

State Perspective

Binational and Border Health

Gil Franco Chávez, MD, MPH

Deputy Director for Infectious Diseases

State Epidemiologist

Questions of the Day....

- Why do we need a focus on Border and Binational Health?
- What are the Major Public Health Concerns for Border and Binational Communities in CA?
- What is Being Done to make the border area healthier?

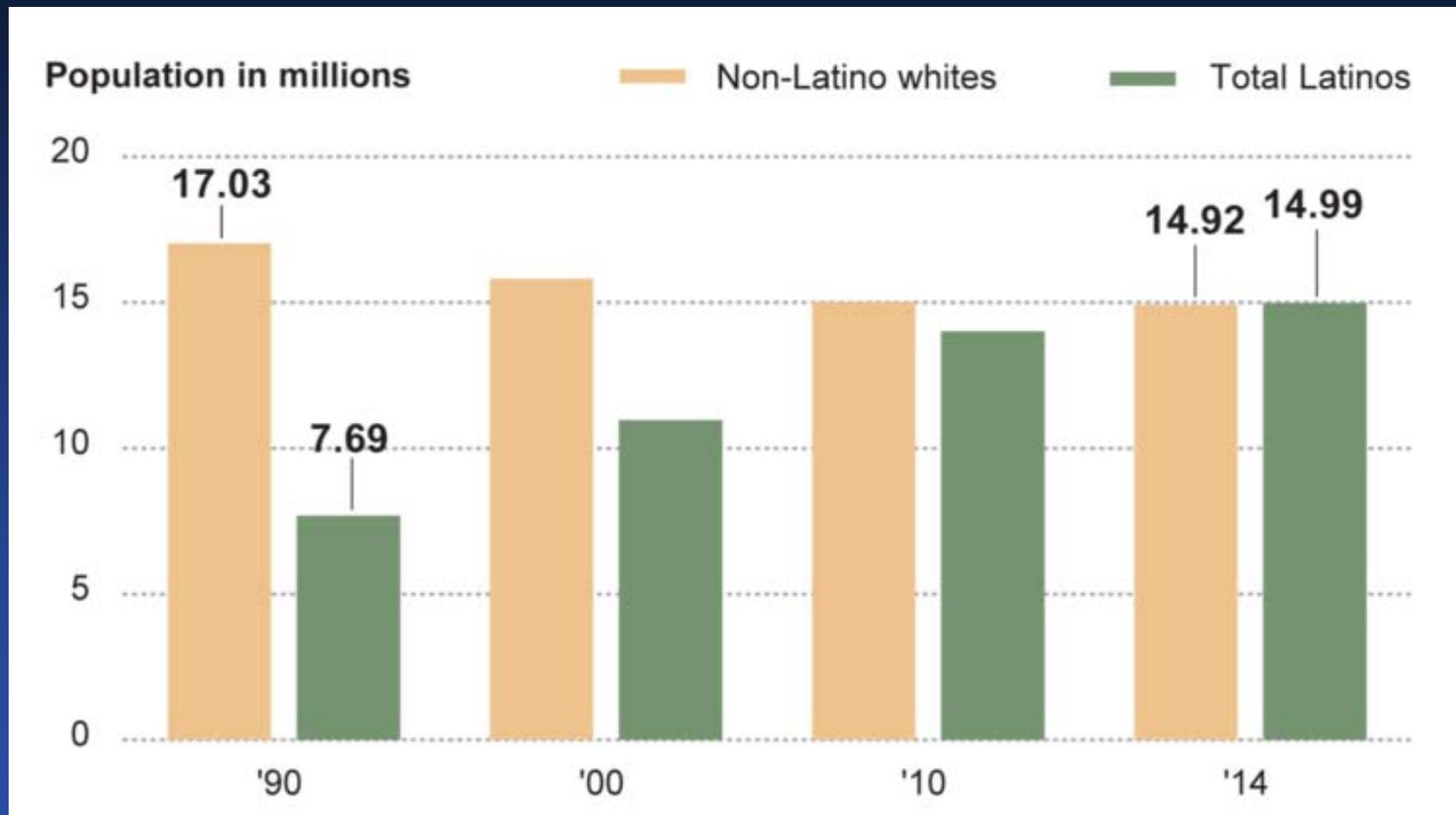
Why do we need a focus on Border and Binational Health?

San Ysidro Port of Entry

- Most traveled land border in the Western Hemisphere
- Approximately 50,000 vehicles per day
- Approximately 25,000 pedestrians per day
- Expected 87% increase in vehicular traffic by 2030



Latino Population Growth in CA



Demographics

- Statewide: Whites and Latinos make up the same proportion at 39% of the total population
- Imperial County: In 2014, Latinos made up the majority (81%) of the population in Imperial County. Whites made up 14%
- San Diego County: The majority of the population was White (47%), Latinos constituted the largest minority group at 34%

Education

- Statewide: The percent of Latinos in California who had less than a high school education (32%) was close to seven times greater than that of Whites (4.8%)
- San Diego County: The disparity was greater; the percentage of Latinos who had less than a high school education (28%) was more than nine times greater than that of Whites (3.2%)
- Imperial County: The percentage of Latinos who had less than a high school degree was 42.7% was three times greater than that of Whites (15.8%).

