Vaccines and Global Health: The Week in Review
7 October 2017
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 https://centerforvaccineethicsandpolicy.net. This blog allows full-text searching of over 8,000 entries.*

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

***Request an email version:** Vaccines and Global Health: The Week in Review is published as a single email summary, scheduled for release each Saturday evening before midnight (EST/U.S.). If you would like to receive the email version, please send your request to david.r.curry@centerforvaccineethicsandpolicy.org.*

***Support this knowledge-sharing service:** Your financial support helps us cover our costs and to address a current shortfall in our annual operating budget. Click here to donate and thank you in advance for your contribution.*

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

::::::
::::::

Milestones :: Perspectives

New WHO leadership team announced

3 October 2017 – This morning, WHO Director-General Dr Tedros Adhanom Ghebreyesus announced his senior leadership team.

The new team includes former ministers of health, some of the world's leading physicians, scientists and researchers, and programmatic experts in universal health coverage, health emergencies, communicable and noncommunicable diseases, climate and environmental health, and women's, adolescents' and children's health. Individually and collectively, they have a wealth of experience across government, private sector, multilateral, civil society and academic organizations.

"The team represents 14 countries, including all WHO regions, and is more than 60% women, reflecting my deep-held belief that we need top talent, gender equity and a geographically diverse set of perspectives to fulfil our mission to keep the world safe," said Dr Tedros.

Deputy Directors-General

:: Dr Soumya Swaminathan will be Deputy Director-General for Programmes and Jane Ellison will be Deputy Director-General for Corporate Operations.

Dr Soumya Swaminathan has more than 30 years of experience in clinical care, research and translating those findings into programs. She most recently served as Secretary of the Department of Health Research in India and as Director General of the Indian Council of Medical Research.

Jane Ellison brings with her more than 30 years of experience in government, commerce and change management. Most recently, she was the Special Parliamentary Adviser to the UK's Chancellor of the Exchequer. She also served as the UK's Public Health Minister from 2014 to 2016.

In addition, Dr Peter Salama will remain in his role as the Executive Director of the Health Emergencies Programme.

The Assistant Director-General appointees are:

:: Dr Bernhard Schwartländer, Chef de Cabinet
:: Dr Naoko Yamamoto, Assistant Director-General for Universal Health Coverage and Health Systems Cluster
:: Professor Lubna A. Al-Ansary, Assistant Director-General for Metrics and Measurement
:: Dr Svetlana Akselrod, Assistant Director-General for Noncommunicable Diseases and Mental Health
: Ambassador Michèle Boccoz, Assistant Director-General for External Relations
:: Dr Ranieri Guerra, Assistant Director-General for Special Initiatives
:: Dr Ren Minghui, Assistant Director-General for Communicable Diseases
:: Dr Mariângela Batista Galvão Simão, Assistant Director-General for Drug Access, Vaccines and Pharmaceuticals
: Dr Princess Nothemba (Nono) Simelela, Assistant Director-General for Family, Women, Children and Adolescents
:: Mr Stewart Simonson, Assistant Director-General for General Management
: Dr Joy St John, Assistant Director-General for Climate and Other Determinants of Health

All of these appointees will be transitioning into their new roles over the next several weeks.

"I am thrilled to welcome this group of diverse, talented global health leaders to WHO and am grateful for the opportunity to work alongside them to ensure health for all.

"I also would like to acknowledge the work of my transition team, chaired by Dr Senait Fisseha, which has been instrumental not only in helping me seamlessly move into the Director-General role, but also in putting together this leadership team," said Dr Tedros.

Editor's Note:
We include the bios of two appointees whose portfolios seems most closely aligned to our Center's focus. Bio sketches of all appointees above are available here

Dr Ren Minghui, Assistant Director-General for Communicable Diseases

Dr Ren Minghui has served as WHO Assistant Director-General for HIV/AIDS, Tuberculosis, Malaria and Neglected Tropical Diseases since January 2016 and is continuing this work under his new title Assistant Director General for Communicable Diseases. Prior to this role, he was Director-General for International Cooperation in the National Health and Family Planning Commission of the People's Republic of China. He brings nearly 30 years of public health experience, working on health policy and health reform in China's Ministry of Health, where he focused primarily on health systems research and health insurance reform. Later, his work focused on international health cooperation, during which time he led a number of health committees and programmes, working closely with international partners. As part of this work, he oversaw the development of the China-Africa health cooperation process, initiated health cooperation with BRICS countries, and engaged in regional health cooperation with ASEAN, APEC and countries of the Greater Mekong subregion. In addition, he has served as Vice-chair of WHO's Executive Board, a member of the UNAIDS Programme Coordinating Board, and a representative of the Board of the Global Fund to Fight AIDS, TB and Malaria. Dr Ren is a medical doctor and holds a PhD in Social Medicine and Health and a Masters in Public Health.

Dr Mariângela Batista Galvão Simão, Assistant Director-General for Drug Access, Vaccines and Pharmaceuticals

Dr Mariângela Batista Galvão Simão from Brazil has been appointed Assistant Director-General for Drug Access, Vaccines and Pharmaceuticals. Most recently, she was Director of Community Support, Social Justice and Inclusion at UNAIDS. In addition to her work at UNAIDS, she brings more than 30 years of experience working in the Brazilian public health system and has played an active role in enhancing access and decentralizing health services in the country. Between 2006 and 2010, she served as Director of the National STD/AIDS and Viral Hepatitis Department in the Brazilian Ministry of Health, where she led successful price negotiations with pharmaceutical companies to lower the price of HIV medication. During this time, she also represented the Brazilian Ministry of Health in the negotiations that led to the constitution of UNITAID in 2006, including its governing body, where she served as a board member until 2008. She was trained as a pediatrician in Brazil and holds an MSc degree in public health from University of London, United Kingdom

::::::
::::::

Cholera

Yemen

Field visits to Ibb and Hudaydah: Summary of immediate action points and recommendations, 20 September 2017

2 October 2017

:: As of 1 of October 2017, the cumulative total of suspected cholera cases reached 777,229 and 2134 associated deaths in 22 out of 23 governorates across the country.

:: The overall case fatality rate shows a noticeable decrease recording 0.27%. Raymah governorate continues to report the highest case fatality rate (0.93%).

:: Children under the age of 5 years represent 25.45% of the cases and 16.93% of deaths. Children under the age of 18 represent 60% of suspected cases.

:: People over the age of 60 continue to report the highest numbers of deaths (668 cases, 31.3%).

:: The trend at country level over the past 3 weeks is considered stable.

:: At governorate level, the trend decreased in 11 governorates (Amarn -11%), (Al Dhalea -11%), (Abyan -12%), (Sana'a -22%), (Hajja, -10), (Aden, -15%), (Taiz,-10%), (Al Mahrah, -72%), (shabwa, -58%), (Moklla, -21%) and (Say'on, -100). The trend has increased in two governorates (Marib, +12 % and Sa'adah +25%).

::::::

UN: More Should Have Been Done to Fight Cholera in Yemen

By THE ASSOCIATED PRESSOCT. 3, 2017, 1:18 P.M. E.D.T.

GENEVA — The World Health Organization's emergencies chief says the agency could have acted faster and sent more vaccines to fight a massive, deadly surge of cholera cases in war-battered Yemen this year.

Dr. Peter Salama still expressed optimism that "we are turning (the) corner" on the preventable, water-borne disease that has topped 700,000 suspected cases and caused more than 2,000 deaths this year.

Salama spoke to reporters Tuesday as the U.N. agency and its partners laid out ambitious projects to reduce the number of annual cholera deaths by 90 percent by 2030…

In Yemen, the country's 2-1/2 war has devastated the health system and public services and put the country on the brink of famine. Yemen had been set to receive a million doses of cholera vaccine over the summer but the government opted not to take them.

Salama said the Yemen government said it didn't believe that would be enough.

"Could WHO and the cholera-specific partners have scaled up more quickly the case-management work, and could we have tried to mobilize more doses for cholera vaccine given the very limited supply globally of cholera vaccine? I think so — yes," Salama said…

::::::
::::::

Ending Cholera – A Global Roadmap to 2030

Global Task Force on Cholera Control

3 October 2017 :: 32 poges

:: Summary: Ending Cholera – A Global Roadmap to 2030 pdf, 3.07Mb

:: Ending Cholera – A Global Roadmap to 2030 pdf, 6.20Mb

Ending Cholera—A Global Roadmap to 2030 operationalises the new global strategy for cholera control at the country level and provides a concrete path toward a world in which cholera is no longer a threat to public health. By implementing the strategy between now and 2030, the Global Task Force on Cholera Control (GTFCC) partners will support countries to reduce cholera deaths by 90 percent. With the commitment of cholera-affected countries, technical partners, and donors, as many as 20 countries could eliminate disease transmission by 2030.

With input and support from the following partners: the Bill & Melinda Gates Foundation; the Centers for Disease Control and Prevention (CDC); Global Health Visions; Gavi, the Vaccine Alliance; International Federation of the Red Cross (IFRC); Johns Hopkins University; Medecins Sans Frontières (MSF); The Mérieux Foundation; the Task Force for Global Health; UNICEF; the Veolia Foundation; WaterAid; and from the WHO Health Emergencies Programme (WHE); Immunization, Vaccines and Biologicals (IVB); and Public Health, Environmental and Social Determinants (PHE) departments as well as the regional offices at the World Health Organization.

Video Press Conference

Launch of Global Roadmap to End Cholera - Press Conference (Geneva, 4 October 2017)

[Video: 1:19:39]

Speakers:

:: Dr Peter Salama, Director, WHO Health Emergencies
:: Julie Hall, Chief of Staff and Special Advisor on Health, IFRC
:: Seth Berkley, Chief Executive Officer, GAVI
:: Tim Wainwright, Chief Executive Officer, WaterAid
:: Benoit Miribel, Director General, Foundation Merieux

Media Release

Partners commit to reduce cholera deaths by 90 per cent by 2030

Joint press release – UNICEF, WHO and others join in renewed push on deadly disease

Geneva, 03 October 2017 – An ambitious new strategy to reduce deaths from cholera by 90 per cent by 2030 will be launched tomorrow by the Global Task Force on Cholera Control (GTFCC), a diverse network of more than 50 UN and international agencies, academic institutions, and NGOs that supports countries affected by the disease.

Cholera kills an estimated 95 000 people and affects 2.9 million more every year. Urgent action is needed to protect communities, prevent transmission and control outbreaks.

The GTFCC's new plan, Ending Cholera: A Global Roadmap to 2030, recognizes that cholera spreads in endemic "hotspots" where predictable outbreaks of the disease occur year after year.

The Global Roadmap aims to align resources, share best practice and strengthen partnerships between affected countries, donors and international agencies. It underscores the need for a coordinated approach to cholera control with country-level planning for early detection and response to outbreaks. By implementing the Roadmap, up to 20 affected countries could eliminate cholera by 2030.

"The World Health Organization is proud to be part of this new joint initiative to stop deaths from cholera. The disease takes its greatest toll on the poor and the vulnerable – this is quite unacceptable. This roadmap is the best way we have to bring this to an end," said Dr Tedros Adhanom Ghebreyesus, Director General of the World Health Organization.

"Every death from cholera is preventable with the tools available today, including use of the Oral Cholera Vaccine and improved access to basic safe water, sanitation and hygiene as set out in the Roadmap," said Dr Tedros Adhanom Gebreyesus, Director General of the World Health Organization. "This is a disease of inequity that affects the poorest and most vulnerable. It is unacceptable that nearly two decades into the 21st century, cholera continues to destroy livelihoods and cripple economies. We must act together. And we must act now."

Advances in the provision of water sanitation and hygiene (WASH) services have made Europe and North America cholera-free for several decades. Today, although access to WASH is recognized as a basic human right by the United Nations, over 2 billion people worldwide still lack access to safe water and are potentially at risk of cholera. Weak health systems and low early detection capacity further contribute to the rapid spread of outbreaks.

"It is intolerable that so many of the world's poorest and most vulnerable children should die as a result of cholera," said Ted Chaiban, Director of UNICEF's global programmes. "We know how to prevent it. This requires the commitment and action from all sides, including investment in safe water and sanitation, key health interventions and engaging communities on basic health and hygiene behaviours. We can make a difference."

Cholera disproportionally impacts communities already burdened by conflict, lack of infrastructure, poor health systems, and malnutrition. Protecting these communities before cholera strikes is significantly more cost-effective than continually responding to outbreaks.

The introduction of the oral cholera vaccine has been a game-changer in the battle to control cholera, bridging the gap between emergency response and longer-term control. Two WHO-approved oral cholera vaccines are now available and individuals can be fully vaccinated for just US$6 per person, protecting them from the disease for up to three years.

The Global Roadmap provides an effective mechanism to synchronize the efforts of countries, donors, and technical partners. It underscores the need for a multi-sectoral approach to cholera control with country-level planning for early detection and response to outbreaks.

By strengthening WASH in endemic "hotspots", cholera outbreaks can be prevented. By detecting cholera outbreaks early, and responding immediately, large-scale uncontrolled outbreaks like the one observed in Yemen can be avoided – even in crisis situations.

::::::

Featured Journal Content

The Lancet
Oct 07, 2017 Volume 390 Number 10103 p1623-1714 e24

http://www.thelancet.com/journals/lancet/issue/current
Editorial

Cholera: ending a 50-year pandemic

The Lancet
Published: 07 October 2017

The global annual cholera burden is estimated at around 2·9 million cases per year, resulting in 95 000 deaths. In 2017, these estimates could be far exceeded due to a number of devastating outbreaks, including those in Yemen and northern Nigeria. So far this year, 750 000 suspected cases, causing over 2000 deaths, have occurred in Yemen alone. Currently, there is concern about the risk of a cholera epidemic among Rohingya refugees in the Cox's Bazar region of Bangladesh. In response to this public health threat, the Global Task Force on Cholera Control (GTFCC), has brought together representatives from cholera-affected countries, donors, and technical experts to develop a Global Roadmap to 2030. Published on Oct 3, the document describes a multisectoral strategy that could reduce cholera deaths by 90% and eliminate the disease from a further 20 countries by 2030.

As John Clemens and colleagues describe in a Seminar published recently in The Lancet, cholera is an ancient disease. Endemic in the Ganges river basin, it has caused a series of pandemics since 1817, the most devastating being the seventh pandemic, which began in 1961 and is ongoing. Cholera is a disease steeped in medical history—it was during the third pandemic that John Snow plotted his famous map of Broad Street, and during the fifth epidemic, that Robert Koch sought to identify the causative agent. Spread by the faeco-oral route, the disease affects poor people and the most vulnerable. Cholera is endemic in 47 countries, particularly in areas where the water, sanitation and hygiene (WASH) infrastructure is poor. In these areas, children are particularly at risk. Epidemics occur both within and outside of endemic areas, often amid humanitarian crises, when WASH infrastructure breaks down or is overwhelmed. In situations where the population lacks immunity, a wider age range is affected, often with more severe clinical manifestations. Currently the worldwide cholera burden is high. 60–70% of cholera cases and deaths occur in endemic areas of Africa, which could increase as urbanisation, particularly the growth of slums, places increasing numbers at risk.

Fluid resuscitation as the core of cholera treatment is well established, but recent developments in disease prevention strategies underlie the GTFCC's roadmap. Improvements in WASH systems can eliminate cholera, but although the rate of return on investment is good, these are initially expensive, and the slow expansion of WASH provision has failed to tackle the burden of cholera and other water-borne diarrhoeal diseases. The pivotal change in cholera control has been the development of oral cholera vaccines (OCV), underpinned by an improved understanding of the mechanism of cholera immunity. In a series of landmark research developments over the past 10 years, the efficacy, safety, acceptability, and feasibility of these vaccines have been demonstrated. The creation of a growing global OCV stockpile by WHO, with long-term funding support from Gavi, signalled the step-change in cholera prevention strategies and, since 2013, 13 million vaccine doses have been deployed, mostly in the emergency control of epidemics.

The novelty of the GTFCC eradication strategy is based on three key axes. First, the emphasis on rapid response to outbreaks: controlling epidemics through community engagement, improved early warning surveillance, and the rapid delivery of cholera control kits, OCV, and

WASH supplies. Second, the strategy implements a multisectoral approach in hotspots of endemic cholera. OCV programmes will be used as a bridge, immediately reducing disease burden and mortality while long-term solutions are developed: sustainable WASH infrastructure, strengthened health systems able to anticipate epidemics, and strong community engagement required to stop transmission. The third axis is the coordination of operational support, local and global resourcing, and technical expertise delivered by GTFCC. Over the next 18 months, the task force will support six to eight countries to develop cholera control plans, develop an investment case on cholera, and create operational guidance on integrated prevention strategies ahead of a review meeting planned in 2019.

