly and included combinations of male and female infants, children, adolescents and adults. The study sizes also varied with 28% and 33% of measles and rubella studies respectively, having greater than 2000 participants. Microtitre plate enzyme immunoassays were used in 52 (76%) measles studies and 40 (69%) rubella studies. A total of 39 (57%) measles and 44 (76%) rubella studies reported quantitative test results. Seroprevalence ranged from 60.8% to 95.9% for measles and 53.0% to 99.3% for rubella studies. The review highlighted that infants lost maternally-acquired immunity within 9 months of birth and were unprotected until vaccination. Two groups at higher risk of infection were identified: young adults between the ages of 15 and 30 years and immigrants.

The economic value of increasing geospatial access to tetanus toxoid immunization in Mozambique

Original Research Article
Pages 4161-4165
Leila A. Haidari, Shawn T. Brown, Dagna Constenla, Eli Zenkov, Marie Ferguson, Gatien de Broucker, Sachiko Ozawa, Samantha Clark, Bruce Y. Lee
Abstract
Background
With tetanus being a leading cause of maternal and neonatal morbidity and mortality in low and middle income countries, ensuring that pregnant women have geographic access to tetanus toxoid (TT) immunization can be important. However, immunization locations in many systems

may not be placed to optimize access across the population. Issues of access must be addressed for vaccines such as TT to reach their full potential.
Methods
To assess how TT immunization locations meet population demand in Mozambique, our team developed and utilized SIGMA (Strategic Integrated Geo-temporal Mapping Application) to quantify how many pregnant women are reachable by existing TT immunization locations, how many cannot access these locations, and the potential costs and disease burden of not covering geographically harder-to-reach populations. Sensitivity analyses covered a range of catchment area sizes to include realistic travel distances and to determine the area some locations would need to cover in order for the existing system to reach at least 99% of the target population.
Results
For 99% of the population to reach health centers, people would be required to travel up to 35 km. Limiting this distance to 15 km would result in 5450 (3033–7108) annual cases of neonatal tetanus that could be prevented by TT, 144,240 (79,878–192,866) DALYs, and $110,691,979 ($56,180,326–$159,516,629) in treatment costs and productivity losses. A catchment area radius of 5 km would lead to 17,841 (9929–23,271) annual cases of neonatal tetanus that could be prevented by TT, resulting in 472,234 (261,517–631,432) DALYs and $362,399,320 ($183,931,229–$522,248,480) in treatment costs and productivity losses.
Conclusion
TT immunization locations are not geographically accessible by a significant proportion of pregnant women, resulting in substantial healthcare and productivity costs that could potentially be averted by adding or reconfiguring TT immunization locations. The resulting cost savings of covering these harder to reach populations could help pay for establishing additional immunization locations.

Costs of introducing pneumococcal, rotavirus and a second dose of measles vaccine into the Zambian immunisation programme: Are expansions sustainable?
Original Research Article
Pages 4213-4220
Ulla Kou Griffiths, Fiammetta Maria Bozzani, Collins Chansa, Anthony Kinghorn, Penelope Kalesha-Masumbu, Cheryl Rudd, Roma Chilengi, Logan Brenzel, Carl Schutte
Abstract
Background
Introduction of new vaccines in low- and lower middle-income countries has accelerated since Gavi, the Vaccine Alliance was established in 2000. This study sought to (i) estimate the costs of introducing pneumococcal conjugate vaccine, rotavirus vaccine and a second dose of measles vaccine in Zambia; and (ii) assess affordability of the new vaccines in relation to Gavi's co-financing and eligibility policies.
Methods
Data on 'one-time' costs of cold storage expansions, training and social mobilisation were collected from the government and development partners. A detailed economic cost study of routine immunisation based on a representative sample of 51 health facilities provided information on labour and vaccine transport costs. Gavi co-financing payments and immunisation programme costs were projected until 2022 when Zambia is expected to transition from Gavi support. The ability of Zambia to self-finance both new and traditional vaccines was assessed by comparing these with projected government health expenditures.
Results

'One-time' costs of introducing the three vaccines amounted to US$ 0.28 per capita. The new vaccines increased annual immunisation programme costs by 38%, resulting in economic cost per fully immunised child of US$ 102. Co-financing payments on average increased by 10% during 2008–2017, but must increase 49% annually between 2017 and 2022. In 2014, the government spent approximately 6% of its health expenditures on immunisation. Assuming no real budget increases, immunisation would account for around 10% in 2022. Vaccines represented 1% of government, non-personnel expenditures for health in 2014, and would be 6% in 2022, assuming no real budget increases.
Conclusion
While the introduction of new vaccines is justified by expected positive health impacts, long-term affordability will be challenging in light of the current economic climate in Zambia. The government needs to both allocate more resources to the health sector and seek efficiency gains within service provision.

