Outline
1. Ebola
2. Polio
3. Measles
4. Sexually transmitted disease
5. Cholera
6. Influenza
7. Zika
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9. Antimicrobial resistance
10. Chronic Wasting Disease (CWD)
11. Resilient medical supply systems
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Figure 1: Confirmed and probable Ebola virus disease cases by week of illness onset, as of 6 October 2019

*Data in recent weeks are subject to delays in case confirmation and reporting, as well as ongoing data cleaning.*
Figure 2: Geographical distribution of confirmed and probable Ebola virus disease cases by health area, North Kivu and Ituri provinces, Democratic Republic of the Congo, 6 October 2019.
Girl dies from Ebola in Uganda; 14 more infected in DRC

A 9-year-old girl from the Democratic Republic of the Congo (DRC) whose illness was confirmed yesterday as Uganda's latest imported Ebola case has died from her infection, and officials reported another double-digit case rise in the DRC, where another hot spot is emerging.

The developments come just a day after outbreak totals topped 3,000 cases and 2,000 deaths, which made headlines and prompted statements from global health groups, including the World Health Organization (WHO).

In a statement yesterday, the WHO called for the full force of all its partners to respond and increase their role in the field to stop the outbreak, which it calls one of the largest and most complex humanitarian crises in the world.
Azar, Redfield among US officials heading to DRC to assess Ebola

Filed Under: Ebola, VHF
Stephanie Southeray | News Reporter | CIDRAP News | Sep 10, 2019

Today Health and Human Services (HHS) Secretary Alex Azar announced that he and a number of other top US health officials will be traveling to the Democratic Republic of the Congo (DRC) and neighboring countries in the coming days to gauge the Ebola outbreak in the region, the world’s second largest in history.

Azar will lead a delegation that includes Anthony Fauci, MD, director of the National Institute of Allergy and Infectious Diseases, and Robert Redfield, MD, director of the Centers for Disease Control and Prevention (CDC). Redfield has traveled previously to the outbreak region, but this will be the first trip for Azar.
WHO pushes Tanzania on suspected Ebola cases; DRC OKs use of 2nd vaccine

In an unusual statement surrounding a suspected Ebola death in Tanzania, the World Health Organization (WHO) on Sep 21 raised concerns about undiagnosed febrile illnesses in that country, which it said has withheld information about suspicious Ebola-like illness cases in violation of international health regulations.

In other key developments, the WHO today said the Democratic Republic of the Congo (DRC) has cleared the way for the use of a second experimental vaccine in the outbreak region, and Doctors Without Borders (MSF) called for an independent commission to manage vaccine stocks, saying more speedy and widespread use of the highly effective VSV-EBOV vaccine is needed to help cut the mortality rate.
WHO: Multiple DRC Ebola hot spots 'grave concern'

In the past week, officials in the Democratic Republic of the Congo (DRC) confirmed 48 new cases and 25 new deaths in an ongoing Ebola outbreak in three of the DRC's eastern provinces.

According to the World Health Organization's (WHO's) African regional office's weekly update on the 13-month-long outbreak, the principle virus hot spots in September have been Mambasa (25% of new cases), Mandima (19%), Kalunguta (18%), and Beni (11%).

"Eight health zones, namely Mambasa, Komanda, Mandima, Beni, Katwa, Kayna, Kalunguta and Biena have reported new confirmed cases in the past seven days and remain points of attention," the WHO said. "The persistence of hot spots and the shift in transmission intensity between the main hotspots remains of grave concern, as does continued sporadic transmission in other health areas."
Researchers who last year assessed the infection prevention and control (IPC) capacities at four Ugandan hospitals, which border the Ebola outbreak region in the Democratic Republic of the Congo (DRC), today detailed the gaps they identified and ways Ugandan authorities responded to better prepare for when cases ultimately appeared in the country this summer.

The IPC recommendations made to these hospitals came from lessons learned during the West African Ebola outbreak in 2014 through 2016, the experts said in their *Morbidity and Mortality Weekly Report* (MMWR) assessment. Though Ebola treatment centers (ETCs) should be the first point of care for suspected patients, often general health clinics fulfill that role during an outbreak.
WHO notes Ebola shift to rural areas, posing new challenges

In its latest snapshot of the Democratic Republic of the Congo (DRC) Ebola outbreak, the World Health Organization (WHO) said there's a clear shift away from densely populated urban areas toward sparsely populated rural areas.

And in other developments, Tanzanian health officials again denied covering up Ebola cases, Hong Kong health officials have isolated a patient with a suspected Ebola infection while testing is under way, and global officials marked the 1,000th survivor of the outbreak.

Further case decline
Over the past week, 20 new cases were reported, down from 29 the week before, the WHO said. It added, however, that the continuing drop in cases should be interpreted cautiously, given that security and response challenges in some health zones is making it difficult to detect cases.
Response resumes following security problems in DRC Ebola hot spot

Response activities that stalled for more than 2 weeks in one of the Democratic Republic of the Congo's (DRC’s) Ebola hot spots due to security issues has resumed on a limited basis, the World Health Organization (WHO) said yesterday in its latest situation report on the outbreak.

The WHO said though the decline in cases is encouraging and gains have been made in the response, several challenges remain and that the current trends should be interpreted with caution.

