Vaccines and Global Health: The Week in Review
4 January 2020 :: Number 535
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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Lancet Infectious Diseases
Volume 20, ISSUE 1, P1, January 01, 2020
http://www.thelancet.com/journals/laninf/issue/current

Personal View
The public health crisis of underimmunisation: a global plan of action

[Excerpts]

Summary
Vaccination is one of public health's greatest achievements, responsible for saving billions of lives. Yet, 20% of children worldwide are not fully protected, leading to 1·5 million child deaths annually from vaccine-preventable diseases. Millions more people have severe disabling illnesses, cancers, and disabilities stemming from underimmunisation. Reasons for falling vaccination rates globally include low public trust in vaccines, constraints on affordability or access, and insufficient governmental vaccine investments. Consequently, an emerging crisis in vaccine hesitancy ranges from hyperlocal to national and worldwide. Outbreaks often originate in small, insular communities with low immunisation rates. Local outbreaks can spread rapidly, however, transcending borders. Following an assessment of underlying determinants of low vaccination rates, we offer an action based on scientific evidence, ethics, and human rights that spans multiple governments, organisations, disciplines, and sectors.

Introduction
Vaccination is among public health's greatest achievements, saving billions of lives. Global scourges such as smallpox have been eradicated, with polio nearing eradication. Childhood diseases (such as measles, mumps, and pertussis) have substantially diminished through modern vaccination practices. Yet, one in five children worldwide are not fully protected, resulting in 1·5 million child deaths annually from diseases that are preventable by vaccination, including diarrhoea and pneumonia, equating to one death every 20 s.1 Millions more people have severe disabling illnesses, cancers, and disabilities from infections caused by underimmunisation. Ten highly populous countries with suboptimal immunisation systems account for over 70% of the world's unvaccinated children.1

Despite vast benefits, immunisation levels are falling among specific populations in countries at all wealth levels. Reasons vary, ranging from low public trust in vaccines to constraints on affordability or access. The WHO rates vaccine hesitancy—reluctance or refusal to vaccinate
despite vaccine availability—as among the top ten global health threats for 2019. Overall, both WHO and UNICEF report in 2019 that global immunisation rates for common childhood vaccines have flat-lined at 86% over the past decade. Country rates vary widely, from 25% in Equatorial Guinea to 96% in Norway. Vaccinations in many countries are falling below levels needed for so-called herd immunity, or community protection, resulting in outbreaks. The global incidence of measles increased by 30% over the previous year in 2017 alone, with major diphtheria outbreaks in multiple regions.

The vaccination crisis ranges from hyperlocal to national and worldwide. Outbreaks often originate in small, insular communities with low vaccination rates. Yet, local outbreaks can spread rapidly, transcending borders. Mass migration and international travel propel infectious diseases across the globe. Anti-vaccine messaging targets local communities, but is also disseminated widely on internet platforms and social media. Multiple forces driving the resurgence of childhood diseases also threaten immunisation campaigns, such as for polio and malaria.

The remarkable promise of immunisation has stubbornly stalled, with losses measured in deaths and human suffering. In 2018, 20 million children missed out on lifesaving measles, diphtheria, and tetanus vaccines. Underlying this public health crisis is a striking paradox—vaccines are victims of their own success. Immunisations are remarkably effective, closely monitored, and very safe. Consequently, many clinicians and parents have not seen the consequences of vaccine-preventable diseases and underestimate their harms. Governments also fail to adequately invest in vaccines, from research to cold storage and delivery.

There are no simple solutions to this problem, but innovative policies and programmes working in concert would substantially increase vaccination rates. We offer an action plan based on scientific evidence, ethics, and human rights. Crucially, an effective response must be multidisciplinary and multisectoral, spanning governments, international organisations, the private sector, and civil society. Our plan begins with an examination of underlying determinants of low vaccination rates and generating sustainable solutions.

**Generating sustainable solutions**

Underimmunisation is a global crisis requiring sustainable solutions. We offer a three-pronged strategy: innovative financing for vaccine affordability, accessibility, and availability; evidence-based health communication campaigns at local, national, and global levels; and law reform that has public acceptance and is fairly implemented.

:: Vaccine affordability, accessibility, and availability

Projected global funding shortfalls of $7·2 billion (between 2016 and 2020) undermine immunisation goals. WHO's 2013 Global Vaccine Action Plan estimated $60 billion needed for 94 LMICs from 2011 to 2020, nearly half of which is unsecured through government or philanthropic sources. WHO also seeks an additional $10 billion for its own operations by 2023, including $667 million to "strengthen routine vaccination and health systems" and $1·6 billion for polio eradication. Most costs focus on immunisation services, including management, training, social mobilisation, and surveillance. Rapid deployment of vaccines in response to emerging threats is also essential to save lives and reduce costs.
WHO’s Action Plan partners focus on the entire vaccine pipeline—from research, price, storage, and delivery to robust health systems. Dedicated funding for national immunisation programmes is an essential driver for national and global initiatives. Gavi, for example, generates long-term resources through the international finance facility for immunisation and advanced market commitments to support pneumococcal vaccines. A global campaign to raise financing to scale should be a major priority, especially for low-income countries that are unable to pay for or administer vaccines across their populations. Solidarity for universal vaccine availability is warranted because deficiencies in any country threaten populations worldwide. Each government must assure robust national immunisation systems, but the international community also shares responsibility to fill gaps in capacity through enhanced coordination, forecasting, and manufacturer incentives. Global partnerships like the Coalition for Epidemic Preparedness Innovations (CEPI) align public and private actors to fund, develop, and equitably distribute vaccines.

:: Trustworthy information environment

Resources alone, of course, cannot ensure high immunisation rates if the public distrusts the quality, safety, or effectiveness of vaccines. Gaining trust has become difficult with the rise of nationalist populism, which often questions science and casts doubt on expert opinions. The public cannot rely on the media to provide unbiased or accurate messages. Although some parents remain vehemently opposed to vaccinations, most are open to non-judgmental messages and want the best for their children. Altering the informational environment to afford greater salience to accurate, science-based messages could assuage parental concerns. WHO, governments, and partners (eg, philanthropists, industry, and civil society) should sustainably fund evidence-based engagement and health communication strategies that are proactive, timely, and credible, and tailored to specific audiences. WHO is generating a hub for vaccination acceptance and demand to provide reliable information and tools. Governments should similarly develop national and regional campaigns, including an emphasis on behavioural changes. Key components of effective communication campaigns include objective messaging in traditional and social media designed to assuage fears and promote accurate health information and immunisation outcomes. Campaigns should recruit well trusted spokespeople such as leaders in sport, entertainment, and religion. Health engagement is often the most effective at the community level through local leaders, teachers, and religious figures.

Governments should also adopt transparent, lawful, and measured regulations to correct or remove disinformation from the internet and social media. In the same way that states limit malicious hate speech and violent images, they can sensibly regulate patently false or misleading vaccine information. Social media enterprises should be held accountable for rooting out irresponsible vaccine rumours pervading their platforms. For example, searches for vaccine-related terms on Pinterest are automatically diverted to trustworthy vaccine sources like WHO and CDC. Furthermore, internet search engines should prioritise reliable scientific sources over anti-vaccine websites.

Traditional and social media play a special role in open and free societies, and their independence is highly valued. Encouraging self-regulation and ethical corporate responsibility could avoid formal regulation. Governments at the 2019 G20 Summit, for example, asked social media companies to remove violent, terrorism-related messages and images. Facebook agreed to assess its policies governing anti-vaccination information and advertising on its site. YouTube
has begun taking down misleading videos and images. Moreover, Amazon is removing anti-vaccination videos, books, and documentaries.

::: National or regional law reform
Governments can use legal tools successfully to increase vaccination rates. Efficacious vaccination laws can lead to higher immunisation coverage.\(^{30}\) Vaccination mandates passed in France and Italy are associated with increased vaccine rates.\(^{40}\) A meta-analysis of European laws, however, did not find a strong link between vaccination laws and coverage.\(^{24}\) These disparate findings might suggest that legal approaches tailored to local cultures work best.

Vaccination laws must exempt people for legitimate medical reasons, such as infants and immunosuppressed individuals. Yet, overzealous reliance on non-medical exemptions can result in preventable outbreaks.\(^{27}\) Multiple US studies conclude that school vaccination laws with fewer exemptions lowered the incidence of childhood diseases. Governments should consider repealing or restricting permissive religious and philosophical exceptions. Such reforms are consistent with freedoms of religion and conscience because they do not target particular religious or other communities, but are applied fairly and equally throughout society. Parents are responsible for not placing their own, and other, children at risk of serious infections. Well tailored laws can also help reduce the number of people objecting to vaccinations due to misinformation.

Conclusion
The global crises of underimmunisation risks hard-won gains in preventing infectious diseases. Resurging childhood diseases and fragile global vaccination campaigns necessitate concerted action. Our action plan focuses on the prime causes of underimmunisation: vaccine availability, public distrust, and lax immunisation laws. Immunisation is a potent public health tool. Finding the political will and holding governments accountable are essential. Countless lives can be saved if the international community sustainably funds vaccination systems, assures reliable information, and safeguards the common good through meaningful law reform.

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Emergencies

Ebola – DRC+
Public Health Emergency of International Concern (PHEIC)

Ebola Outbreak in DRC 73: 24 December 2019
Situation Update
  In the week of 16 to 22 December 2019, 14 new confirmed Ebola virus disease (EVD) cases were reported from four health areas within two health zones in North Kivu province in the Democratic Republic of the Congo. The new confirmed cases in the past week are from Mabalako Health Zone (12/14; 86%) and Butembo Health Zone (2/14; 14%)...

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DRC Ebola outbreaks
Military presence leads MSF to stop activities in Ebola-affected Biakato

Press Release  24 Dec 2019

Following security incidents in Biakato, Democratic Republic of Congo, an increase in security – including armed military forces – have been deployed around and within health structures. The presence of arms and weapons in hospitals and clinics has resulted in Médecins Sans Frontières (MSF) taking the difficult decision to stop medical activities – including those related to Ebola – in Biakato.

