

Vaccines and Global Health: The Week in Review 16 January 2015 Center for Vaccine Ethics & Policy (CVEP)

This weekly summary targets news, events, announcements, articles and research in the vaccine and global health ethics and policy space and is aggregated from key governmental, NGO, international organization and industry sources, key peer-reviewed journals, and other media channels. This summary proceeds from the broad base of themes and issues monitored by the Center for Vaccine Ethics & Policy in its work: it is not intended to be exhaustive in its coverage.

Vaccines and Global Health: The Week in Review is also **posted in pdf form** and as a set of blog posts at http://centerforvaccineethicsandpolicy.wordpress.com/. This blog allows full-text searching of over 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 (EDT in the U.S.). If you would like to receive the email version, please send your request to david.r.curry@centerforvaccineethicsandpolicy.org.

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A. Ebola/EVD; Polio; MERS-Cov

B. WHO; CDC

C. Announcements/Milestones/Perspectives

D. Reports/Research/Analysis

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F. Media Watch

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EBOLA/EVD [to 16 January 2016]

Public Health Emergency of International Concern (PHEIC); "Threat to international peace and security" (UN Security Council)

WHO

Editor's Note:

The regular, weekly *Ebola Situation Report* was not posted on the WHO website.

<u>Latest Ebola outbreak over in Liberia; West Africa is at zero, but new flare-ups are likely to occur</u>

WHO News release

14 January 2016 | Liberia - Today, WHO declares the end of the most recent outbreak of Ebola virus disease in Liberia and says all known chains of transmission have been stopped in West Africa. But the Organization says the job is not over, more flare-ups are expected and that strong surveillance and response systems will be critical in the months to come....

New Ebola case in Sierra Leone. WHO continues to stress risk of more flare-ups WHO statement

15 January 2016

A new case of Ebola has been confirmed in Sierra Leone, reflecting the ongoing risk of new flare-ups of the virus in the Ebola-affected countries.

The Sierra Leone government acted rapidly to respond to this new case. Through the country's new emergency operations centre, a joint team of local authorities, WHO and partners are investigating the origin of the case, identifying contacts and initiating control measures to prevent further transmission.

WHO stressed in a <u>statement</u> yesterday (14 January), that Guinea, Liberia and Sierra Leone remain at high risk of additional small outbreaks of Ebola in the coming months due to the virus persisting in survivors after recovery.

"We are now at a critical period in the Ebola epidemic as we move from managing cases and patients to managing the residual risk of new infections," said Dr Bruce Aylward, WHO's Special Representative for the Ebola Response, yesterday. "We still anticipate more flare-ups and must be prepared for them."

Sierra Leone is still in a 90-day period of enhanced surveillance following the declaration on 7 November 2015 of the end of Ebola transmission in the country. This period is designed to ensure no hidden chains of transmission have been missed and to detect any new flare-ups of the disease.

WHO - Press Conference: Update on Ebola situation (Geneva, 14 January 2016)

14 Jan 2016 [Video: 40:45]

- Subject: Liberia 42-day announcement - Update on Ebola situation in West Africa Speaker: Dr Rick Brennan, Director, Emergency Risk Management and Humanitarian Response, WHO

[Q&A on ebola vaccines and status begins at about 00:24]

United Nations

<u>Briefing on progress of the Ebola outbreak response and recovery efforts and to discuss priorities going forward - General Assembly</u>

13 Jan 2016 [Video: 1:58]

WHO Director-General briefs UN General Assembly on Ebola

Dr Margaret Chan

Director-General of the World Health Organization

Briefing to the United Nations General Assembly, New York, United States of America 13 January 2016

[Excerpt, closing comments]

Since March of last year, WHO has documented ten flare-ups of infection that were not part of the original outbreak. These very small incidents followed the reintroduction of virus persisting in survivors.

The good news is that countries immediately and rapidly stopped each of these flares. Equally reassuring, research shows that casual contact with survivors poses no risk to their families. Vigilance and response capacity must be maintained throughout 2016. By the end of this year, we expect that all survivors will have cleared the virus.

The next three months are the most critical, as national emergency response mechanisms and partners scale down or close their operations. Responsibility for managing survivor care, surveillance, and the response to further possible flares will shift back to ministries of health.

While the risk of new flares is rapidly declining, these countries continue to need international solidarity to ensure a safe transition and sufficient national response capacity. National leadership is outstanding.

The period of intense vigilance will continue as recovery proceeds. Strong recovery plans, developed by each of the three governments, will make their health systems more resilient, leaving them better prepared to prevent, detect, and respond to future outbreaks.

We are grateful to participants at last July's International Recovery Conference in New York for their generous support. Ebola delivered an extremely severe and shattering blow to societies and economies.

Recovery will take some time. While the job is by no means finished, no one anticipates that the situation will return to what we were seeing 15 months ago.

The determination is fierce. The many steps taken at national and international levels have had a decisive impact. No one will let this virus take off and run away again...

Welcoming End of Ebola Flare-Up in Liberia, Secretary-General Calls upon Global Community to Continue Supporting Affected Countries

14 January 2016 SG/SM/17456-AFR/3302

World Bank [to 16 January 2016]

http://www.worldbank.org/en/news/all

January 14, 2016

<u>Statement by World Bank Group President on the Declaration of the End of Latest Ebola Outbreak in Liberia</u>

West Africa Now Has No Known Ebola Cases

WASHINGTON,—World Bank Group President Jim Yong Kim issued the following statement on today's announcement declaring the end of Ebola transmission...

Date: January 14, 2016 Type: Press Release

MSF/Médecins Sans Frontières [to 16 January 2016]

http://www.doctorswithoutborders.org/news-stories/press/press-releases

Press release

End of Ebola Outbreak in West Africa: World Must Learn Lesson for Future Outbreaks, Says MSF

January 14, 2016

BRUSSELS/NEW YORK—As Liberia today celebrates 42 days without any new <u>Ebola</u> infections—effectively marking the end of the Ebola outbreak in West Africa—the international medical humanitarian organization Doctors Without Borders/Médecins Sans Frontières (MSF) calls on the global health community to draw on lessons learned during the epidemic to be better prepared for future similar outbreaks.

"Today is a day of celebration and relief that this outbreak is finally over," said Joanne Liu, MSF's international president. "We must all learn from this experience to improve how we respond to future epidemics and to neglected diseases. This Ebola response was not limited by lack of international means but by a lack of political will to rapidly deploy assistance to help communities. The needs of patients and affected communities must remain at the heart of any response and outweigh political interests."

From the very beginning of the epidemic, MSF responded in the worst affected countries—Guinea, Liberia, and Sierra Leone—by setting up Ebola treatment centers and providing psychological support and conducting health promotion activities, surveillance, and contact tracing. At its peak, MSF employed nearly 4,000 national staff and over 325 international staff to combat the epidemic across the three countries. MSF admitted a total of 10,376 patients to its Ebola treatment centers, of which 5,226 turned out to be confirmed Ebola cases. MSF continues to run support clinics for Ebola survivors in Liberia, Sierra Leone, and Guinea.

"We should congratulate all the people who tirelessly contributed to putting an end to this devastating and unprecedented epidemic, while we should also remember the many health professionals who tragically lost their lives on the Ebola frontline," said Brice de le Vingne, MSF's director of operations. "This devastating epidemic hit nearly 40 years after the first discovery of Ebola in 1976, yet the lack of research and development on Ebola meant that even today after the medical trials and at the end of the epidemic, there is no effective treatment. There is also a need to obtain licensure for a new vaccine that has been developed." With such an unpredictable disease, it is crucial that vigilance and the capacity to respond to new cases be maintained in the region as well as a well-functioning surveillance and rapid response system.

Ebola survivors are particularly vulnerable, and they face continuing health challenges such as joint pain, chronic fatigue, and hearing and vision problems. They also suffer from stigma in their communities and need specific and tailored care. MSF has invested in setting up Ebola survivor clinics in Liberia, Sierra Leone, and Guinea, providing a comprehensive care package, including medical and psychosocial care and protection against stigma.

"Throughout the epidemic, I witnessed how communities were ripped apart," said Hilde de Clerck, an MSF epidemiologist who worked in Liberia, Guinea, and Sierra Leone. "Initially, the response from the global health community was really paralyzed by fear. It was a horrible experience being left on our own and constantly running behind the wave of the epidemic. But it was very empowering to see how extremely dedicated all the national staff were, and

fortunately other international actors eventually got involved. For the next epidemic, the world should stand ready to intervene much faster and more efficiently."

MSF responded to the Ebola epidemic in the three worst affected countries—Guinea, Sierra Leone and Liberia—and also responded to cases in Nigeria, Senegal, and Mali, as well as a separate epidemic in Democratic Republic of Congo in 2014. In total, the organization has spent over 96 million euros on tackling the epidemic.

Already-weak public health systems have been seriously damaged by the epidemic, so MSF has also decided to invest efforts in their recovery. New projects on maternal and child health should open soon in different towns of Sierra Leone (Kabala, Magburaka, Kenema), and a new pediatric hospital has already opened in Monrovia (Liberia). MSF continues to run an HIV project in Conakry, Guinea, in collaboration with health authorities.

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POLIO [to 16 January 2016]

Public Health Emergency of International Concern (PHEIC)

Polio this week as of 13 January 2016

:: This week India marks five years without reporting a single case of wild polio, a remarkable achievement. Today, lessons learned in India and Nigeria are being used to drive progress in the last two polio-endemic countries: Pakistan and Afghanistan. Read more here.

:: There are three months to go until the globally synchronized switch from the trivalent to bivalent oral polio vaccine. This will be an important milestone in achieving a polio-free world. Read more here.

Selected content from country-level reports

Afghanistan

:: Subnational Immunization Days (SNIDs) were carried out in the south on 10 to 12 January using bOPV. Further SNIDs are planned from 14 to 16 February, also using bOPV and National Immunization Days (NIDs) are planned from 13 to 15 March using tOPV, prior to the switch. Read more about the switch here.

Pakistan

- :: One new wild poliovirus type 1 (WPV1) case was reported in the past week, with onset of paralysis on 2 December 2015 in Punjab province. The total number of WPV1 cases for 2015 is now 52, compared to 296 reported for 2014 by this time last year. A total of 306 cases occurred in Pakistan in 2014.
- :: One new WPV1 environmental positive was detected in Peshawar district in Khyber Pakhtunkhwa. The sample was collected on 11 December 2015.

Lao People's Democratic Republic

- :: One new case of circulating vaccine-derived poliovirus type 1 (cVDPV1) was reported in the past week, in Longxan district of Xaysomboune province with onset of paralysis on 18 December 2015. The total number of cVDPV1 cases in 2015 is now six.
- :: An <u>emergency outbreak response is continuing in the country</u>, with particular focus on three high-risk provinces.

Myanmar

- :: Significant immunization gaps remain in Myanmar, with an estimated 24% of children un- or under-immunized. Vaccination coverage remains particularly low among special at-risk populations. AFP surveillance quality indicators are acceptable at the national level, but subnational gaps persist.
- :: While WHO assesses the risk of international spread from Myanmar to be low, surveillance and immunization activities are being strengthened in neighbouring countries.

New York Times

http://www.nytimes.com/ Accessed 16 January 2016

Suicide Bomb Near Polio Center in Pakistan Kills at Least 16

By IHSANULLAH TIPU MEHSUDJAN. 13, 2016

ISLAMABAD, Pakistan — At least 16 people were killed on Wednesday in a suicide bombing outside a polio vaccination center in the southwestern Pakistani city of Quetta, officials and witnesses said.

Thirteen of the victims were police officers, said Syed Imtiaz Shah, a senior official with the Quetta police. He said the officers were there to guard polio workers, who are often targeted by Islamist militants in <u>Pakistan</u>.

The attack came on the third day of a vaccination campaign in the province of Baluchistan, of which Quetta is the capital. The bomber, who was also killed, walked up to police officers and detonated what Mr. Shah said amounted to more than 20 pounds of explosives.

A spokesman for the Pakistani Taliban, Muhammad Khurrasani, claimed responsibility for the attack on the militants' behalf. Two civilians and a paramilitary police officer were also killed, and 10 police officers and nine civilians were wounded...