The bold vision of the Global Roadmap is welcome but the challenges that lie ahead should not be underestimated, Paul Spiegel, director of the Center for Humanitarian Health at Johns Hopkins University told The Lancet. Ending cholera depends both on successful delivery of the prevention strategies on the ground and mitigating risks to the Global Roadmap at a high-level (securing financing, ensuring vaccine availability, and galvanising political will). The technical ability to control cholera is within our capabilities. After 50 years, could the tide be finally turning on the seventh pandemic?

::::::

UNICEF's preventive plan to mitigate the risk of Acute Water Diarrhoea (AWD) and Cholera among Rohingya Refugees

UNICEF's preventive plan to mitigate the risk of Acute Water Diarrhoea (AWD) and Cholera among Rohingya Refugees
Remarks attributable to Maya Vandenant, Chief of Health, UNICEF Bangladesh

GENEVA/DHAKA, Bangladesh 6 October 2017 - This is a situation update from Maya Vandenant, Chief of Health, UNICEF Bangladesh, – to whom quoted text may be attributed – for today's press briefing at the Palais des Nations in Geneva.

Key Facts
:: 515,000 new Rohingya arrivals into Cox's Bazar, Bangladesh since 25th August;
:: 225,000 of new arrivals are living in new spontaneous settlements with very limited Water, Sanitation and Hygiene (WASH) infrastructure due to an absence of planning;
:: 60% of new arrivals are children and 30% are children under 5 years old;
:: In the last week, 5011 cases of diarrhoea have been reported;
:: Since 25th August 2017, over 300 tube wells and 3,000 latrines have been constructed to improve WASH within both the extended existing makeshift settlements and the new spontaneous settlements;
:: UNICEF has launched a response plan to prevent an outbreak of Acute Watery Diarrhoea and Cholera;
:: There are high levels of severe malnutrition amongst child refugees which exacerbates the risks associated with an outbreak of acute watery diarrhoea and cholera.

"What we are seeing is that people are exhausted and children are at a heightened risk of diseases. There are real risks of acute watery diarrhoea and cholera outbreaks. We are very concerned, and therefore, we are mounting an urgent response across the health sector.

"Planning of the extension camps is largely absent and there is no infrastructure in terms of

ensuring good sanitation and drainage. We see that after the rains, water flushes through the camps everywhere, including the toilets. Additionally, the camps are now subject to high population densities. These factors increase the risk of disease outbreak and transmission.

::::::

Editor's Note:
Repeating from last week's edition:

900,000 vaccines 'en route' to Cox's Bazar to prevent cholera
Oral cholera vaccine will protect Rohingya refugees seeking shelter in Bangladesh as well as the resident population

Cox's Bazar, Bangladesh, 29 September 2017 – The International Coordinating Group (ICG) on Vaccine Provision will release 900,000 doses of the Oral Cholera Vaccine (OCV) from the global stockpile to prevent the spread of cholera among recently arrived vulnerable populations and host communities in areas around Cox's Bazar.

The Government of Bangladesh made the request to the ICG on 27 September, and the approval was granted in 24 hours by the coordinating mechanism that brings together WHO, UNICEF, Médecins Sans Frontières (MSF), and the International Federation of the Red Cross (IFRC).

ICG partners – with support from Gavi, the Vaccine Alliance – will deliver 900,000 doses of Oral Cholera Vaccine to Bangladesh within two weeks for an immunisation campaign due to start in October.

::::::
::::::

Featured Journal Content

The Critical Role of Biomedical Research in Pandemic Preparedness
Hilary D. Marston, MD, MPH1; Catharine I. Paules, MD1; Anthony S. Fauci, MD1
JAMA. Published online October 4, 2017. doi:10.1001/jama.2017.15033
Viewpoint
Unusual reports of Kaposi sarcoma and Pneumocystis carinii (now P jiroveci) pneumonia in previously healthy gay men in 1981 alerted the world to a new infectious disease threat, heralding the HIV/AIDS pandemic. The medical and public health communities faced a steep learning curve in coordinating public health and biomedical research efforts as the pandemic evolved.

Since then, international partners in academia, government, and industry have devoted substantial efforts to pandemic preparedness, building on lessons learned from HIV and other outbreaks ranging from the abrupt onset of the severe acute respiratory syndrome coronavirus (SARS-CoV) to the spread of Zika in the Americas to the devastating outbreak of Ebola in West Africa.

Comprehensive preparedness is a multifaceted endeavor including global surveillance networks, health care infrastructure ranging from primary care centers to referral hospitals, health care workforce capacity, and engagement with affected communities. Governments, the United

Nations, and other nongovernmental organizations have made important strides in these areas. For example, the World Health Organization's International Health Regulations, updated in 2005 after the SARS-CoV epidemic, helped improve global disease surveillance.[1] Individual nations worked together to build on this foundation, creating the multilateral Global Health Security Agenda (GHSA) to "prevent, detect and respond" to new threats. Nearly 60 nations including the United States have joined the GHSA, collaborating in multisectoral preparedness including enhanced capacity for surveillance and laboratory diagnostics.[2]

A critical component of effective pandemic preparedness is biomedical research, including domestic and international research capacity. The research enterprise complements other elements of preparedness by improving understanding of the pathogenesis of infectious diseases and by developing interventions in the form of diagnostics, treatments, and vaccines. The foundation of this work is a portfolio of basic research applicable to multiple pathogens of public health significance. Through these investigations, the research community develops an understanding of the microbiology and pathogenesis of known infectious diseases.

Even for pathogens not yet identified as major human health threats, research on related organisms can bolster efforts in the event of an outbreak. When Zika virus emerged in the western hemisphere, investigators working on the closely related dengue flavivirus were quickly marshaled against Zika. The presence of active researchers with relevant expertise facilitated the rapid launch of the Zika research response. For example, applying knowledge gained from work with dengue and other flaviviruses, researchers rapidly developed mouse models that recapitulate critical aspects of Zika infection, including replication and disease in the fetus; these were subsequently used as surrogates to study congenital Zika syndrome. These tools have been used to evaluate treatments, including monoclonal antibodies capable of neutralizing Zika and protecting mouse pups.[3] Evaluation in human trials is under consideration.

The basic research portfolio leads naturally into and is complemented by investments in countermeasure development. Although treatments and vaccines are essential countermeasures, so too are rapid, deployable, and point-of-care diagnostics. The latter are key to an effective response in an evolving pandemic.[4] In the case of arthropod-borne viruses, research into novel methods of vector control is also critical.

In shaping the research agenda for pandemic preparedness, prediction of microbes likely to cause outbreaks is often more art than science; as HIV, SARS, and Zika have demonstrated, no single algorithm will "get it right" all the time. For this reason, several research approaches are pursued in pandemic preparedness, including (1) pathogen-specific work; (2) platform-based technology; and (3) prototype-pathogen efforts. Each approach has strengths and weaknesses. Vaccine-related efforts serve as examples for each approach.

In pathogen-specific work, resources are invested between outbreaks to advance countermeasure development for microbes deemed most likely to emerge and cause significant morbidity and mortality. Given finite resources, only a handful of pathogens can be prioritized. The World Health Organization's Research and Development Blueprint offers a robust method for pathogen selection, assessing lethality and severity of disease, transmissibility, animal hosts and vectors, and dearth of existing countermeasures.[5] The list allows the global research community to target its countermeasure development programs.

The US government used its own priority pathogen list based on the potential use of microbes as agents of bioterror (as designated by the Centers for Disease Control and Prevention) in the wake of the 2001 anthrax attacks. Ebola, one of the hemorrhagic fever viruses, was on the list of Category A Agents of Bioterrorism, and as a result, several Ebola vaccine candidates were developed. In response to the Ebola outbreak of 2014-2016 in West Africa, these vaccine candidates were advanced into phase 1 trials and field efficacy trials in early 2015.[6]

Some organizations, such as the Coalition for Epidemic Preparedness Innovations, are working to compress this timeline further, closing the gap between outbreak initiation and countermeasure availability by preparing selected vaccine candidates a priori for rapid evaluation in an outbreak. These efforts are promising; however, their utility depends on predictive capability of the prioritization algorithm. In the cases of HIV, SARS, and Zika, no list or algorithm predicted their public health impact.

In platform-based technology, developers are agnostic about specific pathogens. Research instead focuses on the platform used to present a relevant immunogen to the host. Vaccine platforms such as viral vectors can be used with genetic material coding for the relevant immunogen against which an immune response would be directed. In theory, such a platform could be used to present the genes from a range of pathogens. In this area, preparedness efforts typically involve the development of the platforms themselves, including manufacturing capacity.

Platform technology was used in the 2002-2003 SARS outbreak, during which the National Institute of Allergy and Infectious Diseases (NIAID) at the US National Institutes of Health (and others) developed vaccine candidates to meet the emerging threat. The platform in this case was a DNA plasmid into which was inserted the gene for the SARS glycoprotein serving as the immunogen. In 2003 and 2004, one program spanned just 17 months from sequencing the SARS-CoV genome and identifying the relevant gene to be inserted into the plasmid to initiation of the first clinical trial of a DNA vaccine for SARS, although the epidemic ended before trial results were obtained.[7] In addition to DNA, vaccine platforms include nanoparticles, virus-like particles, and mRNA, among others.

Another approach using prototype pathogens can hasten the platform-based approach by prospectively filling research gaps necessary to advance successful candidates as efficiently as possible. In this approach, investigators would conduct countermeasure research for prototype pathogens, understanding that the prototype may not emerge as a threat but assuming that techniques would be applicable to closely related microorganisms (oral communication, Barney S. Graham, MD, PhD, and Nancy J. Sullivan, PhD, June 2017).

One example is the flavivirus prototype. Zika virus was not on priority pathogen lists before 2015, and essentially no Zika-specific research had been undertaken at NIAID. However, because of an extensive research portfolio on related flaviviruses such as dengue and West Nile viruses, researchers were able to leverage approaches such as animal models, immunogenicity assays, and vaccine design elements to develop Zika vaccine candidates. In this regard, DNA vaccine development for Zika took 13 weeks to move from sequence selection to first-in-human trial, largely because of the "road map" that West Nile research provided. The vaccine candidate is currently in a phase 2/2b trial; however, further development and distribution will require a commercial partner. Adapting this model for the future, countermeasure development

approaches could be mapped out for multiple prototype pathogens, and if that pathogen (or a related one) emerges, the community would be poised for rapid countermeasure development, evaluation, and implementation.

While priority-pathogen lists might not reflect the next emerging threat, platform and prototype-pathogen approaches run the risk of taking too long. The most prudent path is to invest in research on all 3, bolstering the current ability to predict emerging infections, developing platforms that can be more rapidly adapted to new threats, and pursuing prototype-pathogen efforts to accelerate candidate development. However, broad availability of vaccines requires partnerships with industry, affected countries, and local communities. Moreover, even though considerable attention has been given to improved vaccine preparedness, solutions for treatments and diagnostics require further consideration, as both may play critical roles in any effective response.

Infectious disease outbreaks have been with humankind forever and will continue to occur. Whether dealing with HIV/AIDS, SARS, Ebola, Zika, or the inevitable unanticipated pathogen that will surely emerge, research has played and will play a critical role before, during, and after the outbreak. Looking ahead, the biomedical research community must maintain its critical role in comprehensive pandemic preparedness.
[References at title link above]

::::::
::::::

Emergencies

POLIO
Public Health Emergency of International Concern (PHEIC)
Polio this week as of 4 October 2017 [GPEI]
:: Summary of newly-reported viruses this week:
…**Syria**: seven new circulating vaccine derived poliovirus 2 (cVDPV2) cases reported, five cases from Mayadeen and one case from Boukamal districts, Deir Ez-Zor governorate, and one case from Thawra district, Raqqa governorate. Three new cVDPV2 positives from healthy children, two from Mayadeen and one from Bokamal districts, Deir Ez-Zor governorate.
…**Pakistan**: four new wild poliovirus 1 (WPV1) positive environmental samples, three reported in Sindh province, and one in Balochistan province.

::::::

Situation reports on the polio outbreak in Syria
Situation update 3 October 2017
:: Seven (7) new cases of cVDPV2 have been confirmed this week —5 cases from Mayadeen and 1 from Boukamal districts, Deir Ez-Zor governorate, and 1 case from Thawra district (newly infected), Raqqa governorate. Isolates from some cases had been laboratory pending for some time. The most recent case, a child from Boukamal with no history of polio vaccination, had onset of paralysis on 5 August.
:: The total number of cVDPV2 cases is 47.

:: Poliovirus has been isolated from stool samples collected from a healthy child in Damascus, as part of screening in place for IPDs from Deir Ez-Zor and Raqqa. The child, from Boukamal, Deir Ez-Zor, had samples collected on 19 August, the day of arrival. WHO and MoH will continue to take samples from healthy children in areas of Damascus with high numbers of IDPs, to ensure there is no wider circulation.

:: Preparation for the second immunization round for Raqqa is ongoing. Newly accessible villages in Thawra district have been included in campaign plans.

:: A series of meetings between partners to review outbreak response activities to date and to identify priorities for the next two months took place in Beirut 29-30 September.

::::::
::::::

WHO Grade 3 Emergencies [to 7 October 2017]

The Syrian Arab Republic

:: Syria cVDPV2 outbreak situation report 16, 3 October 2017

[See Polio above for detail]

Yemen

:: Field visits to Ibb and Hudaydah: Summary of immediate action points and recommendations, 20 September 2017 2 October 2017

[See Cholera above for more detail]

Iraq - *No new announcements identified.*

Nigeria - *No new announcements identified.]*

South Sudan - *No new announcements identified.*

::::::

WHO Grade 2 Emergencies [to 7 October 2017]

Myanmar

:: Situation Report 4 - 3 October 2017

Key Highlights

1. Current estimation of vulnerable people in Bangladesh: As of 28 September 2017, cumulative number of new arrivals in all sites of Ukiah, Teknaf, Cox's Bazar and Ramu are 501 8001. This includes 448 100 in four upazilas of Cox's Bazar district, 35 000 in registered camps for affected population and 18 700 in Naikhongchhari of Bandarbhan district. The total Rohingya population in Bangladesh is now estimated to be approximately 800 000.

2. Status on the new site development: Site Development Task Force is collaborating with Office of the Refugee Relief and Repatriation Commission (RRRC) and army officials on road construction in Kutapalong extension site and development of the 2000 acre site plan. Construction will start once Master Plan is finalized and refining of zoning diagram drafted by RRRC is completed.

3. Special vaccination campaign reaches its target: Vaccination campaign ended on 03 October with 135,519 receiving MR vaccines; 72,334 children receiving bOPV and 72,064 children receiving Vitamin A, since the campaign began on 16 September. WHO and partners are now ensuring that routine immunization activities are scaled-up in the makeshift and spontaneous settlements.

4. 900,000 doses of oral cholera vaccines sanctioned: International Coordinating Group (ICG) on Vaccine Provision has released 900 000 doses of OCV from the global stockpile to prevent spread of cholera amongst recently arrived vulnerable populations and host communities in areas around Cox's Bazar. The vaccines are anticipated to arrive in Bangladesh on 07 October.

Cameroon - *No new announcements identified*
Central African Republic - *No new announcements identified.*
Democratic Republic of the Congo - *No new announcements identified.*
Ethiopia - *No new announcements identified.*
Libya - *No new announcements identified.*
Niger - *No new announcements identified.*
Ukraine - *No new announcements identified.*

::::::
::::::

UN OCHA – L3 Emergencies
The UN and its humanitarian partners are currently responding to three 'L3' emergencies. This is the global humanitarian system's classification for the response to the most severe, large-scale humanitarian crises.
Iraq
:: Iraq: Humanitarian Bulletin, 16-30 September 2017 | Issued on 1 October [EN/AR/KU]

Syrian Arab Republic
:: 5 Oct 2017 Statement by Panos Moumtzis, the Regional Humanitarian Coordinator for the Syria Crisis on the recent escalation of violence in Syria [EN/AR]

Yemen - *No new announcements identified.*

::::::

UN OCHA – Corporate Emergencies
When the USG/ERC declares a Corporate Emergency Response, all OCHA offices, branches and sections provide their full support to response activities both at HQ and in the field.
DRC - *No new announcements identified*
Ethiopia - *No new announcements identified*
Nigeria - *No new announcements identified*
Somalia - *No new announcements identified*

::::::
::::::

Editor's Note:
We will cluster these recent emergencies as below and continue to monitor the WHO webpages for updates and key developments.

EBOLA/EVD [to 7 October 2017]

http://www.who.int/ebola/en/

HHS accelerates development of first Ebola vaccines and drugs

September 29, 2017

Actions under Project BioShield could protect health from bioterrorism, naturally occurring outbreaks

Hundreds of thousands of Americans could be protected from or treated for Ebola infections through the first purchase of vaccines and therapeutic drugs by the Biomedical Advanced Research and Development Authority (BARDA), part of the Office of the Assistant Secretary for Preparedness and Response (ASPR) within the U.S. Department of Health and Human Services. The vaccines and drugs are the first for Ebola to receive Project BioShield funding which supports late-stage development toward licensure and stockpile purchases.

