

# Innovation & Access for Neglected Populations

## Key Challenges & Perspectives for Latin America

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**DNDi**

Drugs for Neglected Diseases *initiative*





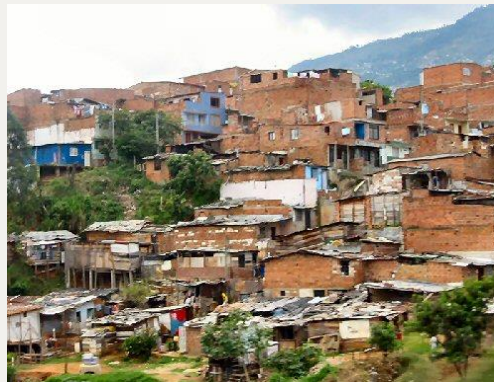
# Latin America Landscape

## Social inequalities → Health Access inequalities

- 34% residents live in poverty, with more than 12% living in extreme poverty
- 125 M out of 580 M no access to health services

## Considerable disparities in health & social devt indicators

- Persistence of high maternal and infant mortality rates, diarrrheal and respiratory diseases in low resources settings
- Drug resistant infectious agents emergence (MDR-TB)
- Inadequate food, drug safety system & sanitation
- Violence undermines well-being and security



# Latin America & the double burden of diseases

*Infectious and Non Communicable Diseases represent new challenges*



- Expansion of people moving from urban to metropolitan areas: Deforestation & exposure to vectors previously sylvatic
- Urbanization > 78% => changes in disease epidemiology patterns: Chagas, Leishmaniosis transmission and Malaria in urban/peri-urban areas
- Emerging and re-emerging conditions such as arbovirus; Zika, Dengue, Chikungunya, Yellow Fever ...
- Emerging Non Communicable & Chronic diseases (Hypertension, cancer, chronic respiratory diseases, diabetes ...)
- NCDs = 55% of the disability-adjusted life-years (DALYs), communicable, maternal, perinatal and nutritional conditions (27%) and injuries (18%)

**Fragile health systems need to adjust to new complexities & increasing healthcare costs**

# R&D Landscape: Overview of challenges & opportunities

- **Brazil, Argentina and Mexico leaders** in # of clinical trials
  - Predominance of Phase 3 vs Phase 1 trials
    - Nearly 2/3 are phase 3 trials
    - 2,4% are phase 1 trials
  - Significant differences in regulatory requirements & slow pace of harmonization (“convergency”)
  - Fiocruz announced accelerated clinical trials process for Zika ..
- **Pharmaceutical industries responsible for 7 out of 10 studies** conducted across the region.
- But in **Brazil**, ~40% of studies conducted by universities, public institutions or other independent researchers
- **Increasing number of well-qualified investigators:**
  - 110% increase of # of journal articles by in the last 10 years as compared to 15-50% in the US and Europe
  - On going capacity-building

