FIND

DNO SUB COMMUNITY OF PRACTICE

Launch webinar

29 September, 2022

FIND, THE GLOBAL ALLIANCE FOR DIAGNOSTICS

We connect countries and communities, funders, decisionmakers, healthcare providers and developers to spur diagnostic innovation and make testing an integral part of sustainable, resilient health systems

- Established in 2003 as a product development & delivery partnership
- Co-convener of the Access to COVID-19 Tools (ACT) Accelerator Diagnostic Pillar
- WHO Collaborating Centre for Laboratory Strengthening & Diagnostic Technology Evaluation
- WHO SAGE-IVD member

@FINDdx @FINDdiagnostics finddx FINDdiagnostics @FINDdx #DiagnosisForAll

WHO WORKS IN DNO AT FIND

- Heidi Albert (South Africa)
- Marie Brunetti (Switzerland)
- Rasika Uplekar (Switzerland)
- Sam Acellam (Uganda)
- Mayank Pandey (India)
- Amit Singh (India)
- Mayur Dagale (India)
- Juhi Gautam (India)
- Archana Beri (India)
- Rajesh Kumar (India)
- Jessica Markby (Australia)

DNO SUB COMMUNITY OF PRACTICE: FIND

Heidi Albert

Principal Scientist, South Africa

Sam Acellam

Senior Technical Officer, Uganda

Juhi Gautam

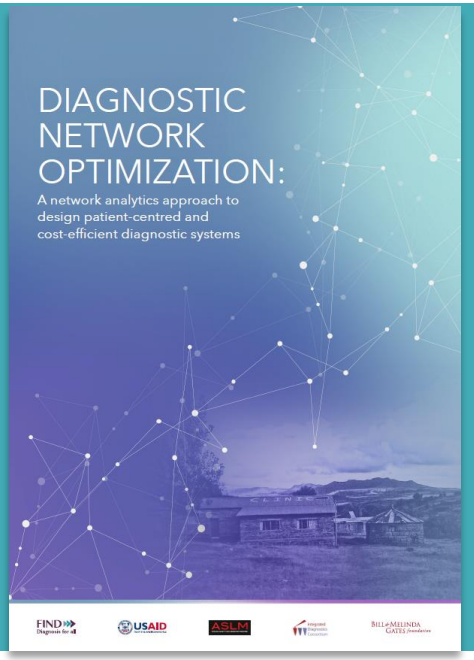
Access Officer, India

WHAT IS DIAGNOSTIC NETWORK OPTIMIZATION

Definition

Diagnostic network optimization (DNO) is a geospatial analytics approach to

- analyze the current diagnostic network
- recommend **the optimal type, number and location of diagnostics and associated sample referral network** to achieve national health goals
- minimize overall network costs subject to applied (access) constraints



DECISION-MAKERS CAN USE DNO TO IDENTIFY THE MOST EFFECTIVE INTERVENTIONS FOR

IMPROVING ACCESS
to diagnosis, which reduces diagnostic delay and loss, and gets more people diagnosed and treated

INCREASING NETWORK EFFICIENCY,
which reduces procurement and operating costs, and enables better prioritization of available resources

ENHANCING EQUITY
by targeting investments in service delivery to under-served geographies and populations

IMPLEMENTING DNO

TRANSLATING OUTPUTS INTO ACTION

EXAMPLES RECOMMENDATIONS

Adjust sample referral flows across district borders	Procure new devices
Relocate existing devices to new health facilities	Establish sample referral system via courier
Purchase motorbikes for sample referral	Change device procurement plans

PROFICIENCIES TO IMPLEMENT

- Policy & strategic planning
- Financing
- Contracting
- Operations management
- Procurement / Supply chain
- Performance monitoring
- Training & capacity building
- Logistics management

DNO SCOPE

GENERATING INSIGHTS FOR SYSTEMS STRENGTHENING ACROSS GEOGRAPHIES AND DISEASES

- TB
- Integrated molecular (TB, HIV, HPV, SARS-CoV-2)
- AMR
- Neglected tropical diseases
- Malaria
- Lassa/Yellow fever
- Sequencing

FIND'S WORK IN DNO

Optimize DSS investments for patient care and surveillance

- Inform NSP & investment decisions (TB/HIV, incl. COVID, HPV)
- Inform laboratory surveillance network design & outbreak response planning

Deploy open access tools for mapping and DNO

- Improve OptiDx, open access DNO software and expand application across countries and disease areas

