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

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

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

Comments and suggestions should be directed to
David R. Curry, MS
Editor and
Executive Director
Center for Vaccine Ethics & Policy
Division of Medical Ethics
NYU School of Medicine
david.r.curry@centerforvaccineethicsandpolicy.org

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World Health Assembly - WHA69

Geneva 23-4 June 2016.
:: Main Documents

Closing remarks at the Sixty-ninth World Health Assembly

Dr Margaret Chan, Director-General of the World Health Organization
Geneva, Switzerland
28 May 2016

Sixty-ninth World Health Assembly closes

News release

28 MAY 2016 | GENEVA - The Sixty-ninth World Health Assembly closed today after approving new resolutions on WHO's Framework for Engagement with Non-State Actors; the Sustainable Development Goals; the International Health Regulations; tobacco control; road traffic deaths and injuries; nutrition; HIV, hepatitis and STIs; mycetoma; research and development; access to medicines and integrated health services.

WHO Framework of Engagement with Non-State Actors

The World Health Assembly has adopted the WHO Framework of Engagement with Non-State Actors (FENSA), after more than 2 years of intergovernmental negotiations.

FENSA represents a major step in WHO's governance reform. It provides the Organization with comprehensive policies and procedures on engaging with nongovernmental organizations, private sector entities, philanthropic foundations and academic institutions.

The Framework aims to strengthen WHO engagement with all stakeholders while protecting its work from conflicts of interest and undue influence from external actors, and is based on a standardized process of due diligence and risk assessment. FENSA also facilitates an enhanced level of transparency and accountability in WHO's engagement with non-State actors, with information on these engagements publicly available online in the WHO Register of non-State actors.

Sustainable Development Goals

Delegates agreed a comprehensive set of steps that lay the groundwork for pursuing the health-related Sustainable Development Goals (SDGs).

They agreed to prioritize universal health coverage, and to work with actors outside the health sector to address the social, economic and environmental causes of health problems, including antimicrobial resistance. They agreed to continue and expand efforts to address poor maternal and child health and infectious diseases in developing countries, and to put a greater focus on equity within and between countries, leaving no-one behind.

Delegates also asked WHO to take steps to ensure that the organization has the resources it needs at all levels to achieve the SDGs, to work with countries to strengthen their ability to monitor progress towards the goals, and to take the SDGs into consideration in developing the Organization's budget and programme of work.

International Health Regulations

The Health Assembly considered the report of the Review Committee on the Role of the International Health Regulations (IHR) (2005) in the Ebola Outbreak and Response. Delegates commended the Committee for its work. They called on WHO to develop a global implementation plan for the recommendations of the Committee, taking forward immediately those recommendations that are consistent with existing IHR (2005) practice and allowing for further discussion and consideration of the new approaches that are proposed.

The Review concluded that the escalation of the Ebola outbreak was not the fault of the IHR themselves. Instead, it identified a lack of implementation of the Regulations as contributing to the escalation. It also characterized the IHR as an invaluable international legal framework that provides the backbone for public health response.

Approaches proposed in the Committee's report to strengthen implementation of the Regulations include the introduction of a new, intermediate level of public health alert and recognition of external assessment of country core capacities as a best practice.

Tobacco control

In a move to further strengthen global tobacco control efforts, delegates decided to invite the WHO Framework Convention on Tobacco Control's (WHO FCTC) Conference of the Parties (COP) to provide information on outcomes of this biennial event to future World Health Assembly meetings.

They also invited the COP to consider requesting the Assembly to provide a report for information on relevant tobacco-related activities to future meetings of the COP. The seventh session of the COP is being held on 7-12 November 2016, in New Delhi, India.

The WHO FCTC is the first treaty negotiated under WHO's auspices. To date, it comprises 180 Parties and is one of the most rapidly and widely embraced treaties in UN history. It was developed in response to the globalization of the tobacco epidemic and is an evidence-based treaty that reaffirms the right of all people to the highest standard of health.

Delegates also decided to include a follow-up item on this issue at the Seventieth World Health Assembly.

Road traffic deaths and injuries

To support countries' efforts to reach the SDG target of reducing road traffic deaths and injuries by 50% by 2020, World Health Assembly delegates today adopted a resolution requesting Member States to accelerate implementation of the outcome document of the Second Global High-Level Conference on Road Safety 2011-2020 held in November 2015, (the Brasilia Declaration on Road Safety).

Road traffic crashes kill more than 1.2 million people annually and injure up to 50 million. The resolution calls for national strategies and plans to address the needs of the most vulnerable people on the roads, including children, youth, older people and people with disabilities. It urges countries to rethink transport policies and to adopt more sustainable modes of transport, like walking, cycling and public transport.

It requests the WHO secretariat to continue facilitating development of voluntary global performance targets on risk factors and service delivery mechanisms. It also asks WHO to help countries implement policies and practices, including on trauma care and rehabilitation; and facilitate preparations for the Fourth United Nations Global Road Safety Week in May 2017.

Nutrition

Delegates adopted 2 resolutions on nutrition. The first, drawn up in response to the recently launched UN Decade of Action on Nutrition from 2016 to 2025, urges countries to make concrete policy and financial commitments to improve people's diets, and report back regularly on those policies and investments.

It calls on UN bodies to guide and implement national nutrition programmes and support monitoring and reporting mechanisms. It specifically requests that WHO and FAO work together to help countries develop, strengthen and implement their plans and maintain an open access database of commitments for public accountability.

The second welcomed WHO guidance on ending the inappropriate promotion of foods for infants and young children. The guidance clarifies that, in order to protect, promote and support breastfeeding, the marketing of "follow-up formula" and "growing-up milks"—targeted for consumption by babies aged 6 months to 3 years—should be regulated in just the same manner as infant formula for 0 to 6-month-olds is. This recommendation is in line with the International Code of Marketing of Breast-milk Substitutes adopted by the World Health Assembly in 1981. Milk that is marketed as a general family food is not covered by the guidance, since it is not marketed specifically for feeding of infants and young children.
In light of the poor nutritional quality of some food and beverages marketed to infants and young children, the WHO guidance also indicates that foods for infants and young children should be promoted only if they meet standards for composition, safety, quality and nutrient levels and are in-line with national dietary guidelines.

The guidance also lays out key principles of how health professionals should interact with companies that market complementary foods. It recommends that health professionals do not accept gifts or free samples from these companies. They should not distribute samples, coupons, or products to families nor allow the companies to provide education or market foods through their health facilities. The guidance also recommends that companies do not sponsor meetings of health professionals.

The resolution urges countries, health professionals, the food industry, and the media to implement the guidance. In the resolution, countries also requested support from WHO to implement the guidance and monitor and evaluate its impact on infant and young child nutrition. They asked WHO to work with other international organizations on promoting national implementation of the guidance, and to report back to the Assembly in 2018 and 2020.

HIV, viral hepatitis and sexually transmitted infections

The World Health Assembly has adopted 3 global health sector strategies on: HIV, viral hepatitis and sexually transmitted infections (STIs) for the period 2016-2021. The integrated strategies highlight the critical role of Universal Health Coverage. Their targets are aligned with those laid out in the Sustainable Development Goals.

The strategies outline actions to be taken by countries and by the WHO secretariat. Each aims to accelerate and intensify the health sector response to further progress towards ending all 3 epidemics.

The HIV strategy aims to further accelerate the expansion of access to antiretroviral therapy to all people living with HIV as well as the further scale-up of prevention and testing to reach interim targets: since 2000, it has been estimated that as many as 7.8 million HIV-related deaths and 30 million new HIV infections have been averted. By 2020 the strategy aims to reduce global HIV-related deaths to below 500 000, to reduce new HIV infections to below 500 000 and to ensure zero new infections among infants.

The hepatitis strategy – the first of its kind - introduces the first-ever global targets for viral hepatitis. These include a 30% reduction in new cases of hepatitis B and C by 2020 and a 10% reduction in mortality. Key approaches will be to expand vaccination programmes for hepatitis A,B, and E; focus on preventing mother-to-child transmission of hepatitis B; improve injection, blood and surgical safety; "harm reduction" for people who inject drugs; and increase access to treatment for hepatitis B and C.

The STI strategy specifically emphasizes the need to scale up prevention, screening and surveillance, in particular for adolescents and other at-risk populations, as well as the need to control the spread and impact of drug resistance. Although diagnostic tests for STIs are widely used in high-income countries, in low- and middle-income countries, diagnostic tests are largely

unavailable. Resistance of STIs – in particular gonorrhoea – to antibiotics has increased rapidly in recent years and has reduced treatment options. More than 1 million sexually transmitted infections (STIs) are acquired every day worldwide. Each year, there are an estimated 357 million new infections with 1 of 4 STIs: chlamydia, gonorrhoea, syphilis and trichomoniasis.

Mycetoma

The Health Assembly adopted a resolution on mycetoma. Mycetoma is a chronic, progressively destructive inflammatory disease of the skin, subcutaneous and connective tissue, muscle and bone. It usually affects the foot but also can also affect other parts of the body.

Mycetoma appears to mainly affect poor agricultural labourers and herdsmen. Due to its slow progression and painless nature, many patients come forward for treatment at an advanced stage of the disease when amputation is the only available treatment.

The global burden of mycetoma cannot be determined accurately due to lack of data. However, a 2013 systematic review of available data reported almost 9000 cases in 50 countries around the world.

The new resolution will help raise awareness of the disease. A wider recognition of the burden of mycetoma is expected to boost the development of control strategies and tools suitable for implementation in poor and remote areas where many of the cases occur.

Access to medicines and vaccines

Delegates agreed a range of measures aimed at addressing the global shortage of medicines and vaccines, especially for children.

Delegates agreed to develop ways to forecast, avert and reduce shortages. These include notification systems, better ways of monitoring supply and demand, improving financial management of procurement systems to prevent funding shortfalls, and improving affordability through price negotiations and voluntary or compulsory licensing of high-priced medicines.

Access to medicines and vaccines is one of the cornerstones of universal health coverage, and is critical to the achievement of the health-related SDGs. Stock-outs and shortages have been increasing in severity in recent years in most parts of the world, including of antibiotics, anaesthetics, chemotherapy drugs and other essential medicines. Benzathine penicillin, an antibiotic used to treat congenital syphilis and rheumatic heart disease, has been in chronic short supply for several years.

The products most susceptible to shortages are those that are off-patent, difficult to formulate, have a short shelf-life, or are made by a small number of manufacturers. Low-volume markets, poor visibility of demand, and overly aggressive price reduction in procurement also contribute to shortages.

Research and development

Delegates at the World Health Assembly agreed today to accelerate the development of the WHO Global Observatory on Health Research and Development in order to identify gaps in R&D, especially for diseases that disproportionately affect developing countries and attract little investment.

The observatory is a database of research and development projects. It is a key feature of WHO's strategic R&D workplan, endorsed by the Assembly in 2013, to help achieve the development and delivery of health products for which market mechanisms fail to provide incentives. A demonstration version of the observatory was made available at the beginning of 2016, integrating available information on funding for health R&D, health products in the pipeline, clinical trials and research publications.

The workplan also includes 6 demonstration projects aimed at developing products. These include an initiative on R&D for visceral leishmaniasis; development of a vaccine against schistosomiasis; a single-dose cure for malaria; development of affordable biomarkers as diagnostics; open-source drug development for diseases of poverty and a multiplexed point-of-care test for acute febrile illness. Funding is urgently needed to develop both the observatory and the demonstration projects.

The delegates urged WHO's Member States to increase funding for the observatory, and to strengthen their own national R&D observatories. They also requested WHO to expedite the development of the observatory, promote and advocate for sustainable financing for it, and to establish an expert advisory committee to identify R&D priorities based on analysis provided by the observatory and other sources.

Integrated health services

The Health Assembly today adopted the WHO Framework on Integrated, People-Centred Health Services, which calls for a fundamental shift in the way health services are funded, managed and delivered.

Longer lifespans and the growing burden of long-term chronic conditions requiring complex interventions over many years are putting increasing pressure on health systems globally. Unless they are transformed, health systems will become increasingly fragmented, inefficient and unsustainable.

Integrated people-centred care means putting people and communities, not diseases, at the centre of health systems, and empowering people to take charge of their own health rather than being passive recipients of services. Evidence shows that health systems oriented around the needs of people and communities become more effective, cost less, improve health literacy and patient engagement, and are better prepared to respond to health crises.

Delegates requested WHO to develop indicators to track progress toward integrated people-centred health services.

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WHA6 - GVAP [Global Vaccine Action Plan] Session

Overview from Dr JM Okwo-Bele
Director, Immunization, Vaccines and Biologicals (IVB) Department
WHO/Geneva

…Twenty five speakers, including 20 delegates from Member States, one observer (Chinese Taipei), three civil society organizations and Gavi, the Vaccine Alliance took the floor during the discussion on the Global Vaccine Action Plan (GVAP).

Delegates welcomed the GVAP assessment report on progress towards the achievement of global immunization goals and commended the WHO Strategic Advisory Group of Experts (SAGE) on immunization for their recommendations.

While delegates commented on the fact that the global vaccination targets remain off-track with gaps in immunization coverage, and slow progress in the elimination of maternal and neonatal tetanus (MNT), measles and rubella, they also noted that when countries and partners establish and enforce clear accountability systems, measure results and take corrective actions when results are not achieved, gaps in immunization can be closed.

Delegates acknowledged the first report to the Health Assembly on the newly adopted resolution on access to affordable vaccines. Access to sustainable supplies of affordable vaccines for low and middle income countries can be accelerated if partners and countries work together to ensure transparency in vaccine prices, develop pooled procurement mechanisms and increase the capacity of emerging manufactures to produce vaccines of assured quality to foster competition for a healthy vaccine market.

More specifically, delegates acknowledged the need for WHO to facilitate GVAP implementation and continue to play an important and leading role in:
:: Updating existing guidance for vaccination in humanitarian emergencies and providing further guidance on sustaining routine immunization in conflict areas and countries facing crisis, including outbreaks of diseases, such as the Zika, Ebola and Yellow Fever outbreaks;
:: Improving the management of the international emergency vaccines stockpiles;
:: Supporting countries to make evidence-based decisions on new vaccines introductions which is critical to ensure the efficient use of resources, sustainability and affordability of immunization programmes with high impact vaccines;
:: Supporting developing countries' capacity to develop and produce vaccines to achieve affordable pricing;
:: Facilitating the provision of affordable lifesaving vaccines to countries currently facing humanitarian emergencies and to humanitarian organizations; and
:: Calling for an indicator that aligns with GVAP goals and objectives and helps track progress in immunization during the Sustainable Development Goals (SDG's) period…

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Zika virus [to 4 June 2016]
Public Health Emergency of International Concern (PHEIC)
http://www.who.int/emergencies/zika-virus/en/

Zika situation report- 2 June 2016
Read the full situation report
Summary
:: As of 1 June 2016, 60 countries and territories report continuing mosquito-borne transmission (Fig. 1) of which:
….46 countries are experiencing a first outbreak of Zika virus since 2015, with no previous evidence of circulation, and with ongoing transmission by mosquitos (Table 1).
….14 countries reported evidence of Zika virus transmission between 2007 and 2014, with ongoing transmission.

:: In addition, four countries or territories have reported evidence of Zika virus transmission between 2007 and 2014, without ongoing transmission: Cook Islands, French Polynesia, ISLA DE PASCUA – Chile and YAP (Federated States of Micronesia).

:: Ten countries have reported evidence of person-to-person transmission of Zika virus, probably via a sexual route.

:: In the week to 1 June 2016, no new country reported on mosquito-borne or person-to-person Zika virus transmission.

:: As of 1 June 2016, microcephaly and other central nervous system (CNS) malformations potentially associated with Zika virus infection or suggestive of congenital infection have been reported by eleven countries or territories. Three of those reported microcephaly borne from mothers with a recent travel history to Brazil (Slovenia, United States of America) and Colombia (Spain), for one additional case the precise country of travel in Latin America is not determined.

:: Two cases of microcephaly and other neurological abnormalities are currently under verification in the Bolivarian Republic of Venezuela and Costa Rica.

:: In the context of Zika virus circulation, 13 countries and territories worldwide have reported an increased incidence of Guillain-Barré syndrome (GBS) and/or laboratory confirmation of a Zika virus infection among GBS cases.

:: Zika infection was diagnosed in a patient with a severe neurological condition (myelitis) in Guadeloupe.