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MERS-CoV [to 16 January 2016]
No new content identified.
[back to top/Contents]
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WHO & Regionals [to 16 January 2016]

Syrian Arab Republic: Crossing borders with life-saving support

12 January 2016 -- Almost 6.5 million Syrians remain displaced within the country and more than 4 million are living in Egypt, Iraq, Jordan, Lebanon and Turkey. WHO's Emergency Support Team, based in Amman, coordinates the distribution of medical supplies and equipment to Syrian Arab Republic and neighbouring countries dealing with the crisis...

Appeal for communities under siege in Syria

January 2016 -- WHO and UNICEF delivered urgently-needed humanitarian supplies to the

besieged communities of Madaya, Foua'a and Kafraya in Syria. Much of the community in Madaya is severely malnourished with only 2 doctors for a town of 40,000.

Zika virus infection: Frequently asked questions

January 2016 -- Zika fever is a mosquito-borne viral disease caused by Zika virus, consisting of mild fever, rash, headaches, arthralgia, myalgia, asthenia, and non-purulent conjunctivitis, occurring about 3 to 12 days after the mosquito bite.

Weekly Epidemiological Record (WER) 15 January 2016, vol. 91, 2 (pp. 1¬¬3–20) Contents:

13 Human rabies transmitted by dogs: current status of global data, 2015

Disease Outbreak News (DONs)

No new reports identified.

Call for expression of interest to consolidate, analyse and disseminate information on home based records for immunization

13 January 2016

Terms of reference pdf, 180kb

Deadline for application: 10 February 2016

Call for Expressions of Interest to maintain and enhance the WHO Immunization Repository using DHIS2

11 January 2016

Terms of reference pdf, 77kb

Deadline for application: 5 February 2016

:: WHO Regional Offices

WHO African Region AFRO

:: New Ebola Case in Sierra Leone; WHO continues to stress risk of more flare-ups WHO statement - 15 January 2016

WHO Region of the Americas PAHO

:: PAHO helps countries in the Americas prepare for spread of Zika (01/16/2016)

WHO South-East Asia Region SEARO

:: Five polio-free years; efforts must continue

By Dr Poonam Khetrapal Singh, WHO Regional Director for South-East Asia

On 13 January, WHO South-East Asia Region completes five years without any case of wild poliovirus. This is a remarkable achievement in view of the continued threat of poliovirus importation from the remaining polio-endemic countries.

Countries in the Region have been making commendable efforts, stepping up vigilance against polio and continuing to protect children against the crippling virus. WHO South-East Asia Region reported its last case of wild poliovirus in West Bengal, India, in 2011, which facilitated poliofree certification of the Region on 27 March 2014...

WHO European Region EURO

:: What can countries expect during this year's influenza season? 13-01-2016

WHO Eastern Mediterranean Region EMRO

:: WHO Regional Director's statement on urgent and immediate access into Taiz City for delivery of health supplies

14 January 2016

:: WHO's Regional Director and Minister of Health of Yemen discuss Yemen's critical health needs

13 January 2016

WHO Western Pacific Region

No new digest content identified.

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CDC/ACIP [to 16 January 2016] http://www.cdc.gov/media/index.html

Transcript for CDC Telebriefing: Zika Virus Travel Alert

SATURDAY, JANUARY 16, 2016

CDC issues interim travel guidance related to Zika virus for 14 Countries and Territories in Central and South America and the Caribbean

FRIDAY, JANUARY 15, 2016

Regions and certain countries where Zika virus transmission is ongoing: Brazil, Colombia, El Salvador, French Guiana, Guatemala, Haiti, Honduras, Martinique, Mexico, Panama, Paraguay, Suriname, Venezuela, and the Commonwealth of Puerto Rico.

This alert follows reports in Brazil of <u>microcephaly</u> and other poor pregnancy outcomes in babies of mothers who were infected with Zika virus while pregnant. However, additional studies are needed to further characterize this relationship. More studies are planned to learn more about the risks of Zika virus infection during pregnancy...

MMWR Weekly – January 8, 2016 / No. 52 Volume (64)

http://www.cdc.gov/mmwr/index2015.html No new digest content identified.

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Announcements/Milestones/Perspectives

NIH [to 16 January 2016]

http://www.nih.gov/news/releases.htm

January 14, 2016

Dengue vaccine enters phase 3 trial in Brazil

Investigational vaccine to prevent 'breakbone fever' developed at NIH.

A large-scale clinical trial to evaluate whether a candidate vaccine can prevent the mosquito-borne illness dengue fever has been launched in Brazil. The vaccine, TV003, was developed by scientists in the laboratory of Stephen Whitehead, Ph.D., at NIH's National Institute of Allergy and Infectious Diseases (NIAID). The Butantan Institute, a non-profit producer of immunobiologic products for Brazil, licensed the NIAID dengue vaccine technology and is sponsoring the placebo-controlled, multi-center Phase 3 trial using test vaccine produced in Sao Paulo...

January 12, 2016

New NIH awards will support development of therapeutic alternatives to traditional antibiotics

— NIAID has awarded approximately \$5 million in funding for 24 research projects seeking to develop non-traditional therapeutics for bacterial infections.

IVI [to 16 January 2016]

http://www.ivi.org/web/www/home

[Undated]

New affordable oral cholera vaccine receives prequalification by the World Health Organization

- Oral cholera vaccine manufactured by Korean company EuBiologics following technology transfer from the International Vaccine Institute (IVI)
- Vaccine developed through international public-private partnership involving IVI and EuBiologics
- Euvichol will be used to protect the world's underprivileged populations from cholera SEOUL, KOREA EuBiologics Co., Ltd. (EuBiologics) and the International Vaccine Institute (IVI) announced today that Euvichol®, an inactivated oral cholera vaccine (OCV), recently received prequalification from the World Health Organization (WHO). Developed to protect against epidemic and endemic cholera, the two-dose oral vaccine is low-cost and ready to use in a single-dose vial, facilitating its use in mass immunization programs in low-income countries.

"I am very pleased that Euvichol®, a vaccine whose development was enabled by IVI, was prequalified by WHO," said Dr. Jerome Kim, IVI's Director General. "This milestone shows that public-private partnerships - such as that between IVI and EuBiologics – are effective in developing vaccines against diseases of the poor like cholera."...

..."The prequalification of Euvichol® demonstrates the power of partnerships to successfully develop vaccines," said Dr. Anita Zaidi, Head of Enteric and Diarrheal Diseases at the Bill & Melinda Gates Foundation. "We are pleased to be a part of this effort and congratulate IVI and Eubiologics for this major milestone. Euvichol®will go a long way in easing global cholera vaccine supply constraints at the global level, however a lot remains to be done to make sure the cholera vaccine will be used in populations and countries where cholera is a problem."

Study Provides Additional Insights for AIDS Vaccine Design

A new study helps AIDS vaccine researchers further understand how HIV interacts with its host, and how some people naturally produce antibodies against the virus' many variants. The study, authored by researchers from the International AIDS Vaccine Initiative (IAVI) and partners, was published 14 January in *PLOS Pathogens*...

The new study suggests that both viral and host factors may be critical for the development of such broadly neutralizing antibodies (bNAbs), and that one "supersite" on HIV's envelope protein may be a particularly favorable target for vaccine design. This research utilized samples from 439 newly infected volunteers in Protocol C, a large observational study by IAVI and partners in Eastern and South Africa supported by the United States Agency for International Development (USAID). About 15 percent developed bNAb responses, on average three years after infection. Gender, age and geographical origin appeared to have no influence on the development of bNAbs. However, the study showed that broad neutralization was associated with high viral load, low levels of particular immune cells, infection with one particular HIV subtype, and the presence of a particular gene in the host.

"These findings add to the important lessons that AIDS vaccine science continues to learn from large observational studies like Protocol C," said Mark Feinberg, IAVI President and CEO. "The volunteers who participate in these studies are critical and valued partners in the effort to design a safe and effective AIDS vaccine."

"Broadly Neutralizing Antibody Responses in a Large Longitudinal Sub-Saharan HIV Primary Infection Cohort," by Elise Landais, Pascal Poignard, et al.

[See PLoS Pathogens in Journal Watch below for abstract and link]

Sabin Vaccine Institute

http://www.sabin.org/updates/pressreleases January 13, 2016

Kenneth Kelley and Jordan Orange Join Sabin Vaccine Institute Board of Trustees

WASHINGTON, D.C. — The Sabin Vaccine Institute (Sabin) is pleased to announce the election of Kenneth Kelley, M.B.A., and Jordan Orange, M.D., Ph.D., to its Board of Trustees. Mr. Kelley is a Harvard Senior Advanced Leadership Fellow, focusing on global health, biosecurity and the market inefficiency leading to a lack of vaccines against neglected tropical diseases (NTDs) and emerging pandemic threats. Dr. Orange is chief of Immunology, Allergy and Rheumatology, and professor and section head for Immunology, Allergy and Rheumatology in the pediatrics department at Baylor College of Medicine.

Global Fund [to 16 January 2016]

http://www.theglobalfund.org/en/news/

12 January 2016

Challenges and Opportunities in 2016: Mark Dybul Looks Ahead

It is an exciting time in global health, and an extremely challenging one. Mark Dybul, Executive Director of the Global Fund spoke about current trends.

:: What are the greatest challenges and opportunities in 2016?

The road ahead calls for new thinking, for practical solutions that serve people who are being left behind. In global health, we have to think about our work beyond the disease or development paradigms, and focus on the person. How do we find innovative ways to empower

individuals? Connecting education and health, especially where it enables girls to become women with opportunity, is an area that needs more work.

Building resilient and sustainable systems for health is another. Making a health clinic accessible may mean hiring more health workers, or an innovative health insurance scheme, but it also can mean lifting stigma and discrimination. Whatever helps an individual remove barriers to health, especially for key populations.

We face very serious challenges. Achieving impact in the last decade was relatively easy because the need was so great – almost anything you did had impact. However, the next stage of ending the epidemics involves confronting social and cultural issues. Our investments have to be more focused, nuanced and interwoven. And we have to put human beings at the center of our response.

Climate change and the refugee crisis are big challenges for the world to deal with. By building lasting health programs and systems that boost the capacity and resilience of a country's health system and its people, the Global Fund mission can play its part in improving humanity in a way that is connected with other challenges.

:: What do you mean when you speak of the need to put human beings at the center of our response?

If a scientific or medical response to the three epidemics was enough to end them, our mission would be complete. We already have the tools to defeat HIV, TB and malaria, but the diseases are still with us. Putting human beings at the center of our response means going beyond the work we have already done. We have to work hard to reach key populations, expanding programs we have and finding new ways, too. We have to think about stigma and poverty, and how they are connected with epidemics. Overall, we have to expand access to health care and education and economic empowerment – powerful tools for the prevention and treatment of HIV, TB and malaria.

Whether it's a 14 year old girl in Lesotho or a migrant forestry worker in Myanmar, every human being should be empowered to make smart decisions about their health, not subjected to the lottery of infectious disease. Education is one avenue toward progress, and linking education, especially for girls, must be a priority.

The Global Fund has a strong record of putting human beings at the center of its approach, inspired by solidarity and compassion. Today, we can point to great results: the partnership has saved more than 17 million lives, through the end of 2014. Each life saved represents expanded opportunity and greater social justice for families and communities worldwide – it inspires even greater belief in the power of the human spirit and what we can achieve by working together. :: What gives you hope about ending the epidemics?

Every time a health program assists a girl to make powerful, positive decision about her health, or prevents a mother from transmitting HIV to her baby, or protects a young child from malaria or a grown man from tuberculosis, we are adding to the momentum of human opportunity and progress. When girls are given the opportunity to stay in school, and make informed choices that allow them to grow into empowered women, it breeds human progress. Wherever I see that, it contributes to my hope and my confidence that we can get there. But there still is a tremendous amount of work to do, and it is going to take more commitment, and a commitment to news ways of thinking, to get us there.

Meeting highlights from the Pharmacovigilance Risk Assessment Committee (PRAC) 11-14 January 2016

Measuring the impact of pharmacovigilance activities - PRAC adopts new strategy

The Pharmacovigilance Risk Assessment Committee (PRAC), at its January meeting, adopted a 'Strategy on measuring the impact of pharmacovigilance activities'. The new strategy details how to gather data and knowledge on the concrete effect of measures and processes meant to ensure the safe use of medicines for patients in the European Union (EU)...

Measuring the impact of such activities is crucial in order to know whether the measures taken to minimise the risks of a medicine have been effective. Measuring the impact of pharmacovigilance activities also allows regulators to determine which activities are most successful and so helps to promote best practice and improve pharmacovigilance.