Tomorrow the WHO's Ebola emergency committee will meet again for the fifth time to assess the current situation, and if conditions warrant continuation of a public health emergency of international concern (PHEIC). Health officials said they would announce the results of their deliberations at a media briefing afterwards.
Mike Ryan, MD, the World Health Organization (WHO) executive director of health emergencies, said today that the Ebola virus in the Democratic Republic of the Congo (DRC) has been "squeezed into a small geographical area"—a triangle between Mambasa, Beni, Mandima, and Komanda.

"The virus is now back to where it began in Mandima, the same rural zones where it transmitted at low intensity for several months before last August," Ryan said in a press conference.

It is in this shared space between North Kivu and Ituri provinces where the virus will see its final days, Ryan said, as transmission has slowed to a trickle.

Ryan offered several signs that the tide has turned on the DRC's 14-month-long Ebola outbreak, the second largest in history:
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11. Resilient medical supply systems
More wild-type, vaccine-derived polio recorded in 5 countries

Two new cases of wild poliovirus in Afghanistan and several cases of vaccine-derived polio in a handful of other countries were noted today in the Global Polio Eradication Initiative's (GPEI's) weekly update. Myanmar, Angola, the Democratic Republic of the Congo (DRC), and Ethiopia all recorded vaccine-derived cases.

In Afghanistan, the wild poliovirus type 1 (WPV1) cases were recorded in Trinket and Chora districts in Uruzgan province. These cases raise Afghanistan’s year-to-date total to 15 cases. The country recorded 21 WPV1 cases in all of 2018.

Myanmar and Ethiopia each reported a single case of vaccine-derived polio, raising their season totals to 2 and 4 cases, respectively. In the DRC, officials tracked 6 new cases of circulating vaccine-derived poliovirus type 2 (cVDPV2). DRC officials have confirmed 29 cVDPV2 cases in 2019 so far, 9 more cases than 2018’s total.
Polio this week as of 09 October 2019

Wild poliovirus type 1 and Circulating vaccine-derived poliovirus cases

<table>
<thead>
<tr>
<th>Total cases</th>
<th>Year-to-date 2019</th>
<th>Year-to-date 2018</th>
<th>Total in 2018</th>
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<tr>
<td></td>
<td>WPV</td>
<td>cVDPV</td>
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<tr>
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<td>95</td>
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<tr>
<td>—In Endemic Countries</td>
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## Case breakdown by country

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<th>Total in 2018</th>
<th>Onset of paralysis of most recent case</th>
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Philippines Declares Polio Outbreak After 19 Years Free of the Disease

By Jason Gutierrez

Sept. 19, 2019

MANILA — The Philippines on Thursday announced an outbreak of polio, 19 years after the World Health Organization declared the Southeast Asian country free of the infectious disease.

Health Secretary Francisco Duque said government scientists have confirmed the “re-emergence of polio” after one case in the southern province of Lanao del Sur and another suspected case of the disease. He blamed “poor immunization coverage,” a lack of sanitation and proper hygiene and poor surveillance by health workers as among the reasons the disease returned.

Polio is an infectious disease that can spread rapidly and mainly affects young children. It can cause muscle weakness, paralysis and, on rare occasions, it can be fatal. There is no cure for polio, but it can be prevented with multiple doses of polio vaccines.
Philippines reports 2nd polio case; more cases confirmed in Africa

Health officials in the Philippines confirmed a second polio case today, a day after declaring an outbreak based on reports of an illness involving circulating vaccine-derived poliovirus type 2 (cVDPV2) in Lanao del Sur province and environmental detections in Manila and Davao region. The polio cases are the country's first in nearly two decades.

The second case involves a 5-year-old boy from Laguna province, which is south of Manila, the Associated Press (AP) reported today, based on statements from the Philippines health secretary.

In a statement today, the Philippines Department of Health said it signed a memorandum of understanding with Rotary International to heighten polio awareness and initiate a vaccine campaign because of the cases. It added that a 2018 assessment found that 12 of the country's 17 regions were at risk for polio reemergence, including National Capital region, where oral polio vaccine coverage declined steadily from 77.25% in 2016 to 23.45% in the second quarter of 2019.

In other polio developments, the Global Polio Eradication Initiative (GPEI) in its latest weekly update today noted the reemergence of polio in the Philippines and reported new cVDPV2 cases in Nigeria and Angola.
WHO updates Philippines polio situation, notes detection of 2nd strain

The World Health Organization (WHO) yesterday posted an update on the latest polio developments in the Philippines, with more details about the second circulating vaccine-derived poliovirus type 2 (cVDPV2) case and noting that another strain—vaccine-derived poliovirus type 1 (VDPV1)—has been detected in environmental samples from Manila.

Confirmed on Sep 14, the previously announced first case is in a 3-year-old girl from Lanao del Sur in the south of the country. The WHO said genetic analysis shows the VDPV2 virus is related to earlier environmental samples from Manila and Davao, indicating that it is circulating. The case marked the first polio detection of any kind in the Philippines since 2001.

The second case, confirmed on Sep 19, involves a 5-year-old boy from Laguna province, which is about 62 miles southeast of Manila. Tests are under way to further characterize the virus.

Also, VDPV1 has been found four different times between Jul 1 and Aug 27 in environmental samples collected from Manila.
More polio in Pakistan, DRC, Central African Republic
In its latest weekly update, the Global Polio Eradication Initiative (GPEI) said today that Pakistan recorded three new cases of wild poliovirus type 1 (WPV1) this week, and the Democratic Republic of the Congo (DRC) and the Central African Republic recorded new cases of vaccine-derived poliovirus type 2 (cVDPV2).

