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

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

*Vaccines and Global Health: The Week in Review is also **posted in pdf form** and as a set of blog posts at http://centerforvaccineethicsandpolicy.wordpress.com/. This blog allows full-text searching of over 8,000 entries.*

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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.*

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

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Zika virus [to 12 March 2016]
Public Health Emergency of International Concern (PHEIC)
http://www.who.int/emergencies/zika-virus/en/

WHO and experts prioritize vaccines, diagnostics and innovative vector control tools for Zika R&D

67 groups working on experimental products
Note for the media *[Editor's text bolding]*
9 March 2016
After a three-day consultation on Zika research and development, international experts, convened by WHO, have agreed on top priorities to advance R&D for Zika medical products.

The following tools were prioritized as the most viable options to help fight the spread of Zika virus in the immediate future:
:: Multiplex tests for 'flaviviruses' (viruses related to Zika, such as dengue, chikungunya), in addition to more traditional tests;
:: protective vaccines based on killed virus (or other non-live) preparations for women of childbearing age; and
:: innovative vector control tools that reduce the mosquito population.

"Zika virus induces a mild and mostly harmless infection in the majority of patients," indicated Dr Marie-Paule Kieny, Assistant Director-General in charge of R&D at WHO. "For that reason medicines to treat it seem less of a priority at this stage. The most pressing need is the development of diagnostic and preventive tools to address the current R&D gap and protect pregnant women and their babies."

As of 2 March, 67 companies and research institutions were already working on a number of products (31 on diagnostics, 18 on vaccines, 8 on therapeutics, 10 on vector control), which are at various stages of early development. No vaccine or therapeutic has yet been tested on humans.

Vaccines

Experts agreed that the development of a vaccine is a major priority to respond to epidemics in the future. Vaccination of pregnant women and women of childbearing age is the main target, and pragmatic strategies will be needed to fast-track the development of a safe and effective product.

Work is underway for the development of an emergency vaccine target product profile. The target product profile will serve as a guide to consult and build consensus on regulatory requirements for Zika vaccine evaluation and registration. A draft target profile will be submitted to a public consultation in the coming weeks, with a view to having a final profile in May.

Diagnostics

Over 30 companies are working on or have developed potential diagnostic tests. There is general support for the development of a target product profile for a multiplex test that can diagnose dengue, chikungunya and Zika viruses. A first draft is ready and this too will undergo public consultation before finalization in mid-April.

WHO continues to encourage manufacturers to apply to the WHO Emergency Use, Assessment and Listing procedure for a quality and performance evaluation of their products…
:: Emergency use assessment and listing procedure for Zika virus disease

WHO statement on the 2nd meeting of IHR Emergency Committee on Zika virus and observed increase in neurological disorders and neonatal malformations

WHO statement
8 March 2016

The second meeting of the Emergency Committee (EC) convened by the Director-General under the International Health Regulations (2005) (IHR 2005) regarding clusters of microcephaly cases and other neurological disorders in some areas affected by Zika virus was held by teleconference on 8 March 2016, from 13:00 to 16:45 Central European Time.

The WHO Secretariat briefed the Committee on action in implementing the Temporary Recommendations issued by the Director-General on 1 February 2016, and on clusters of microcephaly and Guillain-Barré Syndrome (GBS) that have had a temporal association with Zika virus transmission. The Committee was provided with additional data from observational, comparative and experimental studies on the possible causal association between Zika virus infection, microcephaly and GBS.

The following States Parties provided information on microcephaly, GBS and other neurological disorders occurring in the presence of Zika virus transmission: Brazil, Cabo Verde, Colombia, France, and the United States of America.

The Committee noted the new information from States Parties and academic institutions in terms of case reports, case series, 1 case control study (GBS) and 1 cohort study (microcephaly) on congenital abnormalities and neurologic disease in the presence of Zika virus infection. It reinforced the need for further work to generate additional evidence on this association and to understand any inconsistencies in data from countries. The Committee advised that the clusters of microcephaly cases and other neurological disorders continue to constitute a Public Health Emergency of International Concern (PHEIC), and that there is increasing evidence that there is a causal relationship with Zika virus.

The Committee provided the following advice to the Director-General for her consideration to address the PHEIC, in accordance with IHR (2005).

Microcephaly, other neurological disorders and Zika virus

:: Research into the relationship between new clusters of microcephaly, other neurological disorders, including GBS, and Zika virus, should be intensified.
:: Particular attention should be given to generating additional data on the genetic sequences and clinical effect of different Zika virus strains, studying the neuropathology of microcephaly, conducting additional case-control and cohort studies in other and more recently infected settings, and developing animal models for experimental studies.
:: Research on the natural history of Zika virus infection should be expedited, including on the rates of asymptomatic infection, the implications of asymptomatic infection, particularly with respect to pregnancy, and the persistence of virus excretion.
:: Retrospective and prospective studies of the rates of microcephaly and other neurological disorders should be conducted in other areas known to have had Zika virus transmission but where such clusters were not observed.
:: Research should continue to explore the possibility of other causative factors or co-factors for the observed clusters of microcephaly and other neurological disorders.
:: To facilitate this research and ensure the most rapid results:

:::: surveillance for microcephaly and GBS should be standardized and enhanced, particularly in areas of known Zika virus transmission and areas at risk,
:::: work should begin on the development of a potential case definition for 'congenital Zika infection',
:::: clinical, virologic and epidemiologic data related to the increased rates of microcephaly and/or GBS, and Zika virus transmission, should be rapidly shared with the World Health Organization to facilitate international understanding of the these events, to guide international support for control efforts, and to prioritize further research and product development.

Surveillance
:: Surveillance for and notification of Zika virus infection should be enhanced with the dissemination of standard case definitions and diagnostics to areas of transmission and at-risk areas; newly infected areas should undertake the vector control measures outlined below.

Vector control
:: Vector surveillance, including the determination of mosquito vector species and their sensitivity to insecticides, should be enhanced to strengthen risk assessments and vector control measures.
:: Vector control measures and appropriate personal protective measures should be aggressively promoted and implemented to reduce the risk of exposure to Zika virus.
:: Countries should strengthen vector control measures in the long term and the Director-General of WHO should explore the use of IHR mechanisms, and consider bringing this to a forthcoming World Health Assembly, as means to better engage countries on this issue.

Risk communication
:: Risk communication should be enhanced in countries with Zika virus transmission to address population concerns, enhance community engagement, improve reporting, and ensure application of vector control and personal protective measures.
:: These measures should be based on an appropriate assessment of public perception, knowledge and information; the impact of risk communication measures should be rigorously evaluated to guide their adaptation and improve their impact.
:: Attention should be given to ensuring women of childbearing age and particularly pregnant women have the necessary information and materials to reduce risk of exposure.
:: Information on the risk of sexual transmission, and measures to reduce that risk, should be available to people living in and returning from areas of reported Zika virus transmission.

Clinical care
:: Pregnant women who have been exposed to Zika virus should be counselled and followed for birth outcomes based on the best available information and national practice and policies,
:: In areas of known Zika virus transmission, health services should be prepared for potential increases in neurological syndromes and/or congenital malformations.

Travel measures
:: There should be no general restrictions on travel or trade with countries, areas and/or territories with Zika virus transmission.
:: Pregnant women should be advised not travel to areas of ongoing Zika virus outbreaks; pregnant women whose sexual partners live in or travel to areas with Zika virus outbreaks should ensure safe sexual practices or abstain from sex for the duration of their pregnancy.

:: Travellers to areas with Zika virus outbreaks should be provided with up to date advice on potential risks and appropriate measures to reduce the possibility of exposure to mosquito bites and, upon return, should take appropriate measures, including safe sex, to reduce the risk of onward transmission.
:: The World Health Organization should regularly update its guidance on travel with evolving information on the nature and duration of risks associated with Zika virus infection.
:: Standard WHO recommendations regarding vector control at airports should be implemented in keeping with the IHR (2005). Countries should consider the disinsection of aircraft.

Research & product development
:: The development of new diagnostics for Zika virus infection should be prioritized to facilitate surveillance and control measures, and especially the management of pregnancy.
:: Research, development and evaluation of novel vector control measures should be pursued with particular urgency.
:: Research and development efforts should also be intensified for Zika virus vaccines and therapeutics in the medium term.

Based on this advice the Director-General declared the continuation of the Public Health Emergency of International Concern (PHEIC). The Director-General endorsed the Committee's advice and issued them as Temporary Recommendations under IHR (2005). The Director-General thanked the Committee Members and Advisors for their advice.

Zika virus, Microcephaly and Guillain-Barré syndrome – 10 March 2016

WHO Situation Report: Read the full situation report

Summary

:: The second meeting of the Emergency Committee was convened by the Director-General under the International Health Regulations (2005) on 8 March 2016. The Committee advised that the clusters of microcephaly cases and other neurological disorders in some areas affected by Zika virus continue to constitute a Public Health Emergency of International Concern, and that there is increasing evidence that there is a causal relationship with Zika virus.
:: Between 1 January 2007 and 9 March 2016, a total of 52 countries and territories have reported autochthonous (local) transmission or indication of transmission of Zika virus (41 since 1 January 2015). The Philippines is the latest to report autochthonous transmission of Zika virus. Five of these countries and territories reported a Zika virus outbreak that is now over. In addition, three countries have reported locally acquired infection in the absence of any known mosquito vectors, probably through sexual transmission.
:: The geographical distribution of Zika virus has steadily widened since the virus was first detected in the Americas in 2014. Autochthonous Zika virus transmission has been reported in 31 countries and territories of this region.
:: So far an increase in microcephaly and other neonatal malformations has only been reported in Brazil and French Polynesia, although two cases linked to a stay in Brazil were detected in the United States of America and Slovenia. Reported cases of microcephaly and/or congenital malformation in Colombia are under investigation.
:: In the context of Zika virus circulation, nine countries or territories have reported an increased incidence of Guillain-Barré syndrome (GBS) and/or laboratory confirmation of a Zika virus infection among GBS cases.

:: A recently published cohort study in Brazil shows an increased risk of microcephaly and other congenital abnormalities associated with a Zika virus infection during pregnancy and provides further information to support the possible causal relationship between Zika virus and microcephaly and other congenital abnormalities.
:: The global prevention and control strategy launched by WHO as a Strategic Response Framework encompasses surveillance, response activities and research, and this situation report is organized under those headings.

Disease Outbreak News (DONs)
:: 7 March 2016 - Guillain-Barré syndrome – France - French Polynesia
:: 7 March 2016 - Zika virus infection – Argentina and France

Guidance for health workers
:: **Protecting the health and safety of workers in emergency vector control of Aedes mosquitoes**
11 March 2016
:: **Monitoring and managing insecticide resistance**
8 March 2016

Zika Open
[Bulletin of the World Health Organization]
:: All papers available here
No new papers posted.

CDC/ACIP [to 12 March 2016]
http://www.cdc.gov/media/index.html
FRIDAY, MARCH 11, 2016
CDC's revised travel notices estimate Zika risk using elevation information
Mosquitoes linked to Zika virus not likely in areas above 6,500 feet (2,000 meters)
CDC travel alerts for destinations where Zika is spreading will now include recommendations specific to travel at elevations above and below 6,500 feet (2,000 meters). As a result of these changes, CDC's regional notices have been revised to destination-specific notices.
Starting in January 2016, CDC issued level 2 travel health notices for several countries where local vector-borne transmission of Zika virus infection has been reported. Local vector-borne transmission means that mosquitoes in an area are infected with Zika virus and are spreading it to people. Specific areas with Zika are often difficult to determine and are likely to change over time. As more information becomes available, travel notices are updated.
CDC today released 37 destination-specific Zika travel notices; for destinations with areas above 6,500 feet, the notices include elevation maps and additional information about the risk of Zika virus infection at these elevations. CDC recently examined historical reports of the mosquito species linked to Zika and dengue virus, which is spread by the same mosquito, and found that reports of both mosquitoes and dengue were rare for locations above 6,500 feet.
These new maps show, for each country, the areas above and below 6,500 feet. The maps are intended to help travelers determine if the location(s) they plan to visit are above the

elevation at which the mosquitos are likely to be found. Travelers whose itineraries are limited to areas above 6,500 feet are at minimal risk of getting Zika from a mosquito…

FRIDAY, MARCH 11, 2016
Transcript for CDC Telebriefing: Updates on Zika response efforts
Audio recording[MP3, 3.10 MB]

THURSDAY, MARCH 10, 2016
Updates on Zika response efforts
CDC Director Tom Frieden traveled to Puerto Rico March 7-9 to assess firsthand CDC's support for the Zika response.

WEDNESDAY, MARCH 9, 2016
CDC adds 1 destination to interim travel guidance related to Zika virus
CDC is working with other public health officials to monitor for ongoing Zika virus? transmission. Today, CDC added the following destination to the Zika virus travel notices: New Caledonia.

MMWR March 11, 2016 / Vol. 65 / No. 9
:: Increase in Reported Prevalence of Microcephaly in Infants Born to Women Living in Areas with Confirmed Zika Virus Transmission During the First Trimester of Pregnancy — Brazil, 2015

FDA [to 12 March 2016]
http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/default.htm
Posted: 3/11/2016
Questions and Answers Regarding - Recommendations for Donor Screening, Deferral, and Product Management to Reduce the Risk of Transfusion-Transmission of Zika Virus: Guidance for Industry (PDF - 310KB)

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EBOLA/EVD [to 12 March 2016]
Public Health Emergency of International Concern (PHEIC); "Threat to international peace and security" (UN Security Council)

Ebola Situation Reports
[While no announcement of a change in reporting cycle is evident, we deduce that Ebola Situation Reports have been reduced to a bi-weekly cycle given the spacing of the last few reports – previous update: Ebola Situation Report - 2 March 2016]

MMWR March 11, 2016 / Vol. 65 / No. 9
:: Evaluation of a National Call Center and a Local Alerts System for Detection of New Cases of Ebola Virus Disease — Guinea, 2014–2015

African Development Bank Group [to 12 March 2016]

http://www.afdb.org/en/news-and-events/press-releases/

07/03/2016

AfDB releases new report on the impact of Ebola on women

On the occasion of International Women's Day, March 8, 2016, the Office of the African Development Bank's Special Envoy on Gender, Geraldine Fraser-Moleketi, has launched a report on "Women's Resilience: Integrating Gender in the Response to Ebola."…

…The report investigates the futility of trying to build resilience to Ebola and future infectious disease shocks in households and communities without also addressing systemic gender inequality. Factors that entrench vulnerability for the entire population must be addressed in the immediate response, medium-term mitigation and long-term intervention. The gender effects of Ebola in the region are influenced by the skills and strategies used prior to the outbreak, and the mechanisms individuals used to cope and adapt differ.