Poverty Level

- 39.1% of people were living below 200% FPL in California statewide
- In 2012 more than half (61.2%) of Imperial County residents were living below 200% of the Federal Poverty Level (FPL)
- 35.2% in San Diego County were living below 200% FPL
- In San Diego, a higher percentage of the Latino population was living below 200% of the FPL compared with the total county population

Unemployment

As of December 2014:

- California reported that 10.5% of the population was unemployed
- San Diego County reported 8.9% was unemployed
- Imperial County reported 28.3% unemployment- the highest among all counties in California

What are the Major Public Health Concerns for Border and Binational Communities in CA?

Obesity in Border Region, 2013

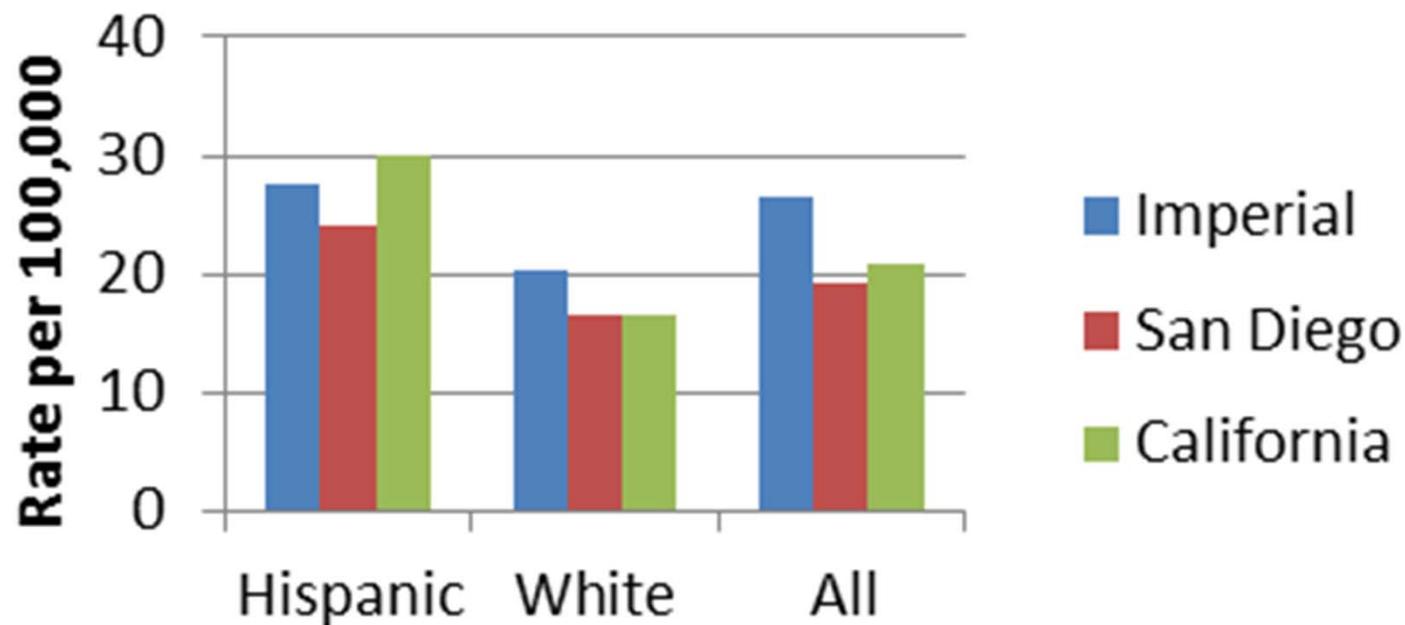
- In San Diego County, 23.7% of adults were obese.
- 45.1% of adults in Imperial County were obese. This is the highest of all California counties.
- The Latino population has a consistently higher percentage of obesity when compared with the White population and all other populations combined.
- In Imperial County, 61.2% of people with obesity lived below 200% of the FPL, compared to 37.6% in San Diego County.

Diabetes in Border Region, 2013

- In California 8.7% of adults were diagnosed with diabetes, compared to 8.5% and 20.6% of adults in San Diego County and Imperial County respectively.
- Latinos along the border region have higher diabetes-related mortality rates than Whites and all ethnicities combined even after adjusting for age.
- In San Diego County, the diabetes-related mortality rate was 24.1 per 100,000 for Latinos, compared to 16.5 for Whites. In Imperial County the rates were 27.6 for Latinos and 20.2 for Whites respectively.