In Pakistan, the three patients with WPV1 experienced symptom onset between Aug 26 and Sep 13. "There are now 72 WPV1 cases reported in 2019. In 2018, there were 12 WPV1 cases," the GPEI said.

In the DRC, officials recorded three cVDPV2 cases, which raise 2019's total in that country to 34, compared with 20 in 2018. In the Central African Republic, four cases of cVDPV2 were reported in the last week, bringing the country's total so far this year to 10 cases.

2019 has had almost triple the number of cases of wild poliovirus than 2018—88 to date, compared with 2018's total of 33. So far this year, officials have confirmed 95 vaccine-derived polio cases; last year, the total reached 104.
Philippines risks polio problem as parents skip child vaccines: WHO

MANILA (Reuters) - The Philippines risks having more cases of polio unless it sharply steps up its vaccinations of children under 5 years of age, the World Health Organization said on Wednesday.

The Southeast Asian country is dealing with an outbreak of the infectious disease. A wider outbreak of polio could set back global efforts to eradicate the crippling disease, which remains endemic in only three countries - Afghanistan, Nigeria and Pakistan.

The confirmed cases in the Philippines were caused by “vaccine-derived” polio rather than the wild type of the virus, which had been eradicated in the country nearly two decades ago.
Philippines polio cases a warning for vulnerable Ukraine

The first cases of the child-crippling polio virus in the Philippines for 19 years are a warning for countries such as Ukraine, where low immunity offers fertile ground for viral epidemics, disease experts say.

Ukraine already has a big outbreak of measles - one of the world’s most contagious diseases - with almost 57,000 cases and 18 deaths recorded in the first eight months of this year, according to health ministry figures.

Confidence in vaccines and coverage with childhood immunizations against a range of pathogens have in recent years been dangerously low, World Health Organization (WHO) experts and the UN Children’s fund UNICEF say, leaving large pockets of people vulnerable to viral infections.
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US measles cases top 1,200 as UK loses 'measles free' status

With 21 new cases recorded in the past week, the US Centers for Disease Control and Prevention (CDC) today reported that 2019 measles totals rose to 1,203 in 30 states.

The number of people who have been hospitalized this year due to measles in the United States remains at 124, with 64 people having reported complications, including pneumonia and encephalitis.

The CDC is currently tracking six outbreaks (defined as three or more cases) in Texas, California, Washington state, and three separate outbreaks among religious communities in New York state. More than 75% of the cases this year are linked to outbreaks in New York state and New York City, the CDC said.
US measles cases hit 1,234 as Brooklyn outbreak called over

Today the Centers for Disease Control and Prevention (CDC) confirmed 19 new measles infections, raising the 2019 total to 1,234 cases in 31 states.

One additional state has been affected since the CDC's last update, but the number of active outbreaks has been reduced to four, down from six noted last week.

As of Aug 29, 125 of measles case-patients had been hospitalized, and 65 reported having complications, including pneumonia and encephalitis, the CDC said.

More than 75% of measles cases recorded in 2019 have come from two outbreaks among New York State's Orthodox Jewish communities—one in Williamsburg, Brooklyn, and one in Rockland County.
Reviews suggest first measles vaccination typically best after 9 months of age

Two systematic reviews and meta-analyses published in *The Lancet Infectious Diseases* report a good immune response and protection when the measles vaccine is administered before 9 months of age, but not as good as when given later, and a first dose given before 9 months of age might affect how later doses perform.

**Lower protection with earlier immunization**

In the first meta-analysis, researchers from the Netherlands and the World Health Organization (WHO) looked at data from 56 studies on safety, immunogenicity, and efficacy/effectiveness of measles-containing vaccines (MCVs) administered to infants younger than 9 months. An initial dose (called MCV1) is currently recommended at 9 months of age in countries with ongoing measles transmission, and at 12 months in countries with low risk of measles, with a second dose administered at 4 to 6 years.
CDC: Close-knit, vaccine-reluctant communities stoked measles

From Jan 1 to Oct 1 of this year, the United States tracked 22 measles outbreaks and 1,249 cases, according to a new overview published today by the Centers for Disease Control and Prevention (CDC) in *Morbidity and Mortality Weekly Report (MMWR).*

The large number of cases nearly caused the country to lose its measles elimination status, obtained in 2000, the CDC said, and close-knit communities that eschewed the vaccine played a major role.

Fully 93% of measles cases were associated with an outbreak—defined as three or more related cases. The overview offers the most comprehensive picture of these outbreaks, and the forces that made 2019 the worst measles year the US has seen since 1992.
News Scan for Oct 07, 2019

CDC reports 7 new measles cases, 1,250 for the year
Today the Centers for Disease Control and Prevention (CDC) confirmed 7 new US measles cases, bringing the total for 2019 to 1,250 infections in 31 states.

The new cases reflect a slight uptick, as the CDC recorded zero and two new cases in its previous two weekly updates. Cases have slowed dramatically in recent months, however. After posting more than 300 cases in both March and April, officials confirmed 180 in May, 77 in June, 51 in July, 29 in August, and just 5 last month.

The 1,250 total cases represent the most in a year since 1992, and the most since the disease was declared eliminated from the country in 2000. The huge increase this year threatened elimination status in the United States but so far has not reversed it.