The report also highlights that the lack of gender disaggregated data should not limit interventions, and that all efforts must be made to collect the relevant information to combat the inequalities underscored by disease outbreaks now. The insights contained in this report are not only invaluable for dealing with other epidemics, but may also assist in the prevention of further outbreaks.

One of the recommendations of the report was to establish a Social Investment Fund. The AfDB has since invested $33 million into the Post-Ebola Social Investment Fund, a project supported by the US State Department…

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POLIO [to 12 March 2016]
Public Health Emergency of International Concern (PHEIC)

Polio this week as of 9 March 2016

:: 8 March marked International Women's Day - a great opportunity to thank the many thousands of women who have been instrumental in the progress of polio eradication around the world. Read more here.

:: A new short film shown at the Ministerial Conference on Immunization in Africa demonstrates the value of the polio infrastructure in serving broader health goals. Watch the video here.

:: There are six weeks to go until the globally synchronized switch from the trivalent to bivalent oral polio vaccine.

Selected Country Levels Updates [excerpted]

Afghanistan

:: The first case of wild poliovirus type 1 (WPV1) in 2016 was reported in the past week, in the district Shigal Wa Sheltan in Kunar province, with onset of paralysis on 1 February.

Lao People's Democratic Republic

:: Two new cases of circulating vaccine-derived poliovirus type 1 (cVDPV1) were reported in the past week, in the districts of Phonhong and Muen of Vientiane province, with onset of paralysis on 18 October 2015 and 3 January 2016 respectively. The total number of cVDPV1 cases in 2015 is now 8 and in 2016 is now 3.

:: An emergency outbreak response is continuing in the country, with particular focus on three high-risk provinces.

:: Efforts continue to further strengthen surveillance activities in all provinces of the country, to assure that no cVPDV1 transmission is missed anywhere.
:: Sub-National Immunization Days (SNIDs) are planned for March using tOPV. Both campaigns are targeting an expanded age group of children up to the age of 15 years.-

WHO: Women working for polio eradication in Pakistan

9 March 2016 – Women are at the centre of the polio eradication effort in Pakistan. Thousands of women: vaccinators, lady health workers, social mobilizers, union council polio workers, area coordinators, polio eradication officers work with communities every day to deliver vital immunizations against polio and other vaccine preventable diseases….

…In many parts of Pakistan, and indeed in parts of Noorjahan's area, male vaccinators cannot enter the home to deliver vaccine to children during immunization days. Noorjahan says that being a woman she doesn't face the same cultural barriers.

…Recruiting more female social mobilizers and vaccinators has proven to be one of the most innovative solutions to respond to the challenges in reaching every child in Pakistan. There are more than 177 000 vaccinators working in teams across Pakistan, 58% of whom are females. Thousands more women support vaccination as social mobilizers…

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MERS-CoV [to 12 March 2016]
No new updates on WHO page

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WHO & Regionals [to 12 March 2016]

WHO SAGE Meeting
Geneva: 12 - 14 April 2016.
Draft agenda pdf, 200kb - As of 15 February 2016

Weekly Epidemiological Record (WER) 11 March 2016, vol. 91, 10 (pp. 121–132)
Contents:
121 Recommended composition of influenza virus vaccines for use in the 2016–2017 northern hemisphere influenza season

Disease Outbreak News (DONs)
:: 10 March 2016 - Middle East respiratory syndrome coronavirus (MERS-CoV) – Saudi Arabia
:: 10 March 2016 - Middle East respiratory syndrome coronavirus (MERS-CoV) – Qatar
:: 10 March 2016 - Dengue Fever – Uruguay
:: 7 March 2016 - Guillain-Barré syndrome – France - French Polynesia
:: 7 March 2016 - Zika virus infection – Argentina and France

More than numbers: how better data is changing health systems

March 2016
The Health Data Collaborative, launched by WHO and partner development agencies, countries, donors and academics, will strengthen countries' capacity to collect, analyse and use reliable health data, thereby reducing administrative burden. A list of 100 core health indicators has been produced, and 60 low income and lower-middle income countries, and their supporting donors, will be using common investment plans to strengthen their health information systems by 2024.
:: Health Data Collaborative website
Editor's Note:
The core health indicator referencing immunization is here:
Pdf: Immunization coverage rate by vaccine for each vaccine in the national schedule

WHO Highlights
Fukushima five years on
March 2016 -- On 11 March 2011, a magnitude 9 earthquake occurred off the east coast of Japan, generating a tsunami that severely damaged coastal areas. These 10 questions and answers address WHO's current response and next steps to mitigate the public health impact of the Fukushima accident.

Planet 50-50 by 2030: Step It Up for Gender Equality
March 2016 -- This year's International Women's Day focuses on accelerating the 2030 Sustainable Development Agenda, especially goal number 5 - Achieve gender equality and empower all women and girls and goal 4 – Ensure inclusive and quality education for all and promote lifelong learning.

Consultation for adolescent health
March 2016 -- In response to the health needs of adolescents, WHO and partners are developing a Global Framework for Accelerated Action for the Health of Adolescents (the Global AA-HA! Framework). Initial input is now requested from governments, civil society, the private sector, academia, youth groups and citizens.

:: WHO Regional Offices
WHO African Region AFRO
:: Angola immunizes 6.7 million people against yellow fever
WHO experts remain at the frontline Luanda, 9 March 2016 - Angolan health authorities and national and international partners continue making tireless efforts to immunize 6.7 million people in Luanda Province and to stop the yellow fever outbreak the country has been facing since December 2015.WHO is supporting the procurement of 7.4 million doses of vaccine that will allow the vaccination of the entire population of Luanda above the age of 6 months.

WHO Region of the Americas PAHO
:: PAHO and OAS partner with University of Miami to offer online courses on good research practices and standards (03/11/2016)
:: Scientists studying intensified vector control measures to combat Zika, dengue and chikungunya in the Americas (03/11/2016)

:: Misión de la OPS en El Salvador destaca oportunidad del país para aportar a la investigación internacional sobre el zika (03/11/2016)
:: International mission convened by PAHO visits El Salvador to exchange experiences and support the response to Zika (03/08/2016)

WHO South-East Asia Region SEARO
:: Media statement on International Women's Day 8 March 2016

WHO European Region EURO
:: E-health in practice 10-03-2016
:: E-health – when, not if 10-03-2016
:: Outcome of the 2nd meeting of IHR Emergency Committee on Zika virus and observed increase in neurological disorders and neonatal malformations 09-03-2016
:: Towards a European strategy for women's health 08-03-2016

WHO Eastern Mediterranean Region EMRO
:: Yemen's national oncology centre struggles to continue functioning
10 March 2016 – In late 2015, the national oncology centre in Yemen appealed to the humanitarian community and international bodies to save cancer care services in Yemen from the brink of complete collapse. They warned of the looming health disaster brought about by lack of life-saving chemotherapy drugs, laboratory reagents, and even simple pain killers. The lack of availability of medicines and diagnostic supplies is a direct result of the defacto blockade on Yemen since March 2015, which shows few signs of lifting. Since its establishment in 2005, the national oncology centre has diagnosed and treated more than 60 000 patients.
:: Women working for polio eradication in Pakistan 9 March 2016

WHO Western Pacific Region
:: International Women's Day 2016: Stand up against gender-based violence
8 March 2016 —Violence affects women and girls in epidemic proportions across the Western Pacific Region – with severe consequences for their health and well-being. Women and girls are at greatest risk of violence in their homes from someone they know. On International Women's Day (8 March), the World Health Organization (WHO) enjoins everyone to protect and promote gender equality and women's empowerment.

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CDC/ACIP [to 12 March 2016]
http://www.cdc.gov/media/index.html
[see Zika coverage above which includes CDC briefing content]

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Announcements/Milestones/Perspectives

UNICEF [to 12 March 2016]
http://www.unicef.org/media/media_89711.html

News note
JUBA, South Sudan, 11 March 2016
Race for survival as South Sudan's children struggle in forgotten crisis
Humanitarian funding for the world's youngest country has collapsed, UNICEF said today, putting the lives of tens of thousands of children at risk.

Despite an urgent request by UNICEF in South Sudan for US$155 million in 2016 to support lifesaving interventions such as malnutrition treatment, health care and clean water to support the over 5 million children affected by the crisis, just $27 million – 18 per cent of the appeal - has been received to date.

The gap – some $128 million – will mean 3.3 million children will not be vaccinated against measles, 260,000 children affected by conflict will not be supported to return to school, and efforts to reunify 7,300 separated children with their families will be halted. Essential nutrition supplies will run out in August…

Gavi [to 12 March 2016]
http://www.gavialliance.org/library/news/press-releases/
09 March 2016
Pakistan progressing on immunisation efforts
High level mission praises country's efforts and calls for increased commitment to reach every child
Islamabad, 9 March 2016 – Pakistan is making progress in improving its childhood immunisation programme, but sustained commitment at federal and provincial level is required to increase the coverage of services and reach children who today miss out on life-saving vaccines.
More than 1,000 Pakistani children under the age of five die every day, many of them from diseases that could have been prevented by vaccines. According to WHO and UNICEF estimates, Pakistan's coverage rate with one of the most basic vaccines (DTP3) stood at 73% in 2014 with large variations between the provinces, districts and communities. The most recent Pakistan Demographic Health Survey, from 2013, showed Punjab had 76% coverage while in Baluchistan the figure was just 27%.

This week, a high level mission to Pakistan was led by Anuradha Gupta, Deputy CEO of Gavi, the Vaccine Alliance, together with the Bill & Melinda Gates Foundation, the UK's Department for International Development, USAID, the Norwegian Agency for Development and Cooperation, UNICEF and WHO. The visit was a follow up to a similar mission conducted in February 2015. The delegation visited Islamabad, Lahore and Karachi to see the progress made in the last 12 months, understand the challenges that lie ahead, and encourage leaders to reinforce their commitment to end childhood vaccine preventable deaths.

"I have been deeply encouraged by much of what I have seen during this visit," said Ms Gupta. "Coordination at federal and provincial level has clearly improved and I have seen for myself some of the innovative work at local level to reach children with vaccines. This week's approval of the budget for the new provincial plans, which will kick-start the National Immunisation Support Project, is welcome news as it paves the way for intensified action on routine immunisation. Timely release of funding at all levels will be a critical next step."

Among the initiatives witnessed by the mission was a recently-expanded approach using mobile phone technology and real-time data to monitor vaccinators, identify children missing out on

vaccinations, and strengthen accountability. In Punjab this has significantly increased immunisation coverage. Similar approaches are now being initiated in KP and Sindh….

IVAC [International Vaccine Access Center] [to 12 March 2016]
http://www.jhsph.edu/research/centers-and-institutes/ivac/about-us/news.html
White paper
Rotavirus: Common, Severe, Devastating, Preventable
ROTA Council
Posted on March 7, 2016
Overview
The ROTA Council white paper *Rotavirus: Common, Severe, Devastating, Preventable* is the most comprehensive and up-to-date source of information on rotavirus disease and vaccines. The 50-page synthesis includes the latest evidence and programmatic information about:
:: Rotavirus disease, and why every child is vulnerable
:: Vaccines in global use, nationally available vaccines, and new vaccines on the horizon
WHO recommendations and key guidance on vaccine administration
:: Public health impact in high-income countries, middle-income countries, and low-income countries
:: Cost-effectiveness of rotavirus vaccines
:: Emerging data and areas for further research
:: 21 recommendations for stakeholders to scale up coverage of rotavirus vaccines to all children
Download the Executive Summary.
Download the full report: Rotavirus: Common, Severe, Devastating, Preventable

[Undated]
Rwanda Study Demonstrates the Benefits of Routine Vaccination Against Rotavirus in Low-Income Settings
A new study published in February's edition of the Lancet Global Health offers significant findings about the impact of pentavalent rotavirus vaccine on hospital admission for diarrhea and rotavirus in children in Rwanda, which in 2012 became the first low-income African country to introduce pentavalent rotavirus vaccine into its national immuniation program. Researchers from Rwanda's Ministry of Health, CDC, WHO, and partner organizations examined trends in pediatric hospital admissions from 2009 to 2014 and looked at other epidemiological evidence from the country.
The study showed hospital admissions for acute gastroenteritis decreased by about half (48-49%) and admissions specific to rotavirus declined by 61-70% following introduction of rotavirus vaccine in the routine national immunization program. The greatest effect was recorded in children of vaccination age, but researchers noted a decrease in rotavirus diarrhea hospitalizations in almost every age group, suggesting herd immunity.
Indirect protection of children too old to have been vaccinated has been previously reported in high-income and middle-income countries including the USA, Australia, and El Salvador, but this paper provides the first evidence of indirect protection from rotavirus vaccination in a high-burden, low-income setting.
This paper provides strong evidence of the public health impact of introducing rotavirus vaccine nationally in low-income settings, and the first data demonstrating the impact of routine pentavalent rotavirus vaccination in Africa. The reductions in hospital admissions for diarrhea

noted in Rwanda is similar to decreases recorded after national rotavirus vaccine introductions in Brazil, Mexico, and Panama.

European Medicines Agency [to 12 March 2016]
http://www.ema.europa.eu/
07/03/2016
Launch of PRIME – Paving the way for promising medicines for patients
New scheme supports European Commission priorities
The European Medicines Agency (EMA) launches today its new PRIME (PRIority MEdicines) scheme to strengthen support to medicines that target an unmet medical need. The scheme focuses on medicines that may offer a major therapeutic advantage over existing treatments, or benefit patients with no treatment options. These medicines are considered priority medicines within the European Union (EU).

Through PRIME, EMA offers early, proactive and enhanced support to medicine developers to optimise the generation of robust data on a medicine's benefits and risks and enable accelerated assessment of medicine applications. This will help patients to benefit as early as possible from therapies that may significantly improve their quality of life.

By engaging with medicine developers early, PRIME aims to strengthen clinical trial designs to facilitate the generation of high quality data for the evaluation of an application for marketing authorisation. Early dialogue and scientific advice also ensure that patients participate in trials that are likely to provide the necessary data for an application for marketing authorisation, and help to make best use of limited resources.

"The launch of PRIME is a major step forward for patients and their families that have long been hoping for earlier access to safe treatments for their unmet medical needs, such as rare cancers, Alzheimer's disease and other dementias," says Vytenis Andriukaitis, EU Commissioner for Health and Food Safety. "Through enhanced scientific support this scheme could also help, for example, to accelerate the development and authorisation of new classes of antibiotics or their alternatives in an era of increasing antimicrobial resistance." The Commissioner also highlights that PRIME optimises the use of the current regulatory framework that can contribute to the European Commission's priorities in terms of boosting innovation, jobs, growth and competitiveness.

