

MEETING OF THE TECHNICAL ADVISORY GROUP FOR CHIKUNGUYA VIRUS INTRODUCTION PREPAREDNESS AND RESPONSE IN THE AMERICAS

**LIMA- PERU
21-23 JUL 2010**

Areas at risk for Chikungunya transmission (WHO 2008)



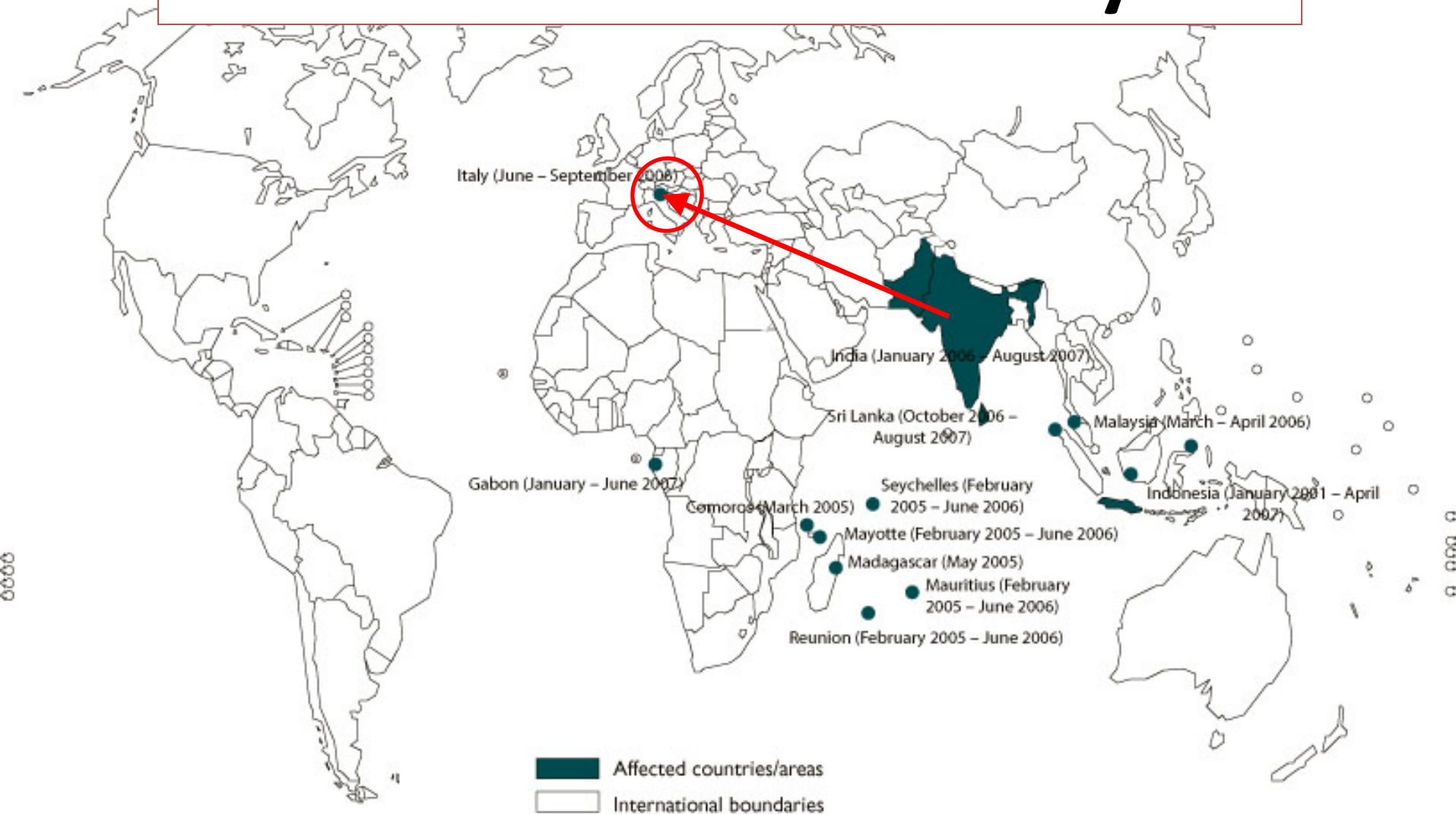
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Map Production: Public Health Information
and Geographic Information Systems (GIS)
World Health Organization