OptiDx
OPTIMIZING DIAGNOSTIC NETWORKS

- Assess use of other geospatial tools and pilot in multiple countries/use cases

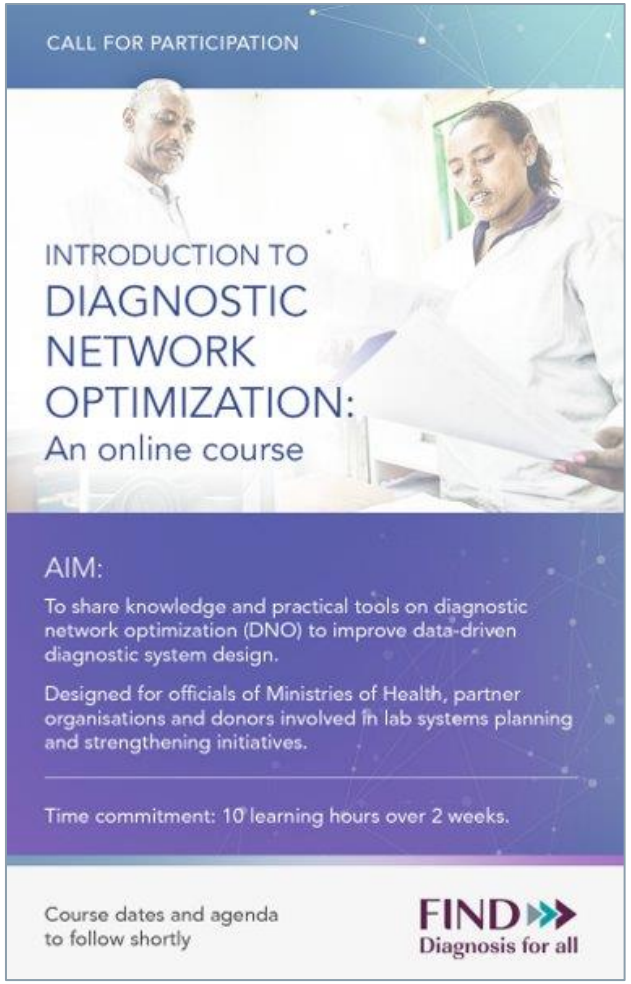
Build local capacity and increase coordination

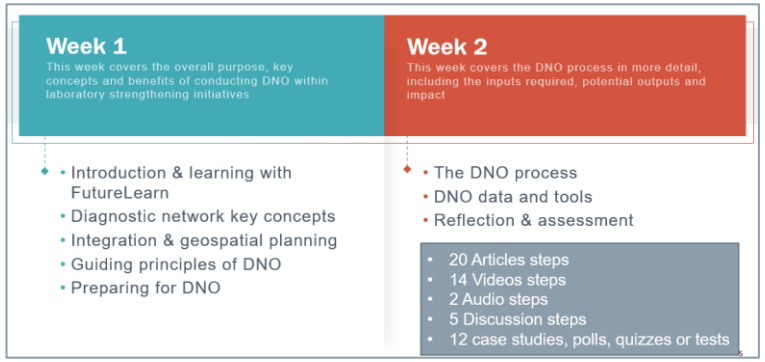
- Build capacity of DNO strategic decision makers and analysts
- Enhance value of DNO via multi-partner guidance and South-South collaborations
- Improve quality & availability of geo-linked data for Dx planning

Model potential impact of new diagnostics

- Support country preparedness for adoption of new diagnostic tools

DNO STRATEGIC DECISION-MAKING COURSE & OTHER RESOURCES





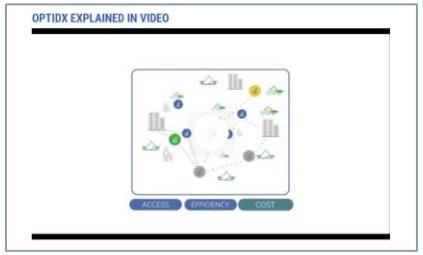
Course start date: mid to end Nov 2022, date TBC

Call for participation ongoing, prioritizing MOH and partners actively involved in DNO.

Further course runs planned in Q1 2023.