The new strategy adopted by the PRAC builds on existing activities in the Member States and the Agency and relies on a collaborative approach with stakeholders. The strategy will focus on four areas: measuring the effectiveness of risk-minimisation measures on specific products; measuring the effect of specific pharmacovigilance processes (e.g. spontaneous reporting of suspected adverse reactions, signal management); investigating how to ensure engagement of key stakeholders (e.g. patients, healthcare professionals); and further improving methodologies to determine the effect of pharmacovigilance activities on public health...

12/01/2016

Human medicines: highlights of 2015

93 medicines recommended for approval - 39 new active substances

The European Medicines Agency (EMA) has released an <u>overview of its 2015 key</u> <u>recommendations</u> in relation to the marketing authorisations of new medicines and the safety monitoring of authorised medicines...

BMGF - Gates Foundation [to 16 January 2016]

http://www.gatesfoundation.org/Media-Center/Press-Releases JANUARY 07, 2016

<u>Bill & Melinda Gates Foundation Appoints Rob Nabors as Director of Policy and</u> **Government Affairs**

SEATTLE (January 7, 2016) – The Bill & Melinda Gates Foundation today announced that Rob Nabors has been named Director of Policy and Government Affairs covering the U.S., Canada and Asia Pacific. He will assume his new position on January 18, 2015.

WIPO World Intellectual Property Organization [to 16 January 2016]

http://www.wipo.int/pressroom/en/

Jan 14, 2016 PR/2016/787

WIPO Re:Search Welcomes Institut Pasteur as Consortium Surpasses 100 Members

<u>WIPO Re:Search</u> has now surpassed 100 members and is just shy of 100 agreements to share intellectual property in the fight against neglected tropical diseases, tuberculosis and malaria - both significant milestones for the consortium as it heads into its fifth full year of operation.

The storied French research foundation Institut Pasteur became the 101st member of WIPO Re:Search last month as the consortium also signed its 99th collaboration to bring together

research bodies aiming to promote new diagnostics, vaccines and treatments for diseases that afflict more than one billion people worldwide, largely in poorer regions.

"WIPO Re:Search continues to expand its network across the globe, bringing together leading research organizations from developing and developed countries to share intellectual property and scientific data in order to accelerate drug discovery to fight against diseases that affect the world's most-vulnerable populations," said WIPO Director General Francis Gurry. "Institut Pasteur now brings more than a century of pioneering research in medicine and vaccines to that effort, further strengthening the work of this unique collaboration."

WIPO Re:Search allows organizations to share their intellectual property, compounds, expertise, facilities and know-how royalty-free with qualified researchers worldwide working on new solutions for the maladies, which affect more than one billion people across the globe...

"By joining the WIPO Re:Search consortium, Institut Pasteur looks forward to furthering its longstanding commitment to combating infectious diseases and its mission together with the Institut Pasteur International Network in 33 countries to contribute solving global health issues, in particular through technology transfer and partnerships", said Christian Bréchot, President of the Institut Pasteur...

PATH [to 16 January 2016]

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

Announcement | January 15, 2016

PATH family planning and reproductive health work featured at International Conference on Family Planning

GHIT Fund [to 16 January 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. 2015.12.17

<u>Event Report: International Conference on Universal Health Coverage in the New Development Era</u>

The Government of Japan, Japan International Cooperation Agency (JICA) and Japan Center for International Exchange (JCIE) co-hosted the International Conference on Universal Health Coverage (UHC) in the New Development Era: Toward Building Resilient and Sustainable Health Systems on December 16, 2015 in Tokyo, Japan. The conference explored the role of the UHC in the transition from the Millennium Development Goals (MDGs) to the 2030 Agenda for Sustainable Development and in enhancing preparedness and responses to health crises based on lessons learned from the recent Ebola crisis. Experts in global health, such as leaders from the Bill & Melinda Gates Foundation, Global Fund, World Bank Group, and World Health Organization participated...

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UNICEF [to 16 January 2016]

http://www.unicef.org/media/media 78364.html

AERAS [to 16 January 2016]

http://www.aeras.org/pressreleases

No new digest content identified.

Gavi [to 16 January 2016]

http://www.gavialliance.org/library/news/press-releases/

No new digest content identified.

European Vaccine Initiative [to 16 January 2016]

http://www.euvaccine.eu/news-events

No new digest content identified.

National Vaccine Program Office (NVPO) [to 16 January 2016]

http://www.hhs.gov/nvpo/

No new digest content identified.

FDA [to 16 January 2016]

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

No new digest content identified.

Fondation Merieux [to 16 January 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.

National Foundation for Infectious Diseases (NFID) [to 16 January 2016]

http://www.nfid.org/newsroom/press-releases

No new digest content identified.

DCVMN [Developing Country Vaccine Manufacturers Network] [to 16 January 2016]

http://www.dcvmn.org/

No new digest content identified.

HHMI - Howard Hughes Medical Institute [to 16 January 2016]

https://www.hhmi.org/news

No new digest content identified.

EDCTP [to 16 January 2016]

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. http://www.edctp.org/

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<u>Reports/Research/Analysis/Commentary/Conferences/Meetings/Book</u> <u>Watch/Tenders</u>

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

£3bn a year needed to prepare the world for future pandemics

13 January 2016

An investment of less than 50p per year for every person on the planet (£3bn/\$4.5bn total) would make the world significantly more resilient to the threat of infectious disease, according to a group of international experts convened in the wake of the Ebola crisis.

The report of the Commission on Creating a Global Health Risk Framework for the Future, published today, highlights infectious diseases as one of the biggest risks facing humankind. It estimates that pandemics cost the world more than £40bn (\$60bn) each year, and match wars and natural disasters in their capacity to endanger human life and health and disrupt societies.

Yet compared with other high-profile threats to human and economic security – such as war, terrorism, nuclear disasters, natural catastrophes and financial crises – preparation for pandemics has received chronic under-investment.

The Commission recommends that urgent action be taken during 2016 to increase private, philanthropic and government spending on pandemic preparedness. It lays out comprehensive recommendations for bolstering the world's ability to prevent and prepare for future disease outbreaks, including:

- :: Reinforcing national public health capabilities and infrastructure as the first line of defence against potential pandemics, especially in low-income countries.
- :: Establishing a permanent WHO Center for Health Emergency Preparedness and Response, with sustainable funding and operational independence, which would lead and co-ordinate defences and action against pandemic threats.
- :: Accelerating research and development in the infectious disease arena, through annual global investment of at least £686m (\$1bn) a year in prevention and treatment of threats, and a co-ordinating body to prioritise and oversee this.

The Wellcome Trust sponsored the creation of the Commission and the report, in partnership with seven other philanthropic and government organisations including the Bill and Melinda Gates Foundation and the Rockefeller Foundation, in response to the Ebola outbreak that began in 2014. It was coordinated by the US National Academy of Medicine.

Dr Jeremy Farrar, Director of the Wellcome Trust and a member of the Commission's International Oversight Group, said:

"Few global events match epidemics and pandemics in potential to disrupt human security and inflict loss of life and economic and social damage. Yet for many decades, the world has invested far less in preventing, preparing for and responding to these threats than in comparable risks to international and financial security.

"Today's report shows that by spending the equivalent of around 40p a year for every person on the planet, we could make our world much safer against the threat of infectious disease outbreaks.

"The cornerstones of the proposed framework must be the creation of a strong, independent WHO Center to lead outbreak preparedness and response, and an expert body to galvanise the research and development of vaccines, therapies, diagnostics and other tools.

"While the WHO has already taken welcome steps to improve co-ordination of health emergency preparedness and response, the report rightly recommends further change, with a central body that is a permanent part of the WHO system and that has considerable operational independence and a sustainable budget.

"The report is also right to recommend the creation of a WHO expert committee to inspire, support and oversee research and development into vaccines, drugs and other countermeasures. This would allow this essential field to benefit from the legitimacy and authority of the WHO, while ensuring that investment decisions are made by people with the expertise to judge health need and scientific merit. This panel could act as a convening and coordinating body that linked parallel efforts to finance and prioritise research and development in specialised fields such as vaccines, drug-resistant infections and personal protective equipment.

"The Commission should be congratulated on an excellent report, with recommendations that are clear, necessary and achievable. What we need to see now is action. The WHO's leadership and its member states must make 2016 the year in which we learn the lessons of past epidemics and pandemics and implement these valuable measures, to build a more resilient global health system."

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<u>Journal Watch</u>

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

January 2016 Volume 44, Issue 1, p1-124, e1-e7 http://www.ajicjournal.org/current [Reviewed earlier]

American Journal of Preventive Medicine

January 2016 Volume 50, Issue 1, p1-128, e1-e32 http://www.ajpmonline.org/current [Reviewed earlier]

American Journal of Public Health

Volume 106, Issue 1 (January 2016) http://ajph.aphapublications.org/toc/ajph/current [Reviewed earlier]

American Journal of Tropical Medicine and Hygiene

January 2016; 94 (1) http://www.ajtmh.org/content/current [Reviewed earlier]

Annals of Internal Medicine

5 January 2016, Vol. 164. No. 1 http://annals.org/issue.aspx [Reviewed earlier]

BMC Health Services Research

http://www.biomedcentral.com/bmchealthservres/content (Accessed 16 January 2016) [No new relevant content identified]

BMC Infectious Diseases

http://www.biomedcentral.com/bmcinfectdis/content (Accessed 16 January 2016) Research article

High Streptococcus pneumoniae colonization prevalence among HIV-infected Kenyan parents in the year before pneumococcal conjugate vaccine introduction Laura M. Conklin, Godfrey Bigogo, Geofrey Jagero, Lee Hampton, Muthoni Junghae, Maria da Gloria Carvalho, Fabiana Pimenta, Bernard Beall, Thomas Taylor, Brian Plikaytis, Kayla F.

Laserson, John Vulule, Chris Van Beneden, Cynthia G. Whitney, Robert F. Breiman and Daniel R.

Feikin

BMC Infectious Diseases 2016 16:18 Published on: 16 January 2016

Research article

HPV Vaccine utilization, Alberta 2008/09 - 2013/14 School year

Xianfang C. Liu, Christopher A. Bell, Kimberley A. Simmonds, Margaret L. Russell and Lawrence W. Svenson

BMC Infectious Diseases 2016 16:15 Published on: 13 January 2016

Abstract Background

In Canada both bivalent (bHPV) vaccine and quadrivalent HPV vaccine (qHPV) are authorized for use. In Alberta, while both vaccines are available for private purchase, only qHPV is publicly funded for school girls in grades 5 and 9 as of 2013. We describe HPV vaccine uptake in Alberta, by school year, from the start of the publicly funded program in the Fall of 2008 through to August 31st 2014 and estimate the cumulative proportion of the female population who were vaccinated by the end of the 2013/14 school year.

Methods

We used data from the Alberta Ministry of Health Immunization and Adverse Reaction to Immunization repository (publicly funded vaccine), the population-based Pharmaceutical Information Network information systems (privately purchased vaccine) for the period September 1, 2008 to August 31, 2014 and demographic data from the Alberta Health Care Insurance Plan Registry. We estimate vaccine uptake rates and explore them by attributes of person, time, place, vaccine funding, and number of doses received. We estimated the cumulative proportions of the female population (by age group and number of doses received) who had received HPV vaccine by the end of the 2013/14 school year. Results

Of the 169,259 unique individuals who received one or more doses of HPV vaccine over the period, 98.3 % were females, and 83.8 % received publicly funded vaccines. Vaccine uptake increased over the period. The cumulative proportion of females aged 9–26 years as of 2013/14 who had received two or more doses of vaccine was 34.3 %; for those aged 10–11 years 59.6 % and for those aged 14–15 years, 76.0 %. For those aged 9–26 years, 31.3 % had received three doses of vaccine.

Conclusion

HPV vaccine uptake rates have increased in Alberta over the study period, most prominently among the age groups targeted by the publicly funded school-girl vaccine program.

BMC Medical Ethics

http://www.biomedcentral.com/bmcmedethics/content (Accessed 16 January 2016)

Research article

Postal recruitment and consent obtainment from index cases of narcolepsy

Access to research volunteers may be hampered by low numbers of cases and few eligible participants for rare diseases in clinical settings.

Gambo Aliyu and Salah M. Mahmud

BMC Medical Ethics 2016 17:6 Published on: 16 January 2016

Debate

Developing a new justification for assent

Current guidelines do not clearly outline when assent should be attained from paediatric research participants, nor do they detail the necessary elements of the assent process. This stems from the fact that th...