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Chikungunya 2007 outbreak in Italy



Chikungunya diagnosed in Travelers to Western Hemisphere

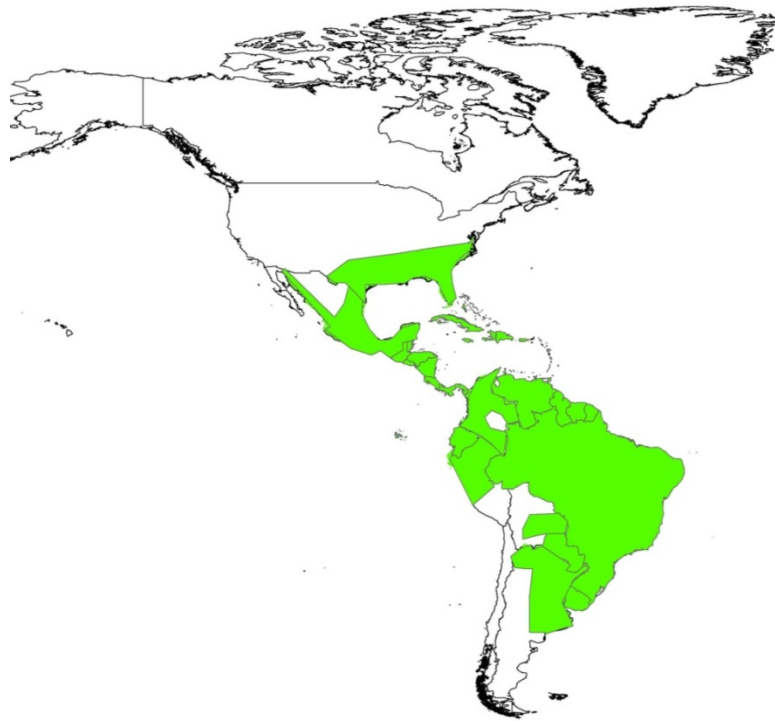
- **Canada**
- **United States**
- **Martinique**
- **French Guyana**

**Many reported to be viremic
(Viremia lasts as long as 8 days post-onset)**

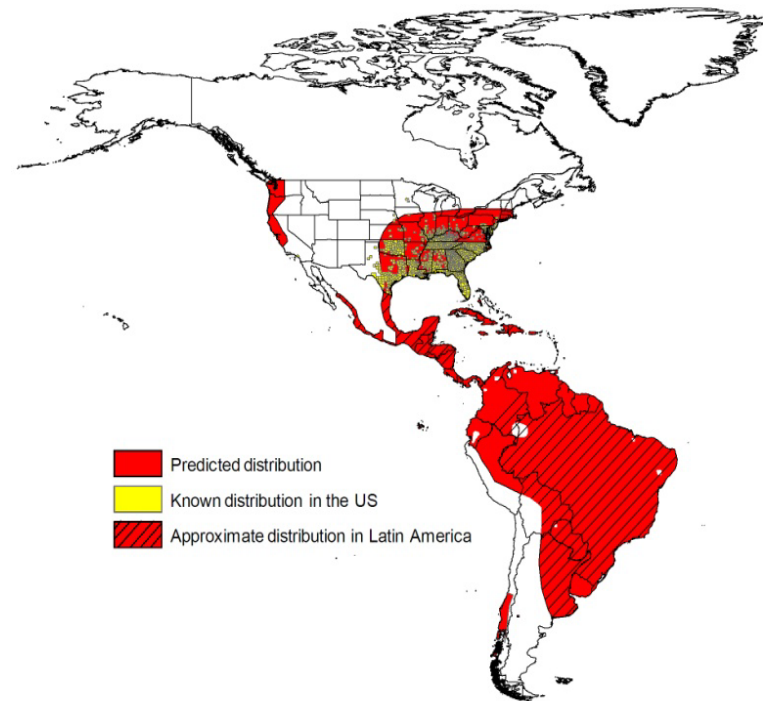
**Chikungunya risk assumed
to be greatest in areas
with:**