"Our goal is to foster better planning of medicine development to help companies generate the high quality data we need to assess quality, safety and efficacy of medicines," explains Professor Guido Rasi, EMA's Executive Director. "Patients with no or insufficient treatments could then benefit from scientific progress and cutting edge medicines as soon as possible."…

Global Fund [to 12 March 2016]
http://www.theglobalfund.org/en/news/
News
Removing Human Rights Barriers to End the HIV Epidemic
11 March 2016

GENEVA - The Global Fund made a strong appeal to address human rights issues as a key component of efforts to end epidemics such as AIDS, tuberculosis and malaria..

Better Education Will Mean Better Health for Young Women & Girls
By Julia Gillard
in *Voices* on 07 March 2016

EDCTP [to 12 March 2016]
http://www.edctp.org/
The European & Developing Countries Clinical Trials Partnership (EDCTP) aims to accelerate the development of new or improved drugs, vaccines, microbicides and diagnostics against HIV/AIDS, tuberculosis and malaria as well as other poverty-related and neglected infectious diseases in sub-Saharan Africa, with a focus on phase II and III clinical trials.
10 March 2016
PREGACT: Safety and efficacy of four artemisinin-based combination treatments in African pregnant women with malaria
The results of the clinical trial PREGACT were published in the New England Journal of Medicine on 10 March 2016. The study was conducted to compare four antimalarial drug combinations for treating pregnant women. The authors concluded that based on safety and efficacy, DHA-PQ (dihydroartemisinin with piperaquine) seems the most suitable treatment for uncomplicated malaria in pregnancy. The results are expected to inform WHO treatment guidelines.
"We congratulate Professor D'Alessandro and the study team with these important results. This study underlines the value of collaborative research and its impact. This is one of the very few large and well-designed studies on a special population group with paucity of data. We believe that these results will inform policy and positively contribute towards improved health care practice in this high-risk population group involving mothers and their babies"
Dr Michael Makanga, EDCTP Executive Director

Industry Watch [to 12 March 2016]
March 08, 2016 08:00 AM Eastern Standard Time
Sanofi Pasteur and Merck (Known as MSD Outside the United States and Canada) Announce Intent to End Joint Vaccines Operations in Europe, Sanofi Pasteur MSD, to Pursue Their Own Distinct Growth Strategies
KENILWORTH, N.J. & LYON, France--(BUSINESS WIRE)--Sanofi Pasteur and Merck, known as MSD outside the United States and Canada, today announced their intent to end their joint vaccines operations in Europe. Upon concluding their joint venture, both companies plan to integrate their respective European vaccine businesses into their operations, independently manage their product portfolios and pursue their own distinct growth strategies in Europe.

The joint venture Sanofi Pasteur MSD, owned on a 50/50 basis by Sanofi Pasteur and MSD, was created in 1994 to develop and commercialize vaccines originating from both companies' pipelines to improve and promote public health in 19 European countries. Over the past twenty years, Sanofi Pasteur MSD has launched numerous innovative vaccines originating from Sanofi Pasteur and MSD's development pipelines, addressing key unmet medical needs and helping to protect millions of lives.

Sanofi Pasteur and MSD jointly issued the following statement: "We are proud of Sanofi Pasteur MSD's successful 20-year history. Our joint venture has achieved considerable success over the past two decades from a public health and commercial perspective. After carefully considering our individual strategic priorities, alongside the economic and regulatory environments for vaccine operations in the European Union, we have mutually agreed that it is in our best interests to manage our vaccine product portfolios independently. We believe that focusing our efforts on opportunities unique to our respective companies will better position us to drive growth, execute in a more efficient manner and optimize vaccine coverage. By bringing vaccines more rapidly to market, both companies would deliver greater value to all stakeholders."

Sanofi Pasteur and MSD will ensure that any impact on employees as a result of the proposed changes to the business model will be managed responsibly. We are also focused on a smooth and orderly transition while achieving our public healthcare goals and upholding our commitments to our customers and business partners.

Sanofi Pasteur and MSD expect the project to be completed by the end of 2016, subject to local labor laws and regulations and regulatory approvals.

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AERAS [to 12 March 2016]
http://www.aeras.org/pressreleases
No new digest content identified.

IAVI International AIDS Vaccine Initiative [to 12 March 2016]
http://www.iavi.org/press-releases/2016
No new digest content identified.

IVI [to 12 March 2016]
http://www.ivi.org/web/www/home
No new digest content identified.

PATH [to 12 March 2016]
http://www.path.org/news/index.php
No new digest content identified.

Sabin Vaccine Institute [to 12 March 2016]
http://www.sabin.org/updates/ressreleases
No new digest content identified.

European Vaccine Initiative [to 12 March 2016]
http://www.euvaccine.eu/news-events
No new digest content identified.

BMGF - Gates Foundation [to 12 March 2016]

http://www.gatesfoundation.org/Media-Center/Press-Releases
No new digest content identified.

Fondation Merieux [to 12 March 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 12 March 2016]
http://www.nfid.org/newsroom/press-releases
No new digest content identified.

NIH [to 12 March 2016]
http://www.nih.gov/news/releases.htm
No new digest content identified.

* * * *

Reports/Research/Analysis/Commentary/Conferences/Meetings/Book Watch/Tenders

Vaccines and Global Health: The Week in Review has expanded its coverage of new reports, books, research and analysis published independent of the journal channel covered in Journal Watch below. Our interests span immunization and vaccines, as well as global public health, health governance, and associated themes. If you would like to suggest content to be included in this service, please contact David Curry at: david.r.curry@centerforvaccineethicsandpolicy.org

Bangkok Principles for the implementation of the health aspects of the Sendai Framework for Disaster Risk Reduction 2015-2030

11 March 2016 "" 3 pages

The International Conference on the Implementation of the Health Aspect of the Sendai Framework for Disaster Risk Reduction 2015-2030, held on 10-11 March 2016, in Bangkok, Thailand, adopted the "Bangkok Principles" which articulates measures that could assist countries in implementing the health aspects of the Sendai Framework for Disaster Risk Reduction.

The Bangkok Principles are organized under seven recommendation themes:

1. Promote systematic integration of health into national and sub-national disaster risk reduction policies and plans and the inclusion of emergency and disaster risk management programmes in national and sub-national health strategies.

2. Enhance cooperation between health authorities and other relevant stakeholders to strengthen country capacity for disaster risk management for health, the implementation of the International Health Regulations (2005) and building of resilient health systems.

3. Stimulate people-centered public and private investment in emergency and disaster risk reduction, including in health facilities and infrastructure.

4. Integrate disaster risk reduction into health education and training and strengthen capacity building of health workers in disaster risk reduction.

5. Incorporate disaster-related mortality, morbidity and disability data into multi-hazards early warning system, health core indicators and national risk assessments

6. Advocate for, and support cross-sectoral, transboundary collaboration including information sharing, and science and technology for all hazards, including biological hazards.

7. Promote coherence and further development of local and national policies and strategies, legal frameworks, regulations, and institutional arrangements.
Full text: http://www.preventionweb.net/files/47606_bangkokprinciples.pdf

UN Secretary General's High-Level Panel on Access to Medicines
http://www.unsgaccessmeds.org/#homepage-1
GLOBAL DIALOGUE LIVE FROM JOHANNESBURG
When: 10:00 - 17:00 (London time)
Location: Johannesburg, South Africa

WHO submission
Submission in response to request for a written contribution by the World Health Organization to the UN SG High-Level Panel on Access to Medicines.
7 March 2016 :: 20 pages
…The mandate of the High-Level Panel focuses on the current innovation model and its impact on access to health products. It does not include the many other complex challenges countries are facing in designing robust health systems and ensuring delivery of primary care. The Panel is looking both for possibilities for incremental improvements of the current system and for alternative or complementary models through which to research and develop new medical treatments, vaccines and diagnostics.
This submission thus briefly summarizes relevant WHO experience in access to medicines that relate to the current innovation system, and presents in more detail a number of WHO-led projects that implement alternative models of innovation. These will foster the development of health products that address priority health needs, to ensure these products will be affordable and available to those who need them….

National Vaccine Program Office (NVPO) [U.S.]
http://www.hhs.gov/nvpo/
Funding Opportunity Announcement
Now accepting applications for a vaccine confidence research funding opportunity. Application deadline is April 8, 2016. Learn more.

* * * *

Journal Watch

Vaccines and Global Health: The Week in Review continues its weekly scanning of key peer-reviewed journals to identify and cite articles, commentary and editorials, books reviews and other content supporting our focus on vaccine ethics and policy. ***Journal Watch* is not intended to be exhaustive, but indicative of themes and issues the Center is actively tracking.** We selectively provide full text of some editorial and comment articles that are specifically relevant to our work. Successful access to some of the links provided may require subscription or other access arrangement unique to the publisher.

If you would like to suggest other journal titles to include in this service, please contact David Curry at: david.r.curry@centerforvaccineethicsandpolicy.org

American Journal of Infection Control
February 2016 Volume 44, Issue 2, p125-252, e9-e14
http://www.ajicjournal.org/current
[Reviewed earlier]

American Journal of Preventive Medicine
March 2016 Volume 50, Issue 3, p295-426, e65-e90
http://www.ajpmonline.org/current
[Reviewed earlier]

American Journal of Public Health
Volume 106, Issue 3 (March 2016)
http://ajph.aphapublications.org/toc/ajph/current
[Reviewed earlier]

American Journal of Tropical Medicine and Hygiene
March 2016; 94 (3)
http://www.ajtmh.org/content/current
[Reviewed earlier]

Annals of Internal Medicine
1 March 2016, Vol. 164. No. 5
http://annals.org/issue.aspx
[Reviewed earlier]

BMC Health Services Research
http://www.biomedcentral.com/bmchealthservres/content
(Accessed 12 March 2016)
Research article
Scoping review of complexity theory in health services research

There are calls for better application of theory in health services research. Research exploring knowledge translation and interprofessional collaboration are two examples, and in both areas, complexity theory...
David S. Thompson, Xavier Fazio, Erika Kustra, Linda Patrick and Darren Stanley
BMC Health Services Research 2016 16:87
Published on: 12 March 2016

Research article
Examining the role of a decision aid in reducing decisional conflict amongst hospital healthcare workers towards receiving the influenza vaccine
Currently the uptake of the influenza vaccine amongst Australian hospital staff remains low. While some staff members choose not to receive the vaccine, others may feel decisional conflict around whether to...
Holly Seale, Rajneesh Kaur, Kerryn Lajoie, Julie Dixon and Julie Gallard
BMC Health Services Research 2016 16:84
Published on: 9 March 2016

BMC Infectious Diseases
http://www.biomedcentral.com/bmcinfectdis/content
(Accessed 12 March 2016)
Review
Does tuberculosis threaten our ageing populations?
The global population is ageing quickly and our understanding of age-related changes in the immune system suggest that the elderly will have less immunological protection from active tuberculosis (TB).
Rachel Byng-Maddick and Mahdad Noursadeghi
BMC Infectious Diseases 2016 16:119
Published on: 11 March 2016

Study protocol
Clinical evaluation of dengue and identification of risk factors for severe disease: protocol for a multicentre study in 8 countries
The burden of dengue continues to increase globally, with an estimated 100 million clinically apparent infections occurring each year…
Thomas Jaenisch, Dong Thi Hoai Tam, Nguyen Tan Thanh Kieu, Tran Van Ngoc, Nguyen Tran Nam, Nguyen Van Kinh, Sophie Yacoub, Ngoun Chanpheaktra, Varun Kumar, Lucy Lum Chai See, Jameela Sathar, Ernesto Pleités Sandoval, Gabriela Maria Marón Alfaro, Ida Safitri Laksono, Yodi Mahendradhata, Malabika Sarker…
BMC Infectious Diseases 2016 16:120
Published on: 11 March 2016

BMC Medical Ethics
http://www.biomedcentral.com/bmcmedethics/content
(Accessed 12 March 2016)
[No new content]

BMC Medicine
http://www.biomedcentral.com/bmcmed/content
(Accessed 12 March 2016)
[No new relevant content identified]

BMC Pregnancy and Childbirth
http://www.biomedcentral.com/bmcpregnancychildbirth/content
(Accessed 12 March 2016)
[No new relevant content identified]

BMC Public Health
http://bmcpublichealth.biomedcentral.com/articles
(Accessed 12 March 2016)
Research article
A survey of the governance capacity of national public health associations to enhance population health
National public health associations (PHAs) are key partners with governments and communities to improve, protect and promote the public's health. Governance and organizational capacity are among the key determ...
James Chauvin, Mahesh Shukla, James Rice and Laetitia Rispel
BMC Public Health 2016 16:251
Published on: 11 March 2016
Abstract
Background
National public health associations (PHAs) are key partners with governments and communities to improve, protect and promote the public's health. Governance and organizational capacity are among the key determinants of a PHA's effectiveness as an advocate for appropriate public health policies and practice.
Methods
During 2014, the World Federation of Public Health Associations (WFPHA) conducted an on-line survey of its 82 PHA members, to identify the state of organizational governance of national public health associations, as well as the factors that influence optimal organizational governance. The survey consisted of 13 questions and focused on the main elements of organizational governance: cultivating accountability; engaging stakeholders; setting shared direction; stewarding resources; and, continuous governance enhancement. Four questions included a qualitative open-ended response for additional comments. The survey data were analyzed using Microsoft Excel. The qualitative data was analyzed using thematic content analysis
Results
Responses were received from 62 PHAs, constituting a 75.6 % response rate. The two most important factors that support governance effectiveness were a high degree of integrity and ethical behavior of the PHA's leaders (77 %) and the competence of people serving on the PHA's governing body (76 %). The lack of financial resources was considered as the most important factor that negatively affected organizational governance effectiveness (73 %). The lack of mentoring for future PHA leaders; ineffective or incompetent leadership; lack of

understanding about good governance practices; and lack of accurate information for strategic planning were identified as factors influencing PHA governance effectiveness. Critical elements for PHA sustainability included diversity, gender-responsiveness and inclusive governance practices, and strategies to build the future generation of public health leaders.
Conclusion
National PHA have a responsibility to put into place the practices and infrastructure that enhance organizational governance. This will enhance their ability to be effective advocates for policies and practices that enhance, protect and promote the public's health. The WFPHA has an important role to play in providing the technical assistance and financial resources to assist PHAs in attaining and sustaining a higher level of governance capacity.

