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Hope against dengue as Sanofi's vaccine shows promise

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Singapore: Bringing in good news for millions of dengue sufferers across the globe, Sanofi's new dengue vaccine has showed promise in clinical trials. In a study published in the New England Journal of Medicine (NEJM), Sanofi reported results from a new pooled efficacy analysis of individuals 9 years of age and older at vaccination from the two Phase III studies of Sanofi Pasteur's dengue vaccine.

The new analysis documented that the vaccine protected two-thirds of these individuals (66 percent) against dengue, providing even greater protection against two clinically-relevant manifestations of dengue, namely severe dengue (93 percent) and prevention of hospitalizations due to dengue (80 percent) that account for the greatest human and economic burden of dengue in endemic countries.

In addition, the dengue vaccine candidate protected volunteers 9 years of age and older who were previously exposed to dengue (82 percent), as well as those who were naÃ?Æ?Ã?Â¯ve to dengue (52.5 percent) prior to vaccination.

Sanofi's Associate VP and regional head of Clinical R&D and Medical Affairs APAC, Dr Alain Bouckenooghe told BioSpectrum Asia,"The NEJM article confirmed that Sanofi Pasteur's dengue vaccine candidate can be used to protect individuals Ã?Â¢Ã¢â?¬Â°Ã?Â¥9 years old in endemic countries against dengue disease. This is quite relevant as we see a gradual shift of dengue cases to a somewhat older population; in the last 4 or 5 years, in Thailand, Indonesia or Colombia, more than 70 percent of the dengue cases have been reported in people aged 10 and over. This proportion increases even more in Brazil,

Malaysia or Mexico where more than 90 percent of the dengue cases were in this preadolescent to adult age group of 10 and older."

Dengue is one of the world's fastest growing vector-borne disease, endemic in over 100 countries where almost half the world's population resides. Dengue poses considerable economic and human burden in these endemic countries as it is prone to unpredictable outbreaks and spreads readily in densely populated urban areas, often paralyzing local healthcare systems and requiring cost-intensive intervention efforts. Today, no specific treatment or prevention for dengue is available.

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The WHO has set objectives to reduce mortality due to dengue by 50 percent and morbidity by 25 percent by 2020. Introduction of an effective and safe dengue vaccine as an integral part of dengue prevention efforts will be critical to achieving this goal.

Dr Bouckenooghe further said, "From a projected health impact, with this indication and based on a disease modeling in 9 years and older age groups, dengue vaccination is projected to prevent 30 million reported dengue cases and 6 million hospitalizations over 5 years in the 10 countries participating to Phase III efficacy studies with the introduction of the vaccine in routine at 9 years of age plus 8 additional age cohorts (9-17 year olds)."

This modelled outcome with broad-scale dengue immunization could, therefore, reduce the number of reported cases and hospitalizations by as much as 50 percent in five years, a significant impact in line with WHO objectives of reducing dengue morbidity by 25 percent by 2020, observed Dr Bouckenooghe.