Amanda Sibley, Andrew J. Pollard, Raymond Fitzpatrick and Mark Sheehan

BMC Medical Ethics 2016 17:2 Published on: 12 January 2016

Abstract Background

Current guidelines do not clearly outline when assent should be attained from paediatric research participants, nor do they detail the necessary elements of the assent process. This stems from the fact that the fundamental justification behind the concept of assent is misunderstood. In this paper, we critically assess three widespread ethical arguments used for assent: children's rights, the best interests of the child, and respect for a child's developing autonomy. We then outline a newly-developed two-fold justification for the assent process: respect for the parent's pedagogical role in teaching their child to become an autonomous being and respect for the child's moral worth.

Discussion

We argue that the ethical grounding for the involvement of young children in medical decision-making does not stem from children's rights, the principle of best interests, or respect for developing autonomy. An alternative strategy is to examine the original motivation to engage with the child. In paediatric settings there are two obligations on the researcher: an obligation to the parents who are responsible for determining when and under what circumstances the child develops his capacity for autonomy and reasoning, and an obligation to the child himself. There is an important distinction between respecting a decision and encouraging a decision. This paper illustrates that the process of assent is an important way in which respect for the child as an individual can be demonstrated, however, the value lies not in the child's response but the fact that his views were solicited in the first place.

Summary

This paper demonstrates that the common justifications for the process of assent are incomplete. Assent should be understood as playing a pedagogical role for the child, helping to teach him how specific decisions are made and therefore helping him to become a better decision-maker. How the researcher engages with the child supports his obligation to the child's parents, yet why the researcher engages with the child stems from the child's moral worth. Treating a child as having moral worth need not mean doing what they say but it may mean listening, considering, engaging or involving them in the decision.

BMC Medicine

http://www.biomedcentral.com/bmcmed/content (Accessed 16 January 2016) [No new relevant content identified]

BMC Pregnancy and Childbirth

http://www.biomedcentral.com/bmcpregnancychildbirth/content (Accessed 16 January 2016) [No new relevant content identified]

BMC Public Health

 $\underline{\text{http://bmcpublichealth.biomedcentral.com/articles}}$

(Accessed 16 January 2016)

Research article

<u>Comparing the quality of pro- and anti-vaccination online information: a content analysis of vaccination-related webpages</u>

Gabriele Sak, Nicola Diviani, Ahmed Allam and Peter J. Schulz

BMC Public Health 2016 16:38 Published on: 15 January 2016

Research article

<u>Sociocultural determinants of anticipated oral cholera vaccine acceptance in three</u> <u>African settings: a meta-analytic approach</u>

Neisha Sundaram, Christian Schaetti, Sonja Merten, Christian Schindler, Said M. Ali, Erick O. Nyambedha, Bruno Lapika, Claire-Lise Chaignat, Raymond Hutubessy and Mitchell G. Weiss BMC Public Health 2016 16:36

Published on: 14 January 2016

Abstract Background

Controlling cholera remains a significant challenge in Sub-Saharan Africa. In areas where access to safe water and sanitation are limited, oral cholera vaccine (OCV) can save lives. Establishment of a global stockpile for OCV reflects increasing priority for use of cholera vaccines in endemic settings. Community acceptance of vaccines, however, is critical and sociocultural features of acceptance require attention for effective implementation. This study identifies and compares sociocultural determinants of anticipated OCV acceptance across populations in Southeastern Democratic Republic of Congo, Western Kenya and Zanzibar. Methods

Cross-sectional studies were conducted using similar but locally-adapted semistructured interviews among 1095 respondents in three African settings. Logistic regression models identified sociocultural determinants of OCV acceptance from these studies in endemic areas of Southeastern Democratic Republic of Congo (SE-DRC), Western Kenya (W-Kenya) and Zanzibar. Meta-analytic techniques highlighted common and distinctive determinants in the three settings. Results

Anticipated OCV acceptance was high in all settings. More than 93 % of community respondents overall indicated interest in a no-cost vaccine. Higher anticipated acceptance was observed in areas with less access to public health facilities. In all settings awareness of cholera prevention methods (safe food consumption and garbage disposal) and relating ingestion to cholera causation were associated with greater acceptance. Higher age, larger households, lack of education, social vulnerability and knowledge of oral rehydration solution for self-treatment were negatively associated with anticipated OCV acceptance. Setting-specific determinants of acceptance included reporting a reliable income (W-Kenya and Zanzibar, not SE-DRC). In SE-DRC, intention to purchase an OCV appeared unrelated to ability to pay. Rural residents were

less likely than urban counterparts to accept an OCV in W-Kenya, but more likely in Zanzibar. Prayer as a form of self-treatment was associated with vaccine acceptance in SE-DRC and W-Kenya, but not in Zanzibar.

Conclusions

These cholera-endemic African communities are especially interested in no-cost OCVs. Health education and attention to local social and cultural features of cholera and vaccines would likely increase vaccine coverage. High demand and absence of insurmountable sociocultural barriers to vaccination with OCVs indicate potential for mass vaccination in planning for comprehensive control or elimination.

Research article

<u>Factors associated with incomplete childhood immunization in Arbegona district, southern Ethiopia: a case – control study</u>

The prevention of child mortality through immunization is one of the most cost-effective and widely applied public health interventions. In Ethiopia, the Expanded Program on Immunization (EPI) schedule is rare...

Abel Negussie, Wondewosen Kassahun, Sahilu Assegid and Ada K. Hagan

BMC Public Health 2016 16:27 Published on: 12 January 2016

BMC Research Notes

http://www.biomedcentral.com/bmcresnotes/content (Accessed 16 January 2016) [No new relevant content identified]

BMJ Open

2016, Volume 6, Issue 1 http://bmjopen.bmj.com/content/current [Reviewed earlier]

British Medical Journal

14 January 2016 (vol 352, issue 8040) http://www.bmj.com/content/352/8040

Safety of live attenuated influenza vaccine in young people with egg allergy: multicentre prospective cohort study

BMJ 2015; 351 :h6291 (Published 08 December 2015)

Paul J Turner, clinician scientist and clinical senior lecturer 1, honorary consultant 2, Jo Southern, clinical research lead 2, Nick J Andrews, senior statistician 2, Elizabeth Miller, consultant epidemiologist 2, Michel Erlewyn-Lajeunesse, consultant paediatric allergist 3 on behalf of the SNIFFLE-2 Study

Abstract

Study question

How safe is live attenuated influenza vaccine (LAIV), which contains egg protein, in young people with egg allergy?

Methods

In this open label, phase IV intervention study, 779 young people (2-18 years) with egg allergy were recruited from 30 UK allergy centres and immunised with LAIV. The cohort included 270 (34.7%) young people with previous anaphylaxis to egg, of whom 157 (20.1%) had experienced respiratory and/or cardiovascular symptoms. 445 (57.1%) had doctor diagnosed asthma or recurrent wheeze. Participants were observed for at least 30 minutes after vaccination and followed-up by telephone 72 hours later. Participants with a history of recurrent wheeze or asthma underwent further follow-up four weeks later. The main outcome measure was incidence of an adverse event within two hours of vaccination in young people with egg allergy.

Study answer and limitations

No systemic allergic reactions occurred (upper 95% confidence interval for population 0.47% and in participants with anaphylaxis to egg 1.36%). Nine participants (1.2%, 95% CI 0.5% to 2.2%) experienced mild symptoms, potentially consistent with a local, IgE mediated allergic reaction. Delayed events potentially related to the vaccine were reported in 221 participants. 62 participants (8.1%, 95% CI for population 6.3% to 10.3%) experienced lower respiratory tract symptoms within 72 hours, including 29 with parent reported wheeze. No participants were admitted to hospital. No increase in lower respiratory tract symptoms occurred in the four weeks after vaccination (assessed with asthma control test). The study cohort may represent young people with more severe allergy requiring specialist input, since they were recruited from secondary and tertiary allergy centres.

What this study adds

LAIV is associated with a low risk of systemic allergic reactions in young people with egg allergy. The vaccine seems to be well tolerated in those with well controlled asthma or recurrent wheeze.

Funding, competing interests, data sharing

This report is independent research commissioned and funded by a Department of Health policy research programme grant to the National Vaccine Evaluation Consortium. Additional funding was provided by the NIHR Clinical Research Networks, Health Protection Scotland (Edinburgh site), and Health & Social Care Services in Northern Ireland (Belfast site). PJT and MEL had support from the Department of Health for the submitted work; PJT has received research grants from the Medical Research Council and NIHR. No additional data available. Study registration

ClinicalTrials.gov (NCT02111512) and the EU Clinical Trials Register EudraCT (2014-001537-92).

Editorials

Live attenuated influenza vaccine for children with egg allergy

BMJ 2015; 351 :h6656 (Published 09 December 2015)

Policies should change to allow vaccination, after compelling new evidence of safety

Bulletin of the World Health Organization

Volume 94, Number 1, January 2016, 1-76 http://www.who.int/bulletin/volumes/94/1/en/ [Reviewed earlier]

Clinical Infectious Diseases (CID)

Volume 62 Issue 3 February 1, 2016

http://cid.oxfordjournals.org/content/current [Reviewed earlier]

Clinical Therapeutics

December 2015 Volume 37, Issue 12, p2609-2906 http://www.clinicaltherapeutics.com/current [Reviewed earlier]

Complexity

November/December 2015 Volume 21, Issue 2 Pages C1–C1, 1–366 http://onlinelibrary.wiley.com/doi/10.1002/cplx.v21.2/issuetoc [Reviewed earlier]

Conflict and Health

http://www.conflictandhealth.com/ [Accessed 16 January 2016] [No new content]

Contemporary Clinical Trials

Volume 46, Pages 1-122 (January 2016) http://www.sciencedirect.com/science/journal/15517144/46 [Reviewed earlier]

Cost Effectiveness and Resource Allocation

http://www.resource-allocation.com/ (Accessed 16 January 2016) [No new content]

Current Opinion in Infectious Diseases

February 2016 - Volume 29 - Issue 1 pp: v-vi,1-98 http://journals.lww.com/co-infectiousdiseases/pages/currenttoc.aspx [New issue; No relevant content identified]

Developing World Bioethics

December 2015 Volume 15, Issue 3 Pages iii–iii, 115–275 http://onlinelibrary.wiley.com/doi/10.1111/dewb.2015.15.issue-3/issuetoc [Reviewed earlier]

Development in Practice

Volume 26, Issue 1, 2016

http://www.tandfonline.com/toc/cdip20/current
[Reviewed earlier]

Disasters

January 2016 Volume 40, Issue 1 Pages 1–182 http://onlinelibrary.wiley.com/doi/10.1111/disa.2016.40.issue-1/issuetoc [Reviewed earlier]

Emerging Infectious Diseases

Volume 22, Number 1—January 2016 http://wwwnc.cdc.gov/eid/ [Reviewed earlier]

Epidemics

Volume 13, <u>In Progress</u> (December 2015) <u>http://www.sciencedirect.com/science/journal/17554365</u> [Reviewed earlier]

Epidemiology and Infection

Volume 144 - Issue 02 - January 2016 http://journals.cambridge.org/action/displayIssue?jid=HYG&tab=currentissue [Reviewed earlier]

The European Journal of Public Health

Volume 25, Issue 6, 1 December 2015 http://eurpub.oxfordjournals.org/content/25/6 [Reviewed earlier]

Eurosurveillance

Volume 21, Issue 2, 14 January 2016

http://www.eurosurveillance.org/Public/Articles/Archives.aspx?PublicationId=11678
Rapid Communications

Zika virus infection in a traveller returning from the Maldives, June 2015

by E Korhonen, E Huhtamo, T Smura, H Kallio-Kokko, M Raassina, O Vapalahti

<u>Multidrug-resistant bacteria in unaccompanied refugee minors arriving in Frankfurt</u> am Main, Germany, October to November 2015

by U Heudorf, B Krackhardt, M Karathana, N Kleinkauf, C Zinn

<u>Multidrug-resistant organisms detected in refugee patients admitted to a University</u> <u>Hospital, Germany June-December 2015</u>

by C Reinheimer, V Kempf, S Göttig, M Hogardt, T Wichelhaus, F O'Rourke, C Brandt

Respiratory diphtheria in an asylum seeker from Afghanistan arriving to Finland via Sweden, December 2015

by J Sane, T Sorvari, M Wideström, H Kauma, U Kaukoniemi, E Tarkka, T Puumalainen, M Kuusi, M Salminen, O Lyytikäinen

