Vaccines and Global Health: The Week in Review
24 March 2018
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.*

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Milestones :: Perspectives

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HHS Secretary Azar to Name Robert R. Redfield, M.D., Director of the Centers for Disease Control and Prevention

On Wednesday, the Department of Health and Human Services announced that Secretary Alex Azar will name Robert R. Redfield, M.D., as the 18th Director of the Centers for Disease Control and Prevention and Administrator of the Agency for Toxic Substances and Disease Registry.

Upon the announcement, Secretary Azar issued the following statement:
"Dr. Redfield has dedicated his entire life to promoting public health and providing compassionate care to his patients, and we are proud to welcome him as director of the world's premier epidemiological agency. Dr. Redfield's scientific and clinical background is peerless: As just one example, during his two-decade tenure at Walter Reed Army Institute of Research, he made pioneering contributions to advance our understanding of HIV/AIDS. His more recent work running a treatment network in Baltimore for HIV and Hepatitis C patients also prepares him to hit the ground running on one of HHS and CDC's top priorities, combating the opioid epidemic."

"Furthermore, all of us at HHS are grateful to Dr. Anne Schuchat for her service as Acting Director at CDC, especially during this year's severe flu season. We look forward to CDC continuing its important work on the opioid epidemic and America's many other pressing public health challenges."

Biographical Background
Dr. Robert R. Redfield has been a public health leader actively engaged in clinical research and clinical care of chronic human viral infections and infectious diseases, especially HIV, for more than 30 years.

He served as the founding director of the Department of Retroviral Research within the U.S. Military's HIV Research Program, and retired after 20 years of service in the U.S. Army Medical Corps. Following his military service, he co-founded the University of Maryland's Institute of Human Virology with Dr. William Blattner and Dr. Robert C. Gallo and served as the Chief of Infectious Diseases and Vice Chair of Medicine at the University of Maryland School of Medicine.

Dr. Redfield made several important early contributions to the scientific understanding of HIV, including the demonstration of the importance of heterosexual transmission, the development of the Walter Reed staging system for HIV infection, and the demonstration of active HIV replication in all stages of HIV infection.

In addition to his research work, Dr. Redfield oversaw an extensive clinical program providing HIV care and treatment to more than 5,000 patients in the Baltimore/Washington, D.C. community.

Dr. Redfield served as a member of the President's Advisory Council on HIV/AIDS from 2005 to 2009, and was appointed as Chair of the International Subcommittee from 2006 to 2009. He is a past member of the Office of AIDS Research Advisory Council at the National Institutes of Health, the Fogarty International Center Advisory Board at the National Institutes of Health, and the Advisory Anti-Infective Agent Committee of the Food and Drug Administration.

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Featured Journal Content

JAMA
Online First – March 22, 2018
Viewpoint
Novel Vaccine Technologies - Essential Components of an Adequate Response to Emerging Viral Diseases
Barney S. Graham, MD, PhD; John R. Mascola, MD; Anthony S. Fauci, MD
[free access]
JAMA. Published online March 22, 2018. doi:10.1001/jama.2018.0345

The availability of vaccines in response to newly emerging infections is impeded by the length of time it takes to design, manufacture, and evaluate vaccines for clinical use. Historically, the process of vaccine development through to licensure requires decades; however, clinicians and public health officials are often faced with outbreaks of viral diseases, sometimes of a pandemic nature that would require vaccines for adequate control. New viral diseases emerge from zoonotic and vectorborne sources, such as Middle East Respiratory Syndrome coronavirus and Chikungunya, and while these diseases are often detected in resource-rich countries, they usually begin in low- and mid-income countries.1 Therefore, part of the timeline for a vaccine involves surveillance and detection of new pathogens in remote areas and transfer of specimens to laboratories capable of vaccine development.

Development of vaccines for viral infections has historically been an empirical and iterative process based on the use of attenuated or inactivated whole virus. This requires unique methods of cultivation for each virus, development of animal models for vaccine testing, and a prolonged process of fine-tuning product formulation and immunogenicity, and for live-attenuated vaccines, pathogenicity. Thus, preclinical vaccine development can take years, followed by several more years of early-phase clinical testing and defining of dose and schedule. Moreover, efficacy testing and registration with regulatory agencies often takes another 5 to 10 years. In total, 15 to 20 years would be a typical timeframe from virus discovery to vaccine availability if the process proceeds smoothly and there are no major biological or logistical challenges.

Fortunately, during the last decade, there have been substantial technological advances for conceiving, developing, manufacturing, and delivering vaccines. Rapid genetic sequencing allows both early identification of new pathogens and the identity of the genes encoding structural proteins that can form the basis for vaccine immunogen development. Also, rapid isolation of human monoclonal antibodies has proven to be extremely helpful in defining epitopes that are the targets of protective immunity.

Additional tools of modern vaccinology include (1) delineation of atomic-level structures of viral proteins that facilitates structure-enabled immunogen design and protein engineering; (2) cell sorting and sequencing technologies that allow single-cell analysis of immune responses; and (3) genetic knock-in technologies that allow construction of animal models with human antibody genes for vaccine testing. These tools have already provided the potential not only for solving long-standing problems in vaccinology, such as the development of a new candidate vaccine for respiratory syncytial virus, but they have facilitated rapid development of new candidate vaccines for emerging pathogens such as the Zika virus and pandemic strains of influenza virus. Synthetic vaccinology and platform manufacturing are important innovations that can speed the initial vaccine immunogen design and vaccine development process, and shorten the time needed for manufacturing and initial regulatory approval to begin phase 1 testing.

Synthetic vaccinology is the process of using viral gene sequence information to accelerate vaccine development.[2] For example, if a new influenza virus emerges anywhere in the world and is identified through genomic sequencing, the digitally transferred information can be used to synthesize nucleic acids encoding the viral surface proteins (hemagglutinin and neuraminidase). The process of gene synthesis is now extremely rapid and relatively inexpensive. Thus, within a few weeks, DNA plasmids encoding viral proteins can be available for preclinical testing. These genetic vectors (DNA and mRNA) can be used directly for immunization whereby intramuscular immunization leads to muscle cells producing the viral proteins. Alternatively, the genetic vectors can be used to express recombinant protein antigens, in vitro, that can be used for immunization.

Similarly, if an outbreak of a new flavivirus becomes an epidemic or even a pandemic threat, as with Zika in 2015, the gene sequences that encode the viral surface proteins premembrane and envelope can be rapidly identified and form the basis for vaccine immunogen design strategies, based on prior knowledge of flavivirus structure and mechanisms of neutralization.[3] Once a structurally authentic immunogen is available, the protein or genetic vectors encoding the protein can be used to immunize animals. In addition, the vaccine proteins can be used as probes to identify monoclonal antibodies secreted by B cells of convalescent humans. Such antibodies are valuable not only for refining vaccine immunogen designs, but also for development of diagnostic assays and potentially for use in passive transfer as therapeutic agents. Thus, development of reagents, diagnostics, candidate vaccines, and immune assessment assays can be done without having the actual virus in hand. This has particular value for viruses with extreme pathogenicity because it avoids the need for high-level containment in laboratory and manufacturing facilities.

Platform manufacturing technologies allow more rapid production and clinical implementation once the vaccine immunogen design is established. The term platform is used in many ways; however, in vaccine production, it implies that the method for generating and presenting a vaccine immunogen can be applied across multiple pathogens. In essence, the cell substrates, production approach, purification processes, and analytical assays used as release criteria for products made under current Good Manufacturing Procedures are the same even though the immunogen may change. DNA or mRNA nucleic acid vaccines are good examples of how platform manufacturing can shorten timelines from pathogen identification to phase 1 clinical trials.[4] DNA vaccine delivery and immunogenicity have evolved and improved over the last 2 decades, making it a viable platform for vaccination.

For DNA plasmid vaccines, the manufacturing process is well established, and their toxicity profile is well understood. The National Institute of Allergy and Infectious Diseases Vaccine Research Center has developed candidate DNA vaccines for several viral disease threats during outbreaks, including SARS coronavirus in 2003, H5N1 avian influenza in 2005, H1N1 pandemic influenza in 2009, and most recently for Zika virus in 2016. Once these pathogens were identified, the time from viral sequence selection to initiation of the phase 1 clinical trial was shortened from 20 months to slightly longer than 3 months (Figure).

Other examples of vaccine platform technologies include viral vector–based approaches where genes encoding viral proteins are incorporated into viral vectors (eg, adenovirus, poxvirus, vesicular stomatitis virus, or paramyxovirus vectors) for gene-based immunogen expression and delivery, or chimeric replication-competent viruses in which the vaccine antigens of one virus are expressed in a common replication-competent virus allowing uniform manufacturing processes (eg, yellow fever or other flavivirus antigens expressed in dengue virus, or human parainfluenza or pneumovirus antigens expressed in bovine parainfluenza or Sendai virus vectors).

Traditional approaches, such as live-attenuated virus vaccines (eg, Sabin polio) or whole-inactivated virus vaccines (eg, Salk polio) would not qualify as platform approaches because the requirements for growth in cell culture and purification are usually different among virus families. Protein-based approaches are also likely to have different requirements for purification and formulation, and they may not be amenable to platform approaches unless the display of proteins on nanoparticles or other carrier systems brings more uniformity to downstream manufacturing approaches. Having a standard manufacturing approach reduces the time needed for current Good Manufacturing Procedures process development and simplifies regulatory approval because the safety database that has accumulated for a given platform can be applied to multiple vaccine products.

In summary, emerging viral diseases with pandemic potential are a perpetual challenge to global health. The time-honored approach to vaccinology, which depends predominantly on isolating and growing the pathogen, has not adequately met this challenge. To effectively prepare for and respond to these continually emerging threats, it will be critical to exploit modern-day technological advances, preemptively establish detailed information on each family of viral pathogens, and invest in more infrastructure for surveillance in developing countries to expedite pathogen identification and jump-start the process of vaccine development using these new technologies.2 Failure to do so will result in the untenable situation of not optimally using vaccinology in the response to newly emerging infectious disease threats.

[References available at title link above]

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World TB Day, 24 March 2018
:: Fact sheet
:: Wanted: Leaders for a TB-free world

23 March 2018 – The theme of World TB Day 2018 is "Wanted: Leaders for a TB-free world". The day focuses on building commitment to end TB, not only at the political level with Heads of State and Ministers of Health, but at all levels from Mayors, Governors, parliamentarians and community leaders, to people affected with TB, civil society advocates, health workers, doctors or nurses, NGOs and other partners. All can be leaders of efforts to end TB in their own work or terrain.

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NIH Statement on World Tuberculosis Day 2018

Statement of Christine F. Sizemore, Ph.D., Richard Hafner, M.D., and Anthony S. Fauci, M.D.
Friday, March 23, 2018
[Editor's text bolding]
In the 130 years since the discovery of Mycobacterium tuberculosis (Mtb) — the bacterium that causes tuberculosis (TB) — at least 1 billion people have died from TB. That death toll is greater than the combined number of deaths from malaria, smallpox, HIV/AIDS, cholera, plague and influenza. Today, in commemoration of World TB Day, the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health (NIH), renews and reinvigorates its commitment to the research needed to end this ancient scourge.

Mtb is transmitted through the air and primarily affects the lungs. TB is the leading killer among infectious diseases and among the top 10 causes of death worldwide. The World Health Organization (WHO) estimates that in 2016, TB claimed the lives of 1.7 million people, including 250,000 children, and 10.4 million people were newly infected with Mtb. TB is the primary cause of death for individuals co-infected with HIV. According to the WHO, more than 2 billion people globally are "latently" infected with TB, meaning they carry the bacteria but are currently without symptoms, which would include cough, fever, weight loss and night sweats. People with latent TB infection cannot actively transmit TB bacteria to another person. Up to 13 million people in the United States are estimated to have latent TB infection, according to the U.S. Centers for Disease Control and Prevention. Overall, people with latent TB infection have a 5 to 15 percent lifetime risk of developing active TB disease. This risk increases for people with compromised immune systems, such as those living with HIV, people receiving immunosuppressive therapy (such as individuals being treated for cancer), as well as diabetics, smokers and the malnourished.

WHO's End TB Strategy envisions an end to TB by 2035. To accomplish this, incremental improvements in understanding the disease and in the tools used to identify, treat, and prevent it will not be sufficient. Rather, accelerated efforts and transformative advances are needed. Recent engagement includes NIAID participation in the first "WHO Global Ministerial Conference on Ending TB in the Sustainable Development Era: A Multisectoral Response" in Moscow. At this November 2017 meeting, the urgent need for a more intensive biomedical research approach to controlling and ultimately eliminating TB was clearly articulated. Specifically, we need a more intensive interdisciplinary systems biology approach (using cutting-edge methods, large data sets, and modeling to understand complex biological systems) to improve our understanding of how Mtb infection causes disease. Additionally, we must work toward improved diagnostics that can detect Mtb in a variety of clinical specimens in addition to sputum. Also, rapid, accurate, and inexpensive "point-of-care" tests to distinguish between drug-sensitive and drug-resistant Mtb must be developed. NIAID investments in research contributed substantially to the WHO-

endorsed GeneXpert MTB/rifampicin resistance diagnostic currently in use, and the Institute continues to support the development of next-generation TB diagnostics.

Today's treatment regimens for TB require too many drugs, often with toxic side effects, that must be taken for six months or longer. With the increasing incidence of multidrug resistant TB (MDR-TB), these regimens often become very lengthy (up to 20 months), more complex, costly, and more prone to failure. Extensively drug-resistant TB (XDR-TB) is even more difficult to treat, and for some patients, no effective treatment regimens exist. Despite the urgent need for new and improved TB treatments, there is a paucity of new drugs in the clinical development pipeline. To address this deficit, NIAID-supported investigators have engaged in cross-disciplinary, international collaborations designed to spur basic science and early-stage TB drug discovery. Additionally, NIAID has used its HIV/AIDS clinical trials networks to enhance TB clinical research by conducting key studies of potential TB treatment strategies. For example, a NIAID-led study found that a one-month antibiotic regimen to prevent active TB disease in people with latent TB infection was as safe and effective as the standard 9-month course in people living with HIV. Additionally, the NIAID-funded HIV/AIDS clinical trials networks have conducted studies of improved regimens for MDR-TB therapeutics geared to treat both HIV-infected and uninfected adults and children.