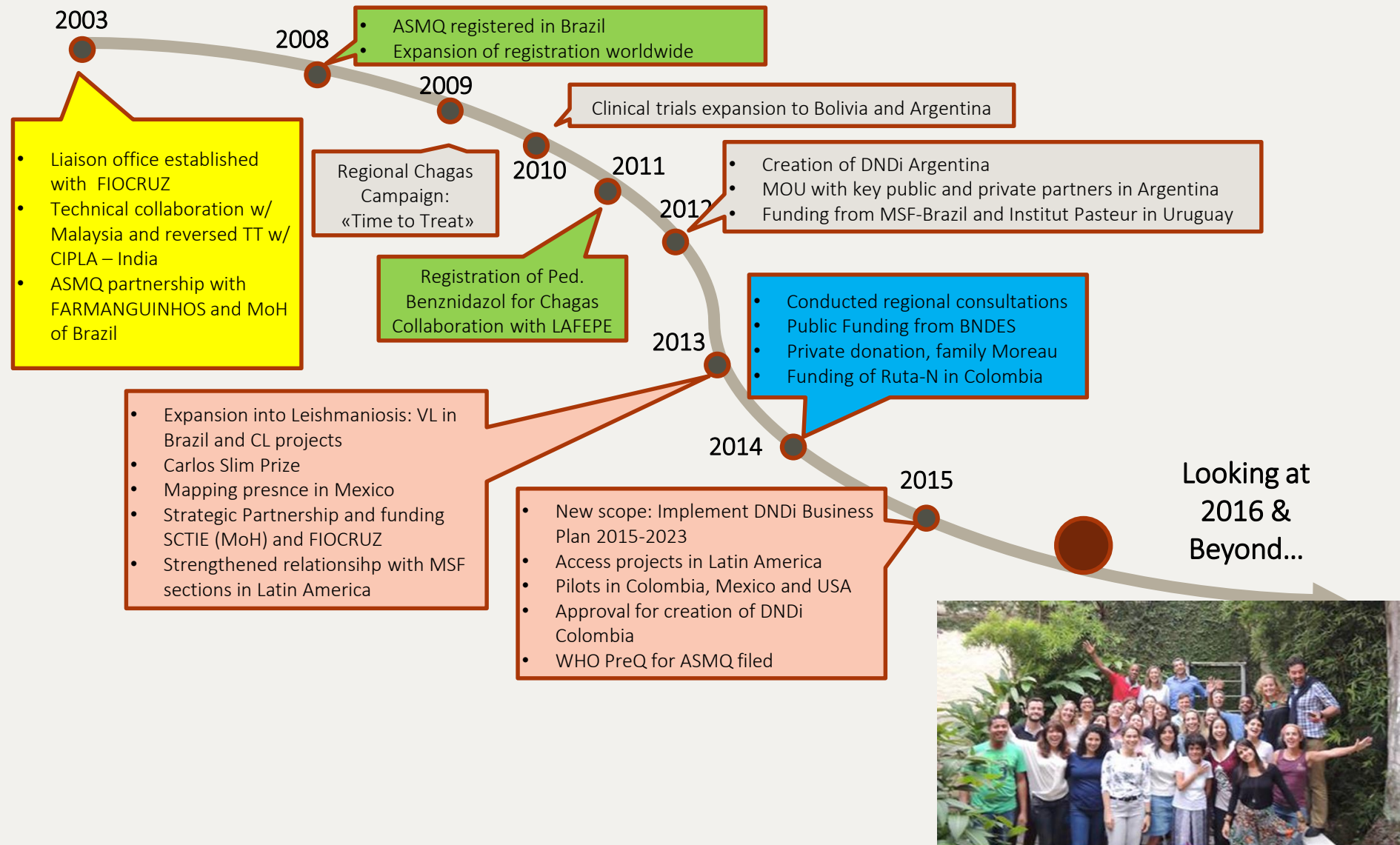


**1948 clinical trials  
on-going in LA**

Sources : [https://clinicaltrials.gov/ct2/results/map?recr=Open&no\\_unk=Y](https://clinicaltrials.gov/ct2/results/map?recr=Open&no_unk=Y) (assessed 30 May 2016)  
The Science Citation Index and Social Science Citation Index)