Global Health: Science and Practice (GHSP)

December 2015 | Volume 3 | Issue 4 http://www.ghspjournal.org/content/current [Reviewed earlier]

Global Health Governance

http://blogs.shu.edu/ghg/category/complete-issues/spring-autumn-2014/ [Accessed 16 January 2016] [No new content]

Global Public Health

Volume 11, Issue 1-2, 2016 http://www.tandfonline.com/toc/rgph20/current

Special Issue: Conceptualising the agency of highly marginalised women: Intimate partner violence in extreme settings

[Reviewed earlier]

Globalization and Health

http://www.globalizationandhealth.com/ [Accessed 16 January 2016] [No new content]

Health Affairs

December 2015; Volume 34, Issue 12 http://content.healthaffairs.org/content/current **Affordability, Access, Models Of Care & More** [Reviewed earlier]

Health and Human Rights

Volume 17, Issue 2 December 2015 http://www.hhrjournal.org/

Special Issue: Evidence of the Impact of Human Rights-Based Approaches to Health [Reviewed earlier]

Health Economics, Policy and Law

Volume 11 - Issue 01 - January 2016 http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue [Reviewed earlier]

Health Policy and Planning

Volume 30 Issue 10 December 2015 http://heapol.oxfordjournals.org/content/current [Reviewed earlier]

Health Research Policy and Systems

http://www.health-policy-systems.com/content [Accessed 16 January 2016] Research

The development of ORACLe: a measure of an organisation's capacity to engage in evidence-informed health policy

Steve R Makkar, Tari Turner, Anna Williamson, Jordan Louviere, Sally Redman, Abby Haynes, Sally Green, Sue Brennan Health Research Policy and Systems 2016, 14:4 (14 January 2016) Abstract

Background

Evidence-informed policymaking is more likely if organisations have cultures that promote research use and invest in resources that facilitate staff engagement with research. Measures of organisations' research use culture and capacity are needed to assess current capacity, identify opportunities for improvement, and examine the impact of capacity-building interventions. The aim of the current study was to develop a comprehensive system to measure and score organisations' capacity to engage with and use research in policymaking, which we entitled ORACLe (Organisational Research Access, Culture, and Leadership). Method

We used a multifaceted approach to develop ORACLe. Firstly, we reviewed the available literature to identify key domains of organisational tools and systems that may facilitate research use by staff. We interviewed senior health policymakers to verify the relevance and applicability of these domains. This information was used to generate an interview schedule that focused on seven key domains of organisational capacity. The interview was pilot-tested within four Australian policy agencies. A discrete choice experiment (DCE) was then undertaken using an expert sample to establish the relative importance of these domains. This data was used to produce a scoring system for ORACLe.

Results

The ORACLe interview was developed, comprised of 23 questions addressing seven domains of organisational capacity and tools that support research use, including (1) documented processes for policymaking; (2) leadership training; (3) staff training; (4) research resources (e.g. database access); and systems to (5) generate new research, (6) undertake evaluations, and (7) strengthen relationships with researchers. From the DCE data, a conditional logit model was estimated to calculate total scores that took into account the relative importance of the seven domains. The model indicated that our expert sample placed the greatest importance on domains (2), (3) and (4).

Conclusion

We utilised qualitative and quantitative methods to develop a system to assess and score organisations' capacity to engage with and apply research to policy. Our measure assesses a broad range of capacity domains and identifies the relative importance of these capacities. ORACLe data can be used by organisations keen to increase their use of evidence to identify areas for further development.

Human Vaccines & Immunotherapeutics (formerly Human Vaccines)

<u>Volume 11</u>, Issue 12, 2015 <u>http://www.tandfonline.com/toc/khvi20/current</u> [Reviewed earlier]

Humanitarian Exchange Magazine

Number 65 November 2015 http://odihpn.org/wp-content/uploads/2015/10/HE 65 web.pdf **Special Feature: The Crisis in Iraq** [Reviewed earlier]

Infectious Agents and Cancer

http://www.infectagentscancer.com/content [Accessed 16 January 2016] [No new relevant content]

Infectious Diseases of Poverty

http://www.idpjournal.com/content [Accessed 16 January 2016] [No new relevant content]

International Health

Volume 7 Issue 6 November 2015 http://inthealth.oxfordjournals.org/content/current [Reviewed earlier]

International Journal of Epidemiology

Volume 44 Issue 6 December 2015 http://ije.oxfordjournals.org/content/current [Reviewed earlier]

International Journal of Infectious Diseases

January 2016 Volume 42, p1-74 http://www.ijidonline.com/issue/S1201-9712%2815%29X0012-9 Editorial

Why is Pakistan a threat to "The Polio Eradication and Endgame Strategic Plan 2013-2018"? A look into the past decade

Tariq Khan, Bilal Haider Abbasi, Mubarak Ali Khan, Akhtar Nadhman p4–6

Published online: November 16 2015

Abstract

The fight against endemic polio transmission is restricted to three countries: Pakistan, Afghanistan, and Nigeria. In 2012, when the world saw the lowest numbers of cases from polio-reporting countries, the World Health Organization (WHO) initiated a comprehensive strategy, "The Polio Eradication and Endgame Strategic Plan 2013–2018".1 The plan (as it will be called from this point onwards) aims at: (1) wild polio virus (WPV) interruption by the end of 2014, (2) a strengthened immunization system and cessation of oral polio vaccine (OPV), (3) containment and certification, and (4) the quest for maintenance of a polio-free world by 2018.

Perspective

<u>Impacts of neglected tropical disease on incidence and progression of HIV/AIDS, tuberculosis, and malaria: scientific links</u>

G.G. Simon

Management Sciences for Health, Arlington VA, USA DOI: http://dx.doi.org/10.1016/j.ijid.2015.11.006
Highlights

- :: The neglected tropical diseases (NTDs) share a high degree of geographic overlap with malaria and HIV.
- :: Research suggests that NTDs can impact HIV, tuberculosis, and malaria disease progression.
- :: Immunological, epidemiological, and social cofactors contribute to disease impact. *Summary*

The neglected tropical diseases (NTDs) are the most common infections of humans in Sub-Saharan Africa. Virtually all of the population living below the World Bank poverty figure is affected by one or more NTDs. New evidence indicates a high degree of geographic overlap between the highest-prevalence NTDs (soil-transmitted helminths, schistosomiasis, onchocerciasis, lymphatic filariasis, and trachoma) and malaria and HIV, exhibiting a high degree of co-infection. Recent research suggests that NTDs can affect HIV and AIDS, tuberculosis (TB), and malaria disease progression. A combination of immunological, epidemiological, and clinical factors can contribute to these interactions and add to a worsening prognosis for people affected by HIV/AIDS, TB, and malaria. Together these results point to the impacts of the highest-prevalence NTDs on the health outcomes of malaria, HIV/AIDS, and TB and present new opportunities to design innovative public health interventions and strategies for these 'big three' diseases. This analysis describes the current findings of research and what research is still needed to strengthen the knowledge base of the impacts NTDs have on the big three.

Reviews

Bridging the gap between evidence and policy for infectious diseases: How models can aid public health decision-making

Gwenan M. Knight, Nila J. Dharan, Gregory J. Fox, Natalie Stennis, Alice Zwerling, Renuka Khurana, David W. Dowdy

p17-23

Published online: November 3 2015

Highlights

- :: Mathematical models are under-utilized in public health.
- :: We discuss the current use of infectious disease modelling with a case study.
- :: We lay out the methods and limitations of modelling infectious diseases.
- :: We present a framework for improved interaction between public health and modellers.
- :: This could lead to more transparent and evidence-driven policy decisions. *Summary*

The dominant approach to decision-making in public health policy for infectious diseases relies heavily on expert opinion, which often applies empirical evidence to policy questions in a manner that is neither systematic nor transparent. Although systematic reviews are frequently commissioned to inform specific components of policy (such as efficacy), the same process is rarely applied to the full decision-making process. Mathematical models provide a mechanism through which empirical evidence can be methodically and transparently integrated to address such questions. However, such models are often considered difficult to interpret. In addition, models provide estimates that need to be iteratively re-evaluated as new data or considerations arise. Using the case study of a novel diagnostic for tuberculosis, a framework for improved collaboration between public health decision-makers and mathematical modellers that could lead to more transparent and evidence-driven policy decisions for infectious diseases in the future is proposed. The framework proposes that policymakers should establish long-term collaborations with modellers to address key questions, and that modellers should strive to provide clear explanations of the uncertainty of model structure and outputs. Doing so will improve the applicability of models and clarify their limitations when used to inform real-world public health policy decisions.

Original Reports

Age and Ebola viral load correlate with mortality and survival time in 288 Ebola virus disease patients

Jin Li, Hui-Juan Duan, Hao-Yang Chen, Ying-Jie Ji, Xin Zhang, Yi-Hui Rong, Zhe Xu, Li-Jian Sun, Ji-Yuan Zhang, Li-Ming Liu, Bo Jin, Jian Zhang, Ning Du, Hai-Bin Su, Guang-Ju Teng, Yue Yuan, En-Qiang Qin, Hong-Jun Jia, Shu Wang, Tong-Sheng Guo, Ye Wang, Jin-Song Mu, Tao Yan, Zhi-Wei Li, Zheng Dong, Wei-Min Nie, Tian-Jun Jiang, Chen Li, Xu-Dong Gao, Dong Ji, Ying-Jie Zhuang, Lei Li, Li-Fu Wang, Wen-Gang Li, Xue-Zhang Duan, Yin-Ying Lu, Zhi-Qiang Sun, Alex B.J. Kanu, Sheku M. Koroma, Min Zhao, Jun-Sheng Ji, Fu-Sheng Wang p34–39

Published online: October 30 2015

JAMA

January 12, 2016, Vol 315, No. 2 http://jama.jamanetwork.com/issue.aspx [New issue; No relevant content identified]

JAMA Pediatrics

January 2016, Vol 170, No. 1 http://archpedi.jamanetwork.com/issue.aspx [Reviewed earlier]

Journal of Community Health

February 2016, Issue 1, Pages 1-205 http://link.springer.com/journal/10900/41/1/page/1 [New issue; No relevant content identified]

Journal of Epidemiology & Community Health

January 2016, Volume 70, Issue 1 http://jech.bmj.com/content/current [Reviewed earlier]

Journal of Global Ethics

Volume 11, Issue 3, 2015 http://www.tandfonline.com/toc/rjge20/.U2V-Elf4L0I#.VAJEj2N4WF8 **Forum: The Sustainable Development Goals**[Reviewed earlier]

Journal of Global Infectious Diseases (JGID)

October-December 2015 Volume 7 | Issue 4 Page Nos. 125-174 http://www.jgid.org/currentissue.asp?sabs=n [Reviewed earlier]

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

Volume 26, Number 4, November 2015 https://muse.jhu.edu/journals/journal of health care for the poor and underserved/toc/hpu. 26.4.html [Reviewed earlier]

Journal of Immigrant and Minority Health

Volume 17, Issue 6, December 2015 http://link.springer.com/journal/10903/17/6/page/1 Special issue: Mental Health and Substance Use [Reviewed earlier]

Journal of Immigrant & Refugee Studies

Volume 13, Issue 4, 2015 http://www.tandfonline.com/toc/wimm20/current [Reviewed earlier]

Journal of Infectious Diseases

Volume 213 Issue 3 February 1, 2016

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

[New issue; No relevant content identified]

The Journal of Law, Medicine & Ethics

Winter 2015 Volume 43, Issue 4 Pages 673–913

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

Special Issue: SYMPOSIUM: Harmonizing Privacy Laws to Enable International

Biobank Research: Part I

[14 articles]

Journal of Medical Ethics

January 2016, Volume 42, Issue 1 http://jme.bmj.com/content/current-viewpoint

To research (or not) that is the question: ethical issues in research when medical care is disrupted by political action: a case study from Eldoret, Kenya

Darlene R House<u>1,2</u>, Irene Marete<u>2,3</u>, Eric M Meslin<u>2,3,4</u>

Author Affiliations

1Emergency Medicine, Indiana University School of Medicine, Indianapolis, Indiana, USA 2Academic Model Providing Access to Healthcare (AMPATH), Eldoret, Kenya 3Department of Child Health and Paediatrics, Moi University School of Medicine, Eldoret, Kenya 4Center for Bioethics, Indiana University, Indianapolis, Indiana, USA Correspondence to Dr Darlene R House, Emergency Medicine, Indiana University School of Medicine, Indianapolis, IN 46202, USA; dhouse@iupui.edu Abstract

While considerable attention has been focused on understanding the myriad of ethical analysis in international research in low and middle income countries, new issues always arise that have not been anticipated in guidelines or studied extensively. The disruption of medical care arising as a direct result of political actions, including strikes, postelection violence and related activities, is one such issue that leaves physician-researchers struggling to manage often conflicting professional responsibilities. This paper discusses the ethical conflicts that arise for physician-researchers, particularly when disruption threatens the completion of a study or completion is possible but at the expense of not addressing unmet medical needs of patients. We review three pragmatic strategies and the ethical issues arising from each: not starting research, stopping research that has already started, and continuing research already initiated. We argue that during episodes of medical care disruption, research that has been started can be continued only if the ethical standards imposed at the beginning of the study can continue to be met; however, studies that have been approved but not yet started should not begin until the disruption has ended and ethical standards can again be assured.

