

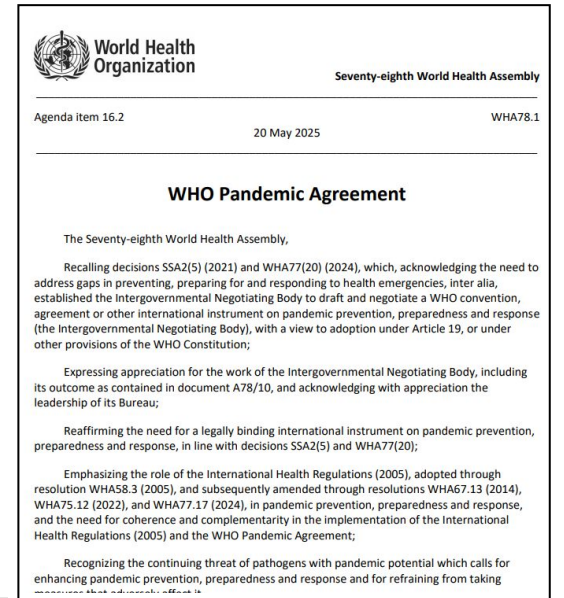
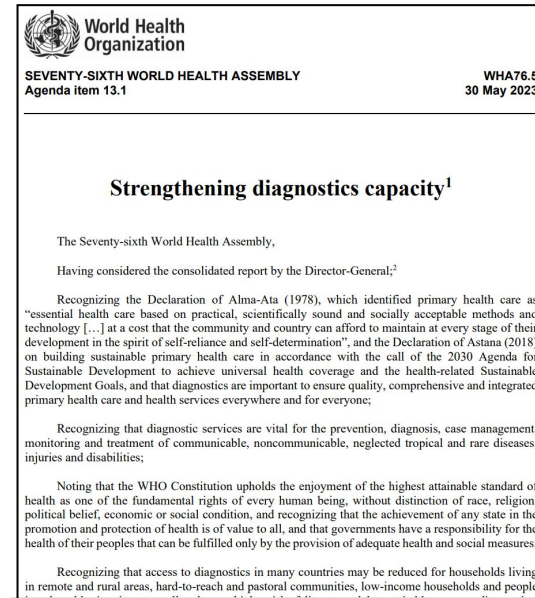
Integrated diagnostics as a strategy to expand access to testing

Jeremie Piton - Unitaid

Improving diagnostic access through integrated services has the potential save lives

Equitable access to testing must be secured

- **47%** of the global population has little to no access to diagnostics.
- Diagnostic gap is **most severe at primary health care**, where in LMICs only **19% have access**
- **1.1 million premature deaths** in LMICs could be avoided annually by **reducing the diagnostic gap** for six priority conditions
- Diagnostics are underfunded because **their importance is often understated** in policy
- Recent innovations can help transform access to and **democratize diagnostics**

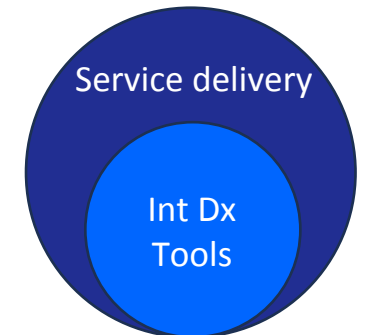
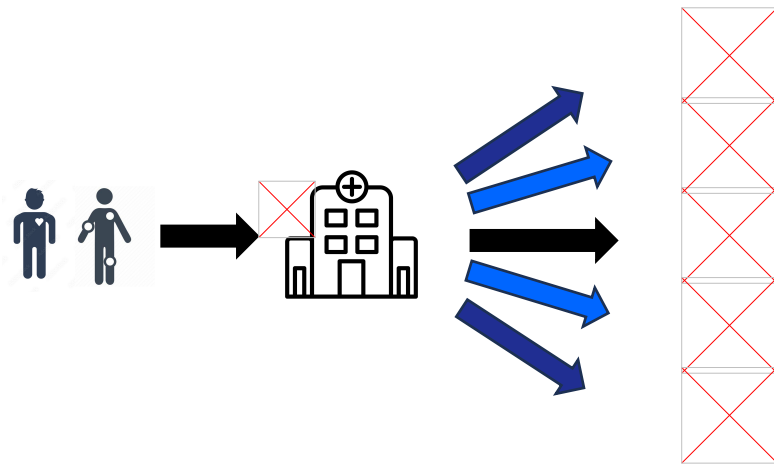


Integration: Maximizing Testing capabilities

“Do More With Less”

Integrated diagnostic tools: Technologies that address multiple diseases or conditions in a single tool (e.g., multi-disease, multi-plex or multi-modal diagnostic platforms), addressing the needs of people affected by more than one disease (e.g., treatment of co-infections)

Integrated service delivery: Approaches that use one program or clinical interaction to address multiple health issues (e.g. For example, leveraging child health visits to diagnose malaria, or using antenatal care to screen for hepatitis B, HIV, and syphilis).

