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GLOBAL HEALTH PROGRESS

COLLABORATING TO END NEGLECTED TROPICAL DISEASES:

CATALYZING INNOVATION AND PARTNERSHIPS

FOREWORDS

THOMAS CUENI

DIRECTOR GENERAL, INTERNATIONAL FEDERATION OF PHARMACEUTICAL MANUFACTURERS & ASSOCIATIONS

Interventions in Neglected Tropical Diseases (NTDs) represent some of the largest public health interventions globally, and the innovative biopharmaceutical industry has always been an active partner throughout. The innovative biopharmaceutical industry's support to NTDs is multi-faceted, and R&D activities are complemented by medicine donations and programs to strengthen health system capacities and improve public awareness on disease prevention.

This year, we celebrated the first-ever NTD Day and I am pleased to see that R&D investment by multinational biopharmaceutical companies reached its highest-ever level. However, we are far from having all the tools we need to control and eliminate NTDs. Our industry is committed and engaged in a long-standing fight, and will continue to dedicate teams of world-class researchers and our facilities to find new cures for these diseases that affect the poorest of the poor. Collaboration is however, at the heart of everything: cross-sectoral cooperation and public-private partnerships are more important than ever if we want to further catalyze innovation, harness the power of science and technology, and help unlock new ways of reaching a world free of NTDs.

Beyond research and development, our industry also helps endemic countries to address their NTD-related health challenges - by assisting countries to build strong health systems that are accessible and staffed with qualified healthcare workers, along with helping to bolster the supply chain and facilitating the delivery of quality, affordable medicines and vaccines.

We look forward to working alongside governments and the global health community to sustain gains and bring innovative solutions to accelerate progress towards the control and elimination of NTDs.

DR MWELE N. MALECELA

DIRECTOR, NEGLECTED TROPICAL DISEASES, WORLD HEALTH ORGANIZATION

Among the first lessons we have learned so far from the Covid-19 pandemic is that countries with the ability to respond promptly are those with the most resilient and equitable health systems. Neglected Tropical Diseases (NTDs) are a litmus test for equitable health, as they impose a devastating human, social and economic burden on more than 1 billion of the world's most vulnerable, marginalized populations.

The World Health Organization's (WHO) new road map for 2021-2030 embodies this vision. During the next decade, WHO wants to guide the world in freeing 90% of these people from the vicious cycle of disease and poverty due to NTDs.

Since the first WHO road map was published in 2012, good collaboration with countries and partners across the public and private sectors, means that forty countries, territories and areas have eliminated at least one disease. Since 2015, donation of medicines have helped to scale-up programmes, resulting in the annual treatment of over 1 billion individuals for at least one NTD.

WHO is committed to continue this progress and to work with every partner, particularly the biopharmaceutical industry to ensure access to quality-assured, effective and safe medicines, and diagnostics.

But if we want to accomplish what we are envisioning for 2030, donation of medicines can only be one, albeit important, part of the puzzle. It is time we adopt a coherent and comprehensive approach across diseases, involving every sector in a more effective cross-cutting manner. The new WHO road map will help reshape our collaboration as we move forward. We need the industry to be part of our new vision towards 2030.

The countdown has begun; let us journey together towards a healthier world free of NTDs.

PROF ILONA KICKBUSCH

CHAIR OF THE INTERNATIONAL ADVISORY BOARD OF THE GLOBAL HEALTH CENTRE AT THE GRADUATE INSTITUTE OF INTERNATIONAL AND DEVELOPMENT STUDIES AND CO-CHAIR OF UHC2030

NTDs affect more than one and a half billion people each year and are particularly prevalent among the world's poorest people. The landmark Political Declaration on Universal Health Coverage (UHC) adopted at the United Nations (UN) High-level Meeting on UHC in 2019 reinforced growing global political commitment, with Heads of State and Government agreeing to take ambitious actions to institute UHC in their countries. With such a high burden of NTDs, addressing them must be at the core of that commitment.

UHC and strong health systems provide a critical foundation for NTD interventions. UHC means quality health services are available for everyone, no matter who you are or where you live, and crucially it ensures that people are not pushed into poverty by healthcare costs. We know that the most vulnerable and poorest people are those worst affected by NTDs. At the heart of UHC and in line with the Sustainable Development Goals (SDGs) is a dedication to 'leave no one behind'. This commitment to equity, non-discrimination and a human rights approach to health is therefore fundamental for interventions in NTDs.

Strong health systems play a core role in ensuring that people and communities receive the prevention, treatment, care and rehabilitation they may need for NTDs. UHC2030 promotes the strengthening of health systems worldwide, including primary health care, to ensure that everybody's health needs can be met.

One thing we say loudly in the UHC movement is the need to 'move together'. This means engaging other sectors and the whole of society for a healthier world. Strengthening health systems and related public health actions extending beyond the health sector forms the foundation and core of tackling NTDs. Likewise, good NTD control is a powerful contributor to realizing UHC.

CATHERINE K. OHURA

CEO & EXECUTIVE DIRECTOR, GLOBAL HEALTH INNOVATIVE TECHNOLOGY FUND

Global health research and development (R&D) has transformed since the turn of the 21st century, giving new hope to hundreds of millions of neglected patients across the globe. What shifted? The proliferation of cross-sectoral partnerships.

Stakeholders across sectors are acknowledging that the pharmaceutical industry cannot solve complex global health challenges alone. This acknowledgement was a catalyst for GHIT's creation as Japan's flagship public-private partnership (PPP) fund for global health R&D. Japanese and global life-science companies have demonstrated unparalleled leadership and commitment, contributing financially to the Fund, sharing their technologies, expertise, and networks to develop innovative tools for the fight against NTDs.

Investment grants by PPP Funders (such as GHIT) have incentivized industry, academia, and research institutions to utilize their assets to help develop innovative tools for neglected patients through collaboration with a global network of partners. However, more is needed. Pull incentives are necessary to drive innovations, we also need to strengthen synergy between funders to fully leverage investment impact.

The London Declaration is one of the greatest PPP successes in NTD elimination efforts. We must continue to build better, more sustainable mechanisms through PPPs and cross-cutting approaches to deliver medicines to patients more efficiently.

The good news: the R&D, access and delivery communities have already initiated dialogues to bridge gaps and solve challenges by aligning their strengths and unique positions.

Cross-sectoral partnership is not a magic bullet. It requires continuous leadership, dialogue, and passion. Ending the neglect is possible. Let's get it done, together.

PROGRESSING THE FIGHT AGAINST **NEGLECTED TROPICAL DISEASES**

Strong progress has been made towards tackling Neglected Tropical Diseases (NTDs) over the past decade, although notably a number of NTD donation programs began much before this. In 2018, for the fourth consecutive year, more than one billion people were treated for at least one of the 20 NTDs that are being targeted for control or elimination by the World Health Organization (WHO).[1]

However, over 1.6 billion of the world's poorest people — or one in five — still have their lives affected, or worse cut short, by NTDs, highlighting the need for a continued, concerted focus on tackling these diseases.[2]

2020 is a landmark year for NTDs. The London Declaration — a collective commitment to eliminate NTDs which has supported over 12 billion treatment donations — launched in 2012 and is coming to an end, with a new chapter being forged.[3] In addition, this year marks the 10-year countdown for the achievement of the Sustainable Development Goals (SDGs), which includes SDG target 3.3 to 'End the epidemics of AIDS, tuberculosis, malaria, NTDs and other communicable diseases'. The political will to address NTDs was exemplified last year at the United Nations (UN) High Level Meeting on Universal Health Coverage (UHC), which recognized that access to NTD interventions is integral to achieving 'Health for All'. Commitment from national governments towards addressing NTDs is a critical part of achieving UHC and the SDGs is all the more critical. NTDs affect the poorest and most vulnerable parts of communities, especially in resource-constrained settings, and thus exemplifies the UHC vision of leaving no-one behind.