“We are no longer able to work in accordance with our principles of neutrality and impartiality,” said Ewenn Chenard, Emergency Coordinator for MSF. “We regret this decision, but the presence of armed forces around and within the health structures of Biakato goes against our principles.”

MSF has been working with the people of Biakato, located in DRC’s northeastern Ituri province, since 2016, supporting the Ministry of Health. Initially, our activities were dedicated to assisting victims of sexual violence...

POLIO

Public Health Emergency of International Concern (PHEIC)

Statement of the Twenty-Third IHR Emergency Committee Regarding the International Spread of Poliovirus

20 December 2019

[Excerpts; Editor’s text bolding]

The twenty-third meeting of the Emergency Committee under the International Health Regulations (2005) (IHR) regarding the international spread of poliovirus was convened by the Director General on 11 December 2019 at WHO headquarters with members, advisers and invited Member States attending via teleconference, supported by the WHO secretariat.

The Emergency Committee reviewed the data on wild poliovirus (WPV1) and circulating vaccine derived polioviruses (cVDPV). The Secretariat presented a report of progress for affected IHR States Parties subject to Temporary Recommendations. The following IHR States Parties provided an update on the current situation and the implementation of the WHO Temporary Recommendations since the Committee last met on 16 September 2019: Afghanistan, Angola, Benin, Central African Republic (CAR), Chad, Cote d’Ivoire, Democratic Republic of Congo (DR Congo), Ethiopia, Ghana, Nigeria, Pakistan, Philippines, Togo and Zambia...

Wild poliovirus

The Committee remains gravely concerned by the significant increase in WPV1 cases globally to 113 as at 11 December 2019, compared to 28 for the same period in 2018, with no significant success yet in reversing this trend.

In Pakistan transmission continues to be widespread, as indicated by both AFP (acute flaccid paralysis) surveillance and environmental sampling. Khyber Pakhtunkhwa province continues to be of particular concern. The issues noted previously by the committee, including refusal by individuals and communities to accept vaccination, and problems with politicization of the
national polio program are still being addressed. Added pressure is now on the program due to confirmation of detection of cVDPV2 in several provinces (see below). In Afghanistan, the security situation remains very challenging. Inaccessible and missed children particularly in the Southern Region represent a large cohort of susceptible children in this part of Afghanistan. The risk of a major upsurge of cases is growing, with other parts of the country that have been free of WPV1 for some time now at risk of outbreaks. This would again increase the risk of international spread. Major efforts must be made to improve access if eradication efforts are going to progress.

The committee noted that based on sequencing of viruses, there were recent instances of international spread of viruses from Pakistan to Afghanistan and also from Afghanistan to Pakistan. The recent increased frequency of WPV1 international spread between the two countries suggests that rising transmission in Pakistan and Afghanistan correlates with increasing risk of WPV1 exportation beyond the single epidemiological block formed by the two countries...

**Vaccine derived poliovirus**
The multiple cVDPV outbreaks in four WHO regions (African, Eastern Mediterranean, South-east Asian and Western Pacific Regions) are very concerning, with seven new countries reporting outbreaks since the last meeting (Chad, Cote d'Ivoire, Malaysia, Pakistan, Philippines, Togo and Zambia). Since the last meeting, cVDPV2 has spread through West Africa and the Lake Chad area, reaching Cote d'Ivoire, Togo and Chad, and cVDPV1 has spread from the Philippines to Malaysia.

The rapid emergence of multiple cVDPV2 strains in several countries is unprecedented and very concerning, and not yet fully understood.

The committee noted that the GPEI was developing a strategy to address cVDPV2 outbreaks but was extremely concerned that the monovalent OPV2 stockpile was becoming depleted. The committee strongly supports the development and proposed Emergency Use Listing of the novel OPV2 vaccine which should become available mid-2020, and which it is hoped will result in no or very little seeding of further outbreaks.

**Conclusion**
The Committee unanimously agreed that the risk of international spread of poliovirus remains a Public Health Emergency of International Concern (PHEIC) and recommended the extension of Temporary Recommendations for a further three months. The committee recognizes the concerns regarding the lengthy duration of the polio PHEIC, but concludes that the current situation is extraordinary, with clear ongoing risk of international spread and ongoing need for coordinated international response...

**Additional considerations**

**Preparedness** - The committee urged all countries, particularly those in Africa, be on high alert for the possibility of cVDPV2 importation and respond to such importations as a national public health emergency. This means countries should ensure polio surveillance can rapidly detect cVDPV2, and plans are in place to respond rapidly with well planned and executed mOPV2 campaigns, and with strict procedures to ensure unused vials are returned and managed so that inappropriate or accidental use is avoided.
**International Coordination** - Unprecedented levels of international spread of cVDPV require urgent coordinated control measures at regional and sub-regional levels. The committee strongly encourages countries to do more in support of cross border actions, such as sharing of surveillance and other data, synchronizing campaigns and where possible ensure vaccination of international travelers.

**Emergency Response** – The committee noted the endorsement of SAGE for the accelerated clinical development of novel OPV2 and its assessment under the WHO Emergency Use and Listing (EUL) procedure, which can be used in a public health emergency of international concern (PHEIC), and added its support to ensure the supply of monovalent OPV2.

**Financing** - The number of outbreaks is proving to be costly to manage, and the committee urged affected countries to prioritize polio control as a public health emergency and ensure adequate domestic funding is available for an effective response. The committee urged affected countries to mobilize domestic funding to complement the GPEI resources which are being stretched by the large number of outbreaks being fought globally.

**Communication** - Vaccine hesitancy is a significant factor in the spread of these outbreaks particularly certain countries including Pakistan and Angola. The committee urged countries to invest time and resources into pro-actively circumventing and countering myths and misinformation regarding vaccination is general, and rumors that arise during the course of campaigns in particular. Campaign communications need to address issues around avoiding spreading excreted Sabin-like viruses through good hygiene.

Based on the current situation regarding WPV1 and cVDPV, and the reports provided by affected countries, the Director-General accepted the Committee’s assessment and on 19 December 2019 determined that the situation relating to poliovirus continues to constitute a PHEIC, with respect to WPV1 and cVDPV. The Director-General endorsed the Committee’s recommendations for countries meeting the definition for ‘States infected with WPV1, cVDPV1 or cVDPV3 with potential risk for international spread’, ‘States infected with cVDPV2 with potential risk for international spread’ and for ‘States no longer infected by WPV1 or cVDPV, but which remain vulnerable to re-infection by WPV or cVDPV’ and extended the Temporary Recommendations under the IHR to reduce the risk of the international spread of poliovirus, effective 19 December 2019.

Three African countries halt polio outbreaks

Kenya, Mozambique and Niger have curbed polio outbreaks that erupted in different episodes over the past 24 months, allowing them to regain their polio-free status, World Health Organization (WHO) announced.

Brazzaville, 19 December 2019 – Kenya, Mozambique and Niger have curbed polio outbreaks that erupted in different episodes over the past 24 months, allowing them to regain their polio-free status, World Health Organization (WHO) announced.

Transmission of vaccine-derived poliovirus was detected in the three countries in 2018, affecting 12 children. No other cases have since been detected.
“Ending outbreaks in the three countries is proof that the implementation of response activities and ensuring that three rounds of high-quality immunization campaigns are conducted can stop the remaining outbreaks in the region,” said Dr Modjirom Ndoutabe, Coordinator of the WHO-led polio outbreaks Rapid Response Team for the African Region.

“We are strongly encouraged by this achievement and determined in our efforts to see polio eradicated from the continent. It is a demonstration of the commitment by Governments, WHO and our partners to ensure that future generations live free of this debilitating virus,” added Dr Ndoutabe.

Editor’s Note:
WHO has posted a refreshed emergencies page which presents an updated listing of Grade 3,2,1 emergencies as below.

**WHO Grade 3 Emergencies** [to 4 Jan 2020]

**Democratic Republic of the Congo**
:: Ebola Outbreak in DRC 73: 24 December 2019

**Syrian Arab Republic**
:: WHO deeply concerned about deteriorating health conditions in northwest Syria

25 December 2019, Geneva-Cairo-Copenhagen – The World Health Organization today expressed its deepening concern about the situation in northwest Syria and the impact hostilities are having on the health of a population that has endured sustained hardships, in what is now harsh weather conditions.

“The recent military escalation in this area has resulted in loss of lives, injuries and exacerbated suffering of civilians, displacing more than 130,000, including women, children and elderly,” said Dr Richard Brennan, Director of Health Emergencies for WHO’s Eastern Mediterranean Region. “Some have been displaced three times during the nine years of the Syrian conflict,” he added.

Among the 12 million people in need of health services in Syria, over 2.7 million are in the northwest and half 0.5 million live in the areas south of Idleb, where disruption of fragile health services continues...

**Mozambique floods** - No new digest announcements identified
**Nigeria** - No new digest announcements identified
**Somalia** - No new digest announcements identified
**South Sudan** - No new digest announcements identified
**Yemen** - No new digest announcements identified

**WHO Grade 2 Emergencies** [to 4 Jan 2020]

**Myanmar**
:: Bi-weekly Situation Report 25 - 19 December 2019

HIGHLIGHTS
Tuberculosis(TB) performance for the third quarter for Cox’s Bazar District was reviewed at a meeting held with a view to strengthening TB programme activities in the district.

Oral Cholera Vaccine (OCV) campaign in Rohingya camps has ended on 14 December. However, the campaign for the host community will continue for the period of 8 to 31 December 2019.

A total of 127 Community Health Worker (CHW) supervisors have received a two-day training on risk factors of Non-Communicable Diseases (NCD) and behavioral interventions in Cox’s Bazar.

