



# Mobilizing Domestic Resources for Neglected Tropical Diseases:

## *Lessons from Guatemala*

**Governments face many challenges meeting the health needs of their populations, often managing limited domestic resources to address many competing priorities.**

Neglected tropical diseases (NTDs) are a diverse group of 20 disabling and debilitating conditions, mainly of parasitic and bacterial etiology, that affect an estimated 1.7 billion people, primarily in rural and poor urban settings in Africa, Asia, and Latin America. To date, health services and interventions for NTDs have been left out of many national and subnational policy, planning, governance, and finance processes. In order to ensure the long-term sustainability of NTD programming, governments must design effective strategies to integrate NTDs into the policy, planning, governance and financing of priority health services. Additionally, these strategies must be flexible, allowing governments to adapt as programmatic needs shift, ensuring these important health gains are sustained.

This series of Act to End NTDs | East (Act | East) policy briefs examines the key factors that have contributed to enhancing domestic financing for NTDs in Colombia, Guatemala and the Philippines, three countries that have successfully financed NTD efforts with domestic sources. The briefs demonstrate that **NTD programming can be domestically resourced when appropriately prioritized, through political commitment, effective advocacy, governance and multi-sectoral coordination structures, and integration within broader health system planning and budgeting processes.**

This brief reviews Guatemala's NTD programmatic context, and specifically financing and enabling factors for domestic resource mobilization of five NTDs: onchocerciasis, Chagas, leishmaniasis, trachoma and soil-transmitted helminth infections (STH). The lessons learned illustrate when and how the government has increased their domestic financial commitments for NTD programming, as well as identified and executed actions to address financing challenges.

### *Focus NTDs for this brief:*



**Chagas Disease**



**Leishmaniasis**



**Onchocerciasis**



**Soil-transmitted Helminth Infections**



**Trachoma**

## KEY MESSAGES

- In Guatemala, the integration of NTDs into broader health sector policy documents has increased their visibility.
- Domestic funding for health programs has benefited when the programs are part of broader budgeting and monitoring structures.
- The achievement of key NTD elimination milestones and the signature of international commitments has fueled the government's efforts to maintain disease elimination certifications and sustain long-term program needs.
- The Ministry of Public Health and Social Assistance has strategically coordinated donor support and ensured it supplements domestic funding.

## COUNTRY CONTEXT

Guatemala is the most populated country in Central America, with nearly 18 million people and a gross domestic product (GDP) per capita of \$4,603 in 2020, a figure that classifies it as an upper middle-income country (World Bank, 2021). Over the past two decades, economic and political stability has contributed to enhancing population health; however, health inequalities remain, disproportionately affecting rural and indigenous communities. A recent World Health Organization report (WHO, 2018), indicated that maternal mortality was 2.2 times higher in indigenous women compared to non-indigenous ones. Chronic malnutrition was 1.8 times higher in indigenous children under five years old than in non-indigenous

ones (WHO, 2018). In 2014, the country signed the Strategy for Universal Access to Health Care and Universal Health Coverage (Pan-American Health Organization [PAHO], 2014), which PAHO proposed for consideration during the annual assembly of the WHO Regional Committee for the Americas. Under this ambitious strategy, Guatemala is working to progressively implement a national primary health care (PHC) system to advance UHC goals, including improved access and care for all populations. In 2018, the percentage of health care costs covered by out-of-pocket expenditures remained one of the highest in Latin America: 58% of the total health expenditure (WHO, 2021).

## METHODS

This case study seeks to understand where NTDs fit within the Guatemala health finance landscape and is based on a literature review, key informant interviews, and secondary data analysis. The literature review included program and policy documents, and country reports. Primary data collection included nine semi-

structured interviews with key informants, including representatives from the Ministry of Public Health and Social Assistance (*Ministerio de Salud Pública y Asistencia Social*, MSPAS), PAHO, the Onchocerciasis Elimination Program for the Americas (OEPA)<sup>1</sup>, and the Japan International Cooperation Agency (JICA).

<sup>1</sup> OEPA was created in 1993 as a regional initiative to lead and coordinate a multicountry and multiagency effort to eliminate onchocerciasis. Managed by The Carter Center, OEPA has provided financial, managerial, and technical assistance to stimulate and/or support programs in Brazil, Colombia, Ecuador, Guatemala, Mexico, and Venezuela. See The Carter Center (n.d.) for more information about its onchocerciasis program.



