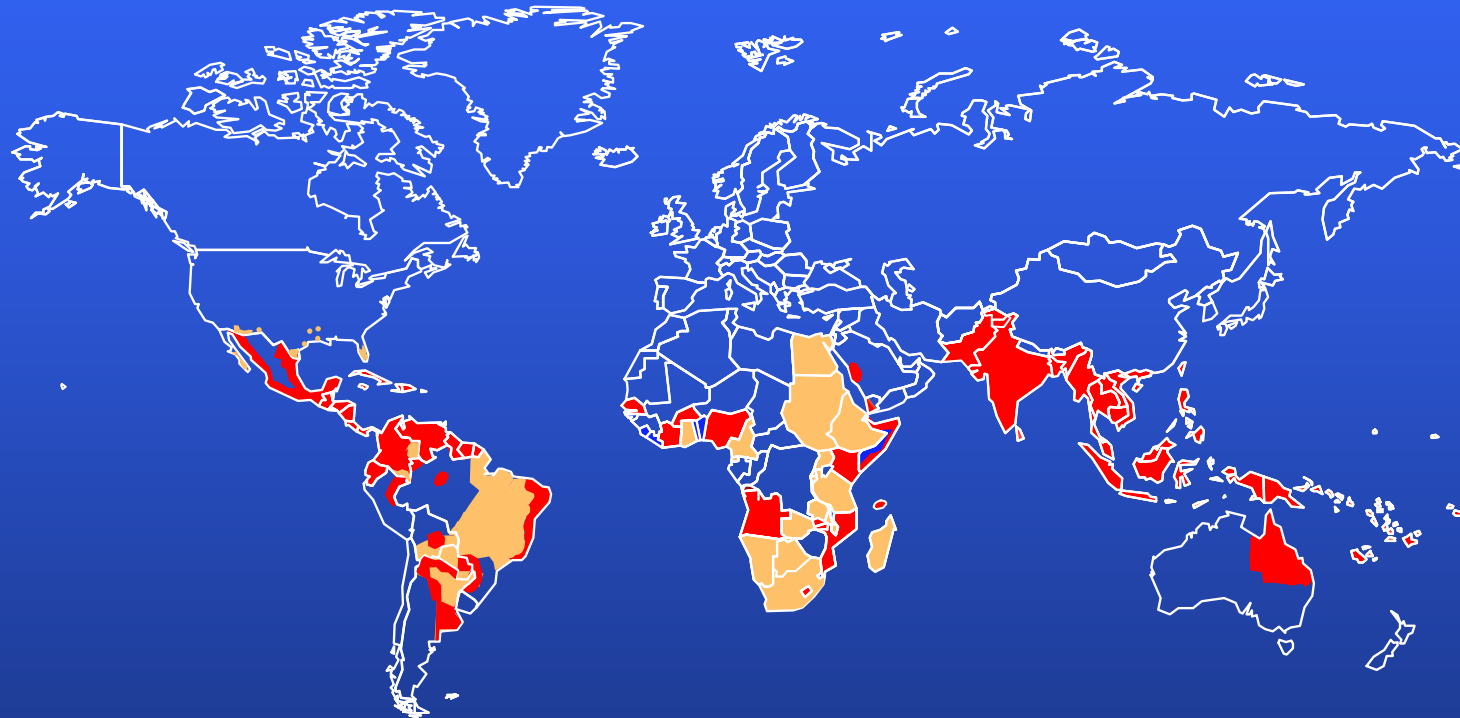




IV. Epidemiology

World Distribution of Dengue - 2005