:: Sequencing of the virus that causes the Zika outbreak in Cabo Verde showed that the virus is of the Asian lineage and the same as the one that circulates in Brazil. The precise implication of this finding is yet to be determined.

:: Based on research to date, there is scientific consensus that Zika virus is a cause of microcephaly and GBS.

:: The global Strategic Response Framework launched by the World Health Organization (WHO) in February 2016 encompasses surveillance, response activities and research. An interim report2 has been published on some of the key activities being undertaken jointly by WHO and international, regional and national partners in response to this public health emergency. A revised strategy for the period July 2016 to December 2017 is currently being developed with partners and will be published in mid-June.

:: WHO has developed new advice and information on diverse topics in the context of Zika virus. WHO's latest information materials, news and resources to support corporate and programmatic risk communication, and community engagement are available online.

Bulletin of the World Health Organization
2016;94:406-406A. doi: http://dx.doi.org/10.2471/BLT.16.176990
Editorials
Defining the syndrome associated with congenital Zika virus infection
Anthony Costello a, Tarun Dua b, Pablo Duran c, Metin Gülmezoglu d, Olufemi T Oladapo d, William Perea e, João Pires f, Pilar Ramon-Pardo g, Nigel Rollins a & Shekhar Saxena b
a. Department of Maternal, Newborn, Child and Adolescent Health, World Health Organization, Geneva, Switzerland.
b. Department of Mental Health and Substance Abuse, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland.

c. Center For Perinatology, Women and Reproductive Health, Pan American Health Organization/World Health Organization, Montevideo, Uruguay.
d. Department of Reproductive Health and Research, World Health Organization, Geneva, Switzerland.
e. Department of Pandemic and Epidemic Diseases, World Health Organization, Geneva, Switzerland.
f. Division of Communicable Diseases and Health Security, World Health Organization Regional Office for Europe, Copenhagen, Denmark.
g. Department of Communicable Diseases and Health Analysis, Pan American Health Organization/ World Health Organization, Washington, USA.
Correspondence to Tarun Dua (email: duat@who.int).

Zika virus infection in humans is usually mild or asymptomatic. However, some babies born to women infected with Zika virus have severe neurological sequelae. An unusual cluster of cases of congenital microcephaly and other neurological disorders in the WHO Region of the Americas, led to the declaration of a public health emergency of international concern by the World Health Organization (WHO) on 1 February 2016. By 5 May 2016, reports of newborns or fetuses with microcephaly or other malformations – presumably associated with Zika virus infection – have been described in the following countries and territories: Brazil (1271 cases); Cabo Verde (3 cases); Colombia (7 cases); French Polynesia (8 cases); Martinique (2 cases) and Panama (4 cases). Additional cases were also reported in Slovenia and the United States of America, in which the mothers had histories of travel to Brazil during their pregnancies.1

Zika virus is an intensely neurotropic virus that particularly targets neural progenitor cells but also – to a lesser extent – neuronal cells in all stages of maturity. Viral cerebritis can disrupt cerebral embryogenesis and result in microcephaly and other neurological abnormalities.2 Zika virus has been isolated from the brains and cerebrospinal fluid of neonates born with congenital microcephaly and identified in the placental tissue of mothers who had had clinical symptoms consistent with Zika virus infection during their pregnancies.3–5 The spatiotemporal association of cases of microcephaly with the Zika virus outbreak and the evidence emerging from case reports and epidemiologic studies, has led to a strong scientific consensus that Zika virus is implicated in congenital abnormalities.6,7

Existing evidence and unpublished data shared with WHO highlight the wider range of congenital abnormalities probably associated with the acquisition of Zika virus infection in utero. In addition to microcephaly, other manifestations include craniofacial disproportion, spasticity, seizures, irritability and brainstem dysfunction including feeding difficulties, ocular abnormalities and findings on neuroimaging such as calcifications, cortical disorders and ventriculomegaly.3–6,8–10 Similar to other infections acquired in utero, cases range in severity; some babies have been reported to have neurological abnormalities with a normal head circumference. Preliminary data from Colombia and Panama also suggest that the genitourinary, cardiac and digestive systems can be affected (Pilar Ramon-Pardo, unpublished data).

The range of abnormalities seen and the likely causal relationship with Zika virus infection suggest the presence of a new congenital syndrome. WHO has set in place a process for defining the spectrum of this syndrome. The process focuses on mapping and analysing the clinical manifestations encompassing the neurological, hearing, visual and other abnormalities, and neuroimaging findings. WHO will need good antenatal and postnatal histories and follow-up

data, sound laboratory results, exclusion of other etiologies and analysis of imaging findings to properly delineate this syndrome. The scope of the syndrome will expand as further information and longer follow-up of affected children become available. The surveillance system that was established as part of the epidemic response to the outbreak initially called only for the reporting of microcephaly cases. This surveillance guidance has been expanded to include a spectrum of congenital malformations that could be associated with intrauterine Zika virus infection.11

Effective sharing of data is needed to define this syndrome. A few reports have described a wide range of abnormalities,3–6,8–10 but most data related to congenital manifestations of Zika infection remain unpublished. Global health organizations and research funders have committed to sharing data and results relevant to the Zika epidemic as openly as possible.12 Further analysis of data from cohorts of pregnant women with Zika virus infection are needed to understand all outcomes of Zika virus infection in pregnancy.

Thirty-seven countries and territories in the Region of the Americas now report mosquito-borne transmission of Zika virus and risk of sexual transmission. With such spread, it is possible that many thousands of infants will incur moderate to severe neurological disabilities. Therefore, routine surveillance systems and research protocols need to include a larger population than simply children with microcephaly. The health system response, including psychosocial services for women, babies and affected families will need to be fully resourced.

The Zika virus public health emergency is distinct because of its long-term health consequences and social impact. A coordinated approach to data sharing, surveillance and research is needed. WHO has thus started coordinating efforts to define the congenital Zika virus syndrome and issues an open invitation to all partners to join in this effort.
[References at links above]

Zika Open [to 4 June 2016]
[Bulletin of the World Health Organization]
:: All papers available here
RESEARCH IN EMERGENCIES
Estimating the risk for microcephaly after Zika virus infection in Brazil
- Thomas Jaenisch, Kerstin Daniela Rosenberger, Carlos Brito, Oliver Brady, Patrícia Brasil, Ernesto Marques
Posted: 30 May 2016
http://dx.doi.org/10.2471/BLT.16.178608

Guidance for health workers
:: Prevention of sexual transmission - 30 May 2016
:: Vector control operations framework - 30 May 2016

Fact sheets
:: Zika virus - 2 June 2016

CDC/ACIP [to 4 June 2016]

http://www.cdc.gov/media/index.html
TUESDAY, MAY 31, 2016
CDC releases interim guidance on Zika testing and interpretation of results
CDC published interim guidance for Zika virus antibody testing and interpretation of results. Because of the differences in recommended clinical management of Zika and dengue virus infections, and the risk...

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EBOLA/EVD [to 4 June 2016]
"Threat to international peace and security" (UN Security Council)

EBOLA VIRUS DISEASE - SITUATION REPORT 2 June 2016
Summary
:: The Public Health Emergency of International Concern (PHEIC) related to Ebola in West Africa was lifted on 29 March 2016. A total of 28 616 confirmed, probable and suspected cases have been reported in Guinea, Liberia and Sierra Leone, with 11 310 deaths.

:: In the latest cluster, seven confirmed and three probable cases of Ebola virus disease (EVD) were reported between 17 March and 6 April from the prefectures of N'Zerekore (nine cases) and Macenta (one case) in south-eastern Guinea. In addition, three confirmed cases were reported between 1 and 5 April from Monrovia in Liberia; these cases, the wife and two children of the Macenta case, travelled from Macenta to Monrovia.

:: The index case of this cluster (a 37-year-old female from Koropara sub-prefecture in N'Zerekore) had symptom onset on or around 15 February and died on 27 February without a confirmed diagnosis. The source of her infection is likely to have been due to exposure to infected body fluid from an Ebola survivor.

:: In Guinea, the last case tested negative for Ebola virus for the second time on 19 April. In Liberia, the last case tested negative for the second time on 28 April.

:: The 42-day (two incubation periods) countdown must elapse before the outbreak can be declared over in Liberia which is due to end on 9 June. Guinea declared an end to Ebola virus transmission on 1 June.

:: Having contained the last Ebola virus outbreak in March 2016, Sierra Leone has maintained heightened surveillance with testing of all reported deaths and prompt investigation and testing of all suspected cases. The testing policy will be reviewed on the 30 June.

Risk assessment:
For the outbreak to be declared over, a 42-day countdown must pass after the last case tested negative for Ebola virus for the second time. This countdown is due to elapse on 31 May in Guinea and on 9 June in Liberia. Until then, active surveillance in Guinea and Liberia will continue. The performance indicators suggest that Guinea, Liberia and Sierra Leone still have variable capacity to prevent, detect (epidemiological and laboratory surveillance) and respond

to new outbreaks (Table 1). The risk of additional outbreaks originating from exposure to infected survivor body fluids remains and requires sustained.

End of Ebola transmission in Guinea
WHO AFRO news release
1 June 2016 | Brazzavile - Today WHO declares the end of Ebola virus transmission in the Republic of Guinea. Forty-two days have passed since the last person confirmed to have Ebola virus disease tested negative for the second time. Guinea now enters a 90-day period of heightened surveillance to ensure that any new cases are identified quickly before they can spread to other people.
Read the press release by WHO Regional Office for Africa

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POLIO [to 4 June 2016]
Public Health Emergency of International Concern (PHEIC)

Polio this week as of 1 June 2016
:: Last week, health ministers from around the world met in Geneva for the annual World Health Assembly (WHA). Among other public health topics, delegates reviewed and discussed the latest global polio epidemiology and reaffirmed commitment to ending transmission in the remaining polio reservoirs. Read more

:: At the 42nd G7 Summit on 26-27 May 2016 in Ise-Shima, Japan, G7 Leaders reaffirmed their continued commitment to polio eradication in the Ise-Shima leaders' statement. Read more

:: The report of the Strategic Advisory Group of Experts on immunization from their meeting in April 2016 has been published, including a discussion on progress made towards polio eradication.

Selected Country Levels Updates [excerpted]
No new cases identified in country reports.

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Yellow Fever [to 4 June 2016]
http://www.who.int/emergencies/yellow-fever/en/

Yellow Fever - Situation Report – 2 June 2016
Full Report:
http://apps.who.int/iris/bitstream/10665/208818/1/yellowfeversitrep_2Jun2016_eng.pdf?ua=1

Emergency Committee regarding yellow fever
Following the advice of the Emergency Committee (EC) convened on 19 May 2016, WHO Director-General decided that urban yellow fever outbreaks in Angola and DRC are serious

public health events which warrant intensified national action and enhanced international support. The events do not at this time constitute a Public Health Emergency of International Concern (PHEIC).

Statement on the Emergency Committee meeting concerning yellow fever

Summary:

Angola: 2893 suspected cases

As of 1 June 2016, Angola has reported 2893 suspected cases of yellow fever with 325 deaths. Among those cases, 788 have been laboratory confirmed. Despite extensive vaccination campaigns in several provinces, circulation of the virus persists.

Cunene and Malanje provinces have reported, for the first time since the beginning of the outbreak, 5 autochthonous cases.

Democratic Republic of The Congo: 52 laboratory confirmed cases

On 22 March 2016, the Ministry of Health of DRC confirmed cases of yellow fever in connection with Angola. The government officially declared the yellow fever outbreak on 23 April. As of 1 June, DRC has reported three probable cases and 52 laboratory confirmed cases: 44 of those are imported from Angola, reported in Kongo Central, Kinshasa and Kwango (formerly Bandundu) provinces, two are sylvatic cases in Northern provinces, and two other autochthonous cases in Ndjili (Kinshasa) and in Matadi (Kongo Central). The possibility of locally acquired infection is under investigation for at least four non-classified cases.

Uganda: 68 suspect cases

In Uganda, the Ministry of Health notified yellow fever cases in Masaka district on 9 April 2016. As of 1 June, 68 suspected cases, of which three are probable and seven are laboratory confirmed, have been reported from three districts: Masaka, Rukungiri and Kalangala. According to sequencing results, those clusters are not epidemiologically linked to Angola.

The risk of spread

The virus in Angola and DRC is largely concentrated in main cities; however there is a high risk of spread and local transmission to other provinces in both countries. There is also a high risk of potential spread to bordering countries especially those previously classified as low-risk for yellow fever disease (i.e. Namibia, Zambia) and where the population, travellers and foreign workers are not vaccinated against yellow fever.

Three countries have reported confirmed yellow fever cases imported from Angola: Democratic Republic of The Congo (DRC) (44 cases), Kenya (two cases) and People's Republic of China (11 cases). This highlights the risk of international spread through nonimmunised travellers.

A further three countries have reported suspected cases of yellow fever: Republic of Congo (one case), Sao Tome and Principe (two cases) and Ethiopia (22 cases). Investigations are ongoing to identify the vaccination status of the cases and determine if they are linked with Angola.

Risk assessment

The outbreak in Angola remains of high concern due to:

:: Persistent local transmission in Luanda despite the fact that approximately eight million people have been vaccinated.

:: Local transmission has been reported in ten highly populated provinces including Luanda. Luanda Norte, Cunene and Malenge are the provinces that most recently reported local yellow fever transmission.
:: The continued extension of the outbreak to new provinces and new districts.
:: High risk of spread to neighbouring countries. As the borders are porous with substantial crossborder social and economic activities, further transmission cannot be excluded. Viraemic travelling patients pose a risk for the establishment of local transmission especially in countries where adequate vectors and susceptible human populations are present.
:: Risk of establishment of local transmission in other provinces where no autochthonous cases are reported.
:: High index of suspicion of ongoing transmission in hard-to-reach areas like Cabinda.
:: Inadequate surveillance system capable of identifying new foci or areas of cases emerging.

Disease Outbreak News (DONs)
:: 2 June 2016 - Yellow fever – Democratic Republic of the Congo

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MERS-CoV [to 4 June 2016]
No new content identified.

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WHO & Regional Offices [to 4 June 2016]

Highlights
End of Ebola transmission in Guinea
June 2016 – It has been 42 days since the last person confirmed to have Ebola in the Republic of Guinea tested negative for the virus disease, for the second time. The Republic of Guinea now enters a 90-day period of heightened surveillance.

Landmark working group on health and human rights of women, children and adolescents
May 2016 – WHO and the Office of the United Nations High Commissioner for Human Rights (OHCHR) have announced the establishment of a high-level working group of global champions on health and human rights of women, children and adolescents.

Double burden of malnutrition
May 2016 – Addressing undernutrition along with overweight and obesity, or diet-related noncommunicable diseases, within individuals, households and populations will be key to achieving the Sustainable Development Goals. In low- and middle-income countries, roughly 5 million children die of undernutrition-related causes every year. These same populations are also experiencing a rise in childhood overweight and obesity – increasing 30% faster than high-income countries.

Weekly Epidemiological Record (WER) 3 June 2016, vol. 91, 22 (pp. 285–296)
Contents
285 Epidemic focus: Influenza
287 Leishmaniasis in high-burden countries: an epidemiological update based on data reported in 2014

Disease Outbreak News (DONs)
:: 3 June 2016 - Oropouche virus disease - Peru
:: 2 June 2016 - Yellow fever – Democratic Republic of the Congo

DoV Secretariat - Call for 3 proposals pdf, 115kb
2 June 2016
Deadline for application: 23 June 2016

GIN - May 2016 pdf, 3.05Mb
1 June 2016

Fact sheets
:: Human papillomavirus (HPV) and cervical cancer - June 2016
:: Zika virus - 2 June 2016
:: Cardiovascular diseases (CVDs) - 1 June 2016
:: Yaws - 1 June 2016
:: Tobacco - 1 June 2016

:: WHO Regional Offices
Selected Press Releases, Announcements
WHO African Region AFRO
:: End of Ebola transmission in Guinea
Brazzaville, 1 June 2016 - Today the World Health Organization (WHO) declares the end of Ebola virus transmission in the Republic of Guinea. Forty-two days have passed since the last person confirmed to have Ebola virus disease tested negative for the second time. Guinea now enters a 90-day period of heightened surveillance to ensure that any new cases are identified quickly before they can spread to other people. r
:: WHO Regional Director for Africa, Dr Matshidiso Moeti, calls on African countries to adopt plain packaging of tobacco products - 31 May 2016

WHO Region of the Americas PAHO
:: World No Tobacco Day, 31 May 2016: 'Get ready for plain packaging' (05/31/2016)

WHO South-East Asia Region SEARO
:: • Maldives and Sri Lanka eliminate lymphatic filariasis 03 June 2016

WHO European Region EURO
:: Can a mobile phone help you stop smoking? 03-06-2016
:: Closing of the World Health Assembly: WHO Framework for Engagement with Non-State Actors adopted 01-06-2016

:: Day 4 of the World Health Assembly: Two new strategies call for action on women's and children's health, ageing 01-06-2016
:: Day 3 of the World Health Assembly: New Health Emergencies Programme adopted 31-05-2016
:: Norway announces decision to send bill on plain packaging to Parliament 31-05-2016

WHO Eastern Mediterranean Region EMRO
:: WHO condemns attack on Benghazi Medical Center in Benghazi, Libya 30 May 2016

WHO Western Pacific Region
:: WHO urges the use and promotion of plain packaging to reduce tobacco-related harms
MANILA, 31 May 2016 – On World No Tobacco Day, the World Health Organization (WHO) in the Western Pacific continues its call for governments, civil society and other partners, to support the implementation and promotion of the use of plain packaging as a tobacco control measure. "Plain packaging is a good public health measure because it prevents tobacco companies from using packaging as an effective marketing tool," said Dr Shin Young-soo, WHO Regional Director for the Western Pacific.