"Today we are prepared to add four Ebola countermeasures to the stockpile whereas three years ago, very few products were even in early stages of development," BARDA Director Rick Bright, Ph.D., said. "This marks a pivotal moment in U.S. and global preparedness for future public health emergencies from viral hemorrhagic fevers like Ebola. We reached this point at unprecedented speed, and that's a direct result of innovative approaches to product development and to partnering across the U.S. government, other nations, and private industry."…

Under the agreements announced today, BARDA will provide Project BioShield funding for each company to validate its manufacturing processes and undertake the final preparations necessary to apply for approval through the U.S. Food and Drug Administration (FDA). While that work is completed, BARDA can purchase the vaccines and drugs for potential use in a public health emergency.

BARDA could purchase up to 1.13 million regimens of vaccine, including a single-dose vaccine from Merck Sharp & Dohme Corp of Whitehouse Station, New Jersey, and a two-dose vaccine from Janssen Vaccines and Prevention B.V. of Leiden, The Netherlands. In addition, BARDA will purchase a therapeutic drug from Mapp Biopharmaceutical, Inc. of San Diego, California, and a therapeutic drug from Regeneron Pharmaceuticals, Inc. of Tarrytown, New York.

Merck Sharp & Dohme Corp's single-shot vaccine would be used to protect people who are at high risk of exposure to Ebola. BARDA will provide $39.2 million for late stage development and purchase. The vaccine showed potential efficacy during testing in Guinea, West Africa, using a ring-vaccination protocol. This approach aims to stop the spread of a virus by vaccinating everyone a patient came in contact with and everyone who came in contact with the patient's contacts…

Janssen Vaccines and Prevention B.V.'s vaccine is a two-dose vaccine regimen that would be used to prevent illness in people who have not been exposed to Ebola but could be, such as health care workers and the general public. The regimen requires an initial vaccine which is protective against Ebola, followed by a second vaccine that uses different technology and boosts the body's immune response. This two-dose approach has progressed into multiple Phase 3 studies and demonstrated efficacy in animal models…

MERS-CoV [to 7 October 2017]
http://www.who.int/emergencies/mers-cov/en/
- *No new announcements identified.*

Yellow Fever [to 7 October 2017]
http://www.who.int/csr/disease/yellowfev/en/
- *No new announcements identified.*

Zika virus [to 7 October 2017]
http://www.who.int/csr/disease/zika/en/
- *No new announcements identified.*

::::::
::::::

WHO & Regional Offices [to 7 October 2017]

High level meeting for the Evaluation of the International Coordinating Group on Vaccine Provision (ICG)
Date: 17 October 2017
Place: Geneva, Switzerland
Background
The management of emergency stockpiles has become increasingly complex due to the growing number of epidemics, the number of countries able to access emergency stockpiles, new vaccine stockpiles managed by the ICG, the increased number of stakeholders involved in outbreak response and a fragile vaccine supply market. ICG partners and stakeholders asked for an independent external evaluation to highlight the strengths and weaknesses of ICG's governance, decision-making and communications mechanisms, and to develop actionable options for improving the functioning of the ICG.
Objective
The aim of the meeting is to reach agreement about actions to improve the ICG's governance, accessibility and management of disease-specific, emergency stockpiles and their composition, the transparency of decision-making processes as well as ICG internal and external communication processes.
Outcome
Action plan for improving the functioning of the ICG.

Highlights
WHO provides 1.2 million antibiotics to fight plague in Madagascar
News release
6 October 2017 | ANTANANARIVO, MADAGASCAR - WHO has delivered nearly 1.2 million doses of antibiotics and released US$1.5 million dollars in emergency funds to fight plague in Madagascar.

"Plague is curable if detected in time. Our teams are working to ensure that everyone at risk has access to protection and treatment. The faster we move, the more lives we save," said Dr. Charlotte Ndiaye, WHO Representative in Madagascar.
WHO has delivered 1 190 000 doses of antibiotics to the Ministry of Health and partners this week, and a further supply of 244 000 doses is expected in the days ahead.

The different types of drugs will be used for both curative and prophylactic care. They are enough to treat up to 5000 patients and protect up to 100 000 people who may be exposed to the disease.

The medicines are being distributed to health facilities and mobile health clinics across the country with the support of the Ministry of Health and partners.

WHO is also filling critical shortages in disinfection materials and personal protective equipment for health professionals and safe burials.

WHO and the Ministry of Health are training local health workers on how to identify and care for patients, and how to trace people who have had close contact with symptomatic patients so that they may be given protective treatment.

Most of the 231 infections and 33 deaths that the Ministry of Health has reported since August are associated with pneumonic plague – a more dangerous form of the disease that affects the lungs and is transmitted through coughing at close range.

Both bubonic and pneumonic plague can be cured using common antibiotics if delivered early. Antibiotics can also help prevent infection among people who have been exposed to plague.

WHO has rapidly released $1.5 Million from it emergency funds to allow for immediate support to the country until more substantial funds are received.

WHO is appealing for US$5.5 million to effectively respond to the outbreak and save lives.

::::::

Weekly Epidemiological Record, 6 October 2017, vol. 92, 40 (pp. 589–608)
:: Summary of global update on preventive chemotherapy implementation in 2016: crossing the billion
:: Global programme to eliminate lymphatic filariasis: progress report, 2016

::::::

Call for nomination for experts to serve on the SAGE working group on influenza vaccines
3 October 2017 [Deadline for application: 27 October 2017]

::::::

WHO Regional Offices

Selected Press Releases, Announcements

WHO African Region AFRO

:: WHO provides 1.2 million antibiotics to fight plague in Madagascar 06 October 2017
: WHO and the Ministry of Health strengthens immunization program in South Sudan 06 October 2017
:: Dr Moeti focuses on "Transforming Africa's Health: Leaving No-one Behind" 05 October 2017
:: Planning and roll out for first malaria vaccine implementation in Kenya underway 03 October 2017
:: WHO Regional Director For Africa Visits Botswana 03 October 2017
The Ministry of Health and Wellness will host the World Health…
:: Eritrea - Health Facility Standards Validation Workshop 03 October 2017
:: WHO scales up response to plague in Madagascar 03 October 2017

WHO Region of the Americas PAHO

No new digest content identified.

WHO South-East Asia Region SEARO

:: WHO appeals for USD 10.2 million to support critical health interventions in Cox's Bazar, Bangladesh 6 October 2017

WHO European Region EURO

:: Healthy places, healthy people – applying Scotland's Place Standard tool 05-10-2017
:: Understanding behaviours as a first step to addressing declining vaccination uptake in Europe 04-10-2017
:: Cycling: a vital link between transport, health, environment and economy 02-10-2017
:: Comprehensive approach to tobacco control in Russian Federation shows results 02-10-2017

WHO Eastern Mediterranean Region EMRO

:: Developing a universal health coverage priority benefit package for Member States of the Region 2 October 2017

WHO Western Pacific Region

:: Health leaders to meet in Brisbane, Australia, for WHO Regional Committee
Ministers of health and senior officials from the WHO Western Pacific Region's 37 countries and areas will meet in Brisbane, Australia from 9 to 13 October..

::::::
::::::

CDC/ACIP [to 7 October 2017]
http://www.cdc.gov/media/index.html

MMWR News Synopsis for October 5, 2017

:: **Retention in Medical Care Among Insured Children with Diagnosed HIV – United States, 2010-2014**

A significant proportion of HIV-diagnosed children might not be receiving the recommended frequency of medical care. An estimated 2,477 children ages 12 and younger were living with diagnosed HIV in the United States in 2014. U.S. Department of Health and Human Services

pediatric HIV treatment guidelines recommend medical assessments every three to four months for the first two years of antiretroviral therapy, and suggest that there is value in maintaining this frequency for all HIV-diagnosed children. CDC researchers analyzed insurance claims data to evaluate retention in medical care for children with diagnosed HIV and found that 60 percent of the Medicaid cohort and 69 percent of the commercial claims cohort were retained care during a two-year period between 2010 and 2014. The proportions of children retained in care for both groups were similar to those described in analyses conducted with insurance claims for adults with diagnosed HIV. Further investigation into the causes of non-retention in pediatric HIV care is indicated to identify possible ways to improve medical care consistency for children living with HIV.

Human Adenovirus Surveillance — United States, 2003-2016

CDC initiated the National Adenovirus Type Reporting System (NATRS) in 2014 to monitor trends in circulating human adenovirus types in the United States, which can be useful to inform diagnostic and surveillance activities by clinicians and public health practitioners. Human adenoviruses (HAdVs) are associated with a wide spectrum of clinical illness including respiratory illness, gastroenteritis, and conjunctivitis. More than 60 HAdV genotypes have been identified to date. Severity of HAdV illness can range from asymptomatic infections to severe illness and death. Although cases are frequently reported sporadically, outbreaks of HAdV have been reported globally in a variety of settings. CDC initiated the NATRS in 2014 to monitor trends in circulating HAdV types in the United States. Year-to-year fluctuations in HAdV types circulating in the U.S. varied considerably during the surveillance period. Surveillance for circulating HAdV types in the U.S. can be useful to inform diagnostic and surveillance activities by clinicians and public health practitioners.

Update: Influenza Activity — United States and Worldwide, May 21-September 23, 2017

CDC recommends yearly influenza vaccination for all people 6 months of age and older who do not have contraindications. Vaccination by the end of October is recommended, if possible, but should continue throughout the influenza season as long as influenza viruses are circulating and unexpired vaccine is available. While a yearly influenza vaccination is the best way to prevent influenza, treatment with influenza antiviral medications as soon as possible after the onset of illness is recommended for patients with confirmed or suspected influenza who have severe, complicated, or progressive illness; who require hospitalization; or who are at high risk for influenza complications. Antiviral drugs work best when started within two days of getting sick. Although summer influenza activity in the United States was low, seasonal and novel influenza cases and outbreaks occurred during summer months. Clinicians should remain vigilant in considering novel influenza virus infections in people with influenza-like illness and swine or poultry exposure, or with severe acute respiratory infection after travel to areas where avian influenza viruses have been detected. There was low-level seasonal influenza activity from May 21 to September 23, 2017, in the United States. Influenza B viruses predominated from late May through late June, and influenza A viruses predominated beginning in early July. Influenza A H1N1pdm09, influenza A H3N2, and influenza B viruses were detected in the United States and worldwide. Typical seasonal patterns of influenza activity were seen in Southern Hemisphere countries. The majority of the influenza viruses from the United States and other countries analyzed at CDC were similar to the reference viruses representing the recommended components for the 2017-18 vaccine.

::::::
::::::

Announcements

AERAS [to 7 October 2017]
http://www.aeras.org/pressreleases
No new digest content identified.

BMGF - Gates Foundation [to 7 October 2017]
http://www.gatesfoundation.org/Media-Center/Press-Releases
No new digest content identified.

CEPI – Coalition for Epidemic Preparedness Innovations [to 7 October 2017]
http://cepi.net/
No new digest content identified.

EDCTP [to 7 October 2017]
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
2 October 2017
Call for participants: Workshop in Portuguese on EDCTP grant proposal writing
EDCTP is calling for applications from researchers interested in participating in a workshop on EDCTP Calls for Proposals and grant…

European Medicines Agency [to 7 October 2017]
http://www.ema.europa.eu/ema/
06/10/2017
EMA Management Board: highlights of October 2017 meeting
Board hears update on preparations for Brexit and adopts Agency's mid-year report ...

05/10/2017
EMA takes yet another step in public engagement with its first public hearing
Summary report now published ...

European Vaccine Initiative [to 7 October 2017]
http://www.euvaccine.eu/news-events
04 October 2017
Report on Role and Impact of EU's 'Poverty-Related and Neglected Diseases' projects

The European Commission Research and Innovation Directorate published a report it had commissioned to evaluate the role and impact of the European Union's (EU) Research Framework Programme activities in the field of Poverty-Related and Neglected Diseases (PRNDs).

The study focuses on the impact of past EU funding (€1.445bn) in PRND research supported from EU Framework Programmes (FP5–7, 1998–2013), as well as the first European and Developing Countries Clinical Trials Partnership (EDCPT) (2003–2013) and relevant research under the Innovative Medicines Initiative (IMI) (2008–2013). EVI is positively mentioned on several occasions throughout the report and is listed as one of the top ten organisations receiving EDCTP funding during the evaluation period.

PDF: https://publications.europa.eu/en/publication-detail/-/publication/1f324128-a4c1-11e7-837e-01aa75ed71a1/language-en/format-PDF

FDA [to 7 October 2017]
http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/default.htm
October 06, 2017 - FDA awards six grants for natural history studies in rare diseases

October 06, 2017 - FDA awards 15 grants for clinical trials to stimulate product development for rare diseases

October 05, 2017 - FDA approves first test for screening Zika virus in blood donations

October 02, 2017 - Statement from FDA Commissioner Scott Gottlieb, M.D., on the FDA's Adverse Event Reporting System (FAERS) and new search tool

What's New for Biologics
:: October 5, 2017 Approval Letter - cobasZika (PDF - 39KB) Posted: 10/6/2017
:: Influenza Virus Vaccine for the 2017-2018 Season Updated: 10/5/2017

Fondation Merieux [to 7 October 2017]
http://www.fondation-merieux.org/
October 6, 2017
The "Cent Gardes" Conference brings together the world's foremost experts on HIV/AIDS at Les Pensières

On October 6-8, the Mérieux Foundation organizes the "Cent Gardes" Conference focusing on HIV/AIDS, in partnership with the Agence France Recherche Nord&Sud Sida-HIV Hépatites (ANRS) and the Institut national de la santé et de la recherche médicale (Inserm).

More than 50 experts from 10 countries will participate in this edition of the Cent Gardes Conference. The symposium focuses on the HIV vaccine, which remains a high priority to end the global HIV epidemic.

The experts will notably discuss the role of antibodies in HIV prevention and therapy. The mechanisms of HIV transmission and mucosal immunity will also be explored. Some presentations will highlight the functional cure for HIV, which aims to remove the negative effects of HIV infection without eliminating all virus from the body…

Gavi [to 7 October 2017]
http://www.gavi.org/library/news/press-releases/
No new digest content identified.

GHIT Fund [to 7 October 2017]
https://www.ghitfund.org/
GHIT was set up in 2012 with the aim of developing new tools to tackle infectious diseases that devastate the world's poorest people. Other funders include six Japanese pharmaceutical •
No new digest content identified.

Global Fund [to 7 October 2017]
http://www.theglobalfund.org/en/news/?topic=&type=NEWS;&country=
No new digest content identified.

Hilleman Laboratories [to 7 October 2017]
http://www.hillemanlabs.org/
No new digest content identified.

Human Vaccines Project [to 7 October 2017]
http://www.humanvaccinesproject.org/media/press-releases/
October 5, 2017
Update

IAVI [to 7 October 2017]
https://www.iavi.org/
October 4, 2017
New HIV-Prevention Discoveries Harness the Power of Potent Antibodies
Scientists have known for some time that a fraction of people living with chronic HIV infection produce broadly neutralizing antibodies (bnAbs), which can overcome HIV's high levels of diversity to block replication. At IAVI's Neutralizing Antibody Center (NAC) in La Jolla, California, a team of researchers from IAVI and The Scripps Research Institute (TSRI) recently found themselves out to pasture, thanks to similarities between bnAbs and cow antibodies.
Now two more discoveries involving NAC researchers could have implications for development of both a vaccine and long-acting HIV prevention, according to studies published in PLOS Pathogens and Science…

IVAC [to 7 October 2017]
http://www.jhsph.edu/research/centers-and-institutes/ivac/index.html
No new digest content identified.

IVI [to 7 October 2017]

http://www.ivi.int/
No new digest content identified.

MSF/Médecins Sans Frontières [to 7 October 2017]
http://www.doctorswithoutborders.org/news-stories/press/press-releases
Press release
Doctors Without Borders Brings Interactive Exhibition on Global Refugee Crisis to Seattle
October 04, 2017
The international medical humanitarian organization Doctors Without Borders/Médecins Sans Frontières (MSF) opens Forced From Home this week in Seattle. The interactive exhibit seeks to tell the individual stories of the more than 65 million displaced people worldwide, and to help visitors understand the humanitarian consequences of displacement. Forced From Home exhibitions has already toured Boulder and Salt Lake City in September, welcoming more than 6,000 visitors.

NIH [to 7 October 2017]
http://www.nih.gov/news-events/news-releases
October 6, 2017
DNA damage caused by cancer treatment reversed by ZATT protein
— Scientists discover a new way that cells fix an important and dangerous type of DNA damage.

NIH to fund Centers of Excellence on Minority Health and Health Disparities
October 5, 2017 — Twelve specialized research centers will conduct multidisciplinary research, research training, and community engagement activities.

NIH to fund seven Research Centers in Minority Institutions
October 5, 2017 — Awards to support institutional research capacity and foster the career development of new and early career investigators.