A woman has her eyes examined for trachoma in Sololá, Guatemala.

Secondary data collection to assess the status of domestic mobilization and current financing for NTDS comprised gathering publicly available information

from the Integrated Accounting System (*Sistema de Contabilidad Integrada, SICOIN*) and annual financial reports provided by the MSPAS.

## PROGRESS TO CONTROL AND ELIMINATE NTDS IN GUATEMALA

Of the 20 NTDS, Guatemala is currently endemic for Chagas disease, leishmaniasis, STH, trachoma, cysticercosis, leprosy, scabies, and other ectoparasitoses. Most of these diseases are controlled and are limited to geographically defined endemic foci. In 2008, Guatemala received WHO certification<sup>2</sup> for the interruption of Chagas disease transmission due to the main domestic vector, *Rhodnius prolixus*. In 2019, elimination of the vector as a public health problem followed. In 2016, WHO validated Guatemala's elimination of onchocerciasis transmission (see WHO, 2016). The country is working toward the elimination of trachoma as a public health problem in 2022.

In 2009, the Government of Guatemala, along with the 33 other member states, signed PAHO resolution CD49.R19 Elimination of Neglected Diseases and

Other Poverty-Related Infections. In 2010, the prevalence rates of onchocerciasis, trachoma, and STH in Guatemala were among the highest of all countries in Latin America and the Caribbean. As a result, in 2013, the government developed the 2013–2015 Strategic Plan for the Prevention, Care, Control, and Elimination of Neglected Infectious Diseases (MSPAS & PAHO, 2013) prioritizing six NTDS: onchocerciasis, Chagas disease, trachoma, leishmaniasis, leprosy, and STH. The MSPAS projected having an updated version in 2016, but due to changes in the government and corresponding MSPAS priorities, it has not been developed yet.

Additional efforts are being made to mainstream NTD activities into national primary health care interventions funded by the MSPAS. Since 2015, the Government of Guatemala has been working on a

<sup>2</sup> The certification of NTD elimination is the official recognition by WHO of a country's NTD-transmission-free status.



reform process to transform the MSPAS system to a primary health care system, as a means of advancing toward universal health coverage. In keeping with this process, NTD program officials are working to leverage COVID-19 as an opportunity to strengthen epidemiological surveillance activities at the community level (incorporating NTD surveillance into detection and case-management of coronavirus infections), given that most of the new resources allocated to the health sector are directed to strengthen primary health care COVID-19-related activities.

## GUATEMALA’S HEALTH GOVERNANCE AND NTD PROGRAM MANAGEMENT

The MSPAS oversees the response to NTDS in Guatemala. Within the Ministry, the Department of Personal Health Care Programs Regulation (*Departamento de Regulación de los Programas de Atención a las Personas*) coordinates health programs, including (1) the Vector-Borne Diseases Program (*Programa Nacional Enfermedades Transmitidas por Vectores*) that manages onchocerciasis, leishmaniasis, and Chagas disease, and (2) the Visual Impairment and Blindness Prevention Sub-program (*Subprograma Prevención de Discapacidad Visual y Ceguera*) that manages trachoma. STH is included in two different programs: The Food and Waterborne Diseases program that provides technical guidance for deworming activities for children and adolescents and the Healthy School Strategy, a joint intervention with the Ministry of Education.

Each MSPAS program carries out implementation, supervision, and monitoring activities through the Health Areas Directorates (*Direcciones de Áreas de Salud, DAS*). The DAS are subnational health authorities that oversee population-based interventions and clinical care provided by public health centers and primary health posts managed and operated by health districts. The DAS are coordinated at the MSPAS by the Comprehensive Healthcare System General Directorate (*Dirección General del Sistema de Atención Integral en Salud, SIAS*) that works with the ministry technical departments and programs. NTD programs at the MSPAS also coordinate activities with other MSPAS departments and units (e.g., the National Health Laboratory and the National Epidemiology Center), liaise with cooperation agencies (i.e., implementing or funding agencies), and provide technical assistance and support to departmental and municipal health authorities in endemic regions.