The government of Bangladesh through National Expanded Program on Immunization (EPI), is going to conduct a month-long Measles Outbreak Response Immunization (ORI) activity from 12 January to 12 February 2020 in the Rohingya camps.

SITUATION OVERVIEW

As per Inter-Sector Coordination Group (ISCG) report of September 2019, there are 914,998 Rohingya refugees in Cox’s Bazar. This includes 34,172 refugees from Myanmar who registered before 31st August 2017. All refugees, including new arrivals, face compounding vulnerabilities, including in health. WHO has been responding to this crisis since September 2017. A summary of response actions from epidemiological weeks 49 and 50 of 2019 is presented below...

Niger

L’OMS offre un important lot de médicaments et matériels médicaux au Gouvernement du... 27 décembre 2019

Le Niger fait régulièrement face à des urgences de plus en plus complexes avec un impact négatif sur la santé des populations. Parmi ces urgences « les maladies à potentiel épidémique », telles que le choléra, la méningite, entre autres, mais aussi « les conséquences sanitaires liées à l’activisme de groupes armées non étatiques (GANE) » le long du périmètre des quatre frontières Mali-Burkina Faso-Nigéria-Niger impliquant dix (10) districts sanitaires (DS) dans la région de Tillabéry, 2 dans celle de Tahoua, cinq (5) dans celle de Diffa et 2 dans celle de Maradi, engendrant de grands mouvements de populations.

Afghanistan - No new digest announcements identified
Angola - No new digest announcements identified
Burkina Faso [in French] - No new digest announcements identified
Burundi - No new digest announcements identified
Cameron - No new digest announcements identified
Central African Republic - No new digest announcements identified
Ethiopia - No new digest announcements identified
HIV in Pakistan - No new digest announcements identified
Iran floods 2019 - No new digest announcements identified
Iraq - No new digest announcements identified
Libya - No new digest announcements identified
Malawi floods - No new digest announcements identified
Measles in Europe - No new digest announcements identified
MERS-CoV - No new digest announcements identified
occupied Palestinian territory - No new digest announcements identified
Sudan - No new digest announcements identified
Ukraine - No new digest announcements identified
Zimbabwe - No new digest announcements identified
WHO Grade 1 Emergencies [to 4 Jan 2020]
- Chad: No new digest announcements identified
- Djibouti: No new digest announcements identified
- Kenya: No new digest announcements identified
- Mali: No new digest announcements identified
- Namibia: viral hepatitis - No new digest announcements identified
- Tanzania: No new digest announcements identified

UN OCHA -- L3 Emergencies
The UN and its humanitarian partners are currently responding to three ‘L3’ emergencies. This is the global humanitarian system's classification for the response to the most severe, large-scale humanitarian crises.

Syrian Arab Republic
- Syrian Arab Republic: Recent Developments in Northwestern Syria Situation Report No. 4 - As of 2 January 2020

Yemen - No new digest announcements identified

UN OCHA -- Corporate Emergencies
When the USG/ERC declares a Corporate Emergency Response, all OCHA offices, branches and sections provide their full support to response activities both at HQ and in the field.

Editor’s Note:
- Ebola in the DRC has been added as a OCHA “Corporate Emergency” this week:
- CYCLONE IDAI and Kenneth: No new digest announcements identified
- EBOLA OUTBREAK IN THE DRC: No new digest announcements identified

WHO & Regional Offices [to 4 Jan 2020]

WHO Director-General Dr Tedros, video message for new year 2020
2 January 2020
In his new year’s message for 2020, WHO Director-General Dr Tedros Adhanom Ghebreyesus pays tribute to the tireless work of health workers around the world. Dr Tedros highlights the critical contribution these people make to all our lives and flags the urgent need for an additional 18 million more.

Year of the Nurse and the Midwife 2020
Nurses and midwives play a vital role in providing health services. These are the people who devote their lives to caring for mothers and children; giving lifesaving immunizations and health
advice; looking after older people and generally meeting everyday essential health needs. They are often, the first and only point of care in their communities. The world needs 9 million more nurses and midwives if it is to achieve universal health coverage by 2030. That’s why the World Health Assembly has designated 2020 the International Year of the Nurse and the Midwife...

::: WHO Regional Offices
Selected Press Releases, Announcements

**WHO African Region AFRO**
:: Three African countries halt polio outbreaks 20 December 2019

**WHO Region of the Americas PAHO**
No new digest content identified.

**WHO South-East Asia Region SEARO**
:: 26 December 2019 News release
15 years of Indian Ocean tsunami - WHO South-East Asia Region continues to prioritize preparedness to respond to public health emergencies

**WHO European Region EURO**
:: WHO project wins the Global Aesthetic Achievement of the Year award 03-01-2020

**WHO Eastern Mediterranean Region EMRO**
:: Regional Summit of National Ethics and Bioethics Committees 24 December 2019
:: WHO doctor awarded for helping the mothers and babies of Gaza 22 December 2019

**WHO Western Pacific Region**
No new digest content identified.

::: CDC/ACIP [to 4 Jan 2020]
http://www.cdc.gov/media/index.html
https://www.cdc.gov/vaccines/acip/index.html
No new digest content identified.

::: Africa CDC [to 4 Jan 2020]
http://www.africacdc.org/
News
No new digest content identified.
China’s top legislature and health commission condemned the fatal stabbing of a doctor at a Beijing hospital by a patient’s relative when the country’s law on promotion of basic medical and healthcare was adopted on Dec 28...

In a bid to deter illegal acts targeting medical staff and institutions, the law stipulates that the personal safety and dignity of medical workers must not be infringed upon and that their legitimate rights are protected by law...

A Chinese health official said on Dec 26 China’s current infectious disease situation is generally stable despite that the country is in the peak of the flu season.

According to the latest surveillance statistics, some provincial-level regions have already entered the flu season, with influenza virus A subtype H3N2 and B virus lineage Victoria were detected as the main viruses, Wang Bin, an official with the National Health Commission, said at a press conference.

Li Zhongjie, an official with the Chinese Center for Disease Control and Prevention, said that vaccination is the most effective and economical way to prevent infectious diseases.

In addition, Li stressed the importance of developing good personal hygiene habits to reduce the risk of exposure to viruses.

China’s flu vaccine supply can meet demand
2019-12-27

Announcements

Paul G. Allen Frontiers Group  [to 4 Jan 2020]
No new digest content identified.

BMGF - Gates Foundation  [to 4 Jan 2020]
http://www.gatesfoundation.org/Media-Center/Press-Releases
No new digest content identified.

Bill & Melinda Gates Medical Research Institute  [to 4 Jan 2020]
The Bill & Melinda Gates Medical Research Institute is a non-profit biotech organization. Our mission is to develop products to fight malaria, tuberculosis, and diarrheal diseases—three major causes of mortality, poverty, and inequality in developing countries. The world has unprecedented scientific tools at its disposal; now is the time to use them to save the lives of the world's poorest people.

No new digest content identified.

**CARB-X** [to 4 Jan 2020]
https://carb-x.org/
CARB-X is a non-profit public-private partnership dedicated to accelerating antibacterial research to tackle the global rising threat of drug-resistant bacteria.
No new digest content identified.

**CEPI – Coalition for Epidemic Preparedness Innovations** [to 4 Jan 2020]
http://cepi.net/
Latest news
No new digest content identified.

**Clinton Health Access Initiative, Inc. (CHAI)** [to 4 Jan 2020]
https://clintonhealthaccess.org/
News & Press Releases
No new digest content identified.

**EDCTP** [to 4 Jan 2020]
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
No new digest content identified.

**Emory Vaccine Center** [to 4 Jan 2020]
http://www.vaccines.emory.edu/
No new digest content identified.

**European Medicines Agency** [to 4 Jan 2020]
News & Press Releases
No new digest content identified.
European Vaccine Initiative  [to 4 Jan 2020]
http://www.euvaccine.eu/news-events
No new digest content identified.

FDA  [to 4 Jan 2020]
https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/default.htm
Press Announcements
No new digest content identified.

Fondation Merieux  [to 4 Jan 2020]
http://www.fondation-merieux.org/
News, Events
20 - 22 Jan 2020
Mérieux Foundation co-organized event
Dengue pre-vaccination screening strategies workshop
Les Pensières Center for Global Health, Veyrier-du-Lac (France)

Gavi  [to 4 Jan 2020]
https://www.gavi.org/
No new digest content identified.

GHIT Fund  [to 4 Jan 2020]
https://www.ghitfund.org/newsroom/press
GHIT was set up in 2012 with the aim of developing new tools to tackle infectious diseases that
No new digest content identified.

Global Fund  [to 4 Jan 2020]
News & Stories
No new digest content identified.

Hilleman Laboratories  [to 4 Jan 2020]
http://www.hillemanlabs.org/
No new digest content identified.

Human Vaccines Project  [to 4 Jan 2020]
http://www.humanvaccinesproject.org/media/press-releases/
Press Releases
No new digest content identified.
IAVI  [to 4 Jan 2020]
https://www.iavi.org/newsroom
No new digest content identified.

International Coalition of Medicines Regulatory Authorities [ICMRA]
Selected Statements, Press Releases, Research
No new digest content identified.

International Generic and Biosimilar Medicines Association [IGBA]
https://www.igbamedicines.org/
No new digest content identified.

IFFIm
No new digest content identified.

IFRC  [to 4 Jan 2020]
Selected Press Releases, Announcements
No new digest content identified.

IVAC  [to 4 Jan 2020]
https://www.jhsph.edu/research/centers-and-institutes/ivac/index.html
Updates
No new digest content identified.

IVI  [to 4 Jan 2020]
http://www.ivi.int/
Selected IVI News & Announcements
No new digest content identified.

JEE Alliance  [to 4 Jan 2020]
https://www.jeealliance.org/
Selected News and Events
No new digest content identified.

