

Philippines the first Asian country to clear dengue vaccine

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Credit: National Cancer Institute

The Philippines became the first Asian country on Tuesday to approve the sale of the world's first-ever dengue vaccine.

Dengvaxia, manufactured by French pharmaceutical giant Sanofi, secured its first regulatory approval in Mexico a fortnight ago and is currently being reviewed by around 20 countries in Asia and Latin



America.

It is hoped the drug could eventually help prevent millions of deaths from <u>dengue</u>, the world's fastest-growing mosquito-borne disease.

The World Health Organization says as many as 400 million people are infected worldwide every year, and two-thirds are in Asia.

"It's a major step in the prevention of dengue and for <u>public health</u>," Olivier Charmeil, head of Sanofi's vaccines division, said in a statement.

Scientists have long been stumped by dengue, which has four separate strains, forcing researchers to find a drug able to fight all of them at once.

Clinical tests—carried out on 40,000 people from 15 countries—have found Dengvaxia can immunise two-thirds of people aged nine years and older, rising to 93 percent for the more severe form of the disease, dengue haemorrhagic fever.

It was also found to reduce the risk of hospitalisation by 80 percent.

Dengue can trigger a crippling fever, along with muscle and joint pain. There is no known cure, and children are at particular risk.

The deadliest form of the disease kills 22,000 people a year, the WHO says.

It was once considered a <u>disease</u> of the tropics, endemic in only nine countries, but globalisation, urbanisation, climate change and jet travel are helping it to move into more temperate zones.

It is now endemic in more than 100 countries.



The WHO says cases have risen 30-fold over the last 50 years, with more than half the world's population potentially at risk.

Several million doses of the vaccine are ready to ship, and Sanofi expects annual production to reach 100 million doses by 2017.

Sanofi's research and development work took 20 years, costing more than 1.5 billion euros (\$1.6 billion).

But the vaccine could bring the company more than \$1 billion annually starting in 2018 or 2019, analysts said.

Other pharmaceutical companies are developing dengue vaccines, including US firm Merck, Japan's Takeda and Britain's GlaxoSmithKline, but Sanofi is ahead of the competition.

Dengue fever spreads around the world

Dengue fever, the world's fastest growing mosquito-borne disease, has spread its wings from being a tropical disease, endemic in just nine countries, to a worldwide threat.

Globalisation, urbanisation, climate change and jet travel have enabled it to move into more temperate zones.

Following are some basic facts:

What is dengue fever?

Dengue fever is a flu-like infection, caused by the flavivirus in the same family as yellow fever.



Dengue fever has four separate strains—DEN-1, DEN-2, DEN-3 and DEN-4. Once cured, the patient is protected for life but only against the strain he was stricken by.

How is the virus transmitted?

Dengue is transmitted by several species of mosquito within the Aedes aegypti, which originate in Africa but which are now present in all tropical and subtropical areas.

The symptoms

Dengue can trigger a crippling fever along with headache, nausea, vomiting, muscle and joint pain, and skin rashes similar to measles.

The most severe form

The most severe form of the disease, dengue haemorrhagic fever, accounts for one percent of cases, killing 22,000 people a year, the World Health Organisation (WHO) says. It results in bleeding and blood plasma leakage. It can be fatal, in particular among children.

How many cases?

The number of cases in the world has risen 30-fold over the last 50 years, according to the WHO, making it the world's fastest growing mosquito-borne disease and leaving more than half of the world's population potentially at risk.

The WHO says that half a million people are hospitalised by the illness every year, many of them children of which around 2.5 percent die.



Treatment and vaccination

There is currently no specific treatment for dengue fever.

The world's first-ever dengue vaccine, Dengvaxia, manufactured by French pharmaceutical giant Sanofi, secured its first regulatory approval in Mexico on December 9.

The Philippines became the first Asian country on Tuesday to approve the sale of the vaccine.

Other pharmaceutical companies are developing dengue vaccines, including US firm Merck, Japan's Takeda and Britain's GlaxoSmithKline.

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