Global health actors need to continue to mobilize attention towards NTDs, using platforms and convening to highlight the cross-sector support needed from policy makers, community leaders, civil society, industry and others to advance our journey to control, eliminate and eradicate NTDs. The WHO believes that if countries consistently treat and protect more than 75% of people needing care, across five NTDs (lymphatic filariasis, blinding trachoma, soil-transmitted helminthiasis, schistosomiasis, and onchocerciasis), we will be on track to beat these diseases.[2] Great progress has already been made by many countries — Malawi, Sierra Leone and Togo have reached the 75% average target — but more needs to be done.[4] Control, elimination and eradication is not in sight for all NTDs and emerging global health challenges, such as antimicrobial resistance, mean that new prevention and treatment approaches are needed.

As the innovative biopharmaceutical industry, we recognize that to achieve an NTD-free world we need to work together to sustain current initiatives and develop new, innovative approaches. Our industry's NTD work, and that of the private sector at large, is central to helping countries to address their NTD-related health challenges. By assisting countries to build strong health systems that are accessible and staffed with qualified healthcare workers, along with helping to bolster the supply chain and facilitate the development and delivery of quality, affordable medicines and vaccines, we will ensure no-one is left behind on our collective journey to reach the SDGs and achieve UHC.

20 NEGLECTED TROPICAL DISEASES TARGETED BY THE WHO:

1. Buruli ulcer
2. **Chagas disease**
3. Dengue and Chikungunya
4. **Guinea worm disease**
5. Echinococcosis
6. Foodborne trematodiases
7. **Human African trypanosomiasis (sleeping sickness)**
8. **Leishmaniasis**
9. **Leprosy**
10. **Lymphatic filariasis**
11. Mycetoma, chromoblastomycosis and other deep mycoses
12. **Onchocerciasis (river blindness)**
13. Rabies
14. Scabies and other ectoparasites
15. **Schistosomiasis**
16. **Soil-transmitted helminthiases**
17. Snakebite envenoming
18. Taeniasis/Cysticercosis
19. **Trachoma**
20. Yaws

= NTDs included in the London Declaration[5]

CATALYZING COLLABORATIONS IN SUPPORT OF A **NEGLECTED TROPICAL DISEASE-FREE WORLD**

We work closely with multi-sectoral stakeholders as we believe this collaboration is essential to addressing NTDs. The WHO's Executive Board report in February 2020 recognized the value our industry brings to the fight against NTDs, with particular recognition of the support provided through medicine donations.[6]

As the timeframe for the London Declaration draws close, emphasis is being placed on a more sustainable approach towards achieving control and elimination of NTDs that encourages greater endemic country ownership and improved domestic resource mobilization. Governments need to create demand, commit resources to the elimination of NTDs and play a more active role in improving accurate forecasting of treatment needs. Investment in diagnostic methods and tools is a critical gap in meeting NTD targets, and it has been noted that mass drug administration (MDA) can have unintended consequences on the development of targeted diagnostics.

A "One Health" approach, that integrates efforts with water, sanitation, nutrition and education into intersectoral initiatives, are all considered essential for ensuring that important gains are sustained, and unattained targets are met. These factors have been taken into account in the development of the WHO's second NTD Roadmap — developed in partnership with the global health community to set targets and milestones beyond 2020 which are ambitious, evidence-based and realistic. The roadmap also acknowledges a need to avoid long-term over-reliance on medicine donations.[7] To achieve these goals, the entire NTD community needs to work together using holistic patient-centered and inter-sectoral approaches so that countries can better integrate interventions into national healthcare systems and reinforce linkages between health and other sectors.

All actors have a role to play in the journey to 2030; we are committed to supporting governments to identify priority areas that relate to their needs and to increase their stewardship of related health issues. As the commitment under the London Declaration draws to a close, stakeholders will come together to craft the next phase of cross-sector support. The innovative biopharmaceutical industry is committed to being active participants in achieving an NTD-free world and helping to ensure that gains are sustained beyond donor support and deliver impact.

HOLISTIC HEALTH SYSTEM STRENGTHENING TO **TACKLE NEGLECTED TROPICAL DISEASES**

NTD care and treatment is a core component of UHC and the UN's UHC declaration pledges to "Strengthen efforts to address eye health conditions and oral health, as well as rare diseases and NTDs, as part of UHC".[8]

The SDGs also set out ambitious targets for tackling NTDs, with target 3.3 setting a goal of ending the epidemics of AIDS, tuberculosis, malaria and NTDs and combatting hepatitis, water-borne diseases and other communicable diseases. This is a significant political commitment in the fight against NTDs and one that the innovative biopharmaceutical industry is committed to supporting. However, we need to move away from working in silos to focus on partnering across sectors to implement initiatives which solve the toughest challenges related to NTDs. Our industry's support for NTDs is multi-faceted and goes beyond donation programs to developing innovative solutions through R&D and strengthening health systems. Our experience collaborating with partners has shown us the value of using holistic, comprehensive approaches which integrate with country systems and reinforce the linkages between NTDs and other determinants of health such as water, sanitation, housing, nutrition, migration, education and gender.[9] Global challenges such as antimicrobial resistance and climate change also pose a threat to the progress made in NTDs, whilst the re-emergence and geographical spread of NTDs such as dengue in Bangladesh, highlights the need for vector control, appropriate diagnostic mechanisms, and test and treat strategies within primary healthcare settings.

Our collaborations supporting NTDs use comprehensive strategies to strengthen health systems; reduce inequalities; identify new treatments; delivery systems; and, diagnostic tools for NTDs. We work across the healthcare system, including improving supply chains and procurement mechanisms, educating communities on disease management and training healthcare workers. Our strategic approaches focus on:

- **BOOSTING INNOVATION AND RESEARCH & DEVELOPMENT (R&D)** to find new treatments and make it possible to treat more people faster;
- **STRENGTHENING HEALTH SYSTEMS AND BUILDING DISEASE AWARENESS** in target populations and communities;
- **SCALING UP ACCESS TO EXISTING TREATMENTS** through MDA, disease control through intensified disease management (IDM) and drug donations, and ensuring the long-term, quality supply of affordable medicines as countries become more self-sustainable and incorporate NTD management into their UHC plans.

Spotlight on...

THE LONDON DECLARATION — A GROUNDBREAKING PUBLIC PRIVATE HEALTH PARTNERSHIP[10]

The London Declaration brought together the innovative biopharmaceutical industry with multi-sector partners to advance R&D to eradicate, eliminate or control 10 NTDs by 2020, including a pledge to donate 14 billion treatments over 10 years.

More than 80 diverse partners committed to the declaration, including original endorsers: AbbVie, Bayer, Bill & Melinda Gates Foundation, Bristol-Myers Squibb, Children's Investment Fund Foundation, DNDi, MSD, Eisai, Gilead, GSK, Johnson & Johnson, Lions Club International Foundation, Merck, Mundo Sano, Novartis, Pfizer, Sanofi, The World Bank, DFID and USAID. The declaration recognizes the crucial role the private sector plays in the fight against NTDs through our innovations, medicines and vaccines, as well as coalitions and partnerships.

The declaration spearheaded collaborations which have helped to achieve some of the most recent milestones in tackling NTDs, such as Uniting to Combat NTDs, which brings together multi-sector actors including governments and community-based organizations to strengthen health system capacities. The collaborations have focused on a range of strategies including drug donations, strengthening primary healthcare, providing communities with financial protection, supporting national programs, investing in research for drug discovery and development.