Monoclonal antibodies against Zika show promise in monkey study
October 5, 2017 — Further development toward clinical evaluation is warranted.

NIH Director's high-risk research awards announced for 2017
October 5, 2017 — NIH Common Fund funds 86 awards for highly innovative biomedical research.

Multiple research approaches are key to pandemic preparedness, NIAID officials say
October 5, 2017 — Preparedness in the face of major disease outbreaks can save thousands of lives.
[See Featured Journal Content above for more detail]

NIDCR announces 2017 Sustaining Outstanding Achievement in Research awards
October 4, 2017 — Grants support ambitious, long-term research of meritorious mid-career investigators.

NIH Grantee Wins 2017 Nobel Prize in Chemistry

October 4, 2017 — The 2017 Nobel Prize in Chemistry has been awarded to National Institutes of Health grantee Joachim Frank, Ph.D., of Columbia University, New York City.

PATH [to 7 October 2017]
http://www.path.org/news/index.php
Announcement | October 02, 2017
PATH hires chief of staff for the Office of the President

Erica Sessle brings international, multi-sectoral leadership experience in health sciences and public health

Sabin Vaccine Institute [to 7 October 2017]
http://www.sabin.org/updates/pressreleases
No new digest content identified.

UNAIDS [to 7 October 2017]
http://www.unaids.org/en
Press statement
UNAIDS welcomes appointment of Natalia Kanem as Executive Director of UNFPA

GENEVA, 5 October 2017—UNAIDS welcomes the appointment by the United Nations Secretary-General of Natalia Kanem as the Executive Director of the United Nations Population Fund (UNFPA).

"As part of the Joint United Nations Programme on HIV/AIDS, the United Nations Population Fund's work is critical in meeting the reproductive health needs of women and adolescents," said Michel Sidibé, Executive Director of UNAIDS. "I look forward to working closely with Ms Kanem. Her experience in public health, her strong leadership and her commitment to social justice will be invaluable in our efforts to end AIDS as a public health threat."…

Press statement
UNAIDS congratulates Mariangela Simão on her appointment as Assistant Director-General at the World Health Organization

GENEVA, 3 October 2017—UNAIDS warmly congratulates Mariângela Batista Galvão Simão on her appointment as the Assistant Director-General for Drug Access, Vaccines and Pharmaceuticals at the World Health Organization (WHO)…

UNICEF [to 7 October 2017]
https://www.unicef.org/media/
6 October 2017
UNICEF's preventive plan to mitigate the risk of Acute Water Diarrhoea (AWD) and Cholera among Rohingya Refugees

GENEVA/DHAKA, Bangladesh - This is a situation update from Maya Vandenant, Chief of Health, UNICEF Bangladesh, – to whom quoted text may be attributed – for today's press briefing at the Palais des Nations in Geneva.

[See Milestones above for more detail]

Partners commit to reduce cholera deaths by 90 per cent by 2030

Geneva, 03 October 2017 – An ambitious new strategy to reduce deaths from cholera by 90 per cent by 2030 will be launched tomorrow by the Global Task Force on Cholera Control (GTFCC), a diverse network of more than 50 UN and international agencies, academic institutions, and NGOs that supports countries affected by the disease.
[See Milestones above for more detail]

The Vaccine Confidence Project [to 7 October 2017]
http://www.vaccineconfidence.org/
No new digest content identified.

Wellcome Trust [to 7 October 2017]
https://wellcome.ac.uk/news
Published: 4 October 2017
Introducing our new science strategy
After almost a year as Director of Science, Jim Smith gives an update on our new approach to science funding: Improving health through the best research.

I have been Director of Science at Wellcome for 10 months now. During this time I've been learning how Wellcome works and spending as much time as possible meeting the people we support, both in the UK and abroad. With my first anniversary coming up, it's a good time to set out our stall and discuss Wellcome's approach to funding science.

I set out this approach today in our new science strategy: Improving health through the best research [PDF 1MB]. The strategy outlines what we plan to do over the next five years and how we plan to do it. It has four broad aims:
:: creating knowledge
:: strengthening research capacity
:: using knowledge effectively
:: promoting an environment in which research can flourish.

::::::

BIO [to 7 October 2017]
https://www.bio.org/insights/press-release
Oct 3 2017
Sixth Annual BIO Patient and Health Advocacy Summit Concludes Today

The 2017 Patient and Health Advocacy Summit wrapped up today, having offered the nearly 240 patient groups, companies and organizations new ways to connect, strategize, learn and partner. For the past six years, the BIO Patient and Health Advocacy Summit has brought together a diverse group of organizations including patient advocacy, health care providers, academia, government, think tanks, professional societies and the biotechnology industry to focus on bringing the patients' voice to the drug development process.

DCVMN – Developing Country Vaccine Manufacturers Network [to 7 October 2017]

http://www.dcvmn.org/
No new digest content identified.

IFPMA [to 7 October 2017]
http://www.ifpma.org/resources/news-releases/
Published on: 03 October 2017
WIPO and the Research-Based Pharmaceutical Industry Team up to Facilitate Access to Key Medicine Patent Information

GENEVA, 13h00 CET – 3 October 2017 – The World Intellectual Property Organization (WIPO) and the research-based pharmaceutical industry today launched a new partnership to promote the accessibility of patent information for health agencies tasked with procurement of medicines.

WIPO Director General Francis Gurry and Thomas Cueni, Director General of the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA), signed an agreement establishing the Patent Information Initiative for Medicines, or "Pat-INFORMED," on the sidelines of the Assemblies of the Member States of WIPO.

WIPO and IFPMA, the global trade association representing the research-based pharmaceutical industry, are co-sponsors of the initiative, which originated in the industry's efforts to add clarity to the patent information around medicines. It couples the industry's work in this area with WIPO's well-established expertise in organizing patent data from across the globe.

Pat-INFORMED will clearly link public patent information to registered medicines in a new online global gateway, helping health professionals to navigate the medicine-procurement process for the benefit of their citizens.

"Pat-INFORMED will make it easier for procurement experts to assess the patent status of medicines, underlining how a well-designed and implemented patent system incentivizes innovation while making available and accessible key information about patented inventions," said Mr. Gurry. "I welcome the engagement of IFPMA and its membership in this initiative, which responds to real needs in the public health community."…

PhRMA [to 7 October 2017]
http://www.phrma.org/press-room
No new digest content identified.

::::::

Industry Watch
:: **Bavarian Nordic Secures Contract Award for Supply of Freeze-dried IMVAMUNE Smallpox Vaccine to the U.S. Government**
:: Initial base award secures additional IMVAMUNE bulk contract of USD 100 million
:: Contract includes initial options valued at USD 439 million
:: Potential for contract value to increase if options to purchase additional IMVAMUNE bulk or freeze dried doses are exercised.
COPENHAGEN, Denmark, September 27, 2017 – Bavarian Nordic A/S (OMX: BAVA, OTC: BVNRY) today announced the award of a sole source contract from the Biomedical Advanced Research and Development Authority (BARDA), part of the Office of the Assistant Secretary for

Preparedness and Response at the U.S. Department of Health and Human Services (HHS), for the procurement of freeze-dried IMVAMUNE® smallpox vaccine. The potential value of the initial base and optional awards is in excess of USD 539 million.

The initial award in the contract calls for the manufacturing and storage of USD 100 million of IMVAMUNE bulk. This is the third such award to manufacture vaccine bulk; with the two prior orders totaling USD 233 million. The initial options in the contract are divided between two distinct areas, the first of which is the filling and freeze-drying of IMVAMUNE from the three bulk awards, with total potential value of USD 299 million. The second part of the contract contains provisions for clinical development, regulatory commitments, and parts of the establishment and validation of fill/finish activities, with potential value of up to USD 140 million. The award also contains options to acquire additional vaccine bulk and/or freeze-dried doses of IMVAMUNE in the future.

To ensure the production capacity to secure the future IMVAMUNE stockpile at the U.S. Strategic National Stockpile, Bavarian Nordic will invest approximately USD 75 million over the coming years in the construction of a fill/finish manufacturing line at its facility in Denmark. As part of Bavarian Nordic's long-standing partnership with BARDA, a potential optional award of up to USD 33 million (part of the USD 140 million mentioned above) is dedicated to process transfer, and validation of the new manufacturing line. This strategic investment will allow Bavarian Nordic to recognize the full value chain of the manufacturing process, to maintain control of the product cycle throughout, and the potential to provide these services to third parties in the future.

"We are proud to be part of a long-standing and successful partnership with BARDA and this latest contract starts a new chapter, as we supply an improved formulation of our vaccine as part of the U.S. government commitment to protect the nation from a smallpox outbreak " said Paul Chaplin, President and Chief Executive Officer of Bavarian Nordic. "Our latest strategic investment that will expand our manufacturing capacities will add value, not only to our partnerships, but also to our proprietary pipeline."…

:: **PnuVax awarded $29.4 million USD grant to advance innovative vaccine into clinical trials**

:: Pneumonia, one of the diseases caused by pneumococcal bacteria, is currently the leading single killer of young children worldwide, despite advances in prevention and treatment

:: $29.4 million USD grant from the Bill & Melinda Gates Foundation will advance vaccine's clinical development and biomanufacturing scale-up

:: Novel low-cost approach that may lead to increased access to vaccine, with potential to save millions of lives

Kingston, Canada – 2 October 2017 – PnuVax Incorporated, an organization dedicated to the production of high quality vaccines and biopharmaceuticals for the promotion of public health worldwide, today announced that it is the recipient of a $29.4 million USD ($36 million CDN) grant. The grant will be used to further develop and clinically evaluate PnuVax's innovative pneumococcal conjugate vaccine. Milestone payments will be received over the next three years as the vaccine progresses from process development through to biomanufacturing scale-up and proof-of-concept clinical trials…

* * * *

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

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

No new digest content identified.

* * * *

Journal Watch

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

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

American Journal of Infection Control
October 01, 2017 Volume 45, Issue 10, p1057-1174, e103-e118
http://www.ajicjournal.org/current
[Reviewed earlier]

American Journal of Preventive Medicine
October 2017 Volume 53, Issue 4, p405-566, e123-e154
http://www.ajpmonline.org/current
[Reviewed earlier]

American Journal of Public Health
October 2017 107(10)
http://ajph.aphapublications.org/toc/ajph/current
[Reviewed earlier]

American Journal of Tropical Medicine and Hygiene
Volume 97, Issue 3, 2017 Suppl, 2017
http://www.ajtmh.org/content/current
[Reviewed earlier]

Annals of Internal Medicine
3 October 2017 Vol: 167, Issue 7
http://annals.org/aim/issue
[New issue; No digest content identified]

BMC Cost Effectiveness and Resource Allocation
http://resource-allocation.biomedcentral.com/
(Accessed 7 October 2017)
[No new digest content identified]

BMJ Global Health
January 2017; volume 2, issue 1
http://gh.bmj.com/content/2/1?current-issue=y
[Reviewed earlier]

BMC Health Services Research
http://www.biomedcentral.com/bmchealthservres/content
(Accessed 7 October 2017)
[No new digest content identified]

BMC Infectious Diseases
http://www.biomedcentral.com/bmcinfectdis/content
(Accessed 7 October 2017)
Research Article
Community-based surveillance of norovirus disease: a systematic review
Norovirus is a common cause of infectious gastrointestinal disease. Despite the increased ability to detect norovirus in affected people, the number of reported cases and outbreaks in the community is still su...
Thomas Inns, John Harris, Roberto Vivancos, Miren Iturriza-Gomara and Sarah O'Brien
BMC Infectious Diseases 2017 17:657
Published on: 29 September 2017

BMC Medical Ethics
http://www.biomedcentral.com/bmcmedethics/content
(Accessed 7 October 2017)
[No new digest content identified]

BMC Medicine
http://www.biomedcentral.com/bmcmed/content
(Accessed 7 October 2017)

Research article

The cost determinants of routine infant immunization services: a meta-regression analysis of six country studies

Nicolas A. Menzies, Christian Suharlim, Fangli Geng, Zachary J. Ward, Logan Brenzel and Stephen C. Resch

Published on: 6 October 2017

Abstract

Background

Evidence on immunization costs is a critical input for cost-effectiveness analysis and budgeting, and can describe variation in site-level efficiency. The Expanded Program on Immunization Costing and Financing (EPIC) Project represents the largest investigation of immunization delivery costs, collecting empirical data on routine infant immunization in Benin, Ghana, Honduras, Moldova, Uganda, and Zambia.

Methods

We developed a pooled dataset from individual EPIC country studies (316 sites). We regressed log total costs against explanatory variables describing service volume, quality, access, other site characteristics, and income level. We used Bayesian hierarchical regression models to combine data from different countries and account for the multi-stage sample design. We calculated output elasticity as the percentage increase in outputs (service volume) for a 1% increase in inputs (total costs), averaged across the sample in each country, and reported first differences to describe the impact of other predictors. We estimated average and total cost curves for each country as a function of service volume.

Results

Across countries, average costs per dose ranged from $2.75 to $13.63. Average costs per child receiving diphtheria, tetanus, and pertussis ranged from $27 to $139. Within countries costs per dose varied widely—on average, sites in the highest quintile were 440% more expensive than those in the lowest quintile. In each country, higher service volume was strongly associated with lower average costs. A doubling of service volume was associated with a 19% (95% interval, 4.0–32) reduction in costs per dose delivered, (range 13% to 32% across countries), and the largest 20% of sites in each country realized costs per dose that were on average 61% lower than those for the smallest 20% of sites, controlling for other factors. Other factors associated with higher costs included hospital status, provision of outreach services, share of effort to management, level of staff training/seniority, distance to vaccine collection, additional days open per week, greater vaccination schedule completion, and per capita gross domestic product.

Conclusions

We identified multiple features of sites and their operating environment that were associated with differences in average unit costs, with service volume being the most influential. These findings can inform efforts to improve the efficiency of service delivery and better understand resource needs.

Research article

The risk of type 2 oral polio vaccine use in post-cessation outbreak response

Kevin A. McCarthy, Guillaume Chabot-Couture, Michael Famulare, Hil M. Lyons and Laina D. Mercer

Published on: 4 October 2017

Abstract

Background

Wild type 2 poliovirus was last observed in 1999. The Sabin-strain oral polio vaccine type 2 (OPV2) was critical to eradication, but it is known to revert to a neurovirulent phenotype, causing vaccine-associated paralytic poliomyelitis. OPV2 is also transmissible and can establish circulating lineages, called circulating vaccine-derived polioviruses (cVDPVs), which can also cause paralytic outbreaks. Thus, in April 2016, OPV2 was removed from immunization activities worldwide. Interrupting transmission of cVDPV2 lineages that survive cessation will require OPV2 in outbreak response, which risks seeding new cVDPVs. This potential cascade of outbreak responses seeding VDPVs, necessitating further outbreak responses, presents a critical risk to the OPV2 cessation effort.
Methods
The EMOD individual-based disease transmission model was used to investigate OPV2 use in outbreak response post-cessation in West African populations. A hypothetical outbreak response in northwest Nigeria is modeled, and a cVDPV2 lineage is considered established if the Sabin strain escapes the response region and continues circulating 9 months post-response. The probability of this event was investigated in a variety of possible scenarios.
Results
Under a broad range of scenarios, the probability that widespread OPV2 use in outbreak response (~2 million doses) establishes new cVDPV2 lineages in this model may exceed 50% as soon as 18 months or as late as 4 years post-cessation.
Conclusions
The risk of a cycle in which outbreak responses seed new cVDPV2 lineages suggests that OPV2 use should be managed carefully as time from cessation increases. It is unclear whether this risk can be mitigated in the long term, as mucosal immunity against type 2 poliovirus declines globally. Therefore, current programmatic strategies should aim to minimize the possibility that continued OPV2 use will be necessary in future years: conducting rapid and aggressive outbreak responses where cVDPV2 lineages are discovered, maintaining high-quality surveillance in all high-risk settings, strengthening the use of the inactivated polio vaccine as a booster in the OPV2-exposed and in routine immunization, and gaining access to currently inaccessible areas of the world to conduct surveillance.

