




THE NEGLECTED TROPICAL DISEASES SUPPLY CHAIN FORUM

PAST, PRESENT, AND FUTURE

The Supply Chain Minds Behind the World's
Largest Public Health Donation Program

A photograph of a group of young women, likely students, sitting at a wooden table. They are wearing blue sleeveless shirts. The woman in the foreground is in sharp focus, looking down with a thoughtful expression. The other women in the background are blurred, also looking down. The lighting is warm and natural, coming from a window on the left.

PRODUCING NTD MEDICINES IS
IMPORTANT, ENSURING THEY REACH
THOSE IN NEED IS A CRUCIAL ELEMENT
IN MAKING A DIFFERENCE.

Photograph courtesy of GSK



MILLIONS OF PEOPLE IN DEVELOPING COUNTRIES ARE SUFFERING NEEDLESSLY FROM DISEASES THAT ARE EITHER TREATABLE AND/OR PREVENTABLE.

Neglected Tropical Diseases (NTDs) affect the lives of more than one billion people every year – and it's often the poorest and most vulnerable in society that bear the greatest burden.

Inspired by the World Health Organization's (WHO) "Roadmap to Implementation," a group of diverse global health partners have joined forces during the 2012 London Declaration to tackle this growing concern. Under the banner of "Uniting to Combat NTDs", this global movement pledged their support to control, eliminate, and/or eradicate ten* key NTDs by 2020 in the hopes of alleviating the suffering from these diseases that affect so many lives. Every year, pharmaceutical partners donate over a billion doses of medicines towards control and elimination of NTDs across more than 70 countries. In fact, NTD donations have become the world's largest public health donation program. Although global support, funding and country commitment is important, ensuring essential treatments reach those in need is a crucial element in making a difference.

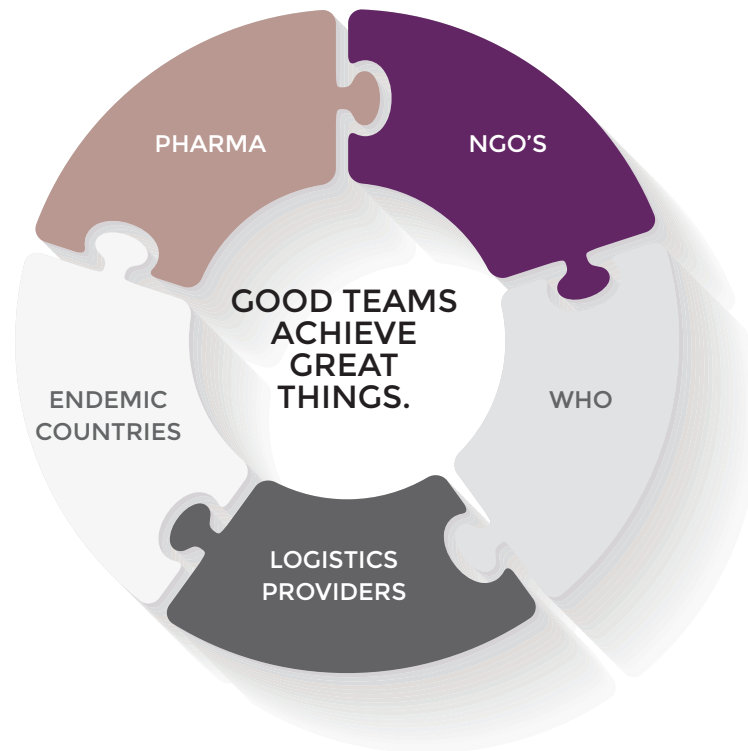
No one needs to make the case for improving access to basic medicines to remote, resource-constrained communities. What's needed are collaborative planning and forecasting, technology, integrated delivery, education, and training – which do not often happen in countries where infrastructure is poor and resources are scarce.

Manufacturing NTD medicines at various locations around the globe and coordinating delivery is certainly challenging. However, while delivering the NTD medicines to some of the most difficult-to-access places on earth is a clear challenge, there is great potential to overcome logistical obstacles to maximize and effectively manage the supply chain.

**SIGNIFICANT LEADERSHIP AND
COLLABORATION BY BOTH
PUBLIC AND PRIVATE SECTOR
PARTNERS ARE NEEDED TO
MANAGE THE LOGISTICAL
CONSIDERATIONS OF MEDICINE
DISTRIBUTION ACROSS A WIDE
AND DIVERSE SUPPLY CHAIN
NETWORK TO MEET THESE
AMBITIOUS 2020 GOALS.**

That's why the NTD Supply Chain Forum (the "Forum") was formed to meet this challenge. This unique coalition assures needed medicines make it the many miles from their point of manufacture to the endemic countries and eventually to the communities who need them.

