

Chagas' Disease

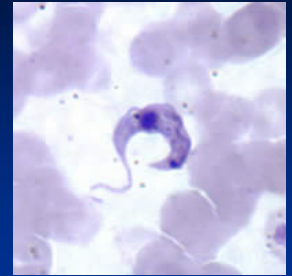
Case Example of an Unmet Challenge

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Advisory Committee
Blood Safety and Availability
Department of Health and Human Services
January 26, 2005

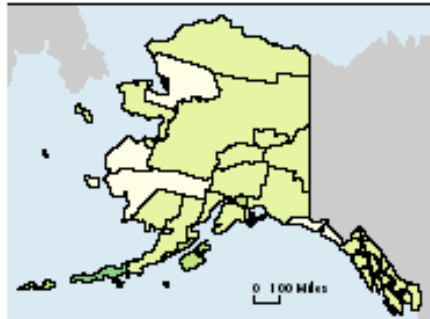
Chagas' Disease

- caused by *Trypanosoma cruzi*
- natural infections vector-borne
 - other routes:
 - congenital
 - organ transplant
 - blood transfusion
- endemic to Latin America
 - 16-18 million people infected
- asymptomatic, life-long & untreatable

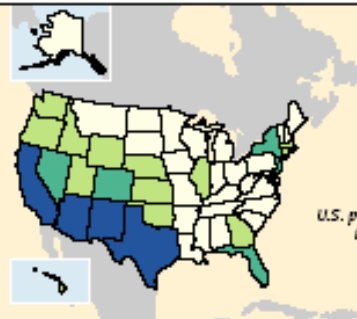


Transfusion Risks

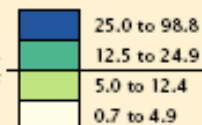
- driven by immigration
- seroprevalence
 - influenced by donor demographics
 - varies by location
- intermittent parasitemia
- transfusion cases
 - few recognized, but many missed
- interventions/barriers



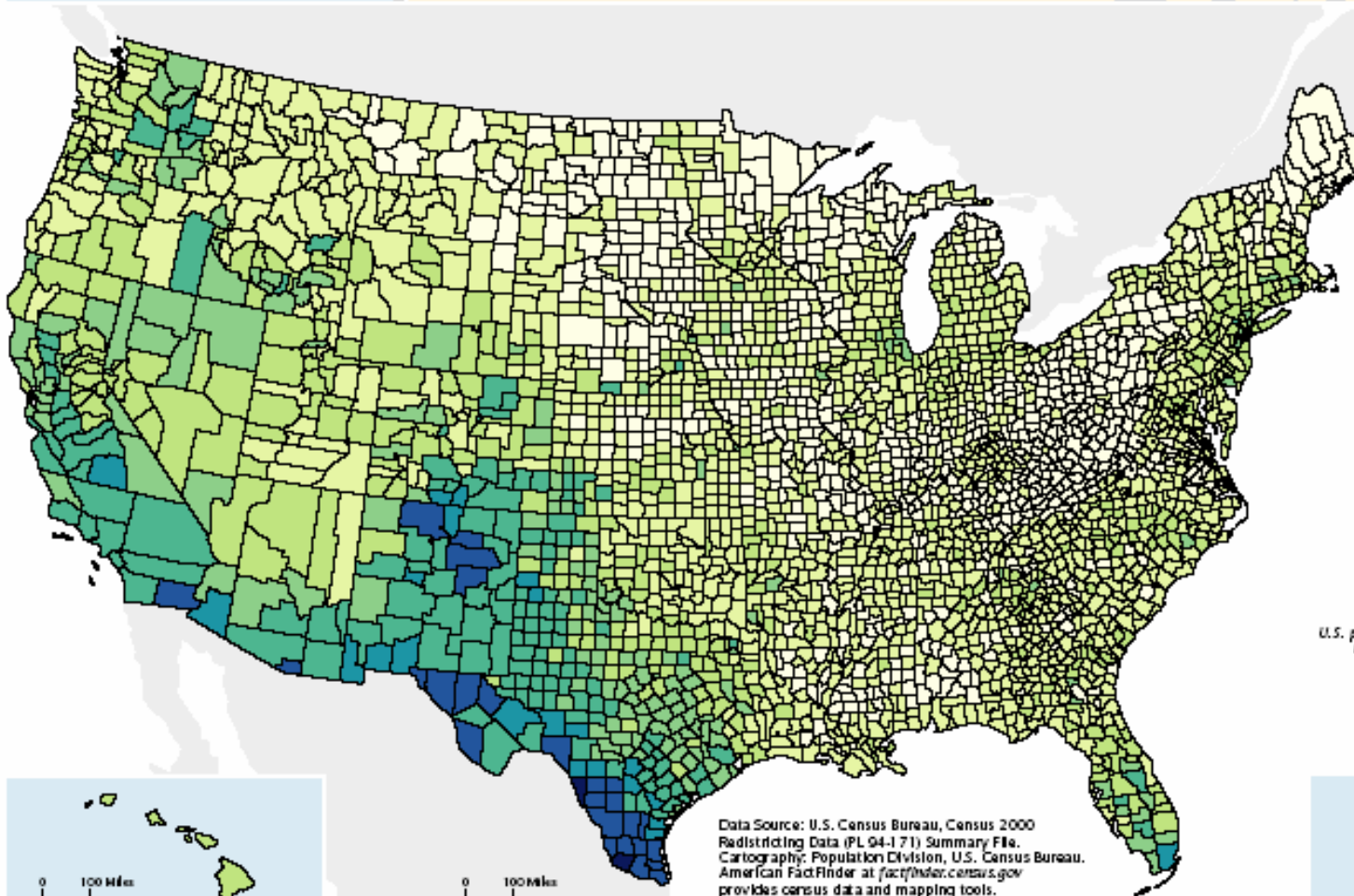
Percent of Population, 2000 Hispanic or Latino Origin All Races