The journey so far

MULTI-SECTOR ACTION SUPPORTING THE **FIGHT AGAINST NTDs**

2011
WHO published their **2012–2020 NTD roadmap**, prioritizing 17 NTDs[11]

2012
Uniting to Combat NTDs was established

2012
The **London Declaration on NTDs** was formed

2012
The **NTD Supply Chain Forum** was formed

2013
A declaration for the control and elimination of NTDs in Ethiopia was signed by **Ethiopian National NTD Symposium** participants

2014
The **Addis Ababa NTD commitment** was finalized

2015
G7 Heads of State recognized NTDs as a major challenge and the need for research and interventions[12]

2016
The **Expanded Special Project for Elimination of Neglected Tropical Diseases (ESPEN)** was launched

2017
The NTD drug donation program **broke the world record** for the **largest mobilization of donated drugs**

2017
The Geneva Commitment, signed by NTD Summit attendees, reaffirmed the London Declaration commitment[13]

2017
WHO added three new NTDs to the NTD portfolio (chromoblastomycosis and other deep mycoses, scabies and other ectoparasites and snakebite envenoming)

2018
The ALMA NTD indicator launched at the African Union summit

2018
An **NTD resolution was adopted** by 57 countries at the XVIIIe Summit of the Organisation internationale de la Francophonie (OIF)

2020
The first **World NTD Day** was held on 30th January

2020
Submission of the **WHO new NTD Roadmap for 2021–2030**

2030
SDGs deadline

Our approach

COMPREHENSIVE AND HOLISTIC EFFORTS TO FIGHT NTDs

STRENGTHENING HEALTH SYSTEMS

Building healthcare worker capacity, and supporting disease prevention and awareness

WE PARTNER WITH A DIVERSE RANGE OF ACTORS TO STRENGTHEN HEALTH SYSTEMS.

- We support **supply chain, procurement and financing** initiatives.
- We provide **hospital and healthcare facilities** with equipment and resources.
- Our **healthcare professional training programs** help strengthen local capacity.
- We support the **provision of safe water and sanitation**.
- Our disease prevention programs educate target populations and **increase disease awareness**.

SCALING UP ACCESS TO EXISTING TREATMENTS

Ensuring the long-term, quality supply of affordable medicines

WE HELP COMMUNITIES IN NEED TO GET THE TREATMENTS THEY NEED. WE SUPPORT COUNTRIES TO BECOME SELF-SUSTAINABLE AND INCORPORATE NTD MANAGEMENT INTO THEIR UHC PLANS.

- Our **strategies to increase access to treatment** include MDA, disease control as part of intensified disease management and drug donation.
- Over eight years, **12 pharmaceutical companies** have donated 12 billion treatments.
- In 2018, for the fourth consecutive year, **more than one billion people were treated** for at least one of the WHO's 20 prioritized NTDs.
- We are working with partners to **fast-track current initiatives** and better integrate interventions into national health care systems.

BOOSTING INNOVATION AND RESEARCH + DEVELOPMENT

Innovative approaches to find new treatments and interventions and reach more people faster

WE KEEP INVESTING IN R&D TO ENSURE NEW GENERATIONS OF MEDICINES, VACCINES, AND DIAGNOSTICS AS WELL AS TECHNOLOGIES TO CONTROL TRANSMISSION ARE DISCOVERED:

- Our collaborations take many forms including **product development partnerships, research consortiums and technology transfers**.
- We **facilitate access to** intellectual property compound libraries, technical expertise, know-how and data, and regulatory assistance.

OUR R&D PIPELINE INCLUDES:

- **15 pharmaceutical companies** conducting R&D on 14 NTDs
- **90 R&D projects** in progress
- In 2018, **83%** of NTD R&D projects involved an external partner

DISEASE PROGRESS

NTD CONTROL, ELIMINATION AND ERADICATION

Progress has been made to **control, eliminate and eradicate** NTDs that are treated through regular preventive chemotherapy (PC) via Mass Drug Administration (MDA).

LYMPHATIC FILARIASIS

Eliminated in 16 countries in 2018, including Cambodia, the Cook Islands, the Maldives, the Marshall Islands, Niue, Sri Lanka, Thailand, Tonga and Vanuatu. Seven additional countries have successfully implemented the recommended elimination strategies, no longer delivering large-scale treatment and started elimination surveillance.[14]

ONCHOCERCIASIS (RIVER BLINDNESS)

Four countries were verified as 'onchocerciasis-free' by 2017 — Colombia, Ecuador, Guatemala and Mexico. Additionally, three countries no longer delivering MDA and completed three years of post-treatment surveillance in at least one transmission area. 1.8 million people now live in areas that no longer require MDA.[15]

TRACHOMA

Eliminated as a public health problem in Cambodia, China, Ghana (the first sub-Saharan African country to eliminate the disease), the Lao People's Democratic Republic, Mexico, Morocco and Oman.[16]

SOIL-TRANSMITTED HELMINTHIASES (SHT)

The 10 highest burden countries have started deworming — a major step in the global deworming program — and 531 million children were reached in 2016 by this program. New guidance from the WHO means that treatment will be extended to women of reproductive age, supporting an estimated 688 million women.[17]

SCHISTOSOMIASIS

There has been steady growth in population coverage with PC for schistosomiasis globally over the past five years and 70.9 million children are covered by schistosomiasis programs — a 27% increase between 2015 and 2016.[18] Global target to treat 75% of school-aged children is on track, with 70% coverage reached globally in 2017.[19]

GLOBAL HEALTH PROGRESS

Collaborating for a **sustainable future**

Our **interactive knowledge hub** collates information on our industry's collaborations with diverse, cross-sector partners to fight **Neglected Tropical Diseases (NTDs)**.

30+ of our programs target NTDs

370+ partners are working with us on our NTD programs

THE **TYPE OF PARTNER** WE COLLABORATE WITH MOST ARE:

Academia and Research Institutes
114 PARTNERS WORKING ON 19 PROGRAMS

Global Non-Governmental Organizations
37 PARTNERS WORKING ON 12 PROGRAMS

Governments
16 PARTNERS WORKING ON 10 PROGRAMS

THE **PARTNERS** WE COLLABORATE WITH MOST ARE:

Drugs for Neglected Diseases Initiative (DNDi)

Liverpool School of Tropical Medicine (LSTM)

World Health Organization (WHO)

EXPLORE OVER 250 PROGRAMS WORKING ACROSS DISEASES AREAS AT globalhealthprogress.org

INNOVATING TO FIND THE NEXT GENERATION OF TREATMENTS AND INTERVENTIONS

Focus on R+D

We have made significant progress to develop new technologies — medicines, vaccines, and pesticides — to combat NTDs. Our R&D and innovation programs help to find treatments and delivery solutions to NTD challenges.

Since 2014, these programs have more than doubled in number, and we now have over 90 projects in progress.[20] More of our industry is working in this space than ever before and in 2018, 15 companies were developing projects to explore solutions for 14 NTDs (seven of these companies had not previously worked in this space). Developing new NTD treatments and interventions is challenging, and takes anywhere between six and 15 years to go from pre-clinical testing to approval of new treatments, this highlights the need for continual R&D and funding.[21]

Despite the promising trends in neglected disease funding, funding for WHO-defined NTDs has remained largely flat for the last 10 years and was 10% lower in 2018 than it was in 2009.[22] Increased diverse investments are needed and we are committed to exploring new ways to incentivize investment, such as tiered priority review vouchers (PRV) for social impact or trial phases. Despite often low commercial incentives, investment from the innovative biopharmaceutical industry in this space has continued to grow over the past 12 years and has increased five-fold since 2018. Our funding accounted for 16% of all NTD funding, showing that support for NTDs heavily focuses on public sector investment, which means continued collaboration across sectors is required to share knowledge and ensure funding is supporting sustainable programs.