### QUICK REFERENCE:

## SELECTED GUATEMALA HEALTH GOVERNANCE STRUCTURES FOR NTDS

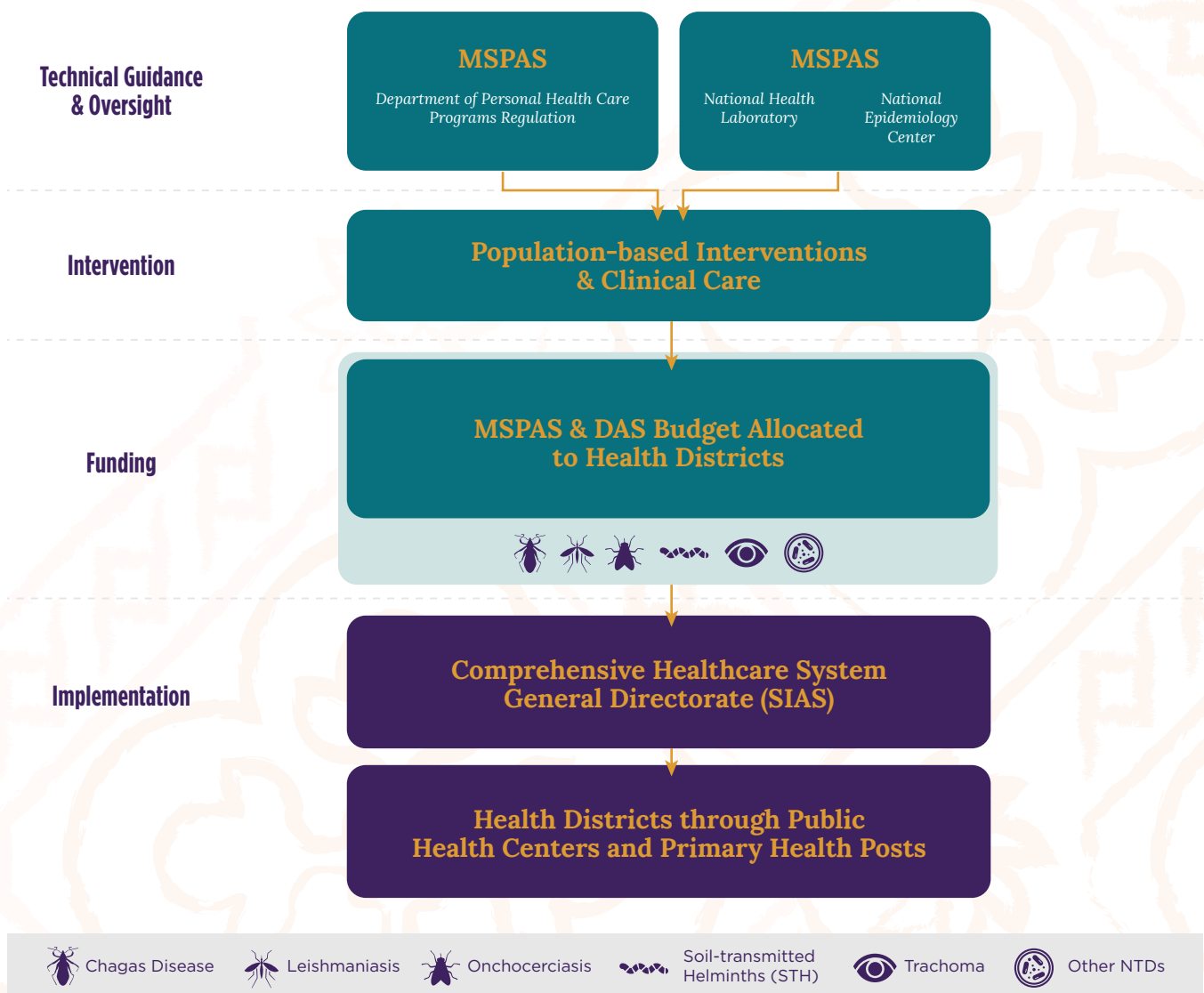
|              |   |               |  |
|--------------|---|---------------|--|
| <b>DAS</b>   | <i>Direcciones de Áreas de Salud</i><br>Health Areas Directorates   | <b>SIGES</b>  | <i>Sistema Informático de Gestión</i><br>Management Information System   |
| <b>MSPAS</b> | <i>Ministerio de Salud Pública y Asistencia Social</i><br>Ministry of Public Health and Social Assistance | <b>SICOIN</b> | <i>Sistema de Contabilidad Integrada</i><br>Integrated Accounting System |

