

MEDPULSE

Taking the Pulse of the World

AUTHORS: Meera Chopra & James Yu

ARTIST: Kien Nagales

Ovarian Cancer Drug Approved in UK

October 2019 – United Kingdom

Ovarian cancer can be incredibly difficult to treat due to a lack of outward symptoms. As a result, the disease is estimated to be the 6th most common form of cancer in the United Kingdom. A pharmaceutical product called Rubraca can slow down the progression of the disease by killing cancer cells. This medication works by inhibiting poly ADP-ribose polymerase (PARP), a protein that helps repair damaged DNA. Cancer cells are unable to fix their damaged DNA, rendering them incapable of replicating. Rubraca was recently approved for prescription in the UK and is thought to be able to improve the quality of life of patients with ovarian cancer.

Teen Vaping Doubles in the United States

September 2019 – United States of America

Since 2017, the rate of e-cigarette use in teens has doubled in the US. In 2019, 25% of twelfth graders, 20% of tenth graders, and 9% of eighth graders reported having vaped nicotine in the past month. This increase is attributed to the variety of appealing flavours and perception of safety of vaping. The first death from e-cigarettes occurred in September 2019 and, since then, over 1479 cases with 33 deaths have been reported. The injuries are typically chemically induced and have been largely attributed to illicit vaping liquids and vaping products containing THC. While the majority of cases have been in the US, an increasing number of cases have been reported in Canada.

Dengue Fever Stings in Honduras

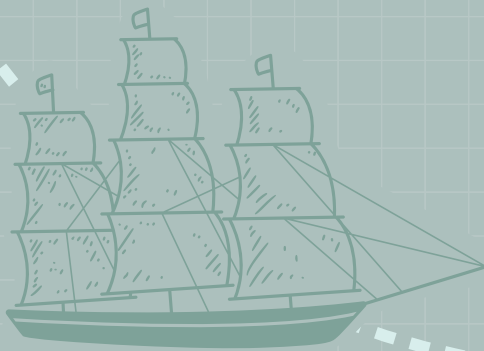
July 2019 – Honduras

Dengue is a viral infection that causes high fever and joint pain. It can develop into a potentially lethal complication called severe dengue. Over 40,000 cases and 135 deaths have been reported in Honduras in 2019, marking the worst outbreak of the virus in over 50 years. In comparison, only 8,000 cases were reported in 2018. The increase has led Honduras's government to declare a national emergency and fumigate the breeding grounds of yellow fever mosquitoes which spread the disease. Experts speculate that climate change and Honduras's three-month rainy season may have contributed to the epidemic.

Madariaga Virus Discovered in Argentina

September 2019 – Argentina

Madariaga virus is a mosquito-borne disease originating in Panama. The virus has slowly spread across Central and South America since 2010. Little is known about the symptoms and fatality of this disease, as less than a dozen cases have been documented. However, it is thought to be similar to equine disease. The Madariaga virus has recently been discovered in mosquitoes in Argentina. Scientists working with the Institute of Virology with National University of Córdoba are currently looking at how this virus is spreading across South American countries and how future outbreaks can be prevented.



Polypills Prevent Heart Disease in Iran

August 2019 – Iran

A polypill is a combination of multiple medications in a single pill. The PolyIran cluster-randomized trial enrolled 6,838 people in the Golestan province of Iran. Half of the patients received a polypill containing aspirin, a cholesterol-lowering statin, and two blood pressure drugs. Over 80% of patients adhered to the treatment and major cardiovascular events were cut by 34%. Among patients that had the highest adherence, events decreased by 57%. More than 18 million people die every year from cardiovascular disease and 80% of them are in low- and middle-income countries. The success of this trial may help open the door for the widespread use of polypills which promise healthier lives for millions of people.



Air Pollution Results in Missed Miscarriages

October 2019 – China

Researchers in China have found that increased levels of pollution lead to higher rates of “missed” miscarriages in pregnant women. Missed miscarriages occur when a fetus dies during early pregnancy without any noticeable symptoms. A study from the Chinese Academy of Sciences found that increased levels of certain airborne particles, including carbon monoxide and sulfur dioxide, can exponentially increase rates of missed miscarriages. Previously, researchers understood that dangerously high levels of pollution can lead to pregnancy complications but this new development reveals another consequence of dangerously high levels of air pollution.

Australia Experiences Early and Severe Flu Season

July 2019 – Australia

Australia suffered an early and severe flu season this year, caused by the particularly virulent influenza strain, H3N2. The strain, which causes more significant illnesses in elderly individuals, is also less affected by the flu vaccine. This year’s season, beginning in April and ending in October, led to more than 272,000 confirmed cases and 662 deaths. The flu was the worst since 2001 when the Australian government first began releasing public data. Experts warn that the flu season in Australia is a moderate predictor of what the flu will be like in Canada and the US.

Measles Outbreak in the Democratic Republic of Congo

October 2019 – Democratic Republic of Congo

Over 200,000 people in the Democratic Republic of Congo have been diagnosed with measles, 4,000 of which have died. According to UNICEF, only 57% of the Congolese population has been vaccinated against the measles. This low vaccination rate, along with unstable health infrastructure and economic uncertainty, contributes to the rapid spread of the virus. In order to combat the spread of measles, the government of Democratic Republic of Congo is collaborating with World Health Organization to vaccinate 825,000 children in the region.