The CDC reported one ongoing outbreak—defined as three or more related cases—in New York state, the same as last week. State health officials late last week said New York is no longer combatting any of the large outbreaks that had begun in 2018. US outbreaks this year have been linked to measles outbreaks in foreign countries, the CDC said.
Measles exposure possible at Philadelphia airport, health officials warn

by Oona Goodin-Smith, Updated: October 11, 2019 - 3:36 PM

Anyone who visited certain areas of Philadelphia International Airport on Oct. 2 or 3 may have been exposed to measles, health officials warned Friday.

According to a release from the Pennsylvania Department of Health, travelers passing through the following terminals may have been subjected to the highly contagious disease:

- **Oct. 2**: Terminal F from 6:30 p.m. to midnight.
- **Oct. 3**: Terminal F from 4 p.m. to midnight.
- **Oct. 3**: Terminal A from 8:30 to 11:30 p.m.
- **Oct. 3**: Terminal A/B shuttle bus from 8:30 to 11:30 p.m.

A person with a suspected case of measles visited the airport and “may have exposed many individuals,” Pennsylvania Secretary of Health Rachel Levine said in a statement.
More than 4,000 people have died from measles in Congo this year

By Katie Hunt, CNN

(November 1, 2019) — More than 4,000 people have died from a measles outbreak in the Democratic Republic of Congo this year, UNICEF, the United Nations' children's agency, said on Wednesday.

There have been 203,179 cases of the preventable illness across the country, and nearly 90% of the 4,096 deaths were children under the age of 5.

"The number of measles cases in DRC this year is more than triple the number recorded for all of 2018. The measles outbreak in DRC has become far deadlier than Ebola, which to date, has taken 2,143 lives," UNICEF said in a statement.

According to the World Health Organization, roughly 95% of a population needs to be vaccinated with two doses of the measles vaccine to ensure herd immunity. In Congo, measles immunization coverage was only 57% in 2018, UNICEF said.
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WHO: 1 million new STIs diagnosed each day
Rates of chlamydia, gonorrhea, syphilis, and trichomoniasis—four curable sexually transmitted infections (STIs)—have not declined significantly since 2012, according to a report today from the World Health Organization (WHO). In fact, as many as 1 million diagnoses of these STIs are made each day, representing an enormous public health burden.

The report estimated rates of STIs in 15- to 49-year-olds globally in 2016. There were 127 million new cases of chlamydia in 2016, 87 million of gonorrhea, 6.3 million of syphilis, and 156 million of trichomoniasis. This means that about 1 in 25 people globally has an STI at any given time, with many having more than one infection concurrently, the WHO said.

"We're seeing a concerning lack of progress in stopping the spread of sexually transmitted infections worldwide," said Peter Salama, MD, executive director for Universal Health Coverage and the Life-Course at WHO. "This is a wake-up call for a concerted effort to ensure everyone, everywhere can access the services they need to prevent and treat these debilitating diseases."
Sexually Transmitted Disease Cases Rise to Record High, C.D.C. Says

By Liam Stack

Oct. 8, 2019

The number of combined cases of syphilis, gonorrhea and chlamydia in the United States rose to a record high last year, including an alarming jump in the rate of newborn deaths caused by congenital syphilis, according to figures released by the Centers for Disease Control and Prevention on Tuesday.

More than 2.4 million syphilis, gonorrhea and chlamydia infections were reported in the United States in 2018, an increase of more than 100,000 cases from the previous year, the center said in its annual Sexually Transmitted Disease Surveillance Report.

It attributed the increase to several factors, including a decline in condom use among young people and men who have sex with men; increased screening among some groups; and cuts to sexual health programs at the state and local level, which led to clinic closures and fewer opportunities for counseling or testing for sexually transmitted diseases.
1,306 U.S. infants were born with syphilis in 2018, even though it’s easy to prevent

By ANNA MARIA BARRY-JESTER  OCT. 8, 2019 | 5:50 PM

One of the nation’s most preventable diseases is killing newborns in ever-increasing numbers.

Nationwide, 1,306 infants acquired syphilis from their mother in 2018, a 40% rise over 2017, according to federal data released Tuesday. Seventy-eight of those babies were stillborn, and 16 died after birth.

In California, cases of congenital syphilis — the term used when the infection is passed to a baby during pregnancy — continued a stark seven-year climb. There were 332 cases in the state in 2018, an 18.1% increase from 2017, according to the federal data.

Only Texas, Nevada, Louisiana and Arizona had congenital syphilis rates higher than California's, which was 67.9 cases per 100,000 live births. (The highest rate was in Texas, where there were 92.2 cases per 100,000 live births.) Combined, those five states made up nearly two-thirds of total cases, although all but 17 states saw increases in their congenital syphilis rates.
Group issues urgent call for battle against continued, dramatic STD rise

Based on new data from the US Centers for Disease Control and Prevention (CDC) showing that sexually transmitted disease (STD) levels hit an all-time high in 2018, the National Coalition of STD Directors (NCSD) yesterday issued an urgent call for more federal funding to battle the diseases.

In a press release, the NCSD said the increase follows 5 straight years of dramatic increases that it said are due to local, state, and federal cutbacks in funding for public health infrastructure that isn't well equipped to handle the growing threat.

The NCSD called for Congress to increase funding for the CDC's STD prevention services by $70 million, which it says is the bare minimum for responding to the crisis. It also called on the Department of Health and Human Services (HHS) to finalize and immediately implement the Federal Action Plan on STIs that it announced earlier this year.