BMC Pregnancy and Childbirth
http://www.biomedcentral.com/bmcpregnancychildbirth/content
(Accessed 7 October 2017)
[No new digest content identified]

BMC Public Health
http://bmcpublichealth.biomedcentral.com/articles
(Accessed 7 October 2017)
Research article
Association between parent attitudes and receipt of human papillomavirus vaccine in adolescents
Human papillomavirus (HPV) vaccine coverage rates remain low. This is believed to reflect parental hesitancy, but few studies have examined how changes in parents' attitudes impact HPV vaccine uptake. This stu...
Jeffrey J. VanWormer, Casper G. Bendixsen, Elizabeth R. Vickers, Shannon Stokley, Michael M. McNeil, Julianne Gee, Edward A. Belongia and Huong Q. McLean

BMC Public Health 2017 17:766
Published on: 2 October 2017

BMC Research Notes
http://www.biomedcentral.com/bmcresnotes/content
(Accessed 7 October 2017)
[No new digest content identified]

BMJ Open
October 2017 - Volume 7 - 10
http://bmjopen.bmj.com/content/current
Communication - Research
Comparing human papillomavirus vaccine concerns on Twitter: a cross-sectional study of users in Australia, Canada and the UK
Gilla K Shapiro, Didi Surian, Adam G Dunn, Ryan Perry, Margaret Kelaher

Evidence based practice
Research
Search for unpublished data by systematic reviewers: an audit
Hedyeh Ziai, Rujun Zhang, An-Wen Chan, Nav Persaud
Abstract
Objectives We audited a selection of systematic reviews published in 2013 and reported on the proportion of reviews that researched for unpublished data, included unpublished data in analysis and assessed for publication bias.
Design Audit of systematic reviews.
Data sources We searched PubMed and Ovid MEDLINE In-Process & Other Non-Indexed Citations between 1 January 2013 and 31 December 2013 for the following journals: Journal of the American Medical Association, The British Medical Journal, Lancet, Annals of Internal Medicine and the Cochrane Database of Systematic Reviews. We also searched the Cochrane Library and included 100 randomly selected Cochrane reviews.
Eligibility criteria Systematic reviews published in 2013 in the selected journals were included. Methodological reviews were excluded.
Data extraction and synthesis Two reviewers independently reviewed each included systematic review. The following data were extracted: whether the review searched for grey literature or unpublished data, the sources searched, whether unpublished data were included in analysis, whether publication bias was assessed and whether there was evidence of publication bias.
Main findings 203 reviews were included for analysis. 36% (73/203) of studies did not describe any attempt to obtain unpublished studies or to search grey literature. 89% (116/130) of studies that sought unpublished data found them. 33% (68/203) of studies included an assessment of publication bias, and 40% (27/68) of these found evidence of publication bias.
Conclusion A significant fraction of systematic reviews included in our study did not search for unpublished data. Publication bias may be present in almost half the published systematic reviews that assessed for it. Exclusion of unpublished data may lead to biased estimates of efficacy or safety in systematic reviews.

Bulletin of the World Health Organization
Volume 95, Number 10, October 2017, 665-728
http://www.who.int/bulletin/volumes/95/10/en/
PERSPECTIVES
Strategic procurement and international collaboration to improve access to medicines
Alessandra Ferrario, Tifenn Humbert, Panos Kanavos & Hanne Bak Pedersen
http://dx.doi.org/10.2471/BLT.16.187344

Efficient procurement of medicines is more than just obtaining the lowest price. It is about creating a healthy market where products of good quality are available at affordable prices on a sustainable basis and at the right time.1 In this context, a strategic approach to procurement is vital. Such an approach should encompas all activities that might improve the efficiency of procurement – e.g. activities to minimize low-value repetitive purchases, increase the benefit of economies of scale and reduce transaction and transport costs.2 Here, we will provide examples of the experiences of countries in the World Health Organization's European Region in improving the efficiency of procurement of medicines. We will also explain how international collaboration could help improve individual country's efforts.

Child Care, Health and Development
November 2017 Volume 43, Issue 6 Pages 783–946
http://onlinelibrary.wiley.com/doi/10.1111/cch.v43.6/issuetoc
[New issue; No digest content identified]

Clinical and Experimental Vaccine Research
Volume 6(2); July 2017
http://ecevr.org/
[Reviewed earlier]

Clinical Therapeutics
September 2017 Volume 39, Issue 9, p1751-1906
http://www.clinicaltherapeutics.com/issue/S0149-2918(17)X0012-X
Commentary
Data Sharing in the Pharmaceutical Enterprise: The Genie's Out of the Bottle
Paul Beninger, James Connelly, Chandrasekhar Natarajan
p1890–1894
Published online: August 17, 2017
DOI: http://dx.doi.org/10.1016/j.clinthera.2017.08.001
Abstract
Objective
This Commentary shows that the present emphasis on the sharing of data from clinical trials can be extended to the entire pharmaceutical enterprise.
Methods
The authors constructed a Data Sharing Dashboard that shows the relationship between all of the life-cycle domains of the pharmaceutical enterprise from discovery to obsolescence and the

domain-bridging disciplines, such as target credentialing, structure-activity relationships, and exposure-effect relationships.
Findings
The published literature encompassing the pharmaceutical enterprise is expansive, covering the major domains of discovery, translation, clinical development, and post-marketing outcomes research, all of which have even larger, though generally inaccessible, troves of legacy data bases. Notable exceptions include the fields of genomics and bioinformatics.
Implications
We have the opportunity to broaden the present momentum of interest in data sharing to the entire pharmaceutical enterprise, beginning with discovery and extending into health technology assessment and post-patent expiry generic use with the plan of integrating new levels and disciplines of knowledge and with the ultimate goal of improving the care of our patients.

Complexity
November/December 2016 Volume 21, Issue S2 Pages 1–642
http://onlinelibrary.wiley.com/doi/10.1002/cplx.v21.S2/issuetoc
[Reviewed earlier]

Conflict and Health
http://www.conflictandhealth.com/
[Accessed 7 October 2017]
[No digest content identified]

Contemporary Clinical Trials
Volume 60, Pages 1-126 (September 2017)
http://www.sciencedirect.com/science/journal/15517144/60?sdc=1
[Reviewed earlier]

Current Opinion in Infectious Diseases
October 2017 - Volume 30 - Issue 5
http://journals.lww.com/co-infectiousdiseases/pages/currenttoc.aspx
[Reviewed earlier]

Developing World Bioethics
August 2017 Volume 17, Issue 2 Pages 61–140
http://onlinelibrary.wiley.com/doi/10.1111/dewb.2017.17.issue-2/issuetoc
[Reviewed earlier]

Development in Practice
Volume 27, Issue 7
http://www.tandfonline.com/toc/cdip20/current
[Reviewed earlier]

Disasters
October 2017 Volume 41, Issue 4 Pages 629–851
http://onlinelibrary.wiley.com/doi/10.1111/disa.2017.41.issue-4/issuetoc
[Reviewed earlier]

EMBO Reports
01 September 2017; volume 18, issue 9
http://embor.embopress.org/content/18/9?current-issue=y
[Reviewed earlier]

Emerging Infectious Diseases
Volume 23, Number 10—October 2017
http://wwwnc.cdc.gov/eid/
Research
Poliovirus Excretion in Children with Primary Immunodeficiency Disorders, India
PDF Version [PDF - 1.19 MB - 7 pages]
M. Mohanty et al.

Epidemics
Volume 20, Pages 1-102 (September 2017)
http://www.sciencedirect.com/science/journal/17554365
[Reviewed earlier]

Epidemiology and Infection
Volume 145 - Issue 13 - October 2017
https://www.cambridge.org/core/journals/epidemiology-and-infection/latest-issue
[New issue; No digest content identified]

The European Journal of Public Health
Volume 27, Issue 4, 1 August 2017
https://academic.oup.com/eurpub/issue/27/4
[Reviewed earlier]

Global Health Action
Volume 10, 2017 – Issue 1 [In Progress]
http://www.tandfonline.com/toc/zgha20/10/1?nav=tocList
[Reviewed earlier]

Global Health: Science and Practice (GHSP)

September 2017 | Volume 5 | Number 3
http://www.ghspjournal.org/content/current
[Reviewed earlier]

Global Public Health
Volume 12, 2017 Issue 11
http://www.tandfonline.com/toc/rgph20/current
[Reviewed earlier]

Globalization and Health
http://www.globalizationandhealth.com/
[Accessed 7 October 2017]
Research
A scoping review of mentorship of health personnel to improve the quality of health care in low and middle-income countries
This review identifies a paucity of evidence of mentorship in this context however, current evidence supports the assertion that effective mentorship contributes to the improvement of certain quality of care outcomes. The features of successful mentorship interventions are outlined and the implications are discussed in the context of existing evidence.
Patricia Schwerdtle, Julia Morphet and Helen Hall
Published on: 3 October 2017

Health Affairs
September 2017; Volume 36, Issue 9
http://content.healthaffairs.org/content/current
Issue Focus: Market Concentration
[Reviewed earlier]

Health and Human Rights
Volume 19, Issue 1, June 2017
http://www.hhrjournal.org/
[Reviewed earlier]

Health Economics, Policy and Law
Volume 12 - Issue 4 - October 2017
https://www.cambridge.org/core/journals/health-economics-policy-and-law/latest-issue
SPECIAL ISSUE: Healthcare and Health Innovation in Europe: Regulating for public benefit or for commercial profit?
[Reviewed earlier]

Health Policy and Planning
Volume 32, Issue 9 November 2017

http://heapol.oxfordjournals.org/content/current
Original Articles
Institutionalizing and sustaining social change in health systems: the case of Uganda
Jerald Hage; Joseph J Valadez
Health Policy and Planning, Volume 32, Issue 9, 1 November 2017, Pages 1248–1255, https://doi.org/10.1093/heapol/czx066

Large-scale delivery of seasonal malaria chemoprevention to children under 10 in Senegal: an economic analysis
Catherine Pitt; Mouhamed Ndiaye; Lesong Conteh; Ousmane Sy; El Hadj Ba ...
Health Policy and Planning, Volume 32, Issue 9, 1 November 2017, Pages 1256–1266, https://doi.org/10.1093/heapol/czx084

Health Research Policy and Systems
http://www.health-policy-systems.com/content
[Accessed 7 October 2017]
Research
Generating demand for and use of evaluation evidence in government health ministries: lessons from a pilot programme in Uganda and Zambia
The Demand-Driven Evaluations for Decisions (3DE) programme was piloted in Zambia and Uganda in 2012–2015. It aimed to answer evaluative questions raised by policymakers in Ministries of Health, rapidly and wi...
Sophie Witter, Andrew Kardan, Molly Scott, Lucie Moore and Louise Shaxson
Health Research Policy and Systems 2017 15:86
Published on: 2 October 2017

Opinion
Knowledge mobilisation for policy development: implementing systems approaches through participatory dynamic simulation modelling
Evidence-based decision-making is an important foundation for health policy and service planning decisions, yet there remain challenges in ensuring that the many forms of available evidence are considered when...
Louise Freebairn, Lucie Rychetnik, Jo-An Atkinson, Paul Kelly, Geoff McDonnell, Nick Roberts, Christine Whittall and Sally Redman
Health Research Policy and Systems 2017 15:83
Published on: 2 October 2017

Review
How do we define the policy impact of public health research? A systematic review
In order to understand and measure the policy impact of research we need a definition of research impact that is suited to the task. This article systematically reviewed both peer-reviewed and grey literature ...
Kristel Alla, Wayne D. Hall, Harvey A. Whiteford, Brian W. Head and Carla S. Meurk
Health Research Policy and Systems 2017 15:84
Published on: 2 October 2017

Humanitarian Exchange Magazine
http://odihpn.org/magazine/the-humanitarian-consequences-of-violence-in-central-america/
Number 69 June 2017
The humanitarian consequences of violence in Central America
[Reviewed earlier]

Human Vaccines & Immunotherapeutics (formerly Human Vaccines)
Volume 13, Issue 9 2017
http://www.tandfonline.com/toc/khvi20/current
[Reviewed earlier]

Infectious Agents and Cancer
http://www.infectagentscancer.com/content
[Accessed 7 October 2017]
[No new digest content identified]

Infectious Diseases of Poverty
http://www.idpjournal.com/content
[Accessed 7 October 2017]
Study Protocol
Study roadmap for high-throughput development of easy to use and affordable biomarkers as diagnostics for tropical diseases: a focus on malaria and schistosomiasis
Kokouvi Kassegne, Ting Zhang, Shen-Bo Chen, Bin Xu, Zhi-Sheng Dang, Wang-Ping Deng, Eniola Michael Abe, Hai-Mo Shen, Wei Hu, Takele Geressu Guyo, Solomon Nwaka, Jun-Hu Chen and Xiao-Nong Zhou
Published on: 2 October 2017

International Health
Volume 9, Issue 5, 1 September 2017
http://inthealth.oxfordjournals.org/content/current
[Reviewed earlier]

International Journal of Community Medicine and Public Health
Vol 4, No 10 (2017) October 2017
http://www.ijcmph.com/index.php/ijcmph/issue/view/31
[Reviewed earlier]

International Journal of Epidemiology
Volume 46, Issue 4, 1 August 2017
http://ije.oxfordjournals.org/content/current

[Reviewed earlier]

International Journal of Human Rights in Healthcare
Vol. 10 Issue: 4 2017
http://www.emeraldinsight.com/toc/ijhrh/10/4
Papers
Medical translation: the neglected human right
Bradley Dalton-Oates (pp. 228 - 238)
Originality/value
This paper fulfills a need to examine medical translation in the context of other types of translation under International Law. This paper fulfills a need to study how the lack of specific International Legislation guaranteeing the right to medical translation has implications for national/regional legislators, medical providers, and patients alike. This paper fulfills a need to discuss the legal remedies available to patients who have suffered adverse medical events after not being able to communicate with their medical provider.

Evolution of opportunities for early childhood development in Arab countries
Vladimir Hlasny (pp. 256 - 276)
Purpose
The purpose of this paper is to evaluate opportunities for early childhood development (ECD) regarding children's prenatal care, access to nutrition, health, parental care and cognitive-developmental activities, in 33 surveys from 13 countries. A total of 15 indicators for children's opportunities are assessed including their typical level, inequality across demographic groups, and factors responsible.

International Journal of Infectious Diseases
October 2017 Volume 63, p1-100
http://www.ijidonline.com/issue/S1201-9712(17)X0010-6
[Reviewed earlier]

JAMA
October 3, 2017, Vol 318, No. 13, Pages 1201-1294
http://jama.jamanetwork.com/issue.aspx
Viewpoint
Research Integrity, Academic Promotion, and Attribution of Authorship and Nonauthor Contributions
Spyros D. Mentzelopoulos, MD, PhD; Spyros G. Zakynthinos, MD, PhD
JAMA. 2017;318(13):1221-1222. doi:10.1001/jama.2017.11790
This Viewpoint discusses the importance of research authorship for academic promotion and proposes revision of research integrity codes to define nonauthor contributions and distinguish nonauthor from author contributions to discourage awarding of authorship to nonauthor collaborators.

Editorial
Trying to Improve Sepsis Care in Low-Resource Settings

Flavia R. Machado, MD, PhD; Derek C. Angus, MD, MPH
Abstract
Earlier this year, the World Health Organization recognized sepsis as a global health problem, responsible for millions of preventable deaths every year, and adopted a resolution targeting the prevention, diagnosis, and treatment of sepsis, especially in low- and middle-income countries.1 Although most sepsis cases are assumed to occur in low- and middle-income countries, nearly all research on both the epidemiology of sepsis and optimal treatment comes from high-income countries.

Research Letter
Incidence of Measles in the United States, 2001-2015
Nakia S. Clemmons, MPH; Gregory S. Wallace, MD, MPH; Manisha Patel, MD, MS; et al.
JAMA. 2017;318(13):1279-1281. doi:10.1001/jama.2017.9984
This study uses Centers for Disease Control and Prevention data to characterize trends in the incidence of measles among US residents from 2001 to 2015.

JAMA Pediatrics
October 2017, Vol 171, No. 10, Pages 927-1024
http://archpedi.jamanetwork.com/issue.aspx
Viewpoint
Communicating About Vaccines in a Fact-Resistant World
Saad B. Omer, MBBS, MPH, PhD; Avnika B. Amin, MSPH; Rupali J. Limaye, PhD
JAMA Pediatr. 2017;171(10):929-930. doi:10.1001/jamapediatrics.2017.2219
This Viewpoint discusses ways to guide productive vaccine discussions in the clinic.

Editorial
Using Disease Epidemiology to Optimize Immunization Schedules
Cindy M. Weinbaum, MD, MPH; Walter A. Orenstein, MD
JAMA Pediatr. 2017;171(10):944-945. doi:10.1001/jamapediatrics.2017.2375
Abstract
Macartney et al1 report in this issue of JAMA Pediatrics on the safety of using combination measles-mumps-rubella-varicella (MMRV) vaccine as the second dose of measles-mumps-rubella (MMR) vaccine and sole dose of varicella vaccine in Australia, and the effect of this policy on national vaccine coverage. They found that there was no increase in febrile seizures when MMRV is administered in the second year of life approximately 6 months after a first dose of MMR and that on-time vaccination increased with use of MMRV. Are these findings an indication that the timing and use of combination MMRV vaccine should be reconsidered for the United States?

Original Investigation
Evaluation of Combination Measles-Mumps-Rubella-Varicella Vaccine Introduction in Australia
Kristine Macartney, MD; Heather F. Gidding, PhD; Lieu Trinh, PhD; et al.
JAMA Pediatr. 2017;171(10):992-998. doi:10.1001/jamapediatrics.2017.1965
This population-based study examines the incidence of febrile seizures associated with combination measles-mumps-rubella-varicella vaccine in toddlers.

