



# Health Network

A Care Coordination Program for  
Patients Who Move During Treatment

MIGRANT CLINICIANS NETWORK



*A force for health justice for  
the mobile poor*

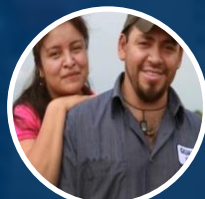
MIGRANT CLINICIANS NETWORK



**Practical Solutions at the Intersection of Vulnerability, Migration, and Health**



**Climate Crisis &  
Health Equity**



**Continuing  
Care While  
Moving**



**Health  
Provider  
Support**



**Support of  
Migrants in  
Detention**



**Community  
Engagement**

MIGRANT CLINICIANS NETWORK



# Office Locations





# MCN's Primary Constituents

- Health educators
- Nurses
- Primary care providers
- Dentists
- Social workers
- CHWs
- Outreach workers
- Medical assistants



Migrant  
Mobile poor  
Immigrants

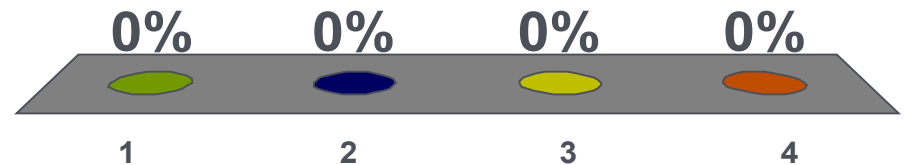
Clinicians

Federally  
funded  
Migrant &  
Community  
Health Centers

State and local  
health  
departments

# How many languages are spoken by the patients at your health center?

1. 1-2
2. 3-4
3. 5-6
4. >6



## Unusual Diagnoses

- Chikungunya
- Dengue Fever
- Chagas



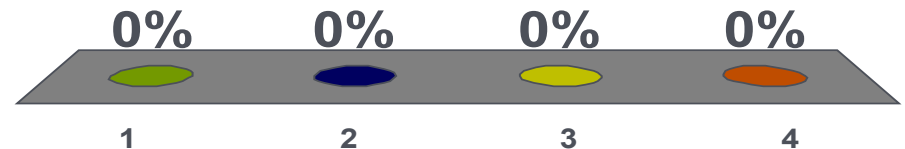
## Management Challenges

- HIV/AIDS
- TB
- Hepatitis

Global  
Health in  
Primary  
Care

# How many languages do the clinicians at your health center speak (collectively)

1. 1-2
2. 3-4
3. 5-6
4. >6

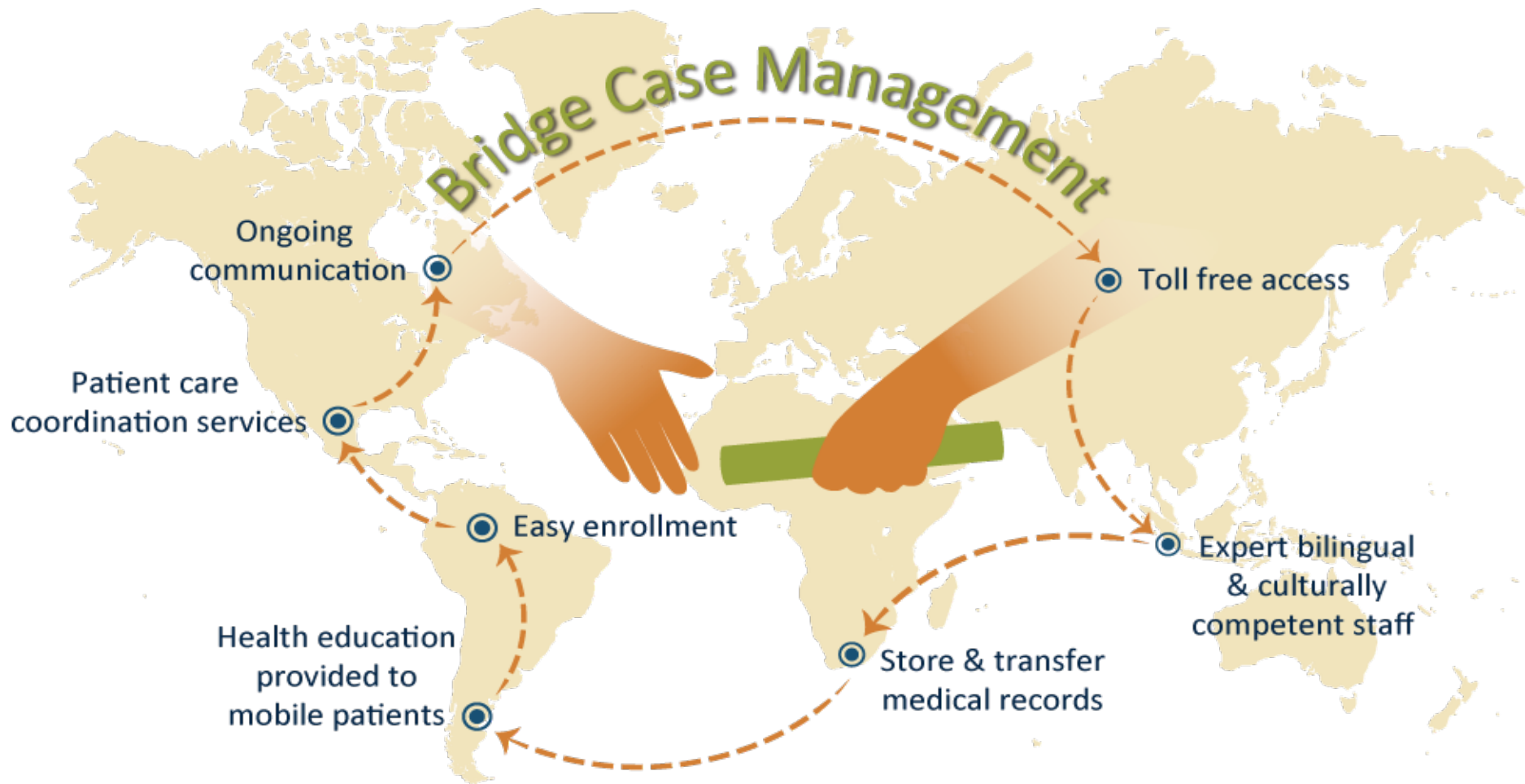






26 Years of  
Innovation

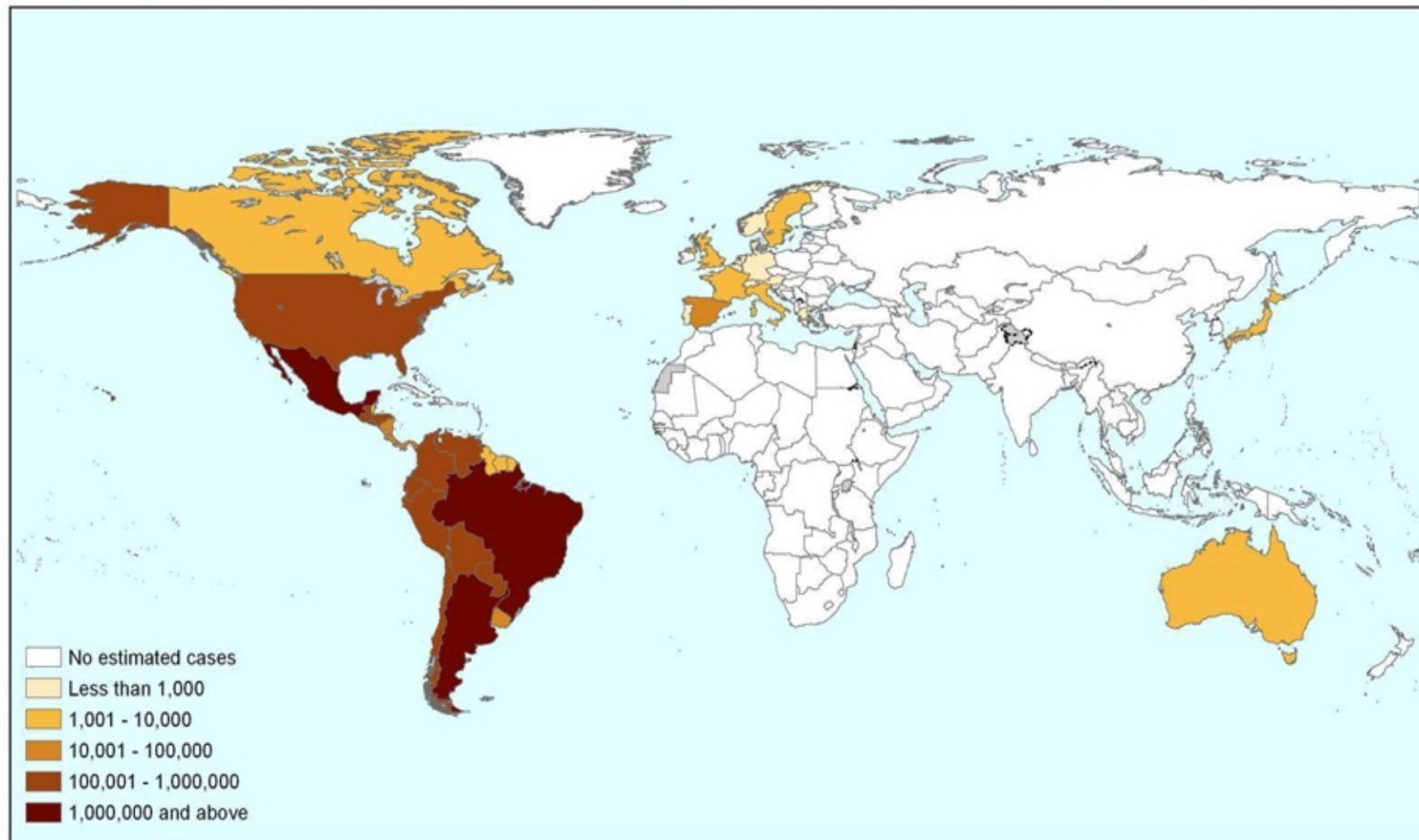
# Care Management AND Referral Tracking and Follow-up Health Network