- **Competent vectors**
- **Endemic dengue**

Distribution of potential CHIK vectors in the Americas

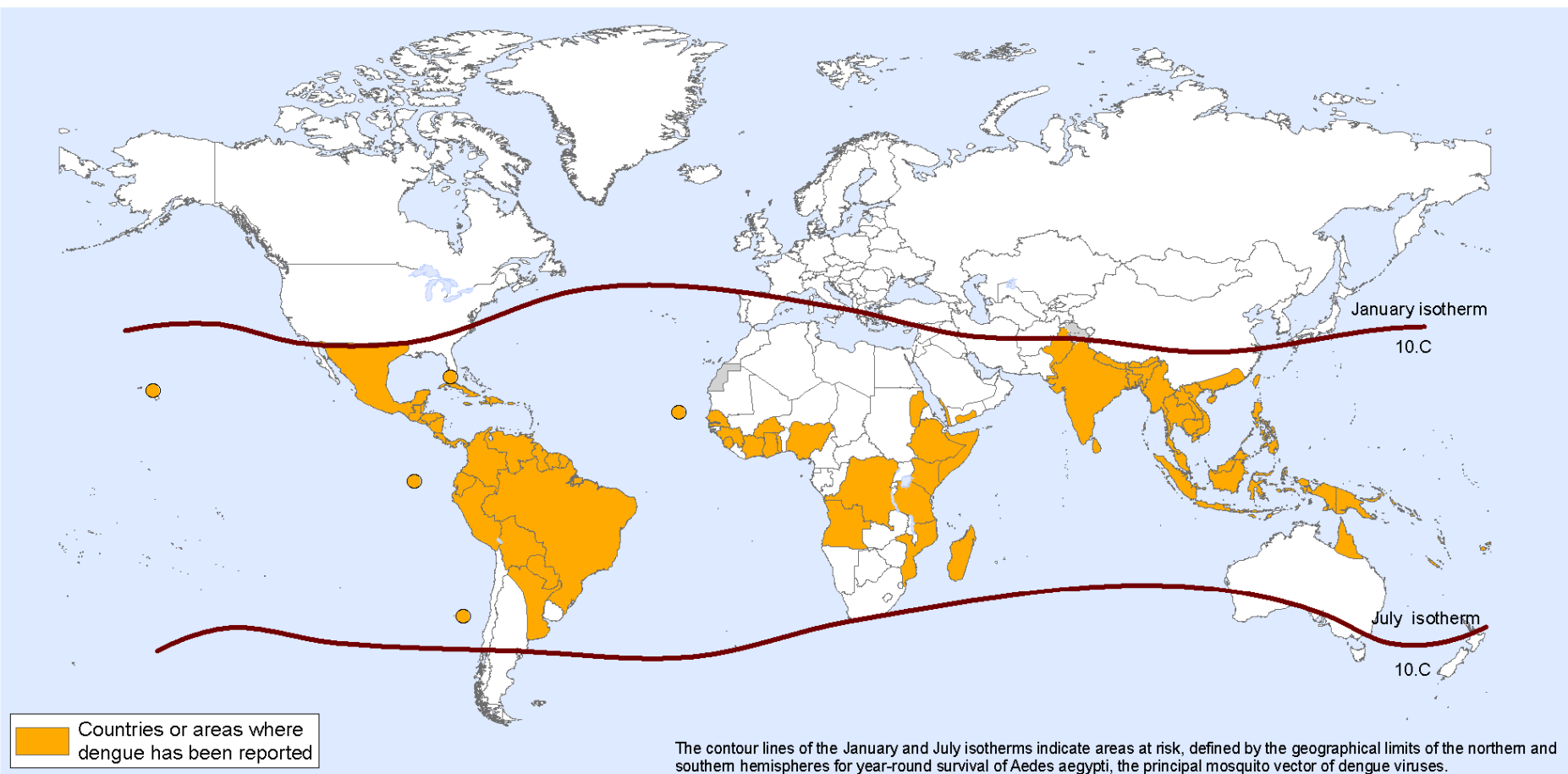


Aedes aegypti



Aedes albopictus

Countries at risk for Dengue (WHO 2009)