# Since 2003 DNDi LA is supported by a diverse & complementary network



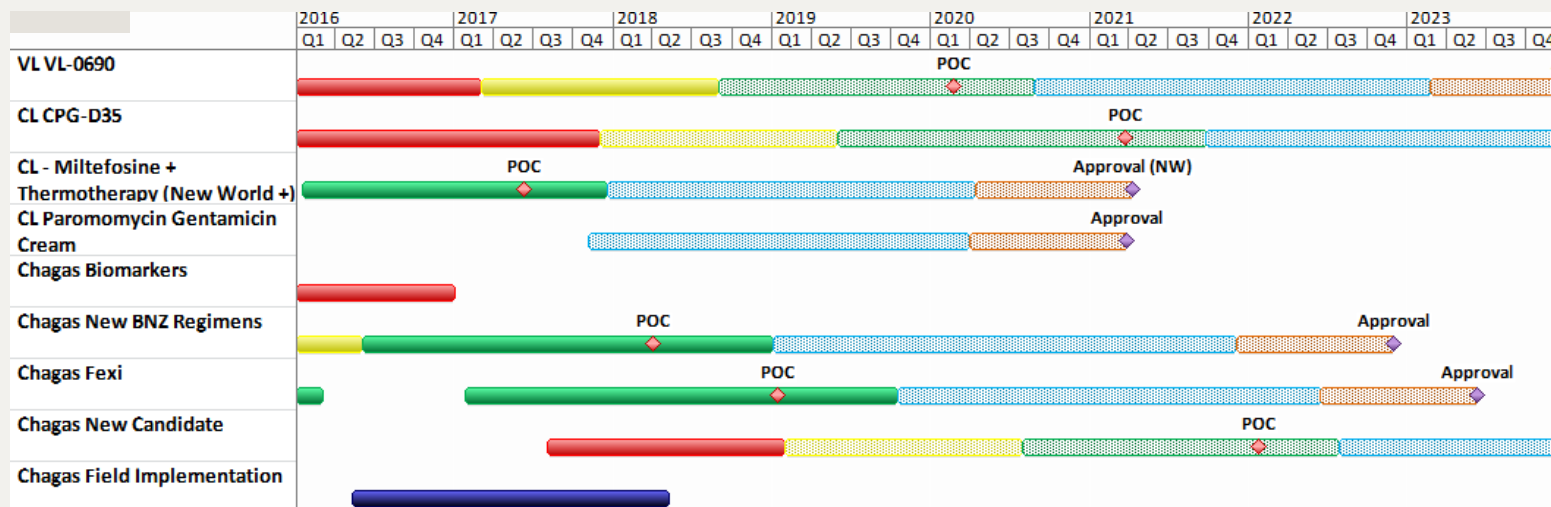
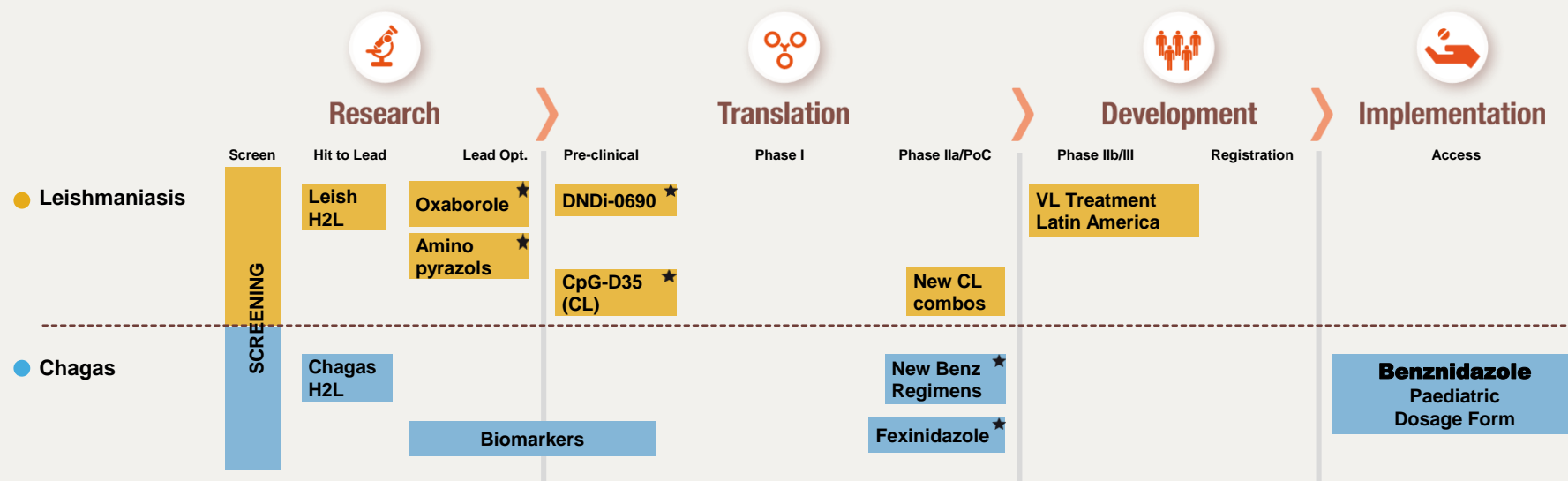
# Beyond 2016, perspectives for expansion of DNDi activities

## Legal entities in Brazil, Argentina & Colombia



- Focus on new treatments for Chagas & Leishmaniosis
- Screening & Lead Optimization
- New Business Plan
  - Hep C, Mycetoma,
  - Antimicrobial Resistance
- Expand Activities in Chile, Venezuela, Guatemala, Honduras, El Salvador...
- Chagas & Leish Access Plans
- Strategic surveillance on other emerging challenges

# DNDi LATAM Regional Office Portfolio



# Chagas Disease: clinical trials in the region (1)

## The Gap

Treatment for Chronic and Acute phases, to be used in all regions, with a good safety profile, short treatment duration (< 30 days)

### E1224 trial (phase 2, Proof of Concept)

- DNDi-CH-E1224-001 / NCT01489228
- Bolivia, 2011 – 2013 (Awarded DNDi Project of the Year)

### Drug-drug Interaction (phase 1 trial)

- Combination between E1224 and Benznidazole
- Argentina, 2014



**NUDFAC**  
Núcleo de Desenvolvimento  
Farmacêutico e Cosméticos

Laboratorio  
**ELEA**





# Chagas Disease: clinical trials in the region (2)

## The Gap

Treatment for Chronic and Acute phases, to be used in all regions, with a good safety profile, short treatment duration (< 30 days)

### FEXI Trial (phase 2, Proof of Concept)

- Clinical study report by end June 2016
- Bolivia 2014-2016

### BENDITA Trial (phase 2, Proof of Concept)

- Benznidazol New improved treatments and associations
- Bolivia, Argentina and Spain
- Expected enrolment starting September 2016



# Cutaneous leishmaniasis: clinical trials in the region

## The Gap

Topical & oral drugs, safe, effective against all forms of CL, with superior cosmetic results, at low-cost and easy to use

### Anfoleish - Phase Ib/II (Colombia)

- Enrolment completed Nov 2015
- Final report expected September 2016.