A broadly effective preventive TB vaccine could avert millions of new Mtb infections; however, critical knowledge gaps have made developing such a vaccine a difficult challenge. The current Bacille Calmette-Guerin (BCG) vaccine, developed in 1921, offers protection against disseminated TB disease and death in children, but this protection does not reliably extend into adulthood. A recent study suggests that revaccination with the vaccine could potentially prevent Mtb infections in high-risk adolescents. To reliably protect against the transmissible pulmonary form of the disease in adults, a new, more effective intervention strategy is needed. NIAID supports basic, preclinical and clinical research to find and develop new, innovative vaccines to prevent TB infection and disease.

The WHO estimates that 53 million lives were saved between 2000 and 2016 through improved TB diagnosis and treatment. Through an intensified research agenda, a sustained commitment to supporting and conducting TB research, and a renewed effort to work with other agencies and organizations, NIAID is dedicated to helping eliminate this disease and improving and saving the lives of people with TB. In September 2018, the United Nations General Assembly will conduct a high-level meeting on TB—representing an important step forward by governments and other partners from around the world in the fight against TB. On this World TB Day, we stand with global leaders in response to the bold call of action to make history and end TB.

Anthony S. Fauci, M.D., is Director of the National Institute of Allergy and Infectious Diseases (NIAID) at the National Institutes of Health in Bethesda, Maryland. Richard Hafner, M.D., is chief of the TB Clinical Research Branch in NIAID's Division of AIDS; Christine F. Sizemore, Ph.D., is chief of the Tuberculosis and other Mycobacterial Diseases Section in the NIAID Division of Microbiology and Infectious Diseases.

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Featured Journal Content

PLoS Medicine
http://www.plosmedicine.org/
(Accessed 24 March 2018)
Editorial
Time for high-burden countries to lead the tuberculosis research agenda
Madhukar Pai
| published 23 Mar 2018 PLOS Medicine
https://doi.org/10.1371/journal.pmed.1002544

At long last, tuberculosis (TB) is getting the political attention that it deserves, being the leading infectious killer of humans today. In 2016, there were 10.4 million estimated new TB cases, with over 1.7 million deaths [1]. The G20 declaration of July 2017 included TB in the context of the need to respond to the antimicrobial resistance threat, following the group's meeting in Hamburg, Germany [2]. In November 2017, for the first time, a WHO Global Ministerial Conference on TB was held in Moscow, Russia, culminating in the Moscow Declaration to End TB [3]. This year, in September, the United Nations General Assembly (UNGA) will hold the first-ever high-level meeting on the fight against TB [4].

While the political attention brings much needed hope, other developments provide cause for worry. The United States government, the largest funder of TB control and research, is rapidly scaling back on overseas aid, slashing billions from global health and humanitarian assistance [5]. Canada, despite its progressive policies, is spending substantially less on international aid than comparable G7 countries [6]. And while there are considerable uncertainties, Brexit could have a major impact on European Union international development and humanitarian policies and is expected to challenge the EU's role as the world's leading donor [7].

The case for funding global health in general, and TB in particular, in this political climate will lack for attention as long as wealthy donor countries focus their priorities on populist and nationalist demands or short-term outcomes of a transactional nature. It is therefore critical for countries most affected by TB to step up, show leadership, and invest in TB control as well as research.

Take the case of Brazil, Russia, India, China, and South Africa (BRICS), which together account for 46% of all incident cases of TB and 40% of all TB-related mortality [1]. With strong, if uneven, economic growth in BRICS, and their growing stature and leadership in the political arena, these countries are well placed to lead the charge against a disease that is a leading killer of their citizens and a huge drain on their economies [8]. In fact, investments in TB control can lead to a huge return on investments for these countries [9].

Commendably, there are signs of the BRICS stepping up to deal with TB, commensurate with their disease burden and economic and scientific prowess [8]. The BRICS Leaders Xiamen

Declaration (2017) specifically mentioned the need to improve surveillance of TB and also agreed to set up a TB research network [10].

In fact, the BRICS are now major producers of TB research [11]. While the US remains the top producer of TB research in the past 2 decades, India and China have emerged as the second and third leading producers of TB research in recent years [11]. Further, bibliometric analyses show that the average year-on-year increase in TB publications from the BRICS countries was, in the past decade, nearly double the overall year-on-year increase across all countries [11]. Russia showed leadership in hosting the Global Ministerial Conference, while South Africa has shown commendable initiative in scaling up access to antiretrovirals, as well as new TB diagnostics and drugs (e.g., bedaquiline), and by launching an ambitious National Strategic Plan and 90-90-90 targets to control the linked epidemics of TB and HIV.

Brazil, China, and India have made strong moves to lead on the TB research agenda. In 2015, Brazil established its National TB Research Strategy. In 2016, India launched an India TB Research Consortium to develop new tools for TB and advance evidence-based TB control policies and has increased domestic investments in TB research funding, to align with its National Strategic Plan to Eliminate TB (2017–2025). China is today among the top 5 largest funders of TB research [11]. By making huge domestic investments in science and technology research, China recently overtook the US in terms of total number of science publications [12]. With regards to new tools, both India and China have successfully developed rapid molecular TB tests, using indigenous, more affordable technology platforms, and South Africa is leading the way in vaccine research and clinical trials of new biomarkers as well as TB drug regimens.

While there is evidence of good collaborations between the BRICS and high-income countries (e.g., Indo-US or South Africa-UK collaborations), data suggest that collaborations among BRICS countries are not common [11]. This opportunity must be grasped. As proposed by the BRICS leaders, and reiterated in the Moscow declaration, a TB research network funded and managed by BRICS would go a long way in enhancing collaborations among these countries, improving exchange of technologies and best practices, facilitating multicentric trials of new tools, and avoiding duplication of research efforts.

Along the lines of the BRICS, there is a need for other coalitions of high-burden countries to step up. About 25% of the global incident cases occur in the WHO African Region, with the proportion of TB cases coinfected with HIV exceeding 50% in parts of southern Africa [1]. In this context, the African Union, which consists of all 55 countries on the African continent, is well placed to take leadership on the TB-HIV coepidemic response.

Eliminating TB will not be possible without new tools and approaches. In the Moscow Declaration to End TB, more than 120 national delegations committed to developing and implementing more ambitious, fully funded national TB policies and strategic plans, including for TB research, that are aligned with national health plans and consistent with the End TB Strategy [3]. It is critical that all stakeholders work together to make this declaration a reality and hold political leaders accountable for their pledges, especially their commitment to increased domestic funding to ensure quality TB care and social protection for the most vulnerable sections of the population.

The world cannot depend on a few wealthy countries with very low TB incidence to support all the research that is required to tackle TB. High-burden, middle-income countries with high TB rates must step up. They have the potential to transform the global TB research agenda through increased domestic funding, collaborative networks, and transnational research partnerships. By taking the lead on TB research, high-burden countries not only can meet their own national strategic plan goals but can also take a leading step towards fulfilling the commitment to end the TB epidemic, with targets to reduce TB deaths by 95% and to reduce TB incidence rate by 90% between 2015 and 2035.

[References available at title link above]

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Dengvaxia

WHO laments low vaccination rates in Philippines amid Dengvaxia scare
Published March 22, 2018 9:37pm
By CHINO GASTON, GMA News
The World Health Organization has expressed concern over reports coming from the Department of Health citing low vaccination rates due to the scare brought about by the Dengvaxia controversy.

WHO Country Representative to the Philippines Gundo Weiler said anxiety over the reported ill-effects of the anti-dengue vaccine should not prevent parents from having their children vaccinated against preventable diseases like polio, hepatitis, measles, tuberculosis and the mumps.

"We have to remember this is a very different situation. This cannot be compared to the routine vaccination program that the Philippines has been running for many, many years which has been a very safe and very effective vaccination program," said Weiler, referring to at least six vaccines given for free by the Department of Health as part of its standard immunization program…

Weiler says the 2014 measles outbreak in the country where an estimated 58,000 and 110 deaths were reported, is one unfortunate result if vaccination targets are not met.
The Department of Health is encouraging parents to have their children vaccinated before the onset of the summer break where, traditionally, outbreak of measles and chicken pox are prevalent.

Health Undersecretary Eric Domingo called on parents to trust other vaccines that have been regularly administered by the DOH over the past several decades.

"Naiintindihan naman natin na nagkaroon sila ng konting pangamba. Hindi siya katulad ng Dengvaxia na bagong bago na nagamit sa maramihan," Domingo said.

The DOH had previously scored the findings of the Public Attorney's Office hinting of possible links between the Dengvaxia vaccine and the deaths of at least 30 children.

The PAO has filed a civil case against drug maker Sanofi Pasteur and former DOH Officials for the death of an 11 year old child, using evidence gleaned from tissue samples and forensic examinations.

A similar study undertaken by the expert panel led by pathologists and other experts from the UP-PGH has yet to find evidence linking Dengvaxia to any of the suspected vaccine-related deaths.

To counter the falling vaccination rates in the country, some local government health workers like those in Zamboanga City, are waging a house to house vaccination campaign.

Around 230 suspected cases of measles have been reported in the city with around 5 deaths attributed to the disease.

Data from the City Health Office indicates only around 60 percent of an estimated 110 thousand children aged 6 to 56 months old have received the measles vaccine…

Health workers in Barangay Roxas are also doing a house to house vaccination campaign this summer and have not reported any incident where parents did not agree to have their children vaccinated. —JST, GMA News

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Featured Journal Content

Lancet Infectious Diseases
http://www.thelancet.com/journals/laninf/issue/current
Available online 14 March 2018
In Press, Corrected Proof — Note to users
Comment
Cholera control: one dose at a time
Louise C Iversa, b,
https://doi.org/10.1016/S1473-3099(18)30170-1
Open Access
Cholera continues to harm the most vulnerable people worldwide.1 As an indicator of human progress, the sustained or new presence of the disease in any region is a stark reminder of how far we, as a society, have to go to reach Sustainable Development Goal 6: ensuring availability and sustainable management of water and sanitation for all.2 Diarrhoeal diseases are a major source of preventable morbidity and mortality, and in 2015 claimed the lives of more than 1·3 million people, of whom 499,000 were children younger than 5 years.3

As a contributor to the global burden of diarrhoeal disease, Vibrio cholerae is a particularly harsh pathogen, causing rapid onset of severe nausea, vomiting, and profuse watery diarrhoea that can lead to death within hours—even of the healthiest young adults. Whole communities can be rapidly affected in epidemics, causing both physical harm and psychological distress. The pervasive social determinant of the problem—poor or no access to safe water, sanitation, and

hygiene—means that displaced people, refugee populations, and those in conflict zones are at risk of major outbreaks of the illness. Cholera also continues to occur routinely, regularly, and with great impact (although often with less media attention) in endemic countries, such as Bangladesh and now Haiti, where children and the poorest people are the most at risk of being harmed. In both epidemic and endemic circumstances, the public health role of cholera vaccination has been re-emerging with interest from policy makers over the past 8 years.

In The Lancet Infectious Diseases, Firdausi Qadri and colleagues [4] describe results of 2 years of follow-up of a large, randomised, double-blind, placebo-controlled efficacy trial of a single dose of an inactivated whole-cell oral cholera vaccine (OCV) in Bangladesh. They found that a single dose provided protection for at least 2 years when given to adults (vaccine protective efficacy against all cholera episodes 59%, 95% CI 42–71) and to children aged 5 years or older (52%, 8–75). The findings make an important contribution to cholera control around the world, and could help to take us one step closer to WHO's ambitious goal of reducing deaths from the disease by 90% by 2030.[5]

Increasing practical experiences with large-scale public health use of OCV—initially including reactive vaccination campaigns in Guinea and Haiti in 2012,[6] ; [7] revitalised WHO's support of cholera-affected countries,[8] and investment by GAVI, the vaccine alliance, in a global stockpile of vaccine—have resulted in millions of doses of OCV being used each year since 2014. The vaccine has most often been given in two doses, 14 days apart, as recommended by the manufacturers.[9] Yet giving a second dose of OCV on schedule can be challenging during crisis situations. Furthermore, multiple competing demands on the global stockpile mean that, at times, officials might have to decide if they should vaccinate a population without guarantee of the availability of the second tranche of doses.

Qadri and colleagues' trial complements findings from other important studies on the use of a single-dose OCV, which were largely secondary analyses and shorter-term prospective observational studies.[10] ; [11] Together, the evidence shows that single-dose OCV campaigns can be effective both in the short term in outbreaks and for up to 2 years in endemic settings. With these data to further support decision making on who to vaccinate against cholera and when to vaccinate them, government agencies, multilateral organisations, and non-governmental organisations should continue to invest in cholera vaccines as a part of the toolkit to control and prevent the disease.

However, a single dose of OCV did not protect children younger than 5 years compared with placebo (vaccine protective efficacy against all cholera episodes −13%, 95% CI −68 to 25),[4] consistent with the 6-month results of the same study.[12] Other studies show some, but reduced, protection of two doses of OCV in this age group as well, which has implications for strategies on the use of OCV in highly endemic regions where young children are an important risk group.[13] Further studies are needed to determine how best to protect the youngest individuals, and to identify the ideal dosing schedule of the vaccine.

Still more evidence is needed on how to integrate vaccination strategies into evidence-based water, sanitation, and hygiene interventions to interrupt diarrhoeal disease—a subject in which evidence of impact is surprisingly scarce.[14] What is notable about the discourse on OCV in 2018 are the burning questions not associated with whether vaccines should be used in endemic countries or whether they should be used during epidemics for cholera control, but rather how

best to use them in a way that maximises effectiveness and efficiency in saving the lives of the most vulnerable people from this entirely preventable disease.

