Infectious Diseases Detection and Surveillance: IDDS Vietnam

Vietnam TB Burden Estimates (WHO, 2020 and UNHLM)

TB Burden Estimates, 2020	Vietnam	Gaps
Total TB incidence	172,000	Around 71,000 missing including 6,804 Ped TB cases) – 6% up
Bacteriological confirmed	74%	
Tested with rapid diagnostics at time of diagnosis	47%	53%
RR/MDR-TB (UNHLM Targets)	5,710	35%
RR/DR/TB tested for FLQ	2,295	38%
Mortality	10,000	10% less

IDDS Vietnam Project Goal

Scope and Key Approaches:

1. Optimize the diagnostic network to address issues of access, timeliness, and diagnostic accuracy

Strengthen and digital transformation of specimen referral network	Support the expansion of molecular testing systems	Strengthen the drug-susceptibility testing (DST) laboratory system to enhance diagnosis and treatment of DR-TB, MDR-TB, and extensively drug-resistant TB (XDR-TB)	Provide continuous technical assistance for laboratory quality improvement	Support the artificial intelligence (AI)-enabled CXR to strengthening the Double-X strategy

2. Improve pediatric stool testing using GeneXpert system

Provide technical assistance to GeneXpert facilities on stool GX testing to enhance the pediatric TB diagnosis	Provide training, supervisory visits and materials to clinician, nurses on consulting and collecting stool specimens	Provide hand on training for laboratorian on handling specimen and conduct testing using NTP approved protocols

3. Deploy innovative tools and equipment for Vietnam TB diagnostics
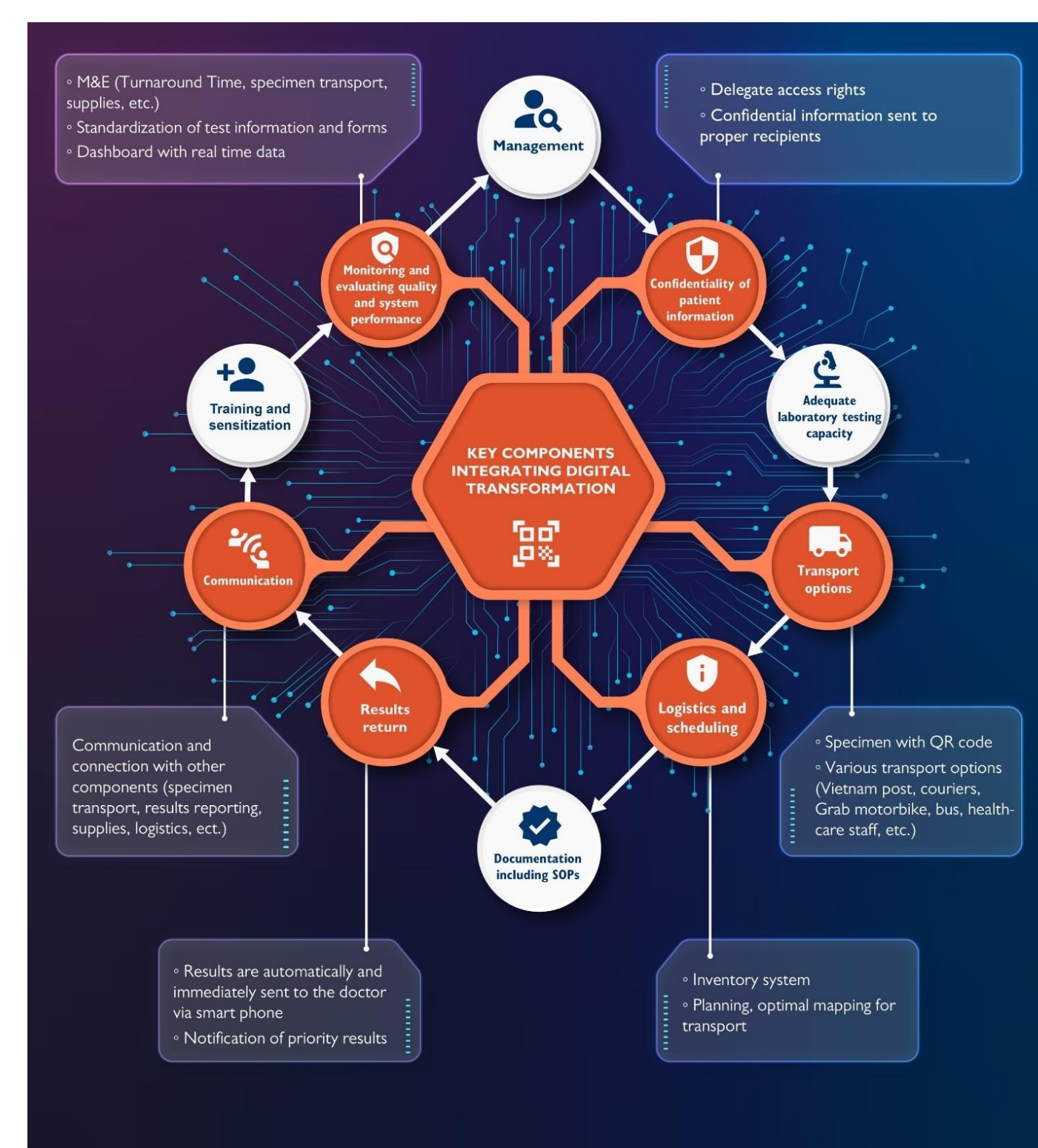
Conduct an evaluation of trace results in application of GeneXpert Ultra testing	Support NTP/NRL to provide clear guidance on trace positive results interpretation/follow-up	Support the application of whole genome sequencing for DR-TB detection