All races: Hispanic or Latino population as a percent of total population by state

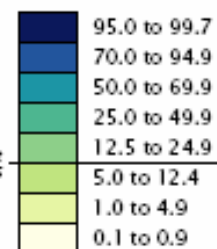


U.S. percent is 12.5



This map is one of a series of 14 "Percent of Population" maps with comparable categories for counties. Breaks defining map categories differ by small amounts among maps in the series to include the U.S. percent for the specific group mapped.

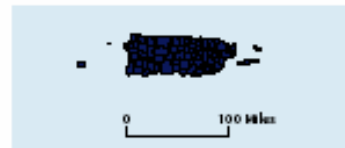
All races: Hispanic or Latino population as a percent of total population by county



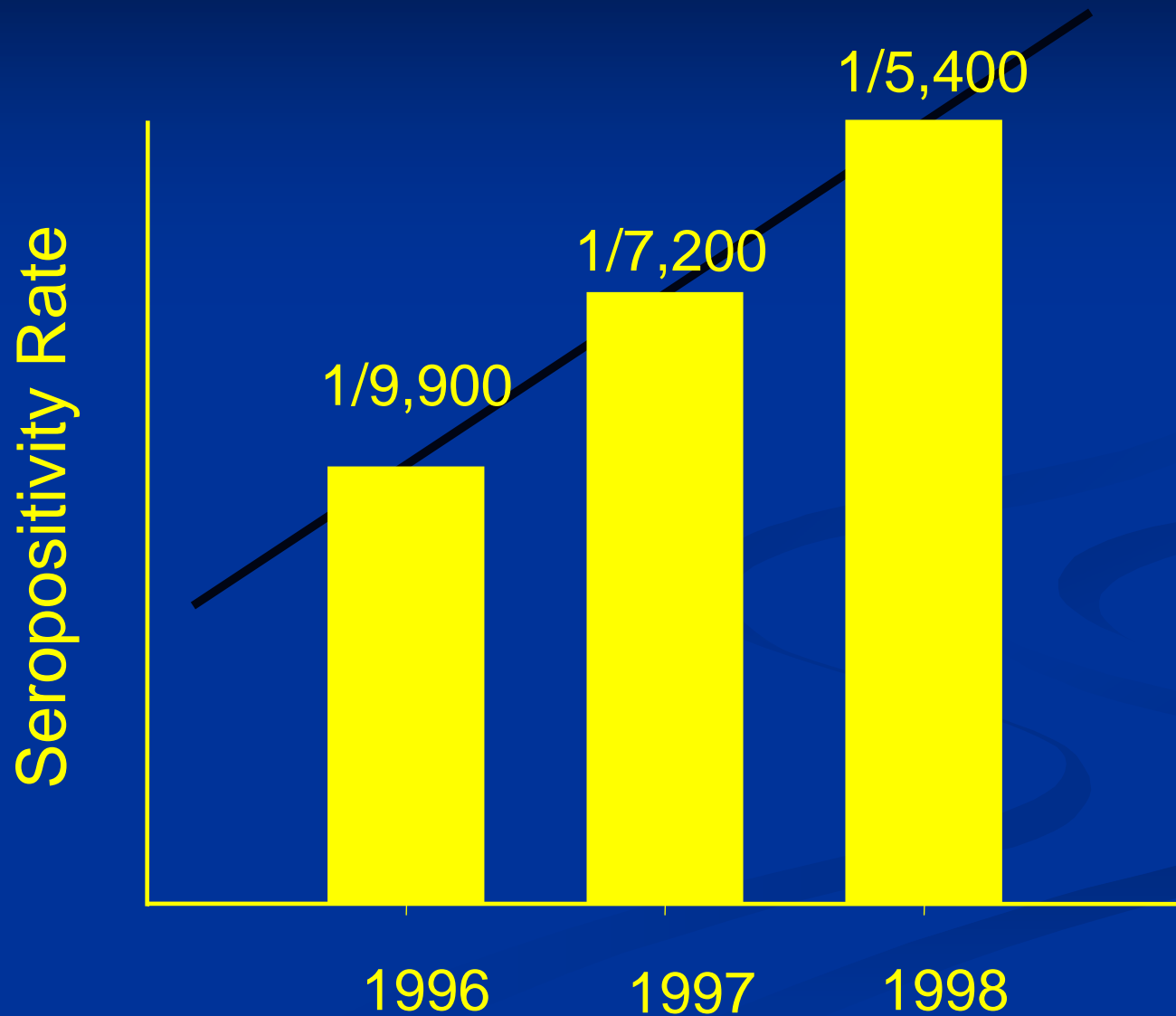
U.S. percent is 12.5



Data Source: U.S. Census Bureau, Census 2000 Redistricting Data (PL 94-171) Summary File.
Cartography: Population Division, U.S. Census Bureau.
American FactFinder at factfinder.census.gov provides census data and mapping tools.



LA Seroprevalence: 1996-98



Changing Donor Demographics



Enhanced Minority Recruitment Efforts



Greater Number of At-Risk Donors



More Seropositive Donors



Greater Risk of Transfusion-Transmission

Transfusion Transmission

- extracellular in peripheral blood
 - demonstrable parasitemia in 63% of seropositive donors
 - intermittent
- survives storage:
 - platelets \leq 7 days
 - red cells \leq 3 weeks
- 5 U.S. cases and 2 Canadian cases
 - fulminant & recipients immunocompromised
- immunocompetent recipients
 - cases likely not recognized or misdiagnosed

Interventions

- risk factor questions
 - outright deferral
 - selection for testing
- production manipulation
 - pathogen inactivation
 - leukoreduction/filtration
- testing
 - serology and/or NAT
 - selected or universal

Barriers to Action

- lack of public/media awareness
- preoccupation with the “latest emerging agent”
- unavailability of screening test:
 - trepidation by manufacturers
 - September 2002 BPAC
 - regulatory pathway for donor screening
- ignorance of the “parasite paradigm”