JBI Database of Systematic Review and Implementation Reports
September 2017 - Volume 15 - Issue 9
http://journals.lww.com/jbisrir/Pages/currenttoc.aspx
[Reviewed earlier]

Journal of Community Health
Volume 42, Issue 5, October 2017
https://link.springer.com/journal/10900/42/5/page/1
[Reviewed earlier]

Journal of Epidemiology & Community Health
October 2017 - Volume 71 - 10
http://jech.bmj.com/content/current
[Reviewed earlier]

Journal of Evidence-Based Medicine
August 2017 Volume 10, Issue 3 Pages 153–240
http://onlinelibrary.wiley.com/doi/10.1111/jebm.2017.10.issue-3/issuetoc
[Reviewed earlier]

Journal of Global Ethics
Volume 13, Issue 1, 2016
http://www.tandfonline.com/toc/rjge20/current
[Reviewed earlier]

Journal of Health Care for the Poor and Underserved (JHCPU)
Volume 28, Number 3, August 2017
https://muse.jhu.edu/issue/36769
[Reviewed earlier]

Journal of Immigrant and Minority Health
Volume 19, Issue 5, October 2017
https://link.springer.com/journal/10903/19/5/page/1
[New issue; No digest content identified]

Journal of Immigrant & Refugee Studies
Volume 15, Issue 3, 2017
http://www.tandfonline.com/toc/wimm20/current
Statelessness, Irregularity, and Protection in Southeast Asia Introduction to the Special Issue

[Reviewed earlier]

Journal of Infectious Diseases
Volume 216, Issue 6 15 September 2017
https://academic.oup.com/jid/issue
[Reviewed earlier]

Journal of Medical Ethics
October 2017 - Volume 43 - 10
http://jme.bmj.com/content/current
[Reviewed earlier]

Journal of Medical Internet Research
Vol 19, No 10 (2017): October
http://www.jmir.org/2017/10
mHealth
Using Mobile Phones to Improve Vaccination Uptake in 21 Low- and Middle-Income Countries: Systematic Review
JMIR Mhealth Uhealth 2017 (Oct 04); 5(10):e148
Clare Oliver-Williams, Elizabeth Brown, Sara Devereux, Cassandra Fairhead, Isaac Holeman
ABSTRACT
Background: The benefits of vaccination have been comprehensively proven; however, disparities in coverage persist because of poor health system management, limited resources, and parental knowledge and attitudes. Evidence suggests that health interventions that engage local parties in communication strategies improve vaccination uptake. As mobile technology is widely used to improve health communication, mobile health (mHealth) interventions might be used to increase coverage.
Objective: The aim of this study was to conduct a systematic review of the available literature on the use of mHealth to improve vaccination in low- and middle-income countries with large numbers of unvaccinated children.
Methods: In February 2017, MEDLINE (Medical Literature Analysis and Retrieval System Online), Scopus, and Web of Science, as well as three health organization websites—Communication Initiative Network, TechNet-21, and PATH—were searched to identify mHealth intervention studies on vaccination uptake in 21 countries.
Results: Ten peer-reviewed studies and 11 studies from white or gray literature were included. Nine took place in India, three in Pakistan, two each in Malawi and Nigeria, and one each in Bangladesh, Zambia, Zimbabwe, and Kenya. Ten peer-reviewed studies and 7 white or gray studies demonstrated improved vaccination uptake after interventions, including appointment reminders, mobile phone apps, and prerecorded messages.
Conclusions: Although the potential for mHealth interventions to improve vaccination coverage seems clear, the evidence for such interventions is not. The dearth of studies in countries facing the greatest barriers to immunization impedes the prospects for evidence-based policy and practice in these settings.

Journal of Medical Microbiology
Volume 66, Issue 9, September 2017
http://jmm.microbiologyresearch.org/content/journal/jmm/66/9
[Reviewed earlier

Journal of Patient-Centered Research and Reviews
Volume 4, Issue 3 (2017)
http://digitalrepository.aurorahealthcare.org/jpcrr/
[Reviewed earlier]

Journal of the Pediatric Infectious Diseases Society (JPIDS)
Volume 6, Issue 3, 1 September 2017,
https://academic.oup.com/jpids/issue
[Reviewed earlier]

Journal of Pediatrics
October 2017 Volume 189, p1-244
http://www.jpeds.com/current
[New issue; No digest content identified]

Journal of Public Health Management & Practice
September/October 2017 - Volume 23 - Issue 5
http://journals.lww.com/jphmp/pages/default.aspx
[Reviewed earlier]

Journal of Public Health Policy
Volume 38, Issue 3, August 2017
https://link.springer.com/journal/41271/38/3/page/1
[Reviewed earlier]

Journal of the Royal Society – Interface
01 September 2017; volume 14, issue 134
http://rsif.royalsocietypublishing.org/content/current
[Reviewed earlier]

Journal of Travel Medicine
Volume 24, Issue 5, 1 September – October 2017
https://academic.oup.com/jtm/issue/24/5
[Reviewed earlier]

Journal of Virology
October 2017, volume 91, issue 20
http://jvi.asm.org/content/current
[Reviewed earlier]

The Lancet
Oct 07, 2017 Volume 390 Number 10103 p1623-1714 e24
http://www.thelancet.com/journals/lancet/issue/current
Editorial
Cholera: ending a 50-year pandemic
The Lancet
Published: 07 October 2017
[See Cholera above for full text]

Comment
In search of global governance for research in epidemics
David H Peters, Gerald T Keusch, Janice Cooper, Sheila Davis, Jens Lundgren, Michelle M Mello, Olayemi Omatade, Fred Wabwire-Mangen, Keith P W J McAdam
Siummary
The west African epidemic of Ebola virus disease in 2014–15 became a major tragedy because the global system under the International Health Regulations and the governance of research related to epidemics both failed to function as needed. Research started too late and yielded only one vaccine candidate with probable effectiveness.1 Today, the international framework for epidemic preparedness and response still does not include a role for research.2 Future cross-national epidemics and Public Health Emergencies of International Concern are likely to involve pathogens that have no proven effective vaccines or specific therapeutics.

Lancet Global Health
Oct 2017 Volume 5 Number 10 e948-e1046
http://www.thelancet.com/journals/langlo/issue/current
[Reviewed earlier]

Lancet Infectious Diseases
Oct 2017 Volume 17 Number 10 p1003-1098 e306-e333
http://www.thelancet.com/journals/laninf/issue/current
[Reviewed earlier]

Lancet Public Health
Oct 2017 Volume 2 Number 10 e438-e482
http://thelancet.com/journals/lanpub/
[New issue; No digest content identified]

Lancet Respiratory Medicine

Oct 2017 Volume 5 Number 10 p761-834 e30
http://www.thelancet.com/journals/lanres/issue/current
[New issue; No digest content identified]

Maternal and Child Health Journal
Volume 21, Issue 10, October 2017
https://link.springer.com/journal/10995/21/10/page/1
[Reviewed earlier]

Medical Decision Making (MDM)
Volume 37, Issue 7, October 2017
http://mdm.sagepub.com/content/current
[Reviewed earlier]

The Milbank Quarterly
A Multidisciplinary Journal of Population Health and Health Policy
June 2017 Volume 95, Issue 2 Pages 213–446
http://onlinelibrary.wiley.com/doi/10.1111/milq.2017.95.issue-2/issuetoc
[Reviewed earlier]

Nature
Volume 550 Number 7674 pp7-150 5 October 2017
http://www.nature.com/nature/current_issue.html
World View
Make plans to eliminate cholera outbreaks
Governments must stop denying the occurrence of cholera and unite in long-term prevention strategies, says Anita Zaidi.

Comment
Scientists have most impact when they're free to move
An analysis of researchers' global mobility reveals that limiting the circulation of scholars will damage the scientific system, say Cassidy R. Sugimoto and colleagues.

Open countries have strong science
Caroline S. Wagner and Koen Jonkers find a clear correlation between a nation's scientific influence and the links it fosters with foreign researchers.

Review
Expanding and reprogramming the genetic code
Jason W. Chin
A review of the recent developments in reprogramming the genetic code of cells and organisms to include non-canonical amino acids in precisely engineered proteins.

Articles

Massively parallel de novo protein design for targeted therapeutics
Aaron Chevalier,
Daniel-Adriano Silva, Gabriel J. Rocklin, errick R. Hicks, Renan Vergara+ et al.
A massively parallel computational and experimental approach for de novo designing and screening small hyperstable proteins targeting influenza haemagglutinin and botulinum neurotoxin B identifies new therapeutic candidates more robust than traditional antibody therapies.

Nature Medicine
October 2017, Volume 23 No 10 pp1113-1241
http://www.nature.com/nm/journal/v23/n10/index.html
[New issue; No digest content identified]

Nature Reviews Immunology
October 2017 Vol 17 No 10
http://www.nature.com/nri/journal/v17/n10/index.html
[Reviewed earlier]

New England Journal of Medicine
October 5, 2017 Vol. 377 No. 14
http://www.nejm.org/toc/nejm/medical-journal
Review Articles
The Changing Face of Clinical Trials: Challenges in the Design and Interpretation of Noninferiority Trials
L. Mauri and R.B. D'Agostino, Sr.,
[Initial text]
Noninferiority clinical trials have become a major tool for the evaluation of drugs, devices, biologics, and other medical treatments. Treatment with placebo or with a no-treatment control in a study is not ethical when an effective treatment has already been established. Effective medical treatments exist for many medical conditions and are the relevant bar to be surpassed by a new treatment. Although some new treatments offer greater efficacy, others may promise greater safety or convenience, or less expense, while providing similar efficacy. The concept of a good substitute was the original rationale for the design of noninferiority trials (i.e., to evaluate a new treatment for efficacy similar to that of an established treatment). Recently, noninferiority trial methods have also been applied in evaluating whether an effective treatment is safe enough. The number of randomized trials assessing noninferiority increased by a factor of 6 in a decade — in 2005, just under 100 trials were listed in MEDLINE under the general rubric of "noninferiority," whereas in 2015, there were almost 600 such trials. These trials span multiple medical and surgical disciplines and diverse treatment strategies.
In this article, we provide a framework for considering the features, including pitfalls, of noninferiority studies. We use cardiovascular treatment trials as examples, although noninferiority trials can be conducted in many fields. These trials include studies designed for regulatory approval of new therapies and trials designed to compare established treatments. In addition, we consider the application of noninferiority concepts and design to emerging areas of

clinical investigation. The term "placebo" is used to denote either a true placebo or a no-treatment control in situations in which a true placebo is not available…

Pediatrics
October 2017, VOLUME 140 / ISSUE 4
http://pediatrics.aappublications.org/content/140/4?current-issue=y
State-of-the-Art Review Article
Partnerships for Global Child Health
Andrew P. Steenhoff, Heather L. Crouse, Heather Lukolyo, Charles P. Larson, Cynthia Howard, Loeto Mazhani, Suzinne Pak-Gorstein, Michelle L. Niescierenko, Philippa Musoke, Roseda Marshall, Miguel A. Soto, Sabrina M. Butteris, Maneesh Batra, on behalf of the GH Task Force of the American Board of Pediatrics
Pediatrics Oct 2017, 140 (4) e20163823; DOI: 10.1542/peds.2016-3823
This literature-based expert consensus review presents the definition, scope, genesis, evolution, and models of GCH partnerships, including benefits and challenges, guiding principles and core practices.
Abstract
Child mortality remains a global health challenge and has resulted in demand for expanding the global child health (GCH) workforce over the last 3 decades. Institutional partnerships are the cornerstone of sustainable education, research, clinical service, and advocacy for GCH. When successful, partnerships can become self-sustaining and support development of much-needed training programs in resource-constrained settings. Conversely, poorly conceptualized, constructed, or maintained partnerships may inadvertently contribute to the deterioration of health systems. In this comprehensive, literature-based, expert consensus review we present a definition of partnerships for GCH, review their genesis, evolution, and scope, describe participating organizations, and highlight benefits and challenges associated with GCH partnerships. Additionally, we suggest a framework for applying sound ethical and public health principles for GCH that includes 7 guiding principles and 4 core practices along with a structure for evaluating GCH partnerships. Finally, we highlight current knowledge gaps to stimulate further work in these areas. With awareness of the potential benefits and challenges of GCH partnerships, as well as shared dedication to guiding principles and core practices, GCH partnerships hold vast potential to positively impact child health.

Pharmaceutics
Volume 9, Issue 3 (September 2017)
http://www.mdpi.com/1999-4923/9/3
[Reviewed earlier]

PharmacoEconomics
Volume 35, Issue 10, October 2017
https://link.springer.com/journal/40273/35/10/page/1
[New issue; No digest content identified]

PLOS Currents: Disasters

http://currents.plos.org/disasters/
[Accessed 7 October 2017]

The Effect of Armed Conflict on the Utilization of Maternal Health Services in Uganda: A Population-based Study

October 3, 2017 · Research Article

Introduction: Maternal mortality rates can be adversely affected by armed conflict, implying a greater level of vulnerability among women, and is often linked to the lack of or limited access to maternal healthcare during conflict. Previous research in Uganda has shown that armed conflict negatively impacts women's utilization of maternal healthcare services for a multitude of reasons at the individual, health-system and political levels.

Methods: This study compared aggregated Demographic and Health Surveys data from 13 districts in Northern Uganda, a conflict-affected region, with data from the rest of the country, for the use of maternal healthcare services for the years 1988, 1995, 2000, 2006 and 2011, using statistical analyses and logistic regression. Specific indicators for maternal healthcare utilization included contraceptive use, antenatal care, skilled assistance at birth and institutional delivery.

Results: Use of contraception and institutional deliveries among women in Northern Uganda was significantly lower compared to the rest of the country. However, skilled assistance at birth among women in Northern Uganda was significantly higher.

Conclusions: The findings in this study show that armed conflict can have a negative impact on aspects of maternal healthcare such as contraceptive use and institutional deliveries; however, other indicators such as skilled assistance at birth were seen to be better among conflict-affected populations. This reiterates the complex nature of armed conflict and the interplay of different factors such as conflict intensity, existing health systems and services, and humanitarian interventions that could influence maternal healthcare utilization.

PLoS Currents: Outbreaks

http://currents.plos.org/outbreaks/
[Accessed 7 October 2017]

Assessing the Prevalence of Risk Factors for Neglected Tropical Diseases in Brazos County, Texas

October 4, 2017 · Research Article

Introduction: Although more than one billion people live at risk of neglected tropical diseases (NTDs) in areas of Asia, sub-Saharan Africa, and Latin America, the degree to which they burden countries like the U.S. is unclear. Even though many NTDs such as dengue, leishmaniasis, and Chagas disease are typically not endemic to the U.S., the possibility of their emergence is noteworthy, especially in states like Texas with high levels of poverty, large immigrant populations, geographic proximity to endemic areas, and a climate amenable to the vectors for these diseases. Despite the health threat that emerging NTDs may pose, little is known about the prevalence of risk factors for NTDs in the U.S.

Methods: We tested the Community Assessment for Public Health Emergency Response (CASPER) method to assess the prevalence of risk factors for NTDs in Brazos County, Texas.

Results: We found relatively low prevalence of risk factors related to travel (5.2% of respondents visited an endemic area in the previous 3 months); however, few respondents reported adherence to mosquito prevention, such as wearing long sleeves and long pants (14.1%, 95% CI: 13.9,14.4) and repellant containing DEET (13.5%, 95% CI: 13.2,13.7).

Between 5.4% and 35.8% of respondents had a visible container (e.g., pet water dishes, flower pots, bird baths) that could support mosquito breeding.
Discussion: CASPER findings present public health authorities with potential avenues for implementing health education and other interventions aimed at reducing exposure to risk factors for NTDs among Texas residents.

PLoS Medicine
http://www.plosmedicine.org/
(Accessed 7 October 2017)
Safety and immunogenicity of rVSVΔG-ZEBOV-GP Ebola vaccine in adults and children in Lambaréné, Gabon: A phase I randomised trial
Selidji T. Agnandji, José F. Fernandes, Emmanuel B. Bache, Régis M. Obiang Mba, Jessica S. Brosnahan, Lumeka Kabwende, Paul Pitzinger, Pieter Staarink, Marguerite Massinga-Loembe, Verena Krähling, Nadine Biedenkopf, Sarah Katharina Fehling, Thomas Strecker, David J. Clark, Henry M. Staines, Jay W. Hooper, Peter Silvera, Vasee Moorthy, Marie-Paule Kieny, Akim A. Adegnika, Martin P. Grobusch, Stephan Becker, Michael Ramharter, Benjamin Mordmüller, Bertrand Lell, VEBCON Consortium , Sanjeev Krishna, Peter G. Kremsner
Research Article | published 06 Oct 2017 PLOS Medicine
https://doi.org/10.1371/journal.pmed.1002402
Author summary
Why was this study done?
:: The worst Ebola outbreak in history ended in 2016 after killing about 11,323 individuals and infecting 28,650 individuals worldwide.
:: This public health emergency accelerated efforts to develop a vaccine as part of the strategy to contain the outbreak.
:: Two vaccine candidates with preclinical safety and efficacy data obtained from non-human primates entered human trials.
:: The one used in our study is the rVSVΔG-ZEBOV-GP vaccine, containing a non-infectious portion of a gene from the Zaire Ebola virus introduced into a recombinant vesicular stomatitis virus (rVSV), which itself is unlikely to cause disease in humans.
:: To generate data for deployment of the vaccine, several dose-ranging phase I trials were initiated across centres in the United States, Europe, and Africa.