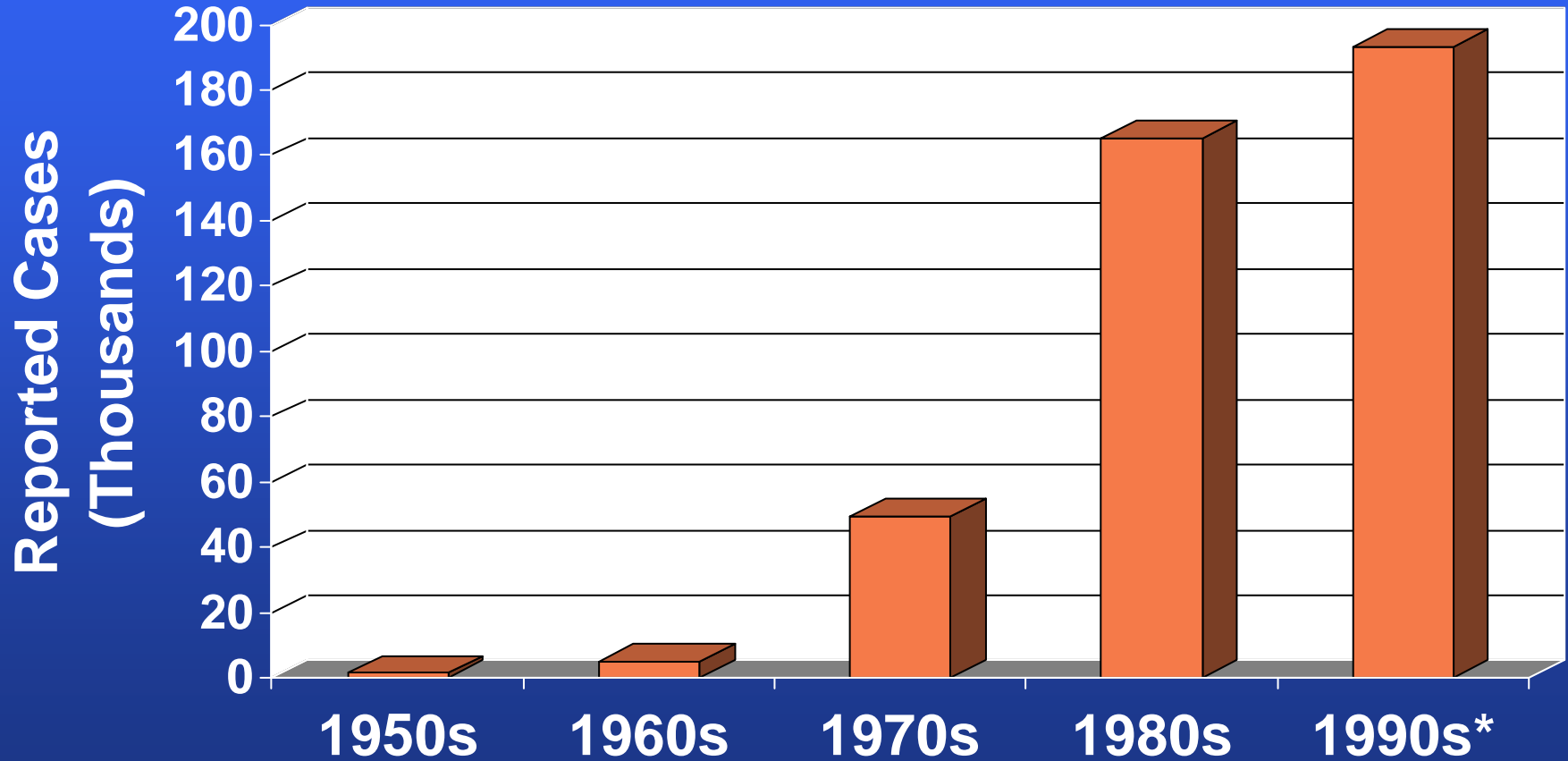
- Areas infested with *Aedes aegypti*
- Areas with *Aedes aegypti* and dengue epidemic activity