# FINANCING OF GUATEMALA'S NTD EFFORTS

The majority of Guatemala's programmatic NTD efforts are financed by the central government. The MSPAS finances population-based interventions (surveillance, mass drug administration [MDA], vector control) as part of the government's health budget and assigns annual budget allocations to each NTD sub-program based on historical budgets. Similarly, clinical care for NTDs (including diagnosis, morbidity management, disability prevention, and rehabilitation) is funded through health care

facilities with resources allocated to the DAS and operated by the health districts. Therefore, funding for population-based interventions and clinical care is annually allocated by the MSPAS to DAS, including for NTDs, and similarly by DAS to health districts that manage and operate public health centers and primary health posts. **Figure 1** shows the funding streams and implementation roles for NTD interventions in Guatemala.

**FIGURE 1. OVERSIGHT, FUNDING, AND IMPLEMENTATION OF NTD INTERVENTIONS IN GUATEMALA**





Children receive treatment during a deworming campaign in Guatemala.

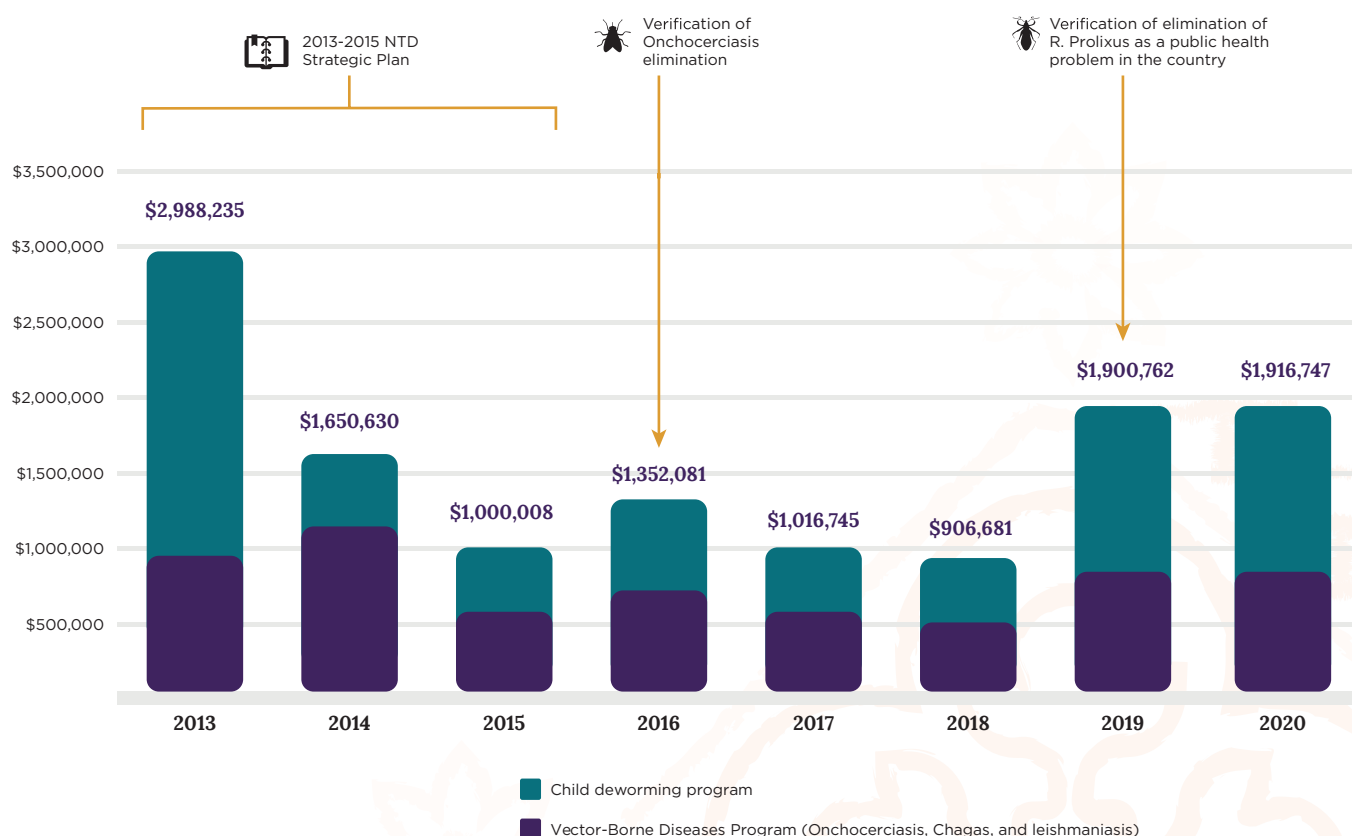
## ACTIONS TO INCREASE DOMESTIC RESOURCES FOR NTDS IN GUATEMALA

Guatemala funds the majority of its NTD services today, a success which has been achieved primarily over the past decade. In the 1980s, 1990s, and 2000s, most of the financial resources for NTD programs came from donors. Several key actions undertaken in the early 2010s shifted the landscape for the financing and governance of NTDS within Guatemala's health system.

First, the first NTD Strategic Plan—the 2013–2015 Strategic Plan for the Prevention, Care, Control, and Elimination of Neglected Infectious Diseases—increased the visibility of NTD interventions and provided estimates of the most pressing resource needs associated with population-based interventions, diagnostics and care, and coordination across sectors such as education and agriculture. Consequently, the Strategic Plan included a conservative proposed budget of approximately \$1.1