Journal of Medical Microbiology

Volume 64, Issue 12, December 2015

http://jmm.microbiologyresearch.org/content/journal/jmm/64/12;jsessionid=jf12wjldqo1p.x-sqm-live-03

[Reviewed earlier]

Journal of Patient-Centered Research and Reviews

Volume 2, Issue 4 (2015) http://digitalrepository.aurorahealthcare.org/jpcrr/ [Reviewed earlier]

Journal of the Pediatric Infectious Diseases Society (JPIDS)

Volume 4 Issue 4 December 2015 http://jpids.oxfordjournals.org/content/current [Reviewed earlier]

Journal of Pediatrics

January 2016 Volume 168, p1-258 http://www.jpeds.com/current [Reviewed earlier]

Journal of Public Health Policy

Volume 36, Issue 4 (November 2015) http://www.palgrave-journals.com/jphp/journal/v36/n4/index.html [Reviewed earlier]

Journal of the Royal Society – Interface

06 December 2015; volume 12, issue 113 http://rsif.royalsocietypublishing.org/content/current [Reviewed earlier]

Journal of Virology

February 2016, volume 90, issue 3 http://jvi.asm.org/content/current [New issue; No relevant content]

The Lancet

Jan 16, 2016 Volume 387 Number 10015 p199-310 http://www.thelancet.com/journals/lancet/issue/current Articles

<u>Under-5 mortality in 2851 Chinese counties, 1996–2012: a subnational assessment of achieving MDG 4 goals in China</u>

Yanping Wang, Xiaohong Li, Maigeng Zhou, Shusheng Luo, Juan Liang, Chelsea A Liddell, Matthew M Coates, Yanqiu Gao, Linhong Wang, Chunhua He, Chuyun Kang, Shiwei Liu, Li Dai, Austin E Schumacher, Maya S Fraser, Timothy M Wolock, Amanda Pain, Carly E Levitz, Lavanya Singh, Megan Coggeshall, Margaret Lind, Yichong Li, Qi Li, Kui Deng, Yi Mu, Changfei Deng,

Ling Yi, Zheng Liu, Xia Ma, Hongtian Li, Dezhi Mu, Jun Zhu, Christopher J L Murray, Haidong Wang

Summary

Background

In the past two decades, the under-5 mortality rate in China has fallen substantially, but progress with regards to the Millennium Development Goal (MDG) 4 at the subnational level has not been quantified. We aimed to estimate under-5 mortality rates in mainland China for the years 1970 to 2012.

Methods

We estimated the under-5 mortality rate for 31 provinces in mainland China between 1970 and 2013 with data from censuses, surveys, surveillance sites, and disease surveillance points. We estimated under-5 mortality rates for 2851 counties in China from 1996 to 2012 with the reported child mortality numbers from the Annual Report System on Maternal and Child Health. We used a small area mortality estimation model, spatiotemporal smoothing, and Gaussian process regression to synthesise data and generate consistent provincial and county-level estimates. We compared progress at the county level with what was expected on the basis of income and educational attainment using an econometric model. We computed Gini coefficients to study the inequality of under-5 mortality rates across counties. Findings

In 2012, the lowest provincial level under-5 mortality rate in China was about five per 1000 livebirths, lower than in Canada, New Zealand, and the USA. The highest provincial level under-5 mortality rate in China was higher than that of Bangladesh. 29 provinces achieved a decrease in under-5 mortality rates twice as fast as the MDG 4 target rate; only two provinces will not achieve MDG 4 by 2015. Although some counties in China have under-5 mortality rates similar to those in the most developed nations in 2012, some have similar rates to those recorded in Burkina Faso and Cameroon. Despite wide differences, the inter-county Gini coefficient has been decreasing. Improvement in maternal education and the economic boom have contributed to the fall in child mortality; more than 60% of the counties in China had rates of decline in under-5 mortality rates significantly faster than expected. Fast reduction in under-5 mortality rates have been recorded not only in the Han population, the dominant ethnic majority in China, but also in the minority populations. All top ten minority groups in terms of population sizes have experienced annual reductions in under-5 mortality rates faster than the MDG 4 target at 4.4%.

Interpretation

The reduction of under-5 mortality rates in China at the country, provincial, and county level is an extraordinary success story. Reductions of under-5 mortality rates faster than 8.8% (twice MDG 4 pace) are possible. Extremely rapid declines seem to be related to public policy in addition to socioeconomic progress. Lessons from successful counties should prove valuable for China to intensify efforts for those with unacceptably high under-5 mortality rates. Funding

National "Twelfth Five-Year" Plan for Science and Technology Support, National Health and Family Planning Commission of The People's Republic of China, Program for Changjiang Scholars and Innovative Research Team in University, the National Institute on Aging, and the Bill & Melinda Gates Foundation.

Series

Antimicrobials: access and sustainable effectiveness

Exploring the evidence base for national and regional policy interventions to combat resistance

Osman A Dar, Rumina Hasan, Jørgen Schlundt, Stephan Harbarth, Grazia Caleo, Fazal K Dar, Jasper Littmann, Mark Rweyemamu, Emmeline J Buckley, Mohammed Shahid, Richard Kock, Henry Lishi Li, Haydar Giha, Mishal Khan, Anthony D So, Khalid M Bindayna, Anthony Kessel, Hanne Bak Pedersen, Govin Permanand, Alimuddin Zumla, John-Arne Røttingen, David L Heymann

Antimicrobials: access and sustainable effectiveness

<u>International cooperation to improve access to and sustain effectiveness of</u> antimicrobials

Christine Årdal, Kevin Outterson, Steven J Hoffman, Abdul Ghafur, Mike Sharland, Nisha Ranganathan, Richard Smith, Anna Zorzet, Jennifer Cohn, Didier Pittet, Nils Daulaire, Chantal Morel, Zain Rizvi, Manica Balasegaram, Osman A Dar, David L Heymann, Alison H Holmes, Luke S P Moore, Ramanan Laxminarayan, Marc Mendelson, John-Arne Røttingen

The Lancet Infectious Diseases

Jan 2016 Volume 16 Number 1 p1-130 e1-e9 http://www.thelancet.com/journals/laninf/issue/current [Reviewed earlier]

Maternal and Child Health Journal

Volume 19, Issue 12, December 2015 http://link.springer.com/journal/10995/19/12/page/1 [Reviewed earlier]

Medical Decision Making (MDM)

January 2016; 36 (1) http://mdm.sagepub.com/content/current [Reviewed earlier]

The Milbank Quarterly

A Multidisciplinary Journal of Population Health and Health Policy September 2015 Volume 93, Issue 3 Pages 447–649 http://onlinelibrary.wiley.com/doi/10.1111/milq.2015.93.issue-3/issuetoc [Reviewed earlier]

Nature

Volume 529 Number 7585 pp127-248 14 January 2016 http://www.nature.com/nature/current_issue.html [New issue; No relevant content identified]

Nature Medicine

January 2016, Volume 22 No 1 pp1-113 http://www.nature.com/nm/journal/v22/n1/index.html [Reviewed earlier]

Nature Reviews Immunology

January 2016 Vol 16 No 1 http://www.nature.com/nri/journal/v16/n1/index.html [New issue; No relevant content identified]

New England Journal of Medicine

January 14, 2016 Vol. 374 No. 2 http://www.nejm.org/toc/nejm/medical-journal [New issue; No relevant content identified]

Pediatrics

January 2016, VOLUME 137 / ISSUE 1 http://pediatrics.aappublications.org/content/137/1?current-issue=y [Reviewed earlier]

Pharmaceutics

<u>Volume 7</u>, Issue 4 (December 2015), Pages 363-564 <u>http://www.mdpi.com/1999-4923/7/4</u> [Reviewed earlier]

PharmacoEconomics

Volume 33, Issue 12, December 2015 http://link.springer.com/journal/40273/33/12/page/1 [Reviewed earlier]

PLOS Currents: Disasters

http://currents.plos.org/disasters/ [Accessed 16 January 2016] [No new content]

PLoS Currents: Outbreaks

http://currents.plos.org/outbreaks/ (Accessed 16 January 2016) [No new content]

PLoS Medicine

http://www.plosmedicine.org/ (Accessed 16 January 2016) [No new relevant content]

PLoS Neglected Tropical Diseases

http://www.plosntds.org/ (Accessed 16 January 2016) [No new relevant content]

PLoS One

http://www.plosone.org/ [Accessed 16 January 2016]

<u>Spatiotemporal Evolution of Ebola Virus Disease at Sub-National Level during the</u>
<u>2014 West Africa Epidemic: Model Scrutiny and Data Meagreness</u>

Eva Santermans, Emmanuel Robesyn, Tapiwa Ganyani, Bertrand Sudre, Christel Faes, Chantal Quinten, Wim Van Bortel, Tom Haber, Thomas Kovac, Frank Van Reeth, Marco Testa, Niel Hens, Diamantis Plachouras

Research Article | published 15 Jan 2016 | PLOS ONE 10.1371/journal.pone.0147172

Research Article

Quantifying Access Disparities in Response Plans

Saratchandra Indrakanti,

Armin R. Mikler, Martin O'Neill II, Chetan Tiwari

Published: January 15, 2016

DOI: 10.1371/journal.pone.0146350

Abstract

Effective response planning and preparedness are critical to the health and well-being of communities in the face of biological emergencies. Response plans involving mass prophylaxis may seem feasible when considering the choice of dispensing points within a region, overall population density, and estimated traffic demands. However, the plan may fail to serve particular vulnerable subpopulations, resulting in access disparities during emergency response. For a response plan to be effective, sufficient mitigation resources must be made accessible to target populations within short, federally-mandated time frames. A major challenge in response plan design is to establish a balance between the allocation of available resources and the provision of equal access to PODs for all individuals in a given geographic region. Limitations on the availability, granularity, and currency of data to identify vulnerable populations further complicate the planning process. To address these challenges and limitations, data driven methods to quantify vulnerabilities in the context of response plans have been developed and are explored in this article.