Available online 14 March 2018
In Press, Corrected Proof — Note to users
Articles

Efficacy of a single-dose regimen of inactivated whole-cell oral cholera vaccine: results from 2 years of follow-up of a randomised trial

Firdausi Qadri, PhDa, Mohammad Ali, PhDb, Julia Lynch, MDc, Fahima Chowdhury, MPHa, Ashraful Islam Khan, PhDa, Thomas F Wierzba, PhDd, Jean-Louis Excler, MDc, Amit Saha, MMeda, Md Taufiqul Islam, MPHa, Yasmin A Begum, PhDa, Taufiqur R Bhuiyan, PhDa, Farhana Khanam, MSca, Mohiul I Chowdhury, MPHa, Iqbal Ansary Khan, MPHe, Alamgir Kabir, MSca, Prof Baizid Khoorshid Riaz, MPHf, Afroza Akter, MPHa, Arifuzzaman Khan, MBBSa,

Summary
Background
A single-dose regimen of inactivated whole-cell oral cholera vaccine (OCV) is attractive because it reduces logistical challenges for vaccination and could enable more people to be vaccinated. Previously, we reported the efficacy of a single dose of an OCV vaccine during the 6 months following dosing. Herein, we report the results of 2 years of follow-up.
Methods
In this placebo-controlled, double-blind trial done in Dhaka, Bangladesh, individuals aged 1 year or older with no history of receipt of OCV were randomly assigned to receive a single dose of inactivated OCV or oral placebo. The primary endpoint was a confirmed episode of non-bloody diarrhoea for which the onset was at least 7 days after dosing and a faecal culture was positive for Vibrio cholerae O1 or O139. Passive surveillance for diarrhoea was done in 13 hospitals or major clinics located in or near the study area for 2 years after the last administered dose. We assessed the protective efficacy of the OCV against culture-confirmed cholera occurring 7–730 days after dosing with both crude and multivariable per-protocol analyses. This trial is registered at ClinicalTrials.gov, number NCT02027207.
Findings
Between Jan 10, 2014, and Feb 4, 2014, 205,513 people were randomly assigned to receive either vaccine or placebo, of whom 204,700 (102,552 vaccine recipients and 102,148 placebo recipients) were included in the per-protocol analysis. 287 first episodes of cholera (109 among vaccine recipients and 178 among placebo recipients) were detected during the 2-year follow-up; 138 of these episodes (46 in vaccine recipients and 92 in placebo recipients) were associated with severe dehydration. The overall incidence rates of initial cholera episodes were 0·22 (95% CI 0·18 to 0·27) per 100,000 person-days in vaccine recipients versus 0·36 (0·31 to 0·42) per 100,000 person-days in placebo recipients (adjusted protective efficacy 39%, 95% CI 23 to 52). The overall incidence of severe cholera was 0·09 (0·07 to 0·12) per 100,000 person-days versus 0·19 (0·15 to 0·23; adjusted protective efficacy 50%, 29 to 65). Vaccine protective efficacy was 52% (8 to 75) against all cholera episodes and 71% (27 to 88) against severe cholera episodes in participants aged 5 years to younger than 15 years. For participants aged 15 years or older, vaccine protective efficacy was 59% (42 to 71) against all cholera episodes and 59% (35 to 74) against severe cholera. The protection in the older age groups was sustained throughout the 2-year follow-up. In participants younger than 5 years, the vaccine did not show protection against either all cholera episodes (protective efficacy −13%, −68 to 25) or severe cholera episodes (−44%, −220 to 35).

Interpretation
A single dose of the inactivated whole-cell OCV offered protection to older children and adults that was sustained for at least 2 years. The absence of protection of young children might reflect a lesser degree of pre-existing natural immunity in this age group.
Funding
Bill & Melinda Gates Foundation to the International Vaccine Institute.

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Emergencies

POLIO

Public Health Emergency of International Concern (PHEIC)

Polio this week as of 13 March 2018 [GPEI]

:: New on www.polioeradication.org: In Nigeria, experts from the frontline of polio eradication are supporting the Lassa fever response. Meanwhile, we asked what it takes to vaccinate every child in Afghanistan.

Summary of newly-reported viruses this week:

Afghanistan: Two new cases of wild poliovirus type 1 (WPV1) have been confirmed this week, one occurring in Kunar province, and one in Kandahar province. These cases were advance notification last week.

Pakistan: One new WPV1 positive environmental sample has been reported in Sindh province.

Democratic Republic of the Congo: One new case of circulating vaccine-derived poliovirus type 2 (cVDPV2) reported, from Haut Lomami province.

Somalia: An advance notification of one new cVDPV2 positive environmental sample has been received, from Banadir province.

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WHO Grade 3 Emergencies [to 24 March 2018]

The Syrian Arab Republic

:: WHO is providing urgent health services in response to displacements from Afrin

23 March 2018, Cairo, Egypt – The World Health Organization (WHO) has deployed mobile medical clinics and critical health supplies to areas hosting newly displaced people from the northern Syrian district of Afrin, while supporting partners struggling to maintain health services in Afrin city and surrounding areas.

An estimated 167 000 people have been displaced by the recent hostilities in Afrin District in northern Aleppo Governorate. The majority have fled to Tal Refaat, while others are seeking shelter in Nubul, Zahraa and surrounding villages. The massive influx of displaced people is putting a strain on host communities and already overwhelmed health facilities…

Iraq - *No new announcements identified*
Nigeria - *No new announcements identified*
South Sudan - *No new announcements identified.*
Yemen - *No new announcements identified.*

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WHO Grade 2 Emergencies [to 24 March 2018]
Bangladesh/Myanmar: Rakhine Conflict 2017 - *No new announcements identified …*
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.*

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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.

DRC
:: Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator, Mark Lowcock: Statement to the Security Council on the humanitarian situation in the Democratic Republic of the Congo, New York, 19 March 2018

Syrian Arab Republic
:: 23 Mar 2018 UNICEF Briefing note on the situation of children in Idlib, Afrin and Eastern Ghouta, Syria, 23 March 2018
:: 19 Mar 2018 Statement attributed to Ali Al-Za'tari, UN Resident and Humanitarian Coordinator in Syria, on the catastrophic situation for people from East Ghouta and Afrin, 19 March 2018 [EN/AR]

Yemen
:: 19 Mar 2018 Yemen Humanitarian Update Covering 12 March – 18 March 2018 | Issue 7

Iraq - *No new announcements identified.*

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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.
Ethiopia - *No new announcements identified.*
Nigeria - *No new announcements identified.*
Rohinga Refugee Crisis - *No new announcements identified.*
Somalia - *No new announcements identified.*

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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 24 March 2018]
http://www.who.int/ebola/en/
- *No new announcements identified.*

MERS-CoV [to 24 March 2018]
http://www.who.int/emergencies/mers-cov/en/
- *No new announcements identified.*

Yellow Fever [to 24 March 2018]
http://www.who.int/csr/disease/yellowfev/en/
[See CDC [U.S.] briefing content below]

Zika virus [to 24 March 2018]
http://www.who.int/csr/disease/zika/en/
- *No new announcements identified.*

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WHO & Regional Offices [to 24 March 2018]
Latest News
Promote health, keep the world safe, serve the vulnerable
Civil society meeting on HIV, viral hepatitis, tuberculosis, sexually transmitted infections and universal health coverage
Statement by Dr Tedros Adhanom Ghebreyesus, WHO Director-General
22 March 2018

On the trail of Lassa fever in southern Nigeria
21 March 2018 – Some 3675 contacts of the 376 confirmed Lassa fever cases in Nigeria had been identified and more than three-quarters had completed their 21 days of monitoring as of 18 March. WHO, the Nigeria Centre for Disease Control (NCDC) and the local government are reaching out to communities with a large-scale awareness raising campaign. This feature story tell of the importance of contact tracing in controlling the disease outbreak.

Highlights
WHO supports 16 African countries to protect against Listeriosis
March 2018 - WHO has reached out to 16 African nations to provide support for preparedness and response to a listeriosis outbreak that started in South Africa in 2017 but is now threatening other countries on the continent.

Call for Europe's commitment to increase investment to end TB

March 2018 – The number of new tuberculosis (TB) patients has been decreasing at an average rate of 4.3% yearly in the last decade in the WHO European Region. Despite being the fastest decline in the world, the trend is insufficient to achieve the target of ending the TB epidemic by 2030.

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Weekly Epidemiological Record, 23 March 2018, vol. 93, 12 (pp. 133–152)

:: Recommended composition of influenza virus vaccines for use in the 2018–2019 northern hemisphere influenza season

:: Antigenic and genetic characteristics of zoonotic influenza viruses and development of candidate vaccine viruses for pandemic preparedness

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WHO Regional Offices

Selected Press Releases, Announcements

WHO African Region AFRO

Selected Featured News

:: Annual peer review and planning workshop for Anglophone national malaria programmes in Africa takes place in Harare 23 March 2018

WHO continues to Support Response to Cholera Outbreak in Refugee Settlement 22 March 2018 Hoima

:: ESA EPI Managers and partners meet in Kigali to deliberate on immunization

20 March 2018 Nearly two hundred participants from East and Southern African (ESA)…

WHO Region of the Americas PAHO

- *No new announcements identified.*

WHO South-East Asia Region SEARO

- *No new announcements identified.*

WHO European Region EURO

:: Time for revamped commitment by all to end TB 23-03-2018

:: Environment and Health Task Force meeting kicks off national planning in 7 key areas 22-03-2018

:: WHO supports large-scale polio and measles vaccination campaigns in northern Syria 21-03-2018

:: Safe drinking-water in Europe? 20-03-2018

:: WHO Europe/ECDC joint press release: 4% annual decrease too slow to end TB by 2030 – call for Europe's commitment to increase investment to end TB 19-03-2018

WHO Eastern Mediterranean Region EMRO

:: WHO is providing urgent health services in response to displacements from Afrin 23 March 2018

:: WHO Director-General calls for urgent action to improve health conditions in Gaza, March 2018
19 March 2018

WHO Western Pacific Region
:: TB down in past decade; universal health coverage key to faster progress
MANILA, 23 March 2018 - New estimates show a 14% reduction in the incidence of tuberculosis (TB) in the World Health Organization (WHO) Western Pacific Region over the past decade, but with 1.8 million people newly infected in the Region each year, more needs to be done. On the eve of World Tuberculosis Day, WHO calls on governments to provide all citizens access to TB testing and treatment as part of universal health coverage.

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CDC/ACIP [to 24 March 2018]
http://www.cdc.gov/media/index.html
https://www.cdc.gov/vaccines/acip/index.html
Latest News
World TB Day - Press Release Thursday, March 22, 2018
Latest analysis of tuberculosis trends shows continued decline in the U.S., but progress toward elimination is slowing.
New preliminary data released today by CDC show tuberculosis (TB) cases declining in the U.S, but at a rate too slowly to eliminate TB during this century. In 2017, 9,093 new cases of TB were reported in the U.S, a 1.8 percent drop from the prior year. However, the current TB rate (2.8 cases per 100,000 persons) remains at levels 28 times higher than the TB elimination target rate…

Unique Program Improves Rapid Detection of Deadly Outbreaks in Uganda - Press Release Wednesday, March 21, 2018
An innovative program launched in 2010 in Uganda has dramatically sped the detection of outbreaks of some of the world's most dangerous viruses, according to a Centers for Disease Control and Prevention report published today in The Lancet Infectious Diseases.
Between 2010 and 2017, CDC and Ugandan scientists identified 16 outbreaks of viral hemorrhagic fevers (VHFs) in an average of 2.5 days – down from the two-week average detection time over the previous 10 years. The program, the CDC-UVRI Viral Hemorrhagic Fever Surveillance and Laboratory Program, identified five times as many outbreaks between 2010 and 2017 as were documented in the decade before the program began.
This first-of-its-kind national VHF program is a collaboration between CDC, the Uganda Ministry of Health (MOH), and the Uganda Virus Research Institute (UVRI). It combines real-time surveillance with laboratory testing and emergency response to significantly decrease both intensity and length of VHF outbreaks in the country, potentially saving hundreds or thousands of lives…

Telebriefing Transcript: CDC Update on Outbreak of Yellow Fever in Brazil, Vaccination Recommendations - Transcript Tuesday, March 20, 2018

CDC Warns Of Deadly Outbreak of Yellow Fever in Brazil - Media Statement Friday, March 16, 2018

In response to a large, ongoing outbreak of yellow fever in multiple states of Brazil, including near large urban areas and popular tourist destinations, CDC is recommending travelers to the country protect themselves from yellow fever by getting the yellow fever vaccine at least 10 days before travel, and taking steps to prevent mosquito bites during their travel.

CDC recommends that people who are unable to get yellow fever vaccine or aren't recommended to get it should avoid traveling to areas of Brazil where yellow fever vaccination is recommended…

ACIP

No new digest content identified.

MMWR News Synopsis for MARCH 22, 2018

https://www.cdc.gov/mmwr/index2018.html

:: Tuberculosis – United States, 2017

Eliminating tuberculosis (TB) in the United States requires a continued effort to control TB disease as well as expanded testing and treatment of latent TB infection. Preliminary 2017 U.S. data show the lowest number of reported TB cases on record. New, expanded approaches are needed to accelerate progress towards TB elimination. Data from CDC's National TB Surveillance System show a total of 9,093 U.S. TB cases in 2017, indicating slight declines in TB cases (-1.8 percent) and TB rates (-2.5 percent) compared to 2016. The preliminary data bring the overall annual TB rate for 2017 down slightly to approximately 2.8 cases per 100,000 people (compared to 2.9 in 2016). However, the rate is 28 times higher than the goal for TB elimination. Epidemiologic modeling suggests that at continued slow rates of decline, TB elimination will not be achieved in this century. In order to achieve TB elimination, continued and expanded efforts to control both active TB and latent TB infection are necessary.

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Africa CDC [to 24 March 2018]

https://au.int/en/africacdc

No new digest content identified.

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China CDC

http://www.chinacdc.cn/en/ne/

No new digest content identified.

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ECDC - European Centre for Disease Prevention and Control [to 24 March 2018]

https://ecdc.europa.eu/en/home

23 March 2018

Communicable disease threats report, 18-24 March 2018, week 12

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Announcements

AERAS [to 24 March 2018]
http://www.aeras.org/pressreleases
No new digest content identified.

BMGF - Gates Foundation [to 24 March 2018]
http://www.gatesfoundation.org/Media-Center/Press-Releases
No new digest content identified.

Bill & Melinda Gates Medical Research Institute [to 24 March 2018]
https://www.linkedin.com/company/bill-melinda-gates-medical-research-institute/
The Bill & Melinda Gates Medical Research Institute is a non-profit research organization dedicated to combating diseases that impact the world's poorest. We strive to combat inequities in health by accelerating progress in translational science to ensure life-saving products are available and accessible to everyone. We consider ourselves pioneers dedicated to uncovering radical solutions that will close the gap between cutting-edge scientific innovation and its application to challenges in global health.
No new digest content identified.

CEPI – Coalition for Epidemic Preparedness Innovations [to 24 March 2018]
http://cepi.net/
No new digest content identified.