Diabetes in Border Region, 2013

Diabetes Mortality Rates by Region and Race Ethnicity, 2013

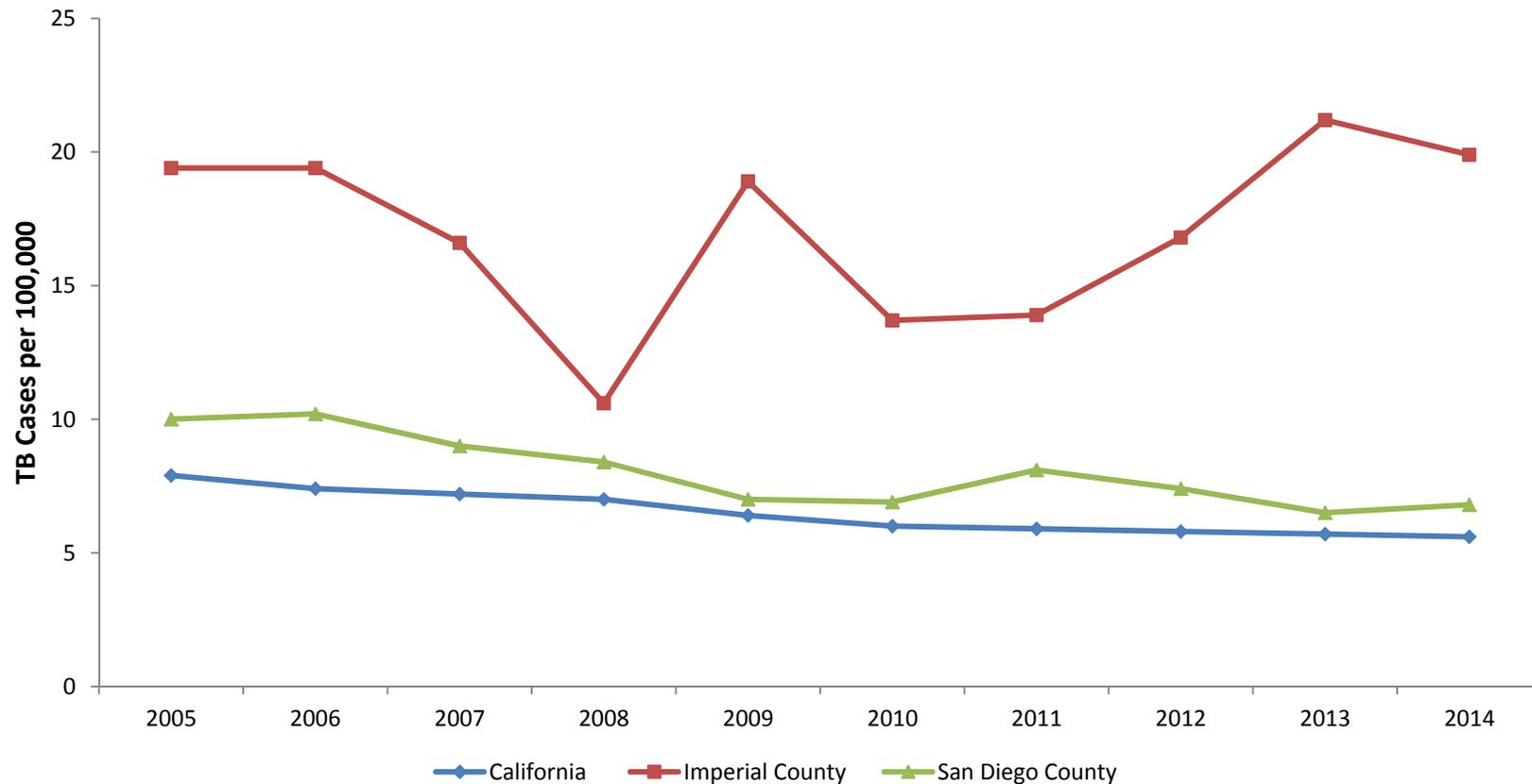


Tuberculosis in Border Region, 2014

- California border counties are major contributors to the state's TB burden.
- In 2014, Imperial County reported a case rate of 19.9 per 100,000, the highest rate among all California counties.
- San Diego County reported a case rate of 6.8 per 100,000.
- Between 2010 and 2014, Imperial and San Diego counties reported 92% and 53% of TB cases were Hispanic/Latino respectively.
- San Diego County has higher treatment completion rates than the state with 88% of all TB cases completing treatment. In Imperial County only 60% of all TB cases reported treatment completion.