The patient in my office today was living in Central America last month. What do I need to know about infectious diseases?



## Estimated global population infected by *Trypanosoma cruzi*, 2009



### Sources:

1. OPS/HDM/CD/425-06 Estimación cuantitativa de la enfermedad de Chagas en las Américas.
2. Guerri-Guttenberg RA, Grana D.R., Giuseppe Ambrosio, Milei J. Chagasic cardiomyopathy: Europe is not spared! *European Heart Journal* (2008); 29: 2587-2591.
3. Schmunis, G. A. Epidemiology of Chagas Disease in non-endemic countries: the role of international migration. *Mem Inst Oswaldo Cruz, Rio de Janeiro*, Vol. 102(Suppl. I): 75-85, 2007.
4. De Ayala A.P, Pérez-Molina J.A, Norman F, and López-Vélez R. Chagasic cardiomyopathy in immigrants from Latin America to Spain. *Emerging Infectious Disease* Volume 15, Number 4—April 2009.
5. According to the numbers of immigrants registered for 2007 in the website of the Japanese Ministry of Justice and estimated seroprevalence for non endemic countries according to Paricio-Talayero J.M. Vigilancia epidemiológica de la transmisión vertical de la enfermedad de Chagas en tres maternidades de la Comunidad Valenciana. *Enferm Infecc Microbiol Clin* 2008;26(10):609-13.

# Chagas' Disease

- **8-11** million people infected
- **~50,000** deaths per year
- Most Important parasitic disease in Western Hemisphere (disease burden **7.5 times** as great as Malaria\*\*)
- In 2011 **>300,000** people in the US are infected\*\*
- **~100,000** will progress to chronic disease\*

\*Nature **465**,S6-S7(24 June 2010)