Collaboration underpins R&D; since 2014, the majority of NTD R&D projects have involved external partners.[20] Such partnerships help to streamline global research efforts, reduce duplication and find novel solutions to emerging challenges. Sustaining the level of investment required to research, develop and manufacture treatments for diseases affecting LMICs such as NTDs, which do not have a commercial return, is challenging. Working with others and exploring risk-sharing approaches, both in R&D and along the product lifecycle, help give our companies the confidence and flexibility to make the required business decisions to sustain R&D in this field. Our collaborations take many forms, including Product Development Partnerships (PDPs), research consortiums, technology transfers and building technical expertise to develop, manufacture, register and distribute products. We provide in-kind contributions that are targeted to enhance R&D for NTDs. Although difficult to quantify, these inputs are a significant investment and include sharing of intellectual property (IP) assets to condense the time needed to find and develop new, promising treatments, along with providing access to research facilities, hosting and training scientists, and forgoing licenses or providing royalty-free licenses on co-developed products. Underscoring our R&D collaborations and consortiums is an ethos to share knowledge and expertise with other stakeholders to help find new solutions and innovations in the future.

BREAKTHROUGH TREATMENTS AND **PROMISING PIPELINE FOR DISEASE ELIMINATION**

SLEEPING SICKNESS:
SANOFI

Sanofi has expanded their support to fight Trypanosoma brucei gambiense human African trypanosomiasis (HAT), more commonly known as sleeping sickness, through the development of Fexinidazole. This new oral treatment for early and late stages of the disease received a positive scientific opinion from the European Medicines Agency (EMA) in 2018. Fexinidazole has been developed in partnership with the Drugs for Neglected Disease initiative (DNDi), in a €68 million project that was also supported by seven European countries and private donors such as the Bill & Melinda Gates Foundation and Médecins Sans Frontières. In early 2020, the first patient was treated with Fexinidazole in the Democratic Republic of Congo. Building on this breakthrough, Sanofi is now working with DNDi on the development of Acoziborole — a single-dose, oral treatment which is in Phase II/III trials. If successful, this one-day oral treatment will accelerate the elimination of sleeping sickness.[23]

DENGUE FEVER:
TAKEDA

Takeda is investing in the development of a live-attenuated tetravalent dengue vaccine (DENVax), which is undergoing Phase III clinical testing. The new treatment could become the second dengue vaccine to be made available for at-risk populations and has shown immunogenicity against all four serotypes of dengue virus. This breakthrough presents the opportunity to change the way dengue is treated — treatment is currently limited to supportive care and untreated cases of severe dengue lead to mortality rates of greater than 20%. There are an estimated 390 million dengue infections a year which this vaccine could help to reduce,[24] with the number of overall cases likely to rise as climate change contributes towards increased geographical spread.

CHAGAS:
BAYER

Bayer has developed fast-disintegrating nifurtimox (Lampit®) tablets for treating Chagas disease in children that have been successfully tested in Phase I and Phase III studies in children and adults respectively. This new treatment would make Chagas medication easier for all patients to use, especially young children, and is expected to reach the market in 2020. Bayer aims to register the product in endemic countries with high disease burden and apply for WHO pre-qualification. An estimated 6–7 million people worldwide are infected with Trypanosoma cruzi, the protozoan parasite responsible for Chagas disease.[25] Lampit® presents a promising opportunity to tackle this disease.

SOIL TRANSMITTED HELMINTHS:
JOHNSON & JOHNSON

Johnson & Johnson has developed a new pediatric VERMOX® CHEWABLE formulation (mebendazole chewable 500mg tablets) that was approved by U.S. FDA in 2016 and received prequalification from WHO in 2019. Intestinal worms are a particularly damaging condition for children, this innovative pediatric formulation — which can either be chewed or mixed with a small amount of water allowing for safer dosing in children as young as one year old. VERMOX® CHEWABLE is now being integrated into Johnson & Johnson's long-standing donation program, allowing for the full transition to this new pediatric formulation. The company has delivered more than 1.4 billion doses of VERMOX® to approximately 800 million children since 2006. In 2019, J&J extended its donation program which will ensure one billion additional doses of VERMOX® CHEWABLE are delivered to children in high-burden countries by 2025.

SCHISTOSOMIASIS: PEDIATRIC PRAZIQUANTEL CONSORTIUM PROGRAM (MERCK, ASTELLAS PHARMA INC.)

Merck and Astellas Pharma Inc. work within a consortium of partners to develop, register and provide sustainable access to a novel pediatric formulation to treat schistosomiasis in preschool aged children (under the age of six). The new formulation is a small, orally dispersible tablet, with an acceptable taste. The Pediatric Praziquantel Consortium program, led by Merck, is currently in Phase III to acquire confirmatory data needed for registration.

Founded in July 2012 as the first international, non-profit, public-private partnership in schistosomiasis, the Consortium operates through an innovative approach that engages experienced partners to reduce the global health burden caused by this neglected disease.

GSK's Tres Cantos Open Lab for R&D

Active Since: 2010

Bridging the gap between funding and implementation: Through a collaborative, project-based environment that integrates academic and industry teams, the Tres Cantos Open Lab Foundation (TCOLF) seeks to address the gap between basic research and drug discovery for NTDs.

PROGRAM OVERVIEW

GSK has a R&D facility in Tres Cantos, Spain, dedicated to developing new treatments to combat high burden diseases in Low- and Middle-Income Countries (LMICs), including NTDs. In 2010, lab space at GSK's Tres Cantos site was made available for external scientists, forming the independent TCOLF, which enables universities, not-for-profits and other research institutes researchers to work collaboratively with GSK scientists. The lab rapidly tests novel therapeutic hypotheses, and scientists from around the world partner with GSK teams, use GSK facilities, access GSK compound libraries and bring their expertise to early stage drug discovery projects.

RESULTS AND MILESTONES

- To date, more than 250 research proposals have been evaluated, 73 research projects have been approved and 99 scientists from world-class institutions have been trained in global health drug discovery at the TCOLF.

DISEASE AREA: Across NTDs

FOCUS: A collaborative R&D lab focused on the development of breakthrough therapies for diseases in LMICs.

PARTNERS (2 OUT OF 55):

- Bioaster
- CICbioGUNE

See **Global Health Progress** for the full program overview.

WIPO Re:Search

Active Since: 2011

Sharing knowledge through collaboration: WIPO Re:Search seeks to catalyze research into NTDs, malaria and TB by sharing intellectual property with the global health research community, and contributing to capacity-building in LMICs.

PROGRAM OVERVIEW

WIPO Re:Search is a global consortium, founded by the World Intellectual Property Organization (WIPO) in partnership with BIO Ventures for Global Health (BVGH) and several innovative pharmaceutical companies. To foster an R&D ecosystem that is conducive to pioneering new or improved treatments and vaccines, WIPO Re:Search catalyzes royalty-free sharing of intellectual property and assets in targeted collaborations.

To bolster research capacity in endemic countries, the WIPO Re:Search Fellowship Program provides training to an international community of researchers who are advancing R&D for neglected diseases.

RESULTS AND MILESTONES

- Since 2011, 156 IP-sharing collaborations have been established and 10 ongoing collaborations are advancing critical solutions for neglected diseases along the product development pathway.
- 20 fellowships have been provided totaling 100+ months of training.

DISEASE AREA: Across NTDs

FOCUS: Advancing R&D for NTDs, malaria and TB by sharing IP protected materials and expertise.

PARTNERS (2 OUT OF 79):

- Burnet Institute
- Operation ASHA

See **Global Health Progress** for the full program overview.

EDCTP-TDR Clinical Research Development Fellowships (CRDF)

Active Since: 1999

Partnering to streamline efforts: The WHO Special Program for Research and Training in Tropical Diseases (TDR) and the European & Developing Countries Clinical Trials Partnership (EDCTP) have streamlined their fellowship programs to help to build research capacity in LMICs.