Tuberculosis in Border Region, 2005-2014

TB Case Rates in California and Border Counties
2005-2014



Infectious Diseases in Border Region

- Vectorborne
 - Chikungunya-Dengue
 - Rickettsiosis
- Binational Case & Outbreak Investigation
- Respiratory
 - Influenza
 - Severe Acute Respiratory Infections



Ae. aegypti
2013

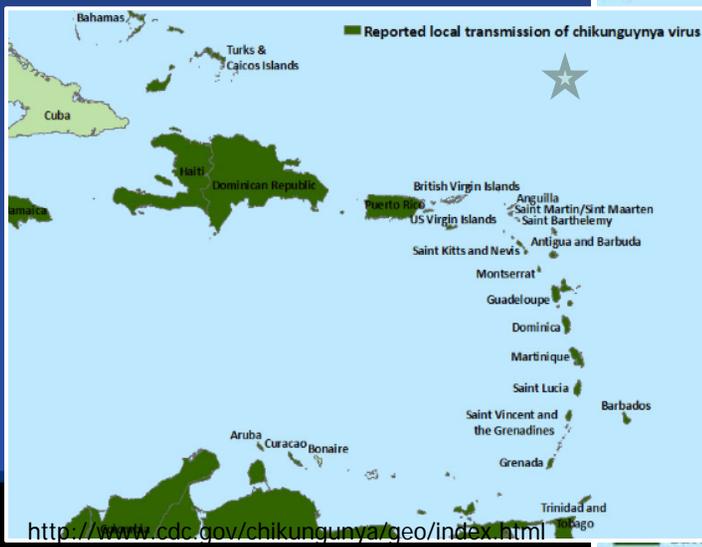


Ae. albopictus
2011



The spread of chikungunya virus in 2014

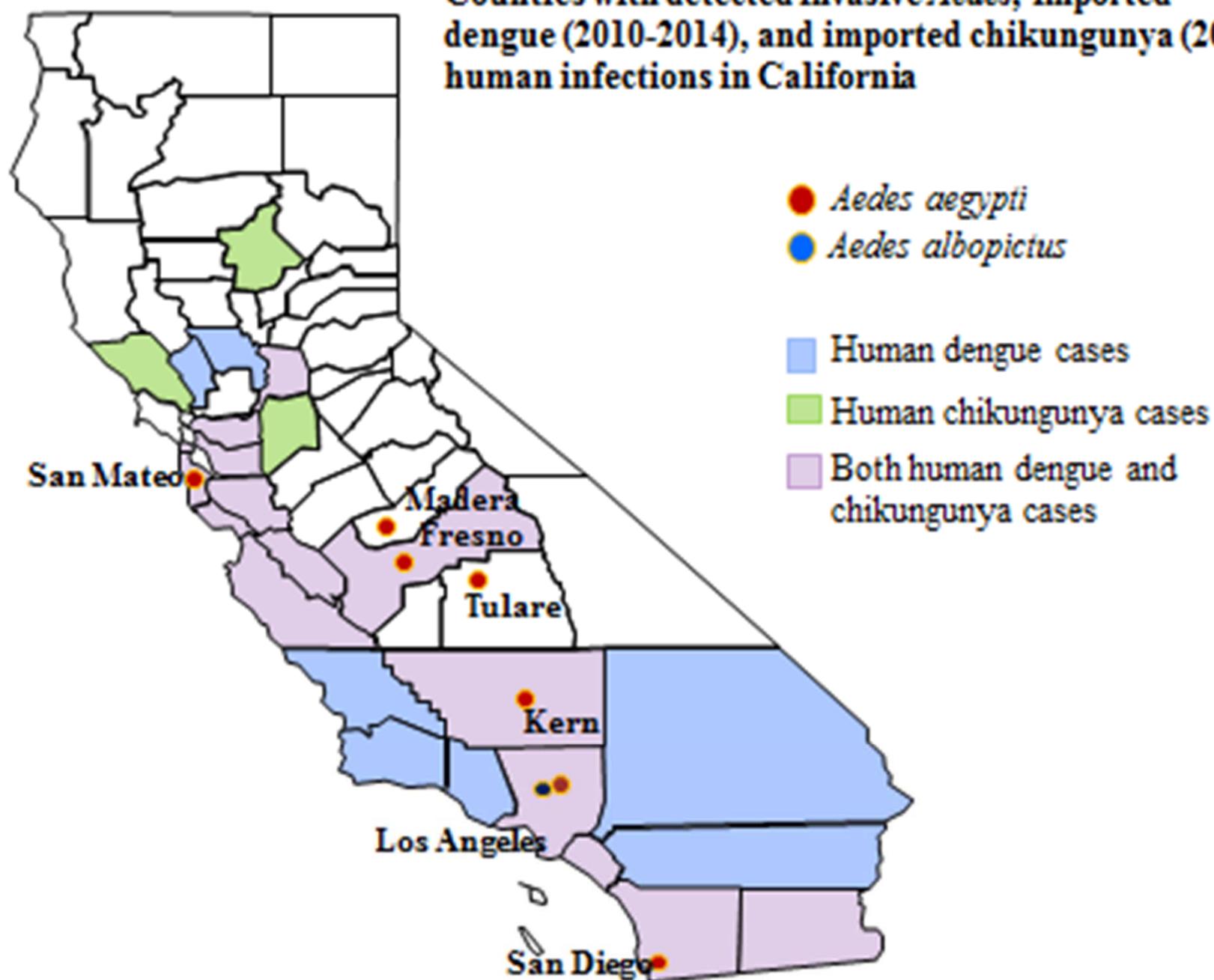
January 2014



<http://www.cdc.gov/chikungunya/geo/index.html>

<http://www.cdc.gov/chikungunya/geo/index.html>

Counties with detected invasive *Aedes*, imported dengue (2010-2014), and imported chikungunya (2014) human infections in California



