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
WHO WORKS IN DNO AT FIND

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Mayank Pandey (India)
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Mayur Dagale (India)
Juhi Gautam (India)
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Rajesh Kumar (India)
Jessica Markby (Australia)
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
### Examples Recommendations

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<td>Adjust sample referral flows across district borders</td>
<td>Procure new devices</td>
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<td>Relocate existing devices to new health facilities</td>
<td>Establish sample referral system via courier</td>
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<td>Purchase motorbikes for sample referral</td>
<td>Change device procurement plans</td>
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### Proficiencies to Implement

- Policy & strategic planning
- Financing
- Contracting
- Operations management
- Procurement / Supply Chain
- Performance monitoring
- Training & capacity building
- Logistics management
D N O S C O P E

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

Brazil

India
Pakistan
Bangladesh
Philippines
Nepal
Cambodia
Laos
Papua New Guinea
Vietnam

Angola
Burkina Faso
Central African Republic
Cote d’Ivoire
Democratic Republic of Congo
Gambia
Kenya
Lesotho
Rwanda
Uganda
Zambia
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
- 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 TRAINING & CAPACITY BUILDING

DNO STRATEGIC DECISION-MAKING COURSE & OTHER RESOURCES

CALL FOR PARTICIPATION

INTRODUCTION TO DIAGNOSTIC NETWORK OPTIMIZATION: An online course

AIM:
To share knowledge and practical tools on diagnostic network optimization (DNO) to improve data-driven diagnostic system design.

Designed for officials of Ministries of Health, partner organizations and donors involved in lab systems planning and strengthening initiatives.

Time commitment: 10 learning hours over 2 weeks.

Course dates and agenda to follow shortly

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/KKTNMJfBYs

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

Technical Brief: Laboratory Systems Strengthening

core_laboratorysystemsstrengthening_technicalbrief_en.pdf (theglobalfund.org)

Beyond diagnostic network optimization: A network approach to strengthen and scale up laboratory services

Diagnosis network optimization - FIND (finddx.org)

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Beyond diagnostic network optimization: A network approach to strengthen and scale up laboratory services

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 laboratory, 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.

Why a DNO Sub-CoP?

Globally, diagnosis is the biggest gap 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. 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

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www.optidx.org