PROGRAM OVERVIEW

The WHO TDR offers fellows from LMICs clinical placements in host pharmaceutical company or PDPs. The fellows are trained in clinical trial competencies for medicines, vaccines and diagnostics. The EDCTP, in partnership with the European Federation of Pharmaceutical Industries and Associations (EFPIA), offers researchers pharmaceutical placements to support the clinical development of new or improved interventions for HIV/AIDS, TB, malaria and NTDs. In 2014, the TDR and EDCTP agreed to work together to combine and streamline the two fellowship programs and synergize communications between partners.

RESULTS AND MILESTONES

- Since 2008, the TDR has trained 91 fellows from 31 LMICs.
- An external review from the Swiss Tropical and Public Health Institute found 95% of fellows thought their skills and competencies in good clinical or lab practices were “better” or “much better” at the end of the program.

DISEASE AREA: Across NTDs

FOCUS: Building capacity and reducing research bottlenecks in LMICs through clinical research fellowships.

PARTNERS (2 OUT OF 2):

- EDCTP
- Bill and Melinda Gates Foundation

See **Global Health Progress** for the full program overview.

Global Health Innovative Technology (GHIT) Fund

Active Since: 2013

Accelerating R&D for neglected diseases: In collaboration with the Government of Japan, Bill & Melinda Gates Foundation, Wellcome, and global pharmaceutical companies, the GHIT Fund has catalyzed R&D of new tools for NTDs, malaria, and TB.

PROGRAM OVERVIEW

GHIT was created in 2013 as a PPP fund for global health R&D to mobilize the Japanese pharmaceutical industry, academia, and research institutes to create new drugs, vaccines, and diagnostics for NTDs, malaria, and TB in partnership with global entities. GHIT's investments range from discovery research to product registration. GHIT does not invest in access and delivery of approved products directly, but rather works together with development partners to create their own access and delivery strategies, including regulatory and financing strategies, procurement and supply chain, while also providing strategic guidance to product development partners on their launch strategies for late-stage candidates, in collaboration with domestic and international partners.

RESULTS AND MILESTONES

- Since 2013, GHIT has invested $209 million in 91 projects to create new drugs, vaccines, and diagnostics for NTDs, malaria, and TB. As of March 2020, this includes 26 discovery projects, 20 preclinical projects, and 6 clinical trials in LMICs.
- One of the most advanced research projects is a clinical candidate for a pediatric formulation of a gold-standard drug for schistosomiasis developed by Merck, Astellas, and other public and private partners, which aims to be registered by 2022.
- GHIT has partnered with DNDi, AstraZeneca, Eisai, Shionogi, and Takeda to establish a ground-breaking initiative to accelerate and reduce the cost of early-stage drug discovery for leishmaniasis and Chagas disease.

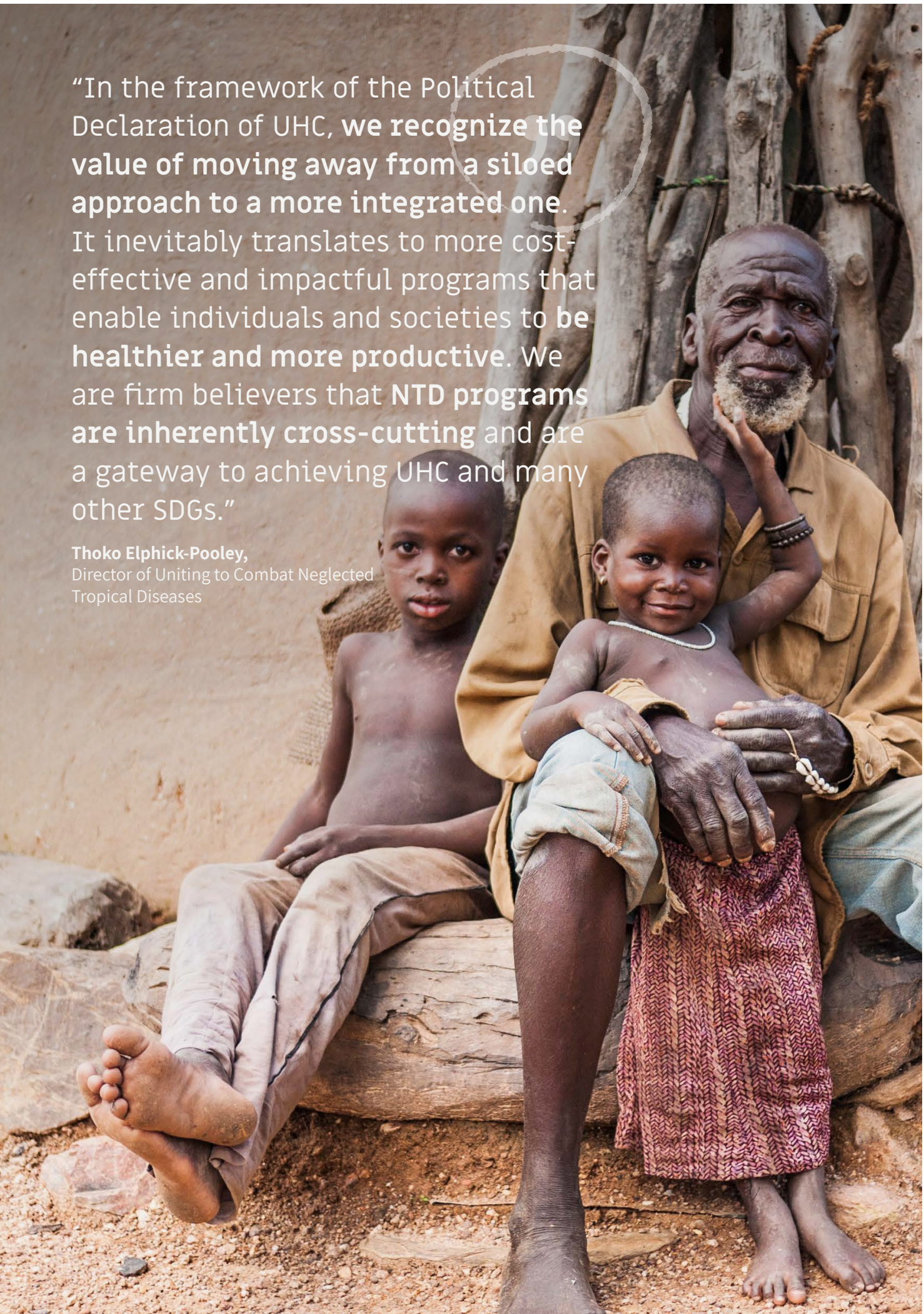
DISEASE AREA: Across NTDs

FOCUS: Advancing the discovery and development of health technologies including drugs, vaccines and diagnostics.

PARTNERS (2 OUT OF 8):

- the Wellcome Trust
- United Nations Development Programme

See **Global Health Progress** for the full program overview.



"In the framework of the Political Declaration of UHC, **we recognize the value of moving away from a siloed approach to a more integrated one**. It inevitably translates to more cost-effective and impactful programs that enable individuals and societies to **be healthier and more productive**. We are firm believers that **NTD programs are inherently cross-cutting** and are a gateway to achieving UHC and many other SDGs."

Thoko Elphick-Pooley,
Director of Uniting to Combat Neglected Tropical Diseases

UNIQUE COLLABORATIONS AND STRENGTHENING HEALTH SYSTEMS

Sharing Knowledge

We invest in strengthening healthcare systems and sharing knowledge, engaging governments to maintain and own NTD programs, so that gains in care and treatment can be sustained in the long-term.

We aim to support countries' ownership of programs and encourage the search for new and diverse ways to do this, such as domestic resource mobilization strategies and low-interest loans from multilateral institutions (e.g., the World Bank or the African Union). We partner with a diverse range of actors using a broad set of strategies to target NTDs, including supply chain strengthening, procurement and financing initiatives, donation programs, community awareness to support increasing access, and initiatives to avoid shortages, misuse and waste of treatments.