### Combination thermoterapy + miltefosine - Phase II (Peru, Colombia)

- Approvals from regulatory authorities by Q3-2016.
- Trial start expected September 2016.



HAT



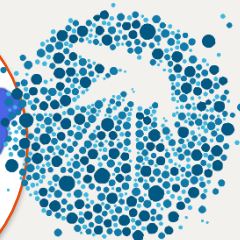
### A Key Role for Regional Disease Platforms

- Defining patient needs and Target Product Profile (TPP)
- Strengthening local capacities
- Conducting clinical trials (Phase II/III studies)
- Facilitating Registration of new therapies
- Accelerating implementation of new therapies, ensure therapies reach patients



CHAGAS

LEISHMANIASIS



redeLEISH  
Network of Investigators  
and Collaborators  
in Leishmaniasis



**LEAP**  
LEISHMANIASIS  
EAST AFRICA PLATFORM

LEISHMANIASIS





# Chagas Clinical Research Platform (CCRP)

Strengthen capacity

Expand community participation

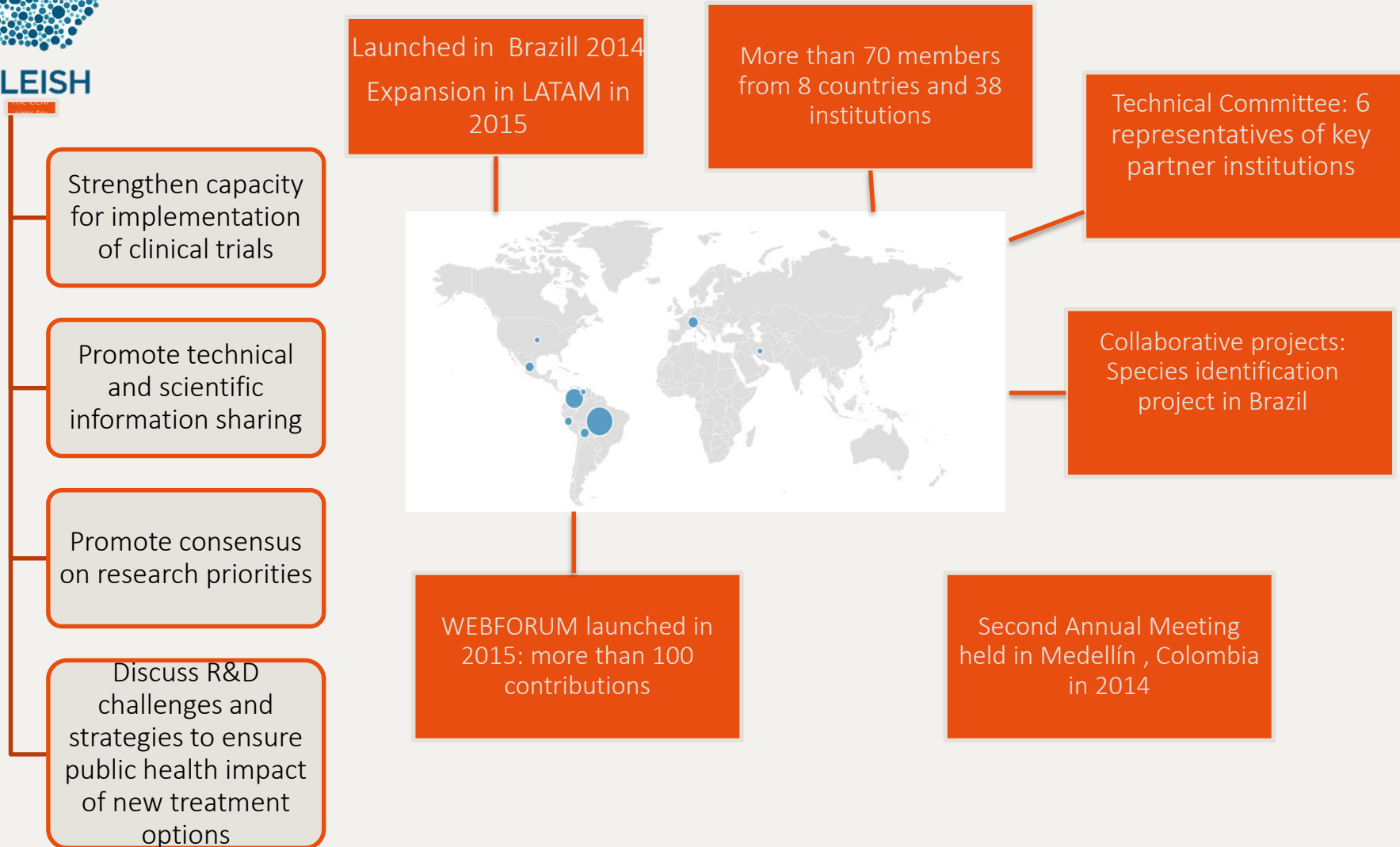
Facilitate clinical research

Improve evaluation and delivery of new treatments across the region

- Since 2009, a network of health agencies and scientists in the Americas and around the world.
- Annual meetings, trainings, standardization of protocols, regulatory aspects, newsletter publications and integration of ethical principles.
- Main activities:
  - Identify and/ map gaps in Chagas R&D
  - Conduct capacity building & training to support clinical trials
  - Strengthen CCRP in endemic and non-endemic countries
  - Support activities for to scale up of diagnosis & treatment working closely with policy makers and other stakeholders