Reported Cases of Dengue in the Americas, 1980 – 2007 *



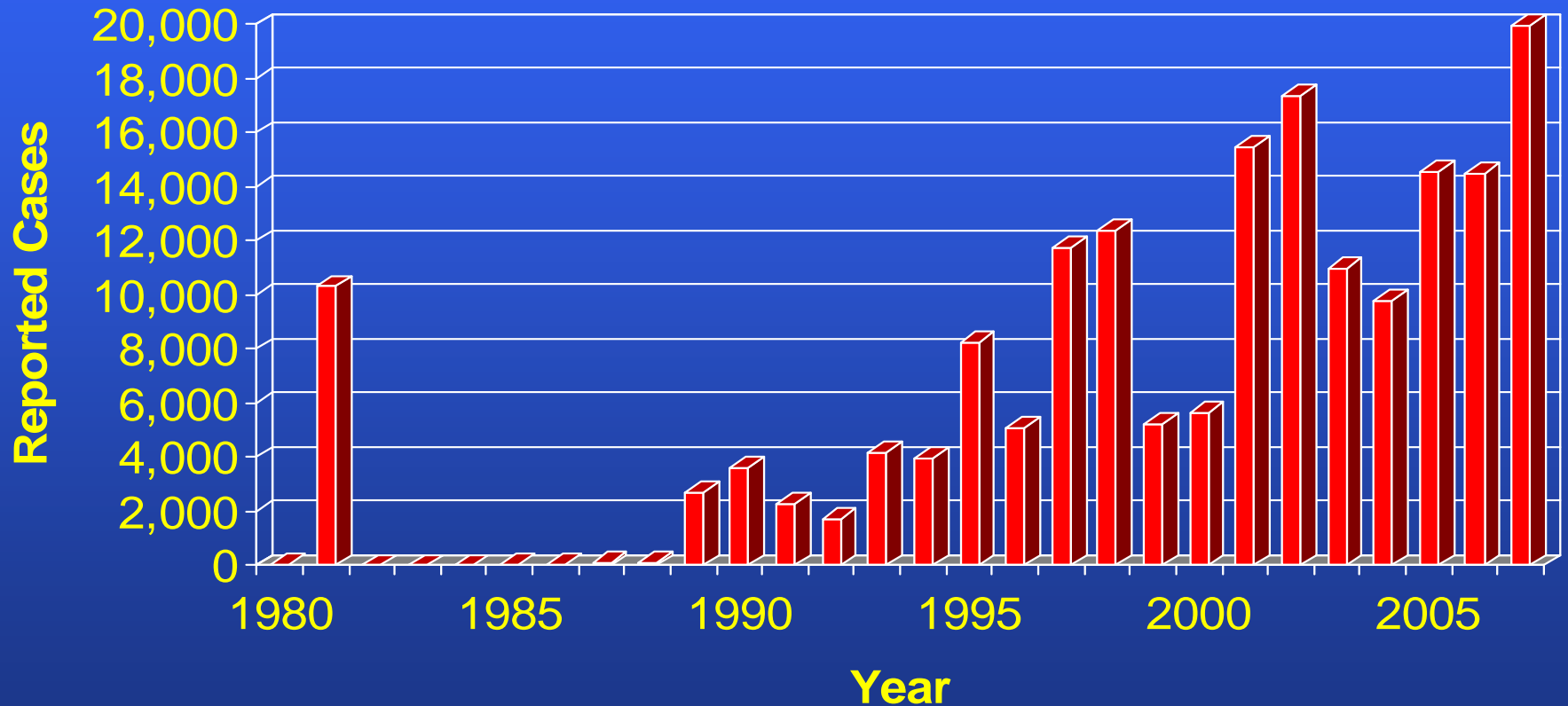
* Data: PAHO (Nov. 30, 2007)

Mean Annual Number of DHF Cases Thailand, Indonesia and Vietnam, by Decade



* Provisional data through 1998

Reported Cases of DHF in the Americas, 1980 – 2007 *



* Data: PAHO (Nov. 30, 2007)

Presence of DEN-3 in the Americas, 1994 -2007



- 1994-1995
- 1997-2007
- Not reported

SOURCE: Pan American Health Organization, Nov. 30, 2007





Recent Dengue in the U.S.A.

- Dengue epidemics occurred in the USA in the 1800s and the first half of the 1900s
- Recent indigenous transmission
 - Texas:
 - 1980: 23 cases, first locally acquired since 1945
 - 1986: 9 cases, 1995: 7 cases, 1997: 3 cases, 1998: 1 case, 1999: 18 cases, 2005: 25 cases
 - Hawaii:
 - 2001-2002: 122 cases (first since 1944)



Reasons for Dengue Expansion in the Americas

- Extensive vector infestation, with declining vector control
- Unreliable water supply systems
- Increasing non-biodegradable containers and poor solid waste disposal
- Increased air travel
- Increasing population density in urban areas



Trouble Ahead

- 2.5 billion people at risk world-wide
- In the Americas, 50-fold increase in reported cases of DHF (1989-1993 compared to 1984-1988)*
- Widespread abundance of *Aedes aegypti* in at-risk areas

* Organization of American States,
Human Health in the Americas, 1996