This holistic approach is helping us to address the full complexity of issues that need to be considered to tackle NTDs. As our knowledge and understanding of NTDs develops, we are considering how to share this expertise to effectively tackle NTDs within the context of other emerging health challenges, such as climate change, animal health, AMR and gender disparities. Comprehensive programs need to consider biological, physical and socio-cultural factors to provide equitable access to care and treatment. Women and girls often have increased vulnerability to NTDs and are more at risk of contracting these diseases.[26] An example of this is increased susceptibility to trachoma amongst women, owing to them usually being the main child-carers in affected regions and the increased risk of children transmitting the infection.[27] Additionally, people with NTDs have increased susceptibility to other diseases, as reflected in cases of female genital schistosomiasis (FGS) tripling a woman's risk of contracting HIV.[28] Ensuring women's health needs are addressed is fundamental to successfully eradicating NTDs.

Equally disability, stigma and mental health need to be considered. People affected by these conditions are often unable to contribute to society economically and can be excluded from society and work with few social interactions. This means strong, social support and relationships for people with NTDs are very important. Patient diagnosis needs to consider such co-morbidities and barriers to care to ensure NTDs can be effectively treated.[29] Considering a patient's holistic needs, beyond NTDs, is the embodiment of achieving UHC. Ensuring that local partners are involved in the creation and co-delivery of NTD interventions is essential; this means taking into account the needs of the end-user and how local communities' function.

Our long-standing support to control, eliminate or eradicate NTDs is reflected in our commitment to get more treatments to more patients through drug donations. Drug donation programs have successfully increased access to treatments for populations across the globe. The London Declaration has brought together our industry's donation programs and in 2017 alone we donated over 1.7 billion treatments.[30] Besides donations, one of the major challenges has been the ability to distribute the drugs, an area which has been driven largely by civil society organizations, in cooperation with affected populations under the leadership of national NTD programs and the WHO.

Whilst the response to this public health issue has been significant, the challenge now is to broaden the dialogue on control and elimination of NTDs by shifting from the transactional approach of purely "handing drugs over" to approaches that have a much greater focus on sustainability, which includes ensuring endemic countries have the support to appropriately forecast and procure NTD treatments. Our experiences have taught us that achieving elimination is not as straightforward as it may appear, even for diseases which are "near the end". Drug donations and our investments to support the distribution of these drugs, combined with the long-enduring efforts of our partners, are often not enough to achieve elimination. Some diseases, such as leprosy, are down to a fairly limited number of cases worldwide and yet numbers have plateaued out, suggesting systemic barriers need to be overcome. For other diseases, where there is no clear path to elimination and the emphasis is instead on control, open-ended donations are not a sustainable solution for businesses, global health partner or national governments. In such cases, greater coordination and co-creation of new sustainable, end-to-end development, manufacturing and delivery solutions are needed to enable meaningful, long-term impact.

Since the Declaration in 2012, our support has gone far beyond donations and we are working hand-in-hand with other actors to share learnings on how to sustain these gains. Now more than ever, we need to focus on providing holistic care through new collaborations and approaches, such as strengthening partnerships with local governments to establish and deliver comprehensive programs, identify innovative solutions and establish new partnership approaches.

Fighting Neglected Tropical Diseases: Sanofi and WHO Partnership

Active Since: 2001

Partnering to fight the most 'neglected' NTDs: In 2018 the number of new cases of HAT has declined to 977 from 1442 in 2017. Sanofi and the WHO are working towards HAT elimination by 2020, focusing on screening and disease management, along with support to control the three most 'neglected' NTDs: Chagas disease, Buruli Ulcer and Leishmaniasis.

PROGRAM OVERVIEW

Since 2001, Sanofi and the WHO have collaborated to tackle the most 'neglected' NTDs with an aim to eliminate HAT by 2020. The partnership focuses on disease management and control, including donations, screening, training, awareness campaigns, logistics, infrastructure strengthening, and surveillance of resistance to treatments. Sanofi also provides four HAT medicines to the WHO at no cost and is working on the development of a new HAT oral drug (see 'Breakthrough treatments' for more information) for the sustainable elimination of the disease.

RESULTS AND MILESTONES

- Since 2001, Sanofi has donated $5 million in financial support and drug donations to the WHO, equating to over $95 million in total.
- To date, more than 40 million people have been screened and over 210,000 people diagnosed and treated for HAT.

DISEASE AREA: HAT, Chagas, Buruli Ulcer and Leishmaniasis

FOCUS: Eliminate HAT by 2020

BURDEN: HAT, a vector-borne parasitic disease, is endemic in 36 sub-Saharan Africa countries.[31]

PARTNERS (1 OUT OF 1):

- WHO

See **Global Health Progress** for the full program overview.

Pediatric Praziquantal (PZQ) Consortium

Active Since: 2012

Leveraging diverse partner expertise: The Pediatric PZQ Consortium operates through an innovative approach that engages experienced partners to reduce the global health burden of schistosomiasis by addressing the medical need of infected preschool-age children, including infants and toddlers.

PROGRAM OVERVIEW

Merck and Astellas Pharma Inc. work within a Consortium of partners to develop a novel pediatric formulation of PZQ to treat schistosomiasis in very young children. The new formulation is a small, orally dispersible tablet, with an acceptable taste. The Pediatric Praziquantel Consortium program is currently in Phase III to acquire confirmatory data needed for registration.

RESULTS AND MILESTONES

- The Consortium succeeded in developing a novel orodispersible pediatric formulation and advancing the program from pre-clinical stage to Phase III.
- Pivotal Phase III trial started in Kenya in September 2019. The study is conducted at clinical centers in Kenya and Ivory Coast.

DISEASE AREA: Schistosomiasis

FOCUS: Developing, registering and providing sustainable access to the pediatric PZQ formulation for treating schistosomiasis in pre-school age children.

BURDEN: Schistosomiasis affects almost 240 million people worldwide.[32] Schistosomiasis causes over 200,000 deaths per year in sub-Saharan Africa.[33]

PARTNERS (2 OUT OF 5):

- Farmanguinhos (Brazil)
- Schistosomiasis Control Initiative (UK)

See **Global Health Progress** for the full program overview.

International Trachoma Initiative

Active Since: 1998

Driving a global trachoma elimination network: Pfizer collaborates with a global network of more than 100 diverse partners who are working together to eliminate trachoma, the world's leading infectious cause of blindness.

PROGRAM OVERVIEW

As part of the ITI, Pfizer donates Zirthromax® antibiotics to endemic countries as a central component of the global strategy to eliminate trachoma. In 2018, after 20 years of the donation program, Pfizer committed to continue to donate Zithromax® until to 2025 in support of trachoma elimination.

RESULTS AND MILESTONES

- Since 1998, over 800 million doses of Zithromax® have been donated to more than 40 countries.
- As of April 2019, 13 countries have reported achieving trachoma elimination goals.

DISEASE AREA: Trachoma

FOCUS: Providing Trachoma endemic countries with Zirthromax® as part of the global elimination strategy.

BURDEN: Trachoma is responsible for the blindness or visual impairment of over 1.9 million people globally.[34]

PARTNERS (2 OUT OF 13):

- Carter Center
- Sightsavers International

See **Global Health Progress** for the full program overview.

The MECTIZAN® Donation Program (MDP)

Active Since: 1987

Adaptive approaches to support Onchocerciasis elimination: In 2009 new data suggested that the elimination of Onchocerciasis was possible in Africa. MDP shifted its strategy to focus on Onchocerciasis elimination rather than control.

PROGRAM OVERVIEW

Since 1987, MSD has donated MECTIZAN® for the treatment of onchocerciasis and LF. In 2019, 344 million treatments were provided to endemic countries to support the elimination of Onchocerciasis and LF. A community-directed treatment strategy is used to distribute MECTIZAN® and is part of a broader strategy to strengthen primary health care, that includes training community-directed distributors (CDDs) and volunteers who distribute medicines in remote areas that lack trained healthcare workers.