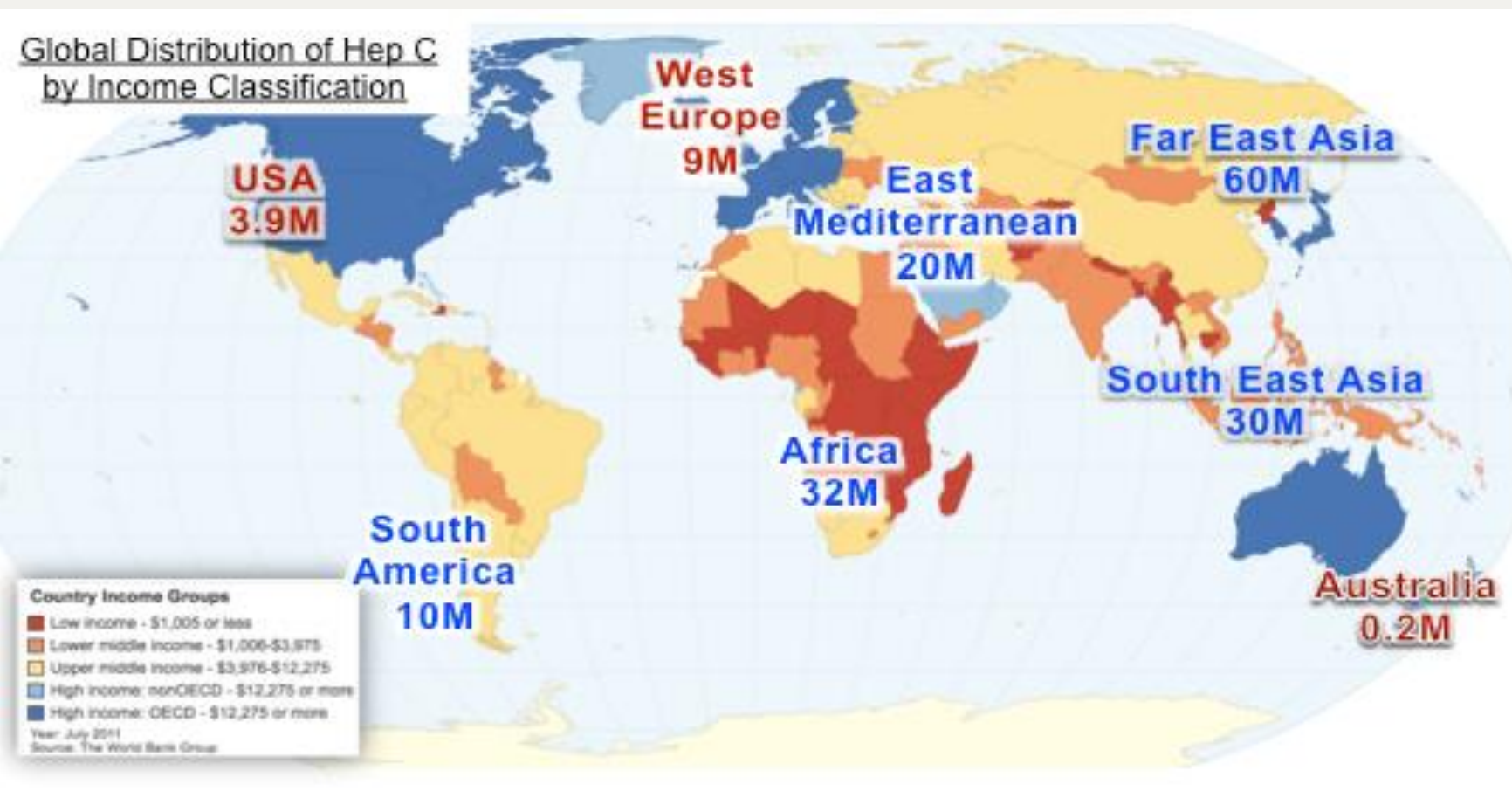


# RedeLEISH: Network of investigators and collaborators in Leishmaniasis



# Out of 150-180 million people suffer from Hepatitis C

## 10 million live in Latin America



*85% of HCV infected people live in low- and middle-income countries*



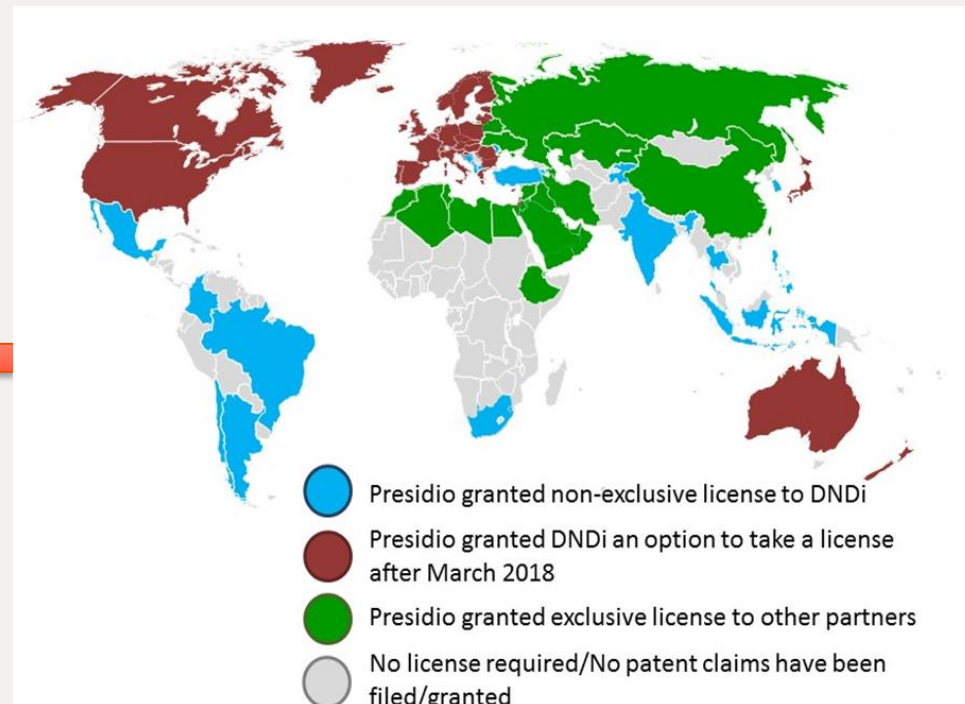
# Generic licensing has created gaps for access in high-HCV burden middle-income countries, but there is an opportunity to change the current paradigm in Latin America

## Strengths of region

- Strong civil society with advocacy capacity
- Prevalent genotypes (1 and 3) less challenging to treat
- Local and robust manufacturing capacity
- Overall research capacity to conduct trials
- IP aspects:
  - Ravidasvir non exclusive license for DNDi in LA
  - but sofosbuvir already strategically patented in some countries

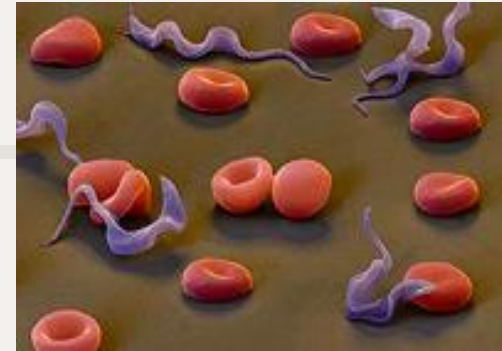


## DNDi license with alternate treatments for HCV



# Chagas: An old public health problem requiring innovative solutions...

- 6 million cases in Latin America
- Around 10.000 deaths/year
- Globally the economic burden is around U\$ 1 billion
- Less than 1% of Chagas infected individuals has access to treatment



# Chagas Access Challenges: How to address this major access gap?

- Despite some advances in the Chagas landscape, **no significant changes in access occurred**.
- Major **gaps still remain** between the **estimates** of the number of people living with Chagas disease and those **actually diagnosed and receiving treatment**
- **DNDi is focusing on developing NCE + New Access Strategies:**
  - On-going pilot projects
  - Advocacy campaigns with the Global Chagas Coalition and other partners
  - Partnership models



## Chagas Access Implementation Project





# Towards a Comprehensive Chagas Access Plan: *A Joint Initiative of DNDi, Chemo Group/FMS*



DNDi, Mundo Sano and Chemo team up to register benznidazole  
in US and Latin America