THE NTD SUPPLY CHAIN FORUM: A UNIQUE PUBLIC-PRIVATE COLLABORATION



Established in 2012, the Forum is a landmark private and public partnership of the following diverse players, each having an impact and voice in the supply chain of NTD medicine donations:

the WHO, the Bill and Melinda Gates Foundation, six pharma donors (Glaxo SmithKline, Merck & Co. Inc., Merck KGaA, Pfizer, Johnson & Johnson, and Eisai), logistics partner DHL, and nongovernmental organizations - the International Trachoma Initiative, Children Without Worms, the Mectizan® Donation Program, and RTI International. Each partner brings its own specialized skills and expertise to the table to form a tour de force that fosters flexibility and responsiveness, and ultimately optimizes the impact of donated medicines.

Implementing mass drug administration programs in remote regions of the world is a complex process fraught with hurdles that require logistical planning and a careful coordination from the people making the medicines to the people on the ground working hard to deliver them. All players must work together so medicines reach people safely, reliably and cost-effectively.



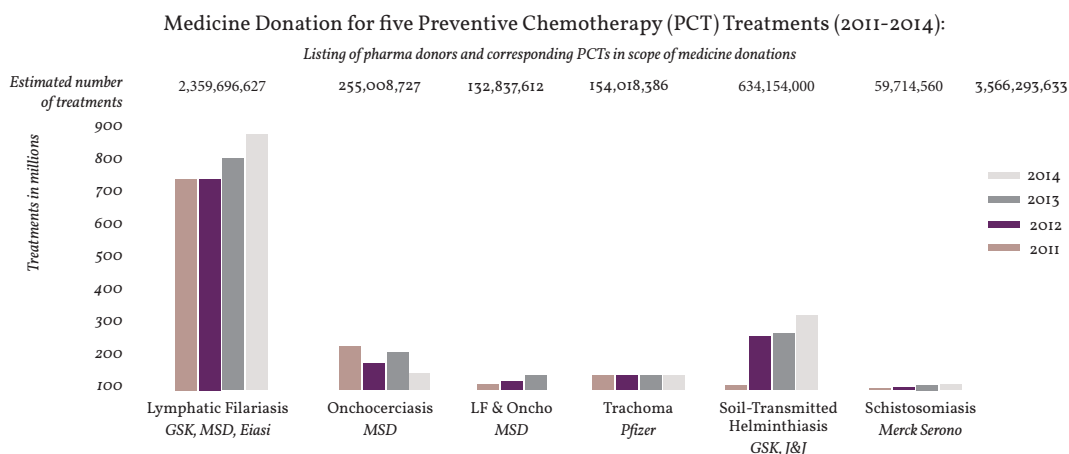
IMPLEMENTING MASS DRUG
ADMINISTRATION IN REMOTE REGIONS
OF THE WORLD IS A COMPLEX PROCESS
FRAUGHT WITH HURDLES THAT REQUIRE
LOGISTICAL PLANNING AND A
CAREFUL COORDINATION...

MANAGING THE SUPPLY CHAIN: END-TO-END



To meet country needs and ensure Mass Drug Administration (MDA) campaigns are successful, NTD medicines must be available. Success of NTD supply chain depends on a sequence of activities performed in a synchronized fashion. The Forum works through considerations to improve each step in the “first mile” of the NTD medicine supply chain. It begins with the complicated process of planning and forecasting country needs for donated NTD medicines. Next steps include sourcing raw materials, manufacturing active pharmaceutical ingredients (API), turning those into tablets, followed by packaging and shipping by sea, air or road to the recipient countries. The shipments undergo customs clearance at every point of entry. The “first mile” comes to an end with final delivery of NTD medicines to endemic countries. The “last mile” takes place on the ground of every country receiving NTD medicines from the Central Medical Stores. The shipments are then checked and allocated to areas of need and dispatched to hospitals, clinics, and health centers where packages are prepared to travel by whatever means needed - truck, motorbike, boat, or on foot - to reach patients.

INCREASED MEDICINE DONATIONS REQUIRE BETTER COORDINATION AND INTEGRATION OF SUPPLY CHAINS



Billions of treatments have been delivered by the partners of the Forum targeting five NTDs since the London Declaration, thanks to improved distribution and delivery to the destination countries.