BMC Research Notes
http://www.biomedcentral.com/bmcresnotes/content
(Accessed 12 March 2016)
[No new relevant content identified]

BMC Cost Effectiveness and Resource Allocation
http://resource-allocation.biomedcentral.com/
(Accessed 12 March 2016)
[No new content]

BMJ Open
2016, Volume 6, Issue 3
http://bmjopen.bmj.com/content/current
[Reviewed earlier]

British Medical Journal
12 March 2016 (vol 352, issue 8048)
http://www.bmj.com/content/352/8048
[No new relevant content identified]

Bulletin of the World Health Organization
Volume 94, Number 3, March 2016, 157-232
http://www.who.int/bulletin/volumes/94/3/en/
[Reviewed earlier]

Clinical Therapeutics
February 2016 Volume 38, Issue 2, p233-428
http://www.clinicaltherapeutics.com/current
[Reviewed earlier]

Complexity
January/February 2016 Volume 21, Issue 3 Pages 1–88
http://onlinelibrary.wiley.com/doi/10.1002/cplx.v21.3/issuetoc
[Reviewed earlier]

Conflict and Health
http://www.conflictandhealth.com/
[Accessed 12 March 2016]
Research
Retrospective analysis of reproductive health indicators in the United Nations High Commissioner for Refugees post-emergency camps 2007–2013
Jennifer Whitmill, Curtis Blanton, Sathyanarayanan Doraiswamy, Nadine Cornier, Marian Schilperood, Paul Spiegel and Barbara Tomczyk
Published on: 9 March 2016

Contemporary Clinical Trials
Volume 47, In Progress (March 2016)
http://www.sciencedirect.com/science/journal/15517144/47
[Reviewed earlier]

Current Opinion in Infectious Diseases
April 2016 - Volume 29 - Issue 2 pp: v-v,99-228
http://journals.lww.com/co-infectiousdiseases/pages/currenttoc.aspx
[Reviewed earlier]

Developing World Bioethics
April 2016 Volume 16, Issue 1 Pages 1–60
http://onlinelibrary.wiley.com/doi/10.1111/dewb.2016.16.issue-1/issuetoc
[Reviewed earlier]

Development in Practice
Volume 26, Issue 2, 2016
http://www.tandfonline.com/toc/cdip20/current
[Reviewed earlier]

Disasters
April 2016 Volume 40, Issue 2 Pages 183–383
http://onlinelibrary.wiley.com/doi/10.1111/disa.2016.40.issue-2/issuetoc
[New issue; [No new relevant content]

Emerging Infectious Diseases

Volume 22, Number 3—March 2016
http://wwwnc.cdc.gov/eid/
Expedited Ahead-of-Print Articles
Zika Virus in a Traveler Returning to China from Caracas, Venezuela, February 2016 J. Li et al. June 2016
Perspectives on West Africa Ebola Virus Disease Outbreak, 2013–2016 J. R. Spengler et al. June 2016
Projecting Month of Birth for At-Risk Infants after Zika Virus Disease Outbreaks J. Reefhuis et al. May 2016

Research
Mortality Rates during Cholera Epidemic, Haiti, 2010–2011
F. J. Luquero et al.
Summary
Actual rates were higher than rates calculated from healthcare facility reports.

Effects of Response to 2014–2015 Ebola Outbreak on Deaths from Malaria, HIV/AIDS, and Tuberculosis, West Africa
A. S. Parpia et al.
Abstract
Response to the 2014–2015 Ebola outbreak in West Africa overwhelmed the healthcare systems of Guinea, Liberia, and Sierra Leone, reducing access to health services for diagnosis and treatment for the major diseases that are endemic to the region: malaria, HIV/AIDS, and tuberculosis. To estimate the repercussions of the Ebola outbreak on the populations at risk for these diseases, we developed computational models for disease transmission and infection progression. We estimated that a 50% reduction in access to healthcare services during the Ebola outbreak exacerbated malaria, HIV/AIDS, and tuberculosis mortality rates by additional death counts of 6,269 (2,564–12,407) in Guinea; 1,535 (522–2,8780) in Liberia; and 2,819 (844–4,844) in Sierra Leone. The 2014–2015 Ebola outbreak was catastrophic in these countries, and its indirect impact of increasing the mortality rates of other diseases was also substantial.

Faster Detection of Poliomyelitis Outbreaks to Support Polio Eradication
I. M. Blake et al.
Abstract
As the global eradication of poliomyelitis approaches the final stages, prompt detection of new outbreaks is critical to enable a fast and effective outbreak response. Surveillance relies on reporting of acute flaccid paralysis (AFP) cases and laboratory confirmation through isolation of poliovirus from stool. However, delayed sample collection and testing can delay outbreak detection. We investigated whether weekly testing for clusters of AFP by location and time, using the Kulldorff scan statistic, could provide an early warning for outbreaks in 20 countries. A mixed-effects regression model was used to predict background rates of nonpolio AFP at the district level. In Tajikistan and Congo, testing for AFP clusters would have resulted in an outbreak warning 39 and 11 days, respectively, before official confirmation of large outbreaks. This method has relatively high specificity and could be integrated into the current polio information system to support rapid outbreak response activities.

Epidemics

Volume 15, In Progress (June 2016)
http://www.sciencedirect.com/science/journal/17554365
[No new relevant content]

Epidemiology and Infection
Volume 144 - Issue 04 - March 2016
http://journals.cambridge.org/action/displayIssue?jid=HYG&tab=currentissue
[Reviewed earlier]

The European Journal of Public Health
Volume 26, Issue 1, 1 February 2016
http://eurpub.oxfordjournals.org/content/26/1
[Reviewed earlier]

Eurosurveillance
Volume 21, Issue 10, 10 March 2016
http://www.eurosurveillance.org/Public/Articles/Archives.aspx?PublicationId=11678
Rapid communications
Isolation of infectious Zika virus from saliva and prolonged viral RNA shedding in a traveller returning from the Dominican Republic to Italy, January 2016
by L Barzon, M Pacenti, A Berto, A Sinigaglia, E Franchin, E Lavezzo, P Brugnaro, G Palù

Profile of illness in Syrian refugees: A GeoSentinel analysis, 2013 to 2015
by F Mockenhaupt, K Barbre, M Jensenius, C Larsen, E Barnett, W Stauffer, C Rothe, H Asgeirsson, D Hamer, D Esposito, P Gautret, P Schlagenhauf
Abstract
Screening of 488 Syrian unaccompanied minor refugees (< 18 years-old) in Berlin showed low prevalence of intestinal parasites (Giardia, 7%), positive schistosomiasis serology (1.4%) and absence of hepatitis B. Among 44 ill adult Syrian refugees examined at GeoSentinel clinics worldwide, cutaneous leishmaniasis affected one in three patients; other noteworthy infections were active tuberculosis (11%) and chronic hepatitis B or C (9%). These data can contribute to evidence-based guidelines for infectious disease screening of Syrian refugees.

Research Articles
Waning immunity against mumps in vaccinated young adults, France 2013
by S Vygen, A Fischer, L Meurice, I Mounchetrou Njoya, M Gregoris, B Ndiaye, A Ghenassia, I Poujol, J Stahl, D Antona, Y Le Strat, D Levy-Bruhl, P Rolland

Children and young people with perinatal HIV in Europe: epidemiological situation in 2014 and implications for the future
by Writing group for the Kids to Adults Working Group and Data Management and Harmonisation Group in EuroCoord

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 12 March 2016]
[No new content]

Global Public Health
Volume 11, Issue 4, 2016
http://www.tandfonline.com/toc/rgph20/current
[Reviewed earlier]

Globalization and Health
http://www.globalizationandhealth.com/
[Accessed 12 March 2016]
[No new relevant content]

Health Affairs
February 2016; Volume 35, Issue 2
http://content.healthaffairs.org/content/current
Issue Focus: Vaccines
[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 02 - April 2016
http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue
[Reviewed earlier]

Health Policy and Planning
Volume 31 Issue 3 April 2016
http://heapol.oxfordjournals.org/content/current

[New issue; No relevant content identified]

Health Research Policy and Systems
http://www.health-policy-systems.com/content
[Accessed 12 March 2016]
[No new content]

Human Vaccines & Immunotherapeutics (formerly Human Vaccines)
Volume 12, Issue 1, 2016
http://www.tandfonline.com/toc/khvi20/current
[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 12 March 2016]
[No new content]

Infectious Diseases of Poverty
http://www.idpjournal.com/content
[Accessed 12 March 2016]
[No new relevant content identified]

International Health
Volume 8 Issue 2 February 2016
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
March 2016 Volume 44, p1-74

http://www.ijidonline.com/current

Editorial

HIV in the MENA Region: Cultural and Political Challenges

Seif Al-Abri, Jacques E. Mokhbat

p64–65

Published online: February 9 2016

Preview

Over the last few years, our knowledge of the HIV epidemic and its drivers in the Middle East and North Africa (MENA) region have improved markedly, thanks to many recently conducted studies.1 While the annual number of new HIV infections in sub-Saharan Africa has declined by 33% since 2005, new HIV infections in the MENA region have increased by 31% since 2001, the greatest increase in all regions in the world. There are growing HIV epidemics in key populations (KPs) including people who inject drugs, men who have sex with men, and to a lesser extent, female sex workers.

Reviews

Rapid Spread of Zika Virus in The Americas - Implications for Public Health Preparedness for Mass Gatherings at the 2016 Brazil Olympic Games

Eskild Petersen, Mary E. Wilson, Sok Touch, Brian McCloskey, Peter Mwaba, Matthew Bates, Osman Dar, Frank Mattes, Mike Kidd, Giuseppe Ippolito, Esam I. Azhar, Alimuddin Zumla

p11–15

Published online: February 4 2016

Highlights

:: We discuss the global spread of the Zika virus (ZIKV) since its first discovery in 1947 in Uganda to the current outbreak in the Americas which has been declared a 'Global emergency' by the World Health Organization.

:: We highlight that ZIKV and other arboviruses may pose a threat to the attendees of the 2016 Rio De Janeiro Olympic and Paralympic games and to residents of Brazil.

:: We review clinical features and highlight the need for more accurate and rapid screening tests for ZIKV

:: We discuss the recent possible linkage of microcephaly in babies exposed to ZIKV in utero, and highlight knowledge gaps in the epidemiology and pathogenesis of ZIKV.

:: We review the public health implications of the current ZIKV outbreak and highlight the need for enhanced preparedness and proactive surveillance for all infectious diseases before, during and after the 2016 Olympic games.

:: We stress that there is no specific treatment available or preventive vaccines and that that the emergence of ZIKV soon after the Ebola outbreak, is yet another wake up call for the urgent need for a coordinated global response for prevention and spread of infectious diseases with epidemic potential at mass gatherings events

Summary

Mass gatherings at major international sporting events put millions of international travelers and local host-country residents at risk of acquiring infectious diseases, including locally endemic infectious diseases. The mosquito-borne Zika virus (ZIKV) has recently aroused global attention due to its rapid spread since its first detection in May 2015 in Brazil to 22 other countries and other territories in the Americas. The ZIKV outbreak in Brazil, has also been associated with a significant rise in the number of babies born with microcephaly and neurological disorders, and has been declared a 'Global Emergency by the World Health Organization. This explosive spread of ZIKV in Brazil poses challenges for public health preparedness and surveillance for the

Olympics and Paralympics which are due to be held in Rio De Janeiro in August, 2016. We review the epidemiology and clinical features of the current ZIKV outbreak in Brazil, highlight knowledge gaps, and review the public health implications of the current ZIKV outbreak in the Americas. We highlight the urgent need for a coordinated collaborative response for prevention and spread of infectious diseases with epidemic potential at mass gatherings events.

Reviews

HIV/AIDS: trends in the Middle East and North Africa region

Deniz Gökengin, Fardad Doroudi, Johnny Tohme, Ben Collins, Navid Madani
p66–73
Published in issue: March 2016

Highlights

:: New HIV infections have been on the rise in the Middle East and North Africa (MENA) region in recent years.
:: There is substantial heterogeneity in HIV epidemic dynamics across MENA, and different risk contexts are present throughout the region.
:: Overall, the major route of infection in the MENA region seems to be sexual transmission, but a range of challenges limit interventions to determine the actual sexual trends.
:: Despite unfavorable conditions, many countries in the region have put significant efforts into scaling up their response to this growing epidemic.

Summary

Objectives
To give an overview of the HIV epidemic in the Middle East and North Africa (MENA) region.
Methods
Articles on the MENA region were reviewed.
Results
The MENA region comprises a geographically defined group of countries including both high-income, well-developed nations and low- and middle-income countries. While the annual number of new HIV infections in Sub-Saharan Africa has declined by 33% since 2005, new HIV infections in the MENA region have increased by 31% since 2001, which is the highest increase among all regions in the world. Moreover, the number of AIDS-related deaths in 2013 was estimated to be 15 000, representing a 66% increase since 2005. However, the current prevalence of 0.1% is still among the lowest rates globally. There is substantial heterogeneity in HIV epidemic dynamics across MENA, and different risk contexts are present throughout the region. Despite unfavorable conditions, many countries in the region have put significant effort into scaling up their response to this growing epidemic, while in others the response to HIV is proving slower due to denial, stigma, and reluctance to address sensitive issues.
Conclusions
The HIV epidemic in the MENA region is still at a controllable level, and this opportunity should not be missed.

JAMA

March 8, 2016, Vol 315, No. 10
http://jama.jamanetwork.com/issue.aspx

Viewpoint | March 8, 2016

The Ethical Challenges of Compassionate Use

FREE

Arthur L. Caplan, PhD; Amrit Ray, MD, MBA

Viewpoint | March 8, 2016

Immunization Policy and the Importance of Sustainable Vaccine Pricing

H. Cody Meissner, MD1

[Initial text]

This Viewpoint discusses vaccine costs and policy and explains the importance of balancing these factors to provide optimal care while restricting spending on costly interventions with limited benefit.

The individual, societal, and economic benefits of disease prevention resulting from childhood and adult immunization programs in the United States are without question. A report from the Centers for Disease Control and Prevention (CDC) describing the benefits of vaccination of the 2009 birth cohort through 18 years of age estimated that 20 million cases of vaccine-preventable disease will not occur, 42 000 early deaths related to these diseases will be avoided, and $76 billion in direct and indirect costs will be averted.1 This economic benefit stands in stark contrast to the comparatively small cost for vaccine purchases. The estimated vaccine purchasing cost for a similar birth cohort based on 2015 pricing is $7.8 billion, based on CDC costs, and $11.6 billion at private sector pricing (eTable in the Supplement).2…

JAMA Pediatrics

March 2016, Vol 170, No. 3

http://archpedi.jamanetwork.com/issue.aspx

Editorial | March 2016

The Grand Divergence in Global Child Health Confronting Data Requirements in Areas of Conflict and Chronic Political Instability

FREE

Paul H. Wise, MD, MPH1,2; Gary L. Darmstadt, MD, MS1,2

Author Affiliations

1Division of Neonatology, Department of Pediatrics, Stanford University School of Medicine, Stanford, California

2Freeman Spogli Institute for International Studies, Stanford University, Stanford, California

[Initial text]

There is something deeply troubling about a death that goes unnoticed. Beyond the humane impulse to provide solace through collective acknowledgment and community support lies the recognition that an unnoticed death implies an unnoticed life. There can be no doubt that the accurate counting and causal attribution of morbidity and mortality provide technical information that is essential for public health planning, evaluation, and improvement in program performance. However, there is also a justice imperative inherent in counting and attribution—an imperative that transcends the practical and touches on the moral basis of global health and its commitment to the rights and societal claims of those whose health and well-being have for too long gone unnoticed.