Plans will boost access to Chagas treatment throughout Americas

- to register adult (100mg) and paediatric (12.5mg) benznidazole (BZN) with the US FDA, as well as in Mexico, Colombia and other LA endemic countries
- to ensure sustainable access to benznidazole
- to develop a far reaching access plan in the region, in consultation with partners



# Developing a pragmatic approach for interventions : from production challenges to a fully functional pharmaceutical system for Access

## The Pharmaceutical Management Framework

### Management Support

#### Organization and Management

- Program planning and implementation approaches
- Program monitoring and evaluation
- Community participation

#### Financing

- Pharmaceutical financing strategies, including revolving funds
- Analyzing and controlling expenditures
- Financial planning and management
- Donor financing

#### Information Management

- Information-based decision making
- Pharmaceutical management information systems
- Indicator-based monitoring

#### Human Resources

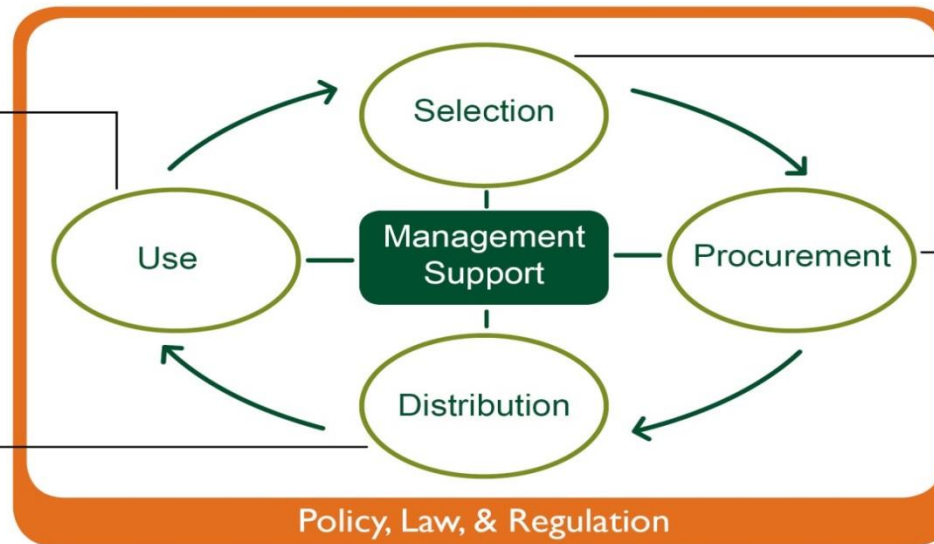
- Personnel management
- Preservice education
- Continuing education
- In-service training

### Use

- Drug information services
- Rational prescribing
- Use of antimicrobial resistance data
- Drug use evaluation
- Good dispensing practices
- Patient information/counseling
- Behavior change strategies
- Curriculum reform

### Distribution

- Central medical stores vs. alternative models
- Vertical vs. integrated programs
- Inventory management
- Kit system



### Selection

- Marketing approval/registration
- Therapeutic formularies and essential medicines lists
- Standard treatment guidelines

### Procurement

- Morbidity vs. consumption quantification
- Tendering and contracting
- Quality assurance and supplier prequalification
- Supplier performance monitoring and evaluation
- Price monitoring
- Pooled procurement/group purchasing
- Donor coordination
- Medicine donation guidelines