RESULTS AND MILESTONES

- An estimated 40,000 cases of blindness have been prevented through the MECTIZAN® donation program.
- Since 1987, more than 3.4 billion treatments have been donated.
- Onchocerciasis has been eliminated in Colombia, Ecuador, Guatemala and Mexico and in some foci in Ethiopia, Mali, Nigeria, Sudan, Uganda, and Venezuela.
- Using the combination treatment of Mectizan + Albendazole (donated by GSK) LF has been eliminated as a public health problem in Togo and Yemen.

DISEASE AREA: Onchocerciasis and Lymphatic Filariasis

FOCUS: MECTIZAN® donation for all who need it for as long as needed in countries where the two diseases are co-endemic. Commitment of up to 100 million treatment for IDA implementation in other countries.

BURDEN: More than 99% of the 217.5 million people at risk for Onchocerciasis live in 31 African countries.[35] Focus for LF in Africa where the two diseases are co-endemic (40% of the global burden).[36]

PARTNERS (2 OUT OF 14):

- Helen Keller International
- Pan American Health Organization (PAHO)

See **Global Health Progress** for the full program overview.

Global Alliance to Eliminate Lymphatic Filariasis (GAELF)

Active Since: 2000

Working collaboratively towards lymphatic filariasis (LF) elimination: The WHO recommends preventive chemotherapy strategy for LF elimination using an annual single dose of the association of Albendazole + ivermectin (in countries where onchocerciasis is co-endemic), Albendazole + diethylcarbamazine (DEC) in other countries, or, in specific circumstances, a novel triple drug regimen known as IDA: Ivermectin + DEC + albendazole. To support this strategy so far, GSK has donated more than 8.5 billion tablets of anti-parasitic medicine, albendazole, Eisai has donated approximately 1.9 billion DEC tablets, MSD has donated more than 2.3 billion treatments including 72 million treatments to support IDA.

PROGRAM OVERVIEW

GAELF brings together a diverse group of public and private sectors partners to support the Global Programme to Eliminate Lymphatic Filariasis led by the WHO. GSK, MSD and Eisai donate albendazole, MECTIZAN® and DEC respectively. The triple administration of ivermectin + albendazole + DEC known as IDA is the new regimen recommended by WHO in 2017 to speed up the elimination of LF in countries where onchocerciasis is not endemic. To date, GSK has donated more than 8.5 billion albendazole tablets, Eisai has donated approximately 1.9 billion DEC tablets and MSD has donated over 2.3 billion MECTIZAN® treatments.

RESULTS AND MILESTONES

- More than 7.7 billion treatments have been delivered to stop the spread of infection since 2000.
- 16 countries — most recently Yemen and Kiribati — are now recognized as having eliminated LF as a public health problem.

DISEASE AREA: Lymphatic filariasis

FOCUS: Donation of albendazole, MECTIZAN® and DEC to treat and eliminate LF.

BURDEN: The disease was endemic in 73 countries in Africa, Asia, middle East, Latin America, Pacific.[37]

PARTNERS (2 OUT OF 30):

- London School of Hygiene and Tropical Medicines
- World Health Organization

See **Global Health Progress** for the full program overview.

Johnson & Johnson VERMOX® Donation Program

Active Since: 2006

Supporting Global Effort to Tackle Intestinal Worms: controlling and enabling path to elimination of soil transmitted helminths; access for 800+ million children to VERMOX® through long established donation program, contributed to 70% treatment coverage for at-risk children.

PROGRAM OVERVIEW

Johnson & Johnson has a long history of working to eliminate intestinal worms as a public health problem. In 2006, the company in collaboration with the Task Force for Global Health formed Children Without Worms (CWW), and donations of VERMOX solid tablets for school-aged children began. GSK subsequently joined the partnership. In 2012, Johnson & Johnson endorsed the London Declaration on NTDs, and committed to provide 200 million doses of mebendazole annually through 2020. This commitment is now extended through 2025. In 2017, the latest year for which data are available, Johnson & Johnson's donation of VERMOX, in combination with GSK donations of albendazole, played a key role in achieving nearly 70% treatment coverage for at-risk children.

RESULTS AND MILESTONES

- Delivered more than 1.4 billion doses of VERMOX to 800 million children between 2006–2019.
- Developed new pediatric VERMOX® CHEWABLE formulation for safer dosing in children as young as 1 years old.
- Extended donation program to ensures 1 billion additional doses of VERMOX CHEWABLE delivered to at-risk children in high-burden countries through 2025.

DISEASE AREA: Soil Transmitted Helminths, also known as intestinal worms.

FOCUS: Control and enable path to elimination of soil transmitted helminths in endemic countries.

BURDEN: Approximately 1.5 billion people are infected with soil-transmitted helminths worldwide.[38]

PARTNERS (2 OUT OF 2):

- Children Without Worms
- World Health Organization

See **Global Health Progress** for the full program overview.

Merck Schistosomiasis Elimination Program

Active Since: 2007

Working collaboratively towards schistosomiasis (SCH) elimination: controlling and enabling path to elimination of schistosomiasis; enabling treatment of 400 million children endangered by the disease through long established donation program, contributed to 72% treatment coverage for at-risk children in sub-Saharan Africa

PROGRAM OVERVIEW

In 2007, Merck entered into a partnership with the World Health Organization (WHO) to control and eliminate schistosomiasis. With Merck's commitment to donate up to 250 million of PZQ per year to WHO, the total African school-aged population in need of treatment can be covered. Merck has donated 1 billion tablets since the start of the donation and pledged to continue providing up to 250 million per year to countries in need of the medicine. Post 2020, Merck continues to commit itself to maintaining its efforts in the fight against schistosomiasis until the disease is eliminated. To sustain control and move towards elimination Merck supports partners and invests in research and development in finding sustainable health solutions in the areas of treatment, health education, water, sanitation and hygiene (WASH), and vector control.

RESULTS AND MILESTONES

- Between 2008–2019, Merck delivered more than 1 billion tablets of praziquantel enabling treatment of 400 million school-aged children in Africa
- Developing a pediatric formulation to treat children younger than six.
- Enabled treatment of 72% of children endangered by the disease in sub-Saharan Africa in 2017
- Introduced a new framework of "checks and controls" to ensure that the medicine is used in the most efficient and effective manner.

DISEASE AREA: Schistosomiasis, also known as bilharzia or snail fever

FOCUS: Control and enable path to elimination of schistosomiasis in endemic countries.

BURDEN: SCH affects 240 million people worldwide, 200,000 die each year as a result.[39]

PARTNERS (1 OUT OF 1):

- World Health Organization

See **Global Health Progress** for the full program overview.

AmBisome/WHO Donation Project

Active Since: 1992

Gilead has worked closely with the World Health Organization and non-governmental organizations since 1992 to provide our antifungal medication, AmBisome® (amphotericin b liposome for injection), to countries in which visceral leishmaniasis (VL) is endemic.

PROGRAM OVERVIEW

Gilead has worked closely with the World Health Organization and non-governmental organizations since 1992 to provide antifungal medication, AmBisome, to countries in which VL is endemic. The program operates in Bangladesh, Ethiopia, India, Nepal, South Sudan and Sudan, as well as other countries in the Eastern Africa sub-region and South East Asia.

Gilead, as an original endorser of the "London Declaration" on Neglected Tropical Diseases, demonstrated an enduring commitment in the VL fight and today 94% of patients with VL are treated through the AmBisome WHO Donation Program. The program's ultimate goal is to eliminate VL and terminate the need for the donation program.

In addition to treatment, the program includes funding to support countries' national plans and enable WHO to expand and reinforce surveillance and control efforts in highly endemic areas.