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CDC/ACIP [to 4 June 2016]
http://www.cdc.gov/media/index.html
TUESDAY, MAY 31, 2016
CDC releases interim guidance on Zika testing and interpretation of results
CDC published interim guidance for Zika virus antibody testing and interpretation of results. Because of the differences in recommended clinical management of Zika and dengue virus infections, and the risk...

MMWR June 3, 2016 / Vol. 65 / No. 21
:: Human Rabies — Wyoming and Utah, 2015
:: Public Confidence in the Health Care System 1 Year After the Start of the Ebola Virus Disease Outbreak — Sierra Leone, July 2015
:: Interim Guidance for Interpretation of Zika Virus Antibody Test Results
:: Notes from the Field: Investigation of Hepatitis C Virus Transmission Associated with Injection Therapy for Chronic Pain — California, 2015

June ACIP meeting
June 22-23, 2016
Deadline for registration:
:: Non-US Citizens: May 20, 2016
:: US Citizens: June 6, 2016
Registration is NOT required to watch the live meeting webcast or to listen via telephone.
Draft June 22-23, 2016 Meeting Agenda[2 pages]

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Announcements/Milestones/Perspectives

Syria - UN REGULAR PRESS BRIEFING BY THE INFORMATION SERVICE

Geneva, 3 June 2016
The webcast for this briefing is available here: http://bit.ly/unog030616
[Excerpt; Editor's text bolding]
…During the month of May, UNICEF had participated in seven humanitarian missions to besieged and hard-to-reach communities, and had delivered medicines and health supplies, **vaccines**, nutrition supplies, clothes, education and children's recreational materials for 52,700 beneficiaries, including more than 40,000 children.

The access to children and communities living under siege has been far too limited. UNICEF and its partners had shown that when they could get access, they delivered life-saving assistance. In Madaya, after repeated access, there had been an improvement in the nutritional situation of children. Continuous access was needed to make a difference, and UNICEF was appealing to all parties to the conflict to grant unconditional and unimpeded access to all people in need.

In May, UNICEF with WHO and national partners had implemented the first nationwide routine immunization campaign for children since the beginning of the crisis over six years ago. Routine immunization in Syria had dropped from a 90 per cent pre-crisis level to less than 60 or even 40 per cent in some of the besieged and hard-to-reach areas. In the first phase of the campaign, 340,000 children had been reached in areas designated as besieged or hard-to-reach…

UNICEF [to 4 June 2016]
http://www.unicef.org/media/media_89711.html
Selected Press Releases
Vaccination campaign at risk as fighting intensifies in Syria

Joint statement by Dr. Ala Alwan, WHO Regional Director, and Dr. Peter Salama, UNICEF Regional Director
AMMAN/CAIRO, 2 June 2016 - As fighting and violence escalate across Syria, we risk losing the opportunity to vaccinate and save the lives of more than one million children.
"For example, due to the sharp increase in attacks on health personnel and facilities in Idleb, the immunization campaign in the city has been temporarily halted amid fears to the safety of health workers and the local population.
"On 31 May, an ambulance centre in Idleb supported by the World Health Organization and UN partners was hit. As a result, two ambulances were destroyed and the nearby al-Watany hospital was forced to close down, leaving only the emergency room functioning. In one day alone, more than 50 civilians were reportedly killed, including several children. Another 250 people were injured.
"Similar reports were received from other areas in Syria, further jeopardizing the vaccination campaign. On 1 June, a UNICEF supported clinic in the city of Aleppo was hit, injuring over 40 people among them a pregnant woman who lost her baby. Earlier this week, a hospital in Haritan a town near Aleppo was damaged. On 23 May, a bombing hit the Jableh National hospital in Latakia reportedly killing over 40 patients and accompanying family members and one doctor and two nurses.
"Since the beginning of the year, there have been reports of attacks on 17 health care

facilities across Syria. Only one third of hospitals currently function in the country.

"WHO and UNICEF appeal to all parties to the conflict to put an end to the violence across Syria so that health workers can resume the vaccination campaign in safety.

"Attacks on health facilities are increasing in frequency and scale. Such attacks are blatant violations of International Humanitarian Law. Health workers, patients and health facilities must be protected, and civilians allowed unrestricted access to urgently needed health services."

UNAIDS [to 4 June 2016]
http://www.unaids.org/en/resources/presscentre/
03 June 2016 |
Calling on innovators, implementers, investors, activists and leaders to Fast-Track ending the AIDS epidemic by 2030
UNAIDS Executive Director, Michel Sidibé, stresses the importance of a people-centred approach at up-coming United Nations General Assembly High-Level Meeting on Ending AIDS

NEW YORK/GENEVA, 3 June 2016—The AIDS epidemic has defined the global health agenda for an entire generation. The first AIDS-related deaths were diagnosed over 30 years ago and HIV rapidly became a global crisis. The epidemic threatened all countries and had the power to destabilize the most vulnerable nations. By 2000, AIDS had wiped out decades of development gains.

Today, many nations have taken great steps in getting ahead of the epidemic. South Africa, for example, has reduced the number of new HIV infections from 600 000 in 2000 to 340 000 in 2014. Life expectancy has risen in many of the most severely affected countries in sub-Saharan Africa as access to HIV prevention, testing and treatment has been scaled up. Worldwide, there are now more than 17 million people living with HIV accessing live-saving antiretroviral treatment.

But as world leaders grapple with a growing number of global concerns and threats, including massive displacement, climate change and an uncertain economic outlook—it would be a misstep to let up on the response to HIV. Here are three reasons why AIDS deserves continued attention and a Fast-Track approach:
:: To restore dignity, health and hope to the people left behind in the AIDS response.
:: To build robust and resilient societies ready to face future health crises
:: To serve as a beacon for what can be achieved through international solidarity and political will…

30 May 2016
UNAIDS announces 2 million more people living with HIV on treatment in 2015, bringing new total to 17 million

Sabin Vaccine Institute [to 4 June 2016]
http://www.sabin.org/updates/ressreleases
Thursday, June 2, 2016
Statement on G7 Summit from Dr. Peter Hotez
WASHINGTON, D.C. — On May 26-27, 2016, at the Group of 7 (G7) Summit, the leaders of Japan, the United States, the United Kingdom, Germany, Canada, Italy and France affirmed a commitment to neglected tropical diseases (NTDs).

G7 nations pledged to drive research and development for NTDs and other conditions not adequately addressed by the market. From the G7 Ise-Shima Vision for Global Health, G7 nations will:

:: Implement policies to encourage the development of and access to medical products for those diseases.

:: Encourage G7 countries to support "push (e.g. support to cover R&D cost)" and "pull (e.g. making advance purchase and support creating markets/demands)" incentives, promote well-coordinated Public-Private Partnership to develop new vaccines, drugs and alternative therapies as exemplified by the Global Health Innovative Technology Fund (GHIT) and the Innovative Medicines Initiative (IMI).

:: Work to strengthen collaboration between research institutions, funding organizations and policy makers across G7 countries, building on the G7-process for mapping of R&D activities on NTDs and poverty-related diseases initiated in 2015 and now underway in 2016.

The Sabin Vaccine Institute applauds Japan, host of this year's summit, for its ongoing leadership in the fight against NTDs, particularly in research and innovation for new tools to accelerate the fight against NTDs. Just days before the Summit, Japan announced its $130 million replenishment of the GHIT Fund, a global funding platform for research into new tools against HIV/AIDS, tuberculosis, malaria and NTDs.

Statement of Dr. Peter Hotez, President of the Sabin Vaccine Institute and Director of its Product Development Partnership:

"I am pleased to see a renewed commitment from the G7 to address the scourge of NTDs. Creating market incentives for new tools against NTDs will help make it possible for interested scientists to engage in this research, and most importantly, will help get much needed new products into the hands of those who need them faster. Japan is leading by example with the GHIT Fund replenishment, and I hope to see the other member states step up to the challenge of NTD R&D in similar ways.

"More than 1.4 billion people around the world suffer from NTDs. The global effort to control and eliminate these diseases of poverty has treated more people than ever before with medication donated by pharmaceutical companies. But just half of people who require treatment receive it. Eliminating NTDs requires a two-pronged approach – investing in R&D for new vaccines, medications and diagnostics, while also scaling-up access to currently available treatments.

"We must ensure that communities are getting the care they need and that we will have new tools to finish the fight against NTDs. The estimated annual funding gap for NTD treatment is $220 million dollars – it's a paltry amount in the G7 countries' budgets. And, in fact, we are now seeing that NTDs are present in alarming numbers in impoverished communities in many nations, not just low-income countries. G7 leaders should increase their investment in NTD treatment to address this issue now as we pursue vaccines and other tools that may eventually eliminate these diseases for good.

"With regard to innovation, we are advancing and testing a new generation of 'anti-poverty vaccines' to combat the world's most debilitating NTDs. These vaccine for helminth infections, Chagas disease, leishmaniasis, and other NTDs would not only improve global public health, but also help lift the bottom billion out of poverty.

"Sabin is asking the G7 to go beyond its current commitments by raising an additional annual investment of $220 million over the next five years to scale up access to treatments. We also encourage the G7 Health Ministers to expand upon the Heads of States' declaration by proposing concrete, financially backed initiatives to tackle NTDs through both increased R&D and also access to currently existing treatments at their meeting in September."

European Medicines Agency [to 4 June 2016]
http://www.ema.europa.eu/
03/06/2016
Regulation of advanced therapy medicines
Report details concrete proposals to encourage development and authorisation of advanced therapy medicinal products (ATMPs) in the EU
The European Medicines Agency (EMA) today published a report from a multi-stakeholder expert meeting held on 27 May 2016 to explore possible ways to foster the development of ATMPs in Europe and expand patients' access to these new treatments.

ATMPs comprise gene therapies, tissue engineered products and somatic cell therapies. These medicines have the potential to reshape the treatment of a wide range of conditions, particularly in disease areas where conventional approaches are inadequate. However, eight years since EU legislation on ATMPs entered into force in 2008, only five ATMPs are currently authorised. At the same time clinical trials investigating ATMPs appear to represent a fast-growing field of interest, underlining the need to better support innovation through a coherent and appropriate regulatory environment.

"We have organised this meeting with all relevant stakeholders to discuss concrete proposals on how we can nurture a regulatory environment that encourages development of ATMPs, safeguards public health and, ultimately, facilitates timely access for patients to much needed treatments," said EMA's Executive Director Guido Rasi in his opening address…

01/06/2016
First statistics on PRIME are released
Four medicines in development are accepted under the scheme
The European Medicines Agency (EMA) has released today the outcome of the assessment of the first batch of applications received from medicine developers for its PRIME (PRIority MEdicines) scheme, a new initiative that aims to foster research on and development of medicines that have the potential to address an unmet medical need.
18 applications for PRIME were received as of 6 April 2016 and subsequently assessed by EMA's Scientific Advice Working Party, Committee for Advanced therapies (CAT) and Committee for Medicinal Products for Human Use (CHMP). Four medicines have been accepted for PRIME. EMA is making available detailed information on the applications that have been granted or denied access to PRIME, including statistics on the type of applicants, the therapeutic areas represented and the data supporting the applications…

FDA [to 4 June 2016]
http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/default.htm

June 02, 2016
Statement from FDA Commissioner Robert Califf, M.D. on the release of the final individual patient expanded access form

What's New for Biologics
Influenza Virus Vaccine for the 2016-2017 Season
Posted: 6/3/2016
May 20, 2016 Clinical Review - Flucelvax Quadrivalent (PDF - 679KB)
Posted: 6/2/2016
Expanded Access
Posted: 6/2/2016

PATH [to 4 June 2016]
http://www.path.org/news/index.php
Announcement | May 31, 2016
PATH welcomes Governor Gary Locke to its board of directors
PATH's board of directors has voted to appoint former Washington State Governor Gary Locke to the board. Governor Locke's years of experience in government and diplomacy will strengthen the board's expertise in international relations, commerce, and organizational management…

European Vaccine Initiative [to 4 June 2016]
http://www.euvaccine.eu/news-events
News
First full day meeting between F-CRIN and the health industry
02 June 2016
On 21 January French Clinical Research Infrastructure Network (F-CRIN) organised the first full day meeting (programme) at Institut Pasteur with the health industry. The meeting was a forum for a valuable mutual exchange of expertise with F-CRIN's clinical research.
Relevant video and presentations

EDCTP [to 4 June 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.
3 June 2016
Eighth EDCTP Forum: registration opens, sponsorship opportunities and call for scientific symposia
EDCTP is pleased to announce that registrations to attend the Eighth EDCTP Forum are now open. Additionally, EDCTP invites interested organisations to sponsor the event, and welcomes proposals for scientific symposia to be presented at the Forum. The Eighth EDCTP Forum will be held in Lusaka, Zambia, from 6-9 November 2016. The theme is 'Defeating poverty-related and neglected diseases in Africa: harnessing research for evidence-informed policies'.

NIH [to 4 June 2016]
http://www.nih.gov/news-events/news-releases
June 1, 2016
Program will train first responders and hazardous waste workers on infectious disease safety
— A new training program will help approximately 35,000 first responders and workers, whose jobs may expose them to infectious diseases.

Fondation Merieux [to 4 June 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
31 May 2016, Les Pensières, Annecy (France)
5th Better Foods for Better Health symposium
Fondation Mérieux organized the 5th edition of the Better Foods for Better Health meetings on 8-10 April at Les Pensières conference center.

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AERAS [to 4 June 2016]
http://www.aeras.org/pressreleases
No new digest content identified.

BMGF - Gates Foundation [to 4 June 2016]
http://www.gatesfoundation.org/Media-Center/Press-Releases
No new digest content identified.

Gavi [to 4 June 2016]
http://www.gavialliance.org/library/news/press-releases/
No new digest content identified

Global Fund [to 4 June 2016]
http://www.theglobalfund.org/
No new digest content identified.

Human Vaccines Project [to 4 June 2016]
humanvaccinesproject.org
[Website in development]
No new digest content identified.

IVI - International Vaccine Institute [to 4 June 2016]
http://www.ivi.org/web/www/home
No new digest content identified.

