FIND AND LLAMASOFT PARTNER TO INCREASE ACCESS TO DIAGNOSTICS THROUGH DEVELOPMENT OF AN OPEN-ACCESS TOOL FOR DIAGNOSTIC NETWORK OPTIMIZATION

- Open access-tool will enable evidence-based decision-making to guide optimal placement of diagnostics aligned with treatment capacity in low- and middle-income countries
- Presentation at the Global Health Supply Chain Summit in Johannesburg, South Africa, included diagnostic network optimization experience in Kenya and Philippines

**Geneva, Switzerland & Ann Arbor, MI, USA – 21 November 2019** – The Foundation for Innovative New Diagnostics (FIND) and LLamasoft announced today a new collaboration to develop an open-access tool that facilitates diagnostic network optimization to guide placement of diagnostics aligned with treatment capacity for tuberculosis (TB), HIV and other diseases. The tool will identify cost-effective approaches to increase diagnostic reach in low- and middle-income countries (LMICs), and provide data-driven guidance for strategic planning and decision-making by Ministries of Health and global health donors. Presentation of the tool this week at the 12th Global Health Supply Chain Summit in Johannesburg, South Africa, included diagnostic network optimization experience in Kenya and Philippines.

TB is the world’s deadliest infectious disease, yet only around 2/3 of those infected (over 6 million people) are officially notified to national authorities and then reported to the World Health Organization (WHO). One in 5 of the 37.9 million people with HIV (nearly 8 million) do not know their disease status, and 53% of people living with HIV have undetectable levels of the virus. Many of these “missing millions” either do not access healthcare at all, or have no access to diagnostic services when they do. Improving access to diagnosis is critical to ensuring healthy lives, as set out in Sustainable Development Goal 3. However, resources are limited, especially in LMICs.

The diagnostic network optimization tool will provide data for decision-makers to help them use their limited resources in the most effective ways. Through smart network design – already used widely in the corporate sector – advanced analytics are being applied to multiple existing sources of data, including case-notification reports, testing statistics, epidemiological and demographic surveys and population data, as well as geographical parameters, transportation and referral linkages. A digital representation of the physical supply chain is created, which is then used to answer “what if” scenario questions and determine the optimal diagnostic equipment placement and capacity, as well as enabling greater integration into a specimen referral system. The USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project is collaborating on tool development and has committed to funding its hosting and maintenance once it has been configured.

Diagnostic network optimization conducted since 2016 has already shown value in a number of countries, including Kenya, Nigeria, Zimbabwe, Lesotho, Eswatini, and Philippines. In Kenya, work conducted by FIND,

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LLamasoft and country partners contributed to the development of the 2019–2023 National Strategic Plan for TB, informing design of an expanded GeneXpert network and establishing integrated sample-referral systems. In Nigeria, diagnostic network optimization conducted by GHSC-PSM, LLamasoft and country partners was used to design the National Integrated Sample Referral Network (NiSRN), which has improved sample result turnaround time and reduced transport costs. In the Philippines, the Ministry of Health strengthened the network and improved patient access to services through procurement and optimized placement of GeneXpert instruments using modelling outputs.

“Diagnostic Network Optimization is a key part of PEPFAR’s strategy to reach the first and third of the UNAIDS 90-90-90 goals,” said Shadrack Were, GHSC-PSM Health Systems Strengthening Acting Laboratory Team Lead. “This partnership between FIND, GHSC-PSM, and LLamasoft is a perfect example of the kind of collaboration we need to tackle global epidemics like HIV and TB.”

“Significant investment is urgently needed to end the TB epidemic. Taking a step back and analyzing the data, we can see how we can improve patients’ access to diagnostics services and do better with the resources already available,” said Zachary Katz, Chief Access Officer at FIND. “Network optimization is already being used to enhance supply chains across many industries – it is logical and necessary to bring this approach to diagnostics and global health through an open-access tool.”

“The team at LLamasoft is excited to contribute to this deeply meaningful work and bring cutting-edge analytics to the fight against TB and other deadly diseases,” said Neelima Ramaraju, Senior Director of LLamasoft’s Global Impact team. “Bringing the power of advanced analytics and scenario modeling directly to the key stakeholders allows us to significantly extend the impact of the work we’ve been doing for many years.”

The open-access diagnostic network optimization tool is expected to complete development by June 2020. Ongoing use of the tool is planned to expand to up to 20 countries and up to 100 users within 3 years after the general availability launch.

Development of the open-access network optimization tool is supported by the Bill & Melinda Gates Foundation through a grant to FIND. Hosting and maintenance of the tool will be supported by U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) via the USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project.

About FIND
FIND is a global non-profit organization that drives innovation in the development and delivery of diagnostics to combat major diseases affecting the world’s poorest populations. Our work bridges R&D to access, overcoming scientific barriers to technology development; generating evidence for regulators and policy-makers; addressing market failures; and enabling accelerated uptake and access to diagnostics in low- and middle-income countries (LMICs). Since 2003, we have been instrumental in the development of 24 new diagnostic tools. Over 50 million FIND-supported products have been provided to 150 LMICs since the start of 2015. A WHO Collaborating Centre, we work with more than 200 academic, industry, governmental, and civil society partners worldwide, on over 70 active projects that cross six priority disease areas. FIND is committed to a future in which diagnostics underpin treatment decisions and provide the foundation for disease surveillance, control, and prevention.

About LLamasoft
Over 750 of the world’s most innovative companies across multiple industries rely on LLamasoft to answer complex supply chain questions. Powered by AI and advanced analytics, LLamasoft technology helps business leaders design operational strategies to achieve profitability and growth goals. The company creates a true end-to-end view of global supply chains to enable decisions among strategic, tactical and operational time horizons. Its customers have identified more than $13B in value relying on insights from
LLamasoft’s solutions. To reach its goal to positively impact 100 million lives by 2022, LLamasoft has partnered with humanitarian organizations, government entities and the World Economic Forum, and used its solutions to design and optimize health supply chains, increasing overall efficiency and reaching more individuals in need.

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