Dengue and Chikungunya

- Risk of local transmission is currently low
- No locally acquired infections have been documented in California
- The introduction of *Aedes aegypti* / *albopictus* and viremic travelers in the same area is a public health concern
- Enhanced surveillance of both mosquitoes and case patients is necessary to reduce risk of autochthonous transmission

What is Being Done to make the border area healthier?

California Department of Public Health

Office of Binational Border Health

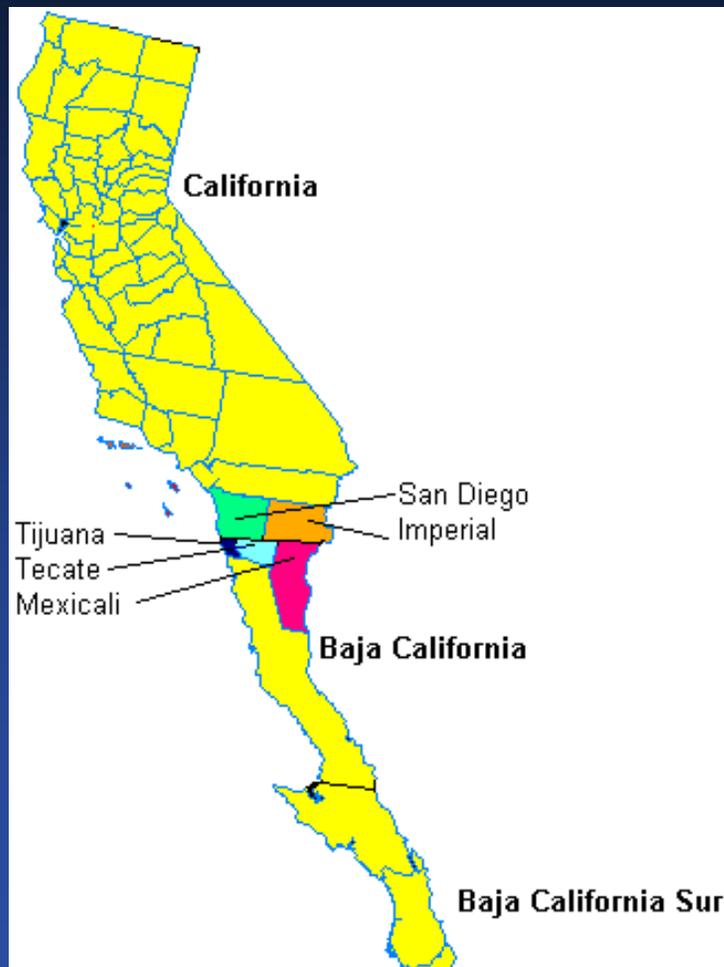


Office of Binational Border Health

- Established in 1999 by State Legislation (AB 63, Ducheny) as a unit of the California Department of Health Services
- **Mission:** To facilitate communication, coordination, and collaboration between California and Mexico health officials, health professionals and communities in order to optimize border and binational health.



Office of Binational Border Health



Focus Area:

Border
and Binational
Communities in California

OBBH Statewide Advisory Group

Jim Arriola, MBA
Chief Operating Officer
Medical Health Plan

Alberto Colorado
International Public Health Consultant
Health Right International, The Global Fund to Fight AIDS,
Tuberculosis and Malaria,
and the Stop TB Partnership

Irma Cota, MPH
CEO & President
North County Health Services

Alvaro Garza, MD, MPH
Public Health Officer
San Joaquin County Health Department
California Conference of Local Health Officers Representative

Barbara Jiménez
Deputy Director of Central and South Regions
San Diego County Health and Human Services

Rosemarie Johnson, MD
Medical Community Liaison
San Diego Medical Society Foundation

Paula Kriner, MPH
Epidemiology Manager
Imperial County Public Health Department

Blanca Lomelí, MD
Regional Director, North America
Project Director TB Solution
Project Concern International