Chlamydia, gonorrhea, and syphilis infections are nearing 2.4 million cases each year, up 30% in 5 years. According to CDC data, congenital syphilis cases rose 40% between 2017 and 2018, with deaths from the condition rising by 22%.
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WHO, UNICEF aim to vaccinate 1.6 million against cholera in Sudan
The World Health Organization (WHO) and the United Nations Children Fund (UNICEF) have partnered, with the aim of vaccinating 1.6 million Sudanese against cholera, according to a UN statement yesterday.

Since Sep 8, Sudan has confirmed 215 cases of cholera, including 8 deaths, as part of an outbreak in Blue Nile state. The oral cholera vaccination campaign will launch in mid-October, and target those in the Blue Nile as well as Sinnar states.

"Sudan has bad health infrastructure and a dilapidated safe water and sewage system," said WHO spokesperson Tarik Jasarevic yesterday in Geneva. "Re-occurring floods have further led to polluting water sources. All of these factors heighten the risk of cholera and other diarrheal diseases and threaten to cause a wide spread if no immediate response interventions are not [sic] adopted."

Cholera is caused by ingesting food or water contaminated with a bacterium called Vibrio cholerae. Patients who develop cholera experience watery diarrhea, which can lead to severe dehydration and death.
More cholera seen in Sudan outbreak

Officials in Sudan's Blue Nile state have recorded 32 more suspected cases of cholera in an ongoing outbreak in Blue Nile State, according to the latest update from the WHO today.

From Aug 28 to Oct 8, officials have noted 247 suspected cholera cases, including 8 deaths (case-fatality rate of 3.2%).

"The current outbreak was reported following recent severe rainstorms and flooding in 15 out of 18 States. As a result of the flooding, the country reported widespread damage to infrastructure, thus more cholera cases can be expected in the future. Although Blue Nile State shares borders with Ethiopia and South Sudan, there is currently no evidence of cross-border spread of the outbreak," the WHO said.

Cholera is caused by ingesting food or water contaminated with the *Vibrio cholerae* bacterium. Patients who develop cholera experience watery diarrhea, which can lead to severe dehydration and death. Sudan last saw a major cholera outbreak from 2016 to 2018, which involved 37,000 cases and 823 deaths.

**Oct 9 WHO update**
News Scan for Apr 19, 2019

Oxfam warns of Yemen cholera disaster replay as suspected cases climb

Aid groups in conflict-torn Yemen are having problems reaching 40,000 people suspected as having cholera, setting the scene for a possible repeat of the world worst outbreak, Oxfam International, one of the groups working in the area, warned yesterday in a statement.

Fighting and restraints on access, such as checkpoints and permits required by warring groups, are making it extremely difficult to reach some affected areas, Oxfam said.

Suspected cholera cases are already rising ahead of the rainy season, and in the latter half of March, about 2,500 suspected cases were reported each day, up from 1,000 a day in February. The group said illness levels are 10 times higher than they were in 2018.

In 2017, Yemen experienced the world’s largest cholera outbreak, and at its worst point, 7,000 cases were reported each day. More than 3,000 people have died from cholera in Yemen since 2016.

If suspected cases continue at current levels for the rest of the year, the rise in disease activity this year could eclipse that of 2018. So far this year, 195,000 suspected illnesses have been reported, including 38,000 in districts that are hard for aid groups to reach.

Oxfam and its local partners are working in Amran, Taizz and Al Dale’e governorates to bring in fresh water, fix sanitation systems, and distribute soap, washing powder, basins, and jerry cans. The group is also helping local responders spread information about how cholera is transmitted and steps community members can take to prevent its spread.

Apr 19 Oxfam press release
08 June 2019 - The Ministry of Public Health and Population of Yemen reported 16,868 suspected cases of cholera with 12 associated deaths during epidemiological week 21 (20 to 26 May) of 2019. Seventeen percent of cases were severe. The cumulative total number of suspected cholera cases from 1 January 2018 to 26 May 2019 is 724,405, with 1135 associated deaths (CFR 0.15%). Children under five represent 22.5% of total suspected cases during 2019. The outbreak has affected 22 of 23 governorates and 296 of 333 districts in Yemen.

From week 8 in 2019, the trend of weekly reported suspected cholera cases started increasing and peaked at more than 29500 cases in week 14. During weeks 15 to 21 case numbers went down and over the past 3 weeks a stable trend was observed. The decline may be attributed to enhanced control efforts such as community engagement and WaSH activities, and scaling up of response by WHO and partners, including establishing of additional DTCs and ORCs.
Situation report
AUGUST 2019
ISSUE NO.8
Yemen conflict

Launching the 2nd round of the OCV campaign in four districts in Aden, Taizz and Al Dhale governorates. C: WHO team

24.1 MILLION* IN NEED
14.3 MILLION ** IN ACUTE NEED
620,348 *** CHOLERA SUSPECTED CASES
19.7 M **** IN NEED FOR HEALTH CARE
Since the epi week 34, a slight increase (3%) in suspected cases was observed (n=18,315) to Week 35 (n=18,546). This slight increase in suspected cases is due to the heavy raining in some governorates mainly in Al Hudaydah governorate.

Since 1 January to 31 August 2019, a total of 620,348 suspected cases of cholera, including 845 associated deaths (CFR 0.14%) were reported. Children under the age of five continue to represent 25% of the total number of suspected cases.