\*\*NEJM July 30, 2015 Vol. 373 No. 5



Reduviids found from southern USA to Argentina, but distribution is erratic

Humans are not necessary  
to life cycle, 150 species of  
mammals are infected

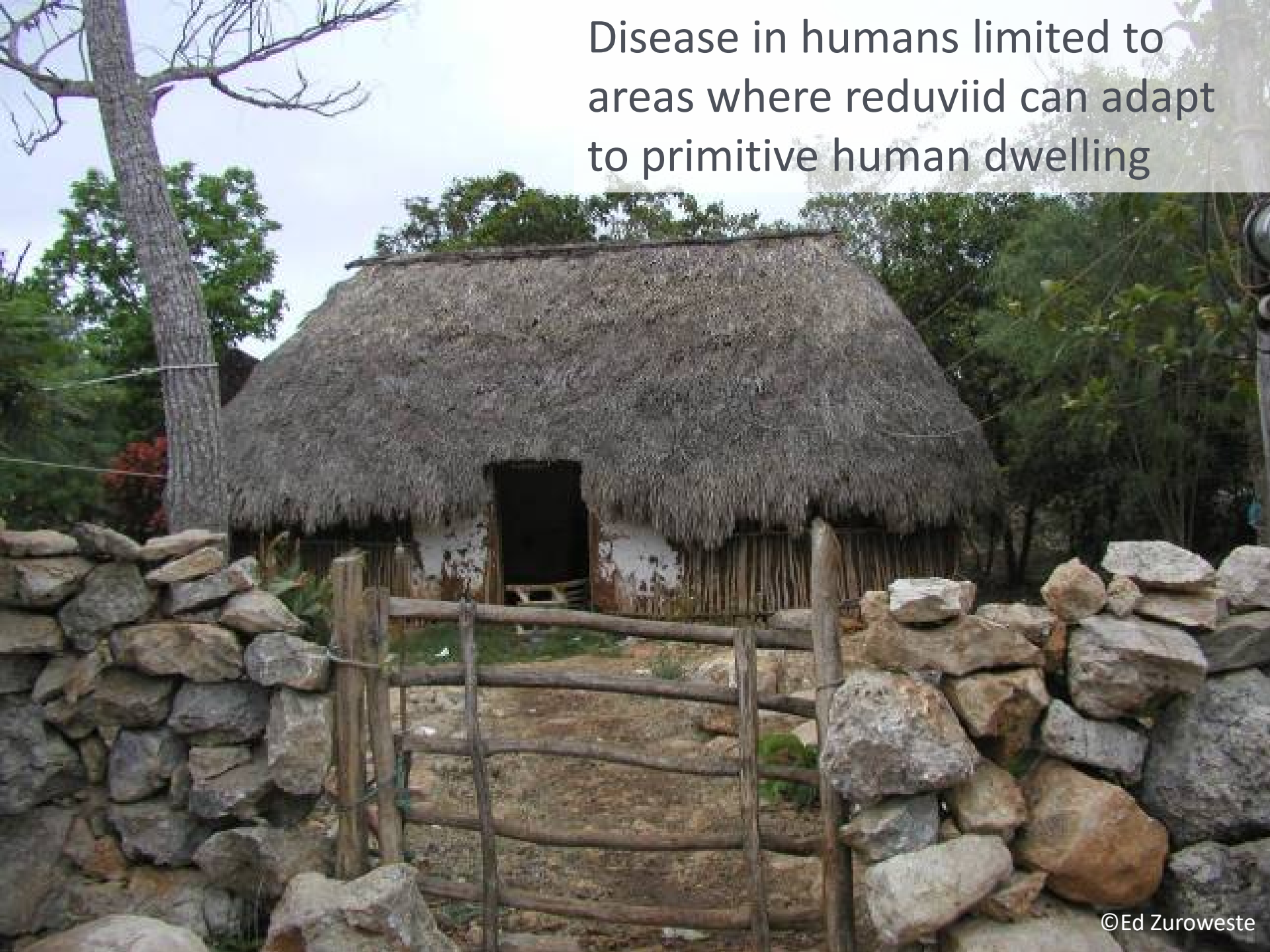


Transmission around tree trunks, hollow trees and burrows to non-human mammals





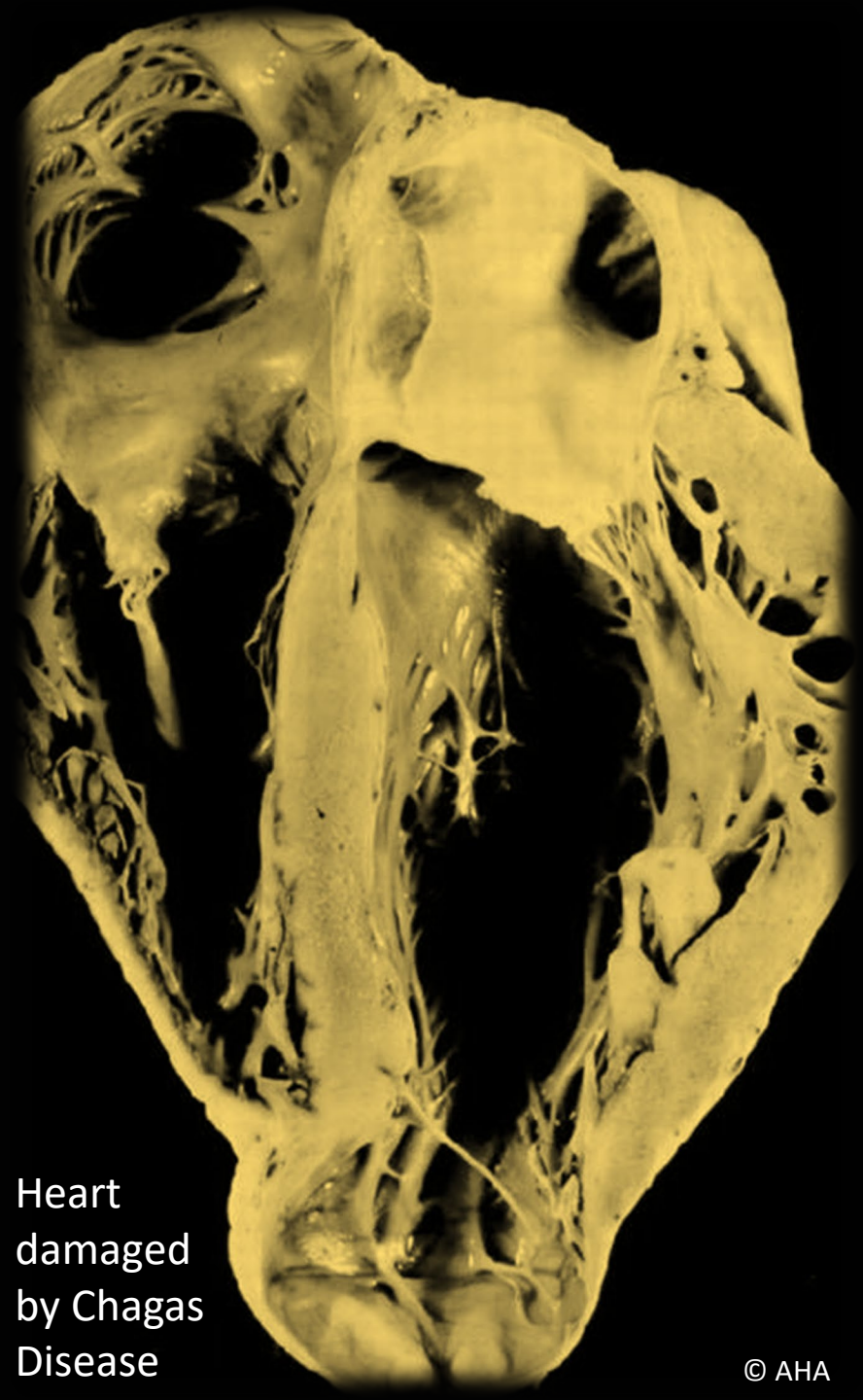
Disease in humans limited to areas where reduviid can adapt to primitive human dwelling



# Chagas' Disease

## Chronic Phase

- 20% to 30% of the infected individuals will develop irreversible lesions of the autonomic nervous system in the heart, esophagus, colon and the peripheral nervous system ( $\approx$  100,000 in the US)
- Mean age of onset of chronic disease is 35-45 years old

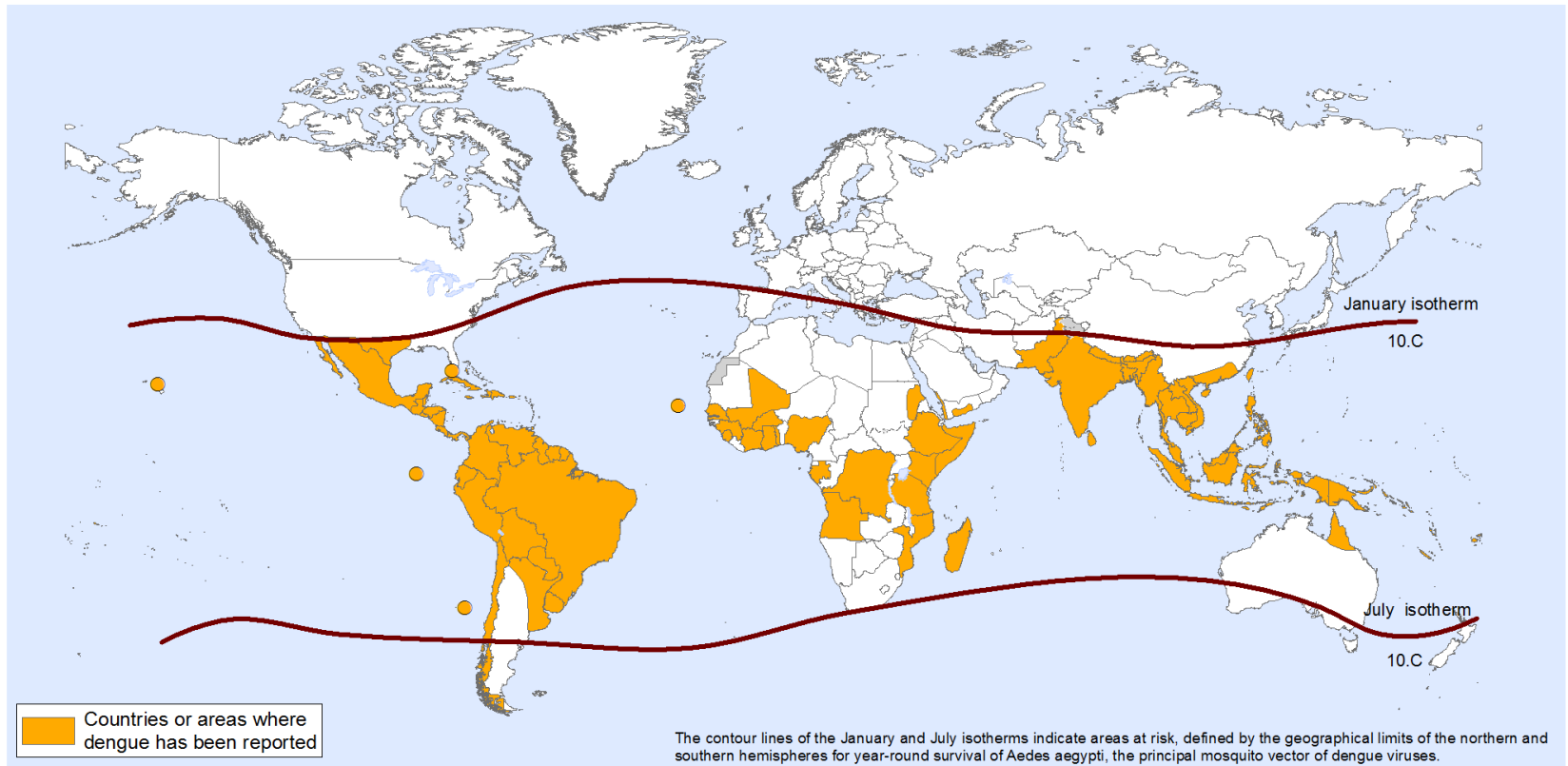


Heart  
damaged  
by Chagas  
Disease



# Dengue Fever

## Dengue, countries or areas at risk, 2013



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization  
Map Production: Health Statistics and  
Information Systems (HSI)  
World Health Organization



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Most widespread arboviral illness worldwide  
(50-100 million cases) and 25,000 Deaths/year