At a global level, available data demonstrate that dramatic reductions in child mortality have occurred in many low- and middle-income countries. Moreover, long-standing disparities in survival between materially wealthy and poorer regions of the world are dissipating. If sustained, this historic record of reduced mortality inequality could drive a "grand convergence" in life expectancy during the next 2 decades.1 This prospect has been used constructively to

advocate for a continued global commitment to economic development and the provision of effective health interventions.

On closer examination, however, it is apparent that the trends toward convergence have not been universal. Some countries are being left behind. These countries have experienced stagnant or, in some arenas, worsening child health outcomes. Indeed, these countries could be described as contributing to a "grand divergence" in life expectancies, in which their health indicators fall increasingly behind those of other low- and middle-income countries.2

The article by the Global Burden of Disease (GBD) Pediatrics Collaboration in this issue of JAMA Pediatrics represents an important contribution to the field of global health and provides troubling evidence of the diverging trends in child health and well-being.3 What is now evident from even a cursory examination of presented child mortality trends is that the countries making the least progress in child survival and well-being, particularly since 2000, are those most likely to be plagued by chronic civil conflict, political instability, and weak governance. Nigeria and the Democratic Republic of the Congo, which together account for more than a third of all child deaths in sub-Saharan Africa, experienced annual child mortality declines of 2.2% and 1.8%, respectively (eTable 9 in their Supplement). It is useful to note that during this same period among the most rapid annual declines were those recorded in China (6.01%), Iran (5.97%), and Bangladesh (5.24%).

Using data from the GBD 2013 study, the article presents detailed child mortality and morbidity trends for the 50 countries with the largest child and adolescent populations in the world, information that will prove essential for programmatic evaluation and planning…

Special Communication

Global and National Burden of Diseases and Injuries Among Children and Adolescents Between 1990 and 2013: Findings From the Global Burden of Disease 2013 Study

FREE

Global Burden of Disease Pediatrics Collaboration

Includes: Supplemental Content

Abstract

Importance

The literature focuses on mortality among children younger than 5 years. Comparable information on nonfatal health outcomes among these children and the fatal and nonfatal burden of diseases and injuries among older children and adolescents is scarce.

Objective

To determine levels and trends in the fatal and nonfatal burden of diseases and injuries among younger children (aged <5 years), older children (aged 5-9 years), and adolescents (aged 10-19 years) between 1990 and 2013 in 188 countries from the Global Burden of Disease (GBD) 2013 study.

Evidence Review

Data from vital registration, verbal autopsy studies, maternal and child death surveillance, and other sources covering 14,244 site-years (ie, years of cause of death data by geography) from 1980 through 2013 were used to estimate cause-specific mortality. Data from 35,620 epidemiological sources were used to estimate the prevalence of the diseases and sequelae in the GBD 2013 study. Cause-specific mortality for most causes was estimated using the Cause of

Death Ensemble Model strategy. For some infectious diseases (eg, HIV infection/AIDS, measles, hepatitis B) where the disease process is complex or the cause of death data were insufficient or unavailable, we used natural history models. For most nonfatal health outcomes, DisMod-MR 2.0, a Bayesian metaregression tool, was used to meta-analyze the epidemiological data to generate prevalence estimates.
Findings
Of the 7.7 (95% uncertainty interval [UI], 7.4-8.1) million deaths among children and adolescents globally in 2013, 6.28 million occurred among younger children, 0.48 million among older children, and 0.97 million among adolescents. In 2013, the leading causes of death were lower respiratory tract infections among younger children (905,059 deaths; 95% UI, 810 304-998,125), diarrheal diseases among older children (38,325 deaths; 95% UI, 30,365-47,678), and road injuries among adolescents (115186 deaths; 95% UI, 105 185-124870). Iron deficiency anemia was the leading cause of years lived with disability among children and adolescents, affecting 619 (95% UI, 618-621) million in 2013. Large between-country variations exist in mortality from leading causes among children and adolescents. Countries with rapid declines in all-cause mortality between 1990 and 2013 also experienced large declines in most leading causes of death, whereas countries with the slowest declines had stagnant or increasing trends in the leading causes of death. In 2013, Nigeria had a 12% global share of deaths from lower respiratory tract infections and a 38% global share of deaths from malaria. India had 33% of the world's deaths from neonatal encephalopathy. Half of the world's diarrheal deaths among children and adolescents occurred in just 5 countries: India, Democratic Republic of the Congo, Pakistan, Nigeria, and Ethiopia.
Conclusions and Relevance
Understanding the levels and trends of the leading causes of death and disability among children and adolescents is critical to guide investment and inform policies. Monitoring these trends over time is also key to understanding where interventions are having an impact. Proven interventions exist to prevent or treat the leading causes of unnecessary death and disability among children and adolescents. The findings presented here show that these are underused and give guidance to policy makers in countries where more attention is needed.

Journal of Community Health
Volume 41, Issue 2, April 2016
http://link.springer.com/journal/10900/41/2/page/1
[Reviewed earlier]

Journal of Epidemiology & Community Health
March 2016, Volume 70, Issue 3
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)
January-March 2016 Volume 8 | Issue 1 Page Nos. 1-56
http://www.jgid.org/currentissue.asp?sabs=n
[Reviewed earlier]

Journal of Health Care for the Poor and Underserved (JHCPU)
Volume 27, Number 1, February 2016
https://muse.jhu.edu/journals/journal_of_health_care_for_the_poor_and_underserved/toc/hpu.27.1.html
[Reviewed earlier]

Journal of Immigrant and Minority Health
Volume 18, Issue 1, February 2016
http://link.springer.com/journal/10903/18/1/page/1
[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 7 April 1, 2016
http://jid.oxfordjournals.org/content/current
[Reviewed earlier]

The Journal of Law, Medicine & Ethics
Winter 2015 Volume 43, Issue 4 Pages 673–913
http://onlinelibrary.wiley.com/doi/10.1111/jlme.2015.43.issue-4/issuetoc
Special Issue: SYMPOSIUM: Harmonizing Privacy Laws to Enable International Biobank Research: Part I
[14 articles]
[Reviewed earlier]

Journal of Medical Ethics
March 2016, Volume 42, Issue 3
http://jme.bmj.com/content/current
[New issue; No relevant content identified]

Journal of Medical Microbiology
Volume 65, Issue 2, February 2016
http://jmm.microbiologyresearch.org/content/journal/jmm/65/2;jsessionid=6i2bjt9ki4ncd.x-sgm-live-03
[Reviewed earlier]

Journal of Patient-Centered Research and Reviews
Volume 3, Issue 1 (2016)
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[Reviewed earlier]

Journal of the Pediatric Infectious Diseases Society (JPIDS)
Volume 5 Issue 1 March 2016
http://jpids.oxfordjournals.org/content/current
[Reviewed earlier]

Journal of Pediatrics
March 2016 Volume 170, p1-350
http://www.jpeds.com/current
[Reviewed earlier]

Journal of Public Health Policy
Volume 37, Issue 1 (February 2016)
http://www.palgrave-journals.com/jphp/journal/v37/n1/index.html
[Reviewed earlier]

Journal of the Royal Society – Interface
01 January 2016; volume 13, issue 114
http://rsif.royalsocietypublishing.org/content/current
[Reviewed earlier]

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March 2016, volume 90, issue 6
http://jvi.asm.org/content/current
[Reviewed earlier]

The Lancet
Mar 12, 2016 Volume 387 Number 10023 p1027-1132
http://www.thelancet.com/journals/lancet/issue/current
Comment
NextGen HIV prevention: new possibilities and questions

Kenneth H Mayer
Published Online: 04 March 2016
Summary
In less than a decade, HIV prevention has evolved from a reliance on education, behavioural interventions, and use of condoms to focusing on the optimum use of antiretrovirals to suppress infectiousness and for primary prophylaxis. Landmark studies have shown the efficacy of the early initiation of treatment for people infected with HIV,1 and the use of oral pre-exposure prophylaxis (PrEP) for those at highest risk to decrease HIV transmission.2 Despite PrEP being shown to be efficacious in most trials in which it was assessed, the paramount importance of consistent use of preventive medication was shown when oral and topical tenofovir-based regimens did not show efficacy in three studies involving young African women, primarily because of suboptimum adherence.

The Lancet Infectious Diseases
Mar 2016 Volume 16 Number 3 p265-384 e11-e33
http://www.thelancet.com/journals/laninf/issue/current
[Reviewed earlier]

Lancet Global Health
Mar 2016 Volume 4 Number 3 e137-e214
http://www.thelancet.com/journals/langlo/issue/current
[Reviewed earlier]

Maternal and Child Health Journal
Volume 20, Issue 3, March 2016
http://link.springer.com/journal/10995/20/3/page/1
[New issue; No relevant content identified]

Medical Decision Making (MDM)
April 2016; 36 (3)
http://mdm.sagepub.com/content/current
[New issue; No relevant content identified]

The Milbank Quarterly
A Multidisciplinary Journal of Population Health and Health Policy
December 2015 Volume 93, Issue 4 Pages 651–883
http://onlinelibrary.wiley.com/doi/10.1111/1468-0009.2015.93.issue-4/issuetoc
[Reviewed earlier]

Nature
Volume 531 Number 7593 pp139-268 10 March 2016
http://www.nature.com/nature/current_issue.html

[New issue; No relevant content identified]

Nature Medicine
March 2016, Volume 22 No 3 pp219-323
http://www.nature.com/nm/journal/v22/n3/index.html
[Reviewed earlier]

Nature Reviews Immunology
March 2016 Vol 16 No 3
http://www.nature.com/nri/journal/v16/n3/index.html
[New issue; No relevant content identified]

New England Journal of Medicine
March 10, 2016 Vol. 374 No. 10
http://www.nejm.org/toc/nejm/medical-journal
Brief Report
Zika Virus Associated with Microcephaly
Jernej Mlakar, M.D., Misa Korva, Ph.D., Nataša Tul, M.D., Ph.D., Mara Popović, M.D., Ph.D., Mateja Poljšak-Prijatelj, Ph.D., Jerica Mraz, M.Sc., Marko Kolenc, M.Sc., Katarina Resman Rus, M.Sc., Tina Vesnaver Vipotnik, M.D., Vesna Fabjan Vodušek, M.D., Alenka Vizjak, Ph.D., Joze Pizem, M.D., Ph.D., Miroslav Petrovec, M.D., Ph.D., and Tatjana Avsic Zupanc, Ph.D.
Abstract
A widespread epidemic of Zika virus (ZIKV) infection was reported in 2015 in South and Central America and the Caribbean. A major concern associated with this infection is the apparent increased incidence of microcephaly in fetuses born to mothers infected with ZIKV. In this report, we describe the case of an expectant mother who had a febrile illness with rash at the end of the first trimester of pregnancy while she was living in Brazil. Ultrasonography performed at 29 weeks of gestation revealed microcephaly with calcifications in the fetal brain and placenta. After the mother requested termination of the pregnancy, a fetal autopsy was performed. Micrencephaly (an abnormally small brain) was observed, with almost complete agyria, hydrocephalus, and multifocal dystrophic calcifications in the cortex and subcortical white matter, with associated cortical displacement and mild focal inflammation. ZIKV was found in the fetal brain tissue on reverse-transcriptase–polymerase-chain-reaction (RT-PCR) assay, with consistent findings on electron microscopy. The complete genome of ZIKV was recovered from the fetal brain.

Editorial
Zika Virus and Microcephaly
Eric J. Rubin, M.D., Ph.D., Michael F. Greene, M.D., and Lindsey R. Baden, M.D.
DOI: 10.1056/NEJMe1601862
[Extract]
…Zika virus has spread explosively since its introduction into South America and has now been found throughout Central America and the Caribbean. The full extent of disease is not clear — most infections are asymptomatic and many are associated with only mild disease.6 But the

apparent risk of microcephaly was enough for the World Health Organization to declare a public health emergency of international concern on February 1.

What more do we need to know to help us manage and control this outbreak? Certainly, understanding the disease better could have long-term benefits, including the development of protective vaccines. However, it is the information that we do not yet have that has potential immediate applications.

Although many authorities are counseling women who are pregnant or could become pregnant to avoid travel to affected areas, the millions of women who live in these places are faced with enormous uncertainty, and as the virus spreads, many more will be affected. For example, assuming the association between Zika virus and microcephaly exists, we do not know whether the timing of the infection during pregnancy has an effect on the risk of fetal abnormalities, nor do we have any idea of the magnitude of that risk. The development of rapid, scalable diagnostic tests is needed, since the current polymerase-chain-reaction assay detects viral RNA and thus should be positive only during the period of viremia, which may be relatively short.

Current serologic assays have considerable cross-reactivity with other flaviviruses, including those that are endemic in the same areas (as in the case now being reported), and serologic assays specific for Zika virus are not easily available. Thus, it may be difficult to determine retrospectively whether a woman has been infected. This will be particularly difficult in areas where dengue virus and other pathogens can cause symptoms similar to those of the Zika virus. In addition, it is unclear whether asymptomatic or minimally symptomatic disease poses a risk to the fetus. It is possible that as is the case with mumps, early infection could result in fetal loss rather than malformations. And, as in this case report, ultrasonography may detect severe fetal abnormalities only very late in gestation — in many cases, too late to terminate the pregnancy. Is there a sensitive test that can be applied earlier? And is previous infection protective?

Although we need a good deal of research to define critical aspects of infection, there is much to do immediately. A vulnerable point for Zika virus transmission is the mosquito vector. Unfortunately, mosquito-control efforts have failed to curtail the spread of many similar pathogens, including dengue and chikungunya viruses, which are carried by the same aedes species and are spreading in the same communities currently affected by the Zika virus. Perhaps this new threat will help boost such control efforts with the use of both old and new approaches. Women need to have access to relevant health care services, including contraception, diagnostics, and pregnancy-termination services. And the many affected children need to have care. Coming shortly after the global response to the Ebola virus, the rapid spread of the Zika virus reminds us how connected we all are.7 Once again, an outbreak is going to challenge our public health infrastructure and require a substantial response.