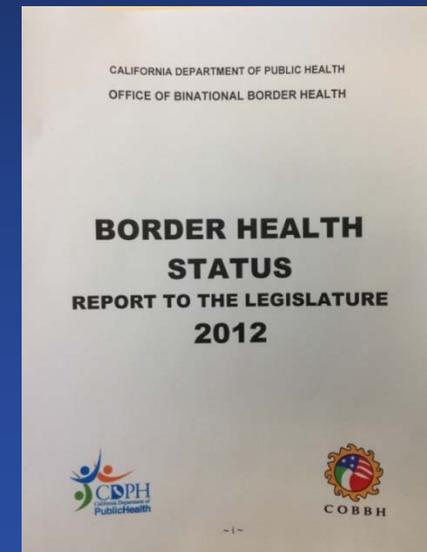
Carmen Nevarez, MD, MPH
Vice President for External Relations, Preventive Medicine
Advisor and
Director for Health Leadership and Practice
Public Health Institute

Gilberto Ojeda
Director of California Program on Access to Care
University of California, Berkeley

Goal 1: Assess, monitor, and report on border and binational public health issues

Activities:

- Annual Border Health Status Report to the Legislature
- Binational Infectious Disease Surveillance (BIDS) collaboration
- Influenza-Like-Illness Surveillance



Goal 2: Facilitate & optimize communication, coordination, and collaboration

Activities:

- Meetings between Mexico and California Health Officials



Goal 2: Facilitate & optimize communication, coordination, and collaboration

- **Quarterly Binational Epi Meetings to enhance the region's ability to detect and respond to infectious disease threats.**
- **US-Mexico Binational Technical Workgroup to develop protocols.**
- **Border Reproductive Health Technical Workgroup develop borderwide strategic plan.**
- **Border Health Consortium of the Californias: public, private and academic partnership in CA and BC.**



Border Health Consortium of the Californias

Public, Private, and Academic institutions in California
and Baja California working together on border and
binational health issues



Goal 3: Increase awareness about border and binational public health issues

Collaboration with U.S. and Mexico to plan activities :

- Development of Infographics, Media Advisories
- Border Binational Health Week Activities
- Disease Reporting



*California Influenza and Other Respiratory Disease Surveillance for Week 18
(May 3, 2015 to May 9, 2015)*

Goal 4: Build capacity to effectively address border and binational public health issues

- Promotoras Training-Oct 2015
- Binational Breast and Cervical Cancer Congress in October 2015
- Binational Vector-borne meeting in November 2015
- Protecting Children's Environmental Health in U.S.-Mexico Border Region- January 2016



Partnerships & Collaborations

Quarterly Baja California-California Binational Epidemiology Meetings



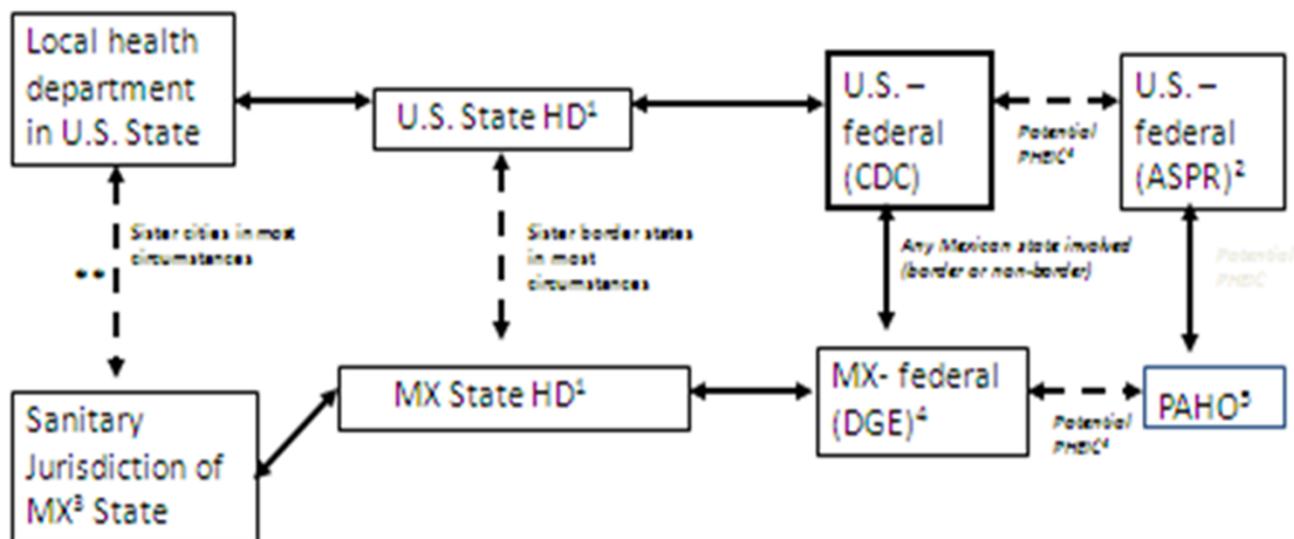
CA Reportable Disease Information Exchange (CalREDIE)

- **CalREDIE – Computer application for web-based disease reporting and surveillance**
 - Improve efficiency of surveillance activities & early detection
 - Completeness
 - Timeliness
- **CA – 61 Local Health Departments**
- **Binational Case Functionality**
 - Enhance reporting of binational cases
 - Live 2014