Provider-reported acceptance and use of the Centers for Disease Control and Prevention messages and materials to support HPV vaccine recommendation for adolescent males
Original Research Article
Pages 4229-4234
C.L. Scherr, B. Augusto, K. Ali, T.L. Malo, S.T. Vadaparampil
Abstract
Purpose
We evaluated Florida-based physicians' awareness and use of the Centers for Disease Control and Prevention's (CDC) "You are the Key" campaign website, including messages to support physicians' human papillomavirus (HPV) vaccine recommendations.
Methods
Using closed-ended and free-text survey items, physicians' (n=355) practices related to HPV vaccination recommendations for males and use of the CDC's materials were assessed. Descriptive statistics were calculated for closed-ended questions, and thematic analysis was conducted on free-text responses.
Results
Over half of physicians were aware of the CDC's website (n=186; 57.9%); of those aware, fewer than half reported using the website (n=86; 46.2%). Slightly more than half reported awareness of the CDC's messages (n=178; 55.3%); however, less than one-third of those aware reported using them (n=56; 31.5%). Physicians' comments on the CDC's messages were favorable; 78.6–93.2% said they would use a message in clinic.
Conclusion
Additional research is needed to identify the best mechanisms for resource dissemination and to understand why physicians do not use these messages, despite favorable attitudes.

Cost-effectiveness analysis of catch-up hepatitis A vaccination among unvaccinated/partially-vaccinated children
Original Research Article
Pages 4243-4249
Abigail Hankin-Wei, David B. Rein, Alfonso Hernandez-Romieu, Mallory J. Kennedy, Lisa Bulkow, Eli Rosenberg, Monica Trigg, Noele P. Nelson
Abstract
Background

Since 2006, the US Centers for Disease Control and Prevention has recommended hepatitis A (HepA) vaccination routinely for children aged 12–23 months to prevent hepatitis A virus (HAV) infection. However, a substantial proportion of US children are unvaccinated and susceptible to infection. We present results of economic modeling to assess whether a one-time catch-up HepA vaccination recommendation would be cost-effective.
Methods
We developed a Markov model of HAV infection that followed a single cohort from birth through death (birth to age 95 years). The model compared the health and economic outcomes from catch-up vaccination interventions for children at target ages from two through 17 years vs. outcomes resulting from maintaining the current recommendation of routine vaccination at age one year with no catch-up intervention.
Results
Over the lifetime of the cohort, catch-up vaccination would reduce the total number of infections relative to the baseline by 741 while increasing doses of vaccine by 556,989. Catch-up vaccination would increase net costs by $10.2 million, or $2.38 per person. The incremental cost of HepA vaccine catch-up intervention at age 10 years, the midpoint of the ages modeled, was $452,239 per QALY gained. Across age-cohorts, the cost-effectiveness of catch-up vaccination is most favorable at age 12 years, resulting in an Incremental Cost-Effectiveness Ratio of $189,000 per QALY gained.
Conclusions
Given the low baseline of HAV disease incidence achieved by current vaccination recommendations, our economic model suggests that a catch-up vaccination recommendation would be less cost-effective than many other vaccine interventions, and that HepA catch-up vaccination would become cost effective at a threshold of $50,000 per QALY only when incidence of HAV rises about 5.0 cases per 100,000 population.

Vaccine: Development and Therapy
https://www.dovepress.com/vaccine-development-and-therapy-archive111
(Accessed 30 July 2016)
[No new content]

Vaccines — Open Access Journal
http://www.mdpi.com/journal/vaccines
(Accessed 30 July 2016)
[No new relevant content]

Value in Health
June 2016 Volume 19, Issue 4, p297-510
http://www.valueinhealthjournal.com/current
[Reviewed earlier]

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

Journal of Women's Health
Online Ahead of Print: July 22, 2016
Low Uptake of Human Papillomavirus Vaccine Among Postpartum Women, 2006–2012
KA Kilfoyle, L Rahangdale, SB Dusetzina -, 2016
ABSTRACT
Background: Young adult women find it acceptable to be offered the human papillomavirus (HPV) vaccine postpartum. Little is known about the practice of administering the HPV vaccine during the postpartum period.
Materials and Methods: The Truven Health Analytics MarketScan Commercial Claims and Encounters database was used to develop a cohort of privately insured 18 to 26–year-old women with uncomplicated live-born pregnancies. Eligibility required no previous doses of HPV vaccine before delivery and continuous insurance enrollment from June 2006 through 1 year postpartum. Descriptive statistics were performed.
Results: A total of 51,913 women meet age and enrollment criteria, with 3912 (7.5%) having received any doses of vaccine before their delivery, leaving 48,001 women in this cohort. In the year postpartum, 861 women (1.8%) received any HPV vaccine. Of the women initiating the vaccine, only 337 (39%) completed the three-vaccine series. Women who received the vaccine, compared with women who did not, were younger (21 vs. 23 years old), more often the dependent to the insurance beneficiary (56% vs. 30%), and were more likely to have had an abnormal pap smear in the year prior (19.6% vs. 9.1%) or postdelivery (16.4% vs. 4.9). More women completed the HPV vaccine series when initiated within 2 months postpartum compared with women initiating the vaccine series >2 months postpartum (44% vs. 38%).
Conclusions: Postpartum women are eligible for the HPV vaccine, yet very few are receiving it. The postpartum period is a missed opportunity for administration of this cancer-preventing vaccine.