million for the three-year period to fund activities for the six NTDS prioritized in the plan—onchocerciasis, Chagas disease, trachoma, leishmaniasis, leprosy, and STH—that was complemented with additional domestic resources from the Department of Personal Health Care Programs Regulation at the MSPAS. According to MSPAS's budget execution in the SICOIN, government expenditures for onchocerciasis, Chagas disease, and leishmaniasis programs over the same period surpassed \$3.2 million. In the case of Chagas disease, the Department of Personal Health Care Programs Regulation and DAS allocated additional funding to the program for post-elimination surveillance activities that were not included in the Strategic Plan. Similarly, execution for deworming activities surpassed \$2.9 million. **Figure 2** shows budget execution for the Vector-Borne Diseases Program and for the mass deworming program budget lines for the years the data are available.

**FIGURE 2. MSPAS EXPENDITURES FOR ONCHOCERCIASIS, CHAGAS, LEISHMANIASIS AND CHILD DEWORMING PROGRAM (STH) IN USD\***



Source: SICOIN. figures for 2020 are for the period January 1 to November 20.

\*In 2019, budget execution for the mass deworming program reflected changes in the target population, from children 2-5 years of age to 1-5 year of age.

Second, the 2013-2015 Strategic Plan also aligned with the 2012 Zero Hunger Plan, a national and intersectoral plan aimed at improving vulnerable populations' health and nutritional status. Through this programmatic and financing alignment, the budget for NTD programs proposed in the Strategic Plan was complemented by \$11 million in domestic resources mobilized by the Zero Hunger Plan for the calendar year 2013 from different ministries. This was allocated to intersectoral interventions for water, sanitation, and hygiene; agriculture; and health, including a healthy schools initiative implemented by the Ministry of Education that included deworming campaigns for children 6-14 years of age.

Lastly, NTD programs gained increased visibility in the national accounting system. Around 2013, changes in the programmatic classification of budget lines in the health sector made it possible to track MSPAS expenditures in more detail. Prior to 2013, vector borne diseases were included in a general budget line as an activity under the Public Health Services Program. In 2013, the Vector-Borne and Zoonotic Disease Program was created within SICOIN with several sub-programs, including malaria, arboviruses, onchocerciasis, Chagas, and leishmaniasis. This modification, which led to the creation of budget lines for onchocerciasis, Chagas, and leishmaniasis, was primarily made to improve financial data reports on malaria presented to the Global Fund to Fight AIDS, Tuberculosis, and Malaria.