EDCTP [to 24 March 2018]
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
Latest news
23 March 2018
World TB Day: EDCTP commits EUR 34M to TB vaccine clinical trials
True to the World Tuberculosis Day 2018 theme 'Wanted: Leaders for a TB-free world', the European Union and European member states continue to take an important role in fighting this disease. Recently, the European & Developing Countries Clinical Trials Partnership (EDCTP) committed EUR 34 million in funding for four large clinical trials on candidate TB vaccines. This is the largest European investment into clinical development of TB vaccines to date (with two grants signed and two under preparation), and boosts the joint commitment to combat one of the world's most devastating diseases. The trials will be conducted by 28 research institutions from sub-Saharan Africa, Europe and India…

22 March 2018
TB treatment consortium PanACEA2 held second annual meeting
The EDCTP-funded PanACEA2 consortium held its second annual meeting in Cape Town, South Africa from 28 February to 1 March 2018. Over the next five years, the consortium plans to use novel trial designs to accelerate the development of new anti-tuberculosis drug regimens. Three clinical trials will be conducted to optimise existing drugs and evaluate novel agents, with the aim of testing combination regimens that will shorten and simplify TB treatment. EDCTP Senior Project Officer Dr Monique Rijks-Surette participated in the programme…

Emory Vaccine Center [to 24 March 2018]
http://www.vaccines.emory.edu/
[Undated]
EVC Faculty Win Paper of the Year by International Society for Vaccines

European Medicines Agency [to 24 March 2018]
http://www.ema.europa.eu/ema/
23/03/2018
Meeting highlights from the Committee for Medicinal Products for Human Use (CHMP) 19-22 March 2018
Six medicines recommended for approval, including one orphan ...

European Vaccine Initiative [to 24 March 2018]
http://www.euvaccine.eu/news-events
21 March 2018
Recommendations on the design of multi-centre validation studies
Findings from a workshop organised within the VAC2VAC project (Vaccine batch to vaccine batch comparison by consistency testing) on the improved design of multi-centre validation studies and the use the data generated for product-specific validation purposes have now been published (Halder et al, 2018). The recommendations also address aspects of validation within the consistency approach context.

FDA [to 24 March 2018]
http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/default.htm
No new digest content identified.

Fondation Merieux [to 24 March 2018]
http://www.fondation-merieux.org/
March 14, 2018 Bamako, Mali
6th Better Foods for Better Health Symposium
The Mérieux Foundation is organizing the 6th edition of the Better Foods for Better Health symposium from March 20-22, at Les Pensières Center for Global Health, Veyrier-du-Lac, in France, with the support of Mérieux NutriSciences. This edition gathers about 100 experts from

the scientific community, regulatory institutions, academia, agro-food and industry stakeholders to discuss "Childhood nutrition, building a healthy life"."

Gavi [to 24 March 2018]
http://www.gavi.org/library/news/press-releases/
23 March 2018
U.S. approves $290 million for Gavi in fiscal year 2018 appropriations omnibus
Funding to provide critical vaccines to some of the poorest children in the world.

Washington, 23 March 2018 – Gavi, the Vaccine Alliance welcomed final approval of the United States fiscal year 2018 appropriations bill. The budget includes US$ 290 million for Gavi, which will go towards increasing the organization's capacity to purchase and deliver life-saving vaccines for poor and vulnerable children around the world.

The contribution to Gavi is part of the US$ 829.5 million approved for the U.S. Agency for International Development (USAID) Maternal and Child Health programs for 2018. This funding not only supports the introduction of new vaccines and innovative approaches and tools to expand equitable access to vaccines, but a range of other life-saving interventions.

"Gavi is grateful to the United States for continuing to invest in vaccines, one of the most cost-effective ways to save lives, improve health and ensure long-term prosperity," said Gavi CEO Dr. Seth Berkley…

GHIT Fund [to 24 March 2018]
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 24 March 2018]
http://www.theglobalfund.org/en/news/?topic=&type=NEWS;&country=
News
Global Fund Thanks U.S. Congress for Steadfast Support against HIV, TB and Malaria
23 March 2018

The Global Fund applauds the U.S. Congress for approving $1.35 billion in funding for the Global Fund for the 2018 U.S. fiscal year. This tremendous support from the United States is essential as the Global Fund accelerates progress in the fight against AIDS, tuberculosis, and malaria.

The Global Fund also welcomed Congressional appropriation of $4.65 billion for the U.S. President's Emergency Plan for AIDS Relief, $755 million for the U.S. President's Malaria Initiative, and $261 million for USAID's TB program. The Global Fund is a critical partner to all three of these U.S. bilateral efforts.

The sustained U.S. support for the Global Fund will strengthen economic growth and help reduce poverty in Global Fund implementing countries. It will also save lives, reduce suffering, and bolster health security across the globe. The Global Fund matches every dollar from the U.S. with two dollars from other donors to drive global progress.

"The support of the American people is fundamental to global progress in ending the epidemics of HIV, TB, and malaria," said Peter Sands, Executive Director of the Global Fund.

"Together, we will continue to deliver results – in close collaboration with PEPFAR, PMI, and USAID's TB program – and will accelerate the end of these epidemics."…

Hilleman Laboratories [to 24 March 2018]
http://www.hillemanlabs.org/
No new digest content identified.

Human Vaccines Project [to 24 March 2018]
http://www.humanvaccinesproject.org/media/press-releases/
Mar 22, 2018
Human Vaccines Project Appoints Dr. Moncef Slaoui as New Board Member

NEW YORK, March 22, 2018 /PRNewswire/ -- The Human Vaccines Project, a nonprofit public-private partnership focused on decoding the immune system to improve human health, welcomes Moncef Slaoui, PhD, to its Board of Directors.

Moncef Slaoui, PhD, has had a highly distinguished career in vaccine R&D and has led the development of numerous vaccines that are in use worldwide. In 2016, he was recognized as one of Fortune Magazine's "50 Greatest World Leaders" for his work on under-researched diseases that are common in the developing world. Dr. Slaoui is currently a partner at Medicxi, a leading European venture capital firm.

"We are honored to have Dr. Slaoui join the Project's Board of Directors. He brings tremendous expertise in technology development and vaccine research to the table that is specifically relevant to the Project's mission," said Wayne C. Koff, PhD, president and CEO of the Human Vaccines Project. "We look forward to his guidance on this next phase of development, as the Project's clinical research advances our understanding of the immune system."…

IAVI [to 24 March 2018]
https://www.iavi.org/
March 20, 2018
IAVI Remembers HIV Treatment Pioneer David Cooper
IAS Past President David Cooper championed breakthrough AIDS treatment and advocated for a vaccine

IAVI is saddened by the passing of David Cooper, MD, DSc, whose breakthrough research and unrelenting advocacy helped usher in the use of life-saving antiretroviral (ARV) therapy and advance efforts to turn the tide of the epidemic. David leaves behind an indelible legacy as a scientist, clinician, and advocate whose contributions over three decades in the fight against AIDS helped enable transformation of the disease from an almost invariably fatal one to one where highly effective, well-tolerated, and simple-to-use treatment regimens are now available.

"David Cooper was an early leader in HIV treatment and prevention, and an inspiration for so many people in the AIDS field, myself included," said Mark Feinberg, MD, PhD, CEO of IAVI. "David was exceptionally dedicated to the care of individuals living with HIV and so very thoughtful and generous with his colleagues. His passing is a loss not only to our field but to the many people who were encouraged by him in their efforts to combat AIDS."…

IFFIm
http://www.iffim.org/library/news/press-releases/
No new digest content identified.

IVAC [to 24 March 2018]
https://www.jhsph.edu/research/centers-and-institutes/ivac/index.html
Latest IVAC News
[Undated]
IVAC Launches Immunization Reminder and Information SMS System (IRISS) in Nigeria

IVI [to 24 March 2018]
http://www.ivi.int/
No new digest content identified.

JEE Alliance [to 24 March 2018]
https://www.jeealliance.org/
No new digest content identified.

MSF/Médecins Sans Frontières [to 24 March 2018]
http://www.doctorswithoutborders.org/news-stories/press/press-releases
Press release
Syria: Military Operations in Eastern Ghouta Drastically Limit Medical Aid
MARCH 21, 2018—Lorena Bilbao, Syria operations coordinator for Doctors Without Borders/Médecins Sans Frontières (MSF), gave the following statement today on the situation in eastern Ghouta, Syria:

Press release
Mediterranean: European Governments Continue to Obstruct Lifesaving Rescues and Return People to Unsafe Conditions in Libya
March 21, 2018
The decision by Italian authorities to seize Open Arms, a rescue vessel belonging to the Spanish NGO Proactiva, shortly after its crew rescued and disembarked 216 people in the Central Mediterranean on Sunday is the latest in a long series of actions obstructing non-governmental organizations from carrying out lifesaving rescue operations at sea, said the international medical humanitarian organization Doctors Without Borders/Médecins Sans Frontières (MSF) today.

Press release
Greece: Europe's Two-Year-Old Deal with Turkey Traps Thousands in Disastrous Conditions
ATHENS /NEW YORK, MARCH 17, 2018—Two years after the signing of a deal between the European Union (EU) and Turkey, Europe's cynical strategy to contain and return people seeking asylum has trapped thousands of vulnerable people in disastrous conditions on Greek

islands, the international medical humanitarian organization Doctors Without Borders/Médecins Sans Frontières (MSF) said today, calling on Greek and EU authorities to increase transfers to the Greek mainland.

NIH [to 24 March 2018]
http://www.nih.gov/news-events/news-releases
March 23, 2018
NIH Statement on World Tuberculosis Day 2018
— Statement of Christine F. Sizemore, Ph.D., Richard Hafner, M.D., and Anthony S. Fauci, M.D.
[See Milestones/Perspectives above for full text]

March 22, 2018
NIH scientists say advanced vaccines could limit future outbreaks
— Novel vaccine technologies are critical to improving the public health response to infectious disease threats that continually emerge and re-emerge, according to scientists at the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health. In a perspective in *The Journal of the American Medical Association*, the experts highlight innovations that could significantly shorten the typical decades-long vaccine development timeline.
[See Milestones/Perspectives above for full text]

PATH [to 24 March 2018]
http://www.path.org/news/index.php
Press release | March 23, 2018
Ministry of Health and Internet innovators discuss the exciting potential of Vietnam's growing social media ecosystem to boost HIV control
Workshop highlights how cutting edge online tools are bringing HIV services and support into the digital age
Hanoi, March 23, 2018—Today, the Vietnam Administration for HIV/AIDS Control (VAAC) and the US Agency for International Development's (USAID) Healthy Markets project, implemented by PATH, brought together young Vietnamese innovators who are using digital and online technology to increase access to HIV-related information and services for at-risk populations. The forum in Hanoi brought together government leaders, private-sector partners, social media and communications experts, civil society leaders, and social enterprises to discuss how the rise of social media, mobile apps, and online commerce in Vietnam can be leveraged to support Vietnam's commitment to its 90-90-90 goals to eliminate HIV in Vietnam by 2030…

Sabin Vaccine Institute [to 24 March 2018]
http://www.sabin.org/updates/pressreleases
No new digest content identified.

UNAIDS [to 24 March 2018]
http://www.unaids.org/en
Update 23 March 2018

UNAIDS Special Ambassador receives UNWDPA Leadership Award

The United Nations Women for Peace Association (UNWDPA) has honoured Lorena Castillo de Varela, the First Lady of Panama and UNAIDS Special Ambassador for AIDS in Latin America, with its Leadership Award. The award was made in recognition of her work in the response to HIV and the promotion of human rights and women's empowerment…

Update 21 March 2018

UNAIDS saddened by the death of pioneering HIV researcher David Cooper

UNAIDS is saddened by the news of the sudden death of David Cooper on 18 March. He was a pioneering HIV researcher, immunologist and professor at Australia's University of New South Wales and in 1986 became the first Director of the National Centre of HIV Epidemiology and Clinical Research, now known as the Kirby Institute.

Mr Cooper diagnosed the first documented case of HIV in Australia in the mid-1980s, and in 1991 was named Chair of the WHO Global Programme on AIDS' Committee on Clinical Research and Drug Development.

He was a past President of the International AIDS Society and worked with colleagues to found the HIV Netherlands Australia Thailand Research Collaboration, known as HIV-NAT, in Bangkok, Thailand.

"The world has lost a bold and compassionate leader in the response to HIV," said Michel Sidibé, UNAIDS Executive Director. "David Cooper firmly believed in health as a fundamental human right. Without the groundbreaking research and advances in treatment that he helped to make a reality, many more lives would have been lost to AIDS. Our thoughts during this difficult time are with his family, colleagues and the many people his life and work touched."…

UNICEF [to 24 March 2018]
https://www.unicef.org/media/
Selected Press Releaases
No new digest content identified.

Vaccine Confidence Project [to 24 March 2018]
http://www.vaccineconfidence.org/
No new digest content identified.

Vaccine Education Center – Children's Hospital of Philadelphia [to 24 March 2018]
http://www.chop.edu/centers-programs/vaccine-education-center
No new digest content identified.

Wellcome Trust [to 24 March 2018]
https://wellcome.ac.uk/news
News / Published: 22 March 2018

First Japanese company joins CARB-X partnership

As pharmaceutical company Shionogi becomes the first Japanese company to join CARB-X, Tim Jinks, head of Wellcome's Drug-Resistant Infections Priority Programme, gives an update on the partnership's work to develop new drugs and diagnostics.

Last March, Wellcome announced it was committing up to $155 million dollars to CARB-X. CARB-X, which stands for Combating Antibiotic Resistant Bacteria Biopharmaceutical Accelerator, now has 28 promising projects in its portfolio. Eight are focusing on new class antibiotics.

These advances mean CARB-X has the world's largest and most technically diverse portfolio of early development projects to tackle the rapidly increasing global problem of drug-resistant infections…

The Wistar Institute [to 24 March 2018]
https://www.wistar.org/news/press-releases
Press Release Mar. 23, 2018
Wistar and YourEncore Unite to Advance Life Sciences Opportunities
YourEncore will provide targeted support to Wistar and its international life sciences partners

PHILADELPHIA - (March 23, 2018) -The Wistar Institute and YourEncore, Inc., a life sciences and consumer goods consulting company engaging highly experienced, top talent industry experts, have signed a Memorandum of Understanding (MoU) to help accelerate the advancement of Wistar's early-stage discoveries, start-ups and international collaborations.

Under the Memorandum, YourEncore and Wistar will be working together to develop a tailored, flexible model that deploys YourEncore's team of pharmaceutical, biotech and regulatory experts around Wistar's leading therapeutic and diagnostic programs. YourEncore will also be assisting Wistar's international partners such as bioXclusters plus, an enterprise of European life sciences companies, on individual projects aimed at strengthening international business relations between the Philadelphia research and biotechnology community and its European life sciences cluster…

Press Release Mar. 19, 2018
The Campbell Foundation Awards $100,000 Grant to The Wistar Institute

nonprofit organization, which is dedicated to funding HIV/AIDS research, has awarded the grant to Mohamed Abdel-Mohsen, Ph.D., assistant professor in Wistar's Vaccine & Immunotherapy Center.