Research Article

Human Papillomavirus Infection and Vaccination: Awareness and Knowledge of HPV and Acceptability of HPV Vaccine among Mothers of Teenage Daughters in Weihai, Shandong, China

Yang Yu, Minglei Xu, Jiandong Sun, Ruiying Li, Meilan Li, Jianguang Wang, Dongfeng Zhang, Aiqiang Xu

Research Article | published 14 Jan 2016 | PLOS ONE 10.1371/journal.pone.0146741

Research Article

Efficacy of PPV23 in Preventing Pneumococcal Pneumonia in Adults at Increased Risk – A Systematic Review and Meta-Analysis

Julia Schiffner-Rohe, Annika Witt, Jana Hemmerling, Christof von Eiff, Friedrich-Wilhelm Leverkus

Research Article | published 13 Jan 2016 | PLOS ONE 10.1371/journal.pone.0146338

PLoS Pathogens

http://journals.plos.org/plospathogens/ (Accessed 16 January 2016)

Research Article

Broadly Neutralizing Antibody Responses in a Large Longitudinal Sub-Saharan HIV Primary Infection Cohort

Elise Landais, Xiayu Huang, Colin Havenar-Daughton, Ben Murrell, Matt A. Price, Lalinda Wickramasinghe, Alejandra Ramos, Charoan B. Bian, Melissa Simek, Susan Allen, Etienne Karita, William Kilembe, Shabir Lakhi, [...],ascal Poignard

Published: January 14, 2016

DOI: 10.1371/journal.ppat.1005369

Abstract

Broadly neutralizing antibodies (bnAbs) are thought to be a critical component of a protective HIV vaccine. However, designing vaccines immunogens able to elicit bnAbs has proven unsuccessful to date. Understanding the correlates and immunological mechanisms leading to the development of bnAb responses during natural HIV infection is thus critical to the design of a protective vaccine. The IAVI Protocol C program investigates a large longitudinal cohort of primary HIV-1 infection in Eastern and South Africa. Development of neutralization was evaluated in 439 donors using a 6 cross-clade pseudo-virus panel predictive of neutralization breadth on larger panels. About 15% of individuals developed bnAb responses, essentially between year 2 and year 4 of infection. Statistical analyses revealed no influence of gender, age or geographical origin on the development of neutralization breadth. However, cross-clade neutralization strongly correlated with high viral load as well as with low CD4 T cell counts, subtype-C infection and HLA-A*03(-) genotype. A correlation with high overall plasma IgG levels and anti-Env IgG binding titers was also found. The latter appeared not associated with higher affinity, suggesting a greater diversity of the anti-Env responses in broad neutralizers. Broadly neutralizing activity targeting glycan-dependent epitopes, largely the N332-glycan epitope region, was detected in nearly half of the broad neutralizers while CD4bs and gp41-MPER bnAb responses were only detected in very few individuals. Together the findings suggest that both viral and host factors are critical for the development of bnAbs and that the HIV Env N332-glycan supersite may be a favorable target for vaccine design.

Author Summary

Understanding how HIV-1-broadly neutralizing antibodies (bnAbs) develop during natural infection is essential to the design of an efficient HIV vaccine. We studied kinetics and

correlates of neutralization breadth in a large sub-Saharan African longitudinal cohort of 439 participants with primary HIV-1 infection. Broadly nAb responses developed in 15% of individuals, on average three years after infection. Broad neutralization was associated with high viral load, low CD4+ T cell counts, virus subtype C infection and HLA*A3(-) genotype. A correlation with high overall plasma IgG levels and anti-Env binding titers was also found. Specificity mapping of the bnAb responses showed that glycan-dependent epitopes, in particular the N332 region, were most commonly targeted, in contrast to other bnAb epitopes, suggesting that the HIV Env N332-glycan epitope region may be a favorable target for vaccine design.

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

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

(Accessed 16 January 2016)

Biological Sciences - Immunology and Inflammation

<u>Systems biology of immunity to MF59-adjuvanted versus nonadjuvanted trivalent seasonal influenza vaccines in early childhood</u>

Helder I. Nakaya, Elizabeth Clutterbuck, Dmitri Kazmin, Lili Wang, Mario Cortese, Steven E. Bosinger, Nirav B. Patel, Daniel E. Zak, Alan Aderem, Tao Dong, Giuseppe Del Giudice, Rino Rappuoli, Vincenzo Cerundolo, Andrew J. Pollard, Bali Pulendran, and Claire-Anne Siegrist PNAS 2016; published ahead of print January 11, 2016, doi:10.1073/pnas.1519690113 <u>Author Affiliations</u>

Significance

Vaccines are one of the most cost-effective public health tools in history and offer a means to probe the human immune system. Recent advances have applied the tools of systems biology to study immune responses to vaccination in humans. Here we describe the application of this "systems vaccinology" approach to studying immunity to vaccination of 14- to 24-mo-old children with the inactivated influenza vaccine, administered with or without the MF59 adjuvant. These results reveal important new insights about the dynamics of the innate and adaptive responses to vaccination in this population, and identify potential correlates of immunity to vaccination in children.

Abstract

The dynamics and molecular mechanisms underlying vaccine immunity in early childhood remain poorly understood. Here we applied systems approaches to investigate the innate and adaptive responses to trivalent inactivated influenza vaccine (TIV) and MF59-adjuvanted TIV (ATIV) in 90 14- to 24-mo-old healthy children. MF59 enhanced the magnitude and kinetics of serum antibody titers following vaccination, and induced a greater frequency of vaccine specific, multicytokine-producing CD4+ T cells. Compared with transcriptional responses to TIV vaccination previously reported in adults, responses to TIV in infants were markedly attenuated, limited to genes regulating antiviral and antigen presentation pathways, and observed only in a subset of vaccinees. In contrast, transcriptional responses to ATIV boost were more homogenous and robust. Interestingly, a day 1 gene signature characteristic of the innate response (antiviral IFN genes, dendritic cell, and monocyte responses) correlated with hemagglutination at day 28. These findings demonstrate that MF59 enhances the magnitude, kinetics, and consistency of the innate and adaptive response to vaccination with the seasonal influenza vaccine during early childhood, and identify potential molecular correlates of antibody responses.

Pneumonia

Vol 6 (2015)

https://pneumonia.org.au/index.php/pneumonia/issue/current [Reviewed earlier]

Prehospital & Disaster Medicine

Volume 30 - Issue 06 - December 2015 https://journals.cambridge.org/action/displayIssue?jid=PDM&tab=currentissue [Reviewed earlier]

Preventive Medicine

Volume 82, Pages 1-118 (January 2016) http://www.sciencedirect.com/science/journal/00917435/82 [Reviewed earlier]

Proceedings of the Royal Society B

22 November 2015; volume 282, issue 1819 http://rspb.royalsocietypublishing.org/content/282/1806?current-issue=y [New issue; No relevant content identified]

Public Health Ethics

Volume 8 Issue 3 November 2015
http://phe.oxfordjournals.org/content/current

**Special Symposium: Antimicrobial Resistance

[Reviewed earlier]

Qualitative Health Research

January 2016; 26 (2) http://qhr.sagepub.com/content/current [Reviewed earlier]

Reproductive Health

http://www.reproductive-health-journal.com/content [Accessed 16 January 2016] [Reviewed earlier]

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

September 2015 Vol. 38, No. 3 http://www.paho.org/journal/

[Reviewed earlier]

Risk Analysis

December 2015 Volume 35, Issue 12 Pages 2121–2228 http://onlinelibrary.wiley.com/doi/10.1111/risa.2015.35.issue-12/issuetoc [Reviewed earlier]

Science

15 January 2016 Vol 351, Issue 6270 http://www.sciencemag.org/current.dtl [New issue; No relevant content identified]

Social Science & Medicine

Volume 148, Pages 1-172 (January 2016) http://www.sciencedirect.com/science/journal/02779536/148 [Reviewed earlier]

Tropical Medicine and Health

Vol. 43(2015) No. 4 https://www.jstage.jst.go.jp/browse/tmh/43/0/_contents [Reviewed earlier]

Tropical Medicine & International Health

January 2016 Volume 21, Issue 1 Pages 1–156 http://onlinelibrary.wiley.com/doi/10.1111/tmi.2016.21.issue-1/issuetoc [Reviewed earlier]

Vaccine

Volume 34, Issue 5, Pages 597-702 (27 January 2016) http://www.sciencedirect.com/science/journal/0264410X/34/5 Original Research Article

<u>Cost-utility analysis of dengue vaccination in a country with heterogeneous risk of dengue transmission</u>

Pages 616-621

Pablo Wenceslao Orellano, Julieta Itati Reynoso, Hans-Christian Stahl, Oscar Daniel Salomon Abstract

Background

Dengue is one of the most important vector-borne diseases worldwide, and annually, nearly 390 million people are infected and 500,000 patients are hospitalized for severe dengue. Argentina has great variability in the risk of dengue transmission due to eco-climatic reasons. Currently no vaccines are available for dengue even though several vaccines are under development. Objective

The aim of this study was to estimate the cost-effectiveness of a dengue vaccine in a country with heterogeneous risk of dengue transmission like Argentina.

Methods

The analysis was carried out from a societal perspective using a Markov model that included both vaccine and disease parameters. Utility was measured as disability adjusted life years (DALYs) averted, and the incremental cost-effectiveness ratio (ICER) of the vaccination was expressed in 2014 American dollars (US\$) per DALY averted. One-way and probabilistic sensitivity analyses were performed to evaluate uncertainty in model outcomes, and a threshold analysis was conducted to estimate the highest possible price of the vaccine. Results

The ICER of the vaccination program was found to be US\$ 5714 per DALY averted. This value is lower than 3 times the per capita GDP of Argentina (US\$ 38,619 in 2014); 54.9% of the simulations were below this value. If a vaccination program would be implemented the maximum vaccine price per dose has to be US\$1.49 for a vaccination at national level or US\$28.72 for a targeted vaccination in high transmission areas. Conclusions

These results demonstrate that vaccination against dengue would be cost-effective in Argentina, especially if carried out in predetermined regions at high risk of dengue transmission. However, these results should be interpreted with caution because the probabilistic sensitivity analysis showed that there was considerable uncertainty around the ICER value. The influence of variations in vaccine efficacy, cost and other important parameters are discussed in the text.

Adolescent, parent and societal preferences and willingness to pay for meningococcal B vaccine: A Discrete Choice Experiment

Original Research Article

Pages 671-677

H.S. Marshall, G. Chen, M. Clarke, J. Ratcliffe

Abstract

Objective

Meningococcal B (MenB) vaccines have been licensed in many countries with private purchase the only option until recently, when a funded programme was introduced in the UK. The aim of this study was to explore adolescent/parental values for a variety of salient vaccine attributes (cost, effectiveness, side effect profile) to assess preferences and willingness-to-pay (WTP) for a MenB vaccine.

Methodology

A national cross-sectional population study was conducted in Australia using Discrete Choice Experiment methodology to assess adolescent/parent/adult preferences for attributes related to MenB vaccine.

Results

2003 adults and 502 adolescents completed the survey in 2013. The majority of participants were willing to be vaccinated with MenB vaccine with vaccination opt-out chosen by 11.9% of adolescents and parents, and 18.2% of non-parent adults. A mixed logit regression model examining adolescent/adult preferences indicated consistent findings; the higher the effectiveness, the longer the duration of protection, the less chance of adverse events and the lower the cost, the more likely respondents were to agree to vaccination. For an ideal MenB vaccine, including the most favoured level of each attribute summed together (90% effectiveness, 10 year duration, 1 injection, no adverse events) adolescents would pay AU\$251.60 and parents AU\$295.10. Adolescents and parents would pay AU\$90.70 or

AU\$127.20 for 90% vaccine effectiveness vs AU\$18.50 or AU\$16.70 for 70% effectiveness and would want to be financially compensated for 50% effectiveness; pay AU\$63.30 or AU\$76.40 for 10 years protection; and pay AU\$48.50 or AU\$49.20 for no vaccine related adverse events. A slight fever post vaccination was a preferred choice with parents and adolescents willing to pay AU\$9.60 or AU\$12.30 for this attribute.

Conclusions

Vaccine effectiveness, adverse events and duration of immunity are important drivers for parental and adolescent decisions about WTP for MenB vaccine and should be included in discussions on the benefits, risks and cost.

Knowledge, attitudes, beliefs, and behaviors of parents and healthcare providers before and after implementation of a universal rotavirus vaccination program

Original Research Article

Pages 687-695

Donna M. MacDougall, Beth A. Halperin, Joanne M. Langley, Donna MacKinnon-Cameron, Li Li, Scott A. Halperin, for the Maritime Universal Rotavirus Vaccination Program (MURVP)

Abstract

Objective

In Canada, rotavirus vaccine is recommended for all infants, but not all provinces/territories have publicly funded programs. We compared public and healthcare provider (HCP) knowledge, attitudes, beliefs, and behaviors in a province with a public health nurse-delivered, publicly funded rotavirus vaccination program to a province with a publicly funded, physician-delivered program. A third province with no vaccination program acted as a control. Design

Information about knowledge, attitudes, beliefs, and behaviors of parents whose children were eligible for the universal program and healthcare providers responsible for administering the vaccine were collected through the use of two validated surveys distributed in public health clinics, physicians' offices, and via e-mail. Early and postvaccine-program survey results were compared.