## COMPLEMENTARY FUNDING FROM DONORS AND COOPERATION AGENCIES

Over the past 30 years, Guatemala's domestically funded NTD response has been complemented, technically and financially, by a group of donors, including some focused on specific diseases and interventions and others on health systems strengthening and financing. All projects and activities funded by external aid have been approved bilaterally between the MSPAS and donors, with financial and technical needs co-developed by technical teams from both parties. Government coordination of NTD financial and programmatic efforts have facilitated NTD programs to strategically manage and guide donor contributions and complement them with domestic funding.

PAHO has played a key role in mobilizing technical and financial resources, facilitating alliance building, and promoting partner coordination. From 2009 to 2012, PAHO was the technical partner for the Chagas project funded by JICA. PAHO managed a project financed by the Probitas Foundation<sup>3</sup> aimed at strengthening cutaneous leishmaniasis control in the country. PAHO has also worked with the MSPAS over the past 10 years on capacity building for epidemiological and laboratory surveillance, case management, and the design and implementation of elimination plans for NTDs.

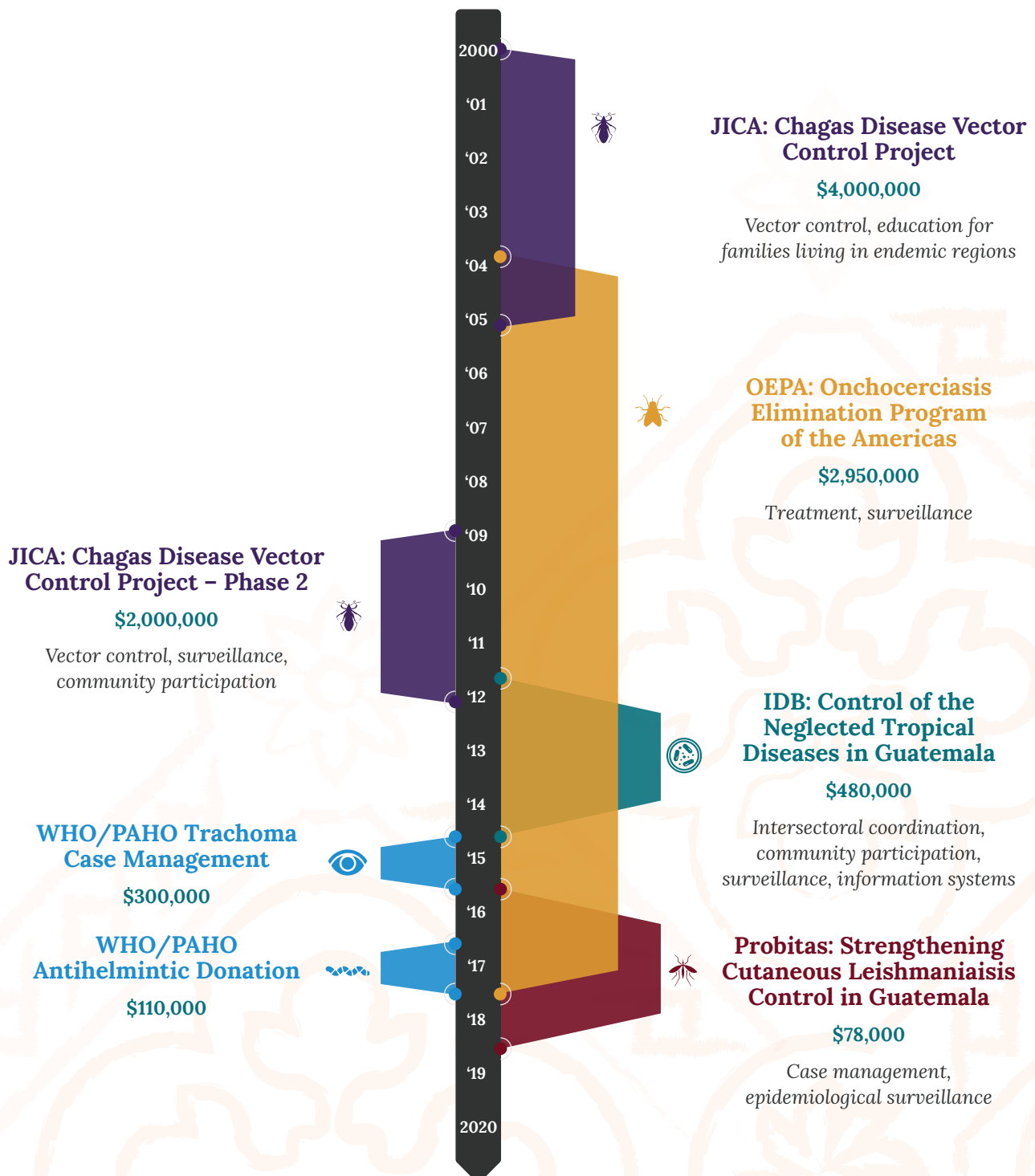
In addition, OEPA provided technical and financial support across the entire MSPAS onchocerciasis program's life cycle, assisting the country to achieve verification of elimination of transmission in 2016. OEPA's annual investment grew from \$60,000 in 2004 to \$312,000 in 2011 as MDA with ivermectin (Mectizan®) took place. From 2012, donor funding diminished progressively to a low of \$41,290 in 2017, after onchocerciasis was eliminated in 2016. Conversely, government counterpart funding for the program increased from \$375,924 in 2004 to \$448,266 in 2016 and dropped to \$19,293 in 2017. Since then, post-elimination surveillance has been funded by the MSPAS. **Figure 3** shows the timeline for donors' contributions to the NTD programs in Guatemala.