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BIO [to 24 March 2018]
https://www.bio.org/insights/press-release
No new digest content identified.

DCVMN – Developing Country Vaccine Manufacturers Network [to 24 March 2018]
http://www.dcvmn.org/
5 April 2018
Webinar: The new Future Vaccine Manufacturing Hub, collaborating with DCVMN

Prof Robin Shattock, Professor of Mucosal Infection and Immunity, Imperial College, London
Thursday, April 5, 2018 9:00 am
Europe Summer Time (Paris, GMT+02:00)

IFPMA [to 24 March 2018]
http://www.ifpma.org/resources/news-releases/

No new digest content identified.

PhRMA [to 24 March 2018]
http://www.phrma.org/press-room
No new digest content identified.

Industry Watch [to 24 March 2018]
No new digest content identified.

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

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

An unhealthy state to be in

by Seth Berkley | Gavi, The Vaccine Alliance
Thomson Reuters Foundation | 20 March 2018

Most refugees are living in low- and middle-income countries which are usually in no great position to support a huge influx of people

For the millions of people living in conflict zones, often the biggest killer isn't bullets or bombs, but infectious disease. This was true of the First World War, where Spanish flu claimed four times more lives than conflict, and it is true of modern wars, even particularly brutal ones, like in Darfur. There, non-violent deaths, mainly due to infectious disease compounded by nutritional issues, were responsible for a ten-fold increase in mortality. Yet, for refugees it's a very different story. There are always exceptions, but generally those people fleeing conflict or persecution who make it across national borders are on average no more likely to die than the residents of their new host country.

What this highlights is the vital role that aid agencies and host countries play in providing refugees with critical health interventions, such as vaccines, which may not have been available in their home country due to a breakdown of health services. As U.N. officials meet in Geneva this month to discuss a new draft global agreement on refugees, it's also a role that is now likely to come under increasing pressure in the face of growing fragility, as the number of conflicts continues to rise, displacing more and more people.

With a record high of more than 65 million people across the world now displaced from their homes, conflict is only one driving force. Climate change, in the form of land degradation, desertification, rising sea levels and extreme weather events, is also now a contributing factor,

as is the poverty that often comes with it. And in the coming decades this is expected to get worse.

All this points to two worrying challenges. The first is the question of how we continue to make immunisation and other vital preventive health interventions a priority for refugees. This can be challenging at the best times, as the ongoing diphtheria outbreak among the 650,000 Rohingya refugees in Cox's Bazar demonstrates. But as the number of refugees continues to rise, this continuity of healthcare is likely to become less sustainable, raising difficult questions about who is responsible for providing for these essentially "stateless" people.

Indeed, given that refugee crises are rarely resolved quickly, and that it can take years before people can be safely repatriated, there is also the long-term pressure placed on host countries to consider. While headlines about the global refugee crisis mainly focus on the burden placed on wealthy nations, most refugees are living in low- and middle-income countries which are usually in no great position to support a huge influx of people. Countries like Jordan, Kenya, Ethiopia and Uganda currently have millions of Syrian, Somali and Sudanese refugees in vast camp cities. Should countries like these be expected to use their limited resources or take out additional borrowing and incur sovereign debt in order to fund the needs of millions of people who are not their citizens, but are nevertheless on their territory?

The second arguably even greater challenge will be finding better ways to reach those tens of millions of people who are displaced but remain in their home country, which is the vast majority of the global total. These people are in so many ways more vulnerable, and yet harder to reach, with their health and safety often at the mercy of the same forces that drove them from their homes in the first place.

Continued fighting and a lack of basic infrastructure can make it extremely difficult for aid agencies to reach these displaced civilians populations, who are often sheltering in over-crowded situations, with limited access to food, water and sanitation, conditions that are ripe for outbreaks of disease and the vectors that spread them. If the children within that population miss out on vaccinations, such outbreaks become almost inevitable.

This is precisely what triggered the diphtheria outbreak among the Rohingya in Cox's Bazar and this is what is now unfolding in Yemen. The only difference is that while aid agencies were able to get vaccines to the Rohingya refugees when they crossed over into Bangladesh, in Yemen access to the 22 million people in need of humanitarian assistance is limited. With around 1,300 suspected cases of diphtheria and 73 deaths, there are now 7.2 million doses of the diphtheria vaccine on their way. It remains to be seen whether they make it to each and every person at risk.

Ensuring that health remains a priority in the new global agreement on refugees is one solution. In seeking to create a global public good that eases pressure on host countries and delivers services, as well supporting self-reliance of refugees and making it easier for them to either resettle in third countries or voluntarily repatriate, should be a positive step for all parties. However, we also need to find solutions to help people on the other side of the border, those millions of internally displaced people who are ultimately more at risk. By supporting their human right to lead healthy lives through the prevention of vaccine preventable disease, we

can not only reduce the risk of outbreaks, but also end the tragedy of people fleeing violence only to be struck down by disease.

* * * *

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
March 2018 Volume 46, Issue 3, p245-362, e13-e24
http://www.ajicjournal.org/current
[Reviewed earlier]

American Journal of Preventive Medicine
March 2018 Volume 54, Issue 3, p325-478, e41-e58
http://www.ajpmonline.org/current
[Reviewed earlier]

American Journal of Public Health
March 2018 108(3)
http://ajph.aphapublications.org/toc/ajph/current
[Reviewed earlier]

American Journal of Tropical Medicine and Hygiene
Volume 98, Issue 3, 2018
http://www.ajtmh.org/content/journals/14761645/98/3
[Reviewed earlier]

Annals of Internal Medicine
20 March 2018 Vol: 168, Issue 6
http://annals.org/aim/issue
Ideas and Opinions |20 March 2018

The Health Consequences of Natural Disasters in the United States: Progress, Perils, and Opportunity

Since 2005, the United States has shifted to a proactive, all-hazards approach to disaster preparedness. This ensures that the health system is flexible enough to respond to a broad range of events, including natural, biological, chemical, radiologic, and nuclear events. The nation also has institutionalized cross-agency and cross-sector planning, clarified the role of the federal government in guidance and oversight, and recognized the need to support resilience.

Karen B. DeSalvo, MD, MPH, MSc

BMC Cost Effectiveness and Resource Allocation

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

(Accessed 24 March 2018)

[No new digest content identified]

BMJ Global Health

March 2018 - Volume 3 - 2

http://gh.bmj.com/content/3/2

Editorial

Priorities for global political momentum to end TB: a critical point in time (23 March, 2018)

Tereza Kasaeva, Annabel Baddeley, Katherine Floyd, Ernesto Jaramillo, Christian Lienhardt, Nobuyuki Nishikiori, Diana E Weil, Karin Weyer, Matteo Zignol

[Excerpt]

…Global TB response is gaining momentum and world leaders are rising to the challenge, as has been seen recently at the End TB Summit organised on 13–14 March by the Government of India, the Stop TB Partnership and the WHO/South East Asia Regional Office, with participation of the Indian Prime Minister and ministers of several highest-burden countries. The global TB response is on the brink of a new era. The UNGA high-level meeting represents a unique opportunity to raise the profile of TB and secure political commitment to catalyse change towards reinvigorated and transformative TB efforts. The focus should now be on New York in September and across the globe in the months preceding and following this landmark event, when commitments will need to translate into measurable and rapid progress to help those affected by this age-old scourge.

Research

Impact of Ebola experiences and risk perceptions on mental health in Sierra Leone, July 2015 (17 March, 2018)

Mohamed F Jalloh, Wenshu Li, Rebecca E Bunnell, Kathleen A Ethier, Ann O'Leary, Kathy M Hageman, Paul Sengeh, Mohammad B Jalloh, Oliver Morgan, Sara Hersey, Barbara J Marston, Foday Dafae, John T Redd

Abstract

Background The mental health impact of the 2014–2016 Ebola epidemic has been described among survivors, family members and healthcare workers, but little is known about its impact on the general population of affected countries. We assessed symptoms of anxiety, depression

and post-traumatic stress disorder (PTSD) in the general population in Sierra Leone after over a year of outbreak response.
Methods We administered a cross-sectional survey in July 2015 to a national sample of 3564 consenting participants selected through multistaged cluster sampling. Symptoms of anxiety and depression were measured by Patient Health Questionnaire-4. PTSD symptoms were measured by six items from the Impact of Events Scale-revised. Relationships among Ebola experience, perceived Ebola threat and mental health symptoms were examined through binary logistic regression.
Results Prevalence of any anxiety-depression symptom was 48% (95% CI 46.8% to 50.0%), and of any PTSD symptom 76% (95% CI 75.0% to 77.8%). In addition, 6% (95% CI 5.4% to 7.0%) met the clinical cut-off for anxiety-depression, 27% (95% CI 25.8% to 28.8%) met levels of clinical concern for PTSD and 16% (95% CI 14.7% to 17.1%) met levels of probable PTSD diagnosis. Factors associated with higher reporting of any symptoms in bivariate analysis included region of residence, experiences with Ebola and perceived Ebola threat. Knowing someone quarantined for Ebola was independently associated with anxiety-depression (adjusted OR (AOR) 2.3, 95% CI 1.7 to 2.9) and PTSD (AOR 2.095% CI 1.5 to 2.8) symptoms. Perceiving Ebola as a threat was independently associated with anxiety-depression (AOR 1.69 95% CI 1.44 to 1.98) and PTSD (AOR 1.86 95% CI 1.56 to 2.21) symptoms.
Conclusion Symptoms of PTSD and anxiety-depression were common after one year of Ebola response; psychosocial support may be needed for people with Ebola-related experiences. Preventing, detecting, and responding to mental health conditions should be an important component of global health security efforts.

mHealth text and voice communication for monitoring people with chronic diseases in low-resource settings: a realist review (6 March, 2018)
Jocelyn Anstey Watkins, Jane Goudge, Francesc Xavier Gómez-Olivé, Caroline Huxley, Katherine Dodd, Frances Griffiths

BMC Health Services Research
http://www.biomedcentral.com/bmchealthservres/content
(Accessed 24 March 2018)
[No new digest content identified]

BMC Infectious Diseases
http://www.biomedcentral.com/bmcinfectdis/content
(Accessed 24 March 2018)
[No new digest content identified]

BMC Medical Ethics
http://www.biomedcentral.com/bmcmedethics/content
(Accessed 24 March 2018)
[No new digest content identified]

BMC Medicine

http://www.biomedcentral.com/bmcmed/content
(Accessed 24 March 2018)
[No new digest content identified]

BMC Pregnancy and Childbirth
http://www.biomedcentral.com/bmcpregnancychildbirth/content
(Accessed 24 March 2018)
[No new digest content identified]

BMC Public Health
http://bmcpublichealth.biomedcentral.com/articles
(Accessed 24 March 2018)
Research article
A systematic review of hepatitis B screening economic evaluations in low- and middle-income countries
Chronic hepatitis B infection is a significant cause of morbidity and mortality worldwide; low- and middle-income countries (LMICs) are disproportionately affected. Economic evaluations are a useful decision t...
Authors: Cameron M. Wright, Lydia Boudarène, Ninh Thi Ha, Olivia Wu and Neil Hawkins
Citation: BMC Public Health 2018 18:373
Published on: 20 March 2018

Research article
Assessing the acceptability of incentivising HPV vaccination consent form return as a means of increasing uptake
Uptake of human papillomavirus (HPV) vaccination is high overall but there are disparities in uptake, particularly by ethnicity. Incentivising vaccination consent form return is a promising approach to increase vaccination uptake. As part of a randomised feasibility trial we qualitatively assessed the acceptability of increasing uptake of HPV vaccination by incentivising consent form return.
Authors: Lauren Rockliffe, Amanda J. Chorley, Emily McBride, Jo Waller and Alice S. Forster
Citation: BMC Public Health 2018 18:382
Published on: 20 March 2018

BMC Research Notes
http://www.biomedcentral.com/bmcresnotes/content
(Accessed 24 March 2018)
[No new digest content identified]

BMJ Open
March 2018 - Volume 8 - 3
http://bmjopen.bmj.com/content/current
[Reviewed earlier]

Bulletin of the World Health Organization
Volume 96, Number 3, March 2018, 145-224
http://www.who.int/bulletin/volumes/96/3/en/
[Reviewed earlier]

Child Care, Health and Development
March 2018 Volume 44, Issue 2 Pages 173–341
http://onlinelibrary.wiley.com/doi/10.1111/cch.v44.2/issuetoc
[Reviewed earlier]

Clinical and Experimental Vaccine Research
Volume 7(1); January 2018
http://ecevr.org/
[Reviewed earlier]

Clinical Therapeutics
March 2018 Volume 40, Issue 3, p353-496
http://www.clinicaltherapeutics.com/current
[New issue; No digest content identified]

Conflict and Health
http://www.conflictandhealth.com/
[Accessed 24 March 2018]
[No new digest content identified]

Contemporary Clinical Trials
Volume 66 Pages 1-92 (March 2018)
https://www.sciencedirect.com/journal/contemporary-clinical-trials/vol/66/suppl/C
[Reviewed earlier]

Current Opinion in Infectious Diseases
April 2018 - Volume 31 - Issue 2
http://journals.lww.com/co-infectiousdiseases/pages/currenttoc.aspx
[Reviewed earlier]

Developing World Bioethics
March 2018 Volume 18, Issue 1 Pages 1–64
http://onlinelibrary.wiley.com/doi/10.1111/dewb.2018.18.issue-1/issuetoc
Special Issue: Rebuilding Patient-Physician Trust in China, Developing a Trust-Oriented Bioethics

[Reviewed earlier]

Development in Practice
Volume 28, Issue 2, 2018
http://www.tandfonline.com/toc/cdip20/current
[Reviewed earlier]

Disaster Medicine and Public Health Preparedness
Volume 12 - Issue 1 - February 2018
https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/latest-issue
[New issue; No digest content identified]

Disasters
April 2018 Volume 42, Issue 2 Pages 205–404
http://onlinelibrary.wiley.com/doi/10.1111/disa.2018.42.issue-2/issuetoc
[Reviewed earlier]

EMBO Reports
01 March 2018; volume 19, issue 3
http://embor.embopress.org/content/19/3?current-issue=y
[Reviewed earlier]

Emerging Infectious Diseases
Volume 24, Number 3—March 2018
http://wwwnc.cdc.gov/eid/
[Reviewed earlier]