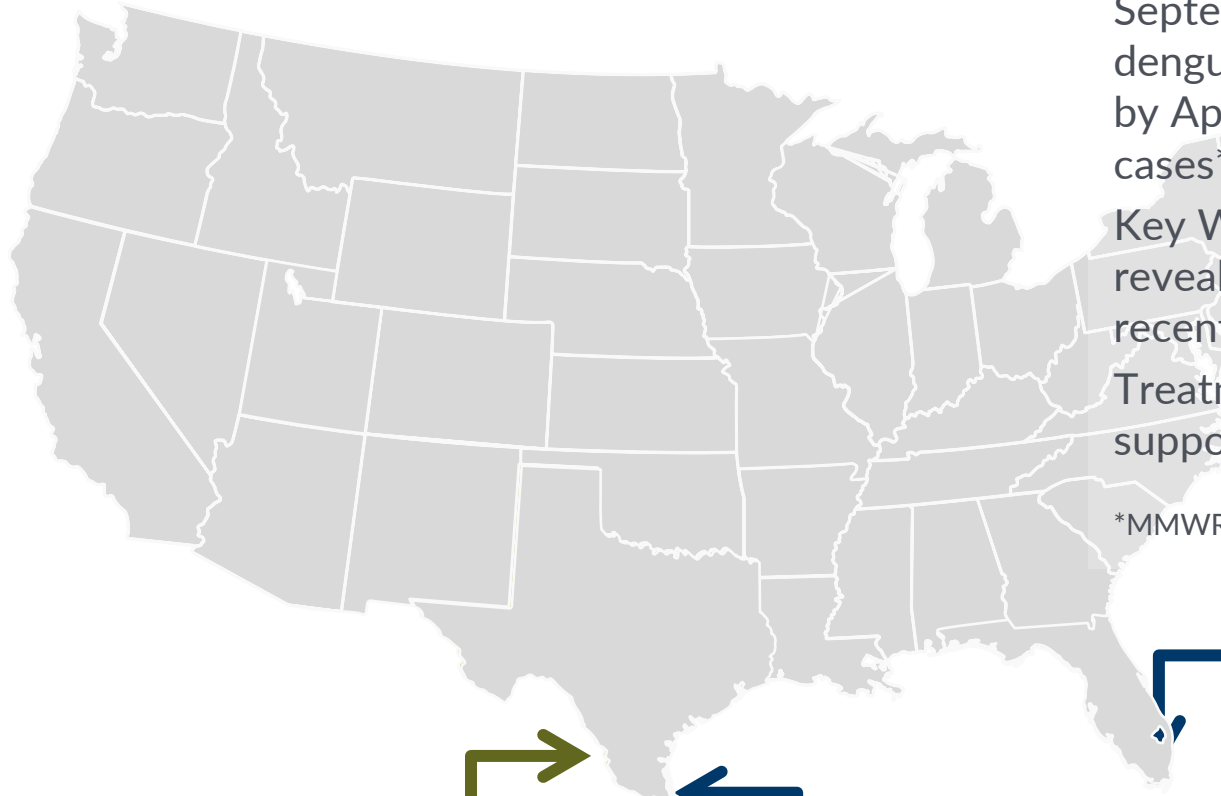
# Dengue Fever

Transmitted by mosquitoes (*Aedes aegypti*)

Most patients—mild dis. Flu-like symptoms; severe HA; aching joints/muscles “bone-break” dis;

500,000/yr dengue hemorrhagic fever (capillary leak syndrome—thrombocytopenia; abnormalities in coagulation/LFTs/potentially resulting in shock, bleeding, and organ failure). Almost exclusively in previously infected patients because of “antibody-dependent enhancement”.

# Dengue in the United States



September 2009 first case of dengue Key West, Florida, by April 2010, 28 total cases\*

Key West serosurvey revealed **5.4%** residents with recent infection\*

Treatment; symptomatic and supportive only

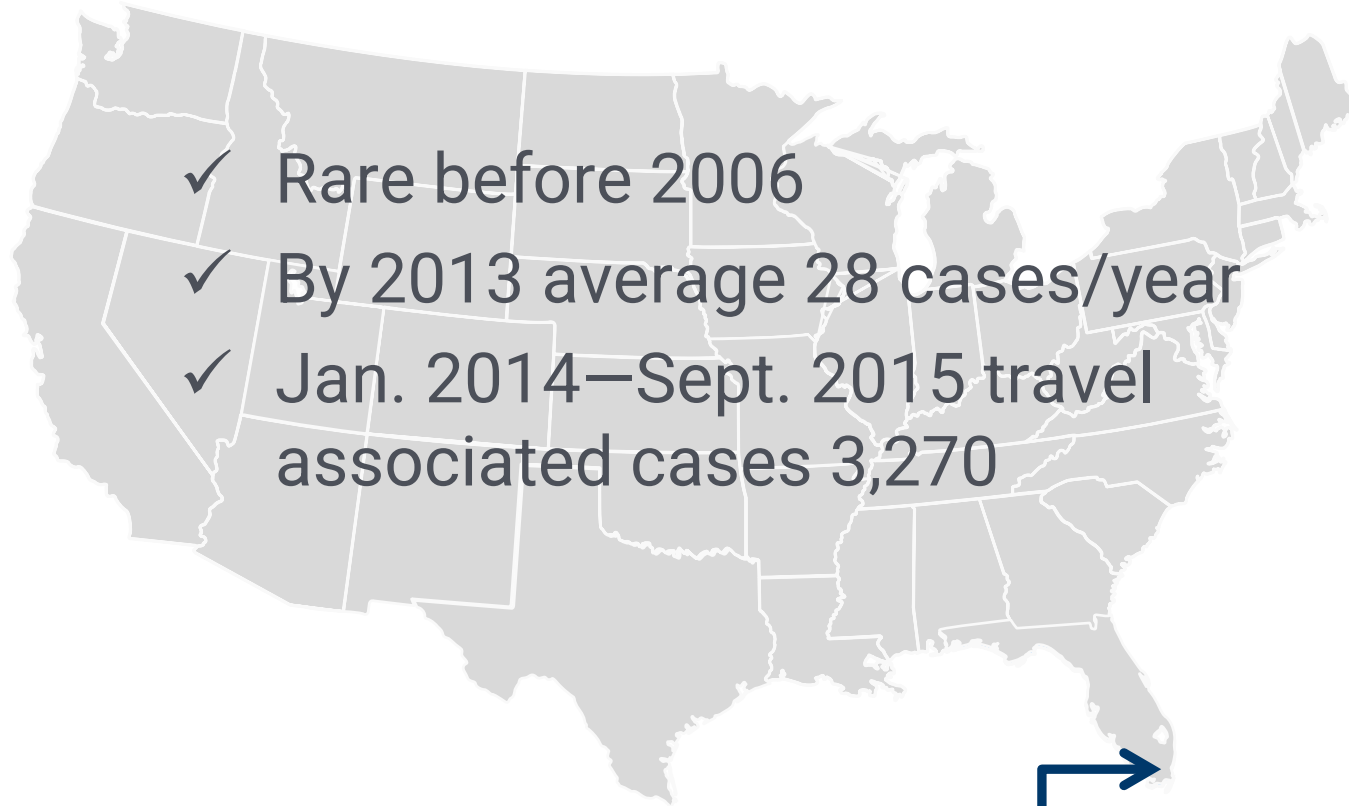
\*MMWR; Vol. 59/No. 19; May 21, 2010

Since 1980 a few locally acquired U.S. cases Texas/Mexico border

Dengue reemerges in Texas\*. Nov. 2013 public health officials confirmed a new wave of dengue fever in southernmost tip of Texas--18 confirmed cases

\*<http://blogs.scientificamerican.com/observations/2013/11/18/16685/>

# Chikungunya in the U.S.



- ✓ Rare before 2006
- ✓ By 2013 average 28 cases/year
- ✓ Jan. 2014–Sept. 2015 travel associated cases 3,270

June 27, 2014 First locally acquired case in US in Florida



© Pan American Health Organization

- Acute Fever/severe polyarthralgias/joint pains (months/yrs)
- Rarely fatal (<0.1%)
- No specific Rx (**Prevention**)



## Almost 80% of Chikungunya Infections Come from Six Countries



Country	Region	N	Percent
Dominican Republic	Caribbean	539,250	31
Colombia	South America	436,192	25
El Salvador	Central America	175,104	19
Guadeloupe	Caribbean	81,780	5
Honduras	Central America	77,187	4
Martinique	Caribbean	74,035	4

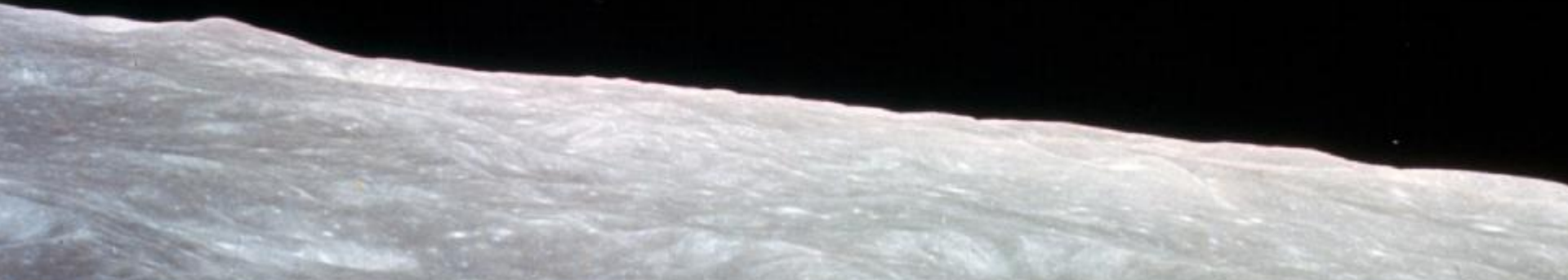
# States With the Most Travel Associated Chikungunya Infections Diagnosed From January 2014 to September 2015

State	N	Percent
New York	863	26%
Florida	530	16%
California	237	7%
Massachusetts	206	6%
New Jersey	205	6%

**“Tuberculosis is a  
social problem  
with a medical  
aspect”**

**Sir William Osler, 1904**

# Global Burden Of Tuberculosis



# Global Burden of TB, 2020

WHO Global Tuberculosis Report 2021

	Estimated Number of Cases	Estimated Number of Deaths
All forms of TB	9.9 million	1.5 million*
HIV-Associated TB	1.2 million (12%)	215,000
Multidrug-resistant TB (MDR-TB)	500,000**	~150,000

- Approx. 23% of the world population (1.7 billion people) is infected with *M.tb*
- Estimated that 43 million lives were saved between 2000 and 2014 through effective diagnosis and treatment
- Adults accounted for 88% and children, aged <15 years, for 12% of all people with TB.