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

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

NVPO National Vaccine Program Office
http://www.hhs.gov/nvpo/nvac/meetings/2016/06-07/index.html
June 7-8, 2016 NVAC Meeting
The Great Hall, Humphrey Building
200 Independence Avenue, S.W.
Washington, DC 20201
Call-in Numbers: (U.S.) 1-888-603-9739, (International) 1-212-547-0182
Participant Passcode:
4976996
Webcast Link
Registration
Federal Register Notice

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Journal Watch

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

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

American Journal of Infection Control
June 2016 Volume 44, Issue 6, p619-738, e81-e102
http://www.ajicjournal.org/current
[Reviewed earlier]

American Journal of Preventive Medicine
June 2016 Volume 50, Issue 6, p677-810, e163-e194

http://www.ajpmonline.org/current
[Reviewed earlier]

American Journal of Public Health
Volume 106, Issue 6 (June 2016)
http://ajph.aphapublications.org/toc/ajph/current
[Reviewed earlier]

American Journal of Tropical Medicine and Hygiene
June 2016; 94 (6)
http://www.ajtmh.org/content/current
Editorial
The Development of Small Animal Models for Zika Virus Vaccine Efficacy Testing and Pathological Assessment
Am J Trop Med Hyg 2016 94:1187-1188; Published online May 2, 2016, doi:10.4269/ajtmh.16-0277
Aaron C. Brault and Richard A. Bowen

Long-Term Safety and Immunogenicity of a Tetravalent Live-Attenuated Dengue Vaccine and Evaluation of a Booster Dose Administered to Healthy Thai Children
Am J Trop Med Hyg 2016 94:1348-1358; Published online March 28, 2016, doi:10.4269/ajtmh.15-0659
Veerachai Watanaveeradej, Sriluck Simasathien, Mammen P. Mammen, Jr., Ananda Nisalak, Elodie Tournay, Phirangkul Kerdpanich, Rudiwilai Samakoses, Robert J. Putnak, Robert V. Gibbons, In-Kyu Yoon, Richard G. Jarman, Rafael De La Barrera, Philippe Moris, Kenneth H. Eckels, Stephen J. Thomas, and Bruce L. Innis
Abstract
We evaluated the safety and immunogenicity of two doses of a live-attenuated, tetravalent dengue virus vaccine (F17/Pre formulation) and a booster dose in a dengue endemic setting in two studies. Seven children (7- to 8-year-olds) were followed for 1 year after dose 2 and then given a booster dose (F17/Pre formulation), and followed for four more years (Child study). In the Infant study, 49 2-year-olds, vaccinated as infants, were followed for approximately 3.5 years after dose 2 and then given a booster dose (F17) and followed for one additional year. Two clinically notable events were observed, both in dengue vaccine recipients in the Infant study: 1 case of dengue approximately 2.7 years after dose 2 and 1 case of suspected dengue after booster vaccinations. The booster vaccinations had a favorable safety profile in terms of reactogenicity and adverse events reported during the 1-month follow-up periods. No vaccine-related serious adverse events were reported during the studies. Neutralizing antibodies against dengue viruses 1–4 waned during the 1–3 years before boosting, which elicited a short-lived booster response but did not provide a long-lived, multivalent antibody response in most subjects. Overall, this candidate vaccine did not elicit a durable humoral immune response

Improving Capture of Vaccine History: Case Study from an Evaluation of 10-Valent Pneumococcal Conjugate Vaccine Introduction in Kenya
Am J Trop Med Hyg 2016 94:1400-1402; Published online May 2, 2016, doi:10.4269/ajtmh.15-0783

Aaron M. Harris, George Aol, Dominic Ouma, Godfrey Bigogo, Joel M. Montgomery, Cynthia G. Whitney, Robert F. Breiman, and Lindsay Kim

Abstract

With the accelerated introduction of new vaccines in low-income settings, understanding immunization program performance is critical. We sought to improve immunization history acquisition from Ministry of Health vaccination cards during a vaccine impact study of 10-valent pneumococcal conjugate vaccine on pneumococcal carriage among young children in Kenya in 2012 and 2013. We captured immunization history in a low proportion of study participants in 2012 using vaccination cards. To overcome this challenge, we implemented a household-based reminder system in 2013 using community health workers (CHWs), and increased the retrieval of vaccine cards from 62% in 2012 to 89% in 2013 ($P < 0.001$). The home-based reminder system using CHWs is an example of an approach that improved immunization history data quality in a resource-poor setting.

Annals of Internal Medicine

17 May 2016, Vol. 164. No. 10

http://annals.org/issue.aspx

[Reviewed earlier]

BMC Cost Effectiveness and Resource Allocation

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

(Accessed 4 June 2016)

[No new content]

BMC Health Services Research

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

(Accessed 4 June 2016)

[No new relevant content identified]

BMC Infectious Diseases

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

(Accessed 4 June 2016)

Research article

Implementation of coordinated global serotype 2 oral poliovirus vaccine cessation: risks of inadvertent trivalent oral poliovirus vaccine use

Radboud J. Duintjer Tebbens, Lee M. Hampton and Kimberly M. Thompson

BMC Infectious Diseases 2016 16:237

Published on: 1 June 2016

Abstract

Background

The endgame for polio eradication includes coordinated global cessation of oral poliovirus vaccine (OPV), starting with the cessation of vaccine containing OPV serotype 2 (OPV2) by switching all trivalent OPV (tOPV) to bivalent OPV (bOPV). The logistics associated with this

global switch represent a significant undertaking, with some possibility of inadvertent tOPV use after the switch.
Methods
We used a previously developed poliovirus transmission and OPV evolution model to explore the relationships between the extent of inadvertent tOPV use, the time after the switch of the inadvertent tOPV use and corresponding population immunity to serotype 2 poliovirus transmission, and the ability of the inadvertently introduced viruses to cause a serotype 2 circulating vaccine-derived poliovirus (cVDPV2) outbreak in a hypothetical population. We then estimated the minimum time until inadvertent tOPV use in a supplemental immunization activity (SIA) or in routine immunization (RI) can lead to a cVDPV2 outbreak in realistic populations with properties like those of northern India, northern Pakistan and Afghanistan, northern Nigeria, and Ukraine.
Results
At low levels of inadvertent tOPV use, the minimum time after the switch for the inadvertent use to cause a cVDPV2 outbreak decreases sharply with increasing proportions of children inadvertently receiving tOPV. The minimum times until inadvertent tOPV use in an SIA or in RI can lead to a cVDPV2 outbreak varies widely among populations, with higher basic reproduction numbers, lower tOPV-induced population immunity to serotype 2 poliovirus transmission prior to the switch, and a lower proportion of transmission occurring via the oropharyngeal route all resulting in shorter times. In populations with the lowest expected immunity to serotype 2 poliovirus transmission after the switch, inadvertent tOPV use in an SIA leads to a cVDPV2 outbreak if it occurs as soon as 9 months after the switch with 0.5 % of children aged 0–4 years inadvertently receiving tOPV, and as short as 6 months after the switch with 10–20 % of children aged 0–1 years inadvertently receiving tOPV. In the same populations, inadvertent tOPV use in RI leads to a cVDPV2 outbreak if 0.5 % of OPV RI doses given use tOPV instead of bOPV for at least 20 months after the switch, with the minimum length of use dropping to at least 9 months if inadvertent tOPV use occurs in 50 % of OPV RI doses.
Conclusions
Efforts to ensure timely and complete tOPV withdrawal at all levels, particularly from locations storing large amounts of tOPV, will help minimize risks associated with the tOPV-bOPV switch. Under-vaccinated populations with poor hygiene become at risk of a cVDPV2 outbreak in the event of inadvertent tOPV use the soonest after the tOPV-bOPV switch and therefore should represent priority areas to ensure tOPV withdrawal from all OPV stocks.

BMC Medical Ethics
http://www.biomedcentral.com/bmcmedethics/content
(Accessed 4 June 2016)
[No new relevant content identified]

BMC Medicine
http://www.biomedcentral.com/bmcmed/content
(Accessed 4 June 2016)
[No new relevant content identified]

BMC Pregnancy and Childbirth

http://www.biomedcentral.com/bmcpregnancychildbirth/content
(Accessed 4 June 2016)
[No new relevant content identified]

BMC Public Health
http://bmcpublichealth.biomedcentral.com/articles
(Accessed 4 June 2016)
Research article
Greek health professionals' perceptions of the HPV vaccine, state policy recommendations and their own role with regards to communication of relevant health information
Every year in Europe 60,000 women develop cervical cancer and 30,000 die from the disease. HPV vaccines are currently believed to constitute an important element of cervical cancer control strategy. Currently ...
Christina Karamanidou and Kostas Dimopoulos
BMC Public Health 2016 16:467
Published on: 3 June 2016
Abstract
Background
Every year in Europe 60,000 women develop cervical cancer and 30,000 die from the disease. HPV vaccines are currently believed to constitute an important element of cervical cancer control strategy. Currently in Greece, the HPV vaccine is given on demand after prescription by a healthcare professional. Health care professionals' role is key as they are in a position to discuss HPV vaccination with parents, adolescents and young women. This study is aiming to explore health care professionals' perceptions of the HPV vaccine, state policy recommendations and their own role with regards to communication of relevant health information.
Methods
This was an in-depth, qualitative study, employing a stratified, purposeful sampling. Fifteen face-to-face, semi-structured interviews were conducted with health care professionals from a variety of disciplines: pediatrics, obstetrics and gynecology, infectious diseases, pharmacy, dermatology, general practice. Thematic qualitative analysis was used to analyze participants' accounts.
Results
Five major themes were identified: health care professionals' perceptions towards the HPV vaccine (recognition of importance, concerns about safety, effectiveness and impact of long-term use), animosity between medical specialties (territorial disputes among professional bodies, role advocacy, role limitations), health care professionals' perceptions of the public's attitudes (effects of cultural beliefs, health professionals' attitudes, media and family), the role of the state (health policy issues, lack of guidance, unmet expectations) and their own role (provision of health information, sex education).
Conclusions
Health professionals' concerns, lack of role definition and uniform information provision have led to territorial disputes among professional bodies and distrust among different medical specialties. Positive and negative judgements deriving from a multitude of sources have resulted in the confusion of the general public, as manifested by low vaccination rates. Due to the lack of clear regulation of vaccination prescription, administration and mode of delivery, factors such as lack of knowledge, cultural beliefs and personal attitudes have shaped the

vaccination landscape. These factors have neither been explored nor addressed prior to the initiation of this public health effort and as such there is an evident less than efficient use of resources.

Research article
Migrant integration policies and health inequalities in Europe
Research on socio-economic determinants of migrant health inequalities has produced a large body of evidence. There is lack of evidence on the influence of structural factors on lives of fragile groups…
Margherita Giannoni, Luisa Franzini and Giuliano Masiero
BMC Public Health 2016 16:463
Published on: 1 June 2016

BMC Research Notes
http://www.biomedcentral.com/bmcresnotes/content
(Accessed 4 June 2016)
[No new relevant content identified]

BMJ Open
2016, Volume 6, Issue 6
http://bmjopen.bmj.com/content/current
[New issue; No relevant content identified]

British Medical Journal
4 June 2016 (vol 352, issue 80609)
http://www.bmj.com/content/353/8060
[New issue; No relevant content identified]

Bulletin of the World Health Organization
Volume 94, Number 6, June 2016, 405-480
http://www.who.int/bulletin/volumes/94/6/en/
EDITORIALS
Defining the syndrome associated with congenital Zika virus infection
Anthony Costello, Tarun Dua, Pablo Duran, Metin Gülmezoglu, Olufemi T Oladapo, William Perea, João Pires, Pilar Ramon-Pardo, Nigel Rollins & Shekhar Saxena
http://dx.doi.org/10.2471/BLT.16.176990

Innovation for healthy ageing: a call for papers
Islene Araujo de Carvalho, Isabella Aboderin, Eri Arikawa-Hirasawa, Matteo Cesari, Yoshiaki Furukawa, Luis Miguel Gutierrez Robledo, John E Morley, Anne Margriet Pot, Jean-Yves Reginster, Greg Shaw, Naoko Tomita & John R Beard
http://dx.doi.org/10.2471/BLT.16.176743

Charting a path to end the AIDS epidemic
Michel Sidibé
http://dx.doi.org/10.2471/BLT.16.176875

Research
Recommendations for dealing with waste contaminated with Ebola virus: a Hazard Analysis of Critical Control Points approach
Kelly L Edmunds, Samira Abd Elrahman, Diana J Bell, Julii Brainard, Samir Dervisevic, Tsimbiri P Fedha, Roger Few, Guy Howard, Iain Lake, Peter Maes, Joseph Matofari, Harvey Minnigh, Ahmed A Mohamedani, Maggie Montgomery, Sarah Morter, Edward Muchiri, Lutendo S Mudau, Benedict M Mutua, Julius M Ndambuki, Katherine Pond, Mark D Sobsey, Mike van der Es, Mark Zeitoun & Paul R Hunter
Objective
To assess, within communities experiencing Ebola virus outbreaks, the risks associated with the disposal of human waste and to generate recommendations for mitigating such risks.
Methods
A team with expertise in the Hazard Analysis of Critical Control Points framework identified waste products from the care of individuals with Ebola virus disease and constructed, tested and confirmed flow diagrams showing the creation of such products. After listing potential hazards associated with each step in each flow diagram, the team conducted a hazard analysis, determined critical control points and made recommendations to mitigate the transmission risks at each control point.
Findings
The collection, transportation, cleaning and shared use of blood-soiled fomites and the shared use of latrines contaminated with blood or bloodied faeces appeared to be associated with particularly high levels of risk of Ebola virus transmission. More moderate levels of risk were associated with the collection and transportation of material contaminated with bodily fluids other than blood, shared use of latrines soiled with such fluids, the cleaning and shared use of fomites soiled with such fluids, and the contamination of the environment during the collection and transportation of blood-contaminated waste.
Conclusion
The risk of the waste-related transmission of Ebola virus could be reduced by the use of full personal protective equipment, appropriate hand hygiene and an appropriate disinfectant after careful cleaning. Use of the Hazard Analysis of Critical Control Points framework could facilitate rapid responses to outbreaks of emerging infectious disease.

Research
Vaccination timing of low-birth-weight infants in rural Ghana: a population-based, prospective cohort study
Maureen O'Leary, Sara Thomas, Lisa Hurt, Sian Floyd, Caitlin Shannon, Sam Newton, Gyan Thomas, Seeba Amenga-Etego, Charlotte Tawiah-Agyemang, Lu Gram, Chris Hurt, Rajiv Bahl, Seth Owusu-Agyei, Betty Kirkwood & Karen Edmond
http://dx.doi.org/10.2471/BLT.15.159699
Objective
To investigate delays in first and third dose diphtheria–tetanus–pertussis (DTP1 and DTP3) vaccination in low-birth-weight infants in Ghana, and the associated determinants.
Methods

We used data from a large, population-based vitamin A trial in 2010–2013, with 22 955 enrolled infants. We measured vaccination rate and maternal and infant characteristics and compared three categories of low-birth-weight infants (2.0–2.4 kg; 1.5–1.9 kg; and < 1.5 kg) with infants weighing ≥ 2.5 kg. Poisson regression was used to calculate vaccination rate ratios for DTP1 at 10, 14 and 18 weeks after birth, and for DTP3 at 18, 22 and 24 weeks (equivalent to 1, 2 and 3 months after the respective vaccination due dates of 6 and 14 weeks).
Findings
Compared with non-low-birth-weight infants (n = 18 979), those with low birth weight (n = 3382) had an almost 40% lower DTP1 vaccination rate at age 10 weeks (adjusted rate ratio, aRR: 0.58; 95% confidence interval, CI: 0.43–0.77) and at age 18 weeks (aRR: 0.63; 95% CI: 0.50–0.80). Infants weighing 1.5–1.9 kg (n = 386) had vaccination rates approximately 25% lower than infants weighing ≥ 2.5 kg at these time points. Similar results were observed for DTP3. Lower maternal age, educational attainment and longer distance to the nearest health facility were associated with lower DTP1 and DTP3 vaccination rates.
Conclusion
Low-birth-weight infants are a high-risk group for delayed vaccination in Ghana. Efforts to improve the vaccination of these infants are warranted, alongside further research to understand the reasons for the delays.

POLICY & PRACTICE

Priority-setting for achieving universal health coverage

Kalipso Chalkidou, Amanda Glassman, Robert Marten, Jeanette Vega, Yot Teerawattananon, Nattha Tritasavit, Martha Gyansa-Lutterodt, Andreas Seiter, Marie Paule Kieny, Karen Hofman & Anthony J Culyer

http://dx.doi.org/10.2471/BLT.15.155721

Abstract
Governments in low- and middle-income countries are legitimizing the implementation of universal health coverage (UHC), following a United Nation's resolution on UHC in 2012 and its reinforcement in the sustainable development goals set in 2015. UHC will differ in each country depending on country contexts and needs, as well as demand and supply in health care. Therefore, fundamental issues such as objectives, users and cost–effectiveness of UHC have been raised by policy-makers and stakeholders. While priority-setting is done on a daily basis by health authorities – implicitly or explicitly – it has not been made clear how priority-setting for UHC should be conducted. We provide justification for explicit health priority-setting and guidance to countries on how to set priorities for UHC.