Epidemics
Volume 21, Pages 1-88 (December 2017)
http://www.sciencedirect.com/science/journal/17554365
[Reviewed earlier]

Epidemiology and Infection
Volume 146 - Issue 4 - March 2018
https://www.cambridge.org/core/journals/epidemiology-and-infection/latest-issue
[Reviewed earlier]

The European Journal of Public Health
Volume 27, Issue 6, 1 December 2017

https://academic.oup.com/eurpub/issue/27/6
[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)
December 2017 | Volume 5 | Number 4
http://www.ghspjournal.org/content/current
[Reviewed earlier]

Global Public Health
Volume 13, 2017 Issue 5
http://www.tandfonline.com/toc/rgph20/current
[Reviewed earlier]

Globalization and Health
http://www.globalizationandhealth.com/
[Accessed 24 March 2018]
[No digest content identified]

Health Affairs
March 2018. Vol. 37, No. 3
https://www.healthaffairs.org/toc/hlthaff/current
Advancing Health Equity
[Reviewed earlier]

Health and Human Rights
Volume 19, Issue 2, December 2017
http://www.hhrjournal.org/
Special Section on Romani People and the Right to Health
[Reviewed earlier]

Health Economics, Policy and Law
Volume 13 - Issue 2 - April 2018
https://www.cambridge.org/core/journals/health-economics-policy-and-law/latest-issue
[Reviewed earlier]

Health Policy and Planning
Volume 33, Issue 2, 1 March 2018
http://heapol.oxfordjournals.org/content/current
[Reviewed earlier]

Health Research Policy and Systems
http://www.health-policy-systems.com/content
[Accessed 24 March 2018]
[No digest content identified]

Humanitarian Exchange Magazine
https://odihpn.org/magazine/lake-chad-basin-overlooked-crisis/https://odihpn.org/magazine/lake-chad-basin-overlooked-crisis/
Number 70 October 2017
Special Feature: The Lake Chad Basin: an overlooked crisis?
by Humanitarian Practice Network October 2017
The 70th edition of Humanitarian Exchange, co-edited with Joe Read, focuses on the humanitarian crisis in Nigeria and the Lake Chad Basin. The violence perpetrated by Boko Haram and the counter-insurgency campaign in Nigeria, Cameroon, Chad and Niger has created a humanitarian crisis affecting some 17 million people. Some 2.4 million have been displaced, the vast majority of them in north-eastern Nigeria. Many are living in desperate conditions, without access to sufficient food or clean water. The Nigerian government's focus on defeating Boko Haram militarily, its reluctance to acknowledge the scale and gravity of the humanitarian crisis and the corresponding reticence of humanitarian leaders to challenge that position have combined to undermine the timeliness and effectiveness of the response…
[Reviewed earlier]

Human Vaccines & Immunotherapeutics (formerly Human Vaccines)
Volume 14, Issue 3 2018
http://www.tandfonline.com/toc/khvi20/current
Special Issue on Influenza Vaccines, commemorating the 100th anniversary of Pandemic Flu
Review
Influenza vaccination in the elderly
Jan Smetana, Roman Chlibek, Jana Shaw, Miroslav Splino & Roman Prymula
Pages: 540-549
Published online: 04 Aug 2017
ABSTRACT
Seasonal influenza is a prevalent and serious annual illness resulting in widespread morbidity and economic disruption throughout the population; the elderly and immunocompromised are particularly vulnerable to serious sequelae and mortality. The changing demographics worldwide to an aging society have important implications for public health policy and pharmaceutical innovations. For instance, primary prevention via immunization is effective in reducing the burden of influenza illness among the elderly. However, the elderly may be insufficiently protected by vaccination due to the immunosenescence which accompanies aging. In addition,

vaccine hesitancy among the younger populations increases the likelihood of circulating infectious diseases, and thus concomitant exposure. While it is clear that the development of more immunogenic vaccines is an imperative and worthy endeavor, clinical trials continue to demonstrate that the current influenza vaccine formulation remains highly effective in reducing morbidity and mortality when well matched to circulating strains.

Review
Factors affecting immune responses to the influenza vaccine
Maria R. Castrucci
Pages: 637-646
Published online: 21 Jul 2017

Review
Influenza vaccines: Evaluation of the safety profile
Claudia Maria Trombetta, Elena Gianchecchi & Emanuele Montomoli
Pages: 657-670

Review
Influenza immunization policies: Which could be the main reasons for differences among countries?
Nicola Principi, Barbara Camilloni, Susanna Esposito & for the ESCMID Vaccine Study Group (EVASG)
Pages: 684-692
Published online: 21 Dec 2017

Review
Influenza vaccination in healthcare workers: A comprehensive critical appraisal of the literature
Guglielmo Dini, Alessandra Toletone, Laura Sticchi, Andrea Orsi, Nicola Luigi Bragazzi & Paolo Durando
Pages: 772-789
Published online: 20 Oct 2017

Infectious Agents and Cancer
http://www.infectagentscancer.com/content
[Accessed 24 March 2018]
[No new digest content identified]

Infectious Diseases of Poverty
http://www.idpjournal.com/content
[Accessed 24 March 2018]
[No new digest content identified]

International Health
Volume 10, Issue suppl_1, 1 March 2018

http://inthealth.oxfordjournals.org/content/current
Special Issue: Onchocerciasis: The Beginning of the End
[Reviewed earlier]

International Journal of Community Medicine and Public Health
Vol 5, No 3 (2018) March 2018
http://www.ijcmph.com/index.php/ijcmph/issue/view/36
[Reviewed earlier]

International Journal of Epidemiology
Volume 46, Issue 6, December 2017
https://academic.oup.com/ije/issue/46/6
[Reviewed earlier]

International Journal of Human Rights in Healthcare
Volume 11 Issue 1 2019
https://www.emeraldinsight.com/toc/ijhrh/11/1
[Reviewed earlier]

International Journal of Infectious Diseases
March 2018 Volume 68, In Progress
http://www.ijidonline.com/issue/S1201-9712(18)X0002-2
[Reviewed earlier]

JAMA
March 20, 2018, Vol 319, No. 11, Pages 1069-1176
http://jama.jamanetwork.com/issue.aspx
Editorial
The Global HIV EpidemicWhat Will It Take to Get to the Finish Line?
Ingrid T. Katz, MD, MHS; Peter Ehrenkranz, MD, MPH; Wafaa El-Sadr, MD, MPH, MPA
JAMA. 2018;319(11):1094-1095. doi:10.1001/jama.2018.2093
Abstract
Recent estimates indicate that approximately 57% of the 36.7 million people living with HIV worldwide are in care and receiving antiretroviral treatment (ART).1 Although this represents a 20-fold increase in less than 2 decades in the number of people receiving ART, these findings also demonstrate that the global community is still far from achieving the targets laid out by the Joint United Nations Programme on HIV/AIDS (UNAIDS) called 90-90-90—specifically, 90% of all people living with HIV knowing their status; 90% of those diagnosed receiving sustained ART; and 90% of those receiving ART achieving viral suppression by 2020. Accomplishing this ambitious agenda requires sustainable approaches in countries with the highest burden of HIV.2

JAMA Pediatrics

March 2018, Vol 172, No. 3, Pages 205-303
http://archpedi.jamanetwork.com/issue.aspx
[Reviewed earlier]

JBI Database of Systematic Review and Implementation Reports
March 2018 - Volume 16 - Issue 3
http://journals.lww.com/jbisrir/Pages/currenttoc.aspx
[Reviewed earlier]

Journal of Adolescent Health
March 2018 Volume 62, Issue 3, p249-358
http://www.jahonline.org/issue/S1054-139X(17)X0018-9
[Reviewed earlier]

Journal of Community Health
Volume 43, Issue 2, April 2018
https://link.springer.com/journal/10900/43/2/page/1
[Reviewed earlier]

Journal of Empirical Research on Human Research Ethics
Volume 13, Issue 1, February 2018
http://journals.sagepub.com/toc/jre/current
[Reviewed earlier]

Journal of Epidemiology & Community Health
March 2018 - Volume 72 - 3
http://jech.bmj.com/content/current
[Reviewed earlier]

Journal of Evidence-Based Medicine
February 2018 Volume 11, Issue 1 Pages 1–67
http://onlinelibrary.wiley.com/doi/10.1111/jebm.2018.11.issue-1/issuetoc
[Reviewed earlier]

Journal of Global Ethics
Volume 13, Issue 3, 2017
http://www.tandfonline.com/toc/rjge20/current
[Reviewed earlier]

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

Volume 29, Number 1, February 2018
https://muse.jhu.edu/issue/38046
[Reviewed earlier]

Journal of Humanitarian Logistics and Supply Chain Management
Volume 8 Issue 1
http://www.emeraldinsight.com/toc/jhlscm/7/3
Research paper
Cold chains, interrupted: The use of technology and information for decisions that keep humanitarian vaccines cool
Tina Comes [t.comes@tudelft.nl], Kristin Bergtora Sandvik, Bartel Van de Walle (pp. 49 - 69)
Abstract
Purpose
The purpose of this paper is to analyze how far technology and information enable, facilitate or support the planning and implementation decisions in humanitarian vaccine cold chains for vaccination campaigns. The authors specifically focus on three emerging technologies that have the potential to create more flexible conditions in the field, and identify the need to further explore the link between uncertainty, information and irreversibility.
Design/methodology/approach
The authors present a basic structure for the analysis of cold chain disruptions in terms of three distinct yet connected layers of deficient infrastructure and capacity, information gaps and failures in decision making. The authors then review three humanitarian technologies and their impact on vaccine campaigns along these layers. From there, a research agenda is developed to address research gaps this review brought forward.
Findings
Three critical research gaps in the areas of technology innovation for humanitarian vaccine cold chain management are presented. The authors argue that technology to improve capacity, information and decisions need to be aligned, and that the areas of uncertainty, information and irreversibility require further investigation to achieve this alignment. In this way, the paper contributes to setting the research agenda on vaccine cold chains and connects humanitarian logistics to technology, information management and decision making.
Originality/value
This paper presents the humanitarian vaccine cold chain problem from an original angle by illuminating the implications of technology and information on the decisions made during the planning and implementation phases of a vaccine campaign. The authors develop an agenda to provide researchers and humanitarians with a perspective to improve cold chain planning and implementation at the intersection of technology, information and decisions.

Journal of Immigrant and Minority Health
Volume 20, Issue 2, April 2018
https://link.springer.com/journal/10903/20/2/page/1
[Reviewed earlier]

Journal of Immigrant & Refugee Studies
Volume 16, 2018_ Issue 1-2

http://www.tandfonline.com/toc/wimm20/current
Special Issue: Mediatization and Politicization of Refugee Crisis in Europe
[Reviewed earlier]

Journal of Infectious Diseases
Volume 217, Issue 6, 5 March 2018
https://academic.oup.com/jid/issue
[Reviewed earlier]

Journal of Medical Ethics
April 2018 - Volume 44 - 4
http://jme.bmj.com/content/current
[New issue; No digest content identified]

Journal of Medical Internet Research
Vol 20, No 3 (2018): March
http://www.jmir.org/2018/3
[Reviewed earlier]

Journal of Medical Microbiology
Volume 67, Issue 3, March 2018
http://jmm.microbiologyresearch.org/content/journal/jmm/67/3
[New issue; No digest content identified]

Journal of Patient-Centered Research and Reviews
Volume 5, Issue 1 (2018)
https://digitalrepository.aurorahealthcare.org/jpcrr/
Health Disparities and Inequities: Part II
[Reviewed earlier]

Journal of the Pediatric Infectious Diseases Society (JPIDS)
Volume 7, Issue 1 March 2018
https://academic.oup.com/jpids/issue
[Reviewed earlier]

Journal of Pediatrics
March 2018 Volume 194, p1-270
http://www.jpeds.com/current
[Reviewed earlier]

Journal of Pharmaceutical Policy and Practice
https://joppp.biomedcentral.com/
[Accessed 24 March 2018]
[No new digest content identified]

Journal of Public Health Management & Practice
March/April 2018 - Volume 24 - Issue 2
http://journals.lww.com/jphmp/pages/default.aspx
[Reviewed earlier]

Journal of Public Health Policy
Volume 39, Issue 1, February 2018
https://link.springer.com/journal/41271/39/1/page/1
[Reviewed earlier]

Journal of the Royal Society – Interface
March 2018; volume 15, issue 140
http://rsif.royalsocietypublishing.org/content/current
[Reviewed earlier]

Journal of Travel Medicine
Volume 25, Issue 1, 1 January 2018
https://academic.oup.com/jtm/issue/25/1
[Reviewed earlier]

Journal of Virology
March 2018, volume 92, issue 6
http://jvi.asm.org/content/current
[Reviewed earlier]

The Lancet
Mar 24, 2018 Volume 391 Number 10126 p1121-1236 e15-e16
http://www.thelancet.com/journals/lancet/issue/current
Review
Health systems development in Thailand: a solid platform for successful implementation of universal health coverage
Viroj Tangcharoensathien, Woranan Witthayapipopsakul, Warisa Panichkriangkrai, Walaiporn Patcharanarumol, Anne Mills
Summary
Thailand's health development since the 1970s has been focused on investment in the health delivery infrastructure at the district level and below and on training the health workforce. Deliberate policies increased domestic training capacities for all cadres of health personnel and

distributed them to rural and underserved areas. Since 1975, targeted insurance schemes for different population groups have improved financial access to health care until universal health coverage was implemented in 2002. Despite its low gross national income per capita in Thailand, a bold decision was made to use general taxation to finance the Universal Health Coverage Scheme without relying on contributions from members. Empirical evidence shows substantial reduction in levels of out-of-pocket payments, the incidence of catastrophic health spending, and in medical impoverishment. The scheme has also greatly reduced provincial gaps in child mortality. Certain interventions such as antiretroviral therapy and renal replacement therapy have saved the lives of adults. Well designed strategic purchasing contributed to efficiency, cost containment, and equity. Remaining challenges include preparing for an ageing society, primary prevention of non-communicable diseases, law enforcement to prevent road traffic mortality, and effective coverage of diabetes and tuberculosis control.