MSF/Médecins Sans Frontières  [to 4 Jan 2020]
http://www.msf.org/
Latest [Selected Announcements]

Syria
“There are no safe places for people in Idlib”
Interview 27 Dec 2019

DRC Ebola outbreaks
Crisis update - December 2019
Crisis Update 27 Dec 2019

DRC Ebola outbreaks
Military presence leads MSF to stop activities in Ebola-affected Biakato
Press Release 24 Dec 2019

Following security incidents in Biakato, Democratic Republic of Congo, an increase in security – including armed military forces – have been deployed around and within health structures. The presence of arms and weapons in hospitals and clinics has resulted in Médecins Sans Frontières (MSF) taking the difficult decision to stop medical activities – including those related to Ebola – in Biakato.

“We are no longer able to work in accordance with our principles of neutrality and impartiality,” said Ewenn Chenard, Emergency Coordinator for MSF. “We regret this decision, but the presence of armed forces around and within the health structures of Biakato goes against our principles.”

MSF has been working with the people of Biakato, located in DRC’s northeastern Ituri province, since 2016, supporting the Ministry of Health. Initially, our activities were dedicated to assisting victims of sexual violence...

National Vaccine Program Office - U.S. HHS [to 4 Jan 2020]
https://www.hhs.gov/vaccines/about/index.html

NVAC 2020 Meetings
February 13-14, 2020 NVAC Meeting
June 9-10, 2020 NVAC Meeting
September 23-24, 2020 Meeting (Virtual)

NIH [to 4 Jan 2020]

Selected News Releases

Changed route of immunization dramatically improves efficacy of TB vaccine
January 2, 2020 — NIH scientists report results from animal study.

... Now, researchers from the National Institutes of Health’s National Institute of Allergy and Infectious Diseases (NIAID) and their colleagues have shown that simply changing the dose and route of administration from intradermal (ID) to intravenous (IV) greatly increases the vaccine’s ability to protect rhesus macaques from infection following exposure to Mycobacterium tuberculosis (Mtbc), the bacterium that causes TB. The findings provide a new understanding of the mechanisms of BCG-elicited protection against tuberculosis infection and disease. In addition, the findings support investigation of IV BCG administration in clinical trials to determine whether this route improves its effectiveness in teens and adults.
Study investigators at the NIAID Vaccine Research Center were led by Robert A. Seder, M.D., and Mario Roederer, Ph.D. Their collaborators included JoAnne L. Flynn, Ph.D., of University of Pittsburgh School of Medicine...

**PATH**  [to 4 Jan 2020]
https://www.path.org/media-center/
Selected Announcements
No new digest content identified.

**Sabin Vaccine Institute**  [to 4 Jan 2020]
http://www.sabin.org/updates/pressreleases
Statements and Press Releases
No new digest content identified.

**UNAIDS**  [to 4 Jan 2020]
http://www.unaids.org/en
Selected Press Releases/Reports/Statements
26 December 2019
**Treating HIV-positive children with speed and skill**

**UNICEF**  [to 4 Jan 2020]
https://www.unicef.org/media/press-releases
Selected Statements, Press Releases, Reports
Statement
UNICEF's New Year appeal for Syria: Cease fighting in the northwest and end the nine-year war
Statement by UNICEF Executive Director Henrietta Fore
02/01/2020

Press release
New Year’s babies: Over 392,000 children will be born worldwide on New Year’s Day
In 2020, UNICEF is calling for world leaders and nations to invest in health workers with the know-how and equipment to save every newborn
01/01/2020

Press release
2019 concludes a ‘deadly decade’ for children in conflict, with more than 170,000 grave violations verified since 2010
Three-fold rise in verified attacks on children since 2010, an average of 45 violations a day
29/12/2019

Statement
Children bear the brunt of intensifying violence in northwest Syria
Statement from Ted Chaiban, UNICEF Regional Director for the Middle East and North Africa
Vaccination Acceptance Research Network (VARN)  [to 4 Jan 2020]
https://vaccineacceptance.org/news.html#header1-2r
No new digest content identified.

Vaccine Confidence Project  [to 4 Jan 2020]
http://www.vaccineconfidence.org/
No new digest content identified.

Vaccine Education Center – Children’s Hospital of Philadelphia  [to 4 Jan 2020]
http://www.chop.edu/centers-programs/vaccine-education-center
No new digest content identified.

Wellcome Trust  [to 4 Jan 2020]
https://wellcome.ac.uk/news
News | 28 December 2019
MBE for Nicola Perrin in Queen’s New Year Honours
Nicola Perrin, former Head of Policy at Wellcome and latterly Head of Understanding Patient Data, has been awarded an MBE for her work on championing the responsible use of patient data.

The Wistar Institute  [to 4 Jan 2020]
No new digest content identified.

World Organisation for Animal Health (OIE)  [to 4 Jan 2020]
No new digest content identified.

ARM [Alliance for Regenerative Medicine]  [to 4 Jan 2020]
No new digest content identified.

BIO  [to 4 Jan 2020]
Press Releases
No new digest content identified.
DCVMN – Developing Country Vaccine Manufacturers Network  [to 4 Jan 2020]
http://www.dcvmn.org/
News
No new digest content identified.

IFPMA  [to 4 Jan 2020]
http://www.ifpma.org/resources/news-releases/
Selected Press Releases, Statements, Publications
No new digest content identified.

PhRMA  [to 4 Jan 2020]
http://www.phrma.org/
Selected Press Releases, Statements
No new digest content identified.

* * * *

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

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

American Journal of Infection Control
January 2020 Volume 48, Issue 1, p1-122
http://www.ajicjournal.org/current
[New issue; No digest content identified]

American Journal of Preventive Medicine
January 2020 Volume 58, Issue 1, p1-164
http://www.ajpmonline.org/current
[New issue; No digest content identified]

American Journal of Public Health
January 2020  110(1)
http://ajph.aphapublications.org/toc/ajph/current
American Journal of Tropical Medicine and Hygiene
Volume 101, Issue 6, 2019
http://www.ajtmh.org/content/journals/14761645/101/6
[Reviewed earlier]

Annals of Internal Medicine
17 December 2019 Vol: 171, Issue 12
http://annals.org/aim/issue
[Reviewed earlier]

BMC Cost Effectiveness and Resource Allocation
http://resource-allocation.biomedcentral.com/
(Accessed 4 Jan 2020)
[No new digest content identified]

BMJ Global Health
November 2019 - Volume 4 - 6
https://gh.bmj.com/content/4/6
[Reviewed earlier]

BMC Health Services Research
http://www.biomedcentral.com/bmchealthservres/content
(Accessed 4 Jan 2020)
[No new digest content identified]

BMC Infectious Diseases
http://www.biomedcentral.com/bmcinfectdis/content
(Accessed 4 Jan 2020)
[No new digest content identified]

BMC Medical Ethics
http://www.biomedcentral.com/bmcmedethics/content
(Accessed 4 Jan 2020)
[No new digest content identified]

BMC Medicine
http://www.biomedcentral.com/bmcmed/content
(Accessed 4 Jan 2020)
BMC Pregnancy and Childbirth
http://www.biomedcentral.com/bmcpregnancychildbirth/content
(Accessed 4 Jan 2020)
[No new digest content identified]

BMC Public Health
http://bmcpublichealth.biomedcentral.com/articles
(Accessed 4 Jan 2020)
**The influence of a community intervention on influenza vaccination knowledge and behavior among diabetic patients**
*This study was conducted to evaluate the impact of a comprehensive community intervention on cognition and inoculation behaviors of diabetic patients immunized with influenza vaccine.*
Authors: Lili Tao, Ming Lu, Xiaoning Wang, Xiaoyan Han, Shuming Li and Haiyan Wang
Citation: BMC Public Health 2019 19:1747
Content type: Research article
Published on: 27 December 2019

BMC Research Notes
http://www.biomedcentral.com/bmcresearchnotes/content
(Accessed 4 Jan 2020)
[No new digest content identified]

BMJ Open
January 2020 - Volume 10 - 1
http://bmjopen.bmj.com/content/current
[New issue; No digest content identified]

Bulletin of the World Health Organization
Volume 98, Number 1, January 2020, 1-76
https://www.who.int/bulletin/volumes/98/1/en/
**EDITORIALS**
*Improving quality of care in fragile, conflict-affected and vulnerable settings*
— Shamsuzzoha Babar Syed, Sheila Leatherman, Matthew Neilson, Andre Grieppspoor, Dirk Horemans, Mondher Letaief & Edward Kelley
http://dx.doi.org/10.2471/BLT.19.246280

**RESEARCH**
*Health-care investments for the urban populations, Bangladesh and India*
— Daphne CN Wu, Eduardo P Banzon, Hellen Gelband, Brian Chin, Varsha Malhotra, Sonalini Khetrapal, David Watkins, Sungsup Ra, Dean T Jamison & Prabhat Jha
http://dx.doi.org/10.2471/BLT.19.234252
Development assistance for community health workers in 114 low- and middle-income countries, 2007–2017
— Chunling Lu, Daniel Palazuelos, Yiqun Luan, Sonia Ehrlich Sachs, Carole Diane Mitnick, Joseph Rhatigan & Henry B Perry
http://dx.doi.org/10.2471/BLT.19.235499

Child Care, Health and Development
Volume 45, Issue 6  Pages: 773-876  November 2019
https://onlinelibrary.wiley.com/toc/13652214/current
[Reviewed earlier]

Clinical Therapeutics
December 2019 Volume 41, Issue 12, p2461-2680
http://www.clinicaltherapeutics.com/current
[Reviewed earlier]

Clinical Trials
Volume 16 Issue 6, December 2019
https://journals.sagepub.com/toc/ctja/16/6
[Reviewed earlier]

Conflict and Health
http://www.conflicthealth.com/
[Accessed 4 Jan 2020]
[No new digest content identified]

Contemporary Clinical Trials
Volume 87  December 2019
[Reviewed earlier]