Results

A total of 722 early implementation and 709 postimplementation parent surveys and 180 early and 141 postimplementation HCP surveys were analyzed. HCP and public attitudes toward rotavirus vaccination were generally positive and didn't change over time. More parents postprogram were aware of the NACI recommendation and the vaccination program and reported that their healthcare provider discussed rotavirus infection and vaccine with them. Prior to the program across all sites, more physicians than nurses were aware of the national recommendation regarding rotavirus vaccine. In the postprogram survey, however, more nurses were aware of the national recommendation and their provincial universal rotavirus vaccination program. Nurses had higher knowledge scores than physicians in the postprogram survey (p < 0.001). Parents of young infants were also more knowledgeable about rotavirus and rotavirus vaccine in the two areas where universal programs were in place (p < 0.001). Conclusions

Implementation of a universal rotavirus vaccination program was associated with an increase in knowledge and more positive attitudes toward rotavirus vaccine amongst parents of eligible infants. Nurses involved in a public health-delivered vaccination program were more knowledgeable and had more positive attitudes toward the vaccine than physicians in a jurisdiction where vaccine was physician-delivered.

Vaccine

Volume 34, Issue 4, Pages 401-596 (20 January 2016) http://www.sciencedirect.com/science/journal/0264410X/34/4 Commentary

<u>Commentary on: "Seasonal influenza vaccine dose distribution in 195 countries (2004–2013): Little progress in estimated global vaccination coverage"</u>

Pages 401-402 David M. Salisbury [No abstract]

Brief report

The potential acceptability of infant vaccination against malaria: A mapping of parental positions in Togo

Pages 408-412

Lonzozou Kpanake, Paul Clay Sorum, Etienne Mullet

Abstract

Objective

To map the acceptability to parents in Togo of infant vaccination against malaria.

Methods

From July to October 2014, a study of 209 parents of infants in Togo was conducted to assess their willingness to have their infants vaccinated against malaria. Participants were exposed to 48 vignettes, designed using the main constructs of health-protective theories.

Results

Five qualitatively different positions were found, which were labeled Neighbors' Attitude (5%), Cost Only (21%), Neighbors' Attitude and Cost (22%), Risk and Cost (33%), and Always Vaccine (20%).

Conclusion

The diversity of parental positions regarding vaccinating their infants against malaria implies that malaria vaccination campaigns in Togo, and possibly in other sub-Saharan African countries, must not be "one size fits all," but must be tailored in design and implementation to match the diversity of parents' needs and views.

<u>Validity of the estimates of oral cholera vaccine effectiveness derived from the test-negative design</u>

Original Research Article

Pages 479-485

Mohammad Ali, Young Ae You, Dipika Sur, Suman Kanungo, Deok Ryun Kim, Jacqueline Deen, Anna Lena Lopez, Thomas F. Wierzba, Sujit K. Bhattacharya, John D. Clemens Abstract

Background

The test-negative design (TND) has emerged as a simple method for evaluating vaccine effectiveness (VE). Its utility for evaluating oral cholera vaccine (OCV) effectiveness is unknown. We examined this method's validity in assessing OCV effectiveness by comparing the results of TND analyses with those of conventional cohort analyses.

Methods

Randomized controlled trials of OCV were conducted in Matlab (Bangladesh) and Kolkata (India), and an observational cohort design was used in Zanzibar (Tanzania). For all three studies, VE using the TND was estimated from the odds ratio (OR) relating vaccination status to

fecal test status (Vibrio cholerae O1 positive or negative) among diarrheal patients enrolled during surveillance (VE = $(1 - OR) \times 100\%$). In cohort analyses of these studies, we employed the Cox proportional hazard model for estimating VE (=1 - hazard ratio)×100%). Results

OCV effectiveness estimates obtained using the TND (Matlab: 51%, 95% CI:37–62%; Kolkata: 67%, 95% CI:57–75%) were similar to the cohort analyses of these RCTs (Matlab: 52%, 95% CI:43–60% and Kolkata: 66%, 95% CI:55–74%). The TND VE estimate for the Zanzibar data was 94% (95% CI:84–98%) compared with 82% (95% CI:58–93%) in the cohort analysis. After adjusting for residual confounding in the cohort analysis of the Zanzibar study, using a bias indicator condition, we observed almost no difference in the two estimates. Conclusion

Our findings suggest that the TND is a valid approach for evaluating OCV effectiveness in routine vaccination programs.

Vaccines — Open Access Journal

http://www.mdpi.com/journal/vaccines (Accessed 16 January 2016) [No new content]

Value in Health

December 2015 Volume 18, Issue 8, p941-1162 http://www.valueinhealthjournal.com/current [Reviewed earlier]

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* * * *

<u>From Google Scholar & other sources: Selected Journal Articles, Newsletters, Dissertations, Theses, Commentary</u>

Obstetrics & Gynecology

Post Author Corrections: January 07, 2016

<u>Maternal Immunization With an Investigational Trivalent Group B Streptococcal Vaccine: A Randomized Controlled Trial.</u>

Donders, Gilbert G.G. MD, PhD; Halperin, Scott A. MD; Devlieger, Roland MD, PhD; Baker, Sherryl PhD; Forte, Pietro BA; Wittke, Frederick MD; Slobod, Karen S. MD; Dull, Peter M. MD doi: 10.1097/AOG.00000000001190

Original Research: PDF Only Published Ahead-of-Print

Abstract

OBJECTIVE: To evaluate the safety and immunogenicity of an investigational trivalent group B streptococcal vaccine in pregnant women and antibody transfer to their newborns. METHODS: The primary outcome of this observer-blind, randomized study was to estimate placental antibody transfer rates at birth. Secondary outcomes included measurement of

serotype-specific antibodies at screening, 30 days postvaccination, at delivery, and 91 days postpartum, infant antibody levels at 3 months of age, the potential effect on routine infant diphtheria vaccination at 1 month after the third infant series dose, and safety in mother and infant participants through at least 5 months postpartum. Sample size was based on 60 participants in the vaccine group giving a probability of observing at least one adverse event of 90% if the actual rate of the event was 3.8%.

RESULTS: From September 2011 to October 2013, 86 pregnant women were allocated in a 3:2 ratio to receive an investigational group B streptococcal vaccine containing glycoconjugates of serotypes Ia, Ib, and III or placebo. Demographics were similar across groups. Transfer ratios were 66-79% and maternal geometric mean concentrations increased 16-, 23-, and 20-fold by delivery against serotypes Ia, Ib, and III, respectively, Women with no detectable antibodies at inclusion had lower responses than those with detectable antibodies. Three months after birth, infant antibody concentrations were 22-25% of birth levels. Antidiphtheria geometric mean concentrations were similar across groups. In the vaccine and placebo groups, 32 of 51 women (63%) and 26 of 35 women (74%) reported adverse effects, respectively.

CONCLUSION: The investigational vaccine was well-tolerated without safety signals in recipients and their infants or interference with routine infant diphtheria vaccination, although further studies on safety and effectiveness are needed. The investigational vaccine was immunogenic for all serotypes, particularly among women with detectable antibody levels at baseline. Antibody transfer to neonates was at similar levels to other maternally administered polysaccharide vaccines.

CLINICAL TRIAL REGISTRATION: ClinicalTrials.gov, www.clinicaltrials.gov, NCT01446289.

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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 16 January 2016 [No new, unique, relevant content]

BBC

http://www.bbc.co.uk/ Accessed 16 January 2016 [No new, unique, relevant content]

The Economist

http://www.economist.com/ Accessed 16 January 2016 [No new, unique, relevant content]

Financial Times

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

Accessed 16 January 2016

January 13, 2016

Suicide bomber kills 14 at Pakistan polio vaccination clinic

Forbes

http://www.forbes.com/ Accessed 16 January 2016

With First Texas Zika Case, Vaccine Desperately Needed, Expert Says

A recent U.S. case of Zika, a tropical disease linked to serious birth defects in the children of infected pregnant women, was diagnosed in the Houston area of Texas two days ago. This case was an imported case, so the individual arrived in the U.S. from Latin America with the illness... Tara Haelle, Contributor Jan 13, 2016

Foreign Affairs

http://www.foreignaffairs.com/ Accessed 16 January 2016 [No new, unique, relevant content]

Foreign Policy

http://foreignpolicy.com/ Accessed 16 January 2016 [No new, unique, relevant content]

The Guardian

http://www.guardiannews.com/

Accessed 16 January 2016

HPV vaccine rates higher in poor and Latino communities, study finds

- :: Findings unusual as underserved typically have limited healthcare access
- :: HPV is most common sexually transmitted infection in US

Thursday 14 January 2016 06.00 EST

Rates for the <u>human papillomavirus (HPV) vaccine</u> in the US are highest in communities that are predominantly Latino and poor, according to a report released Thursday that depicts a sharp turn in public health trends.

In high poverty communities, 61.1% of girls were given the first shot in the series, compared with 52.4% in low poverty communities, according to the American Association for Cancer Research's report, the first to look at geography in relation to HPV vaccination rates.

"You're finding everything is inverse essentially," said Kevin Henry, lead author of the study, which is being published in Cancer Epidemiology, Biomarkers & Prevention. "You're finding that

the wealthier people have less vaccination yet they have more resources so in some respects they should be higher."

The HPV vaccination rate was found to be higher among black people, American Indian/Alaska natives and Latinos compared with caucasian and Asian people. And girls whose families live below the poverty line also started taking the vaccination more frequently than women above the poverty line.

This is unusual because underserved communities typically have limited access to healthcare and take up public health initiatives like preventive screenings and immunizations at a lower rate...

Mail & Guardian

http://mg.co.za/ Accessed 16 January 2016 [No new, unique, relevant content]

New Yorker

http://www.newyorker.com/ Accessed 16 January 2016 [No new, unique, relevant content]

New York Times

http://www.nytimes.com/ Accessed 16 January 2016

Brazil to Fund Development of Vaccine for Zika Virus

January 16, 2016 - By THE ASSOCIATED PRESS SAO PAULO — The Brazilian government announced it will direct funds to a biomedical research center to help develop a vaccine against a virus linked to brain damage in babies.

Health Minister Marcelo Castro said Friday that the goal is for the Sao Paulo-based Butantan Institute to develop "in record time" a vaccine for Zika, which is spread through mosquito bites. Institute director Jorge Kalil said that is expected take 3 to 5 years.

Brazil is currently experiencing the largest known outbreak of Zika. The virus has been linked to a recent surge in birth defects including microcephaly, a rare condition in which newborns have smaller than normal heads and their brains do not develop properly.

The Health Ministry says 3,530 babies have been born with microcephaly in the country since October. Fewer than 150 such cases were seen in all of 2014.

Most have been concentrated in Brazil's poor northeast, though cases in Rio de Janeiro and other big cities have also been on the rise, prompting people to stock up on mosquito repellent. Some women of means have left the country to spend their pregnancies in the United States or Europe to avoid infection.

The Zika virus is spread by the Aedes aegypti mosquito, which can also carry dengue and chikungunya...

Suicide Bomb Near Polio Center in Pakistan Kills at Least 16

By IHSANULLAH TIPU MEHSUDJAN. 13, 2016

ISLAMABAD, Pakistan — At least 16 people were killed on Wednesday in a suicide bombing outside a polio vaccination center in the southwestern Pakistani city of Quetta, officials and witnesses said.

Thirteen of the victims were police officers, said Syed Imtiaz Shah, a senior official with the Quetta police. He said the officers were there to guard police workers, who are often targeted by Islamist militants in Pakistan.

The attack came on the third day of a vaccination campaign in the province of Baluchistan, of which Quetta is the capital. The bomber, who was also killed, walked up to police officers and detonated what Mr. Shah said amounted to more than 20 pounds of explosives.

A spokesman for the Pakistani Taliban, Muhammad Khurrasani, claimed responsibility for the attack on the militants' behalf. Two civilians and a paramilitary police officer were also killed, and 10 police officers and nine civilians were wounded...

Zuckerberg Wades Into Vaccine Debate With Baby Shots Photo

Facebook founder and chief executive Mark Zuckerberg has dropped himself into the riotous social media debate over childhood vaccines after posting photos of himself taking his newborn daughter to get immunization shots at the doctor's office.

January 11, 2016 - By REUTERS -

Wall Street Journal

http://online.wsj.com/home-page?_wsjregion=na,us&_homepage=/home/us
Accessed 16 January 2016
[No new, unique, relevant content]

Washington Post

http://www.washingtonpost.com/
Accessed 16 January 2016
[No new, unique, relevant content]

<u>Think Tanks et al</u>

Brookings

http://www.brookings.edu/ Accessed 16 January 2016 [No new relevant content]

Center for Global Development

http://www.cgdev.org/ Accessed 16 January 2016 [No new relevant content]

Council on Foreign Relations

http://www.cfr.org/ Accessed 16 January 2016 [No new relevant content]

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