Lancet Global Health
Mar 2018 Volume 6 Number 3 e229-e350
http://www.thelancet.com/journals/langlo/issue/current
[Reviewed earlier]

Lancet Infectious Diseases
Mar 2018 Volume 18 Number 3 p227-356 e64-e106
http://www.thelancet.com/journals/laninf/issue/current
[Reviewed earlier]

Lancet Respiratory Medicine
Mar 2018 Volume 6 Number 3 p161-230 e8-e10
http://www.thelancet.com/journals/lanres/issue/current
[Reviewed earlier]

Maternal and Child Health Journal
March 2018, Issue 3, Pages 283-437
https://link.springer.com/journal/volumesAndIssues/10995
Special Issue: Confronting Adversity: MCH Responds to ACEs
[Reviewed earlier]

Medical Decision Making (MDM)
Volume 38, Issue 2, February 2018
http://mdm.sagepub.com/content/current
[Reviewed earlier]

The Milbank Quarterly
A Multidisciplinary Journal of Population Health and Health Policy
March 2018 Volume 96, Issue 1 Pages 1–212

http://onlinelibrary.wiley.com/doi/10.1111/milq.2018.96.issue-1/issuetoc
[Reviewed earlier]

Nature
Volume 555 Issue 7697, 22 March 2018
http://www.nature.com/nature/current_issue.html
Editorial | 21 March 2018
How to get public engagement right
Dialogue with the public requires a nuanced approach and a willingness to accept uncomfortable truths.

Comment | 21 March 2018
A global observatory for gene editing
Sheila Jasanoff and J. Benjamin Hurlbut call for an international network of scholars and organizations to support a new kind of conversation.
Sheila Jasanoff & J. Benjamin Hurlbut

Comment | 21 March 2018
Rethink public engagement for gene editing
The breadth of social and moral questions raised requires a new architecture for democratic debate, insists Simon Burall.
Simon Burall

Nature Medicine
March 2018, Volume 24 No 3 pp247-374
https://www.nature.com/nm/journal/v24/n3/index.html
[Reviewed earlier]

Nature Reviews Immunology
March 2018 Vol 18 No 3
https://www.nature.com/nri/journal/v18/n3/index.html
Focus on: Cancer immunotherapy
[Reviewed earlier]

New England Journal of Medicine
March 22, 2018 Vol. 378 No. 12
http://www.nejm.org/toc/nejm/medical-journal
[New issue; No digest content identified]

Pediatrics
March 2018, VOLUME 141 / ISSUE 3
http://pediatrics.aappublications.org/content/141/3?current-issue=y
[Reviewed earlier]

Pharmaceutics
Volume 10, Issue 1 (March 2018)
http://www.mdpi.com/1999-4923/10/1
[Reviewed earlier]

PharmacoEconomics
Volume 36, Issue 3, March 2018
https://link.springer.com/journal/40273/36/3/page/1
[Reviewed earlier]

PLOS Currents: Disasters
http://currents.plos.org/disasters/
[Accessed 24 March 2018]
[No new digest content identified]

PLoS Currents: Outbreaks
http://currents.plos.org/outbreaks/
[Accessed 24 March 2018]

Health Information Needs and Health Seeking Behavior During the 2014-2016 Ebola Outbreak: A Twitter Content Analysis
March 23, 2018 · Research Article
Introduction: For effective public communication during major disease outbreaks like the 2014-2016 Ebola epidemic, health information needs of the population must be adequately assessed. Through content analysis of social media data, like tweets, public health information needs can be effectively assessed and in turn provide appropriate health information to address such needs. The aim of the current study was to assess health information needs about Ebola, at distinct epidemic time points, through longitudinal tracking.
Methods: Natural language processing was applied to explore public response to Ebola over time from July 2014 to March 2015. A total 155,647 tweets (unique 68,736, retweet 86,911) mentioning Ebola were analyzed and visualized with infographics.
Results: Public fear, frustration, and health information seeking regarding Ebola-related global priorities were observed across time. Our longitudinal content analysis revealed that due to ongoing health information deficiencies, resulting in fear and frustration, social media was at times an impediment and not a vehicle to support health information needs.
Discussion: Content analysis of tweets effectively assessed Ebola information needs. Our study also demonstrates the use of Twitter as a method for capturing real-time data to assess ongoing information needs, fear, and frustration over time.

Human Orthobunyavirus Infections, Tefé, Amazonas, Brazil
March 22, 2018 · Research Article
Introduction: Several orthobunyaviruses are important arthropod-borne pathogens, responsible for a variety of diseases in humans, from acute febrile illness to encephalitis.

Methods: We collected serum samples from a series of dengue suspected cases in Tefé, a mid-size city located in the interior of the Amazonas state, Brazil. Viral RNA extraction was performed, and specimens were tested for dengue virus using RT-PCR. Thirty dengue negative samples were further tested for Mayaro virus (MAYV) and Oropouche virus (OROV) using an RT-qPCR protocol previously described. Positive samples were characterized by MegaBLAST analysis over the entire nucleotide collection of the main public databases, and also by maximum likelihood phylogenetic reconstruction of the S genome segment.
Results: We detected nine OROV or OROV-like positive cases among 30 patients reporting fever and headache, as the most common symptoms. The closest nucleotide sequence returned from the MegaBLAST analysis belongs to an OROV isolated in Peru 2008. Moreover, all Tefé samples grouped in the same clade with the OROV reference sequence and other closely-related OROV-like viruses.
Discussion: Dengue viruses are still the most important arbovirus worldwide, causing hundreds of millions of infections every year. Nonetheless, other arboviruses like chikungunya virus, Zika virus, and yellow fever virus have emerged in the last few years and are now a public health concern in several countries. OROV is believed to have caused more than 500,000 febrile infections in Brazil over recent decades. Therefore, the results described in this study strengthen that this arbovirus, and its closely-related recombinants, should be under continuous surveillance, at least in the endemic countries of Latin America.

PLoS Medicine
http://www.plosmedicine.org/
(Accessed 24 March 2018)
Editorial
Time for high-burden countries to lead the tuberculosis research agenda
Madhukar Pai
| published 23 Mar 2018 PLOS Medicine
https://doi.org/10.1371/journal.pmed.1002544
[See Milestones/Perspectives above for full text]

PLoS Neglected Tropical Diseases
http://www.plosntds.org/
(Accessed 24 March 2018)
Editorial
India's neglected tropical diseases
Peter J. Hotez, Ashish Damania
| published 22 Mar 2018 PLOS Neglected Tropical Diseases
https://doi.org/10.1371/journal.pntd.0006038
The Global Burden of Disease Study (GBD) is generating important and often nonintuitive information about the prevalence, incidence, morbidity, and mortality of the world's major communicable and noncommunicable diseases (NCDs). An emerging narrative from the GBD is the gradual ascendency of the NCDs, especially among the world's large low- and middle-income countries (LMICs) [1]. But with regards to the neglected tropical diseases (NTDs), we have also seen how these chronic and debilitating infections of poverty might also account for a high percentage of the global disease burden [2].

A more in-depth analysis of NTDs from the GBD 2016 also reveals an important geopolitical dimension of the major NTDs [1]. As shown in Table 1, today the nation of India experiences the world's largest absolute burden of at least 11 major NTDs. Excluding NTDs that are spatially bound by their requirement for unique insect vectors or snail hosts (e.g., schistosomiasis, onchcocerciasis, human African trypanosomiasis, and Chagas disease), India leads the world in terms of the total number of cases for each of the major NTDs, as defined by the World Health Organization (WHO) [3]…

PLoS One
http://www.plosone.org/
[Accessed 24 March 2018]
Research Article
Patient's behaviors and missed opportunities for vaccination against seasonal epidemic influenza and evaluation of their impact on patient's influenza vaccine uptake
Enrique Casalino, Aiham Ghazali, Donia Bouzid, Stephanie Antoniol, Laurent Pereira, Philippe Kenway, Christophe Choquet, and the Emergency Department study group on respiratory viruses
Research Article | published 22 Mar 2018 PLOS ONE
https://doi.org/10.1371/journal.pone.0193029

PLoS Pathogens
http://journals.plos.org/plospathogens/
[Accessed 24 March 2018]
[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 24 March 2018]
Precision medicine screening using whole-genome sequencing and advanced imaging to identify disease risk in adults
Bradley A. Perkins, C. Thomas Caskey, Pamila Brar, Eric Dec, David S. Karow, Andrew M. Kahn, Ying-Chen Claire Hou, Naisha Shah, Debbie Boeldt, Erin Coughlin, Gabby Hands, Victor Lavrenko, James Yu, Andrea Procko, Julia Appis, Anders M. Dale, Lining Guo, Thomas J. Jönsson, Bryan M. Wittmann, Istvan Bartha, Smriti Ramakrishnan, Axel Bernal, James B. Brewer, Suzanne Brewerton, William H. Biggs, Yaron Turpaz and J. Craig Venter
PNAS March 19, 2018. 201706096; published ahead of print March 19, 2018.
https://doi.org/10.1073/pnas.1706096114
Significance
Advances in technology are enabling evaluation for prevention and early detection of age-related chronic diseases associated with premature mortality, such as cancer and cardiovascular diseases. These diseases kill about one-third of men and one-quarter of women between the ages of 50 and 74 years old in the United States. We used whole-genome sequencing, advanced imaging, and other clinical testing to screen 209 active, symptom-free adults. We

identified a broad set of complementary age-related chronic disease risks associated with premature mortality.

Abstract

Reducing premature mortality associated with age-related chronic diseases, such as cancer and cardiovascular disease, is an urgent priority. We report early results using genomics in combination with advanced imaging and other clinical testing to proactively screen for age-related chronic disease risk among adults. We enrolled active, symptom-free adults in a study of screening for age-related chronic diseases associated with premature mortality. In addition to personal and family medical history and other clinical testing, we obtained whole-genome sequencing (WGS), noncontrast whole-body MRI, dual-energy X-ray absorptiometry (DXA), global metabolomics, a new blood test for prediabetes (Quantose IR), echocardiography (ECHO), ECG, and cardiac rhythm monitoring to identify age-related chronic disease risks. Precision medicine screening using WGS and advanced imaging along with other testing among active, symptom-free adults identified a broad set of complementary age-related chronic disease risks associated with premature mortality and strengthened WGS variant interpretation. This and other similarly designed screening approaches anchored by WGS and advanced imaging may have the potential to extend healthy life among active adults through improved prevention and early detection of age-related chronic diseases (and their risk factors) associated with premature mortality.

Prehospital & Disaster Medicine
Volume 33 - Issue 1 - February 2018
https://www.cambridge.org/core/journals/prehospital-and-disaster-medicine/latest-issue
[Reviewed earlier]

Preventive Medicine
Volume 108 Pages 1-144 (March 2018)
https://www.sciencedirect.com/journal/preventive-medicine/vol/108/suppl/C
[Reviewed earlier]

Proceedings of the Royal Society B
10 January 2018; volume 285, issue 1870
http://rspb.royalsocietypublishing.org/content/285/1870?current-issue=y
[Reviewed earlier]

Public Health
March 2018 Volume 156, p1-152
http://www.publichealthjrnl.com/current
[Reviewed earlier]

Public Health Ethics
Volume 11, Issue 1, 1 April 2018
http://phe.oxfordjournals.org/content/current

[Reviewed earlier]

Public Health Reports
Volume 133, Issue 2, March/April 2018
http://phr.sagepub.com/content/current
[New issue; No digest content identified]

Qualitative Health Research
Volume 28, Issue 4, March 2018
http://qhr.sagepub.com/content/current
[Reviewed earlier]

Research Ethics
Volume 13, Issue 3-4, July-October 2017
http://journals.sagepub.com/toc/reab/current
[Reviewed earlier]

Reproductive Health
http://www.reproductive-health-journal.com/content
[Accessed 24 March 2018]
[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
[Reviewed earlier]

Risk Analysis
March 2018 Volume 38, Issue 3 Pages 427–634
http://onlinelibrary.wiley.com/doi/10.1111/risa.2018.38.issue-3/issuetoc
[Reviewed earlier]

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

Science
23 March 2018 Vol 359, Issue 6382
http://www.sciencemag.org/current.dtl

Special Issue: Cancer Immunotherapy

Introduction to special issue

The Cancer Immunotherapy Revolution

By Priscilla N. Kelly

Science23 Mar 2018 : 1344-134

Cancer immunotherapy—the science of mobilizing the immune system to kill cancer—has been pursued for more than a century. Yet only recently has this powerful strategy finally taken center stage in mainstream oncology. The past few years have seen unprecedented clinical responses, rapid drug development, and first-in-kind approvals from the U.S. Food and Drug Administration. Reports of terminal cancer patients defying the odds and achieving complete remissions are accumulating. These success stories are the culmination of decades of painstaking research by pioneering scientists and physicians. Newly approved immunotherapies include drugs that can manipulate components of the immune system and methods to genetically engineer patients' own T lymphocytes to recognize and attack their tumors.

Researchers are racing to expand the use of immunotherapy to benefit more cancer patients. But it remains unclear why only a subset of individuals respond to treatment and how to better achieve sustained remissions. Hundreds of clinical trials are under way to see whether improved responses can be attained by combination therapy approaches. Unraveling the cellular and molecular basis of treatment resistance should facilitate rational design of new mechanism-based studies. Advances in genome sequencing are identifying predictive biomarkers and facilitating the design of personalized vaccines that target patient-specific tumor neoantigens. These lines of research, along with growing evidence that the gut microbiome plays a defining role in immunotherapy response, are charting innovative paths toward truly personalized medicine.

Review

Personalized vaccines for cancer immunotherapy

By Ugur Sahin, Özlem Türeci

Science23 Mar 2018 : 1355-1360

Abstract

Cancer is characterized by an accumulation of genetic alterations. Somatic mutations can generate cancer-specific neoepitopes that are recognized by autologous T cells as foreign and constitute ideal cancer vaccine targets. Every tumor has its own unique composition of mutations, with only a small fraction shared between patients. Technological advances in genomics, data science, and cancer immunotherapy now enable the rapid mapping of the mutations within a genome, rational selection of vaccine targets, and on-demand production of a therapy customized to a patient’s individual tumor. First-in-human clinical trials of personalized cancer vaccines have shown the feasibility, safety, and immunotherapeutic activity of targeting individual tumor mutation signatures. With vaccination development being promoted by emerging innovations of the digital age, vaccinating a patient with individual tumor mutations may become the first truly personalized treatment for cancer.