Child Care, Health and Development

May 2016 Volume 42, Issue 3 Pages 297–454

http://onlinelibrary.wiley.com/doi/10.1111/cch.v42.3/issuetoc

[Reviewed earlier]

Clinical Therapeutics

May 2016 Volume 38, Issue 5, p991-1258

http://www.clinicaltherapeutics.com/current

[Reviewed earlier]

Complexity
May/June 2016 Volume 21, Issue 5 Pages 1–360
http://onlinelibrary.wiley.com/doi/10.1002/cplx.v21.5/issuetoc
[New issue; No new relevant content identified]

Conflict and Health
http://www.conflictandhealth.com/
[Accessed 4 June 2016]
Debate
Syrian refugees in Lebanon: the search for universal health coverage
Karl Blanchet, Fouad M. Fouad and Tejendra Pherali
Published on: 1 June 2016
Abstract
The crisis in Syria has forced more than 4 million people to find refuge outside Syria. In Lebanon, in 2015, the refugee population represented 30 % of the total population. International health assistance has been provided to refugee populations in Lebanon. However, the current humanitarian system has also contributed to increase fragmentation of the Lebanese health system. Ensuring universal health coverage to vulnerable Lebanese, Syrian and Palestinian refugees will require in Lebanon to redistribute the key functions and responsibilities of the Ministry of Health and its partners to generate more coherence and efficiency.

Contemporary Clinical Trials
Volume 48, In Progress (May 2016)
http://www.sciencedirect.com/science/journal/15517144/48
[Reviewed earlier]

Current Opinion in Infectious Diseases
June 2016 - Volume 29 - Issue 3 pp: v-v,229-318
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 4, 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
[Reviewed earlier]

Emerging Infectious Diseases
Volume 22, Number 6—June 2016
http://wwwnc.cdc.gov/eid/
[Reviewed earlier]

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

Epidemiology and Infection
Volume 144 - Issue 09 - July 2016
http://journals.cambridge.org/action/displayIssue?jid=HYG&tab=currentissue
Short Report
Arboviruses
Potential exposure to Zika virus for foreign tourists during the 2016 Carnival and Olympic Games in Rio de Janeiro, Brazil
M. N. BURATTINI, F. A. B. COUTINHO, L. F. LOPEZ, R. XIMENES, M. QUAM, A. WILDER-SMITH and E. MASSAD
DOI: http://dx.doi.org/10.1017/S0950268816000649, Published online: 04 April 2016
[No abstract]

Original Papers
Polio
Effective case/infection ratio of poliomyelitis in vaccinated populations
G. BENCSKÓa1a2 and T. FERENCIa3 c1 id1
a1 Polymer Chemistry Research Group, Institute of Materials and Environmental Chemistry, Research Centre for Natural Sciences, Hungarian Academy of Sciences, Budapest, Hungary
a2 Institute of Chemistry, Eötvös Loránd University, Budapest, Hungary
a3 John von Neumann Faculty of Informatics, Physiological Controls Group, Óbuda University, Budapest, Hungary
SUMMARY
Recent polio outbreaks in Syria and Ukraine, and isolation of poliovirus from asymptomatic carriers in Israel have raised concerns that polio might endanger Europe. We devised a model to calculate the time needed to detect the first case should the disease be imported into Europe, taking the effect of vaccine coverage – both from inactivated and oral polio vaccines, also considering their differences – on the length of silent transmission into account by deriving an 'effective' case/infection ratio that is applicable for vaccinated populations. Using vaccine coverage data and the newly developed model, the relationship between this ratio and vaccine coverage is derived theoretically and is also numerically determined for European countries.

This shows that unnoticed transmission is longer for countries with higher vaccine coverage and a higher proportion of IPV-vaccinated individuals among those vaccinated. Assuming borderline transmission (R = 1·1), the expected time to detect the first case is between 326 days and 512 days in different countries, with the number of infected individuals between 235 and 1439. Imperfect surveillance further increases these numbers, especially the number of infected until detection. While longer silent transmission does not increase the number of clinical diseases, it can make the application of traditional outbreak response methods more complicated, among others.

The European Journal of Public Health
Volume 26, Issue 3, 1 June 2016
http://eurpub.oxfordjournals.org/content/26/3?current-issue=y
Viewpoint

Public health needs of migrants, refugees and asylum seekers in Europe, 2015: Infectious disease aspects

Jan C. Semenza, Paloma Carrillo-Santisteve, Herve Zeller, Andreas Sandgren, Marieke J. van der Werf, Ettore Severi, Lucia Pastore Celentano, Emma Wiltshire, Jonathan E. Suk, Irina Dinca, Teymur Noori, Piotr Kramarz
DOI: http://dx.doi.org/10.1093/eurpub/ckw023 372-373 First published online: 6 April 2016
Extract

In the first 10 months of 2015 the total number of asylum applications to the European Asylum Support Office (EASO) recorded by European Union (EU) countries exceeded the 1 million mark, an unprecedented level since the establishment of the EU. Syria has been the most common country of origin of asylum applications, followed by Afghanistan and Iraq.1 However, these figures do not take unregistered migrants into account: in the same time period, 500 000 undocumented border crossing detections were recorded on the EU's external borders, according to Frontex.2 In the light of these developments, the European Centre for Disease Prevention and Control (ECDC) assessed the public health needs of migrants or individuals that are applying for asylum or refugee status, through: (i) interviews with 14 experts from Member States and Non-Governmental Organizations with first-hand experience working with migrant populations (7–11 August 2015); (ii) a non-systematic review of available evidence (peer-reviewed publications and relevant ECDC risk assessments); and (c) an expert meeting on the prevention of infectious diseases among newly arrived migrants in the EU and European Economic Area (EEA) (12–13 November 2015).3–5

Reception system for newly arrived migrants

A recurrent theme across all the expert consultations conducted by ECDC was the need to establish a reception system for newly arrived migrants. In primary reception centres, a health assessment should be carried out immediately upon arrival. Equipping these reception areas with primary care and public health services facilitates screening, vaccination and treatment (if required) of individuals free of charge. The organisers of reception areas should consider adequately stocking them with rapid tests (e.g. for malaria) and providing instant treatment and care to patients. Such rapid interventions are the best course of action to detect and prevent onwards spread of cases of infectious disease, through the identification and management of infectious diseases with potential for …

Infectious Diseases

Detrimental effects of introducing partial compulsory vaccination: experimental evidence

Cornelia Betsch, Robert Böhm

DOI: http://dx.doi.org/10.1093/eurpub/ckv154 378-381 First published online: 21 August 2015

Abstract

Background: During outbreaks of vaccine-preventable diseases, compulsory vaccination is sometimes discussed as a last resort to counter vaccine refusal. Besides ethical arguments, however, empirical evidence on the consequences of making selected vaccinations compulsory is lacking. Such evidence is needed to make informed public health decisions. This study therefore assesses the effect of partial compulsory vaccination on the uptake of other voluntary vaccines.

Method: A total of 297 (N) participants took part in an online experiment that simulated two sequential vaccination decisions using an incentivized behavioural vaccination game. The game framework bases on epidemiological, psychological and game-theoretical models of vaccination. Participants were randomized to the compulsory vaccination intervention (n = 144) or voluntary vaccination control group (n = 153), which determined the decision architecture of the first of two decisions. The critical second decision was voluntary for all participants. We also assessed the level of anger, vaccination attitude and perceived severity of the two diseases.

Results: Compulsory vaccination increased the level of anger among individuals with a rather negative vaccination attitude, whereas voluntary vaccination did not. This led to a decrease in vaccination uptake by 39% in the second voluntary vaccination (reactance).

Conclusion: Making only selected vaccinations compulsory can have detrimental effects on the vaccination programme by decreasing the uptake of voluntary vaccinations. As this effect occurred especially for vaccine hesitant participants, the prevalence of vaccine hesitancy within a society will influence the damage of partial compulsory vaccination.

Eurosurveillance

Volume 21, Issue 22, 02 June 2016

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

Research Articles

Public preferences for vaccination programmes during pandemics caused by pathogens transmitted through respiratory droplets – a discrete choice experiment in four European countries, 2013

by D Determann, IJ Korfage, A Fagerlin, EW Steyerberg, MC Bliemer, HA Voeten, JH Richardus, MS Lambooij, EW de Bekker-Grob

Abstract

This study aims to quantify and compare preferences of citizens from different European countries for vaccination programme characteristics during pandemics, caused by pathogens which are transmitted through respiratory droplets. Internet panel members, nationally representative based on age, sex, educational level and region, of four European Union Member States (Netherlands, Poland, Spain, and Sweden, n=2,068) completed an online discrete choice experiment. These countries, from different geographical areas of Europe, were chosen because of the availability of high-quality Internet panels and because of the cooperation between members of the project entitled Effective Communication in Outbreak Management: development of an evidence-based tool for Europe (ECOM). Data were analysed using panel latent class regression models. In the case of a severe pandemic scenario, vaccine effectiveness was the most important characteristic determining vaccination preference in all countries,

followed by the body that advises on vaccination. In Sweden, the advice of family and/or friends and the advice of physicians strongly affected vaccine preferences, in contrast to Poland and Spain, where the advice of (international) health authorities was more decisive. Irrespective of pandemic scenario or vaccination programme characteristics, the predicted vaccination uptakes were lowest in Sweden, and highest in Poland. To increase vaccination uptake during future pandemics, the responsible authorities should align with other important stakeholders in the country and communicate in a coordinated manner.

Global Health: Science and Practice (GHSP)
March 2016 | Volume 4 | Issue 1
http://www.ghspjournal.org/content/current
[Reviewed earlier]

Global Public Health
Volume 11, Issue 5-6, 2016
http://www.tandfonline.com/toc/rgph20/current
Special Issue: Participatory Visual Methodologies in Global Public Health
[Reviewed earlier]

Globalization and Health
http://www.globalizationandhealth.com/
[Accessed 4 June 2016]
Review
Towards sustainable partnerships in global health: the case of the CRONICAS Centre of Excellence in Chronic Diseases in Peru
Human capital requires opportunities to develop and capacity to overcome challenges, together with an enabling environment that fosters critical and disruptive innovation. Exploring such features is necessary ...
J. Jaime Miranda, Antonio Bernabé-Ortiz, Francisco Diez-Canseco, Germán Málaga, María K. Cárdenas, Rodrigo M. Carrillo-Larco, María Lazo-Porras, Miguel Moscoso-Porras, M. Amalia Pesantes, Vilarmina Ponce, Ricardo Araya, David Beran, Peter Busse, Oscar Boggio, William Checkley, Patricia J. García…
Globalization and Health 2016 12:29
Published on: 2 June 2016

Health Affairs
May 2016; Volume 35, Issue 5
http://content.healthaffairs.org/content/current
Prescription Drugs, Global Health & More
[Reviewed earlier]

Health and Human Rights
Volume 17, Issue 2 December 2015

http://www.hhrjournal.org/
Special Issue: Evidence of the Impact of Human Rights-Based Approaches to Health
[Reviewed earlier]

Health Economics, Policy and Law
Volume 11 - Issue 03 - July 2016
http://journals.cambridge.org/action/displayIssue?jid=HEP&tab=currentissue
Articles
Out-of-pocket payments and community-wide health outcomes: an examination of influenza vaccination subsidies in Japan
Yoko Ibukaa1 c1 and Shun-ichiro Besshoa2
a1 Graduate School of Economics and Management, Tohoku University, Miyagi, Japan
a2 Faculty of Economics, Keio University, Tokyo, Japan
Abstract
While studies have shown that reductions in out-of-pocket payments for vaccination generally encourages vaccination uptake, research on the impact on health outcomes has rarely been examined. Thus, the present study, using municipal-level survey data on a subsidy programme for influenza vaccination in Japan that covers the entire country, examines how reductions in out-of-pocket payments for vaccination among non-elderly individuals through a subsidy programme affected regional-level influenza activity. We find that payment reductions are negatively correlated with the number of weeks with a high influenza alert in that region, although the correlation varied across years. At the same time, we find no significant correlation between payment reductions and the total duration of influenza outbreaks (i.e. periods with a moderate or high alert). Given that a greater number of weeks with a high alert indicates a severer epidemic, our findings suggest that reductions in out-of-pocket payments for influenza vaccination among the non-elderly had a positive impact on community-wide health outcomes, indicating that reduced out-of-pocket payments contributes to the effective control of severe influenza epidemics. This suggests that payment reductions could benefit not only individuals by providing them with better access to preventive care, as has been shown previously, but also communities as a whole by shortening the duration of epidemics.

Health Policy and Planning
Volume 31 Issue 5 June 2016
http://heapol.oxfordjournals.org/content/current
[Reviewed earlier]

Health Research Policy and Systems
http://www.health-policy-systems.com/content
[Accessed 4 June 2016]
[No new relevant content identified]

Human Vaccines & Immunotherapeutics (formerly Human Vaccines)
Volume 12, Issue 4, 2016
http://www.tandfonline.com/toc/khvi20/current

[Reviewed earlier]

Humanitarian Exchange Magazine
Number 66 April 2016
http://odihpn.org/magazine/humanitarian-innovation/
Special Focus: Humanitarian Innovation
by Humanitarian Practice Network and Kim Scriven April 2016
[Reviewed earlier]

Infectious Agents and Cancer
http://www.infectagentscancer.com/content
[Accessed 4 June 2016]
[No new relevant content identified]

Infectious Diseases of Poverty
http://www.idpjournal.com/content
[Accessed 4 June 2016]
Research Article
Productivity losses associated with tuberculosis deaths in the World Health Organization African region
In 2014, almost half of the global tuberculosis deaths occurred in the World Health Organization (WHO) African Region. Approximately 21.5 % of the 6 060 742 TB cases (new and relapse) reported to the WHO in 20...
Joses Muthuri Kirigia and Rosenabi Deborah Karimi Muthuri
Infectious Diseases of Poverty 2016 5:43
Published on: 1 June 2016

International Health
Volume 8 Issue 3 May 2016
http://inthealth.oxfordjournals.org/content/current
[Reviewed earlier]

International Journal of Epidemiology
Volume 45 Issue 2 April 2016
http://ije.oxfordjournals.org/content/current
[Reviewed earlier]

International Journal of Infectious Diseases
May 2016 Volume 46, p1-126
http://www.ijidonline.com/current
[Reviewed earlier]

JAMA
May 24/31, 2016, Vol 315, No. 20
http://jama.jamanetwork.com/issue.aspx
[Reviewed earlier]

JAMA Pediatrics
May 2016, Vol 170, No. 5
http://archpedi.jamanetwork.com/issue.aspx
[Reviewed earlier]

Journal of Community Health
Volume 41, Issue 3, June 2016
http://link.springer.com/journal/10900/41/3/page/1
[Reviewed earlier]

Journal of Epidemiology & Community Health
June 2016, Volume 70, Issue 6
http://jech.bmj.com/content/current
[Reviewed earlier]

Journal of Global Ethics
Volume 12, Issue 1, 2016
http://www.tandfonline.com/toc/rjge20/.U2V-Elf4L0I#.VAJEj2N4WF8
[Reviewed earlier]

Journal of Global Infectious Diseases (JGID)
April-June 2016 Volume 8 | Issue 2 Page Nos. 59-94
http://www.jgid.org/currentissue.asp?sabs=n
[New issue; No new relevant content identified]

Journal of Health Care for the Poor and Underserved (JHCPU)
Volume 27, Number 2, May 2016 Supplement
https://muse.jhu.edu/issue/33442
[Reviewed earlier]

Journal of Immigrant and Minority Health
Volume 18, Issue 3, June 2016
http://link.springer.com/journal/10903/18/2/page/1
[Issue focus on a range of health parameters and challenges among Latino migrants]

Journal of Immigrant & Refugee Studies
Volume 14, Issue 2, 2016
http://www.tandfonline.com/toc/wimm20/current
[Reviewed earlier]

Journal of Infectious Diseases
Volume 213 Issue 11 June 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
May 2016, Volume 42, Issue 5
http://jme.bmj.com/content/current
[Reviewed earlier]

Journal of Medical Microbiology
Volume 65, Issue 5, May 2016
http://jmm.microbiologyresearch.org/content/journal/jmm/65/5;jsessionid=12mb0ac0j4tth.x-sgm-live-02
[New issue; No new relevant content identified]

Journal of Patient-Centered Research and Reviews
Volume 3, Issue 2 (2016)
http://digitalrepository.aurorahealthcare.org/jpcrr/
[Reviewed earlier]

Journal of the Pediatric Infectious Diseases Society (JPIDS)
Volume 5 Issue 2 June 2016
http://jpids.oxfordjournals.org/content/current
[Reviewed earlier]

Journal of Pediatrics

May 2016 Volume 172, p1-236
http://www.jpeds.com/current
[Reviewed earlier]

Journal of Public Health Policy
Volume 37, Issue 2 (May 2016)
http://www.palgrave-journals.com/jphp/journal/v37/n2/index.html
[Reviewed earlier]

Journal of the Royal Society – Interface
01 June 2016; volume 13, issue 119
http://rsif.royalsocietypublishing.org/content/current
[New issue; No relevant content identified]

Journal of Virology
May 2016, volume 90, issue 9
http://jvi.asm.org/content/current
[Reviewed earlier]

The Lancet
Jun 04, 2016 Volume 387 Number 10035 p2263-2350
http://www.thelancet.com/journals/lancet/issue/current
Editorial
World Humanitarian Summit: next steps crucial
The Lancet
Summary
Ban Ki-moon's final flagship initiative for his tenure as UN Secretary-General, the World Humanitarian Summit, was held in Istanbul, Turkey, last week (May 23–24). The meeting, the first of its kind, was marred in controversy before it started, with Médecins Sans Frontières boycotting the event because it did not believe that it would address the weaknesses in humanitarian action and emergency response. Other non-governmental organisations (NGOs) were sceptical too. Were they right?