International Journal of Preventive Medicine
2016, 7:94 (19 July 2016)
Effect of Tetanus-diphtheria Vaccine on Immune Response to Hepatitis B Vaccine in Low-responder Individuals
Abbas Haghighat, Mohammad Moafi, Jalil Sharifian, Hassan Salehi, Roya Kalbasi, Nader Kalbasi, Marzieh Salehi, Mohammad Mahdi Salehi, Maryam Salehi
Abstract
Background: Conventional hepatitis B virus (HBV) vaccination fails to achieve efficient protection in about 5–10% of the world population. Hence, different strategies have been adopted to ameliorate HBV antibody titers. This study aimed to evaluate the concurrent application of tetanus-diphtheria (Td) and HBV vaccination on hepatitis B surface (HBs) antibody titer in low-responder healthy individuals.
Methods: This was a randomized clinical trial, which was implemented among 140 of medical staff working as health-care workers assumed as low-responders. The subjects were randomly allocated to either control or interventional groups. The control and interventional groups received

HBV recombinant vaccine while the latter group was also vaccinated through Td. Enzyme-linked immunosorbent assay was applied to measure HBs antibody (HBsAb) titers just before and 6 months after the last vaccination. All data were entered into SPSS software. Independent t-test, paired t-test, and Chi-square or Fisher's exact test were applied for data comparison. Results: Antibody titers of the subjects in the intervention and control groups soared from 49.08 ± 20.08 IU/L to 917.78 ± 204.80 IU/L and from 46.95 ± 18.55 to 586.81 ± 351.77 IU/L, respectively (both P<0.001); nevertheless, by comparison with control group, variation of antibody titer in the interventional group was significantly higher (P<0.001). Conclusions: Concurrent application of Td and HBV vaccine could effectively enhance protective levels of HBsAb titers in low-responder individuals.

BMC Womens Health
2016; 16: 41.
Published online 2016 Jul 22. doi: 10.1186/s12905-016-0323-5
Factors related to HPV vaccine uptake and 3-dose completion among women in a low vaccination region of the USA: an observational study
AR Wilson, M Hashibe, J Bodson, LH Gren, BA Taylor… -
Abstract
Background
To assess the demographic and attitudinal factors associated with HPV vaccine initiation and completion among 18–26 year old women in Utah.
Method
Between January 2013 and December 2013, we surveyed 325 women from the University of Utah Community Clinics about their HPV vaccine related beliefs and behaviors. Odds ratios (ORs) were estimated from logistic regression models to identify variables related to HPV vaccine initiation and series completion.
Results
Of the 325 participants, 204 (62.8 %) had initiated the vaccine and 159 (48.9 %) had completed the 3-dose series. The variables associated with HPV vaccine initiation were lower age (OR=1.18 per year); being unmarried (OR=3.62); not practicing organized religion (OR=2.40); knowing how HPV spreads (OR=6.29); knowing the connection between HPV and cervical cancer (OR=3.90); a belief in the importance of preventive vaccination (OR=2.45 per scale unit); strength of doctor recommendation (OR = 1.86 per scale unit); and whether a doctor's recommendation was influential (OR=1.70 per scale unit). These variables were also significantly associated with HPV vaccine completion.
Conclusion
The implications of these findings may help inform policies and interventions focused on increasing HPV vaccination rates among young women. For example, without this information, programs might focus on HPV awareness; however, the results of this study illustrate that awareness is already high (near saturation) in target populations and other factors, such as strong and consistent physician recommendations, are more pivotal in increasing likelihood of vaccination. Additionally, our findings indicate the need for discussions of risk assessment be tailored to the young adult population.

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Media/Policy Watch

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

We acknowledge the Western/Northern bias in this initial selection of titles and invite suggestions for expanded coverage. We are conservative in our outlook in adding news sources which largely report on primary content we are already covering above. Many electronic media sources have tiered, fee-based subscription models for access. We will provide full-text where content is published without restriction, but most publications require registration and some subscription level.