Interested? Contact juhi.gautam@finddx.org

DNO short video: https://youtu.be/CkBGWkoRChs



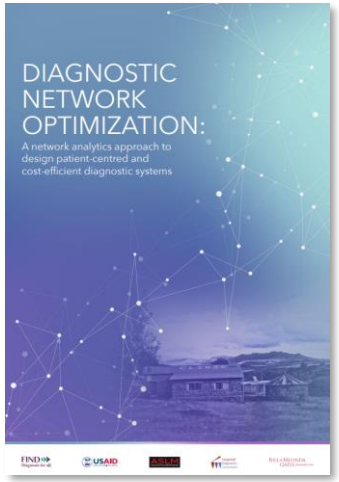
OptiDx explainer video: https://youtu.be/KKTNMJKfBYs

OptiDx & DNO resources at: www.optidx.org

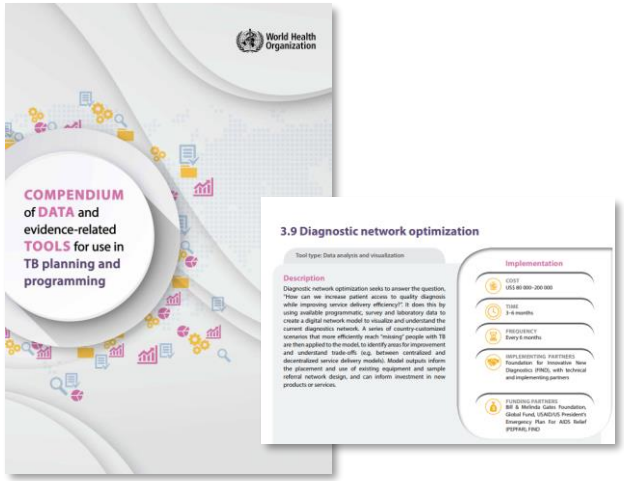
Landscape Review of Diagnostic Network and Route Optimization tools,

GROWING MOMENTUM FOR USE OF DNO

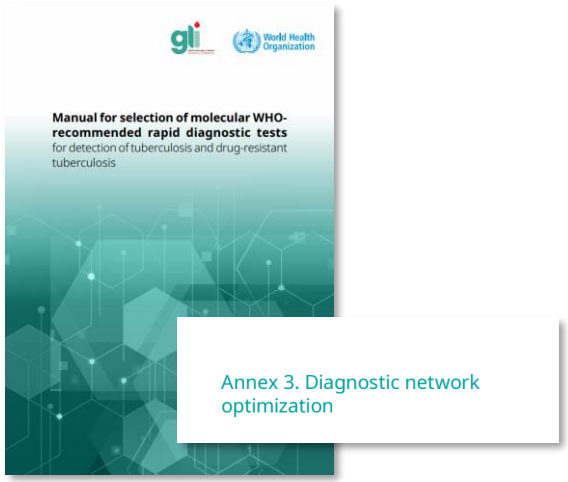
BY COUNTRIES & KEY GLOBAL STAKEHOLDERS



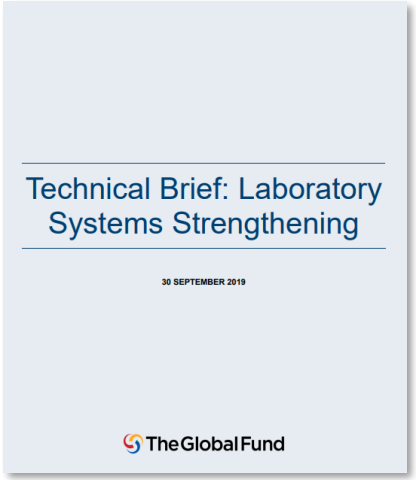
Diagnostic network optimization - FIND (finddx.org))



Compendium of data and evidence-related tools for use in TB planning and programming (who.int)

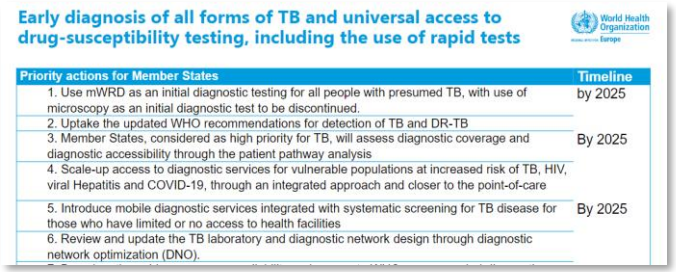


Manual for selection of molecular WHO recommended rapid diagnostic tests for detection of tuberculosis and drug-resistant tuberculosis