The CRISPR Journal
Volume 2, Issue 6 / December 2019
https://www.liebertpub.com/toc/crispr/2/6
[Reviewed earlier]

Current Genetic Medicine Reports
Volume 7, Issue 4, December 2019
https://link.springer.com/journal/40142/7/4
[Reviewed earlier]
**Current Opinion in Infectious Diseases**
February 2020 - Volume 33 - Issue 1
https://journals.lww.com/co-infectiousdiseases/pages/currenttoc.aspx
[New issue; No digest content identified]

**Developing World Bioethics**
Volume 19, Issue 4  Pages: 187-247  December 2019
https://onlinelibrary.wiley.com/toc/14718847/current
[Reviewed earlier]

**Development in Practice**
Volume 29, Issue 8, 2019
http://www.tandfonline.com/toc/cdip20/current
[Reviewed earlier]

**Disaster Medicine and Public Health Preparedness**
Volume 13 - Issue 5-6 - December 2019
https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/
Commentary

**Clarification of the Concept of Risk Communication and its Role in Public Health Crisis Management in China**
Wuqi Qiu, Cordia Chu
Published online by Cambridge University Press: 10 June 2019, pp. 834-836

**Abstract**
Risk communication plays a very important role in the prevention of public health crisis events and has been considered by the World Health Organization (WHO) to be 1 of the main functions of an emergency public health crisis. However, it is a relatively new research field in China, so many people have mistaken understandings of risk communication. This article will describe the concept and importance of risk communication and briefly introduce the role of risk communication in public health crisis management. It also provides information for the prevention of public health crisis events in the future.

**Original Research**
**Disaster Medicine: A Comprehensive Review of the Literature From 2016**
Published online by Cambridge University Press: 19 June 2019, pp. 946-957

**Abstract**
Objective:
The Society of Academic Emergency Medicine Disaster Medicine Interest Group, the Office of the Assistant Secretary for Preparedness and Response – Technical Resources, Assistance Center, and Information Exchange (ASPR TRACIE) team, and the National Institutes of Health
Library searched disaster medicine peer-reviewed and gray literature to identify, review, and disseminate the most important new research in this field for academics and practitioners.

Methods:
MEDLINE/PubMed and Scopus databases were searched with key words. Additional gray literature and focused hand search were performed. A Level I review of titles and abstracts with inclusion criteria of disaster medicine, health care system, and disaster type concepts was performed. Eight reviewers performed Level II full-text review and formal scoring for overall quality, impact, clarity, and importance, with scoring ranging from 0 to 20. Reviewers summarized and critiqued articles scoring 16.5 and above.

Results:
Articles totaling 1176 were identified, and 347 were screened in a Level II review. Of these, 193 (56%) were Original Research, 117 (34%) Case Report or other, and 37 (11%) were Review/Meta-Analysis. The average final score after a Level II review was 11.34. Eighteen articles scored 16.5 or higher. Of the 18 articles, 9 (50%) were Case Report or other, 7 (39%) were Original Research, and 2 (11%) were Review/Meta-Analysis.

Conclusions:
This first review highlighted the breadth of disaster medicine, including emerging infectious disease outbreaks, terror attacks, and natural disasters. We hope this review becomes an annual source of actionable, pertinent literature for the emerging field of disaster medicine.
A novel initiative to improve access to medicines for control of non-communicable diseases in low- and middle-income countries

Linda M. Mobula1,2, Stephen Sarfo3, Lynda Arthur4, Gilbert Burnham2, Daniel Ansong5, Jacob Plange-Rhule6, David Ofori-Adjei7

Abstract

The global burden of non-communicable diseases (NCDs) is growing, and access to prevention and treatment strategies remain limited, especially for those in low- and middle-income countries (LMICs).

Novel approaches are needed to improve access and affordability of medicines that can treat NCDs in LMICs. The Access and Affordability Initiative (AAI) is a public private partnership aiming to improve access to and availability of essential medicines for the treatment of NCDs and strengthening of health systems. Through this novel initiative a prospective cohort of patients with hypertension and diabetes were followed in Ghana and the Philippines to examine the effect of differential pricing on access to treatment of hypertension and diabetes. An integrated approach including differential pricing, health systems strengthening, improved supply chain management and greater affordability can improve access to medicines for NCDs.

While differential pricing has several advantages for improving the affordability of NCD medicines in LMICs, it can’t overcome all barriers as a standalone approach. An integrated approach to health systems strengthening, supply chain management and affordability are needed to overcome key challenges in getting medicines for NCD to patients in LMICs. Availability and affordability of medicines to treat NCDs among vulnerable patients will help achieve Universal Health Coverage (UHC).
Comment
Published: 31 December 2019
Digital twins to personalize medicine
Bergthor Björnsson, et al on behalf of the Swedish Digital Twin Consortium
Genome Medicine volume 12, Article number: 4 (2019)
Abstract
Personalized medicine requires the integration and processing of vast amounts of data. Here, we propose a solution to this challenge that is based on constructing Digital Twins. These are high-resolution models of individual patients that are computationally treated with thousands of drugs to find the drug that is optimal for the patient.
Background
Despite great strides in biomedical advances during the past century, a large number of patients do not respond to drug treatment. According to a report from the US Food and Drug Administration (FDA), medication is deemed ineffective for 38–75% of patients with common diseases [1]. This results in patient suffering and increased healthcare costs. These problems reflect the complexity of common diseases, which may involve altered interactions between thousands of genes that differ between patients with the same diagnosis. There is a wide gap between this complexity and modern health care, in which diagnostics often relies on a small number of biomarkers of limited sensitivity or specificity. Digital and genomic medicine may bridge this gap by monitoring, processing, and integrating vast amounts of data from wearable digital devices, omics, imaging, and electronic medical records [2]. However, the integration and clinical exploitation of such complex data are unresolved challenges.
Application of the digital twin concept to personalize medicine
Digital twins are a concept from engineering which has been applied to complex systems such as airplanes or even cities [3]. The aims are to model those systems computationally, in order to develop and test them more quickly and economically than is possible in the real-life setting. Ideally, the digital twin concept can be translated to patients in order to improve diagnostics and treatment. This is the general aim of the DigiTwin consortium, which includes academic, clinical and industrial partners from 32 countries (https://www.digitwins.org). Practical and scalable solutions for specific problems will also require national initiatives. As an example, the Swedish Digital Twin Consortium (SDTC) aims to develop a strategy for personalized medicine (https://www.sdtc.se). The SDTC strategy, which is the focus of this Comment, is based on: (i) constructing unlimited copies of network models of all molecular, phenotypic, and environmental factors relevant to disease mechanisms in individual patients (i.e., digital twins); (ii) computationally treating those digital twins with thousands of drugs in order to identify the best performing drug; and (iii) treating the patient with this drug ...
Using Data to Keep Vaccines Cold in Kenya: Remote Temperature Monitoring with Data Review Teams for Vaccine Management
Mercy Lutukai, Elizabeth A. Bunde, Benjamin Hatch, Zoya Mohamed, Shahrzad Yavari, Ernest Some, Amos Chweya, Caroline Kania, Jesse C. Ross, Carmit Keddem and Yasmin Chandani

Using technology to make data visible to stakeholders and giving those stakeholders a framework for analyzing that data for decision making improves cold chain management of vaccines in Kenya.

Global Public Health
Volume 15, 2020 Issue 1
http://www.tandfonline.com/toc/rgph20/current

Article
Towards a new definition of health security: A three-part rationale for the twenty-first century
Annamarie B. Sehovic
Pages: 1-12
Published online: 25 Jun 2019

Article
Conceptions within misconceptions: Pluralisms in an Ebola vaccine trial in West Africa
Arsenii Alenichev, Koen Peeters Grietens & René Gerrets
Pages: 13-21
Published online: 25 Jun 2019

ABSTRACT
Ensuring that biomedical information about research procedures is adequately understood by participants and their communities is key for conducting ethical research. This article explores participants' understanding of trial procedures for an experimental vaccine against Ebola virus disease (EVD) in a West African context. We found that some trial participants believed there was a chance of contracting Ebola and other sicknesses from the vaccine, and others believed both the vaccine and the placebo control would be able to prevent other illnesses than EVD. While these beliefs might be understood as misconceptions about the vaccine trial, this paper shows that such a conclusion is problematic because it excludes local explanatory health models and logics of causality. The paper invites bioethicists to work with anthropologists to take seriously different models of health knowledge in global health research. Investigating and addressing such differences could be the key to understanding human subjects' motives for participation, and to creating space for studies of empirical ethics.

Globalization and Health
http://www.globalizationandhealth.com/
[Accessed 4 Jan 2020]
Impacts of intellectual property provisions in trade treaties on access to medicine in low and middle income countries: a systematic review

Authors: Md. Deen Islam, Warren A. Kaplan, Danielle Trachtenberg, Rachel Thrasher, Kevin P. Gallagher and Veronika J. Wirtz

Citation: Globalization and Health 2019 15:88

Abstract

Background
We present a systematic review describing ex-ante and ex-post evaluations of the impacts of intellectual property provisions in trade treaties on access to medicine in low and middle income countries. These evaluations focused on multilateral and bilateral trade agreements. We ascertained which IP provisions impacting access to medicines were the focus of these evaluations. We provide a further research agenda related to investigating the effect of trade agreement’s intellectual property provisions on access to medicines...

Conclusion
Both ex ante and ex post methods have advantages and limitations and, on balance, both types report, for the most part, an increase in price and a decrease in consumer welfare with imposition of intellectual property protection in trade agreements. The main differences between these studies are in the magnitude of the changes. There is a gap in our empirical understanding of the mechanisms through which such changes affect access to medicines and which outcomes relevant to access are most affected by which type of changes in intellectual property policy and law.