The Lancet Infectious Diseases
Jun 2016 Volume 16 Number 6 p619-752 e82-e107
http://www.thelancet.com/journals/laninf/issue/current
Comment
Mandating influenza vaccine for Hajj pilgrims
Mohammad Alfelali, Amani S Alqahtani, Osamah Barasheed, Robert Booy, Harunor Rashid
DOI: http://dx.doi.org/10.1016/S1473-3099(16)30064-0
The risk of acquisition and transmission of respiratory tract infections including influenza is considerably enhanced among attendees of the Hajj pilgrimage.1 Influenza vaccine has been recommended by the Saudi Ministry of Health since 2005 for all pilgrims, particularly for those

at increased risk of severe disease.2 The Saudi Ministry of Health is now seriously considering mandating influenza vaccine for all pilgrims,3 and the Saudi Thoracic Society has already urged consideration of a "strict vaccination strategy" for Hajj and Umrah visitors.

Articles

Effect of the introduction of pneumococcal conjugate vaccination on invasive pneumococcal disease in The Gambia: a population-based surveillance study

Grant A Mackenzie, Philip C Hill, David J Jeffries, Ilias Hossain, Uchendu Uchendu, David Ameh, Malick Ndiaye, Oyedeji Adeyemi, Jayani Pathirana, Yekini Olatunji, Bade Abatan, Bilquees S Muhammad, Augustin E Fombah, Debasish Saha, Ian Plumb, Aliu Akano, Bernard Ebruke, Readon C Ideh, Bankole Kuti, Peter Githua, Emmanuel Olutunde, Ogochukwu Ofordile, Edward Green, Effua Usuf, Henry Badji, Usman N A Ikumapayi, Ahmad Manjang, Rasheed Salaudeen, E David Nsekpong, Sheikh Jarju, Martin Antonio, Sana Sambou, Lamin Ceesay, Yamundow Lowe-Jallow, Momodou Jasseh, Kim Mulholland, Maria Knoll, Orin S Levine, Stephen R Howie, Richard A Adegbola, Brian M Greenwood, Tumani Corrah

703

Open Access

Summary

Background

Little information is available about the effect of pneumococcal conjugate vaccines (PCVs) in low-income countries. We measured the effect of these vaccines on invasive pneumococcal disease in The Gambia where the 7-valent vaccine (PCV7) was introduced in August, 2009, followed by the 13-valent vaccine (PCV13) in May, 2011.

Methods

We conducted population-based surveillance for invasive pneumococcal disease in individuals aged 2 months and older who were residents of the Basse Health and Demographic Surveillance System (BHDSS) in the Upper River Region, The Gambia, using standardised criteria to identify and investigate patients. Surveillance was done between May, 2008, and December, 2014. We compared the incidence of invasive pneumococcal disease between baseline (May 12, 2008–May 11, 2010) and after the introduction of PCV13 (Jan 1, 2013–Dec 31, 2014), adjusting for changes in case ascertainment over time.

Findings

We investigated 14 650 patients, in whom we identified 320 cases of invasive pneumococcal disease. Compared with baseline, after the introduction of the PCV programme, the incidence of invasive pneumococcal disease decreased by 55% (95% CI 30–71) in the 2–23 months age group, from 253 to 113 per 100 000 population. This decrease was due to an 82% (95% CI 64–91) reduction in serotypes covered by the PCV13 vaccine. In the 2–4 years age group, the incidence of invasive pneumococcal disease decreased by 56% (95% CI 25–75), from 113 to 49 cases per 100 000, with a 68% (95% CI 39–83) reduction in PCV13 serotypes. The incidence of non-PCV13 serotypes in children aged 2–59 months increased by 47% (−21 to 275) from 28 to 41 per 100 000, with a broad range of serotypes. The incidence of non-pneumococcal bacteraemia varied little over time.

Interpretation

The Gambian PCV programme reduced the incidence of invasive pneumococcal disease in children aged 2–59 months by around 55%. Further surveillance is needed to ascertain the maximum effect of the vaccine in the 2–4 years and older age groups, and to monitor serotype replacement. Low-income and middle-income countries that introduce PCV13 can expect substantial reductions in invasive pneumococcal disease.

Funding
GAVI's Pneumococcal vaccines Accelerated Development and Introduction Plan (PneumoADIP), Bill & Melinda Gates Foundation, and the UK Medical Research Council.

Articles

The global burden of dengue: an analysis from the Global Burden of Disease Study 2013

Jeffrey D Stanaway, Donald S Shepard, Eduardo A Undurraga, Yara A Halasa, Luc E Coffeng, Oliver J Brady, Simon I Hay, Neeraj Bedi, Isabela M Bensenor, Carlos A Castañeda-Orjuela, Ting-Wu Chuang, Katherine B Gibney, Ziad A Memish, Anwar Rafay, Kingsley N Ukwaja, Naohiro Yonemoto, Christopher J L Murray

Summary

Background

Dengue is the most common arbovirus infection globally, but its burden is poorly quantified. We estimated dengue mortality, incidence, and burden for the Global Burden of Disease Study 2013.

Methods

We modelled mortality from vital registration, verbal autopsy, and surveillance data using the Cause of Death Ensemble Modelling tool. We modelled incidence from officially reported cases, and adjusted our raw estimates for under-reporting based on published estimates of expansion factors. In total, we had 1780 country-years of mortality data from 130 countries, 1636 country-years of dengue case reports from 76 countries, and expansion factor estimates for 14 countries.

Findings

We estimated an average of 9221 dengue deaths per year between 1990 and 2013, increasing from a low of 8277 (95% uncertainty estimate 5353–10 649) in 1992, to a peak of 11 302 (6790–13 722) in 2010. This yielded a total of 576 900 (330 000–701 200) years of life lost to premature mortality attributable to dengue in 2013. The incidence of dengue increased greatly between 1990 and 2013, with the number of cases more than doubling every decade, from 8·3 million (3·3 million–17·2 million) apparent cases in 1990, to 58·4 million (23·6 million–121·9 million) apparent cases in 2013. When accounting for disability from moderate and severe acute dengue, and post-dengue chronic fatigue, 566 000 (186 000–1 415 000) years lived with disability were attributable to dengue in 2013. Considering fatal and non-fatal outcomes together, dengue was responsible for 1·14 million (0·73 million–1·98 million) disability-adjusted life-years in 2013.

Interpretation

Although lower than other estimates, our results offer more evidence that the true symptomatic incidence of dengue probably falls within the commonly cited range of 50 million to 100 million cases per year. Our mortality estimates are lower than those presented elsewhere and should be considered in light of the totality of evidence suggesting that dengue mortality might, in fact, be substantially higher.

Funding

Bill & Melinda Gates Foundation.

Review

HIV-exposed, uninfected infants: new global challenges in the era of paediatric HIV elimination

Ceri Evans, MBBCh, Christine E Jones, PhD, Dr Andrew J Prendergast, DPhil

Published Online: 31 March 2016
DOI: http://dx.doi.org/10.1016/S1473-3099(16)00055-4
Summary
The number of infants infected with HIV is declining with the rise in interventions for the elimination of paediatric HIV infection, but the number of uninfected infants exposed to HIV through their HIV-infected mothers is increasing. Interest in the health outcomes of HIV-exposed, uninfected infants has grown in the past decade, with several studies suggesting that these infants have increased mortality rates, increased infectious morbidity, and impaired growth compared with HIV-unexposed infants. However, heterogeneous results might reflect the inherent challenges in studies of HIV-exposed, uninfected infants, which need large populations with appropriate, contemporaneous comparison groups and repeated HIV testing throughout the period of breastfeeding. We review the effects of HIV exposure on mortality, morbidity, and growth, discuss the immunological abnormalities identified so far, and provide an overview of interventions that could be effective in this susceptible population. As the number of infants infected with HIV declines, the health needs of HIV-exposed, uninfected infants should be prioritised further, to ensure that post-2015 Sustainable Development Goals are achieved.

Lancet Global Health
Jun 2016 Volume 4 Number 6 e344-e426
http://www.thelancet.com/journals/langlo/issue/current
Articles
Achieving maternal and child health gains in Afghanistan: a Countdown to 2015 country case study
Nadia Akseer, Ahmad S Salehi, S M Moazzem Hossain, M Taufiq Mashal, M Hafiz Rasooly, Zaid Bhatti, Arjumand Rizvi, Zulfiqar A Bhutta

Articles
Child health and nutrition in Peru within an antipoverty political agenda: a Countdown to 2015 country case study
Luis Huicho, Eddy R Segura, Carlos A Huayanay-Espinoza, Jessica Niño de Guzman, Maria Clara Restrepo-Méndez, Yvonne Tam, Aluisio J D Barros, Cesar G Victora, Peru Countdown Country Case Study Working Group

Maternal and Child Health Journal
Volume 20, Issue 6, June 2016
http://link.springer.com/journal/10995/20/6/page/1
[Reviewed earlier]

Medical Decision Making (MDM)
May 2016; 36 (4)
http://mdm.sagepub.com/content/current
[Reviewed earlier]

The Milbank Quarterly
A Multidisciplinary Journal of Population Health and Health Policy
March 2016 Volume 94, Issue 1 Pages 1–223
http://onlinelibrary.wiley.com/doi/10.1111/1468-0009.2016.94.issue-1/issuetoc
[Reviewed earlier]

Nature
Volume 534 Number 7605 pp5-146 2 June 2016
http://www.nature.com/nature/current_issue.html
[New issue; No new relevant content identified]

Nature Medicine
May 2016, Volume 22 No 5 pp447-567
http://www.nature.com/nm/journal/v22/n5/index.html
[Reviewed earlier]

Nature Reviews Immunology
June 2016 Vol 16 No 6
http://www.nature.com/nri/journal/v16/n6/index.html
[Reviewed earlier]

New England Journal of Medicine
June 2, 2016 Vol. 374 No. 22
http://www.nejm.org/toc/nejm/medical-journal
Editorial
Clinical Trials Series
Janet Woodcock, M.D., James H. Ware, Ph.D., Pamela W. Miller, John J.V. McMurray, M.D., David P. Harrington, Ph.D., and Jeffrey M. Drazen, M.D.
N Engl J Med 2016; 374:2167 June 2, 2016 DOI: 10.1056/NEJMe1601510

Clinical trials are our best vehicle for turning medical information that we may think is true into evidence that we know, within reasonable limits, to be true. Since the introduction of random assignments to treatment in the 1930s,[1] the clinical trial has been in continuous evolution. Among the major milestones have been the development of methods to perform randomization; the convening of data and safety monitoring committees; the formulation of stopping guidelines for safety, efficacy, and futility; and many others. Indeed, the clinical trial landscape is far different today from what it was over 80 years ago, when investigators first confronted the conundrum of how to obtain unbiased data that could be used to guide clinical practice. Today, trials range from a single person[2] to 100,000 people, from a single lab to hundreds of centers around the world, from simple two-arm randomizations to increasingly complex study designs.

In this issue, we inaugurate a series of articles called "The Changing Face of Clinical Trials," in which we examine the current challenges in the design, performance, and interpretation of clinical trials. The series will deal with contemporary challenges that affect clinical trialists today. It is not meant to be a course in clinical trial performance; rather, the articles are written by

trialists for trialists about issues that face us all. We plan to cover new trial designs, current issues related to the performance of clinical trials, how to deal with unexpected events during the progress of trials, difficulties in the interpretation of trial findings, and challenges faced by specific sectors of trialists, including those working for large or small companies; the viewpoint of regulators who use trial data in their decision making will also be included. Each review article will define a specific issue of interest and illustrate it with examples from actual practice. The articles will occasionally be accompanied by Perspective pieces to bring additional history and color to the topic. We begin with an article on integrating comparative effectiveness trials into patient care,[3] accompanied by a history of clinical trials.[4] We have enjoyed putting the series together for you, and we hope that it will stimulate thought and discussion.

Review Article
Integrating Randomized Comparative Effectiveness Research with Patient Care
Louis D. Fiore, M.D., M.P.H., and Philip W. Lavori, Ph.D.
N Engl J Med 2016; 374:2152-2158 June 2, 2016 DOI: 10.1056/NEJMra1510057
Clinical trials of interventions in common practice can be built into the workflow of an electronic medical record. The authors review four such trials and highlight the strengths and weaknesses of this approach to gathering information.

Medicine and Society
Assessing the Gold Standard — Lessons from the History of RCTs
Laura E. Bothwell, Ph.D., Jeremy A. Greene, M.D., Ph.D., Scott H. Podolsky, M.D., and David S. Jones, M.D., Ph.D.
N Engl J Med 2016; 374:2175-2181 June 2, 2016 DOI: 10.1056/NEJMms160459
Over the past 70 years, randomized, controlled trials (RCTs) have reshaped medical knowledge and practice. Popularized by mid-20th-century clinical researchers and statisticians aiming to reduce bias and enhance the accuracy of clinical experimentation, RCTs have often functioned well in that role. Yet the past seven decades also bear witness to many limitations of this new "gold standard." The scientific and political history of RCTs offers lessons regarding the complexity of medicine and disease and the economic and political forces that shape the production and circulation of medical knowledge…

Pediatrics
May 2016, VOLUME 137 / ISSUE 5
http://pediatrics.aappublications.org/content/137/5?current-issue=y
[Reviewed earlier]

Pharmaceutics
Volume 8, Issue 2 (June 2016)
http://www.mdpi.com/1999-4923/8/2
[New issue; No new relevant content identified]

PharmacoEconomics
Volume 34, Issue 6, June 2016
http://link.springer.com/journal/40273/34/6/page/1

[Reviewed earlier]

PLOS Currents: Disasters
http://currents.plos.org/disasters/
[Accessed 4 June 2016]
[No new content]

PLoS Currents: Outbreaks
http://currents.plos.org/outbreaks/
(Accessed 4 June 2016)
Research Article
Maintaining Maternal and Child Health Services During the Ebola Outbreak: Experience from Pujehun, Sierra Leone
June 2, 2016 ·
Background: During the Ebola outbreak the overall confidence of the population in the national health system declined in Sierra Leone, with a reduction in the use of health services. The objective of this study is to provide information on understanding of how Ebola impacted maternal and child health services in Sierra Leone. Data come from an operational setting which is representative of the communities affected by the outbreak.
Methods: By integrating hospital registers and contact tracing form data with healthcare workers and local population interviews, the transmission chain was reconstructed. Data on the utilization of maternal and neonatal health services were collected from the local district's Health Management Information System. The main measures put in place to control the Ebola epidemic were: the organization of a rapid response to the crisis by the local health authorities; triage, contact tracing and quarantine; isolation, clinical management and safe burials; training and community sensitization.
Results: A total of 49 case patients were registered between July and November 2014 in the Pujehun district. Hospitalization rate was 89%. Overall, 74.3% of transmission events occurred between members of the same family, 17.9% in the community and 7.7% in hospital. The mean number of contacts investigated per case raised from 11.5 in July to 25 in September 2014. The 2014 admission trend in the pediatric ward shows a decrease after beginning of June: the reduction was almost significant in the period July-December (p 0.05). The admission in the maternity ward showed no statistical differences in comparison with the previous year (p 0.07). Also the number of deliveries appeared to be similar to the previous year, without significant variations (p 0.41).
Conclusion: The Ebola outbreak reduced the number of patients at hospital level in Pujehun district. However, the activities undertaken to manage Ebola, reduced the spread of infection and the impact of the disease in mothers and children. A number of reasons which may explain these results are presented and discussed.