Pediatrics
March 2016, VOLUME 137 / ISSUE
http://pediatrics.aappublications.org/content/137/3?current-issue=y
Articles
Prevalence of HPV After Introduction of the Vaccination Program in the United States

Lauri E. Markowitz, Gui Liu, Susan Hariri, Martin Steinau, Eileen F. Dunne, Elizabeth R. Unger
Pediatrics Mar 2016, 137 (3) 1-9; DOI: 10.1542/peds.2015-1968

Vaccination and 30-Day Mortality Risk in Children, Adolescents, and Young Adults
Natalie L. McCarthy, Julianne Gee, Lakshmi Sukumaran, Eric Weintraub, Jonathan Duffy, Elyse O. Kharbanda, Roger Baxter, Stephanie Irving, Jennifer King, Matthew F. Daley, Rulin Hechter, Michael M. McNeil
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Waning Tdap Effectiveness in Adolescents
Nicola P. Klein, Joan Bartlett, Bruce Fireman, Roger Baxter
Pediatrics Mar 2016, 137 (3) 1-9; DOI: 10.1542/peds.2015-3326

Parental Choice of Recall Method for HPV Vaccination: A Pragmatic Trial
Allison Kempe, Sean T. O'Leary, Jo Ann Shoup, Shannon Stokley, Steven Lockhart, Anna Furniss, L. Miriam Dickinson, Juliana Barnard, Matthew F. Daley
Pediatrics Mar 2016, 137 (3) 1-10; DOI: 10.1542/peds.2015-2857

Complete Influenza Vaccination Trends for Children Six to Twenty-Three Months
Tammy A. Santibanez, Lisa A. Grohskopf, Yusheng Zhai, Katherine E. Kahn
Pediatrics Mar 2016, 137 (3) 1-10; DOI: 10.1542/peds.2015-3280

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Global Varicella Vaccine Effectiveness: A Meta-analysis
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Quality Reports
Improving HPV Vaccination Rates Using Maintenance-of-Certification Requirements
Alexander G. Fiks, Xianqun Luan, Stephanie L. Mayne
Pediatrics Mar 2016, 137 (3) 1-11; DOI: 10.1542/peds.2015-0675

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Volume 7, Issue 4 (December 2015), Pages 363-564
http://www.mdpi.com/1999-4923/7/4
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PharmacoEconomics
Volume 34, Issue 3, March 2016
http://link.springer.com/journal/40273/34/3/page/1
Commentary
Economic Evidence of Pneumococcal Vaccination in Older Adults: Uncertain Modelling or Competitive Tendering?
Livio Garattini, Anna Padula, Milene Rangel Da Costa
[No abstract]

Consensus Statement

Methods for Health Economic Evaluation of Vaccines and Immunization Decision Frameworks: A Consensus Framework from a European Vaccine Economics Community

Bernhard Ultsch , Oliver Damm, Philippe Beutels, Joke Bilcke, Bernd Brüggenjürgen, Andreas Gerber-Grote, Wolfgang Greiner, Germaine Hanquet, Raymond Hutubessy and 11 more

Open Access pdf: http://link.springer.com/content/pdf/10.1007%2Fs40273-015-0335-2.pdf

Abstract

Background

Incremental cost-effectiveness and cost-utility analyses [health economic evaluations (HEEs)] of vaccines are routinely considered in decision making on immunization in various industrialized countries. While guidelines advocating more standardization of such HEEs (mainly for curative drugs) exist, several immunization-specific aspects (e.g. indirect effects or discounting approach) are still a subject of debate within the scientific community.

Objective

The objective of this study was to develop a consensus framework for HEEs of vaccines to support the development of national guidelines in Europe.

Methods

A systematic literature review was conducted to identify prevailing issues related to HEEs of vaccines. Furthermore, European experts in the field of health economics and immunization decision making were nominated and asked to select relevant aspects for discussion. Based on this, a workshop was held with these experts. Aspects on 'mathematical modelling', 'health economics' and 'decision making' were debated in group-work sessions (GWS) to formulate recommendations and/or—if applicable—to state 'pros' and 'contras'.

Results

A total of 13 different aspects were identified for modelling and HEE: model selection, time horizon of models, natural disease history, measures of vaccine-induced protection, duration of vaccine-induced protection, indirect effects apart from herd protection, target population, model calibration and validation, handling uncertainty, discounting, health-related quality of life, cost components, and perspectives. For decision making, there were four aspects regarding the purpose and the integration of HEEs of vaccines in decision making as well as the variation of parameters within uncertainty analyses and the reporting of results from HEEs. For each aspect, background information and an expert consensus were formulated.

Conclusions

There was consensus that when HEEs are used to prioritize healthcare funding, this should be done in a consistent way across all interventions, including vaccines. However, proper evaluation of vaccines implies using tools that are not commonly used for therapeutic drugs. Due to the complexity of and uncertainties around vaccination, transparency in the documentation of HEEs and during subsequent decision making is essential.

PLOS Currents: Disasters

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

[Accessed 12 March 2016]

[No new content]

PLoS Currents: Outbreaks
http://currents.plos.org/outbreaks/
(Accessed 12 March 2016)
Parental Vaccine Hesitancy in Quebec (Canada)
March 7, 2016 · *Research Article*
Abstract
Introduction: "Vaccine hesitancy" is a concept frequently used in the discourse around vaccine acceptance. This study aims to contribute to the ongoing reflections on tools and indicators of vaccine hesitancy by providing results of a knowledge, attitudes and beliefs (KAB) survey conducted among parents.
Methods: Data were collected in 2014 through a computer-assisted telephone interview survey administered to a sample of parents of children aged between 2 months and 17 years of age.
Results: The majority of the 589 parents included in the analyses agreed on the importance of vaccination to protect their children's health and to prevent the spread of diseases in the community. The majority of the parents (81%) reported that their child had received all doses of recommended vaccines and 40% of parents indicated having hesitated to have their child vaccinated. Fear of adverse events and low perceived vulnerability of the child or severity of the disease were the most frequent reasons mentioned by these vaccine-hesitant parents. In multivariate analyses, KAB items remaining significantly associated both with an incomplete vaccination status of the child and parents' vaccine hesitancy were: not thinking that it is important to have the child vaccinated to prevent the spreading of diseases in the community; not trusting the received vaccination information and having felt pressure to have the child vaccinated.
Discussion: Further researches will be needed to better understand when, how and why these beliefs are formed in order to prevent the onset of vaccine hesitancy.

PLoS Medicine
http://www.plosmedicine.org/
(Accessed 12 March 2016)
Trans-Pacific Partnership Provisions in Intellectual Property, Transparency, and Investment Chapters Threaten Access to Medicines in the US and Elsewhere
Brook K. Baker
Essay | published 08 Mar 2016 | PLOS Medicine
10.1371/journal.pmed.1001970
Summary Points
:: The recently negotiated Trans Pacific Partnership Agreement (TPP) contains provisions that would dramatically and negatively impact access to affordable medicines in the United States and elsewhere if it is ratified.
:: Provisions in the Intellectual Property (IP) Chapter of TPP lengthen, broaden, and strengthen patent-related monopolies on medicine and erect new monopoly protections on regulatory data as well. IP Chapter enforcement provisions also mandate injunctions preventing medicines sales, increase damage awards, and expand confiscation of medicines at the border.
:: IP rightholders gain new powers in the Investment Chapter to bring private, IP-related investor-state-dispute-settlement (ISDS) damage claims directly against foreign governments before unreviewable, three-person arbitration panels. Unrestricted IP-investor damage claims deter countries' willingness to render adverse IP decisions and to adopt IP policy flexibilities designed to increase access to affordable medicines.

:: The Transparency Chapter contains provisions that allow pharmaceutical companies more access to government decisions listing medicines and medical devices for reimbursement.
At the very least, these multiple TPP provisions that extend pharmaceutical powers should be scaled back to the minimum consensus standards reached in the 1994 World Trade Organization (WTO) Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement. Health advocates should convince the US Congress and opponents in other countries to reject an agreement that could so adversely impact access to medicines.

PLoS Neglected Tropical Diseases
http://www.plosntds.org/
(Accessed 12 March 2016)
Successful Control of Ebola Virus Disease: Analysis of Service Based Data from Rural Sierra Leone
Kamalini Lokuge, Grazia Caleo, Jane Greig, Jennifer Duncombe, Nicholas McWilliam, James Squire, Manjo Lamin, Emily Veltus, Anja Wolz, Gary Kobinger, Marc-Antoine de la Vega, Osman Gbabai, Sao Nabieu, Mohammed Lamin, Ronald Kremer, Kostas Danis, Emily Banks, Kathryn Glass
Research Article | published 09 Mar 2016 | PLOS Neglected Tropical Diseases
10.1371/journal.pntd.0004498
Abstract
Introduction
The scale and geographical distribution of the current outbreak in West Africa raised doubts as to the effectiveness of established methods of control. Ebola Virus Disease (EVD) was first detected in Sierra Leone in May 2014 in Kailahun district. Despite high case numbers elsewhere in the country, transmission was eliminated in the district by December 2014. We describe interventions underpinning successful EVD control in Kailahun and implications for EVD control in other areas.
Methods
Internal service data and published reports from response agencies were analysed to describe the structure and type of response activities, EVD case numbers and epidemic characteristics. This included daily national situation reports and District-level data and reports of the Sierra Leone Ministry of Health and Sanitation, and Médecins Sans Frontières (MSF) patient data and internal epidemiological reports. We used EVD case definitions provided by the World Health Organisation over the course of the outbreak. Characteristics assessed included level of response activities and epidemiological features such as reported exposure (funeral-related or not), time interval between onset of illness and admission to the EVD Management Centre (EMC), work-related exposures (health worker or not) and mortality. We compared these characteristics between two time periods—June to July (the early period of response), and August to December (when coverage and quality of response had improved). A stochastic model was used to predict case numbers per generation with different numbers of beds and a varying percentage of community cases detected.
Results
There were 652 probable/confirmed EVD cases from June-December 2014 in Kailahun. An EMC providing patient care opened in June. By August 2014 an integrated detection, treatment, and prevention strategy was in place across the district catchment zone. From June-July to August-December 2014 surveillance and contact tracing staff increased from 1.0 to 8.8 per confirmed EVD case, EMC capacity increased from 32 to 100 beds, the number of burial teams doubled,

and health promotion activities increased in coverage. These improvements in response were associated with the following changes between the same periods: the proportion of confirmed/probable cases admitted to the EMC increased from 35% to 83% (χ2 p-value<0·001), the proportion of confirmed patients admitted to the EMC <3 days of symptom onset increased from 19% to 37% (χ2 p-value <0·001), and reported funeral contact in those admitted decreased from 33% to 16% (χ2 p-value <0·001). Mathematical modelling confirmed the importance of both patient management capacity and surveillance and contact tracing for EVD control.

Discussion

Our findings demonstrate that control of EVD can be achieved using established interventions based on identification and appropriate management of those who are at risk of and develop EVD, including in the context of ongoing transmission in surrounding regions. Key attributes in achieving control were sufficient patient care capacity (including admission to specialist facilities of suspect and probable cases for assessment), integrated with adequate staffing and resourcing of community-based case detection and prevention activities. The response structure and coverage targets we present are of value in informing effective control in current and future EVD outbreaks.

Author Summary

Ebola Virus Disease (EVD) is a severe illness that is usually spread from person to person through caring for someone who is sick, or if they die, contact with their body during their funeral. The recent EVD outbreak in West Africa caused illness and death in many thousands in Guinea, Sierra Leone and Liberia. It has been the largest and most difficult to control of any EVD outbreak in history, and this led to doubts as to the effectiveness of established control measures. Our study describes the successful control of EVD in a rural district of Sierra Leone. As in previous outbreaks, we found that control was achieved by working with communities to identify people who may have been exposed to EVD; if they then became sick, their early admission for testing and care to specialised centres that have equipment and procedures to prevent EVD passing on to staff or other patients, and safe burial of those who die of EVD by trained workers with appropriate protective equipment. We describe the resources and response structure needed to implement such measures effectively, information that will assist in controlling future outbreaks.

PLoS One

http://www.plosone.org/

[Accessed 12 March 2016]

Using Seroprevalence and Immunisation Coverage Data to Estimate the Global Burden of Congenital Rubella Syndrome, 1996-2010: A Systematic Review

Emilia Vynnycky, Elisabeth J. Adams, Felicity T. Cutts, Susan E. Reef, Ann Marie Navar, Emily Simons, Lay-Myint Yoshida, David W. J. Brown, Charlotte Jackson, Peter M. Strebel, Alya J. Dabbagh

Research Article | published 10 Mar 2016 | PLOS ONE

10.1371/journal.pone.0149160

Research Article

Influenza Vaccine Manufacturing: Effect of Inactivation, Splitting and Site of Manufacturing. Comparison of Influenza Vaccine Production Processes

Theone C. Kon, Adrian Onu, Laurentiu Berbecila, Emilia Lupulescu, Alina Ghiorgisor, Gideon F. Kersten, Yi-Qing Cui, Jean-Pierre Amorij, Leo Van der Pol
Published: March 9, 2016
DOI: 10.1371/journal.pone.0150700
Abstract
The aim of this study was to evaluate the impact of different inactivation and splitting procedures on influenza vaccine product composition, stability and recovery to support transfer of process technology. Four split and two whole inactivated virus (WIV) influenza vaccine bulks were produced and compared with respect to release criteria, stability of the bulk and haemagglutinin recovery. One clarified harvest of influenza H3N2 A/Uruguay virus prepared on 25.000 fertilized eggs was divided equally over six downstream processes. The main unit operation for purification was sucrose gradient zonal ultracentrifugation. The inactivation of the virus was performed with either formaldehyde in phosphate buffer or with beta-propiolactone in citrate buffer. For splitting of the viral products in presence of Tween®, either Triton™ X-100 or di-ethyl-ether was used. Removal of ether was established by centrifugation and evaporation, whereas removal of Triton-X100 was performed by hydrophobic interaction chromatography. All products were sterile filtered and subjected to a 5 months real time stability study. In all processes, major product losses were measured after sterile filtration; with larger losses for split virus than for WIV. The beta-propiolactone inactivation on average resulted in higher recoveries compared to processes using formaldehyde inactivation. Especially ether split formaldehyde product showed low recovery and least stability over a period of five months.