Policy Forum

Expanded health systems for sustainable development

By Christopher Dye

Science23 Mar 2018 : 1337-1339 Restricted Access

Advance transformative research for the 2030 agenda

Summary

Since the United Nations (UN) launched the 2030 Agenda for Sustainable Development in 2015, the global health community has grown accustomed to the new catalog of 17 Sustainable Development Goals (SDGs, 2016–2030), and even to the criticism that has been leveled at numerous imprecise targets. SDG 3 makes universal health coverage (UHC, Target 3.8) central to achieving the principal health goal of healthy lives and well-being for all at all ages, and sets targets for reducing the burden of noncommunicable diseases and injuries, a conspicuous omission from the Millennium Development Goals (MDGs, 2000–2015) which focused on maternal and child health and major communicable diseases. But the greater ambition of the 2030 Agenda is to anchor health in development, recognizing that good health depends on and contributes to other development goals, underpinning social justice, economic prosperity, and environmental protection. These aspirations have been frequently voiced but scarcely pursued, and the SDGs are often treated simply as a checklist of new goals and targets. Yet their potential is far greater—collectively they should be a force for discovery of new ways to achieve better health and well-being. To this end, the legacy of the MDGs, and the structure of the SDGs, lead to a testable proposition for research: Advance health and development by expanding the scope and enhancing the effectiveness of the systems and services that prevent and treat illness. At stake is the question of how to accelerate gains in health through broad-based sustainable development, building on successes and compensating for weaknesses of targeted, time-limited health programs.

Science Translational Medicine
21 March 2018 Vol 10, Issue 433
http://stm.sciencemag.org/
Research Articles
Vaccine waning and mumps re-emergence in the United States
By Joseph A. Lewnard, Yonatan H. Grad
Science Translational Medicine21 Mar 2018 Restricted Access
The estimated waning rate of vaccine-conferred immunity against mumps predicts changes in the ages of U.S. mumps cases seen over the past five decades.
The mystery of mumps resurgence
Rising mumps cases in vaccinated populations in the United States over the past decade have raised doubts about mumps vaccine efficacy. Here, Lewnard et al. examined these outbreaks using mumps vaccine effectiveness data and dynamic transmission modeling. They found that the increase in mumps cases is more consistent with loss of vaccine protection over time, rather than incomplete protection against an evolving virus population or lack of immune response to the vaccine. Their work also suggested that a third vaccine dose may extend protection, which could prove useful in designing a clinical action plan to prevent the spread of mumps.
Abstract
After decades of declining mumps incidence amid widespread vaccination, the United States and other developed countries have experienced a resurgence in mumps cases over the last decade. Outbreaks affecting vaccinated individuals and communities with high vaccine coverage have prompted concerns about the effectiveness of the live attenuated vaccine currently in use. It is unclear whether immune protection wanes or whether the vaccine protects inadequately against currently circulating mumps virus lineages. Synthesizing data from six studies of mumps vaccine effectiveness, we estimated that vaccine-derived immune protection against mumps wanes on average 27 years (95% confidence interval, 16 to 51 years) after vaccination. After accounting for this waning, we found no evidence that the emergence of heterologous virus

genotypes contributed to changes in vaccine effectiveness over time. A mathematical model of mumps transmission confirmed the central role of waning immunity to the vaccine in the re-emergence of mumps cases. Outbreaks from 2006 to the present among young adults, and outbreaks in the late 1980s and early 1990s among adolescents, aligned with peaks in mumps susceptibility of these age groups predicted to be due to loss of vaccine-derived protection. In contrast, evolution of mumps virus strains escaping immune pressure would be expected to cause a higher proportion of cases among children, not adolescents and young adults as observed. Routine use of a third vaccine dose at 18 years of age, or booster dosing throughout adulthood, may be a strategy to prevent mumps re-emergence and should be assessed in clinical trials.

Social Science & Medicine
Volume 199, Pages 11-240 (February 2018)
https://www.sciencedirect.com/journal/social-science-and-medicine/vol/199/suppl/C
Special Issue: The role of Racism in Health Inequalities: Integrating Approaches from Across Disciplines
Racial inequalities in health: Framing future research
Original research article
Pages 11-18
Margaret T. Hicken, Nicole Kravitz-Wirtz, Myles Durkee, James S. Jackson
…This Special Issue on Racism and Health Inequalities provides a sample of innovative work and empirical evidence from Australia, Brazil, New Zealand, and the United States. The 23 papers in this collection encompass qualitative and quantitative methods and multiple scientific disciplines. Furthermore, they collectively underscore the potential for innovative public health research on cultural and structural racism, but also highlight a number of challenges to confront as we continue to advance scientific knowledge within this area…

Systematic Reviews
https://systematicreviewsjournal.biomedcentral.com/articles
[Accessed 24 March 2018]
[No new digest content identified]

Travel Medicine and Infectious Diseases
January-February, 2018 Volume 21
http://www.travelmedicinejournal.com/
[Reviewed earlier]

Tropical Medicine & International Health
Volume 23, Issue 3 Pages: i-iv, 251-340 March 2018
https://onlinelibrary.wiley.com/toc/13653156/current
[New issue; No digest content identified]

Vaccine

Volume 36, Issue 15 Pages 1917-2056 (5 April 2018)
https://www.sciencedirect.com/journal/vaccine/vol/36/issue/15
Short communications
Substantially reduced incidence of genital warts in women and men six years after HPV vaccine availability in Sweden
Open access
Pages 1917-1920
Eva Herweijer, Alexander Ploner, Pär Sparén

Seroprevalence of anti-polio antibodies in children from polio high risk area of Afghanistan: A cross sectional survey 2017
Open access
Pages 1921-1924
Imtiaz Hussain, Ondrej Mach, Nasir A. Hamid, Zaid S. Bhatti, ... Sajid B. Soofi

Regular papers
Long-term impact of 10-valent pneumococcal conjugate vaccination on invasive pneumococcal disease among children in Finland
Original research article
Pages 1934-1940
Hanna Rinta-Kokko, Arto A. Palmu, Kari Auranen, J. Pekka Nuorti, ... Jukka Jokinen

"I wouldn't really believe statistics" – Challenges with influenza vaccine acceptance among healthcare workers in Singapore
Open access - Original research article
Pages 1996-2004
Neisha Sundaram, Kathryn Duckett, Chee Fu Yung, Koh Cheng Thoon, ... Joanne Yoong

Effectiveness of parental cocooning as a vaccination strategy to prevent pertussis infection in infants: A case-control study
Original research article
Pages 2012-2019
Stacey L. Rowe, Ee Laine Tay, Lucinda J. Franklin, Nicola Stephens, ... Stephen B. Lambert

Vaccine
Volume 36, Issue 14 Pages 1801-1916 (27 March 2018)
https://www.sciencedirect.com/journal/vaccine/vol/36/issue/14
Short communications
Why France is making eight new vaccines mandatory
Pages 1801-1803
Jeremy K. Ward, James Colgrove, Pierre Verger
Abstract
France is one of the countries with the highest prevalence of vaccine hesitancy in the world. In an attempt to raise vaccination coverages, the French government made on January 1, 2018 eight more vaccines mandatory in addition to the three required until then. The process that led to this policy choice is of particular interest. We describe how vaccines became contentious in France and how French authorities came to view mandatory vaccination as the solution to the rise in vaccine hesitancy. In a bold move, French public health authorities turned to a new type

of institutional device grounded in the ideal of democracy and public participation to political decision-making: "a citizen consultation". This consultation anchored the idea that legal coercion could be the solution to France's crisis with vaccines. Time will tell whether the French extension of mandatory vaccination will reduce tensions around vaccines.

Original research article
Vaccine-preventable disease incidence of pneumococcal conjugate vaccine in the Finnish invasive pneumococcal disease vaccine trial
Open access - Original research article
Pages 1816-1822
Arto A. Palmu, Jukka Jokinen, Heta Nieminen, Hanna Rinta-Kokko, ... Terhi M. Kilpi

Immunization education for internal medicine residents: A cluster-randomized controlled trial
Original research article
Pages 1823-1829
Jennifer A. Whitaker, Caroline M. Poland, Thomas J. Beckman, John B. Bundrick, ... Gregory A. Poland

Vaccine: Development and Therapy
https://www.dovepress.com/vaccine-development-and-therapy-archive111
(Accessed 24 March 2018)
[No new digest content identified]

Vaccines — Open Access Journal
http://www.mdpi.com/journal/vaccines
(Accessed 24 March 2018)
[No new digest content identified]

Value in Health
March 2018 Volume 21, Issue 3, p249-372
http://www.valueinhealthjournal.com/current
Articles
Affordability Challenges to Value-Based Pricing: Mass Diseases, Orphan Diseases, and Cures
Patricia M. Danzon danzon@wharton.upenn.edu
p252–257
Abstract
Objectives
To analyze how value-based pricing (VBP), which grounds the price paid for pharmaceuticals in their value, can manage "affordability" challenges, defined as drugs that meet cost-effectiveness thresholds but are "unaffordable" within the short-run budget.
Methods
Three specific contexts are examined, drawing on recent experience. First, an effective new treatment for a chronic, progressive disease, such as hepatitis C, creates a budget spike that is

transitory because initial prevalence is high, relative to current incidence. Second, "cures" that potentially provide lifetime benefits may claim abnormally high VBP prices, with high immediate budget impact potentially/partially offset by deferred cost savings. Third, although orphan drugs in principle target rare diseases, in aggregate they pose affordability concerns because of the growing number of orphan indications and increasingly high prices.
Results
For mass diseases, the transitory budget impact of treating the accumulated patient stock can be managed by stratified rollout that delays treatment of stable patients and prioritizes patients at high risk of deterioration. Delay spreads the budget impact and permits potential savings from launch of competing treatments. For cures, installment payments contingent on outcomes could align payment flows and appropriately shift risk to producers. This approach, however, entails high administrative and incentive costs, especially if applied across multiple payers in the United States. For orphan drugs, the available evidence on research and development trends and returns argues against the need for a higher VBP threshold to incentivize research and development in orphan drugs, given existing statutory benefits under orphan drug legislation.

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

Health Promotion International
Advance articles Published: 22 March 2018
Using social norms theory for health promotion in low-income countries
Beniamino Cislaghi Lori Heise
Health Promotion International, day017, https://doi.org/10.1093/heapro/day017
Abstract
Social norms can greatly influence people's health-related choices and behaviours. In the last few years, scholars and practitioners working in low- and mid-income countries (LMIC) have increasingly been trying to harness the influence of social norms to improve people's health globally. However, the literature informing social norm interventions in LMIC lacks a framework to understand how norms interact with other factors that sustain harmful practices and behaviours. This gap has led to short-sighted interventions that target social norms exclusively without a wider awareness of how other institutional, material, individual and social factors affect the harmful practice. Emphasizing norms to the exclusion of other factors might ultimately discredit norms-based strategies, not because they are flawed but because they alone are not sufficient to shift behaviour. In this paper, we share a framework (already adopted by some practitioners) that locates norm-based strategies within the wider array of factors that must be considered when designing prevention programmes in LMIC.

Journal of Community Health
First Online: 21 March 2018
Review
Human Papillomavirus Vaccine Uptake, Knowledge, and Acceptance for Youth: A Systematic Review of Appalachia

C Ryan, KL Duvall, EC Weyant, KR Johnson, D Wood -
Abstract
Though vaccine uptake and public support have risen since the release of the first HPV vaccines, the United States has far lower initiation and completion rates for the HPV vaccine series in comparison to other vaccines indicated for youth. Disparities are even greater in the Appalachian regions. Understanding factors contributing to these discrepancies is vital to improving vaccine rates in Appalachia. A comprehensive literature search identified all articles pertaining to HPV vaccination in children and adolescents living in Appalachia. The final 15 articles were included in a systematic review of the topic.

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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 24 March 2018
Who Is Robert Redfield, Trump's Pick for CDC Director? - The Atlantic
On the face of it, veteran virologist Robert Redfield seems like a good pick to lead the agency, but decades-old disputes are shadowing his appointment.

BBC
http://www.bbc.co.uk/
Accessed 24 March 2018
[No new, unique, relevant content]

The Economist
http://www.economist.com/
Accessed 24 March 2018
[No new, unique, relevant content]

Financial Times
http://www.ft.com/home/uk
Accessed 24 March 2018

[No new, unique, relevant content]

Forbes
http://www.forbes.com/
Accessed 24 March 2018
[No new, unique, relevant content]

Foreign Affairs
http://www.foreignaffairs.com/
Accessed 24 March 2018
[No new, unique, relevant content]

Foreign Policy
http://foreignpolicy.com/
Accessed 24 March 2018
Meet Trump's New, Homophobic Public Health Quack
Laurie Garrett
March 23, 2018,
The Center for Disease Control will soon be run by a military doctor with a long history of pushing discriminatory AIDS policies.

The Guardian
http://www.guardiannews.com/
Accessed 24 March 2018
[No new, unique, relevant content]

New Yorker
http://www.newyorker.com/
Accessed 24 March 2018
[No new, unique, relevant content]

New York Times
http://www.nytimes.com/
Accessed 24 March 2018
AIDS Researcher Robert R. Redfield Named to Lead the C.D.C.
By SHEILA KAPLAN MARCH 21, 2018

Fake Hepatitis B Vaccines Found at Ugandan Health Facilities
New York Times/AP | 19 March 2018

Official: 2 Polio Workers Killed in Ambush in Tribal Region
New York Times/AP | 17 March 2018

WHO Says Diphtheria Infected Over 1,300 People in Yemen
New York Times/AP | 17 March 2018

Wall Street Journal
http://online.wsj.com/home-page?_wsjregion=na,us&_homepage=/home/us

Accessed 24 March 2018
[No new, unique, relevant content]

Washington Post
http://www.washingtonpost.com/
Accessed 24 March 2018
Polish firm sued over tricking homeless into vaccine test
Associated Press · Mar 21, 2018

Brazil to vaccinate entire country against yellow fever
Associated Press · Foreign · Mar 20, 2018

* * * *

Think Tanks et al

Brookings
http://www.brookings.edu/
Accessed 24 March 2018
[No new relevant content]

Center for Global Development
http://www.cgdev.org/page/press-center
Accessed 24 March 2018
[No new relevant content]

Council on Foreign Relations
http://www.cfr.org/
Accessed 24 March 2018
[No new relevant content]

CSIS
https://www.csis.org/
Accessed 24 March 2018
[No new relevant content]

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CVEP is a program of the GE2P2 Global Foundation – whose purpose and mission is to advance ethical and scientific rigor in research and evidence generation for governance, policy and practice in health, human rights action, humanitarian response, heritage stewardship, education and sustainable development – serving governments, international agencies, INGOs, civil society organizations (CSOs), commercial entities, consortia and alliances. CVEP maintains an academic affiliation with the Division of Medical Ethics, NYU School of Medicine, and an operating affiliation with the Vaccine Education Center of Children's Hospital of Philadelphia [CHOP].

Support for this service is provided by the Bill & Melinda Gates Foundation; Aeras; IAVI; PATH, and industry resource members GSK, 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.

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