4. Introduce New Technologies and Tools to Improve TB Diagnosis

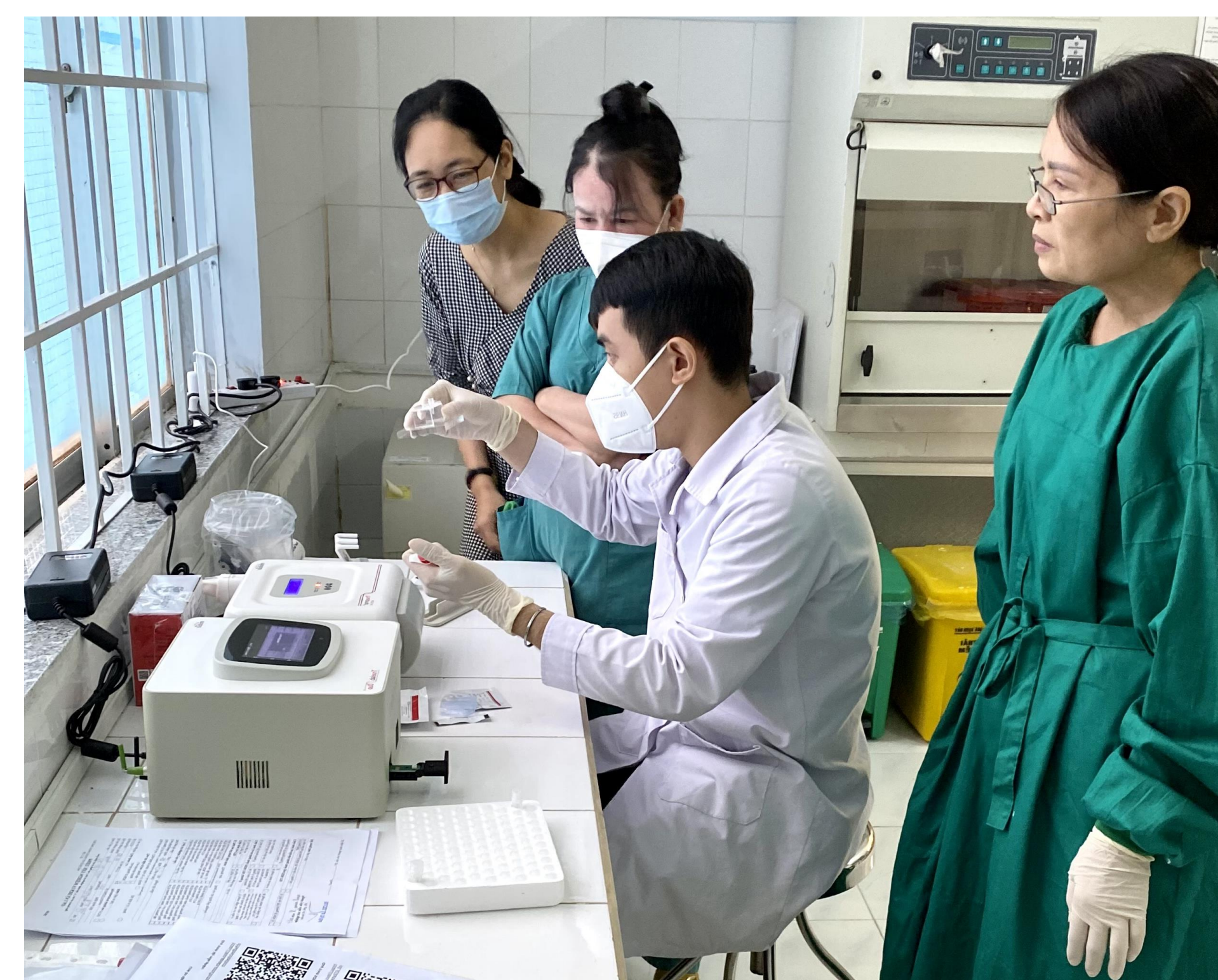|		
Provide support for NRL/NTP on spatial analysis on molecular diagnostic system for placing new diagnostic tool in the sites	Provide hand on training and supervisory visit on implementation of Truenat testing system in selected provinces	Provide comprehensive training and on-site technical assistance on AI-enabled Ultra portable X-ray system to selected provinces