Health Affairs
Vol. 38, No. 12  December 2019
https://www.healthaffairs.org/toc/hlthaff/current

Rural Health
[Reviewed earlier]

Health and Human Rights
Volume 21, Issue 2, December 2019

Special Section: Abortion in the Middle East and North Africa
Special Section: Abortion Law Reform
Special Section: Human Rights for Health across the United Nations
[Reviewed earlier]

Health Economics, Policy and Law
Volume 15 - Issue 1 - January 2020
https://www.cambridge.org/core/journals/health-economics-policy-and-law/latest-issue
[Reviewed earlier]
Humanitarian Exchange Magazine
Number 75, May 2019
https://odihpn.org/magazine/making-humanitarian-action-work-for-women-and-girls/

Special Feature: Making humanitarian action work for women and girls
by HPN May 2019
The theme of this edition of Humanitarian Exchange, co-edited with Women Deliver, is making humanitarian action work for women and girls. Despite gains, including commitments made at the World Humanitarian Summit, there is still much to be done to address the gendered impacts of humanitarian crises and improve gender-sensitive humanitarian action.

In the lead article, Jacqueline Paul advocates for feminist humanitarian action based on evidence that improvements in women’s socio-economic status can reduce excess mortality among women after shocks. Jean Kemitare, Juliet Were and Jennate Eoomkham look at the role of local women’s rights organisations in preventing and responding to violence against women and girls, and Marcy Hersh and Diana Abou Abbas highlight opportunities for more concrete action on sexual and reproductive health in emergencies.

Citing experience from Vanuatu, Jane Newnham explains how women will choose to use contraceptives even during a humanitarian response, when services and counselling are delivered in an appropriate and responsive way. Drawing on experience in Bangladesh, Tamara Fetters and colleagues challenge the belief that abortion is a non-essential service, or too complicated for humanitarian actors to provide. Darcy Ataman, Shannon Johnson, Justin Cikuru and Jaime Cundy reflect on an innovative programme using music therapy to help survivors of trauma.

Emilie Rees Smith, Emma Symonds and Lauryn Oates highlight lessons from the STAGE education programme in Afghanistan, and Degan Ali and Deqa Saleh outline how African
Development Solutions is helping women and girls take on leadership and decision-making roles in Somalia. Fiona Samuels and Taveeshi Gupta explore patterns of suicide among young people in Vietnam, with a particular focus on girls, and Subhashni Raj, Brigitte Laboukly and Shantony Moli illustrate the importance of a gendered approach to community-based disaster risk reduction in the South-West Pacific. Nicola Jones, Workneh Yadete and Kate Pincock draw on research in Ethiopia to explore the gender- and age-specific vulnerabilities of adolescents. The edition ends with an article by Julie Rialet-Cislaghi on how humanitarian responses can better address child marriage.

[Reviewed earlier]

**Human Vaccines & Immunotherapeutics** (formerly Human Vaccines)
Volume 15, Issue 12, 2019
http://www.tandfonline.com/toc/khvi20/current
[Reviewed earlier]

**Infectious Agents and Cancer**
http://www.infectagentscancer.com/content
[Accessed 4 Jan 2020]
[No new digest content identified]

**Infectious Diseases of Poverty**
http://www.idpjournal.com/content
[Accessed 4 Jan 2020]
[No new digest content identified]

**International Health**
Volume 11, Issue Supplement_1, November 2019
https://academic.oup.com/inthealth/issue/11/6
[Reviewed earlier]

**International Journal of Community Medicine and Public Health**
Vol 7, No 1 (2020) January 2020
https://www.ijcmph.com/index.php/ijcmph/issue/view/58

*Original Research Articles*

**Assessment of vaccine management in cold chain points of Jashpur and Sarguja districts of Chhattisgarh**
Nitin H. Kamble, Daneshwar Singh, Harshal G. Mendhe, Kiran Makade

**Barriers for measles rubella vaccination campaign in rural area of Jammu: a qualitative study**
Sonika Sangra, Neha Choudhary, Wahida Kouser
Integrating a One Health approach into epidemiology to improve public policy
Laura H Kahn
Int J Epidemiol, Volume 48, Issue 6, December 2019, Pages 1737–1739,
https://doi.org/10.1093/ije/dyz178
Journal of Development Economics
Volume 142, January 2020
Special Issue on papers from "10th AFD-World Bank Development Conference held at CERDI, Clermont-Ferrand, on June 30 - July 1, 2017"
Edited by Caglar Ozden, David McKenzie, Hillel Rapoport
[New issue; No digest content identified]

Journal of Empirical Research on Human Research Ethics
Volume 14 Issue 5, December 2019
http://journals.sagepub.com/toc/jre/current
Special Issue: Empirical Studies in Empirical Ethics
[Reviewed earlier]

Journal of Epidemiology & Community Health
December 2019 - Volume 73 - 12
https://jech.bmj.com/content/73/12
[Reviewed earlier]

Journal of Evidence-Based Medicine
Volume 12, Issue 4 Pages: 233-336 November 2019
https://onlinelibrary.wiley.com/toc/17565391/current
[Reviewed earlier]

Journal of Global Ethics
Volume 15, Issue 3, 2019
http://www.tandfonline.com/toc/rjge20/current
Special Issue: Global Justice and Childhood
[Reviewed earlier]

Journal of Health Care for the Poor and Underserved (JHCPU)
Volume 30, Number 4, November 2019, Supplement
https://muse.jhu.edu/issue/41320
[Reviewed earlier]

Journal of Immigrant and Minority Health
Volume 21, Issue 6, December 2019
https://link.springer.com/journal/10903/21/6
Journal of Immigrant & Refugee Studies
Volume 18, 2020, Issue 1
https://www.tandfonline.com/toc/wimm20/current
[Reviewed earlier]

Journal of Infectious Diseases
Volume 220, Issue 6, 15 September 2019
https://academic.oup.com/jid/issue/220/6
[Reviewed earlier]

Journal of Medical Ethics
December 2019 - Volume 45 - 12
http://jme.bmj.com/content/current
[Reviewed earlier]

Journal of Patient-Centered Research and Reviews
Volume 6, Issue 4 (2019)
https://digitalrepository.aurorahealthcare.org/jpcrr/
[Reviewed earlier]

Journal of Pediatrics
December 2019 Volume 215, p1-292
http://www.jpeds.com/current
[Reviewed earlier]

Journal of Pharmaceutical Policy and Practice
https://joppp.biomedcentral.com/
[Accessed 4 Jan 2020]
[No new digest content identified]

Journal of Public Health Management & Practice
January/February 2020 - Volume 26 - Issue 1
https://journals.lww.com/jphmp/pages/currenttoc.aspx
[New issue; No digest content identified]

Journal of Public Health Policy
Volume 40, Issue 4, December 2019
https://link.springer.com/journal/41271/40/4
Dengue pre-vaccination serology screening for the use of Dengvaxia®
Elizabeth Hunsperger, PhD, Rosanna Peeling, PhD, Duane J Gubler, DSc, Eng Eong Ooi, BMBS, PhD
Can pre-vaccination screening for prior dengue infection using commercially available rapid diagnostic tests guide Dengvaxia administration?

Extract
Dengue is a global problem with an estimated 100 million symptomatic cases worldwide every year.1 Endemic throughout the tropics, this disease is expanding into the sub-tropics in the geographic footprint of its mosquito vectors, principally Aedes aegypti. This acute disease that presents with syndromes ranging from undifferentiated febrile illness to circulatory shock from vasculopathy, hemorrhage and organ dysfunction is caused by four closely related but antigenically distinct dengue viruses (DENV1–4). Epidemiological observations have found that certain strains of DENV are associated with increased epidemic potential and severe disease2 Moreover, elevated risk...

Cholera in travellers: a systematic review
Bradley A Connor, MD, Richard Dawood, MD, Mark S Riddle, MD, Davidson H Hamer, MD

Journal of Virology
December 2019; Volume 93, Issue 24
http://jvi.asm.org/content/current

The Lancet
Volume 395, ISSUE 10217, P1, January 04, 2020
**Editorial**

*2020: a critical year for women, gender equity, and health*

The Lancet

**Comment**

*Surviving or thriving in the Eastern Mediterranean region: the quest for universal health coverage during conflict*

Awad Mataria, Rana Hajjeh, Ahmed Al-Mandhari

**The Lancet Child & Adolescent Health**

Volume 4, ISSUE 1, P1, January 01, 2020

https://www.thelancet.com/journals/lanchi/issue/current

[New issue; No digest content identified]

**Lancet Digital Health**

Volume 2, ISSUE 1, Pe1, January 01, 2020

https://www.thelancet.com/journals/landig/issue/current

[New issue; No digest content identified]

**Lancet Global Health**

Volume 8, ISSUE 1, Pe1, January 01, 2020

http://www.thelancet.com/journals/langlo/issue/current

**Comment**

*Advancing research ethics systems in Latin America and the Caribbean: a path for other LMICs?*

Marcie Neil, Carla Saenz

**World RePORT: a database for mapping biomedical research funding**

Taghreed Adam, Hannah Akuffo, James G Carter, Zach Charat, Michael J Cheetham, Aldo Crisafulli, Cindy M Danielson, Jennifer Gunning, Brian Haugen, Dominika Jajkowicz, Simon Kay, Peter H Kilmarx, Julia Móto López, Ole F Olesen, Inmaculada Peñas-Jiménez, Kedest Tesfagiorgis, Stacy K Wallick, Roger I Glass

**Articles**

*A comprehensive assessment of universal health coverage in 111 countries: a retrospective observational study*

Adam Wagstaff, Sven Neelsen

*Implementation of non-communicable disease policies: a geopolitical analysis of 151 countries*


*Estimates of the global population of children who are HIV-exposed and uninfected, 2000–18: a modelling study*
Lancet Infectious Diseases
Volume 20, ISSUE 1, P1, January 01, 2020
http://www.thelancet.com/journals/laninf/issue/current

Editorial

Dare we dream of the end of malaria?
The Lancet Infectious Diseases

Alternative hepatitis B vaccine strategies in healthy non-responders to a first standard vaccination scheme
Paul Loubet, Odile Launay

Viral emergence and immune interplay in flavivirus vaccines
Carlo Fischer, Edmilson F de Oliveira-Filho, Jan Felix Drexler

Preparedness for emerging epidemic threats: a Lancet Infectious Diseases Commission
Vernon J Lee, Ximena Aguilera, David Heymann, Annelies Wilder-Smith for The Lancet Infectious Diseases Commission
At any time, an emerging, lethal, and highly transmissible pathogen might pose a risk of being spread globally because of the interconnectedness of the global population. 1, 2 Emerging epidemic threats are occurring with increasing scale, duration, and effect, often disrupting travel and trade, and damaging both national and regional economies. 3, 4 Even geographically limited outbreaks such as the Ebola virus disease in Africa might have a global effect.