### Policy, Law, and Regulation

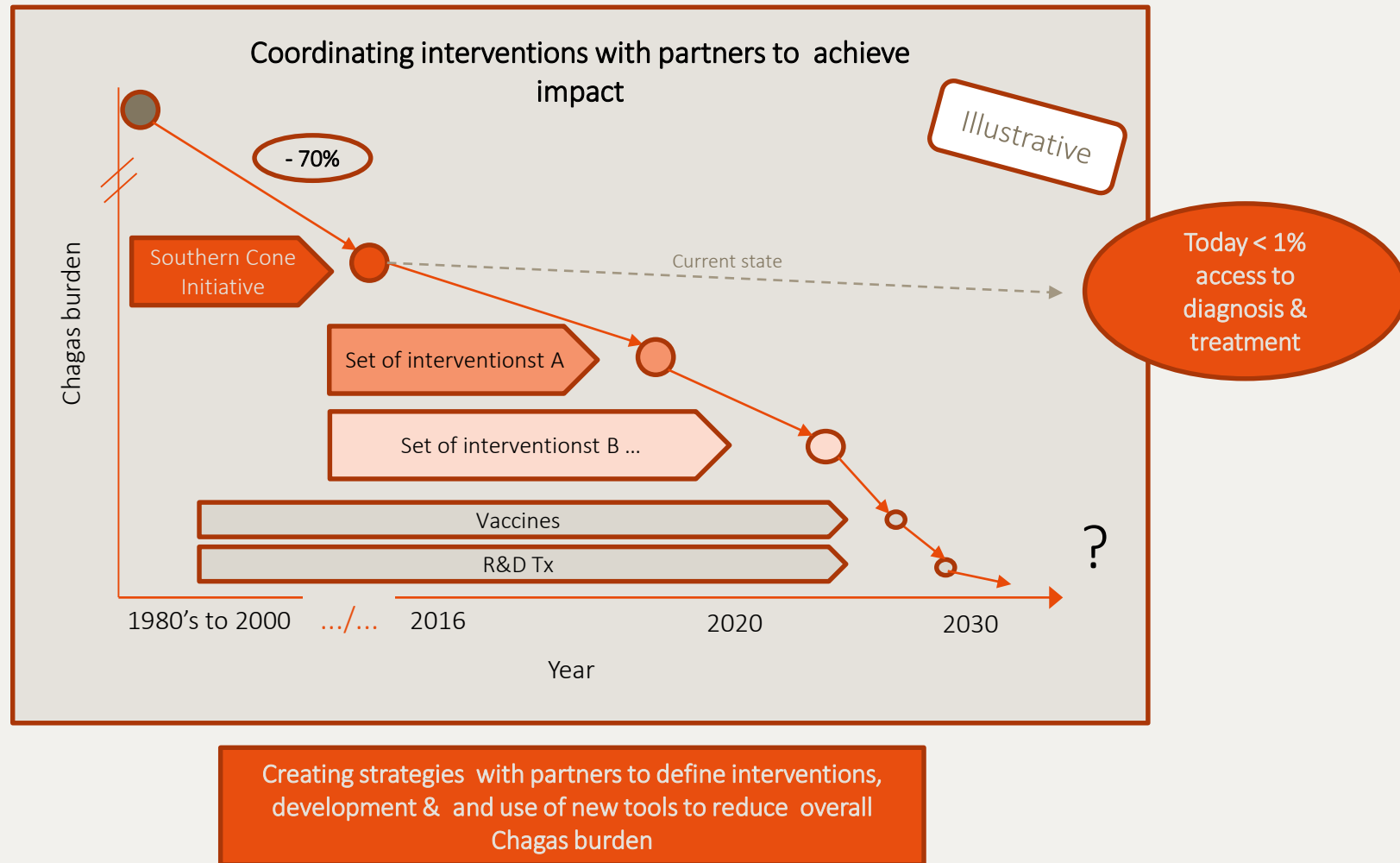
#### Policies

- Generics policies
- Decentralization
- Use of private services
- Integration of services/supply systems
- Availability by level of care

#### Pharmaceutical Laws and Regulations

- Accreditation/licensing (hospitals, pharmacies, providers)
- Procurement laws
- Pharmacopeial standards
- Pharmacy benefits

# Working towards a renewed Access Vision & Innovative Strategies for Chagas with partners : enabling a paradigm shift





Source / southern cone initiative: : A. Moncayo : Chagas Disease: Current Epidemiological Trends after the Interruption of Vectorial and Transfusional Transmission in the Southern Cone Countries "incidence of new infections by T. cruzi in the whole continent has decreased by 70%"



# Concluding Remarks: How to build together a strong regional agenda for Innovation & Access

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Capacities, willingness, commitments are there:	   	<b>DNDi is a living laboratory: a rich think tank &amp; catalyst in action for change : not just in what we do but how we do it:</b>
Elimination of some NTDs in Colombia or Mexico		<ul style="list-style-type: none"><li>• Strengthening regional capacity for R&amp;D</li></ul>
Alliance for a joint effort to the crisis of Zika & regional research collaboration		<ul style="list-style-type: none"><li>• Promote evidence based policy changes</li></ul>
New initiatives: Lead Optimization Initiative (LOLA) , GARD....		<ul style="list-style-type: none"><li>• Advocate for new models &amp; bring neglected populations to high level agenda</li></ul>
Platforms, Networks Partners, Academia		<ul style="list-style-type: none"><li>• What we can learn &amp; share with our partners to develop creative solutions</li></ul>
Multi-lateral organizations & Regional Mechanisms		<p>=&gt; Link global ideas &amp; translate models with interventions at local levels &amp; channels for access</p>
Funding Mechanisms	<p>=&gt; How local levels can nurture global health debates and new ideas to demonstrate &amp; promote sustainable changes</p>	

Give neglected patients a voice.  
They exist and must be heard.  
Thank you.  
Gracias  
Obrigado

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