The Atlantic
http://www.theatlantic.com/magazine/
Accessed 30 July 2016
[No new, unique, relevant content]

BBC
http://www.bbc.co.uk/
Accessed 30 July 2016
[No new, unique, relevant content]

The Economist
http://www.economist.com/
Accessed 30 July 2016
[No new, unique, relevant content]

Financial Times
http://www.ft.com/home/uk
Accessed 30 July 2016
[No new, unique, relevant content]

Forbes
http://www.forbes.com/
Accessed 30 July 2016
Jul 29, 2016
There's Nothing Green About Jill Stein's Vaccine Stance
Emily Willingham , Contributor

The Washington Post published a piece today featuring comments from an interview with Jill Stein, the Woman Who Would Be Green President. Stein's been busy the last few months trying to step over the real work of national grassroots buildup of a third party and straight into the Oval Office. What she really stepped in, though, was the pile of steaming cow dung she shoveled while responding to a question about whether vaccines cause autism…

A Force More Powerful Than Anti-Vaxxers? Economics!
Peter Ubel , Contributor

27 July 2016

We have a vaccine crisis in the this country. Not just the one caused by anti-vaxxers like Jenny McCarthy, scaring Americans away from life-saving childhood vaccines with pseudo-scientific claims about autism. Instead I'm talking about a bigger crisis, one caused by a dangerously thin supply of vaccines. Wise parents who ignore the blatherings of people like McCarthy may soon arrive at their pediatricians' offices prepared to vaccinate their children, only to find out there is no vaccine.

To protect supplies, we need to be sure we are paying well for the vaccines we receive.

That's the conclusion of a study led by my friend and colleague David Ridley. Working with two graduate students, Ridley analyzed whether the likelihood of vaccine shortages was correlated with the price of the vaccine. You see, the majority of childhood vaccines in the U.S. are purchased by the federal government, as part of a Vaccines For Children Program created by congress to provide vaccines to low-income kids. In purchasing these vaccines, the government uses a "cost-plus-pricing" model. This model establishes the marginal cost the manufacturers incur to produce a dose of vaccines and marks the final price up a titch, to give companies a small profit. This mark-up is pretty modest, however, especially for older vaccines. Such modest profits reduce manufacturers' incentives to invest in vaccine production.

Shouldn't a modest profit be enough to keep manufacturers in the market?

Unfortunately, it's not enough of an incentive to avoid shortages. Vaccines can be complicated to manufacture. Inevitably, production lines get disrupted by contamination issues or other problems. If there were lots of excess production capacity, an occasional disruption wouldn't matter. But many vaccines are manufactured by only one or two companies, and with very little excess capacity built into the system. Excess capacity, after all, is expensive to maintain. So when a production problem arises for an older, less expensive vaccine, often a shortage follows…

Foreign Affairs
http://www.foreignaffairs.com/
Accessed 30 July 2016
[No new, unique, relevant content]

Foreign Policy
http://foreignpolicy.com/
Accessed 30 July 2016
[No new, unique, relevant content]

The Guardian
http://www.guardiannews.com/
Accessed 30 July 2016
[No new, unique, relevant content]

New Yorker
http://www.newyorker.com/
Accessed 30 July 2016
[No new, unique, relevant content]

New York Times
http://www.nytimes.com/

Accessed 30 July 2016
[No new, unique, relevant content]

Wall Street Journal
http://online.wsj.com/home-page?_wsjregion=na,us&_homepage=/home/us
Accessed 30 July 2016
[No new, unique, relevant content]

Washington Post
http://www.washingtonpost.com/
Accessed 30 July 2016
[No new, unique, relevant content]

Think Tanks et al

Brookings
http://www.brookings.edu/
Accessed 30 July 2016
[No new relevant content]

Center for Global Development [to 30 July 2016]
http://www.cgdev.org/page/press-center
7/27/16
The Impact of Legislation on the Hazard of Female Genital Mutilation/Cutting: Regression Discontinuity Evidence from Burkina Faso - Working Paper 432
Ben Crisman , Sarah Dykstra , Charles Kenny and Megan O'Donnell
In 1996, Burkina Faso enacted legislation banning the practice of female genital mutilation/cutting (FGM/C). Much of the qualitative literature surrounding FGM/C discounts the impact of legal change on what is considered a social/cultural issue.

7/25/16
Practical Considerations with Using Mobile Phone Survey Incentives: Experiences in Ghana and Tanzania - Working Paper 431
Robert Morello and Benjamin Leo
As mobile phone surveys are gaining popularity among researchers and practitioners in international development, one primary challenge is improving survey response and completion rates. A common solution is to provide monetary compensation to respondents. This paper reports on our experience with using incentives with a mobile phone survey conducted in Ghana and Tanzania in June 2015.

Council on Foreign Relations
http://www.cfr.org/
Accessed 30 July 2016
[No new relevant content]

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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].

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