Project Details

Digitalization of Specimen Transportation System

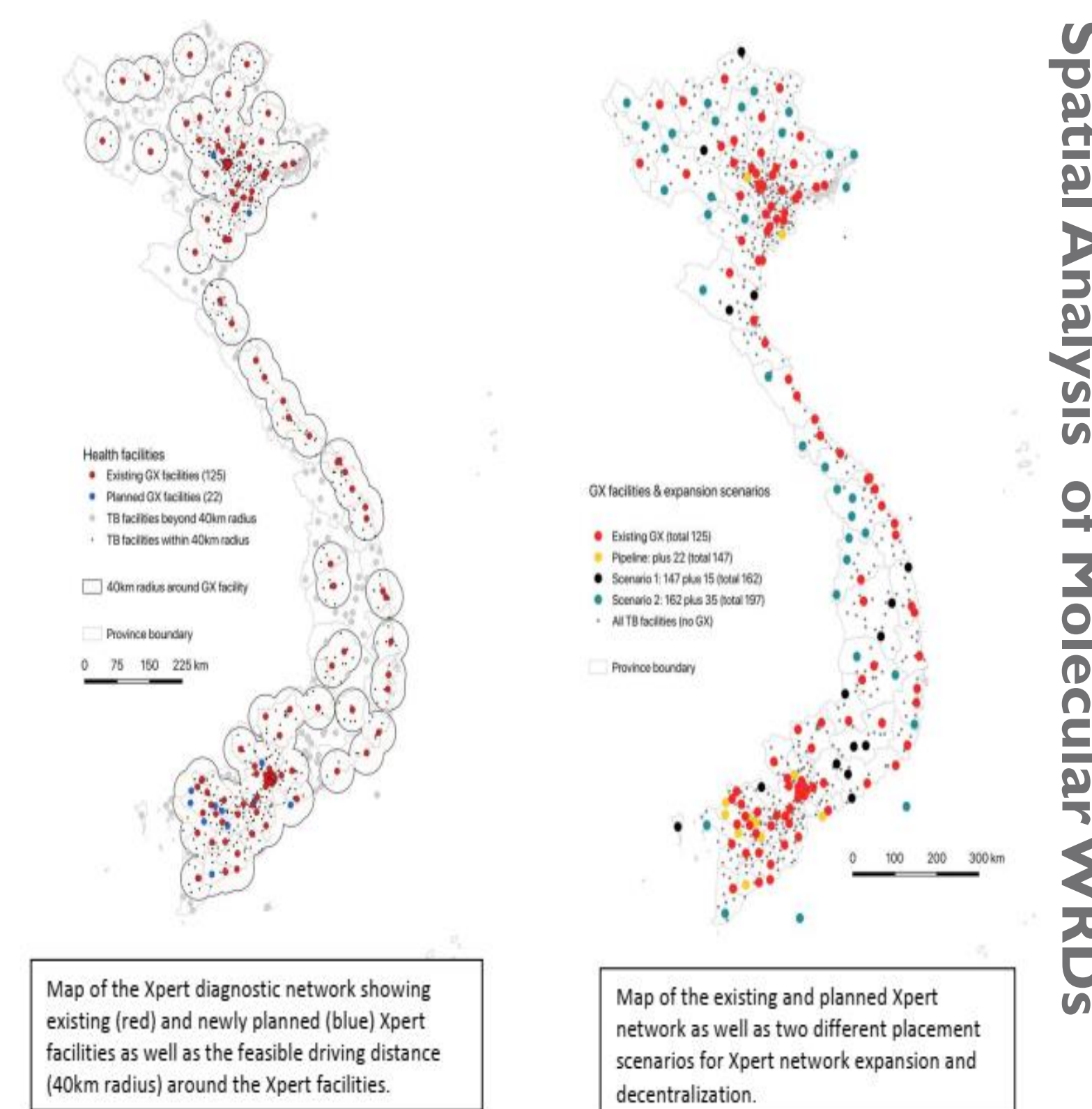*Screenshot of concept of digital STS*

==Digitalized specimen referral system helps in real time monitoring of entire process from collection to transportation to results reporting.==

Ease The Access To Rapid Molecular Diagnostics At P⁰ Health Care Centers

Training TA for Truenat system

28/38 Truenat operationalized at the primary health care centers

TB-DNA And Spatial Analysis For Vietnam Diagnostic Network

Spatial Analysis of Molecular WRDs

Map of the Xpert diagnostic network showing existing (red) and newly planned (blue) Xpert facilities as well as the feasible driving distance (40km radius) around the Xpert facilities.

Map of the existing and planned Xpert network as well as two different placement scenarios for Xpert network expansion and decentralization.

TB-DNA and spatial analysis guided the placement of WRDs and to maximize the utilization rate of the molecular testing capacity.

Key Achievements

Improve TB Diagnosis By Supporting Double X- Strategy (CAD) And Stool Xpert Testing and TA To Reference Laboratories

Installation and Training of Double-X and Stool Xpert Testing

IDDS supported
- Introduction of AI-assisted digital CXR at 10 sites
- Introduction of stool Xpert testing for pediatric TB diagnosis at 5 sites
- TA to improve culture and DST services

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