US-Mexico Binational Communication Pathways Protocol

U.S.– Mexico Communications Pathways for Routine or Emergency Events*



*Communications within each country should simultaneously inform all other levels of government

** Dotted arrows refer to communication pathways contingent on events occurring in border settings or public health emergencies of international concern as defined by the International Health Regulations



Background - BIDS



- **BIDS: Border Infectious Disease Surveillance**
 - Established 1999 to enhance infectious disease surveillance, build border-region epidemiology and laboratory capacity, and strengthen binational communication systems to improve disease prevention.
 - Federally funded (CDC ELC Grant)
 - Managed by the CDPH-OBBH

Objectives



- Tailor surveillance to local disease priorities;
- Focus on special populations such as binational or mobile populations;
- Detect potential outbreaks through early case confirmation;
- Provide public health interventions; and
- Work with partners across the border to develop and strengthen data sharing and communication systems.

BIDS Activities



Influenza Surveillance

Monitor and characterize ILI and influenza subtypes in the California border region

Imperial County Public Health Department

RESPIRATORY ILLNESS UPDATE

Surveillance Weeks 14-15
4/5/15 - 4/18/15

INFLUENZA-LIKE ILLNESS (ILI)

Case Definition:
Fever ($\geq 100^{\circ}\text{F}$ [37.8°C]) AND cough and/or sore throat in the absence of a known cause other than influenza.

California Influenza Update
Influenza activity in week 15 (April 12-18, 2015) is reported as sporadic (defined by the Centers for Disease Control as small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI). There were no laboratory-confirmed influenza deaths and one lab-confirmed influenza outbreak during week 15. Of 1,124 specimens tested by the Respiratory Laboratory Network (RLN) and Sentinel Laboratories, a total of 59 (5.2%) were positive for influenza virus; of these, 15 (25.4%) were influenza A and 44 (74.6%) were influenza B. Out of 15 specimens testing positive for influenza A, 33.3% were H3, 6.7% were 2009 A (H1), and 60.0% were not subtyped.

Imperial County Influenza Update

During epidemiologic weeks 14-15, only 5 patients were identified with influenza-like illness at three outpatient sentinel sites in El Centro, Calexico, and Brawley. Three case patients were female (60%) and all of them were Hispanic. Case-patient ages range from 7 to 63 years (median: 15 years). The proportion of patients visiting sentinel clinics and emergency departments at both local hospitals due to influenza-like illness increased slightly during week 15 (0.2% and 1.9% respectively) compared to week 14 (0.1% and 1.8% respectively). See graph below.

OUTPATIENT CLINIC AND EMERGENCY DEPARTMENT INFLUENZA-LIKE ILLNESS SURVEILLANCE, IMPERIAL COUNTY, SEPTEMBER 28, 2014-APRIL 18, 2015

Hospital data from Pioneers Memorial Hospital and El Centro Regional Medical Center. Outpatient data from Clinicas de Salud in Calexico, Brawley, and El Centro. Denominator: patients seen for all causes

ACTIVE VIROLOGIC & ILI SURVEILLANCE
Clinicas de Salud-Calexico, Brawley, and El Centro

Cases by Age Group	Week 14-15 4/5/15-4/18/15	Since 9/28/2014 4/18/15
0-4 years	0	158
5-24 years	3	233
25-49 years	0	61
50-64 years	2	30
>64 years	0	18
Total cases	5	500
Total Patients	3,882	58,188
ILI (%)	0.12%	0.85%

Test Results from the Naval Health Research Center Lab Total Since Sept. 28, 2014*

Test	Total Patients Tested	Positive Cases	%	Total Cases Positive This Season
Influenza A 2009 pH1N1	0	0	0	0
Influenza A H3 (Seasonal)	145	0	0	0
Influenza A not subtyped	1	0	0	0
Influenza B	7	0	0	0
Respiratory Syncytial Virus	7	0	0	0
Rhinovirus	57	0	0	0
Adenovirus	15	0	0	0
MBSA	2	0	0	0
Group A Streptococcus	15	0	0	0
Streptococcus pneumoniae	8	0	0	0

SURVEILLANCE SYSTEM 4/5/2015 - 4/18/2015

Test	Total Patients Tested	Positive Cases	%	Total Cases Positive This Season
Influenza Rapid Test	124	2 Flu A 0 Flu B	1.6	1,182 41 Flu A 41 Flu B
Respiratory Syncytial Virus Rapid Test	41	1	2.4	230

Data from El Centro Regional Medical Center and Pioneers Memorial Hospital

For more information, contact Marian Fierro at (442) 265-1356 or by email at mariafierro@co.imperial.ca.us