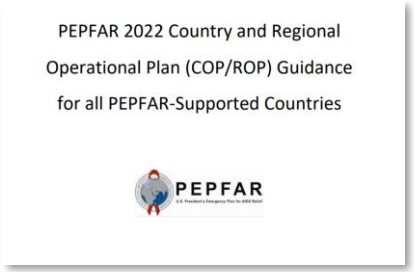


core_laboratorysystemsstrengthening_technicalbrief_en.pdf (theglobalfund.org)

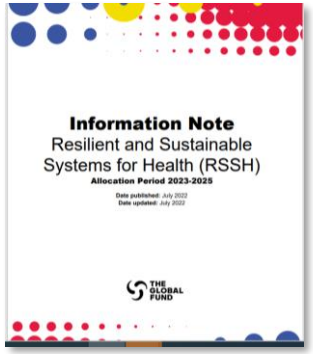
Beyond-diagnostic-network-optimization_November2021.pdf (optidx.org)



TB Action Plan for WHO European Region 2023-30 (DRAFT)



2022 Country Operational Plan Guidance - United States Department of State



core_resilientsustainablesystemsforhealth_infonote_en.pdf (theglobalfund.org)

ASLM-FIND

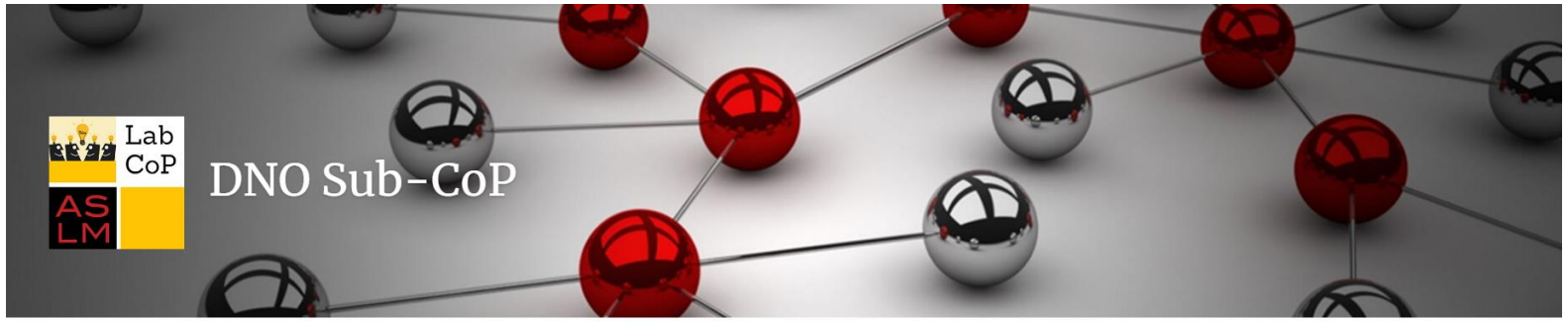
DNO SUB-COMMUNITY OF PRACTICE

Learnings:

- Growing body of knowledge on DNO
- Great interest and potential to apply DNO in various use cases

Needs:

- Availability and quality of data
- Funding and capacity building
- Stakeholder coordination to conduct analyses, implement findings and sustain efforts



What is the DNO Sub-Cop?

The Diagnostic Network Optimisation Sub-community of Practice (DNO Sub-CoP) is a dedicated segment of ASLM's LabCoP. The DNO Sub-CoP is a collaboration of ASLM and FIND, funded by the Bill & Melinda Gates Foundation. The DNO Sub-CoP gathers country teams (made up of laboratorians, clinicians, and representatives from ministries of health who support DNO activities in their country) and stakeholders (implementing partners, regulatory and technical agencies) who share challenges, solutions and best practices for optimising their diagnostic network.

ASLM
AFRICAN SOCIETY FOR LABORATORY MEDICINE

FIND
Diagnosis for all

Why a DNO Sub-Cop?

Globally, diagnosis is the biggest gap[1] in the cascade of care. In low- and middle-income countries (LMICs), including in Africa, 35–62% of populations are lacking access to essential diagnostics for six common medical conditions. This gap in access is exacerbated at primary healthcare level[2]. The situation is mirrored for outbreak response, where the capacity to detect outbreaks in the African region, as assessed through the Joint External Evaluation (JEE) process, was only scored at 44%[3].

OUR PARTNERS AND FUNDERS

Development of OptiDx is supported by the Bill & Melinda Gates Foundation through a grant to FIND.

Hosting and maintenance of the tool is supported by the 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.

OptiDx
OPTIMIZING DIAGNOSTIC NETWORKS

www.optidx.org


thank
you