Jointly with UNICEF and the Ministry of Health, WHO conducted the 2nd round of OCV campaign in four high risk districts in the governorates of Aden, Taizz and Al Dhalea for 6 days. Despite heavy conflict in the area at the time of implementation, over 400,000 people including 65,000 children above the age of 1 till 5 years old were reached with cholera vaccine.
Cholera

- **From 1 January to 31 August 2019**: a total of 620,348 suspected cases of cholera, including 845 associated deaths (CFR 0.14%), have been reported. Children under the age of five continue to represent 25% of the total number of suspected cases. As of 31 August, 305 (92%) of the 333 districts in Yemen have reported suspected cholera cases since 2019.

The trend in suspected cases between epidemiological weeks 1-35
CAIRO (AP) — A children’s advocacy group is warning of a spike in cholera cases in northern Yemen affecting hundreds of thousands of children and their families as a result of an increase in fuel shortages.

Save the Children said Wednesday that fuel shortages have resulted in a jump in food prices and, as a result, a deepening health crisis.

The group says fuel prices have hiked 100% over the past 40 days as the internationally recognized government imposed customs duties in the interim capital Aden. That caused a 60% decrease in the amount of fuel coming through the key port of Hodeida, the group says.
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11. Resilient medical supply systems
AAP says all kids' flu vaccine this year will be 4-strain

In new guidance, the American Academy of Pediatrics (AAP) reiterated having no preference to the live-attenuated influenza vaccine (LAIV) or inactivated influenza vaccines (IIV) for children, but it said both types will be quadrivalent (four-strain) and widely available for the upcoming flu season.

All children 6 months and older are encouraged to get a flu vaccine in the coming months, the AAP said in childhood flu vaccine recommendations published this week in *Pediatrics*. The organization said that although the two influenza B strains included in the vaccine are the same as last year, this year's vaccine contains new components of the H1N1 and H3N2 strains, which are influenza A viruses.

The AAP said there is no preference of IIVs or LAIVs, based on existing studies of vaccine efficacy.
NIAID announces launch of multicenter universal flu vaccine program

With $51 million in first-year funding, the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health (NIH), yesterday launched a new research center network to develop more broadly protective and longer-lasting flu vaccines. The program is called the Collaborative Influenza Vaccine Innovation Centers (CIVICs), and NIAID will provide support over 7 years.

Anthony Fauci, MD, NIAID's director, said in an NIH news release that better flu vaccines are needed to more effectively fight flu at the global level. "With the CIVICs program we hope to encourage an exchange of ideas, technology and scientific results across multiple institutions to facilitate a more efficient and coordinated approach to novel influenza vaccine development," he said.

The program will support universal flu vaccine candidates through preclinical testing, clinical trials, and human challenge studies. Also, the program is designed to improve current seasonal flu vaccines, such as assessing alternative vaccine platforms or adjuvants.
Health officials: It’s time to give flu vaccine another shot

By ASSOCIATED PRESS / SEPTEMBER 26, 2019

The flu forecast is cloudy and it’s too soon to know if the U.S. is in for a third miserable season in a row, but health officials said Thursday not to delay vaccination.

While the vaccine didn’t offer much protection the past two years, specialists have fine-tuned the recipe in hopes it will better counter a nasty strain this time around.

“Getting vaccinated is going to be the best way to prevent whatever happens,” Dr. Daniel Jernigan, flu chief at the Centers for Disease Control and Prevention, told the Associated Press.
Doctors are preparing for delays for this season's flu vaccine as formulation changes led at least one major manufacturer to ship its supply later than planned.

According to a notification by the American Academy of Pediatrics, Sanofi Pasteur, the largest company that exclusively produces vaccines, delayed delivery of the flu vaccine by three to four weeks.

The delay affects Fluzone Quadrivalent, Fluzone High-Dose, and Flublok Quadrivalent. According to CDC data, these products make up approximately 40 percent of the U.S. flu vaccine market.

The production of the yearly flu vaccine is an ever-evolving task: Influenza mutates rapidly, and each of the three or four strains delivered in the vaccine needs to be carefully evaluated. Recommendations for those strains comes from the FDA and World Health Organization (WHO).
Nasal Spray Flu Vaccine Availability Questioned for 2019-2020

AstraZeneca says FluMist nasal spray may be in limited supply

May 18th, 2019 – The supply of the FluMist nasal spray influenza vaccine will be limited during the 2019-2020 season due to manufacturing constraints, reported the American Academy of Pediatrics (AAP).

A Centers for Disease Control and Prevention (CDC) official said to AAP this nasal spray vaccine supply limitation ‘is not expected to cause an overall shortage of flu vaccine.’

“Based on manufacturer projections, we believe that the total supply of flu vaccine for the 2019-2020 season should be sufficient to meet the demand for seasonal flu vaccination in the United States,” CDC spokeswoman Kristen Nordlund said via email to AAP on May 17, 2019.
Supply

Influenza Products

Supply Shortage for Live-attenuated Influenza Vaccine

The supply of nasal spray flu vaccine will be limited during the 2019-’20 season due to manufacturing constraints, according to AstraZeneca. The reduced supply of FluMist Quadrivalent, a live attenuated influenza vaccine (LAIV), will impact both the public and private sectors, according to a company spokesperson. AstraZeneca plans to spread distribution throughout the season and said the reduced supply will not impact vaccine quality. Centers for Disease Control and Prevention (CDC) officials said the LAIV shortage is not expected to cause an overall shortage of flu vaccine.