Articles

Immunogenicity of chimeric haemagglutinin-based, universal influenza virus vaccine candidates: interim results of a randomised, placebo-controlled, phase 1 clinical trial
David I Bernstein, et al.

Personal View

The public health crisis of underimmunisation: a global plan of action

Summary
Vaccination is one of public health's greatest achievements, responsible for saving billions of lives. Yet, 20% of children worldwide are not fully protected, leading to 1·5 million child deaths annually from vaccine-preventable diseases. Millions more people have severe disabling illnesses, cancers, and disabilities stemming from underimmunisation. Reasons for falling vaccination rates globally include low public trust in vaccines, constraints on affordability or access, and insufficient governmental vaccine investments. Consequently, an emerging crisis in vaccine hesitancy ranges from hyperlocal to national and worldwide. Outbreaks often originate in small, insular communities with low immunisation rates. Local outbreaks can spread rapidly,
however, transcending borders. Following an assessment of underlying determinants of low vaccination rates, we offer an action based on scientific evidence, ethics, and human rights that spans multiple governments, organisations, disciplines, and sectors.

**WHO international standard for anti-rubella: learning from its application**
Sarah L Kempster, et al.

**Lancet Respiratory Medicine**
Volume 8, ISSUE 1, P1, January 01, 2020
http://www.thelancet.com/journals/lanres/issue/current
[New issue, No digest content identified]

**Maternal and Child Health Journal**
Volume 23, Issue 12, December 2019
https://link.springer.com/journal/10995/23/12
[Reviewed earlier]

**Medical Decision Making (MDM)**
Volume 39 Issue 8, November 2019
http://mdm.sagepub.com/content/current
[Reviewed earlier]

**The Milbank Quarterly**
*A Multidisciplinary Journal of Population Health and Health Policy*
Volume 97, Issue 4 Pages: 881-1242 December 2019
https://onlinelibrary.wiley.com/toc/14680009/current
[Reviewed earlier]

**Nature**
Volume 577 Issue 7788, 2 January 2020
http://www.nature.com/nature/current_issue.html
*Editorial* | 01 January 2020
**Get the Sustainable Development Goals back on track**
At the current rate, most of the goals will not be met. Here’s how the 2030 agenda can be put back on the right path.

*Article* | 01 January 2020 | Open Access
**Prevention of tuberculosis in macaques after intravenous BCG immunization**
The delivery route and dose of the BCG vaccine profoundly alters the protective outcome after *Mycobacterium tuberculosis* challenge in non-human primates.
Patricia A. Darrah, Joseph J. Zeppa[...] & Robert A. Seder
**Nature Biotechnology**
Volume 37 Issue 12, December 2019  
https://www.nature.com/nbt/volumes/37/issues/12  
[Reviewed earlier]

**Nature Genetics**
Volume 51 Issue 12, December 2019  
https://www.nature.com/ng/volumes/51/issues/12  
*Mapping the regulatory wiring of the genome*  
[Reviewed earlier]

**Nature Medicine**
Volume 25 Issue 12, December 2019  
https://www.nature.com/nm/volumes/25/issues/12  
[Reviewed earlier]

**Nature Reviews Genetics**
Volume 21 Issue 1, January 2020  
https://www.nature.com/nrg/volumes/21/issues/1  
[New issue, No digest content identified]

**Nature Reviews Immunology**
Volume 20 Issue 1, January 2020  
https://www.nature.com/nri/volumes/20/issues/1  
[New issue, No digest content identified]

**New England Journal of Medicine**  
January 2, 2020 Vol. 382 No. 1  
http://www.nejm.org/toc/nejm/medical-journal  
[New issue, No digest content identified]

**Pediatrics**
December 01, 2019; Volume 144, Issue 6  
https://pediatrics.aappublications.org/content/144/6?current-issue=y  
[Reviewed earlier]

**Pharmaceutics**
Volume 11, Issue 12 (December 2019)  
[New issue, No digest content identified]
We have arrived at a moment in the global HIV response where implementation research is ready to take center stage. Treatment has been scaled-up globally over the past ten years and, as a result, HIV-related mortality and incidence have fallen by more than 50% since a peak in the early 2000s [1]. Despite progress, however, antiretroviral therapy (ART) must still reach perhaps another 15 million persons living with HIV in the coming years. Progress in prevention also remains well below targets. The formula needed for success—past, present and future—consists of three main factors: first, the efficacy of available interventions to treat and prevent HIV; second, adequacy of financing; and third, the effectiveness, efficiency and quality of implementation. As to the first factor, well-tolerated, potent and affordable medications for HIV treatment and prevention already exist: tomorrow’s novel products will likely offer only incremental benefits, and do so through affecting barriers to implementation (e.g., injectable cabotegravir). Regarding the second, donor funding for the global HIV response has leveled out over the past decade and domestic allocations in low- and middle-income countries have not reached needed levels: a large surge in funding is unlikely [2]. Perhaps more than ever before, success in the global HIV response depends on the third factor in the equation: the effectiveness, efficiency, and quality of implementation.
Asylum seekers’ perspectives on vaccination and screening policies after their arrival in Greece and The Netherlands
Christina Louka, Elizabeth Chandler, Adelita V. Ranchor, Hans Broer, Spyros Pournaras, Sofanne J. Ravensbergen, Ymkje Stienstra
Research Article | published 26 Dec 2019 PLOS ONE
https://doi.org/10.1371/journal.pone.0226948

Abstract
Introduction
Europe has been dealing with an increasing number of refugees during the past 5 years. The timing of screening and vaccination of refugees is debated by many professionals, however refugees’ perspectives on health issues are infrequently taken into account. In this study, we aimed to investigate asylum seekers’ perspectives on infectious diseases screening and vaccination policies.

Materials and methods
Interviews were conducted in Greece and the Netherlands. Asylum seekers and recently arrived refugees were approached and informed with the help of interpreters; consent forms were acquired. The survey focused on demographic data, vaccination status, screening policies and prevention of infectious diseases.

Results
A total of 61 (43 male, 70.5%) refugees (30 Afghanis, 16 Syrian, 7 Erithrean) were interviewed. Mean age was 35.2 years (SD 13.5) and 50% had received primary or secondary education, while 24.6% received none. Median time after arrival in Greece and the Netherlands was 24 months (IQR 8.5–28). 44 out of 61 (72.1) participants were willing to be vaccinated after arrival in Europe, 26 preferred vaccination and screening to be performed at the point of entry. The need for screening and vaccination was perceived higher amongst participants in Greece (100% vs 43.3%) due to living conditions leading to increased risk of outbreaks.

Conclusion
Participants were willing to communicate their perspectives and concerns. Screening and vaccination programs could be more effective when implemented shortly after arrival and by involving asylum seekers and refugees when developing screening and vaccination interventions.

PLoS Pathogens
http://journals.plos.org/plospathogens/
[Accessed 4 Jan 2020]
[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 4 Jan 2020]
[No new digest content identified]
Prehospital & Disaster Medicine  
Volume 34 - Issue 6 - December 2019  
https://www.cambridge.org/core/journals/prehospital-and-disaster-medicine/latest-issue  
[Reviewed earlier]

Preventive Medicine  
Volume 130  January 2020  
Research article  Full text access  
Cost-effectiveness of a comprehensive immunization program serving high-risk, uninsured adults  
Kimberly J. Wilson, H. Shelton Brown, Ujas Patel, Debbie Tucker, Kurt Becker  
Article 105860

Research article  Full text access  
Exacerbating disparities?: Cervical cancer screening and HPV vaccination  
Michelle I. Silver, Sarah Kobrin  
Article 105902

Proceedings of the Royal Society B  
18 December 2019  Volume 286 Issue 1917  
https://royalsocietypublishing.org/toc/rspb/current  
Editorial  
Gene drive: progress and prospects  
N. Wedell, T. A. R. Price and A. K. Lindholm  
Published:18 December 2019Article ID:20192709  
https://doi.org/10.1098/rspb.2019.2709  
Abstract  
Gene drive is a naturally occurring phenomenon in which selfish genetic elements manipulate gametogenesis and reproduction to increase their own transmission to the next generation. Currently, there is great excitement about the potential of harnessing such systems to control major pest and vector populations. If synthetic gene drive systems can be constructed and applied to key species, they may be able to rapidly spread either modifying or eliminating the targeted populations. This approach has been lauded as a revolutionary and efficient mechanism to control insect-borne diseases and crop pests. Driving endosymbionts have already been deployed to combat the transmission of dengue and Zika virus in mosquitoes. However, there are a variety of barriers to successfully implementing gene drive techniques in wild populations. There is a risk that targeted organisms will rapidly evolve an ability to suppress the synthetic drive system, rendering it ineffective. There are also potential risks of synthetic gene drivers invading non-target species or populations. This Special Feature covers the current state of affairs regarding both natural and synthetic gene drive systems with the aim to identify knowledge gaps. By understanding how natural drive systems spread through populations, we may be able to better predict the outcomes of synthetic drive release.