Lastly, government financing efforts were supplemented with funding from the Inter-American Development Bank (IDB) from 2012 to 2014. The IDB project had a total budget of approximately \$0.8 million for the (60% as a grant and 40% as government contribution to the project).

3 The Probitas Foundation (Fundación Probitas) was created in 2008 by Grifols, S.A., a Spanish multinational pharmaceutical and chemical manufacturer.



**FIGURE 3. TIMELINE OF KEY DONOR CONTRIBUTIONS TO THE NTD PROGRAMS IN GUATEMALA**



Source: Data provided by the key informants.

## INTEGRATION OF NTDs INTO GUATEMALA'S HEALTH SYSTEMS BUDGETING PROCESSES

In 2012, Guatemala introduced the results-based budgeting approach to increase accountability in the health sector and better link planning, budgeting, and results. Although the country had been successful in including NTD efforts in key policy and planning documents, NTD activities were not initially prioritized for implementation of results-based budgeting. Consequently, the NTD Strategic Plan's results and targets were not included in the new budgeting process, leading to limited monitoring and poor tracking of its financial performance. However, under the first phase of the results-based budgeting implementation (2012–2015), specific targets and results from the Zero Hunger Plan and the wider chronic malnutrition reduction plan were included in the results-based budget process, securing additional funding for deworming campaigns for children 6–14 years of age and intersectoral interventions. After 2015, only a few MSPAS programs were initially included in the results-based budget process, such as the Maternal and Child Health Program, and HIV Program, due to the amount of work and resources required to complete the new financial management system requirements.

Programs that were not included in the results-based budget, such as those for NTDs, did not have their results and targets linked with specific budget lines in the government's management information system (*Sistema Informático de Gestión*, SIGES); this disconnect reduced their visibility in the annual budgeting process. For instance, health programs for HIV, chronic malnutrition, and maternal mortality reduction connect their targets established in their master plans with specific budget lines in the SIGES as part of the results-based budgeting process to advocate for increased funds.

Between 2019 and 2020, two new NTD-related indicators were created by the MSPAS to monitor progress toward the Sustainable Development Goals (SDGs), in particular target 3.3:

- Number of people receiving prevention, control and surveillance activities for vector-borne diseases (onchocerciasis, leishmaniasis, and Chagas disease interventions).
- Dewormed children aged 1–5 years

**These NTD-related indicators were also included by the MSPAS in the results-based budgeting system and the SIGES as new budget lines, allowing them to track NTD budget execution, monitor the number of people benefiting from NTD interventions, and define annual targets.** The alignment of NTDs with the SDG goals has become a key driver to enable programs to maintain their annual budget allocation, even though other health and disease programs are also pursuing sustainability planning—all competing for resources and prioritization. Thus, the need to monitor progress towards the SDGs created an opportunity for NTDs to be integrated into the new results-based budgeting process, increasing their visibility in the discussion of national health resource allocation.