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Data Source: World Health Organization
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Global Airline Routes



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24 Hour Global Air Traffic Simulation
<http://radar.zhaw.ch/resources/airtraffic.wmv>
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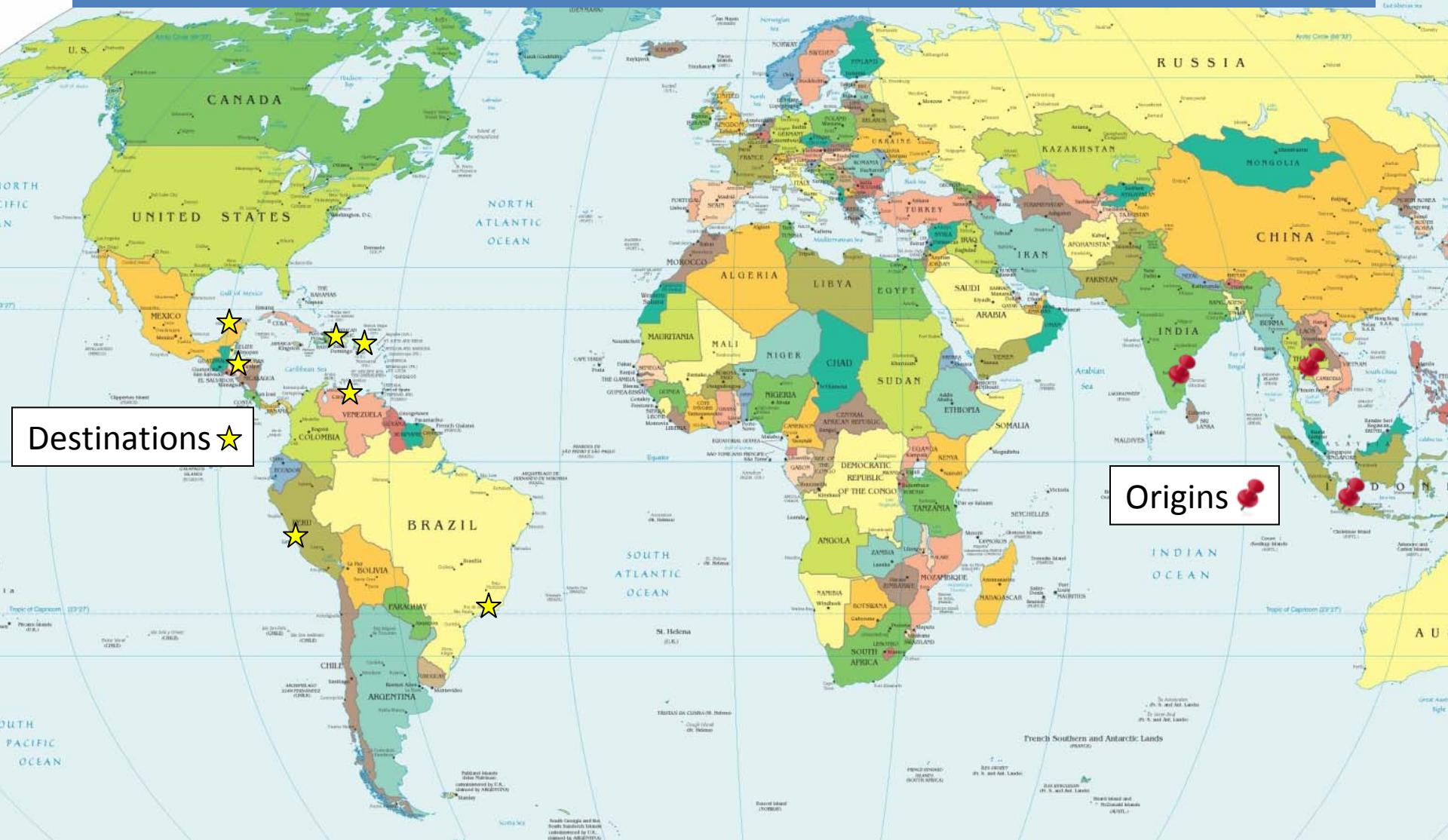
Zürcher Hochschule
für Angewandte Wissenschaften