Public Health
Research Articles

Tool for the Meaningful Consideration of Language Barriers in Qualitative Health Research
Stephanie Premji, Agnieszka Kosny, Basak Yanar, Momtaz Begum
First Published July 5, 2019; pp. 167–181

Abstract
Individuals who experience language barriers are largely excluded as participants from health research, resulting in gaps in knowledge that have implications for the development of equitable policies, tools, and strategies. Drawing on the existing literature and on their collective experience conducting occupational health research in contexts of language barriers, the authors propose a tool to assist qualitative researchers and representatives from funding agencies and ethics review boards with the meaningful consideration of language barriers in research. There remain gaps and debates with respect to the relevant ethical and methodological guidance set forth by funding agencies and institutions and proposed in the scientific literature. This article adds to knowledge in this area by contributing our experiences, observations, and recommendations, including around the issue of conducting research in contexts of more or less linguistic diversity.
In Depth

Study pushes emergence of measles back to antiquity

By Kai Kupferschmidt

Science03 Jan 2020 : 11-12 Restricted Access

The virus may have entered the human population when cities grew large enough to sustain outbreaks.

Summary

Measles, which killed an estimated 142,000 people in 2017, is one of the most infectious human diseases. But when, where, and how it became a human pathogen is still debated. A new study concludes that the measles virus may have entered the human population as early as the fourth century B.C.E., right around the time cities became big enough to sustain it, rather than in the 11th or 12th century C.E., as previous research suggested. The new estimate is based in part on a technical tour de force: the reconstruction of a measles virus from a lung sample of a 2-year-old girl who died in Berlin in 1912.
Systematic Reviews
https://systematicreviewsjournal.biomedcentral.com/articles
[Accessed 4 Jan 2020]
[No new digest content identified]

Travel Medicine and Infectious Diseases
Volume 32  November–December 2019
[Reviewed earlier]

Tropical Medicine & International Health
Volume 24, Issue 12  Pages: i-iv, 1341-1475  December 2019
https://onlinelibrary.wiley.com/toc/13653156/current
[Reviewed earlier]

Vaccine
Volume 38, Issue 2  Pages 101-410 (10 January 2020)
https://www.sciencedirect.com/journal/vaccine/vol/38/issue/2
Review article  Abstract only
Immunogenicity and safety of human papillomavirus vaccine coadministered with other vaccines in individuals aged 9–25 years: A systematic review and meta-analysis
Yaowei Li, Pengfei Zhu, Meifen Wu, Yiqing Zhang, Li Li
Pages 119-134

Review article  Abstract only
Cost-effectiveness of the introduction of two-dose bi-valent (Cervarix) and quadrivalent (Gardasil) HPV vaccination for adolescent girls in Bangladesh
Rashidul Alam Mahumud, Jeff Gow, Khorsheed Alam, Syed Afroz Keramat, ... Sheikh M. Shariful Islam
Pages 165-172

Review article  Abstract only
Engineering immunity for next generation HIV vaccines: The intersection of bioengineering and immunology
M. Patricia D'Souza, Shyam Rele, Barton F. Haynes, Dale J. Hu, ... David Rampulla
Pages 187-193

Research article  Open access
Seasonal influenza vaccination in middle-income countries: Assessment of immunization practices in Belarus, Morocco, and Thailand
Carsten Mantel, Susan Y. Chu, Terri B. Hyde, Philipp Lambach, IPIE Pilot Implementation Group
Pages 212-219

Review article  Abstract only
Program cost analysis of influenza vaccination of health care workers in Albania
Sarah Wood Pallas, Albana Ahmeti, Winthrop Morgan, Iria Preza, ... Silvia Bino
Pages 220-227

Review article  Abstract only
Mass media coverage and influenza vaccine uptake
Weiwei Chen, Charles Stoecker
Pages 271-277

Review article  Abstract only
Midwives' knowledge, attitudes and confidence in discussing maternal and childhood immunisation with parents: A national study
Jane E. Frawley, Kirsty McKenzie, Lynn Sinclair, Allison Cummins, ... Helen Hall
Pages 366-371

Vaccines — Open Access Journal
http://www.mdpi.com/journal/vaccines
(Accessed 4 Jan 2020)
Open Access  Review
Safety of Co-Administration Versus Separate Administration of the Same Vaccines in Children: A Systematic Literature Review
by Jorgen Bauwens, Luis-Henri Saenz, Annina Reusser, Nino Künzli and Jan Bonhoeffer
Vaccines 2020, 8(1), 12; https://doi.org/10.3390/vaccines8010012 - 31 Dec 2019
Abstract
The growing number of available vaccines that can be potentially co-administered makes the assessment of the safety of vaccine co-administration increasingly relevant but complex. We aimed to synthesize the available scientific evidence on the safety of vaccine co-administrations in children by performing a systematic literature review of studies assessing the safety of vaccine co-administrations in children between 1999 and 2019, in line with Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Fifty studies compared co-administered vaccines versus the same vaccines administered separately. The most frequently studied vaccines included quadrivalent meningococcal conjugate (MenACWY) vaccine, diphtheria and tetanus toxoids and acellular pertussis (DTaP) or tetanus toxoid, reduced diphtheria toxoid and acellular pertussis (Tdap) vaccines, diphtheria and tetanus toxoids and acellular pertussis adsorbed, hepatitis B, inactivated poliovirus and Haemophilus influenzae type b conjugate (DTaP-HepB-IPV/Hib) vaccine, measles, mumps, and rubella (MMR) vaccine, and pneumococcal conjugate 7-valent (PCV7) or 13-valent (PCV13) vaccines. Of this, 16% (n = 8) of the studies reported significantly more adverse events following immunization (AEFI) while in 10% (n = 5) significantly fewer adverse events were found in the co-administration groups. Statistically significant differences between co-administration and separate administration were found for 16 adverse events, for 11 different vaccine co-
administrations. In general, studies briefly described safety and one-third of studies lacked any statistical assessment of AEFI. Overall, the evidence on the safety of vaccine co-administrations compared to separate vaccine administrations is inconclusive and there is a paucity of large post-licensure studies addressing this issue.

Open Access Article

Knowledge, Attitudes, and Behaviors (KAB) of Influenza Vaccination in China: A Cross-Sectional Study in 2017/2018

by Xiang Ren, Elizabeth Geoffroy, Keqing Tian, Liping Wang, Luzhao Feng, Jun Feng, Ying Qin, Peng Wu, Shaosen Zhang, Mengjie Geng, Lingjia Zeng, Jianxing Yu, Benjamin J. Cowling and Zhongjie Li

Vaccines 2020, 8(1), 7; https://doi.org/10.3390/vaccines8010007 - 26 Dec 2019

Abstract

Background: This study aimed to estimate influenza-like illness (ILI) prevalence, influenza-related healthcare seeking behaviors, and willingness for vaccination. Methods: A retrospective cross-sectional study based on a random dialing telephone survey was conducted from October 2017 through March 2018 to assess influenza-like illness prevalence and vaccination willingness among different demographic groups. Results: 10,045 individuals were enrolled and completed the survey. A total of 2834 individuals (28%) self-reported that they have suffered from influenza-like illness, especially children under 15 years of age. Overall willingness for influenza vaccination in the 2018/2019 influenza season was 45% and was positively associated with higher education level, recommendation from doctors, cost-free vaccination, and vaccination campaigns with employers’ support. Hospitalization and seeking medicine from pharmacies was less frequent in urban locations. People under 15 and over 60 years of age sought medical service more frequently. Conclusions: ILI prevalence differed significantly by age and geographical location/population density. Vaccination policy for motivating key populations at highest risk to vaccinate should take into consideration the awareness-raising of vaccination benefits, barriers reduction of vaccination such as cost, and recommendation via healthcare professionals.

Value in Health

December 2019 Volume 22, Issue 12, p1345-1470
https://www.valueinhealthjournal.com/issue/S1098-3015(19)X0012-1
[Reviewed earlier]

Viruses

Volume 11, Issue 12 (December 2019)
https://www.mdpi.com/1999-4915/11/12
[Reviewed earlier]

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From Google Scholar & other sources: Selected Journal Articles, Newsletters, Dissertations, Theses, Commentary
No new digest content identified.

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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 4 Jan 2020*
[No new, unique, relevant content]

**BBC**

http://www.bbc.co.uk/
*Accessed 4 Jan 2020*
[No new, unique, relevant content]

**The Economist**

http://www.economist.com/
*Accessed 4 Jan 2020*
[No new, unique, relevant content]

**Financial Times**

http://www.ft.com/home/uk
[No new, unique, relevant content]

**Forbes**

http://www.forbes.com/
*Accessed 4 Jan 2020*
[No new, unique, relevant content]

**Foreign Affairs**

http://www.foreignaffairs.com/
*Accessed 4 Jan 2020*
Samoa Lifts State of Emergency After Deadly Measles Epidemic

The Pacific island nation will reopen schools after a measles outbreak killed 81 people, many of them children.

Dec. 29, 2019

SYDNEY, Australia — Samoa announced on Saturday that it would reopen schools and end restrictions on public gatherings as it lifted a six-week state of emergency in the aftermath of a measles epidemic that left scores of children and babies dead.

Since September, more than 5,600 measles cases have been recorded in the Pacific island nation of about 200,000 people, the Health Ministry said in a statement on Sunday. At least 81 people have died, many of them younger than 5...

Washington Post

https://www.washingtonpost.com/

Accessed 4 Jan 2020

[No new, unique, relevant content]
Vaccines and Global Health: The Week in Review is a service of the Center for Vaccine Ethics and Policy (CVEP)/GE2P2 Global, which is solely responsible for its content, and is an open access publication, subject to the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by-nc/3.0/). Copyright is retained by CVEP.

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. The Foundation serves 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; PATH, and industry resource members Janssen/J&J, Pfizer, Sanofi Pasteur U.S., Takeda, Moderna Therapeutics (list in formation).

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.