\*including deaths among PLHIV

\*\*Only 41% of those thought to have MDR TB were detected



TB causes more deaths among women than all causes of maternal mortality



Every day 20,000 people develop TB disease and 4,400 die (< 12,000 Total Ebola Deaths)



Each year over 9 million people around the world become sick with TB disease.



On average, one person dies of TB every 15 seconds



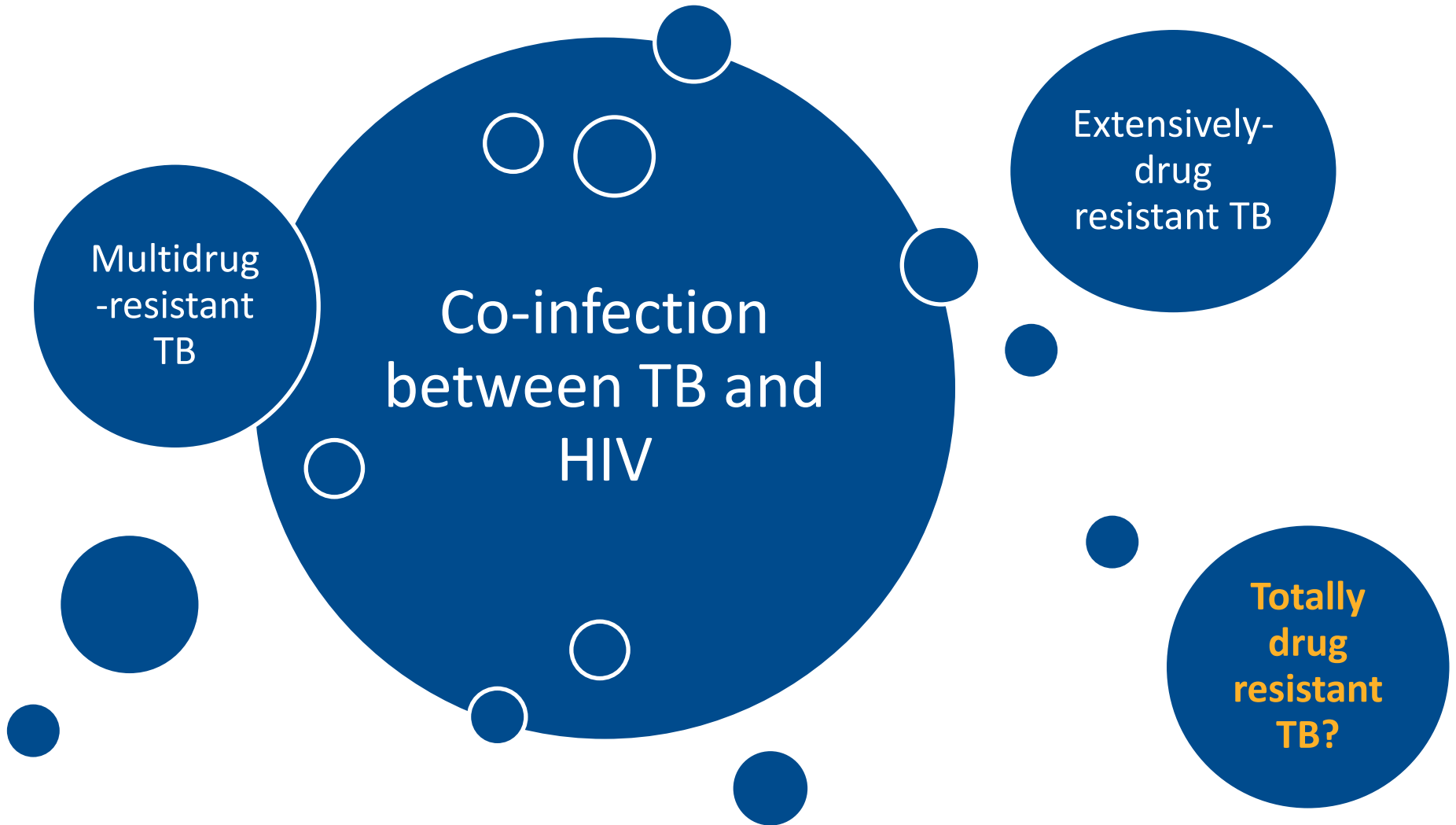
TB accounts for more than  $\frac{1}{4}$  of all preventable adult deaths in developing countries

# Estimated TB Burden, 2019 22 high burden countries\*

Country	# of new cases	Country	# of new cases
1. India (26%)	1,683,915	12. Vietnam	102,087
2. Indonesia (8.5%)	1,000,000	13. Nigeria	91,354
3. China (8.4%)	801,532	14. Kenya	89,294
4. Philippines (6.0%)	318,193	15. Brazil	90,527
5. Pakistan (5.8%)	316,577	16. Thailand	71,618
6. Nigeria (4.6%)	267,436	17. Tanzania	63,151
7. Bangladesh (3.6%)	268,596	18. Mozambique	58,270
8. South Africa (3.3%)	141,957	19. Afghanistan	48,800
9. DR Congo	171,682	20. Uganda	46,171
10. Russia	136,168	21. Zimbabwe	32,016
11. Ethiopia	114,233	22. Cambodia	28,757