Travel Volume to the United States from Countries and U.S. Territories with Local Zika Virus Transmission
May 31, 2016 · Research Article
Introduction: Air, land, and sea transportation can facilitate rapid spread of infectious diseases. In May 2015 the Pan American Health Organization (PAHO) issued an alert regarding the first confirmed Zika virus infection in Brazil. As of March 8, 2016, the U.S. Centers for Disease

Control and Prevention (CDC) had issued travel notices for 33 countries and 3 U.S. territories with local Zika virus transmission.
Methods: Using data from five separate datasets from 2014 and 2015, we estimated the annual number of passenger journeys by air and land border crossings to the United States from the 33 countries and 3 U.S. territories listed in the CDC's Zika travel notices as of March 8, 2016. We also estimated the annual number of passenger journeys originating in and returning to the United States (primarily on cruises) with visits to seaports in areas with local Zika virus transmission. Because of the adverse pregnancy and birth outcomes that have been associated with Zika virus disease, the number of passenger journeys completed by women of childbearing age and pregnant women was also estimated.
Results: An estimated 216.3 million passenger journeys by air, land, and sea are made annually to the United States from areas with local Zika virus transmission (as of March 8). The destination states with the largest numbers of arrivals were Texas (by land) and Florida (by air and sea). An estimated 51.7 million passenger journeys were made by women of childbearing age and an estimated 2.3 million were made by pregnant women.
Conclusion: Travel volume analyses provide important information that can be used to effectively target public health interventions as well as direct public health resources and efforts at local, regional, and country-specific levels.

Using Phenomenological Models to Characterize Transmissibility and Forecast Patterns and Final Burden of Zika Epidemics

May 31, 2016 · Research Article
Background: The World Health Organization declared the ongoing Zika virus (ZIKV) epidemic in the Americas a Public Health Emergency of International Concern on February 1, 2016. ZIKV disease in humans is characterized by a "dengue-like" syndrome including febrile illness and rash. However, ZIKV infection in early pregnancy has been associated with severe birth defects, including microcephaly and other developmental issues. Mechanistic models of disease transmission can be used to forecast trajectories and likely disease burden but are currently hampered by substantial uncertainty on the epidemiology of the disease (e.g., the role of asymptomatic transmission, generation interval, incubation period, and key drivers). When insight is limited, phenomenological models provide a starting point for estimation of key transmission parameters, such as the reproduction number, and forecasts of epidemic impact.
Methods: We obtained daily counts of suspected Zika cases by date of symptoms onset from the Secretary of Health of Antioquia, Colombia during January-April 2016. We calibrated the generalized Richards model, a phenomenological model that accommodates a variety of early exponential and sub-exponential growth kinetics, against the early epidemic trajectory and generated predictions of epidemic size. The reproduction number was estimated by applying the renewal equation to incident cases simulated from the fitted generalized-growth model and assuming gamma or exponentially-distributed generation intervals derived from the literature. We estimated the reproduction number for an increasing duration of the epidemic growth phase.
Results: The reproduction number rapidly declined from 10.3 (95% CI: 8.3, 12.4) in the first disease generation to 2.2 (95% CI: 1.9, 2.8) in the second disease generation, assuming a gamma-distributed generation interval with the mean of 14 days and standard deviation of 2 days. The generalized-Richards model outperformed the logistic growth model and provided forecasts within 22% of the actual epidemic size based on an assessment 30 days into the epidemic, with the epidemic peaking on day 36.

Conclusion: Phenomenological models represent promising tools to generate early forecasts of epidemic impact particularly in the context of substantial uncertainty in epidemiological parameters. Our findings underscore the need to treat the reproduction number as a dynamic quantity even during the early growth phase, and emphasize the sensitivity of reproduction number estimates to assumptions on the generation interval distribution.

PLoS Medicine
http://www.plosmedicine.org/
(Accessed 4 June 2016)
Research Article
Prices, Costs, and Affordability of New Medicines for Hepatitis C in 30 Countries: An Economic Analysis
Swathi Iyengar, Kiu Tay-Teo, Sabine Vogler, Peter Beyer, Stefan Wiktor, Kees de Joncheere, Suzanne Hill
Research Article | published 31 May 2016 | PLOS Medicine
http://dx.doi.org/10.1371/journal.pmed.1002032

Perspective
A Revolution in Treatment for Hepatitis C Infection: Mitigating the Budgetary Impact
Elliot Marseille, James G. Kahn
| published 31 May 2016 | PLOS Medicine
http://dx.doi.org/10.1371/journal.pmed.1002031

PLoS Neglected Tropical Diseases
http://www.plosntds.org/
Viewpoints
Control of Urban Zika Vectors: Should We Return to the Successful PAHO/WHO Strategy?
Paul Reiter
| published 01 Jun 2016 | PLOS Neglected Tropical Diseases
http://dx.doi.org/10.1371/journal.pntd.0004769

PLoS One
http://www.plosone.org/
[Accessed 4 June 2016]
Research Article
Rapid Ethical Assessment on Informed Consent Content and Procedure in Hintalo-Wajirat, Northern Ethiopia: A Qualitative Study
Serebe Abay, Adamu Addissie, Gail Davey, Bobbie Farsides, Thomas Addissie
Research Article | published 03 Jun 2016 | PLOS ONE
http://dx.doi.org/10.1371/journal.pone.0157056

Cross-Border Cholera Outbreaks in Sub-Saharan Africa, the Mystery behind the Silent Illness: What Needs to Be Done?

Godfrey Bwire, Maurice Mwesawina, Yosia Baluku, Setiala S. E. Kanyanda, Christopher Garimoi Orach
Research Article | published 03 Jun 2016 | PLOS ONE
http://dx.doi.org/10.1371/journal.pone.0156674

Immunogenicity and Safety of the 13-Valent Pneumococcal Conjugate Vaccine versus the 23-Valent Polysaccharide Vaccine in Unvaccinated HIV-Infected Adults: A Pilot, Prospective Controlled Study
Francesca Lombardi, Simone Belmonti, Massimiliano Fabbiani, Matteo Morandi, Barbara Rossetti, Giacinta Tordini, Roberto Cauda, Andrea De Luca, Simona Di Giambenedetto, Francesca Montagnani
Research Article | published 03 Jun 2016 | PLOS ONE
http://dx.doi.org/10.1371/journal.pone.0156523

Understanding Vaccine Hesitancy in Canada: Results of a Consultation Study by the Canadian Immunization Research Network
Eve Dubé, Dominique Gagnon, Manale Ouakki, Julie A. Bettinger, Maryse Guay, Scott Halperin, Kumanan Wilson, Janice Graham, Holly O. Witteman, Shannon MacDonald, William Fisher, Laurence Monnais, Dat Tran, Arnaud Gagneur, Juliet Guichon, Vineet Saini, Jane M. Heffernan, Samantha Meyer, S. Michelle Driedger, Joshua Greenberg, Heather MacDougall, Canadian Immunization Research Network
Research Article | published 03 Jun 2016 | PLOS ONE
http://dx.doi.org/10.1371/journal.pone.0156118

Intention to Accept Pertussis Vaccination for Cocooning: A Qualitative Study of the Determinants
Olga Visser, Jeannine L. A. Hautvast, Koos van der Velden, Marlies E. J. L. Hulscher
Research Article | published 02 Jun 2016 | PLOS ONE
http://dx.doi.org/10.1371/journal.pone.0155861

Scoping Review of the Zika Virus Literature
Lisa A. Waddell, Judy D. Greig
Research Article | published 31 May 2016 | PLOS ONE
http://dx.doi.org/10.1371/journal.pone.0156376

PLoS Pathogens
http://journals.plos.org/plospathogens/
(Accessed 4 June 2016)
[No new relevant content identified]

PNAS - Proceedings of the National Academy of Sciences of the United States of America
http://www.pnas.org/content/early/
(Accessed 4 June 2016)
Biological Sciences - Ecology:

Digital epidemiology reveals global childhood disease seasonality and the effects of immunization

Kevin M. Bakker, Micaela Elvira Martinez-Bakker, Barbara Helm, and Tyler J. Stevenson
PNAS 2016 ; published ahead of print May 31, 2016, doi:10.1073/pnas.1523941113

Significance

Disease surveillance systems largely focus on infectious diseases with high mortality, whereas less severe diseases often go unreported. Using chicken pox as an example, we demonstrate that Internet queries can be used as a proxy for disease incidence when reporting is lacking. We established that Google Trends accurately reflected clinical cases in countries with surveillance, and thus population-level dynamics of chicken pox. Then, we discovered robust seasonal variation in query behavior, with a striking latitudinal gradient on a global scale. Next, we showed that real-time data-mining of queries could forecast the timing and magnitude of outbreaks. Finally, our analyses revealed that countries with government-mandated vaccination programs have significantly reduced seasonality of queries, indicating vaccination efforts mitigated chicken pox outbreaks.

Abstract

Public health surveillance systems are important for tracking disease dynamics. In recent years, social and real-time digital data sources have provided new means of studying disease transmission. Such affordable and accessible data have the potential to offer new insights into disease epidemiology at national and international scales. We used the extensive information repository Google Trends to examine the digital epidemiology of a common childhood disease, chicken pox, caused by varicella zoster virus (VZV), over an 11-y period. We (i) report robust seasonal information-seeking behavior for chicken pox using Google data from 36 countries, (ii) validate Google data using clinical chicken pox cases, (iii) demonstrate that Google data can be used to identify recurrent seasonal outbreaks and forecast their magnitude and seasonal timing, and (iv) reveal that VZV immunization significantly dampened seasonal cycles in information-seeking behavior. Our findings provide strong evidence that VZV transmission is seasonal and that seasonal peaks show remarkable latitudinal variation. We attribute the dampened seasonal cycles in chicken pox information-seeking behavior to VZV vaccine-induced reduction of seasonal transmission. These data and the methodological approaches provide a way to track the global burden of childhood disease and illustrate population-level effects of immunization. The global latitudinal patterns in outbreak seasonality could direct future studies of environmental and physiological drivers of disease transmission.

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

Prehospital & Disaster Medicine
Volume 31 - Issue 03 - June 2016
https://journals.cambridge.org/action/displayIssue?jid=PDM&tab=currentissue
[Reviewed earlier]

Preventive Medicine

Volume 87, Pages 1-238 (June 2016)
http://www.sciencedirect.com/science/journal/00917435/86
Review Article
Mapping interventions that promote mental health in the general population: A scoping review of reviews
Pages 70-80
Jennifer Enns, Maxine Holmqvist, Pamela Wener, Gayle Halas, Janet Rothney, Annette Schultz, Leah Goertzen, Alan Katz
Abstract
Health policies and programs promoting mental health or preventing mental illness in the general public are under-recognized facets of primary prevention. Increasing awareness and adoption of such strategies could reduce the burden of mental illness in individuals, families, communities, and society as whole. We conducted a scoping review of reviews of interventions to promote mental health or prevent mental illness. We searched PubMed, PsycINFO, Scopus, Cochrane CENTRAL, CINAHL and ERIC from 2004 to 2014. Reviews were included if the authors indicated a systematic approach in their literature searches, and if they comprised interventions in Westernized countries targeting the general population. We identified 39 reviews that met the inclusion criteria. Mental health intervention approaches and outcomes varied across age groups and settings, and included functional, social, and cognitive measures. Most interventions aimed to prevent a specific mental illness or symptoms (depression, anxiety, burnout, or stress). Cognitive-behavioral therapy and educational components were common. School-based programs focused on outcomes involving social and academic development. Interventions for families, especially for young or disadvantaged parents, taught parenting skills to help improve the well-being of children and their care-givers. In the workplace, the focus was on managing stress, while programs for the elderly emphasized quality of life determinants. This review summarizes a wide variety of interventions to promote mental health or prevent mental illness, but the literature is primarily focused on the individual or family unit. More information is required about interventions at the community and societal levels.

Proceedings of the Royal Society B
10 February 2016; volume 283, issue 1824
http://rspb.royalsocietypublishing.org/content/283/1824?current-issue=y
[Reviewed earlier]

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

Public Health Reports
Volume 131 , Issue Number 3 May/June 2016
http://www.publichealthreports.org/issuecontents.cfm?Volume=131&Issue=3
[Reviewed earlier]

Qualitative Health Research
June 2016; 26 (7)
http://qhr.sagepub.com/content/current
Special Issue: Ethnography
[Reviewed earlier]

Reproductive Health
http://www.reproductive-health-journal.com/content
[Accessed 4 June 2016]
[No new relevant content identified]

Revista Panamericana de Salud Pública/Pan American Journal of Public Health (RPSP/PAJPH)
February 2016 Vol. 39, No. 2
http://www.paho.org/journal/
[Reviewed earlier]

Risk Analysis
May 2016 Volume 36, Issue 5 Pages 863–1068
http://onlinelibrary.wiley.com/doi/10.1111/risa.2016.36.issue-5/issuetoc
[Reviewed earlier]

Risk Management and Healthcare Policy
Volume 9, 2016
https://www.dovepress.com/risk-management-and-healthcare-policy-archive56
Original Research
Video
Haiti's progress in achieving its 10-year plan to eliminate cholera: hidden sickness cannot be cured
Koski-Karell V, Farmer PE, Isaac B, Campa EM, Viaud L, Namphy PC, Ternier R, Ivers LC
Risk Management and Healthcare Policy 2016, 9:87-100
Published Date: 24 May 2016
Abstract:
Since the beginning of the cholera epidemic in Haiti 5 years ago, the prevalence of this deadly water-borne disease has fallen far below the initial rates registered during its explosive outset. However, cholera continues to cause extensive suffering and needless deaths across the country, particularly among the poor. The urgent need to eliminate transmission of cholera persists: compared to the same period in 2014, the first 4 months of 2015 saw three times the number of cholera cases. Drawing upon epidemiology, clinical work (and clinical knowledge), policy, ecology, and political economy, and informed by ethnographic data collected in a rural area of Haiti called Bocozel, this paper evaluates the progress of the nation's 10-year Plan for the Elimination of Cholera. Bocozel is a rice-producing region where most people live in extreme poverty. The irrigation network is decrepit, the land is prone to environmental shocks, fertilizer is not affordable, and the government's capacity to assist farmers is undermined by resource constraints. When peasants do have rice to sell, the price of domestically grown rice is twice

that of US-imported rice. Canal water is not only used to irrigate thousands of acres of rice paddies and sustain livestock, but also to bathe, wash, and play, while water from wells, hand pumps, and the river is used for drinking, cooking, and bathing. Only one out of the three government-sponsored water treatment stations in the research area is still functional and utilized by those who can afford it. Latrines are scarce and often shared by up to 30 people; open defecation remains common. Structural vulnerabilities cut across all sectors – not just water, sanitation, health care, and education, but agriculture, environment, (global and local) commerce, transportation, and governance as well. These are among the hidden sicknesses that impede Haiti and its partners' capacity to eliminate cholera.

Review

Critical role of ethics in clinical management and public health response to the West Africa Ebola epidemic

Folayan MO, Haire BG, Brown B

Risk Management and Healthcare Policy 2016, 9:55-65

Published Date: 12 May 2016

Abstract:

The devastation caused by the Ebola virus disease (EVD) outbreak in West Africa has brought to the fore a number of important ethical debates about how best to respond to a health crisis. These debates include issues related to prevention and containment, management of the health care workforce, clinical care, and research design, all of which are situated within the overarching moral problem of severe transnational disadvantage, which has very real and specific impacts upon the ability of citizens of EVD-affected countries to respond to a disease outbreak. Ethical issues related to prevention and containment include the appropriateness and scope of quarantine and isolation within and outside affected countries. The possibility of infection in health care workers impelled consideration of whether there is an obligation to provide health services where personal protection equipment is inadequate, alongside the issue of whether the health care workforce should have special access to experimental treatment and care interventions under development. In clinical care, ethical issues include the standards of care owed to people who comply with quarantine and isolation restrictions. Ethical issues in research include appropriate study design related to experimental vaccines and treatment interventions, and the sharing of data and biospecimens between research groups. The compassionate use of experimental drugs intersects both with research ethics and clinical care. The role of developed countries also came under scrutiny, and we concluded that developed countries have an obligation to contribute to the containment of EVD infection by contributing to the strengthening of local health care systems and infrastructure in an effort to provide fair benefits to communities engaged in research, ensuring that affected countries have ready and affordable access to any therapeutic or preventative interventions developed, and supporting affected countries on their way to recovery from the impact of EVD on their social and economic lives.