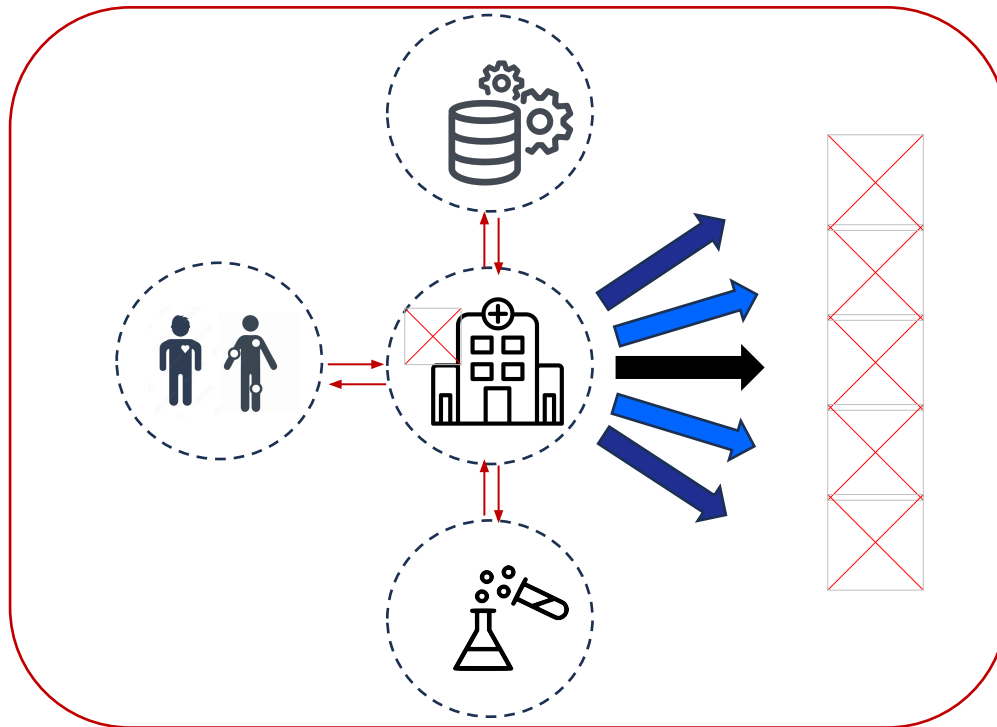


Level of Integration

Vertical programs : HIV/AIDS, Malaria, TB, M&CH

Integration: Maximizing Testing capabilities

“Do More With Less”

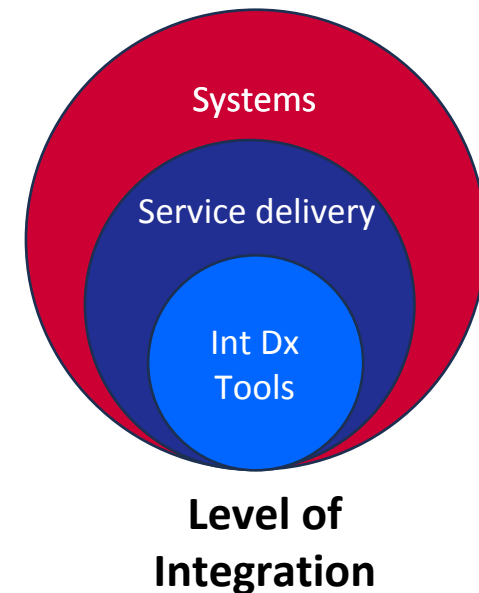


Vertical programs : HIV/AIDS, Malaria, TB, M&CH

Integrated diagnostic tools: Technologies that address multiple diseases or conditions in a single tool (e.g., multi-disease, multi-plex or multi-modal diagnostic platforms), addressing the needs of people affected by more than one disease (e.g., treatment of co-infections)

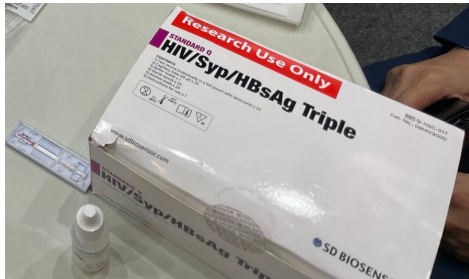
Integrated service delivery: Approaches that use one program or clinical interaction to address multiple health issues (e.g. For example, leveraging child health visits to diagnose malaria, or using antenatal care to screen for hepatitis B, HIV, and syphilis).