\*Ranks based on numbers of smear-positive cases

# “Worst-Case” TB Scenarios





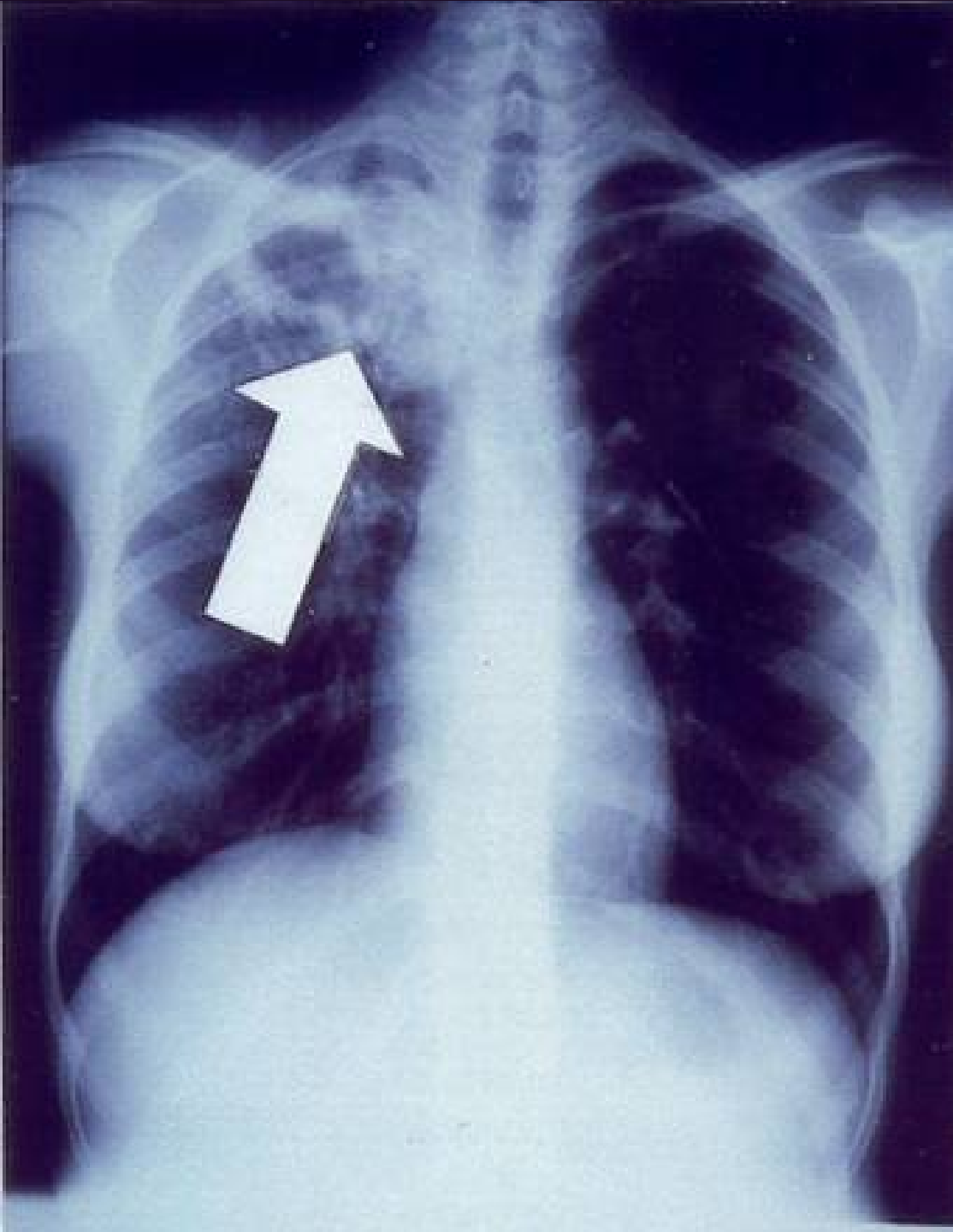
# HIV- TB



- 1/3 of 33 million people living with HIV/AIDS co-infected with TB >10 million people
- Without treatment 90% will die within months
- TB is the leading cause of death among HIV positive people (up to 50% of all patients worldwide)



Burden of Tuberculosis in the United States



- Abnormalities often seen in apical or posterior segments of upper lobe or superior segments of lower lobe
- May have unusual appearance in HIV-positive persons
- Cannot confirm diagnosis of TB

# Cultures

- Used to confirm diagnosis of TB
- Culture all specimens, even if smear negative
- Results in 4-14 days when liquid medium used



Colonies of *M. tuberculosis* growing on media

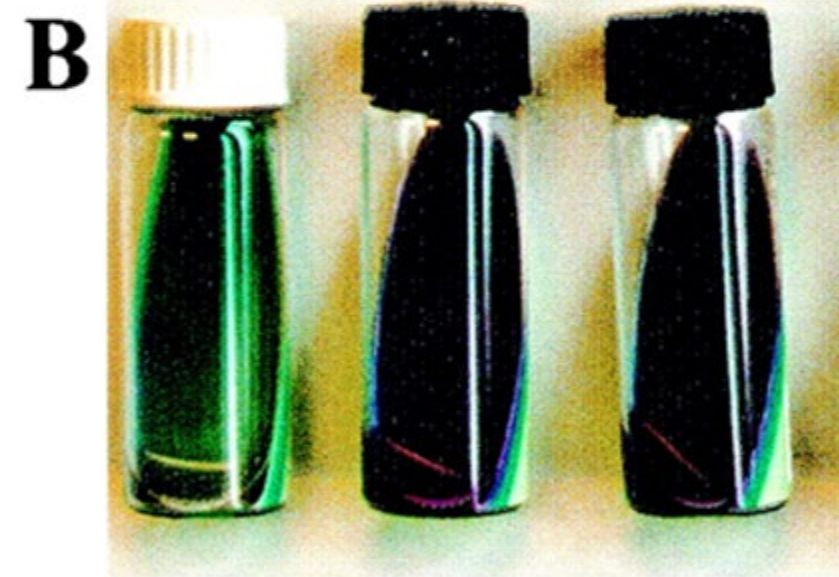


# Nucleic Acid Amplification (NAA) Tests

- Direct identification of MTB in clinical specimens
- Becoming standard of practice
- 2009 MMWR “at least one respiratory specimen from each patient with signs/symptoms of pulmonary TB”
- Available in 24-48 hours

# Drug Susceptibility Testing

- Drug susceptibility testing on initial *M. tuberculosis* isolate
- Repeat for patients who:
  - Do not respond to therapy
  - Have positive cultures despite 2 months of therapy
- Promptly forward results to the health department

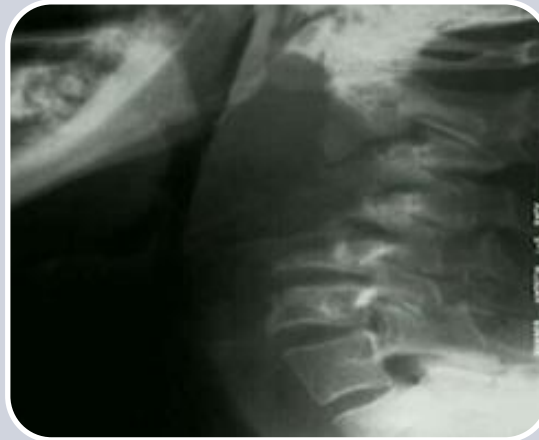


<b>Control</b>	<b>INH</b>	<b>RIF</b>
<b>1:10 dil.</b>	<b>0.2</b>	<b>40</b>
	<b>µg/ml</b>	<b>µg/ml</b>



## Extra-pulmonary TB

In most cases, treat with same regimens used for pulmonary TB



## Bone, joint and miliary TB

Treat for a minimum of 9 months



## TB Meningitis in Children

Treatment for a minimum of 12 months

A healthcare professional, likely a nurse or doctor, wearing a white lab coat and glasses, is standing and talking to a male patient. The patient is sitting at a desk, wearing a green shirt and a brown vest, and is holding a white cup. The setting appears to be a clinical or office environment with various medical equipment and papers visible in the background.

# Treatment of Latent TB Infection



# Drug Regimen for Treatment of LTBI

Drugs	Duration (months)	Interval	Minimum doses
Isoniazid	9	Daily Twice weekly	270 76
Isoniazid	6	Daily Twice weekly	180 52
<b>Rifampin</b>	<b>4</b>	<b>Daily</b>	<b>120</b>
<b>INH/Rifapentine</b>	<b>3</b>	<b>Once a week</b>	<b>12</b>

# Treatment of TB Disease



A photograph of a man in a brown cap and dark t-shirt, smiling broadly while carrying a large, red, weathered plastic bucket filled with green produce (possibly tomatoes or cucumbers) on his right shoulder. He is standing in a field of similar green plants. In the background, there are more stacks of red and yellow buckets. The image has a semi-transparent white overlay.

# MCN Health Network

Eliminate health disparities due  
to patient mobility

# HEALTH NETWORK

## Bridge Case Management



# Forms Required for Enrollment



### ENROLLMENT IN THE MCN HEALTH NETWORK

Enrolling Clinic	_____	Clinic phone number(s)	_____
E-mail address	_____	Clinic fax number(s)	_____
Contact person at Clinic	_____		
Security Question #1:	Patient's city of birth?	_____	_____
Security Question #2:	Patient's father's first name?	_____	_____
Please indicate the health area(s) for which the participant is being enrolled. If the participant's health status changes during enrollment in the Health Network, additional areas may be added with the participant's verbal consent.		<input type="checkbox"/> Tuberculosis	<input type="checkbox"/> HIV
		<input type="checkbox"/> Prenatal Care	<input type="checkbox"/> General Health
		<input type="checkbox"/> Cancer	
		<input type="checkbox"/> Diabetes	

### CONSENT FOR RELEASE OF MEDICAL INFORMATION

First Name	_____	Last Name(s)	_____
Alias, Nicknames, Etc	_____	Birth Date (Month / Day / Year)	_____

The Health Network currently helps with continuity of care for people with infectious chronic illnesses or other healthcare concerns. (i) MCN is a non-profit company coordinating my enrollment in the Health Network at no cost to me; (ii) MCN may not be able to obtain health care providers that are available to care for my condition at no cost to me; (iii) the health care providers who will be providing my treatment are independent and not employees of MCN; and (iv) MCN does not provide, and is not responsible for, any health care treatment, or the outcomes of such treatment, in connection with any or all of the Health Network projects.

I agree to participate in the Health Network, and I understand that my protected health information and personal information will only be released for the purposes of my medical treatment, healthcare operations, payment, or pursuant to my authorization.

I do NOT authorize MCN or future health care providers to have access to my medical records around issue(s) listed here: \_\_\_\_\_

(attach additional page if needed)

I HEREBY RELEASE MCN, ITS EMPLOYEES, OFFICERS, DIRECTORS, CONSULTANTS, REPRESENTATIVES, SUCCESSORS, AND ANY AND ALL CLAIMS, CAUSES OF ACTIONS, DAMAGES, LOSSES, EXPENSES (INCLUDING ATTORNEYS' FEES), AND LIABILITY WHATSOEVER ARISING OUT OF MY ENROLLMENT IN THE HEALTH NETWORK AND MY HEALTH CARE TREATMENT RESULTING FROM MY PARTICIPATION IN THE HEALTH NETWORK.