What did the researchers do and find?
:: We allocated 115 adults aged 18–50 years to receive 1 of the 5 doses used in the trial. A single intramuscular dose ranging from 3 × 103 to 2 × 107 plaque-forming units (PFU) was given, and participants were followed up until 6 months post-injection for safety and immunogenicity.
: Preliminary results led to the selection of the 2 × 107 PFU dose for further development. We also included 20 adolescents (13–17 years) and 20 children (6–12 years), who received the 2 × 107 PFU dose and were followed-up in a similar way as the adults.
:: No vaccine-related serious or severe adverse event was reported by any participant.
:: A high proportion of our population—even though residing in an area with no history of Ebola outbreak—had pre-vaccination antibodies specific to the Zaire Ebola virus.
:: In adults, antibodies persisted up to 6 months post-injection at doses of 3 × 105 to 2 × 107 PFU.

:: In participants with baseline antibodies, a dose as low as 3 × 104 PFU could induce high antibody titres up to day 56 post-injection.
: Higher vaccine replication, leading to shedding of the vaccine in saliva and urine, occurred in children and adolescents.

What do these findings mean?
:: Our results and other findings show that this vaccine is safe and immunogenic.
:: Lower vaccine doses may be needed in paediatric populations as well as for boosting after primary vaccination or naturally acquired immunity.

When cost-effective interventions are unaffordable: Integrating cost-effectiveness and budget impact in priority setting for global health programs
Alyssa Bilinski, Peter Neumann, Joshua Cohen, Teja Thorat, Katherine McDaniel, Joshua A. Salomon
Essay | published 02 Oct 2017 PLOS Medicine
https://doi.org/10.1371/journal.pmed.1002397
Summary points
:: Many health interventions deemed cost-effective are not affordable. Despite the importance of affordability to policymakers, little of the cost-effectiveness literature in global health addresses this issue.
:: Budget impact analysis (BIA) describes an intervention's short-term costs and savings from the payer's perspective.
:: Researchers should report BIA alongside cost-effectiveness analysis (CEA). When CEA and BIA lead to different conclusions, researchers should explain why.
:: Policymakers should recognize that not all cost-effective interventions are affordable and interpret information about cost-effectiveness in the context of their budget and other available funding sources.
:: Both cost-effectiveness and affordability should be reflected in the design of essential health service packages.

PLoS Neglected Tropical Diseases
http://www.plosntds.org/
(Accessed 7 October 2017)
The cost-effectiveness of an eradication programme in the end game: Evidence from guinea worm disease
Christopher Fitzpatrick, Dieudonné P. Sankara, Junerlyn Farah Agua, Lakshmi Jonnalagedda, Filippo Rumi, Adam Weiss, Matthew Braden, Ernesto Ruiz-Tiben, Nicole Kruse, Kate Braband, Gautam Biswas
Research Article | published 05 Oct 2017 PLOS Neglected Tropical Diseases
https://doi.org/10.1371/journal.pntd.0005922

Hepatitis B virus infection as a neglected tropical disease
Geraldine A. O'Hara, Anna L. McNaughton, Tongai Maponga, Pieter Jooste, Ponsiano Ocama, Roma Chilengi, Jolynne Mokaya, Mitchell I. Liyayi, Tabitha Wachira, David M. Gikungi, Lela Burbridge, Denise O'Donnell, Connie S. Akiror, Derek Sloan, Judith Torimiro, Louis Marie Yindom, Robert Walton, Monique Andersson, Kevin Marsh, Robert Newton, Philippa C. Matthews
Viewpoints | published 05 Oct 2017 PLOS Neglected Tropical Diseases

https://doi.org/10.1371/journal.pntd.0005842

PLoS One
http://www.plosone.org/
Research Article
Examining word association networks: A cross-country comparison of women's perceptions of HPV testing and vaccination
Bernd C. Schmid, Jamie Carlson, Günther A. Rezniczek, Jessica Wyllie, Kenneth Jaaback, Filip Vencovsky
| published 05 Oct 2017 PLOS ONE
https://doi.org/10.1371/journal.pone.0185669

Comparison of rubella immunization rates in immigrant and Italian women of childbearing age: Results from the Italian behavioral surveillance system PASSI (2011-2015)
Massimo Fabiani, Gianluigi Ferrante, Valentina Minardi, Cristina Giambi, Flavia Riccardo, Silvia Declich, Maria Masocco
Research Article | published 02 Oct 2017 PLOS ONE
https://doi.org/10.1371/journal.pone.0178122

PLoS Pathogens
http://journals.plos.org/plospathogens/
[Accessed 7 October 2017]
[No new digest content identified]

PNAS - Proceedings of the National Academy of Sciences of the United States of America
http://www.pnas.org/content/early/
[Accessed 7 October 2017]
[No new digest content identified]

Prehospital & Disaster Medicine
Volume 32 - Issue 5 - October 2017
https://www.cambridge.org/core/journals/prehospital-and-disaster-medicine/latest-issue
[Reviewed earlier]

Preventive Medicine
Volume 101, Pages 1-238 (August 2017)
http://www.sciencedirect.com/science/journal/00917435/101?sdc=1
[Reviewed earlier]

Proceedings of the Royal Society B

17 May 2017; volume 284, issue 1854
http://rspb.royalsocietypublishing.org/content/284/1854?current-issue=y
[Reviewed earlier]

Public Health Ethics
Volume 10, Issue 2 July 2017
http://phe.oxfordjournals.org/content/current
Symposium on Daniel Hausman's Valuing Health: Well-Being, Freedom and Suffering
[Reviewed earlier]

Public Health Reports
Volume 132, Issue 5, September/October 2017
http://phr.sagepub.com/content/current
[Reviewed earlier]

Qualitative Health Research
Volume 27, Issue 12, October 2017
http://qhr.sagepub.com/content/current
[Reviewed earlier]

Reproductive Health
http://www.reproductive-health-journal.com/content
[Accessed 7 October 2017]
[No new digest content identified]

Revista Panamericana de Salud Pública/Pan American Journal of Public Health (RPSP/PAJPH)
http://www.paho.org/journal/index.php?option=com_content&view=featured&Itemid=101
[No new digest content identified]

Risk Analysis
October 2017 Volume 37, Issue 10 Pages 1799–2022
http://onlinelibrary.wiley.com/doi/10.1111/risa.2017.37.issue-9/issuetoc
Perspectives
Bridging the Gap between Social Acceptance and Ethical Acceptability (pages 1817–1827)
Behnam Taebi
Version of Record online: 10 NOV 2016 | DOI: 10.1111/risa.12734

Risk Management and Healthcare Policy

Volume 10, 2017
https://www.dovepress.com/risk-management-and-healthcare-policy-archive56
[Reviewed earlier]

Science
06 October 2017 Vol 358, Issue 6359
http://www.sciencemag.org/current.dtl
Special Issue: Single-Cell Genomics
Reviews
Single-cell transcriptomics to explore the immune system in health and disease
By Michael J. T. Stubbington, Orit Rozenblatt-Rosen, Aviv Regev, Sarah A. Teichmann
Science06 Oct 2017 : 58-63
Abstract
The immune system varies in cell types, states, and locations. The complex networks, interactions, and responses of immune cells produce diverse cellular ecosystems composed of multiple cell types, accompanied by genetic diversity in antigen receptors. Within this ecosystem, innate and adaptive immune cells maintain and protect tissue function, integrity, and homeostasis upon changes in functional demands and diverse insults. Characterizing this inherent complexity requires studies at single-cell resolution. Recent advances such as massively parallel single-cell RNA sequencing and sophisticated computational methods are catalyzing a revolution in our understanding of immunology. Here we provide an overview of the state of single-cell genomics methods and an outlook on the use of single-cell techniques to decipher the adaptive and innate components of immunity.

Science Translational Medicine
04 October 2017 Vol 9, Issue 410
http://stm.sciencemag.org/
Report
Neutralizing human monoclonal antibodies prevent Zika virus infection in macaques
By Diogo M. Magnani, Thomas F. Rogers, Nathan Beutler, Michael J. Ricciardi, Varian K. Bailey, Lucas Gonzalez-Nieto, Bryan Briney, Devin Sok, Khoa Le, Alexander Strubel, Martin J. Gutman, Núria Pedreño-Lopez, Nathan D. Grubaugh, Cassia G. T. Silveira, Helen S. Maxwell, Aline Domingues, Mauricio A. Martins, David E. Lee, Erica E. Okwuazi, Sherrie Jean, Elizabeth A. Strobert, Ann Chahroudi, Guido Silvestri, Thomas H. Vanderford, Esper G. Kallas, Ronald C. Desrosiers, Myrna C. Bonaldo, Stephen S. Whitehead, Dennis R. Burton, David I. Watkins
Science Translational Medicine04 Oct 2017 Full Access
Neutralizing antibodies prevent Zika infection in nonhuman primates.

Social Science & Medicine
Volume 190, Pages 1-278 (October 2017)
http://www.sciencedirect.com/science/journal/02779536/190?sdc=1
Original Research Article
The Islamification of antiretroviral therapy: Reconciling HIV treatment and religion in northern Nigeria
Original Research Article

Pages 75-82
Jack Ume Tocco
Abstract
Access and adherence to antiretroviral therapy (ART) are essential to HIV treatment success and epidemic control. This article is about how HIV-positive Muslims and providers balance ART with religious tenets and obligations. I conducted 17 months of multi-site ethnographic research between 2007 and 2010, including participant-observation in an urban HIV clinic in Kano, Nigeria and a support group for people living with HIV, as well as in-depth interviews with 30 HIV-positive men and 30 key informants with caregiving, clinical, or policy roles related to HIV/AIDS. Patients migrated from Islamic prophetic medicine to ART when it became more widely available in the mid-2000s through the U.S. PEPFAR program. At the same time, a conceptual shift occurred away from considering HIV immediately curable through spiritual and herbal-based Islamic prophetic medicine toward considering HIV as a chronic infection that requires adherence to daily pill regimens. Hope for a complete cure and encouragement from some Islamic prophetic healers resulted in some patients forgoing ART. Patients and providers adapted biomedical treatment guidelines to minimize disruption to religious practices also considered essential to Muslims' wellbeing, irrespective of HIV status. Providers discouraged patients on second-line ART from fasting because such patients had fewer treatment options and, often, poorer health. However, patients' medication adherence was affected by the desire to fulfill fasting obligations and to avoid questions from family and friends unaware of their HIV-positive status. This study is one of few ethnographic accounts of HIV treatment in a Muslim-majority society and contributes to understanding the significance of religion for HIV treatment in northern Nigeria. It has implications for public health programming and clinical approaches to HIV treatment in medically pluralistic Muslim societies.

Travel Medicine and Infectious Diseases
July-August, 2017 Volume 18
http://www.travelmedicinejournal.com/
[Reviewed earlier]

Tropical Medicine & International Health
October 2017 Volume 22, Issue 10 Pages 1205–1360
http://onlinelibrary.wiley.com/doi/10.1111/tmi.2017.22.issue-10/issuetoc
Reviews
Critical interpretive synthesis of barriers and facilitators to TB treatment in immigrant populations (pages 1206–1222)
S. Lin and G. J. Melendez-Torres
Version of Record online: 7 SEP 2017 | DOI: 10.1111/tmi.12938
Abstract
Objective
To systematically review studies of TB treatment experiences in immigrant populations, using Critical Interpretive Synthesis (CIS).
Methods
On 26 October 2014, MEDLINE, CINAHL, Embase, LILACS, and PsycINFO were systematically searched. Grey literature and reference lists were hand-searched. Initial papers included were

restricted to studies of immigrant patient perspectives; after a model was developed, a second set of papers was included to test the emerging theory.
Results
Of 1761 studies identified in the search, a total of 29 were included in the synthesis. Using those studies, we developed a model that suggested treatment experiences were strongly related to the way both individuals and societies adjusted to immigration ('acculturation strategies'). Relationships with healthcare workers and immigration policies played particularly significant roles in TB treatment.
Conclusions
This review emphasised the roles of repatriation policy and healthcare workers in forming experiences of TB treatment in immigrant populations.

Vaccine
Volume 35, Issue 42, Pages 5511-5730 (9 October 2017)
www.sciencedirect.com/science/journal/0264410X/35/41?sdc=1
Conference report
Reaching every child with rotavirus vaccine: Report from the 10th African rotavirus symposium held in Bamako, Mali
Pages 5511-5518
Samba O. Sow, A. Duncan Steele, Jason M. Mwenda, George E. Armah, Kathleen M. Neuzil
Abstract
The Center for Vaccine Development – Mali (CVD – Mali), the World Health Organization's regional office in Africa (WHO/AFRO), and the CVD at the University of Maryland School of Medicine hosted the 10th African Rotavirus Symposium in Bamako, Mali on 1–2 June 2016. The symposium is coordinated by WHO/AFRO, the Regional Rotavirus Reference Laboratories, and the African Rotavirus Network (ARN), with support from the Bill & Melinda Gates Foundation. The event brings together leading rotavirus researchers, scientists, and policy-makers from across Africa and the world. Over 150 participants, from 31 countries, including 27 in Africa, joined forces to address the theme "Reaching Every Child in Africa with Rotavirus Vaccines." This symposium, the first in francophone Africa, occurred at an unprecedented time when 33 African countries had introduced rotavirus vaccines into their national immunization programs. The symposium concluded with a Call to Action to introduce rotavirus vaccines in the 21 remaining African countries, to increase access in countries with existing vaccination programs, and to continue surveillance and research on rotavirus and other diarrheal diseases.

Commentary
The eradication of Polio: Have we succeeded?
Pages 5519-5521
Alan R. Hinman

Reviews
Live-attenuated tetravalent dengue vaccines: The needs and challenges of post-licensure evaluation of vaccine safety and effectiveness
Review Article
Pages 5535-5542
Ole Wichmann, Kirsten Vannice, Edwin J. Asturias, Expedito José de Albuquerque Luna, Ira Longini, Anna Lena Lopez, Peter G. Smith, Hasitha Tissera, In-Kyu Yoon, Joachim Hombach

Abstract
Since December 2015, the first dengue vaccine has been licensed in several Asian and Latin American countries for protection against disease from all four dengue virus serotypes. While the vaccine demonstrated an overall good safety and efficacy profile in clinical trials, some key research questions remain which make risk-benefit-assessment for some populations difficult. As for any new vaccine, several questions, such as very rare adverse events following immunization, duration of vaccine-induced protection and effectiveness when used in public health programs, will be addressed by post-licensure studies and by data from national surveillance systems after the vaccine has been introduced. However, the complexity of dengue epidemiology, pathogenesis and population immunity, as well as some characteristics of the currently licensed vaccine, and potentially also future, live-attenuated dengue vaccines, poses a challenge for evaluation through existing monitoring systems, especially in low and middle-income countries. Most notable are the different efficacies of the currently licensed vaccine by dengue serostatus at time of first vaccination and by dengue virus serotype, as well as the increased risk of dengue hospitalization among young vaccinated children observed three years after the start of vaccination in one of the trials. Currently, it is unknown if the last phenomenon is restricted to younger ages or could affect also seronegative individuals aged 9 years and older, who are included in the group for whom the vaccine has been licensed. In this paper, we summarize scientific and methodological considerations for public health surveillance and targeted post-licensure studies to address some key research questions related to live-attenuated dengue vaccines. Countries intending to introduce a dengue vaccine should assess their capacities to monitor and evaluate the vaccine's effectiveness and safety and, where appropriate and possible, enhance their surveillance systems accordingly. Targeted studies are needed, especially to better understand the effects of vaccinating seronegative individuals.

Using campaigns to improve perceptions of the value of adult vaccination in the United States: Health communication considerations and insights

Review Article
Pages 5543-5550
Glen J. Nowak, Angela K. Shen, Jason L. Schwartz
Abstract
Vaccines have much relevance and promise for improving adult health in the United States, but to date, overall use and uptake remain far below desired levels. Many adults have not received recommended vaccinations and many healthcare providers do not strongly and actively encourage their use with patients. This has led some public health and medical experts to conclude that adult vaccines are severely undervalued by the U.S. public and healthcare providers and to call for campaigns and communication-based efforts to foster increased appreciation, and in turn, higher adult immunization rates. A narrative integrative review that draws upon the vaccine valuation and health communication literatures is used to develop a framework to guide campaign and communication-based efforts to improve public, provider, and policymakers' assessment of the value of adult vaccination. The review does this by: (1) distinguishing social psychological value from economic value; (2) identifying the implications of social psychological value considerations for adult vaccination-related communication campaigns; and (3) using five core health communication considerations to illustrate how social psychological notions of value can be integrated into campaigns or communication that are intended to improve adult vaccination value perceptions and assessments, and in turn, motivate greater support for and uptake of recommended adult vaccines.