System integration: Sample transportation, supply chain and human resources can be streamlined and shared across health areas. But also, data management systems and connectivity solutions



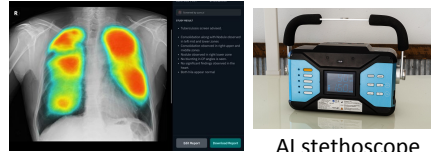
Trends in Diagnostic tools for LMICs

Multiplex RDT



STI : HIV/HBV/Syphilis, HIV/HCV, HIV/syphilis
Fever Panel (Malaria, Dengue etc...)
Respiratory Panel (Covid, Flu)
Fever Panel (Malaria, Dengue etc...)
Respiratory Panel (Covid, Flu)

AI tools



AI stethoscope
 AI Xray
 AI ultrasound

Bedside POC

Dry biochemistry



ANC: blood count, Blood group
Sepsis : Lactate meter, CRP
AHD, TB : Liver function
 Pulse oximeter,

Multimodal technology

(Molecular, Immunoassay, immunochemistry and cytometry)



Viral Load
 HbA1c
 Liver functions,
 CRP
 Complete blood count

Sequencing



TB: WGS from Sputum
PPPR : WGS for surveillance

Non IVD



Pulse oximeter, X-ray
 etc...

Trends : Innovations focused in:

- Decentralizing Testing (at level 0 or 1)
- Expanding menu of Testing through Integration
- Reducing cost
- Increasing performance (LOD)

Near POC molecular



Respiratory : TB (screening), RSV, Covid-19/Flu, M. pneumoniae B. pertussis, Legionella Pneumophila
STI : CT/NG, MG, Mpox
ID : V. Cholerae, Groupe B strep, Malaria,
PPPR (H5N1, Ebola/Marburg
WH : High risk genotypes

High multiplex low complexity NAAT



Respiratory : TB (Drug resistance), respiratory panel
STI : CT/NG/TV/MG, Mpox/OPX
AMR and BSI
ID : HIV (VL), Arbovirus panel
PPPR (H5N1, Ebola/Marburg
WH : HPV (genotyping)

New True POC early dev

CrispR, Graphene, quantitative, fluorescence, quantum dots, nucleic acid-based LFA setc...



Drug resistance, cancer,
 infectious disease

Self care self testing self sampling



Respiratory : Covid-19/Flu,
STI : HIVST, HIV/HCV ST, CT/NG etc...
WH : self sampling

Why TB as one entry point for integrated diagnostics?

- **Largest unmet diagnostic gap**
TB remains one of the leading infectious killers, with millions of people still undiagnosed or diagnosed too late each year.
- **Existing platforms enable integration**
Widely deployed molecular TB platforms can support multi-disease testing (e.g., HIV, hepatitis, respiratory diseases), enabling efficient integration.
- **Established systems for rapid scale**
Strong global TB programs and policies create a clear pathway to scale integrated diagnostic solutions in high-burden countries.



WHO recommends near point-of-care tests, tongue swabs, and sputum pooling for TB diagnosis



Call for proposals: Improving access to diagnostics through adoption of tools and approaches that drive integration.

AFI: improving people-centered care through integrated diagnostic tools and delivery approaches

Call scope



Implementation work to increase access to diagnostics through the optimal introduction, placement and delivery of effective, affordable, and innovative diagnostic solutions that support integrated, multi-disease detection and diagnosis

Objectives

1. Supporting countries and affected communities in designing and deploying integrated diagnostic strategies

2. Accelerating adoption and deployment of integrated diagnostic tools

Impact

- Generate evidence on new use cases for integrated diagnostics to inform adoption and scale-up,
- Characterizing potential savings from reduced testing costs
- Facilitate implementation of future new tests at the primary health care level
- Improved health outcomes e.g. early diagnosis, treatment outcomes
- Additional cases of priority diseases detected and linked to care.
- Strengthen country preparedness by embedding integrated diagnostics as a foundation for effective pandemic response.

DEADLINE: January 29, 2026

closed

MDX : Enabling Access to New Multidisease tools

- **Project Goal:** Prepare and support countries for the early adoption of new, high-potential multidisease testing solutions, while generating insights on the feasibility, costs, and identification of fit-for-purpose solutions.
- **Type of Integrated products:** Multidisease POC, near POC and LCNAAT (molecular, clinical chemistry, immunoassays and cell based)
- **Outputs:**
 1. Priority disease areas with access gaps that could be address by innovative diagnostic solutions
 2. List of priority products, among those in the pipeline, that meet public health needs and align with country priority and capacity
 3. nPOC TB demand forecast
 4. Use case per priority product, indicating target patient groups, role in national algorithms, integration in service delivery models, and optimal placement strategy
 5. Accessible demand per priority product
 6. Product introduction pathway
- **Countries:** Cameroon, India, Indonesia, Kenya, Nigeria, Uganda, South Africa, Viet Nam, Zimbabwe