HPV Serology Testing Confirms High HPV Immunisation Coverage in England

David Mesher, Elaine Stanford, Joanne White, Jamie Findlow, Rosalind Warrington, Sukamal Das, Richard Pebody, Ray Borrow, Kate Soldan
Research Article | published 09 Mar 2016 | PLOS ONE
10.1371/journal.pone.0150107

Crippling Violence: Conflict and Incident Polio in Afghanistan

Alison Norris, Kevin Hachey, Andrew Curtis, Margaret Bourdeaux
Research Article | published 09 Mar 2016 | PLOS ONE
10.1371/journal.pone.0149074
Abstract
Background
Designing effective public health campaigns in areas of armed conflict requires a nuanced understanding of how violence impacts the epidemiology of the disease in question.
Methods
We examine the geographical relationship between violence (represented by the location of detonated Improvised Explosive Devices) and polio incidence by generating maps of IEDs and polio incidence during 2010, and by comparing the mean number of IED detonations in polio high-risk districts with non polio high-risk districts during 2004–2009.
Results
We demonstrate a geographic relationship between IED violence and incident polio. Districts that have high-risk for polio have highly statistically significantly greater mean numbers of IEDs than non polio high-risk districts (p-values 0.0010–0.0404).
Conclusions
The geographic relationship between armed conflict and polio incidence provides valuable insights as to how to plan a vaccination campaign in violent contexts, and allows us to

anticipate incident polio in the regions of armed conflict. Such information permits vaccination planners to engage interested armed combatants to co-develop strategies to mitigate the effects of violence on polio

PLoS Pathogens
http://journals.plos.org/plospathogens/
(Accessed 12 March 2016)
[No new relevant content]

PNAS - Proceedings of the National Academy of Sciences of the United States of America
http://www.pnas.org/content/early/
(Accessed 12 March 2016)
[No new relevant content]

Pneumonia
Vol 6 (2015)
https://pneumonia.org.au/index.php/pneumonia/issue/current
[Reviewed earlier]

Prehospital & Disaster Medicine
Volume 31 - Issue 01 - February 2016
https://journals.cambridge.org/action/displayIssue?jid=PDM&tab=currentissue
[Reviewed earlier]

Preventive Medicine
Volume 83, Pages 1-76 (February 2016)
http://www.sciencedirect.com/science/journal/00917435/84
[Reviewed earlier]

Proceedings of the Royal Society B
10 February 2016; volume 283, issue 1824
http://rspb.royalsocietypublishing.org/content/283/1824?current-issue=y
[New issue; No relevant content identified]

Public Health Ethics
Volume 9 Issue 1 April 2016
http://phe.oxfordjournals.org/content/current
[Reviewed earlier]

Public Health Reports
Volume 131 , Issue Number 1 January/February 2016
http://www.publichealthreports.org/issuecontents.cfm?Volume=131&Issue=1
[Reviewed earlier]

Qualitative Health Research
March 2016; 26 (4)
http://qhr.sagepub.com/content/current
Special Issue: Autoethnography
[Reviewed earlier]

Reproductive Health
http://www.reproductive-health-journal.com/content
[Accessed 12 March 2016]
[No new relevant content identified]

Revista Panamericana de Salud Pública/Pan American Journal of Public Health (RPSP/PAJPH)
December 2015 Vol. 38, No. 6
http://www.paho.org/journal/
[Reviewed earlier]

Risk Analysis
February 2016 Volume 36, Issue 2 Pages 183–430
http://onlinelibrary.wiley.com/doi/10.1111/risa.2016.36.issue-2/issuetoc
[Reviewed earlier]

Science
11 March 2016 Vol 351, Issue 6278
http://www.sciencemag.org/current.dtl
[New issue; No relevant content identified]

Social Science & Medicine
Volume 150, Pages 1-290 (February 2016)
http://www.sciencedirect.com/science/journal/02779536/150
[Reviewed earlier]

Tropical Medicine & International Health
March 2016 Volume 21, Issue 3 Pages 293–453
http://onlinelibrary.wiley.com/doi/10.1111/tmi.2016.21.issue-3/issuetoc
[New issue; No relevant content identified]

Vaccine
Volume 34, Issue 13, Pages 1489-1642 (18 March 2016)
http://www.sciencedirect.com/science/journal/0264410X/34/13
Conference report
Global Vaccine and Immunization Research Forum: Opportunities and challenges in vaccine discovery, development, and delivery
Pages 1489-1495
Andrew Q. Ford, Nancy Touchette, B. Fenton Hall, Angela Hwang, Joachim Hombach
Abstract
The World Health Organization, the National Institute of Allergy and Infectious Diseases, part of the National Institutes of Health, and the Bill & Melinda Gates Foundation convened the first Global Vaccine and Immunization Research Forum (GVIRF) in March 2014. This first GVIRF aimed to track recent progress of the Global Vaccine Action Plan research and development agenda, identify opportunities and challenges, promote partnerships in vaccine research, and facilitate the inclusion of all stakeholders in vaccine research and development. Leading scientists, vaccine developers, and public health officials from around the world discussed scientific and technical challenges in vaccine development, research to improve the impact of immunization, and regulatory issues. This report summarizes the discussions and conclusions from the forum participants.

Efficacy of 23-valent pneumococcal polysaccharide vaccine in preventing community-acquired pneumonia among immunocompetent adults: A systematic review and meta-analysis of randomized trials
Review Article
Pages 1496-1503
Wen-qi Diao, Ning Shen, Pan-xi Yu, Bei-bei Liu, Bei He
Abstract
Background
Data on the efficacy of the 23-valent pneumococcal polysaccharide vaccine (PPV-23) in preventing adult community-acquired pneumonia (CAP) among the target population of individuals aged over 65 years and high-risk individuals aged 19–64 years are conflicting. As the Advisory Committee on Immunization Practices (ACIP) has recently demonstrated PPV-23 is likely beneficial to immunocompromised adults by the Grading, Assessment, Development, and Evaluation (GRADE) framework, we conducted meta-analysis to examine its efficacy in an immunocompetent population.
Methods
We searched the PUBMED, EMBASE, and Cochrane Library databases for randomized trials. Overall relative risks (RRs) with 95% confidential intervals (CIs) were calculated, and the Cochrane Q test (p, I2) was performed. Outcomes were assessed by the GRADE framework.
Results
Seven randomized trials involving 156,010 participants were included in this meta-analysis. High-quality evidence revealed that PPV-23 was weakly associated with the prevention of all-cause pneumonia ([RR] 0.87, [95%CI] 0.76–0.98, p=0.11, I2=43%), especially among the target population ([RR] 0.72, [95%CI] 0.69–0.94, p = 0.58 I2=0%), the elderly group aged over 40 years ([RR] 0.80, [95%CI] 0.69–0.94) and the Japanese population ([RR] 0.72, [95%CI] 0.59–0.88, p=0.24, I2=30%). The target population included adults aged over 65

years and patients at high risk of pneumonia due to chronic lung disease, chronic obstructive pulmonary disease or living in a nursing home. Protective trends of PPV-23 in the outcomes of pneumococcal pneumonia ([RR] 0.54, [95%CI] 0.18–1.65, p=0.01, I2=77%) and mortality due to pneumonia ([RR] 0.67, [95%CI] 0.43–1.04, p = 0.67, I2=0%) were observed, although the results were statistically insignificant, possibly due to the small number of trials included. PPV-23 did not prevent all-cause mortality ([RR] 1.04, [95%CI] 0.87–1.24, p=0.95, I2=0%).
Conclusions
PPV-23 provided weak protection against all-cause pneumonia in an immunocompetent population, especially among the target population. The additional benefit of PPV-23 in preventing CAP further supports its application in the target population.

Cost-effectiveness analysis of universal maternal immunization with tetanus-diphtheria-acellular pertussis (Tdap) vaccine in Brazil
Original Research Article
Pages 1531-1539
Ana Marli Christovam Sartori, Patrícia Coelho de Soárez, Eder Gatti Fernandes, Ligia Castellon Figueiredo Gryninger, Juliana Yukari Kodaira Viscondi, Hillegonda Maria Dutilh Novaes
Abstract
Background
Pertussis incidence has increased significantly in Brazil since 2011, despite high coverage of whole-cell pertussis containing vaccines in childhood. Infants <4 months are most affected. This study aimed to evaluate the cost-effectiveness of introducing universal maternal vaccination with tetanus-diphtheria-acellular pertussis vaccine (Tdap) into the National Immunization Program in Brazil.
Methods
Economic evaluation using a decision tree model comparing two strategies: (1) universal vaccination with one dose of Tdap in the third trimester of pregnancy and (2) current practice (no pertussis maternal vaccination), from the perspective of the health system and society. An annual cohort of newborns representing the number of vaccinated pregnant women were followed for one year. Vaccine efficacy were based on literature review. Epidemiological, healthcare resource utilization and cost estimates were based on local data retrieved from Brazilian Health Information Systems. Costs of epidemiological investigation and treatment of contacts of cases were included in the analysis. No discount rate was applied to costs and benefits, as the temporal horizon was one year. Primary outcome was cost per life year saved (LYS). Univariate and best- and worst-case scenarios sensitivity analysis were performed.
Results
Maternal vaccination of one annual cohort, with vaccine effectiveness of 78%, and vaccine cost of USD$12.39 per dose, would avoid 661 cases and 24 infant deaths of pertussis, save 1800 years of life and cost USD$28,942,808 and USD$29,002,947, respectively, from the health system and societal perspective. The universal immunization would result in ICERs of USD$15,608 and USD$15,590 per LYS, from the health system and societal perspective, respectively. In sensitivity analysis, the ICER was most sensitive to discounting of life years saved, variation in case-fatality, disease incidence, vaccine cost, and vaccine effectiveness.
Conclusion
The results indicate that universal maternal immunization with Tdap is a cost-effective intervention for preventing pertussis cases and deaths in infants in Brazil.

The effectiveness of pneumococcal polysaccharide vaccine 23 (PPV23) in the general population of 50 years of age and older: A systematic review and meta-analysis

Original Research Article
Pages 1540-1550
Hannah Kraicer-Melamed, Shauna O'Donnell, Caroline Quach
Abstract
Two pneumococcal vaccines currently exist and have been recommended for the prevention of pneumococcal infection in adults 65 years of age and older: the 23-valent polysaccharide (PPV23) and the conjugate 13-valent (PCV13) vaccine.
Objective
To evaluate and summarize the results from all studies reporting on the vaccine effectiveness of PPV23 in preventing invasive pneumococcal disease (IPD) and community-acquired pneumonia (CAP) in individuals over the age of 50.
Methods
Systematic database searches were completed in PubMed, Medline, Embase, CINAHL, Web of Science, and Cochrane. Google Scholar and hand searches of seminal articles and past systematic reviews were employed. Studies were included if they independently evaluated the effect of PPV23 on IPD and/or CAP in adults (50+). Data extraction and quality assessment were both completed independently by two researchers. Quality was assessed using the National Advisory Committee on Immunization methodology for quality assessment. All conflicts were resolved by consensus.
Results
The vaccine effectiveness for PPV23 in preventing IPD was 50% (95% CI: 21%–69%) for cohort studies and 54% (95% CI: 32%–69%) for case-control studies. The VE estimates for CAP were 4% (95% CI: -26%–26%) for trials, 17% (95% CI: -26%–45%) for cohort studies, and 7% (95% CI: -10%–21%) for case-control studies.
Conclusions
The vaccine effectiveness of PPV23 in preventing IPD and all-cause CAP was consistent with past systematic reviews and similar to the estimates that were reported in the CAPiTA trial evaluating the vaccine effectiveness of PCV13. Consistent benefits were also reported across ecological studies and reports of surveillance data for the general population 50 years and older. The results suggests that the current practice of vaccinating the adults 65 years of age and older with PPV23 would have similar benefits to PCV13 in preventing potential cases of all-serotype IPD and all-cause CAP.

The oral cholera vaccine Shanchol™ when stored at elevated temperatures maintains the safety and immunogenicity profile in Bangladeshi participants

Original Research Article
Pages 1551-1558
Amit Saha, Arifuzzaman Khan, Umme Salma, Nusrat Jahan, Taufiqur Rahman Bhuiyan, Fahima Chowdhury, Ashraful Islam Khan, Farhana Khanam, Sundaram Muruganandham, Sreeramulu Reddy Kandukuri, Mandeep Singh Dhingra, John D. Clemens, Alejandro Cravioto, Firdausi Qadri
Abstract
Background
The oral cholera vaccine (OCV), Shanchol™ has shown protective efficacy lasting up to 5 years, however, requirement for a cold chain limits its use in resource poor settings. The study was

conducted to determine the safety and immunogenicity of Shanchol in adult participants in Bangladesh when stored at elevated temperatures.
Methods
The study was conducted in Mirpur, Dhaka. Four groups of healthy adult participants received two doses of Shanchol™, kept under standard storage temperature (Group A; 2–8 °C) or at elevated temperatures (Group B, 25 °C; Group C, 37 °C; Group D, 42 °C) for 14 days, respectively. Vaccine specific antibody responses were determined.
Findings
145 participants were assigned to each group. Adverse events were mild not differing among groups. Vaccine stored at elevated temperatures remained stable with cumulative LPS content within admissible limits.
Vibriocidal antibody responses were observed in all groups after each dose of vaccine at day 7 and 21 compared to pre-immune levels ($P < 0.001$). Four-fold increases to Vibrio cholerae O1 Ogawa were observed at day 7 and/or day 21 after vaccination in the standard temperature and the three elevated temperature groups, with responder rates of; 76% (95% CI LB; 70%), 80% (95% CI LB; 74%), 69% (95% CI LB; 63%), and 74% (95% CI LB; 68%) in Groups A–D, respectively ($P = 0.240$). Responses were also seen in all groups to V. cholerae O1 Inaba and V. cholerae O139 and in LPS specific IgA response to V. cholerae O1 antigens.
Interpretation
This is the first report to show that the OCV is stable at elevated temperatures, and the safety and immunogenicity profiles are not altered. This information will help formulate global policies for use of the vaccine at higher temperatures, resulting in easier distribution and vaccination costs and decrease logistical challenges to vaccine delivery.
Funding
Bill & Melinda Gates Foundation.
Trial registration
Clinical Trials.gov number NCT01762930.

Trends in reasons for non-receipt of influenza vaccination during pregnancy in Georgia, 2004–2011

Original Research Article
Pages 1597-1603
Allison T. Chamberlain, Ruth L. Berkelman, Kevin A. Ault, Eli S. Rosenberg, Walter A. Orenstein, Saad B. Omer
Abstract
Background
Considerable research has identified barriers to antenatal influenza vaccination, yet no research has explored temporal trends in reasons for non-receipt.
Purpose
To examine trends in reasons for non-receipt of influenza vaccination during pregnancy.
Methods
Serial cross-sectional analyses using 8 years of Georgia Pregnancy Risk Assessment Monitoring Survey (PRAMS) data were conducted. Weighted logistic regression was used to examine trends in the prevalence of citing reasons for non-receipt over time.
Results
Between 2004 and 2011, 8300 women reported no influenza vaccination during or immediately before pregnancy. Proportions of women citing "doctor didn't mention vaccination," "in first trimester during influenza season," and "not pregnant during influenza season" decreased

significantly over time (Doctor didn't mention: 48.0% vs. 27.1%, test for trend p < 0.001; in first trimester: 26.8% vs. 16.3%, test for trend p<0.001; not influenza season: 24.2% vs. 12.7%, test for trend p=0.001). Safety concerns increased over 2004 proportions in 2010 (concern about side effects for me: 40.2% vs. 28.5%, prevalence ratio (PR): 1.41, 95% confidence interval (CI): 1.16, 1.71; concern about harming my baby: 38.9% vs. 31.0%, PR=1.26, 95% CI: 1.04, 1.53) and 2011 (concern about side effects for me: 39.0% vs. 28.5%, PR=1.37, 95% CI: 1.13, 1.65; concern about harming my baby: 38.8% vs. 31.0%, PR=1.25, 95% CI: 1.04, 1.50). Following the 2009/2010 H1N1 pandemic, more Hispanic women cited concern about vaccination harming their baby than other women; in 2011, their concern remained elevated relative to non-Hispanic white women (63% vs. 35%; adjusted PR=1.79, 95% CI: 1.23, 2.61).
Conclusion
Examining trends in reasons for non-receipt of antenatal influenza vaccination can reflect successes related to vaccine promotion and areas for improvement. By highlighting differential impacts of the 2009/2010 H1N1 pandemic, we reveal opportunities for additional research on tailoring vaccine promotion efforts to specific types of women.