**\*PARTICIPANT SIGNATURE**  
(or Signature of Legal Representative)

Relationship of Legal Representative to Patient

Witness Signature

Date

We recommend that, whenever possible, you provide the participant with a copy of this Consent for Release of Medical Information form when it is completed.

ENGLISH - THIS CONSENT FORM IS VALID FOR 2 YEARS AFTER DATE OF SIGNATURE

Gives MCN staff legal permission to transfer participants' medical records and contact participants

Valid if sent within 5 business days of being signed by patient, remains valid for 24 months from the date signed

Participants may renew their consent after it expires if they still need assistance

Must have the participant's signature



## PARTICIPANT INFORMATION SHEET | MCN HEALTH NETWORK

**\*REQUIRED**

First Name		Last Name(s)	
Mother's Maiden Name		Birth Date (Month / Day / Year)	
Place of birth:	City	Gender:	<input type="checkbox"/> Female <input type="checkbox"/> Male
	State	Marital Status:	<input type="checkbox"/> Single <input type="checkbox"/> Divorced <input type="checkbox"/> Other: <input type="checkbox"/> Married <input type="checkbox"/> Widowed
	Country		
Race/Ethnicity:	<input type="checkbox"/> White – Non-Hispanic/Latino <input type="checkbox"/> Asian – Non-Hispanic/Latino	<input type="checkbox"/> Black – Non-Hispanic/Latino <input type="checkbox"/> Indigenous	<input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Other:
Language(s) Spoken:	<input type="checkbox"/> English <input type="checkbox"/> Creole <input type="checkbox"/> Spanish <input type="checkbox"/> Other:	Language you prefer to be contacted in:	
Occupation(s) (from past two years):	<input type="checkbox"/> Farmworker	<input type="checkbox"/> Construction	<input type="checkbox"/> Retired
	<input type="checkbox"/> Homemaker	<input type="checkbox"/> Factory	<input type="checkbox"/> Unemployed
	<input type="checkbox"/> Student	<input type="checkbox"/> Child care	<input type="checkbox"/> Other:
Current Residence:	<input type="checkbox"/> Farmworker Camp Housing	<input type="checkbox"/> Jail	<input type="checkbox"/> Homeless
	<input type="checkbox"/> Home	<input type="checkbox"/> ICE Detention Center	<input type="checkbox"/> Other:

### CURRENT CONTACT INFORMATION FOR PARTICIPANT:

Street / P.O. Box		City	State	Zip/Country
<b>*PHYSICAL ADDRESS:</b>				
<b>*MAILING ADDRESS:</b>				
<b>*PHONE NUMBER</b> (with Area Code) HOME / CELL / WORK:	Is it ok if we talk to people that answer this phone about your personal health information? <i>(If you do not check off either box, or you do not initial, your answer will be "No")</i>		<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>*INITIALS:</b>

### OTHER CONTACT INFORMATION FOR PARTICIPANT (Place you normally move to):

Street / P.O. Box		City	State	Zip/Country
Physical Address:				
Mailing Address:				
<b>*PHONE NUMBER</b> (with Area Code) HOME / CELL / WORK:	Is it ok if we talk to people that answer this phone about your personal health information? <i>(If you do not check off either box, or you do not initial, your answer will be "No")</i>		<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>*INITIALS:</b>

**Additional Contact:** Please list someone we can contact if we cannot reach you at either of the locations you provided. In doing this you give MCN permission to contact that family member or friend to assist you in receiving continued health care, which may require discussing your health condition(s) with this individual. You do not have to provide this additional contact information.

First Name	Last Name	Relationship to Participant		
Street / P.O. Box		City	State	Zip/Country
<b>*PHONE NUMBER</b> (with Area Code) HOME / CELL / WORK:	Is it ok if we talk to people that answer this phone about your personal health information? <i>(If you do not check off either box, or you do not initial, your answer will be "No")</i>		<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>*INITIALS:</b>

# Health Network Enrollment Criteria

1

## Patient is:

- Already mobile OR
- Likely to move

2

Patient is in need of a clinic for follow-up of **ANY** health condition

3

## Clinic Must:

- Complete Enrollment Registration
- Have patient sign Consent/Send
- Send Medical Records





**Medical Records and Care Coordination Card**  
*Tarjeta de Expedientes Médicos y Coordinación de Salud*

**1-800-825-8205**

For calls and text: **(443) 305-9383**

WhatsApp: **512-632-4130**

**www.migrantclinician.org**

**THIS IS NOT A MEDICAL INSURANCE CARD**  
**ESTO NO ES UNA TARJETA DE SEGURO MÉDICO**

**ATTENTION PROVIDERS: This client is a user of the MCN Health Network. MCN can help access:**

**ATENCIÓN PROVEEDORES: Este paciente es usuario de la Red de Salud MCN. MCN les puede ayudar a encontrar:**

This patient's medical record *El expediente médico de este paciente*  
This patient's lab results *Los resultados de laboratorio de este paciente*  
Resources for financial assistance *Recursos para ayuda económica*

**This is a free service *El servicio es gratis***

**1-800-825-8205**

For calls and text messages **(443) 305-9383**  
(Google Voice):

WhatsApp: **512-632-4130**

# Health Network Maintaining a Patient in Care





Contacts patients on a scheduled basis  
(monthly for TB patients)



Contacts TB clinics monthly



Assists patients in locating clinics for  
services and resources



Reports back to the enrolling clinic  
and notifies them of outcomes



# The Patient's Role...

As many  
phone  
numbers  
as  
possible

###-###-####

###-###-####

###-###-####



Inform HN of any phone or address changes and contact HN staff after arriving in a new area



Stay on  
treatment as  
long as  
indicated



A high-angle, wide shot of a massive crowd of people, likely at a festival or concert. The crowd is dense and fills the entire frame, with individuals in various casual attire. The overall color palette is slightly desaturated, with a blueish tint. Overlaid on the center of the image is white text.