MUCH WORK STILL NEEDS TO BE DONE.
HERE ARE THREE KEY INITIATIVES
CURRENTLY UNDERWAY:



Dedicated DHL “Control Tower” for Coordination of NTD Shipments

DHL is a common logistics provider for several donation programs due to the provider’s extensive global reach. Thus, an initial output of the Forum was to bring several donations under the humanitarian side of DHL’s logistics services, thereby enabling NTD drug donations to benefit from DHL’s special distribution channels and expertise in efficiently clearing medicines for country entry. The creation of a dedicated NTD DHL Control Tower enables DHL to oversee the clearance of several NTD medicines through customs and ensures delivery to national warehouses.

Delivering Albendazole to India

“In normal circumstances, we would have paid demurrage, but in this instance we were exempt. We had a special rate for containers, too. Free demurrage and reduced container rates saved us approximately \$15,000 on this one shipment.”

Simply put, it improves supply chain visibility, efficiency, accountability and coordination.



GSK, Johnson & Johnson, and Merck KGaA have extended their delivery past the port of entry through to medical stores, warehouses, and beyond. This means that these pharmaceutical donors are fully responsible for all steps involved in shipping, customs clearance, and delivery of NTD medicines to the central medical stores or national warehouse in each country, including covering all associated costs. In the past, the delivery was made to the port of entry, leaving the local WHO Representative offices to clear the goods and deliver these medicines to their final destination. DHL now provides door to door service to the government warehouse for these pharmaceutical donors in over 98% of cases, resulting in a more controlled and efficient approach to delivering NTD medicines.

Delivering medicines in Burkina Faso

“We aim to deliver NTD medicines to countries in a timely and integrated way to meet their MDA plans. This requires careful planning and coordination among all partners.”

NTD Forecasting and Planning Tool Development

In an effort to improve forecasting, planning, supply and delivery, a database of country-specific information and supply chain data is in development. In the pursuit to create one centralized data source for integrated preventive chemotherapy (PCT) supply-chain decision making, the WHO and the Forum are collaborating to create a comprehensive database tool - with the current working name the 'PCT-NTD Supply Chain Management tool'- that will streamline the logistics management processes. The PCT-NTD Supply Chain tool will facilitate sharing of planning and forecasting information with all relevant stakeholders (such as program managers, the WHO, and donors) involved in MDAs. This tool is currently in the development phase with support to the partners from RTI International and Standard Code. A prototype has been developed, and a working model will be implemented during 2016.



Supply Chain Modeling

The Forum is using statistical modeling systems and expertise to map supply chains of several NTD medicines so as to streamline delivery of co-administered NTD medicines. The data from the modeling work will be used to better furnish business cases for potential supply-chain improvements, and provide a platform for future scenario analysis including diagnostic supply. The Forum is currently working on a draft research paper for publication, which will outline and discuss the implications from the Forum's recent future scenario analysis work. Finally, there are other initiatives the Forum is working on, which include temperature controlled pilots, advocacy and communication initiatives, standardisation of processes and documents and development of a Responsibility Assignment Matrix (RACI) and Key Performance Indicator (KPI) tools.

FORTHCOMING CHALLENGES, MILESTONES, AND INITIATIVES

Significant progress has been made to date which is proof of the power of partnerships.

Moving towards the 2020 targets and beyond, the Forum will continue to focus on leveraging collaboration in the fight against NTDs to better improve the collective NTD supply chain. But the group's endeavors don't stop there as it continuously strives to get medicines to the right people in the right place at the right time. Recently, the Forum began to include partners involved in supporting the diagnostics space (such as the NTD Support Center), expanding its scope beyond the shipment of pharmaceuticals in order to find new sources of supply chain collaboration in the NTD community. And through the implementation of the PCT-NTD Supply Chain Management tool, the Forum seeks to establish a dashboard view of KPIs in an effort to increase transparency and engagement regarding supply chain performance.

At the end of the day, these efforts by the Forum aspire to ensure better reach of essential NTD supplies to treat at-risk communities in the developing world. Addressing challenges in the NTD medicine supply chain will ultimately contribute to the reality of the goals set out by the London Declaration to eradicate, eliminate, and control NTDs so people are free of their burden and have a future full of hope.

REFERENCES:

Uniting to Combat NTDs www.unitingtocombatntds.org

*Ten NTDs in scope within the London Declaration: Chagas disease, Guinea worm disease, human African trypanosomiasis, leprosy, lymphatic filariasis, onchocerciasis, schistosomiasis, soil-transmitted helminths, trachoma, and visceral leishmaniasis





CONTINUOUSLY STRIVING
TO GET MEDICINES TO
THE RIGHT PEOPLE
IN THE RIGHT PLACE
AT THE RIGHT TIME.

Photograph courtesy of GSK



THANKS TO OUR PARTNERS



Photograph courtesy of GSK