HPV vaccination coverage of teen girls: The influence of health care providers
Original Research Article
Pages 1604-1610
Philip J. Smith, Shannon Stokley, Robert A. Bednarczyk, Walter A. Orenstein, Saad B. Omer
Abstract
Background
Between 2010 and 2014, the percentage of 13–17 year-old girls administered ≥3 doses of the human papilloma virus (HPV) vaccine ("fully vaccinated") increased by 7.7 percentage points to 39.7%, and the percentage not administered any doses of the HPV vaccine ("not immunized") decreased by 11.3 percentage points to 40.0%.
Objective
To evaluate the complex interactions between parents' vaccine-related beliefs, demographic factors, and HPV immunization status.
Methods
Vaccine-related parental beliefs and sociodemographic data collected by the 2010 National Immunization Survey-Teen among teen girls (n=8490) were analyzed. HPV vaccination status was determined from teens' health care provider (HCP) records.
Results
Among teen girls either unvaccinated or fully vaccinated against HPV, teen girls whose parent was positively influenced to vaccinate their teen daughter against HPV were 48.2 percentage points more likely to be fully vaccinated. Parents who reported being positively influenced to vaccinate against HPV were 28.9 percentage points more likely to report that their daughter's HCP talked about the HPV vaccine, 27.2 percentage points more likely to report that their daughter's HCP gave enough time to discuss the HPV shot, and 43.4 percentage points more likely to report that their daughter's HCP recommended the HPV vaccine (p < 0.05). Among teen girls administered 1–2 doses of the HPV vaccine, 87.0% had missed opportunities for HPV vaccine administration.
Conclusion
Results suggest that an important pathway to achieving higher ≥3 dose HPV vaccine coverage is by increasing HPV vaccination series initiation though HCP talking to parents about the HPV vaccine, giving parents time to discuss the vaccine, and by making a strong recommendation

for the HPV. Also, HPV vaccination series completion rates may be increased by eliminating missed opportunities to vaccinate against HPV and scheduling additional follow-up visits to administer missing HPV vaccine doses.

Successful introduction of an underutilized elderly pneumococcal vaccine in a national immunization program by integrating the pre-existing public health infrastructure

Original Research Article
Pages 1623-1629
Tae Un Yang, Eunsung Kim, Young-Joon Park, Dongwook Kim, Yoon Hyung Kwon, Jae Kyong Shin, Ok Park

Abstract

Background

Although pneumococcal vaccines had been recommended for the elderly population in South Korea for a considerable period of time, the coverage has been well below the optimal level. To increase the vaccination rate with integrating the pre-existing public health infrastructure and governmental funding, the Korean government introduced an elderly pneumococcal vaccination into the national immunization program with a 23-valent pneumococcal polysaccharide vaccine in May 2013.

Objective

The aim of this study was to assess the performance of the program in increasing the vaccine coverage rate and maintaining stable vaccine supply and safe vaccination during the 20 months of the program.

Methods

We qualitatively and quantitatively analyzed the process of introducing and the outcomes of the program in terms of the systematic organization, efficiency, and stability at the national level.

Results

A staggered introduction during the first year utilizing the public sector, with a target coverage of 60%, was implemented based on the public demand for an elderly pneumococcal vaccination, vaccine supply capacity, vaccine delivery capacity, safety, and sustainability. During the 20-month program period, the pneumococcal vaccine coverage rate among the population aged ≥65 years increased from 5.0% to 57.3% without a noticeable vaccine shortage or safety issues. A web-based integrated immunization information system, which includes the immunization registry, vaccine supply chain management, and surveillance of adverse events following immunization, reduced programmatic errors and harmonized the overall performance of the program.

Conclusion

Introduction of an elderly pneumococcal vaccination in the national immunization program based on strong government commitment, meticulous preparation, financial support, and the pre-existing public health infrastructure resulted in an efficient, stable, and sustainable increase in vaccination coverage.

Vaccines — Open Access Journal
http://www.mdpi.com/journal/vaccines
(Accessed 12 March 2016)
Review: **Hepatitis Vaccines**
by Sina Ogholikhan and Kathleen B. Schwarz

Vaccines 2016, 4(1), 6; doi:10.3390/vaccines4010006 (registering DOI) - published 11 March 2016
Abstract:
Viral hepatitis is a serious health problem all over the world. However, the reduction of the morbidity and mortality due to vaccinations against hepatitis A and hepatitis B has been a major component in the overall reduction in vaccine preventable diseases. We will discuss the epidemiology, vaccine development, and post-vaccination effects of the hepatitis A and B virus. In addition, we discuss attempts to provide hepatitis D vaccine for the 350 million individuals infected with hepatitis B globally. Given the lack of a hepatitis C vaccine, the many challenges facing the production of a hepatitis C vaccine will be shown, along with current and former vaccination trials. As there is no current FDA-approved hepatitis E vaccine, we will present vaccination data that is available in the rest of the world. Finally, we will discuss the existing challenges and questions facing future endeavors for each of the hepatitis viruses, with efforts continuing to focus on dramatically reducing the morbidity and mortality associated with these serious infections of the liver.

Value in Health
January 2016 Volume 19, Issue 1, p1-122
http://www.valueinhealthjournal.com/current
[Reviewed earlier]

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

Advanced Drug Delivery Reviews
Available online 4 March 2016 - In Press, Uncorrected Proof
Role of nanotechnology in HIV/AIDS vaccine development
Y Liu, C Chen
Abstract
HIV/AIDS is one of the worst crises affecting global health and influencing economic development and social stability. Preventing and treating HIV infection is a crucial task. However, there is still no effective HIV vaccine for clinical application. Nanotechnology has the potential to solve the problems associated with traditional HIV vaccines. At present, various nano-architectures and nanomaterials can function as potential HIV vaccine carriers or adjuvants, including inorganic nanomaterials, liposomes, micelles and polymer nanomaterials. In this review, we summarize the current progress in the use of nanotechnology for the development of an HIV/AIDS vaccine and discuss its potential to greatly improve the solubility, permeability, stability and pharmacokinetics of HIV vaccines.

Although nanotechnology holds great promise for applications in HIV/AIDS vaccines, there are still many inadequacies that result in a variety of risks and challenges. The potential hazards to the human body and environment associated with some nano-carriers, and their underlying mechanisms require in-depth study. Non-toxic or low-toxic nanomaterials with adjuvant activity have been identified. However, studying the confluence of factors that affect the adjuvant activity of nanomaterials may be more important for the optimization of the dosage and

immunization strategy and investigations into the exact mechanism of action. Moreover, there are no uniform standards for investigations of nanomaterials as potential vaccine adjuvants. These limitations make it harder to analyze and deduce rules from the existing data. Developing vaccine nano-carriers or adjuvants with high benefit–cost ratios is important to ensure their broad usage. Despite some shortcomings, nanomaterials have great potential and application prospects in the fields of AIDS treatment and prevention.

Current Opinion in Biotechnology
Volume 42, December 2016, Pages 24–29
Pharmaceutical biotechnology • Chemical biotechnology
Enhancing vaccine effectiveness with delivery technology
M Beitelshees, Y Li, BA Pfeifer
Highlights
:: Vaccine potency can be influenced by antigen delivery technology.
:: Chemical vectors covered include microneedle devices and liposomes.
:: Biological vectors covered include attenuated bacterial hosts.
:: A diverse set of properties and tools enable vaccine delivery vector impact.
Vaccines stand as a very powerful means of disease prevention and treatment. Fundamental to the success of vaccination is the efficient delivery of antigenic cargo needed to trigger an effective immune response. In this article, we will review recent advances in delivery technology with a focus on devices designed to optimally maximize responses to antigen cargo. Included with the review is an overview of traditional vaccine applications and how these approaches can benefit by well-designed delivery methods

BMC Malaria Journal
2016 15:143
Case Study
Policy analysis for deciding on a malaria vaccine RTS,S in Tanzania
Idda Romore, Ritha J. A. Njau, Innocent Semali, Aziza Mwisongo, Antoinette Ba Nguz, Hassan Mshinda, Marcel Tanner and Salim Abdulla
DOI: 10.1186/s12936-016-1197-6
Published: 8 March 2016
Abstract
Background
Traditionally, it has taken decades to introduce new interventions in low-income countries. Several factors account for these delays, one of which is the absence of a framework to facilitate comprehensive understanding of policy process to inform policy makers and stimulate the decision-making process. In the case of the proposed introduction of malaria vaccines in Tanzania, a specific framework for decision-making will speed up the administrative process and shorten the time until the vaccine is made available to the target population.
Methods
Qualitative research was used as a basis for developing the Policy Framework. Interviews were conducted with government officials, bilateral and multilateral partners and other stakeholders in Tanzania to assess malaria treatment policy changes and to draw lessons for malaria vaccine adoption.
Results

The decision-making process for adopting malaria interventions and new vaccines in general takes years, involving several processes: meetings and presentations of scientific data from different studies with consistent results, packaging and disseminating evidence and getting approval for use by the Ministry of Health and Social Welfare (MOHSW). It is influenced by contextual factors; Promoting factors include; epidemiological and intervention characteristics, country experiences of malaria treatment policy change, presentation and dissemination of evidence, coordination and harmonization of the process, use of international scientific evidence. Barriers factors includes; financial sustainability, competing health and other priorities, political will and bureaucratic procedures, costs related to the adoption and implementations of interventions, supply and distribution and professional compliance with anti-malarial drugs.
Conclusion
The framework facilitates the synthesis of information in a coherent way, enabling a clearer understanding of the policy process, thereby speeding up the policy decision-making process and shortening the time for a malaria vaccine to become available.

Papillomavirus Research
Volume 2, December 2016, Pages 38–40
Examining maternal beliefs and human papillomavirus vaccine uptake among male and female children in low-income families
EL Fuchs, M Rahman, AB Berenson
doi:10.1016/j.pvr.2016.02.002
Abstract
Purpose
This study examines within-family differences in the uptake of the HPV vaccine and HPV-related beliefs by children's sex.
Methods
From a 2011–2013 survey of mothers of children aged 9–17 years in Texas, mothers with both male and female children (n=350) were selected.
Results
Mothers were more likely to report having initiated and completed HPV vaccination for their daughters than sons. Mothers did not express differences by children's sex in HPV-related beliefs. Among those who had not completely vaccinated either child, mothers were more likely to report they wanted their daughters compared to sons vaccinated and were more likely to report feeling confident they could get their daughters vaccinated than their sons.
Conclusion
In this population, mothers were more likely to report HPV vaccination of and motivation to vaccinate daughters compared to sons, although maternal beliefs about HPV did not differ by children's sex.

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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 12 March 2016
The Rare Super-Antibodies That Destroy HIV
A recent study sheds new light on a rare immune response to the virus—and could bring researchers a step closer to developing a vaccine.
Diana Crow - Mar 10, 2016

BBC
http://www.bbc.co.uk/
Accessed 12 March 2016
Would you take a dose of hookworms?
13 Mar 2016
…Scientists in Washington are infecting healthy volunteers with hookworms to help the development of a vaccine against the parasite that can cause severe disability and anaemia. Lizzie Crouch reports…

The Economist
http://www.economist.com/
Accessed 12 March 2016
[No new, unique, relevant content]

Financial Times
http://www.ft.com/home/uk
Accessed 12 March 2016
WHO chief wants help for drug industry to fight global pandemics
7 March 2016
…Pharmaceuticals companies cannot be expected to keep picking up the bill for tackling global pandemics, the head of the World Health Organisation has warned, urging the creation of a new funding mechanism for emergency drugs and vaccines. Margaret Chan, WHO director-general, said the pharma industry had spent almost $1bn developing Ebola vaccines in the past two years without any return on investment. … "We need a funding mechanism in place allowing countries and industry to prepare for high-impact events." …

Forbes
http://www.forbes.com/
Accessed 12 March 2016
[No new, unique, relevant content]

Foreign Affairs
http://www.foreignaffairs.com/
Accessed 12 March 2016
[No new, unique, relevant content]

Foreign Policy
http://foreignpolicy.com/
Accessed 12 March 2016
[No new, unique, relevant content]

The Guardian
http://www.guardiannews.com/
Accessed 12 March 2016
Ebola vaccine trial in Sierra Leone battles against fear and logistics
Health workers face suspicion and a lack of cold storage as they test the Ebola vaccine and also try to reach children who have missed inoculations against other diseases
10 March 2016

Mail & Guardian
http://mg.co.za/
Accessed 12 March 2016
[No new, unique, relevant content]

New Yorker
http://www.newyorker.com/
Accessed 12 March 2016
[No new, unique, relevant content]

New York Times
http://www.nytimes.com/
Accessed 12 March 2016
MSF Challenges Pfizer's India Vaccine Patent Application
NEW DELHI — Doctors Without Borders has challenged Pfizer's application for an Indian patent for its pneumonia vaccine so cheaper versions can be available to children in poor countries and to humanitarian organizations.
March 12, 2016 - By THE ASSOCIATED PRESS –

Brazil Giving $2.8 Million for Zika Research
Health Minister Marcelo Castro said over a $1 million would help finance a study to find a vaccine for the virus, which Brazilian researchers have tentatively linked to a surge in cases of microcephaly,
March 10, 2016 - By THE ASSOCIATED PRESS - World -

Wall Street Journal
http://online.wsj.com/home-page?_wsjregion=na,us&_homepage=/home/us
Accessed 12 March 2016
Mind and Matter: Susan Pinker
The Peril of Ignoring Vaccines—and a Solution

Once considered eradicated in the U.S., measles is back. A look at the dangers of shunning vaccines and what can be done.
9 March 2016

Washington Post
http://www.washingtonpost.com/
Accessed 12 March 2016
[No new, unique, relevant content]

Think Tanks et al

Brookings
http://www.brookings.edu/
Accessed 12 March 2016
[No new relevant content]

Center for Global Development
http://www.cgdev.org/
Accessed 12 March 2016
[No new relevant content]

Council on Foreign Relations
http://www.cfr.org/
Accessed 12 March 2016
[No new relevant content]

CSIS Center for Strategic and International Studies
http://csis.org/press/browse/all/all/press_release
Accessed 12 March 2016
[No new relevant content]

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

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