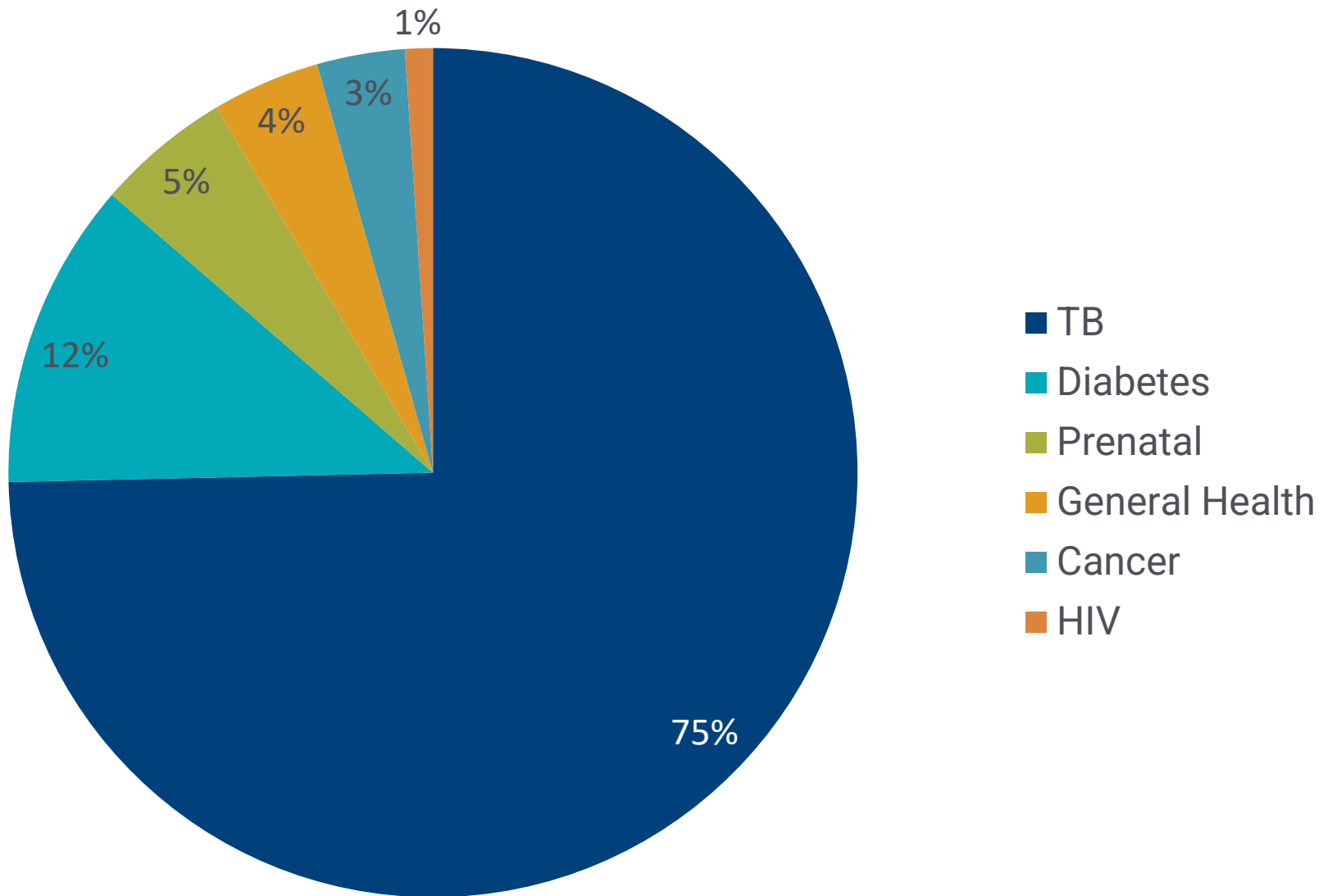
Over 15,100 total HN  
enrollments

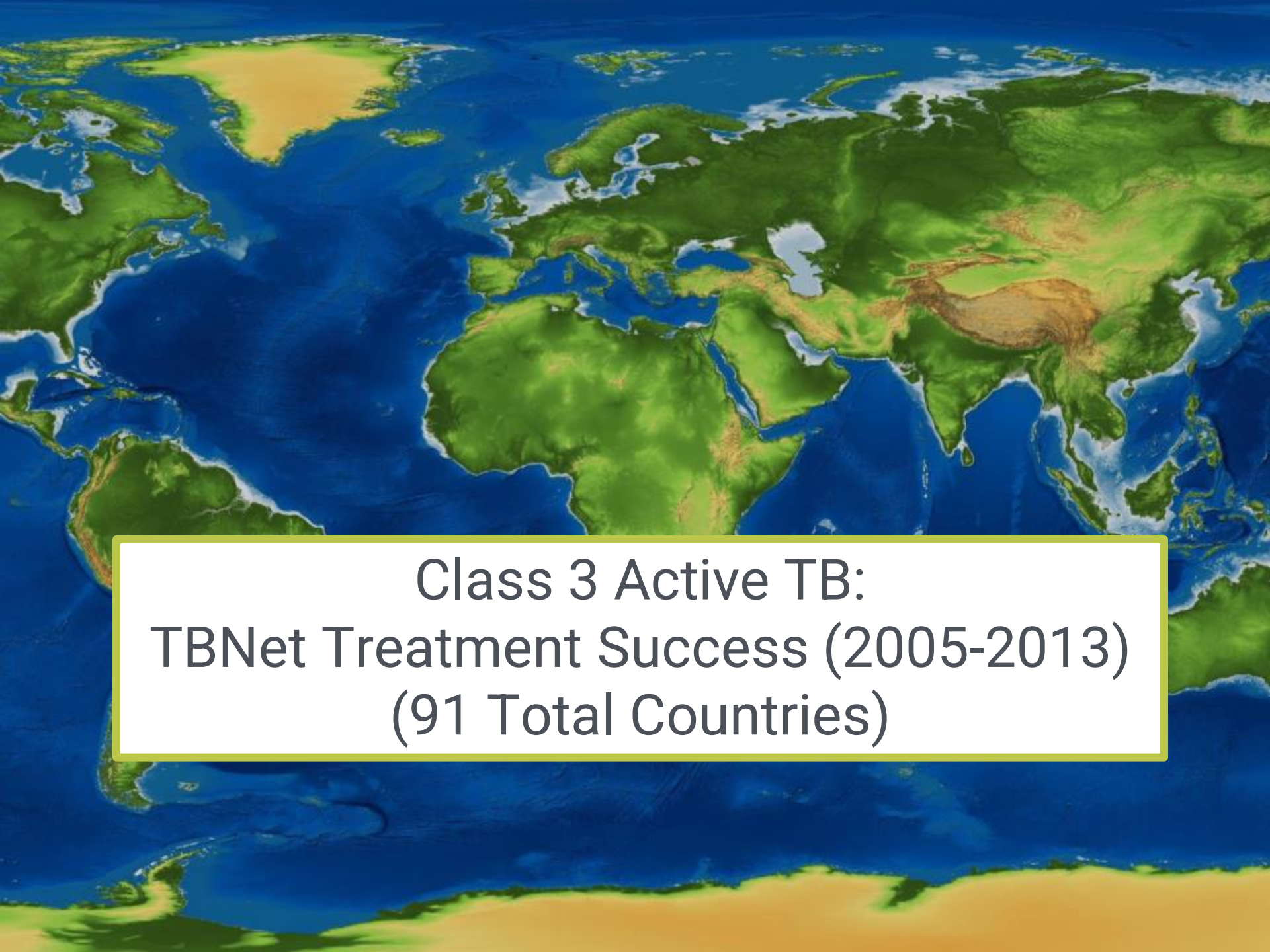




Over 3,000 total clinics in U.S. and over **114** countries

# 8,221 Total Health Network Cases





Class 3 Active TB:  
TBNet Treatment Success (2005-2013)  
(91 Total Countries)

A world map with a blue and green color scheme, showing continents and oceans. The map is slightly faded and serves as a background for the text.

# 1,512 Class 3 Active TB Cases Referred

(37 not recommended by country)

A world map with a blue and green color scheme, showing the continents and oceans. The map is slightly faded and serves as a background for the text.

# 1,475 Treatment Recommended

(26 MDR; 65 resistant to at least one drug)  
*24 deceased*

A world map with a blue and green color scheme, showing continents and oceans. The map is slightly faded and serves as a background for the text.

1,451 Followed by TBNet  
for Active TB

*147 lost to follow up*  
*87 refused treatment*

**1,217 Complete Treatment**

**83.9%**

# Class 3 Active TB: TBNet Treatment Success (1/1/2005-12/31/2019)

Contract with ICE 2005-2017  
(91 Total Countries)

- ✓ 2,176 Class 3 Active TB Cases Referred
  - 51 not recommended by country
- ✓ 2,125 Treatment Recommended
  - *37 deceased*
- ✓ 2,088 Followed by TBNet for Active TB
  - *211 lost to follow up*
  - *106 refused treatment*

**1,771 Complete Treatment = 84.8%**



# How Can TBNet Have such a high completion rate to 114 countries??

- MCN has a group of multilingual/multicultural dedicated young case managers who use multiple communication techniques (text, Whatsapp, cell phone, email), sincere concern for the patients and persistence.
- Case managers speak multiple languages (English, Spanish, Haitian Creole, French and Portuguese and use Language Line for all others)

# How Can TBNet Have such a high completion rate to 114 countries??

It's all about connections and longevity in Global TB world.

Del Garcia (MCN Director of International Projects)

- Member of the Stop TB International Board of Directors representing Developed Countries NGOs
- Americas Civil Society Coordinator for the Global TB Caucus
- Co-Chair for the TB and Migration Working Group for the IUATLD

Ed Zuroweste (Founding Medical Dir. MCN)

- MCN's representative STOPTB USA Board of Directors since inception 1992. Chair 2004-2006 (Sundari Mase Chair; 2 years of work in TB in India)
- WHO Special Medical Consultant (2009 H1N1; 2014 Ebola)
- Clinical Consultant HRSA with work in all US Pacific Island Territories
- Over 20 years of Health Developmental Work in Honduras (TBNet's highest country of incidence)

# MCN Health Network



- An innovative approach for over 25 years (1996-2021)
- Over 15,100 total HN enrollments
- Current % Enrollments (2018-2021)
  - 33% General Health TB
  - 27.8% Prenatal
  - 16.7% Infant Program
  - 12.9% TBNet
  - 3.7% Diabetes
  - 2.7% Covid Vaccine
  - 2.0% Cancer screening (Breast/colon/cervical)
  - 1.0% HIV
- Over 3,000 total clinics in U.S. and over 114 countries

# Health Network IMPACT

- Bridge between patients and their providers
- Fewer patients lost to follow up
- Higher % of patients completing treatment
- Treatment completion reports
- Improved patient participation



# Contact Us

- Health Network telephone:  
**800-825-8205** (U.S.)
- **01-800-681-9508** (from Mexico)
- Health Network fax: **512-327-6140**
- MCN website:  
<http://www.migrantclinician.org/>
- If you have additional questions about the program, you may also contact:

Theresa Lyons-Clampitt:  
**512-579-4511**  
or [tlyons@migrantclinician.org](mailto:tlyons@migrantclinician.org)

# Post Evaluation

Please take a few minutes of your time to complete the evaluation. The evaluations help us guide our presentations so others can also benefit from the information. Thank you!

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