# ENABLING FACTORS FOR DOMESTIC RESOURCE ALLOCATION FOR NTDs

## 1. The integration of NTDs into broader health sector policy documents has increased their visibility.

The harmonization of the 2013–2015 NTD Strategic Plan with the Zero Hunger Plan provided a visible platform from which to mobilize national funding for NTDs. Through the Zero Hunger Plan, NTD programs received \$11 million for intersectoral interventions and deworming campaigns for children 6–14 years of age. The MSPAS is currently making efforts to mainstream NTD surveillance activities for Chagas into the primary health care strategy, given the additional resources allocated to the health sector for this service delivery platform as part of the COVID-19 response.

## 2. Domestic funding for NTD services and other health programs have benefitted when the programs are part of broader budgeting and monitoring structures.

In 2012, the government implemented the results-based budgeting approach and a new financial management system that prioritized key health programs and the Zero Hunger Plan that covered intersectoral interventions for NTDs. Between 2019 and 2020, child deworming activities as well as prevention, control, and surveillance activities for vector-borne diseases were integrated into the new budgeting system. Their inclusion into the system, facilitated by NTDs' alignment with the SDGs, has become a key driver to enable programs to maintain their visibility in resource allocation discussions and will facilitate their prioritization within integrated planning processes. The integration offers a platform from which to enhance domestic resource mobilization and prioritization within the health sector planning and budgeting processes.

## 3. The achievement of key NTD elimination milestones and the signature of international commitments has fueled the government's efforts to maintain disease elimination certifications and sustain long-term program needs.

Success breeds success. The elimination of onchocerciasis and the primary Chagas vector in Guatemala marked significant milestones for the country's response to NTDs. Maintaining elimination status has required strong political leadership and the progressive mobilization of domestic resources for surveillance activities. Similarly, the government's high-level commitment to PAHO's NTD targets and the SDGs has helped maintain the NTD budget allocation, such as for post-elimination surveillance for Chagas disease and onchocerciasis that was not included in the 2013–2015 NTD Strategic Plan budget.

## 4. The MSPAS has strategically coordinated donor support and ensured it supplements domestic funding.

The MSPAS has effectively coordinated NTD financial and programmatic efforts; all donor-funded projects and activities have been approved bilaterally between the MSPAS and donors, with financial and technical needs co-developed by technical teams from both parties. This coordination has allowed the government to make annual health financing decisions, allocate funding to meet specific programs' resource needs, and ensure donor contributions complement the domestic budget for NTD activities.



## CONCLUSION

Guatemala is currently financing the majority of its NTD activities, including population-based interventions and clinical care; **it provides all of the financing for the focus diseases.** Progress toward increased domestic financing of NTD programming has been achieved over the last decade. The 2013–2015 NTD Strategic Plan increased visibility of NTD interventions and provided estimates of resource needs associated with population-based interventions, clinical care, and coordination across sectors. The Strategic Plan served as a platform from which to mobilize domestic resources and complement them with donor technical and financial support. Building linkages between the NTD Strategic Plan and the Zero Hunger Plan was also an important step toward increasing NTD visibility in the discussion of national health resource allocation. Moreover, the inclusion of some NTDs into the MSPAS results-based budgeting process offers an opportunity for programs to increase their accountability and better link planning, budgeting, and intended results for NTDs. Programs included in the new system are monitored technically and financially at the national and subnational levels, and the Planning Secretariat of the President's Office closely examines annual results.

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## AUTHORS

Sergio Penagos Guzmán

*Results for Development*

Jose L. Gonzalez

*Results for Development*

Richard Killian

*RTI International*

## SPECIAL THANKS

Ploi Swatdisuk

*USAID*

Emily Wainwright

*USAID*

Molly Brady

*RTI International*

Lisa Rotondo

*RTI International*

Maria Francisco

*Results for Development*

Dr. Maira Sandoval

*MSPAS*

Dr. Aída Véliz

*MSPAS*

Dr. Ana Leticia Pons

*MSPAS*

Dr. Mario Rafael Sum

*MSPAS*

## CONTACT US

701 13th Street, NW

Suite 750

Washington, DC 20005

[www.ActEast.org](http://www.ActEast.org)

[ActEast@rti.org](mailto:ActEast@rti.org)

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