Health care providers may need to check with multiple suppliers or purchase a different brand of vaccine. Those replacing LAIV also will need to consider factors like the ages of their patients and the setting for vaccine administration.

There is no change in the recommendations for influenza vaccine administration. In March, the AAP announced it will not have a preference between LAIV and inactivated influenza vaccine next season. The move is a change from the current season in which the AAP considered inactivated influenza vaccine the primary choice, while saying LAIV could be used for children who would not otherwise receive a vaccine.
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Study implicates Asian Zika strain in African microcephaly cases

In a follow-up investigation into Angola's unusual rise in microcephaly cases in 2017, an international research group today reported that the Asian Zika virus strain that cause birth defects in the Americas outbreak was the cause, a first for an African country.

A team from Oxford University and Angola's health ministry reported their findings in *The Lancet Infectious Diseases*. Zika virus has been circulating in Africa for centuries, but only the African lineage. So far, only the Asian lineage has been linked to large epidemics and a related rise in microcephaly in the Americas.

In December 2017, the World Health Organization's (WHO's) African regional office warned that Angola was experiencing a slow but steady rise in microcephaly that might be related to Zika virus, especially in the suburbs of Luanda, the country's capital. At that point, there were 42 cases since September 2017, 39 involving live births.
Study highlights Zika lessons, need to stay vigilant

Since the Zika epidemic of 2015 and 2016 sickened thousands of people in the Americas, and resulted in 3,700 babies born with birth defects—including microcephaly—researchers have produced a deluge of academic papers in an effort to answer key questions about the flavivirus.

Yesterday in *The New England Journal of Medicine*, researchers published a comprehensive review of this Zika literature to date, and noted that while the rate of microcephaly is not as high as what was once predicted, the virus can have long-lasting consequences for those exposed to it in utero. They also warned that Zika could and will likely strike again.

Presently, Zika transmission has slowed and ceased throughout much of the epidemic regions. In 2018, there were fewer than 30,000 cases reported, compared with more than 500,000 cases reported at the peak of the pandemic in 2016, the authors write.
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Malaria drugs are failing at an "alarming" rate in Southeast Asia as drug-resistant strains of the malaria parasite emerge.

That's the conclusion of researchers in two new reports — one based on a randomized trial and the other on a genetic study — that have just been released in the medical journal The Lancet. And there's concern that this drug resistance could spread around the globe.

Global health officials get nervous when new strains of drug-resistant malaria turn up in Southeast Asia, because it's a dreaded pattern that they've seen before.

Resistance that has hatched in this region has doomed previous malaria medications since the middle of the 20th century.
WHO experts call for new tools to eradicate malaria

The key to eradicating malaria in the near future is stepped up research and development of new tools to battle the disease, a World Health Organization (WHO) expert group that spent the last 3 years studying the malaria landscape said today in a report.

The 13-member group, called the Strategic Advisory Group on Malaria Eradication (SAGme) published a 20-page executive summary of their report, which also includes a set of recommendations, ahead of a WHO-hosted malaria forum in Geneva on Sep 9.

Malaria infections and deaths have held steady since 2015, but there isn't enough progress against the disease to achieve the 2030 goal set out in the latest WHO malaria strategy to cut cases and deaths by 90%, the group said in a press release.
Kenya becomes third African nation to introduce malaria vaccine

NAIROBI (Reuters) - Kenya on Friday began adding a malaria vaccine to its routine immunization schedule for babies and toddlers, becoming the third African country to roll out the vaccine for a disease that threatens children across the continent.

Malaria, which kills one child globally every two minutes, is the top killer of children under five in the east African country. The vaccine - the world’s first against malaria - will be administered to children under two and could be crucial to efforts to combat the disease, health officials said.
Are we winning the war on malaria or not?

Some experts are talking about the path to eradication. Others warn things are getting worse. They’re both right.

By Kelsey Piper | Oct 3, 2019, 7:50am EDT

Last month, the Lancet commission released a report on our prospects of eradicating malaria forever. Its conclusion: no longer a sci-fi dream, malaria eradication is now possible in our lifetime.

“Malaria can and should be eradicated by 2050,” report co-chair Richard Feachem said in a press release accompanying the study. The Lancet’s research, funded by the Bill and Melinda Gates Foundation, outlines how that can be done.

Malaria is a deadly mosquito-borne disease that kills hundreds of thousands of people each year — mostly children and pregnant women. It’s one of the deadliest diseases in human history, with some researchers arguing that it may have killed half of all people who ever lived. (The most likely death toll is lower than that, but still staggering.)
Why did EEE cases spike this year? It's complicated

By Jacqueline Howard, CNN

(CNN) — What exactly is fueling an unprecedented outbreak of the mosquito-borne Eastern equine encephalitis, or EEE, in the United States remains a concerning conundrum -- and there could be several factors at play.

As of Wednesday, more than 30 people have become ill with the rare but serious disease, caused by the EEE virus, and 11 of them have died. There have been infections in six states: Massachusetts, Connecticut, Rhode Island, Michigan, New Jersey and North Carolina.

The United States typically averages only seven EEE cases every year, according to the US Centers for Disease Control and Prevention. About 30% of all cases result in death.
CDC arbovirus report shows uptick of neuroinvasive West Nile virus
The US Centers for Disease Control and Prevention (CDC) today published an analysis of 2,813 arbovirus infections for 2018, focusing on insect-borne disease acquired domestically. As in past years, West Nile virus (WNV) made up the vast majority of cases, with 94%, but the neuroinvasive form of the disease was nearly 25% higher than the average during 2008 to 2017.