zhaw

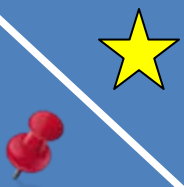
School of
Engineering

<http://radar.zhaw.ch>

Travel time between potential CHIK origins and PAHO destinations



Minimum Hours Travel Time Between Cities*

	Merida Mexico (MID)	Tegucigalpa Honduras (TGU)	Caracas Venezuela (CCS)	Lima Peru (LIM)	Rio de Janiero Brazil (GIG)	San Juan Puerto Rico (SJU)	Santo Domingo Dominican Republic (SDQ)
Bangalore India (BLR)	28	28	23	29	24	26	26
Bangkok Thailand (BKK)	27	28	27	28	26	28	29
Jakarta Indonesia (CGK)	30	32	27	32	31	29	29

*Travelocity and Expedia search for minimum travel duration between cities shown

*Travel date: August 1, 2010

*Search conducted: July 2, 2010

History of PAHO-CDC CHIK planning project

- **Conceived in November 2008 in response to expanding CHIK outbreaks, anticipated risk of CHIK introduction/outbreak in PAHO region.**
- **Components:**
 - **Diagnostic training**
 - **Preparedness and Response Guidelines**
- **Diagnostic training**
 - **February 2009 in San Juan, Puerto Rico (CDC DEN Branch)**
 - **8 PAHO region reference laboratories represented**
 - **IgG ELISA, IgM ELISA, RT-PCR**

History of PAHO-CDC CHIK planning project

- **Guidelines development meeting for PAHO partners**
 - **Planned for May 2009**
 - **Interrupted by H1N1 epidemic**
- **Guidelines drafted by PAHO-CDC committee**



**Pan American
Health
Organization**

Regional Office of the
World Health Organization



Plan de Preparación y Respuesta frente a la posible introducción del virus Chikungunya en las Américas

Versión 2

11 de junio de 2010

Preparedness and Response for Chikungunya Virus Introduction in the Americas

Version 2

11 June 2010

Preparedness and Response for Chikungunya Virus Introduction in the Americas

Topics

- **Epidemiology**
- **Clinical**
- **Laboratory**
- **Case Management**
- **Surveillance And Outbreak Response**
- **Vector Surveillance And Control**
- **Risk And Outbreak Communication**

Meeting Objectives and Outcome

- **Technical Advisory Group**
 - Review
 - Revise
 - Rewrite
 - Recommend adoption and implementation by PAHO countries

Technical Advisory Group Agenda

Chikungunya Background

- Chikungunya Virus: Clinical and Epidemiological aspects.
 - USA CDC (Ann Powers)
- Laboratory Diagnosis of Chikungunya virus: An overview
 - USA CDC (Robert Lanciotti)
- Impact of a Chikungunya outbreak on public health: Experience of La Reunion
 - FRANCE 'Laveran Military Hospital' (Fabrice Simon)
- Chikungunya cases identified in the Americas: USA, Canada and French territories
 - USA CDC (Erin Staples)
 - CANADA 'National Microbiology Laboratory-WHOCC' (Michael Drebot)
 - FRENCH TERRITORIES (To be determined)
- Round table: Control of *Aedes aegypti* in The Americas: What has worked and not
 - PUERTO RICO CDC (Roberto Barrera)
 - USA CDC (Harry Savage)
 - PAHO/WHO (José Luis San Martín)
 - MoH Brazil (Irma Braga)
 - PAHO/WHO (Chris Frederickson)

Work Groups

Muchas Gracias

Thank You