Assessing care-givers' satisfaction with child immunisation services in Zambia: Evidence from a national survey

Original Research Article
Pages 5597-5602
Chitalu Miriam Chama-Chiliba, Felix Masiye, Chrispin Mphuka
Abstract
Aim
The main aim of this study was to assess care-giver satisfaction with vaccination services in public health facilities in Zambia, and examine its determinants.
Methods
This study used data from a recent population-based household survey, conducted from May to August 2015. Respondent satisfaction with vaccination services received during the last visit was measured on a five point Likert scale ranging from 1 to 5. We used an ordered logistic regression model to analyse the significance of perceived quality of vaccination services, immunisation delivery mode and a range of individual characteristics in predicting care-giver satisfaction.
Results
Findings show that one in five care givers were unsatisfied with the vaccination services that they had received, with rural populations showing a significantly higher level of satisfaction. Poor quality of care, defined by long waiting times, poor quality of communication between health staff and care givers, long distance to vaccination sites, mode of delivery, and personal characteristics were among major factors driving care-giver satisfaction ratings. We also find that receiving a vaccination at outreach mode of delivery was associated with higher odds of greater satisfaction compared to on-facility vaccination services. The odds of satisfaction were lower for respondents living further away from a health facility, which emphasizes the importance of access in seeking vaccination services.
Conclusion
These findings suggest that major improvements in quality of vaccination and service organisation will be needed to increase client satisfaction and service utilisation.

Impact of five years of rotavirus vaccination in Finland – And the associated cost savings in secondary healthcare

Original Research Article
Pages 5611-5617
Tuija Leino, Ulrike Baum, Peter Scott, Jukka Ollgren, Heini Salo
Abstract
Introduction
This study aimed to estimate the impact of the national rotavirus (RV) vaccination programme, starting 2009, on the total hospital-treated acute gastroenteritis (AGE) and severe RV disease burden in Finland during the first five years of the programme. This study also evaluated the costs saved in secondary healthcare by the RV vaccination programme.
Methods
The RV related outcome definitions were based on ICD10 diagnostic codes recorded in the Care Register for Health Care. Incidences of hospitalised and hospital outpatient cases of AGE (A00-A09, R11) and RVGE (A08.0) were compared prior (1999–2005) and after (2010–2014) the start of the programme among children less than five years of age.
Results

The reduction in disease burden in 2014, when all children under five years of age have been eligible for RV vaccination, was 92.9% (95%CI: 91.0%–94.5%) in hospitalised RVGE and 68.5% (66.6%–70.3%) in the total hospitalised AGE among children less than five years of age. For the corresponding hospital outpatient cases, there was a reduction of 91.4% (82.4%–96.6%) in the RVGE incidence, but an increase of 6.3% (2.7%–9.9%) in the AGE incidence. The RV vaccination programme prevented 2206 secondary healthcare AGE cases costing €4.5 million annually. As the RV immunisation costs were €2.3 million, the total net savings just in secondary healthcare costs were €2.2 million, i.e. €33 per vaccinated child.
Discussion
The RV vaccination programme clearly controlled the severe, hospital-treated forms of RVGE. The total disease burden is a more valuable end point than mere specifically diagnosed cases as laboratory confirmation practises usually change after vaccine introduction. The RV vaccination programme annually pays for itself at least two times over.

Evaluating cessation of the type 2 oral polio vaccine by modeling pre- and post-cessation detection rates

Original Research Article
Pages 5674-5681
Steve J. Kroiss, Michael Famulare, Hil Lyons, Kevin A. McCarthy, Laina D. Mercer, Guillaume Chabot-Couture

Abstract
The globally synchronized removal of the attenuated Sabin type 2 strain from the oral polio vaccine (OPV) in April 2016 marked a major change in polio vaccination policy. This change will provide a significant reduction in the burden of vaccine-associated paralytic polio (VAPP), but may increase the risk of circulating vaccine-derived poliovirus (cVDPV2) outbreaks during the transition period. This risk can be monitored by tracking the disappearance of Sabin-like type 2 (SL2) using data from the polio surveillance system. We studied SL2 prevalence in 17 countries in Africa and Asia, from 2010 to 2016 using acute flaccid paralysis surveillance data. We modeled the peak and decay of SL2 prevalence following mass vaccination events using a beta-binomial model for the detection rate, and a Ricker function for the temporal dependence. We found type 2 circulated the longest of all serotypes after a vaccination campaign, but that SL2 prevalence returned to baseline levels in approximately 50 days. Post-cessation model predictions identified 19 anomalous SL2 detections outside of model predictions in Afghanistan, India, Nigeria, Pakistan, and western Africa. Our models established benchmarks for the duration of SL2 detection after OPV2 cessation. As predicted, SL2 detection rates have plummeted, except in Nigeria where OPV2 use continued for some time in response to recent cVDPV2 detections. However, the anomalous SL2 detections suggest specific areas that merit enhanced monitoring for signs of cVDPV2 outbreaks.

Polio immunity and the impact of mass immunization campaigns in the Democratic Republic of the Congo

Original Research Article
Pages 5693-5699
Arend Voorman, Nicole A. Hoff, Reena H. Doshi, Vivian Alfonso, Patrick Mukadi, Jean-Jacques Muyembe-Tamfum, Emile Okitolonda Wemakoy, Ado Bwaka, William Weldon, Sue Gerber, Anne W. Rimoin

Abstract
Background

In order to prevent outbreaks from wild and vaccine-derived poliovirus, maintenance of population immunity in non-endemic countries is critical.
Methods
We estimated population seroprevalence using dried blood spots collected from 4893 children 6–59 months olds in the 2013–2014 Demographic and Health Survey in the Democratic Republic of the Congo (DRC).
Results
Population immunity was 81%, 90%, and 70% for poliovirus types 1, 2, and 3, respectively. Among 6–59-month-old children, 78% reported at least one dose of polio in routine immunization, while only 15% had three doses documented on vaccination cards. All children in the study had been eligible for at least two trivalent oral polio vaccine campaigns at the time of enrollment; additional immunization campaigns seroconverted 5.0%, 14%, and 5.5% of non-immune children per-campaign for types 1, 2, and 3, respectively, averaged over relevant campaigns for each serotype.
Conclusions
Overall polio immunity was high at the time of the study, though pockets of low immunity cannot be ruled out. The DRC still relies on supplementary immunization campaigns, and this report stresses the importance of the quality and coverage of those campaigns over their quantity, as well as the importance of routine immunization.

Canadian school-based HPV vaccine programs and policy considerations
Original Research Article
Pages 5700-5707
Gilla K. Shapiro, Juliet Guichon, Margaret Kelaher
Abstract
Background
The National Advisory Committee on Immunization in Canada recommends human papillomavirus (HPV) vaccination for females and males (ages 9–26). In Canada, the HPV vaccine is predominantly administered through publicly funded school-based programs in provinces and territories. This research provides an overview of Canadian provincial and territorial school-based HPV vaccination program administration and vaccination rates, and identifies foreseeable policy considerations.
Methods
We searched the academic and grey literature and contacted administrators of provincial and territorial vaccination programs to compile information regarding HPV vaccine program administration and vaccination rates in Canada's 13 provincial and territorial jurisdictions.
Results
As of October 2016, all 13 Canadian jurisdictions vaccinate girls, and six jurisdictions include boys in school-based publicly funded HPV vaccination programs. Eleven jurisdictions administer the HPV vaccine in a two-dose schedule. The quadrivalent vaccine (HPV4) has been the vaccine predominantly used in Canada; however, the majority of provinces will likely adopt the nonavalent vaccine in the future. According to available data, vaccination uptake among females ranged between 46.7% and 93.9%, while vaccination uptake among males (in programs with available data to date) ranged between 75.0% and 87.4%.
Conclusions
Future research and innovation will beneficially inform Canadian jurisdictions when considering whether to administer the nonavalent vaccine, whether to implement a two or one-dose vaccination schedule, and how to improve uptake and rates of completion. The usefulness of

standardizing methodologies for collecting and reporting HPV vaccination coverage and implementing a national registry were identified as important priorities.

Vaccine: Development and Therapy
https://www.dovepress.com/vaccine-development-and-therapy-archive111
(Accessed 7 October 2017)
Review
The new first-line defense: the potential of nasopharyngeal colonization in vaccine strategies
Chan WY, Cohen JM, Brown JS
Vaccine: Development and Therapy 2016, 6:47-57
Published Date: 17 October 2016

Vaccines — Open Access Journal
http://www.mdpi.com/journal/vaccines
(Accessed 7 October 2017)
Open Access
Review
Approaches and Perspectives for Development of African Swine Fever Virus Vaccines
by Marisa Arias, Ana de la Torre, Linda Dixon, Carmina Gallardo, Ferran Jori, Alberto Laddomada, Carlos Martins, R. Michael Parkhouse, Yolanda Revilla, Fernando and Jose-Manuel Rodriguez and Sanchez-Vizcaino
Vaccines 2017, 5(4), 35; doi:10.3390/vaccines5040035 (registering DOI) - 7 October 2017
Abstract
African swine fever (ASF) is a complex disease of swine, caused by a large DNA virus belonging to the family Asfarviridae. The disease shows variable clinical signs, with high case fatality rates, up to 100%, in the acute forms. ASF is currently present in Africa and Europe where it circulates in different scenarios causing a high socio-economic impact. In most affected regions, control has not been effective in part due to lack of a vaccine. The availability of an effective and safe ASFV vaccines would support and enforce control–eradication strategies. Therefore, work leading to the rational development of protective ASF vaccines is a high priority. Several factors have hindered vaccine development, including the complexity of the ASF virus particle and the large number of proteins encoded by its genome. Many of these virus proteins inhibit the host's immune system thus facilitating virus replication and persistence. We review previous work aimed at understanding ASFV–host interactions, including mechanisms of protective immunity, and approaches for vaccine development. These include live attenuated vaccines, and "subunit" vaccines, based on DNA, proteins, or virus vectors. In the shorter to medium term, live attenuated vaccines are the most promising and best positioned candidates. Gaps and future research directions are evaluated.

Value in Health
September 2017 Volume 20, Issue 8, p1003-1226
http://www.valueinhealthjournal.com/current
[Reviewed earlier]

* * * *

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

Journal of Child Health Care
First Published October 2, 2017
Research Article
Parental conceptions of the rotavirus vaccine during implementation in Stockholm: A phenomenographic study
E Sjogren, LS Ask, A Ortqvist, M Asp
Abstract
In 2014, Stockholm became the first Swedish county to introduce the rotavirus vaccine, which is given from as early as six weeks of age. The aim of this study was to describe parental conceptions of rotavirus infection and vaccination during its implementation as part of the child immunization program, as their support is vital for any new vaccine. The study followed a descriptive, qualitative design with a phenomenographic approach. Ten in-depth interviews with parents were conducted in Stockholm County, transcribed and analyzed to describe qualitatively different conceptions of rotavirus infection and vaccination. Four main categories were identified: to vaccinate without doubt, hesitant to vaccinate, risky to vaccinate, and unnecessary to vaccinate. All the parents had in common the desire to protect their children from suffering, either by vaccinating their child in order to avoid rotavirus infection or by not vaccinating their child because of concerns about the side effects. It is important that child health-care professionals understand the variations of conceptions that influence the parents' decisions and that these conceptions may differ considerably. Individualized parental information about rotavirus infection and vaccination would help to achieve a successful implementation of the vaccination program.

* * * *

Media/Policy Watch

This watch section is intended to alert readers to substantive news, analysis and opinion from the general media and selected think tanks and similar organizations 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 7 October 2017
[No new, unique, relevant content]

BBC
http://www.bbc.co.uk/
Accessed 7 October 2017
School vaccinations 'cut cervical cancer alerts by 41%'
4 October 2017
The number of young women in Scotland showing early signs of potential cervical cancer has dropped by 41% since a school vaccination programme was introduced, researchers have said.
The University of Aberdeen study looked at women who had received the Human Papilloma Virus (HPV) vaccine.
It found 758 women were referred for further investigation in 2013-2014, down from 1,294 in 2008-2009…

The Economist
http://www.economist.com/
Accessed 7 October 2017
[No new, unique, relevant content]

Financial Times
http://www.ft.com/home/uk
Accessed 7 October 2017
[No new, unique, relevant content]

Forbes
http://www.forbes.com/
Accessed 7 October 2017
[No new, unique, relevant content]

Foreign Affairs
http://www.foreignaffairs.com/
Accessed 7 October 2017
[No new, unique, relevant content]

Foreign Policy
http://foreignpolicy.com/
Accessed 7 October 2017
[No new, unique, relevant content]

The Guardian
http://www.guardiannews.com/
Accessed 7 October 2017
Global development
Trump policy set to hinder war on polio in Pakistan

Disease holding on in Pakistan, Afghanistan and Nigeria where there is mistrust of western governments who bankroll the vaccines
29 September 2017
…In Pakistan and Afghanistan, the big obstacle, experts say, is not lack of money to fight it, but mistrust of the western governments who bankroll the vaccines. Now Donald Trump could be about to deepen that mistrust. If the US president makes good on his bellicose threats to take a harder line on Pakistan, he will undoubtedly incite anti-US sentiments, which in the past have led to attacks on polio workers and prompted tribal leaders to ban vaccination campaigns…

New Yorker
http://www.newyorker.com/
Accessed 7 October 2017
[No new, unique, relevant content]

New York Times
http://www.nytimes.com/
Accessed 7 October 2017
UN: More Should Have Been Done to Fight Cholera in Yemen
By THE ASSOCIATED PRESSOCT. 3, 2017, 1:18 P.M. E.D.T.
GENEVA — The World Health Organization's emergencies chief says the agency could have acted faster and sent more vaccines to fight a massive, deadly surge of cholera cases in war-battered Yemen this year.
Dr. Peter Salama still expressed optimism that "we are turning (the) corner" on the preventable, water-borne disease that has topped 700,000 suspected cases and caused more than 2,000 deaths this year.
Salama spoke to reporters Tuesday as the U.N. agency and its partners laid out ambitious projects to reduce the number of annual cholera deaths by 90 percent by 2030…
In Yemen, the country's 2-1/2 war has devastated the health system and public services and put the country on the brink of famine. Yemen had been set to receive a million doses of cholera vaccine over the summer but the government opted not to take them.
Salama said the Yemen government said it didn't believe that would be enough.
"Could WHO and the cholera-specific partners have scaled up more quickly the case-management work, and could we have tried to mobilize more doses for cholera vaccine given the very limited supply globally of cholera vaccine? I think so — yes," Salama said…

Wall Street Journal
http://online.wsj.com/home-page?_wsjregion=na,us&_homepage=/home/us
Accessed 7 October 2017
[No new, unique, relevant content]

Washington Post
http://www.washingtonpost.com/
Accessed 7 October 2017
A mother refused to follow a court order to vaccinate her son. Now she's going to jail.
By Kristine Phillips October 4, 2017

A Michigan woman will spend seven days in jail after she defied a judge's order to have her 9-year-old son vaccinated.

Rebecca Bredow was sentenced for contempt of court Wednesday, nearly a year after an Oakland County judge ordered her to have her son vaccinated. Bredow had been given until Wednesday to get her son the medically allowed amount of vaccination, which would be up to eight vaccines. But the Detroit area mother, citing her religious beliefs, had refused to do so.

"I'm a passionate mother who cares deeply about my children, their health and their well-being. . . . If my child was forced to be vaccinated, I couldn't bring myself to do it," Bredow said during a court hearing, according to the Associated Press.

The jail sentence is the latest in an ongoing custody battle with her ex-husband, James Horne, who wants their son vaccinated and shares joint custody of the child…

Think Tanks et al

Brookings
http://www.brookings.edu/
Accessed 7 October 2017
[No new relevant content]

Center for Global Development
http://www.cgdev.org/page/press-center
Accessed 7 October 2017
[No new relevant content]

Council on Foreign Relations
http://www.cfr.org/
Accessed 7 October 2017
[No new relevant content]

CSIS
https://www.csis.org/
Accessed 7 October 2017
[No new relevant content]

* * * *
* * * *

and sustainable development – serving governments, international agencies, INGOs, civil society organizations (CSOs), commercial entities, consortia and alliances. CVEP maintains an academic affiliation with the Division of Medical Ethics, NYU School of Medicine, and an operating affiliation with the Vaccine Education Center of Children's Hospital of Philadelphia [CHOP].

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

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

* * * *
* * * *