RESULTS AND MILESTONES

- Since 2011, Gilead has donated more than 800,000 total vials of AmBisome for this programme.
- The proportion of VL cases treated with AmBisome increased from less than 10% in 2012 to 94% by 2016.
- As a result of Gilead's support, more than 300 health facilities are equipped to administer AmBisome to treat VL, covering 247 million at-risk individuals.
- In South East Asia, VL morbidity was reduced by over 82% and the case fatality rate has decreased by 95%.

Case fatality rates: Bangladesh (1%); India (0%); Ethiopia (2.5%); Nepal (3%); South Sudan (5%); Sudan (2%)

DISEASE AREA: NTDs (Visceral leishmaniasis)

FOCUS: To provide antifungal medication, AmBisome, to countries in which VL is endemic, in alignment with the WHO goal of eliminating VL in endemic countries by 2020.

BURDEN: An estimated 50–90,000 new cases of VL occur worldwide annually, with only between 25–45% reported to WHO.[40]

PARTNERS (2 OUT OF 2):

- World Health Organization
- Multilaterals

See **Global Health Progress** for the full program overview.

GLOBAL HEALTH PROGRESS

Collaborating for a **sustainable future**

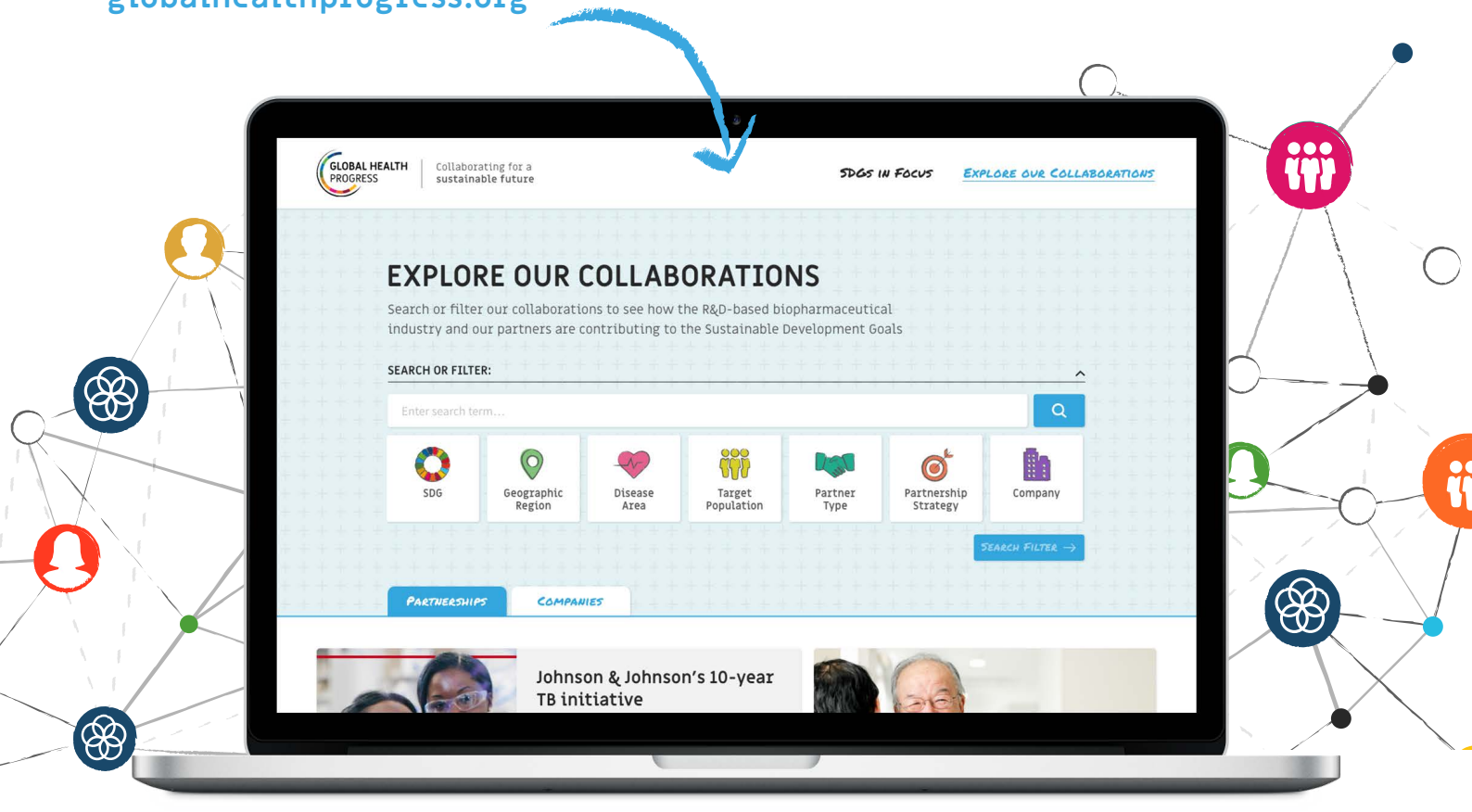
To achieve an NTD-free world we need to come together to tackle the global challenges of these diseases.

We must learn from one another and share our expertise. In so doing, we will seek out new frontiers in R&D for lifesaving treatments, and establish meaningful partnerships to pool resources to ensure we play our part in helping the world achieve the SDGs over the next decade.

In 2019, IFPMA launched Global Health Progress as part of our commitment to support, strengthen and advance collaborations in global health. Our knowledge hub collates the full breadth of our collaborations. The case studies showcased in this report represent a small segment of the work our member companies and partners do to support NTDs. We invite you to explore over 25 additional NTD programs on Global Health Progress, along with more than 250 programs supporting across all areas of health. We cannot achieve an NTD-free world in silos and invite interested parties and potential partners to register their interest on Global Health Progress to work together on existing or new programs.

We believe together we can control, eliminate and eradicate NTDs over the next decade, ensuring patients receive the care and treatment they need, and no one is left behind.

EXPLORE THE COLLABORATIONS AT
globalhealthprogress.org



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Acronyms and Abbreviations

AMR	Anti-microbial resistance
BVGH	BIO Ventures for Global Health
CDD	Community-directed distributors
CRDF	Clinical Research Development Fellowships
DNDi	Drugs for Neglected Disease initiative
EDCTP	European & Developing Countries Clinical Trials Partnership
EFPIA	European Federation of Pharmaceutical Industries and Associations
ESPEN	The Expanded Special Project for Elimination of Neglected Tropical Diseases
GAELF	Global Alliance to Eliminate Lymphatic Filariasis
GHIT	Global Health Innovative Technology
HAT	Human African trypanosomiasis
IDM	Intensified disease management
IP	Intellectual Property
ITI	International Trachoma Initiative
LMIC	Low- and Middle-Income Country
LSTM	Liverpool School of Tropical Medicine
MDA	Mass Drug Administration
NTD	Neglected Tropical Disease
OIF	Organisation internationale de la Francophonie
PAHO	Pan American Health Organization
PC-NTD	Preventive chemotherapy-NTDs
PDP	Product Development Partnership
PRV	Priority review voucher
PZQ	Praziquantel
R&D	Research & Development
SDG	Sustainable Development Goal
SHT	Soil-transmitted Helminthiases
TB	Tuberculosis
TCOLF	Tres Cantos Open Lab Foundation
TDR	Training in Tropical Diseases
UHC	Universal Health Coverage
UN	United Nations
WHO	World Health Organization
WIPO	World Intellectual Property Organization

About IFPMA

IFPMA represents R&D-based biopharmaceutical companies and associations across the globe. The biopharmaceutical industry's two million employees discover, develop, and deliver medicines and vaccines that improve the lives of patients worldwide. Based in Geneva, IFPMA has official relations with the UN and contributes industry expertise to help the global health community find solutions that improve health for populations around the world.

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