More La Crosse virus disease cases were reported in 2018 than any year since 2011, and the virus continued to be the most common source of neuroinvasive arboviral disease in children. The report appears in the latest issue of Morbidity and Mortality Weekly Report (MMWR).

The CDC said arbovirus remained an ongoing blood and tissue safety concern, with 2018 seeing the first documented case of Powassan virus transmission from blood transfusion and two WNV cases in solid-organ recipients from the same infected donor, signaling the first transplant-related cases since 2013.

Fewer Jamestown Canyon virus cases were reported in 2018 than in 2017, but at levels still higher than previous years. The CDC added that case increases in that viral disease might be linked to an increase in awareness and testing.

The agency urged healthcare providers to consider arboviral infections when assessing the differential diagnosis for aseptic meningitis or encephalitis, to obtain appropriate specimens, and to promptly report cases to public health officials.

Aug 9 MMWR report
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A Mysterious Infection, Spanning the Globe in a Climate of Secrecy

The rise of Candida auris embodies a serious and growing public health threat: drug-resistant germs.

By Matt Richtel and Andrew Jacobs

April 6, 2019

Last May, an elderly man was admitted to the Brooklyn branch of Mount Sinai Hospital for abdominal surgery. A blood test revealed that he was infected with a newly discovered germ as deadly as it was mysterious. Doctors swiftly isolated him in the intensive care unit.

The germ, a fungus called Candida auris, preys on people with weakened immune systems, and it is quietly spreading across the globe. Over the last five years, it has hit a neonatal unit in Venezuela, swept through a hospital in Spain, forced a prestigious British medical center to shut down its intensive care unit, and taken root in India, Pakistan and South Africa.
Countries from which *Candida auris* cases have been reported, as of August 31, 2019
U.S. Map: Clinical cases of *Candida auris* reported by U.S. states, as of July 31, 2019
Study: Colonized Candida auris patients shed fungus via skin

New research presented last weekend at the annual conference of the American Society of Microbiology indicates patients who carry the multidrug-resistant fungus *Candida auris* on their skin are shedding it into the hospital environment and contributing to transmission of the deadly organism.

The research, led by scientists from Centers for Disease Control and Prevention (CDC) and the City of Chicago Public Health Department, could provide a clue to one of the mysteries about *C auris*—how it's spreading so easily in hospitals.

"We know that *Candida auris* spreads, but we don't know mechanistically how," said lead study author Joe Sexton, PhD, of the CDC's Mycotic Diseases Branch, in an interview. "This is one piece of that puzzle."
UK report cites lack of progress on AMR Review steps

A paper issued yesterday by policy institute Chatham House concludes that not enough progress has been made on recommendations from a series of reports that alerted the world to the rising threat of antimicrobial resistance (AMR).

The AMR Review, commissioned in 2014 by former UK Prime Minister David Cameron and chaired by British economist Lord Jim O’Neill, outlined the threat of AMR to global public health and highlighted the potential costs of inaction in eight separate reports issued over 2 years. Among the highlights from the first AMR Review paper were two startling figures—that drug-resistant infections could cause the deaths of 10 million people by 2050 and could cost the global economy up to $100 trillion if the problem was not addressed in the coming years.
# Federal Government Combating Antibiotic Resistant Bacteria

## FY 2017 President's Budget

(dollars in millions)

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Chronic Wasting Disease in Cervids: Implications for Prion Transmission to Humans and Other Animal Species

Michael T. Osterholm, Cory J. Anderson, Mark D. Zabel, Joni M. Scheftel, Kristine A. Moore, Brian S. Appleby

July/August 2019  Volume 10  Issue 4

ABSTRACT

Chronic wasting disease (CWD) is a prion-related transmissible spongiform encephalopathy of cervids, including deer, elk, reindeer, sika deer, and moose. CWD has been confirmed in at least 26 U.S. states, three Canadian provinces, South Korea, Finland, Norway, and Sweden, with a notable increase in the past 5 years. The continued geographic spread of this disease increases the frequency of exposure to CWD prions among cervids, humans, and other animal species. Since CWD is now an established wildlife disease in North America, proactive steps, where possible, should be taken to limit transmission of CWD among animals and reduce the potential for human exposure.
Chronic Wasting Disease Resource Center

CWD Response, Research, and Policy Program
The Chronic Wasting Disease (CWD) Response, Research, and Policy Program addresses the transmission of CWD in cervids and its potential for spread to humans and other animal species. The program supports current and reliable information on CWD for the public, including hunters; the medical, veterinary and public health communities; wildlife scientists and managers; and public policymakers.

Expert Advisory Group
The program includes 47 national and international world-renowned and distinguished leaders in public health, medicine, science, wildlife, and agriculture.

CWD confirmed in Wyoming deer near elk feeding area
Stephanie Soucheray | News Reporter | CIDRAP News | Oct 07, 2019

"Seeing a deer test positive for CWD west of the continental divide again is concerning.”
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Critical Acute Care Drugs

• Resilient Medical Drug Study (supported by the Walton Family Foundation.)

• Definition of critical acute care drugs:
  − High likelihood people will die within eight hours without this drug.
  − Cannot provide humane care without this drug or an alternative.

• We identified 153 drugs across 28 drug categories.

• Most critical acute care drugs or the active pharmaceutical ingredients (API) come from China or India.
Questions, Comments and Discussion