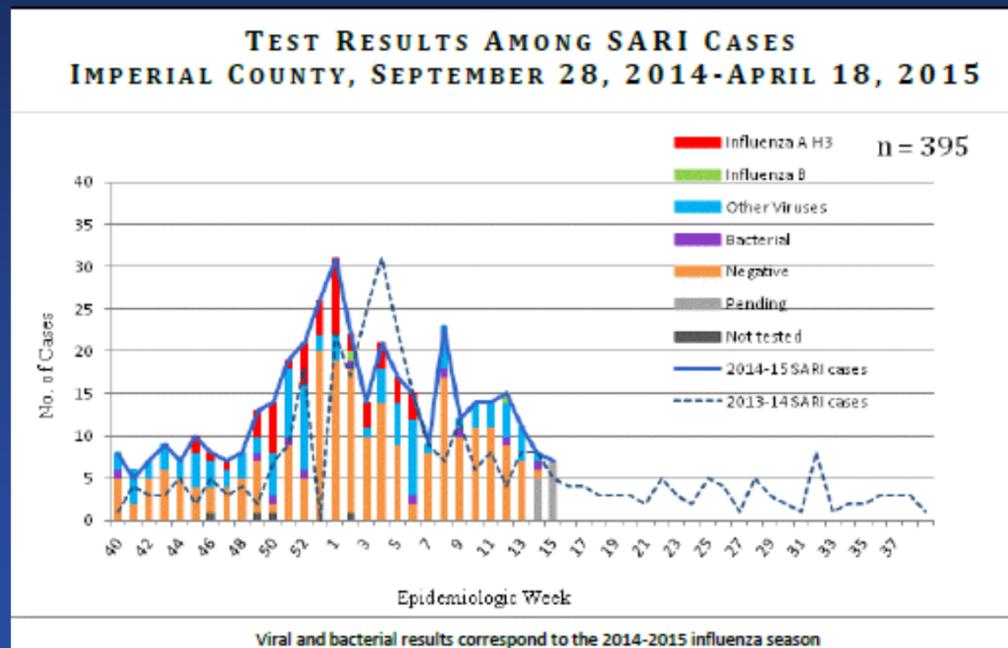
*As of 4/9/2015

California Department of Public Health, Office of Binational Border Health

BIDS Activities



- SARI Surveillance - Identify respiratory pathogens that may be contributing to SARI in the CA border region



BIDS Activities

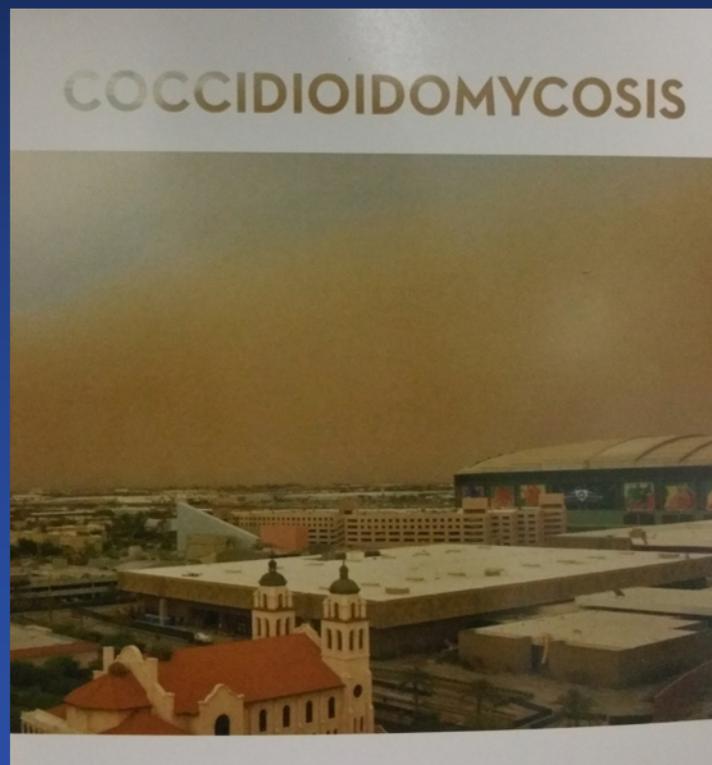


- **Antibiotic Resistance Shigella & Salmonella**
 - Define patterns of **antibiotic resistance** occurring in the CA border region
 - Inform **antibiotic** treatment decisions for infections in the CA border region

BIDS Activities



- **Coccidioidomycosis**
 - Characterize **coccidioidomycosis among patients with pneumonia** in Imperial County



BIDS Activities



- Vectorborne Diseases
 - Dengue
 - Chikungunya
 - RMSF



Summary of Border and Binational Issues

- The population of border and binational communities continues to experience growth.
- Chronic diseases, including obesity and diabetes, are important indicators to assess the health of these areas.
- Infectious diseases continue to be a significant challenge among those residing in binational and border communities.
- Very important and innovative public health collaborations are under way to improve the health of border and binational populations.
- We must maintain a laser focus on health equity for all residents of border and binational communities.

OUR TEAM