Science

03 June 2016 Vol 352, Issue 6290

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

[New issue; No new relevant content identified]

Science Translational Medicine
01 June 2016 Vol 8, Issue 341
http://stm.sciencemag.org/
Perspective
What does research reproducibility mean?
By Steven N. Goodman, Daniele Fanelli, John P. A. Ioannidis
Science Translational Medicine01 Jun 2016 : 341ps12
The language and conceptual framework of "research reproducibility" are nonstandard and unsettled across the sciences.

Social Science & Medicine
Volume 156, Pages 1-212 (May 2016)
http://www.sciencedirect.com/science/journal/02779536/156
[Reviewed earlier]

Tropical Medicine & International Health
May 2016 Volume 21, Issue 5 Pages 569–690
http://onlinelibrary.wiley.com/doi/10.1111/tmi.2016.21.issue-3/issuetoc
[Reviewed earlier]

Vaccine
Volume 34, Issue 26, Pages 2863-3006 (3 June 2016)
http://www.sciencedirect.com/science/journal/0264410X/34/25
WHO Product Development for Vaccines Advisory Committee (PDVAC) Pipeline Analyses for 25 Pathogens
Edited by Birgitte K. Giersing, Kayvon Modjarrad and Vasee S. Moorthy
Preface
The 2016 Vaccine Development Pipeline: A special issue from the World Health Organization Product Development for Vaccine Advisory Committee (PDVAC)
Under a Creative Commons license
Birgitte K. Giersing, Kayvon Modjarrad, David C. Kaslow, Jean-Marie Okwo-Bele, Vasee S. Moorthy
doi:10.1016/j.vaccine.2016.04.041
Open Access
Infectious diseases are the leading cause of death among children and adolescents globally, and one of the primary causes of mortality in adults. Most of these deaths disproportionately burden low- and middle-income countries (LMICs) and are attributable to infectious diseases that include diarrheal illnesses, lower respiratory infections, human immunodeficiency virus, tuberculosis and malaria. Socio-economic gains have translated into improvements in sanitation systems, clean water supplies, early diagnosis and healthcare accessibility and delivery, with consequent reductions in infectious disease incidence and mortality. However, for the majority of the world's population, large scale advancements in public health infrastructure are still far off. For these communities, high-impact, low-cost public health interventions remain a key strategy for driving down the preventable infectious disease incidence and mortality. Principal among these cost-effective measures is immunization; however, some vaccines are unavailable,

inaccessible, and/or unaffordable for the populations most in need. Global national immunization programmes, partially financed through the Gavi vaccine alliance, are estimated to save 2–3 million lives per year with the existing vaccines – and these could be even more impactful if greater levels of coverage could be achieved. Investments into the research, development and deployment of vaccines and delivery technologies against the deadliest and most widespread pathogens are, therefore, likely to yield considerable dividends in global health.

There are approximately 600 vaccine candidates in development against an estimated 110 pathogens [1]. Considering the resource constraints in vaccine development, there is a need to rationally identify the approaches that are most likely to succeed and then prioritize among these candidates. Additionally, as the routine immunization schedule expands, it becomes increasingly important to have strong, evidence-based justifications for investing in the development of new vaccines with a high likelihood of success. Just as innovation should be applied to the domain of vaccines in the development pipeline, there is room for improvement of some licensed vaccines with respect to cost-effectiveness and coverage in order to maximize their public health impact. This special issue, however, focuses its review on the research and development (R&D) pipeline of vaccines against 25 pathogens for which no licensed vaccines currently exists but for which there is high public health importance, as identified by the World Health Organization (WHO) Product Development for Vaccines Advisory Committee (PDVAC). PDVAC is a body of independent experts that was established in 2014 to guide WHO and the vaccine development community along the pathway toward the goal of licensure and deployment in countries of highest disease burden. As such, PDVAC's remit is to advise on the acceleration of vaccine candidates at Phase 2 of clinical evaluation or earlier and report its proceedings from its meetings to the WHO's principal committee on immunization policy recommendations: the Strategic Advisory Group of Experts on Immunization (SAGE).

PDVAC also has a contributory role within the framework of the R&D Blueprint at WHO for R&D preparedness and emergency research response in the emerging pathogen area. When WHO declares a Public Health Emergency of International Concern (PHEIC), PDVAC may be tasked with forming a working group to facilitate development of guidance tools for the vaccine development community in the context of the emergency. For example, as this issue goes to press, a PDVAC Working Group is developing a WHO Zika vaccine Target Product Profile [2].

The landscape analyses in this issue are intended as structured overviews of the key considerations for vaccine development, not as exhaustive literature reviews. They are authored by independent subject matter experts in each field and follow a template set forth by the PDVAC committee. Each report summarizes the biological evidence for a vaccine's feasibility, the data on proof-of-concept studies, existing knowledge gaps, the technical and regulatory hurdles to vaccine licensure, and the prospects for donor funding and procurement of the product. The compendium of pathogens highlighted in this issue was agreed upon by PDVAC in 2015 [3]. Each year, pathogens and diseases to be reviewed is modified to incorporate new areas where vaccine development activity is progressing, and in 2016, Zika will be discussed. In this way, PDVAC remains at the cutting edge of product development issues, with oversight across a broad spectrum of R&D activity, ensuring that its contributions are relevant and impactful to vaccine developers, regulators, donors and policy makers.

Vaccine: Development and Therapy
https://www.dovepress.com/vaccine-development-and-therapy-archive111
(Accessed 4 June 2016)
[No new content]

Vaccines — Open Access Journal
http://www.mdpi.com/journal/vaccines
(Accessed 4 June 2016)
[No new relevant content identified]

Value in Health
May 2016 Volume 19, Issue 3
http://www.valueinhealthjournal.com/current
[No new relevant content identified]

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

Health Education Journal
May 31, 2016 0017896916647988
HPV vaccine decision-making among young men who have sex with men
Christopher W Wheldona, Ellen M Daleya, Eric R Buhib, Julie A Baldwinc, Alan G Nyitrayd, Anna R Giulianoe
Abstract
Objective: Human papilloma virus (HPV) vaccination is recommended for all men who have sex with men (MSM) in the USA until the age of 26 years. Despite this recommendation, vaccine uptake remains low. The purpose of this study was to (1) describe salient beliefs related to HPV vaccination among young MSM; (2) determine factors that underlie these beliefs; and (3) describe a model for HPV vaccine decision-making.
Design: Qualitative descriptive study.
Setting: Central Florida, USA.
Method: Semi-structured interviews (N = 22).
Results: The majority of respondents had heard of the HPV vaccine, but generally perceived HPV as a women's health issue. Salient behavioural beliefs about HPV vaccination described physical (such as lowering risk and promoting overall health) and psychological benefits (such as protecting sex partners and providing peace of mind). There was some concern regarding the risks of vaccination including contracting HPV from the vaccine, not knowing if it would be effective, and side effects. Normative influences on decision-making were minimal. Availability, cost and convenience were among the most salient external control factors discussed. Issues surrounding disclosure of sexual orientation, as well as the competence and sensitivity of healthcare providers in dealing with issues of sexuality, were key factors in HPV-related beliefs.

Conclusion: Addressing the specific beliefs and concerns expressed by MSM can help to improve the effectiveness of health education interventions promoting vaccination.

The Journal of Immunology
May 1, 2016 vol.196
A multivariate approach to data analysis of vaccine clinical trials.
M Coccia1, F Nozay1, L De Mot1, Avisek Deyati1, E Jogert1, R van der Most1 and R van den Berg1
Author Affiliations
1GlaxoSmithKline, Belgium
Abstract
Despite significant progress in prevention, diagnosis and treatment, Malaria and Tuberculosis (TB) remain major health challenges. In 2014 WHO estimated that ≈438000 people died from Malaria and ≈1.5 million from TB, mainly in resource-poor countries. Vaccines represent a cost-effective and efficient method of preventing infectious diseases. The development of vaccines for TB and Malaria would significantly contribute to reducing disease burden, particularly with the emergence of drug-resistant pathogens. GSK's Malaria vaccine, Mosquirix™ (RTS,S/AS01), received a positive opinion from European regulators for the prevention of Malaria in young children in sub-Saharan Africa. GSK's candidate vaccine for TB (M72/AS01) induces robust TB-specific CD4 T-cell responses in humans, and it is undergoing phase IIb clinical trials. System biology approaches can support vaccines at different stages of development by identifying molecular signatures that drive responses to vaccination. Here, we describe the application of systems vaccinology to the analysis of gene expression data from clinical trials for Malaria and TB candidate vaccines. Our analysis aimed to identify early predictors of vaccine efficacy in Malaria clinical trials and to detect signatures associated with reactogenicity in the early development of a TB vaccine. To better capture the multidimensional nature of the data, we used multivariate analysis approaches such as Partial Least Squares regression. Additionally, biological interpretation of our results allowed us to pinpoint biological processes linked with response to vaccination, advancing our understanding of vaccine mode of action.

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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 4 June 2016
[No new, unique, relevant content]

BBC
http://www.bbc.co.uk/
Accessed 4 June 2016
[No new, unique, relevant content]

The Economist
http://www.economist.com/
Accessed 4 June 2016
[No new, unique, relevant content]

Financial Times
http://www.ft.com/home/uk
Accessed 4 June 2016

Forbes
http://www.forbes.com/
Accessed 4 June 2016
Preemies Get Boost in Pertussis Protection From Mom's Vaccination
Preemies can also benefit from a pertussis vaccine in pregnancy.
Tara Haelle, Contributor Jun 02, 2016 [No new, unique, relevant content]

Foreign Affairs
http://www.foreignaffairs.com/
Accessed 4 June 2016
1 June 2016
Pakistan's Quiet Revolution Against Polio
While Pakistan's path to eradication hasn't been easy, there is now reason for optimism.
…Unfortunately, violent attacks — which have, at times, affected health workers and those who protect them — have overshadowed this remarkable progress.

These incidents are tragic, although not entirely unexpected. The polio virus has, historically, thrived in regions experiencing political turmoil and conflict. In fact, many of the places where polio still has a strong hold are insecure areas of Afghanistan and Pakistan. So health workers like Naseeba, who go bravely and tirelessly door-to-door, are working in some of the most challenging environments on Earth.

Even in the face of this violence, the dedication to stopping polio in Pakistan extends to all levels of society. In order to reach all of Pakistan's 35 million children, nearly a quarter of a million clinicians, mothers, religious leaders, security personnel, community members, and government officials have come together to support eradication efforts…

Foreign Policy
http://foreignpolicy.com/
Accessed 4 June 2016
27 May 2016

Laurie Garrett: WHO's Fairy Dust Financing

…The organization responsible for international public health is increasing its budget by millions of dollars — but its plan for coming up with the cash to help battle epidemics like Zika isn't grounded in reality.… That kind of preparedness begins with leadership and mutual trust between the institutions of public health, political leaders, and the populations they are supposed to serve. This is a feat that WHO has not, by any measure, accomplished…

The Guardian
http://www.guardiannews.com/
Accessed 4 June 2016
[No new, unique, relevant content]

New Yorker
http://www.newyorker.com/
Accessed 4 June 2016
[No new, unique, relevant content]

New York Times
http://www.nytimes.com/
Accessed 4 June 2016
The Opinion Pages | Editorial
Hustling Dollars for Public Health
By THE EDITORIAL BOARD
JUNE 2, 2016
On Tuesday, a woman infected with the Zika virus gave birth to a girl with microcephaly, a malformed head, in New Jersey. Federal officials say there are more than 300 pregnant women possibly infected with Zika around the country. Yet every time an emergency like this happens, public health officials must go begging bowl in hand to Congress for the funds to deal with it. And as the current squabble between Republicans and President Obama over money for the Zika virus shows, there's no guarantee of significant or even timely relief.

The obvious answer is to establish a permanent pool of money that federal health authorities can tap into quickly, much like the disaster relief fund that enables the Federal Emergency Management Agency to respond quickly to hurricanes and other natural disasters.

Such a fund would allow agencies like the Centers for Disease Control and Prevention to mobilize their resources to contain emerging threats like Zika and Ebola before they become large-scale problems. The money would be used for research, for vaccine development and to prevent the spread of the disease in the United States and overseas.

Zika is just such a threat. It is primarily transmitted by mosquitoes, can cause birth defects and has been linked to neurological disorders in adults. A study published in The New England Journal of Medicine last week estimated that the risk of microcephaly in newborns ranged from 1 percent to 13 percent for women infected with Zika in the first trimester.

A bill introduced by Representative Rosa DeLauro, a Connecticut Democrat, would put $5 billion into an existing public health emergency fund that was created in 1983 but has been largely dormant. The fund currently has a balance of just $57,000. In the Senate, Bill Cassidy, a

Louisiana Republican and a doctor, has said he plans to introduce a bill that would provide emergency funds, though he has offered few details.

Some Republicans are likely to oppose setting aside the money. Many in the House have been reluctant to spend money on Zika; last month they passed a bill to provide $622 million to fight the disease, which is a lot less than the $1.1 billion the Senate approved and the $1.9 billion Mr. Obama has asked for.

Despite the concerns of fiscal conservatives, the health emergency fund could save lives and money. Consider Ebola. Had the American government moved quickly to help Guinea, Liberia and Sierra Leone fight that virus early in 2014, the disease might not have killed more than 11,000 people or caused a global panic. But the United States was slow to react, approving $5.4 billion for the disease in December 2014, months after it had caused or was suspected to have caused nearly 7,000 deaths and after Ebola cases had been confirmed in the United States.

That money was used to send doctors and nurses to West Africa, to help strengthen health systems in the affected countries, and for research. Some Ebola projects are still active, including vaccine development and testing. In public health, "the sooner you can get there the more effective you can be," said Dr. Thomas Frieden, the C.D.C. director. "You can change the trajectory of an epidemic in a way that is very, very important."

Giving public health officials a blank check would be unwise. But creating a system that is at once generous and disciplined by strong internal controls should be possible. Money in the present health emergency fund, for instance, can be used only when the secretary of health and human services declares an emergency. The secretary has to notify Congress of that decision and report how the money was spent within 90 days of the end of the fiscal year. Without a less restricted fund, health officials fighting Zika have had to move money and scientists away from programs focused on other diseases, like Ebola, malaria and dengue. Robbing existing programs is sure to hurt public health the longer it goes on.

Wall Street Journal
http://online.wsj.com/home-page?_wsjregion=na,us&_homepage=/home/us
Accessed 4 June 2016
Zika Draws U.S. Researchers Into a Race for Understanding
By Jo Craven McGinty
June 3, 2016 10:13 am ET

Washington Post
http://www.washingtonpost.com/
Accessed 4 June 2016
Health officials now confirm 11 cases of measles in Arizona
An outbreak of measles that began with an inmate at a federal detention center for immigrants in central Arizona has now grown to 11 confirmed cases, officials said Monday.
Associated Press | National | May 30, 2016

Think Tanks et al
Brookings

http://www.brookings.edu/
Accessed 4 June 2016
[No new relevant content]

Center for Global Development
http://www.cgdev.org/
Accessed 4 June 2016
Innovation for Development: Why Are We not Getting to Scale?
Event
6/13/16
Development depends on innovation. New ideas, new funding mechanisms and new technologies save and improve lives, from vaccines to solar lamps to Development Impact Bonds. But even if innovations reach a million people, they still fall short of the billion who live in poverty.

Council on Foreign Relations
http://www.cfr.org/
Accessed 4 June 2016
Expert Brief
| 31 May 2016
Back to the Future of Global Health Security
Authors: Thomas J. Bollyky, Senior Fellow for Global Health, Economics, and Development, and Steve Davis, President and CEO of PATH
…To improve pandemic preparedness we must embrace the hard-won lessons of the past decade in global health, not ignore them. This is true in deploying people and resources to prepare for the inevitability of future outbreaks, but even more so when it comes to accelerating the development of the medical tools to diagnose, treat, and prevent those infectious disease outbreaks from turning into epidemics, or even pandemics…

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