

# THE VALUE OF THE DENGUE VACCINE

THE POTENTIAL TO BRING A HIGH DISEASE BURDEN UNDER CONTROL IN MEXICO



## NUMBER OF CASES FOR THE YEAR 2013:

AVERAGE ANNUAL NUMBER OF CASES ARE ESTIMATED UP TO **5.6 X MORE**<sup>(1)</sup> DUE TO UNDER-REPORTING

DENGUE

**231,400**  
REPORTED CASES OF DENGUE<sup>(2)</sup>

## WHO ARE THE MOST AFFECTED ?

ages **10-25**



PRE-ADOLESCENTS & YOUNG ADULTS<sup>(6,7)</sup>

**34,100** HOSPITALIZED CASES<sup>(3)</sup>      **18,700** SEVERE CASES<sup>(2)</sup>

**\$87 MILLION**

ESTIMATED TOTAL ANNUAL COSTS OF DENGUE DISEASE IN MEXICO<sup>(1)</sup>, INCLUDING:

**\$25 MILLION**

ESTIMATED TOTAL ANNUAL COSTS DUE TO HOSPITALIZATIONS<sup>(1)</sup>

ESTIMATED COSTS PER CASE:



**\$1,327**

AND **≥ 6 DAYS LOST** AT WORK/SCHOOL PER HOSPITALIZED CASE<sup>(1)</sup>



**\$451**

AND **≥ 4 DAYS LOST** AT WORK/SCHOOL PER AMBULATORY CASE<sup>(1)</sup>

## POTENTIAL OF A HIGH IMPACT VACCINATION PROGRAM FOR DENGUE PREVENTION...<sup>(5)</sup>

In clinical trials, vaccine efficacy among at-risk populations of 9 to 16 years old, over a 25-month period, following the first dose of the vaccine:

Severe cases



Hospitalized cases



Symptomatic cases



Pooled efficacy analysis in 9-16 year olds over a 25-month period, following the first dose of the vaccine. Efficacy is extrapolated to individuals over 16 based on similar immune responses

**\$600 MILLION** ESTIMATED SAVINGS OVER 10 YEARS WITH BROAD VACCINATION PROGRAMS<sup>(4)</sup>

Sources:

<sup>(1)</sup>Undurraga EA, Befanour-Craviato M, et al. Economic and disease burden of dengue in Mexico. *PLoS Negl Trop Dis*. 2015 Mar 18;9(3):e0003547.

<sup>(2)</sup>[http://www.paho.org/hq/index.php?option=com\\_topics&view=readall&cid=3273&Itemid=40734&lang=en](http://www.paho.org/hq/index.php?option=com_topics&view=readall&cid=3273&Itemid=40734&lang=en) 2013: Number of Reported Cases of Dengue and Severe Dengue in the Americas, by Country (EW 52), last accessed June 26, 2015

<sup>(3)</sup>Dynamic cubes - hospital discharges 2015. DGIS/SS. [http://www.dgis.salud.gob.mx/contenidos/basesdedatos/BD\\_Cubos.html](http://www.dgis.salud.gob.mx/contenidos/basesdedatos/BD_Cubos.html) Accessed on April 25, 2015

<sup>(4)</sup>Sanofi Pasteur estimation based on available data

<sup>(5)</sup>Hadinegoro, Sri Rezeki S., et al. Efficacy and Long-Term Safety of a Dengue Vaccine in Regions of Endemic Disease Integrated Analysis of Efficacy and Interim Long-Term Safety Data for a Dengue Vaccine in Endemic Regions. July 27, 2015 DOI: 10.1056/NEJMoa1506223

<sup>(6)</sup>Dantés HG, Farfán-Ale JA, Sari E. (2014). Epidemiological trends of dengue disease in Mexico (2000-2011): a systematic literature search and analysis. *PLoS Negl Trop Dis*. 8(11):e3158. doi: 10.1371/journal.pntd.0003158. eCollection 2014 Nov. PubMed PMID: 25375162.

<sup>(7)</sup>Jackson N, et al. Recent scientific and clinical advances in Sanofi Pasteur's Dengue Vaccine Program. *ASTMH 64th Annual Meeting* October 25-29, 2015, Philadelphia, PA, USA.