

Partnerships in Laboratory Medicine Capacity Development

*Enabling Large Scale Public Health
Responses in Africa*

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INFECTIOUS DISEASES INSTITUTE COLLEGE OF HEALTH SCIENCES, MAKERERE UNIVERSITY



Vision: A health Africa free from the burden of infectious diseases

Mission: To strengthen health systems in Africa, with a strong emphasis on infectious diseases, through research and capacity development.

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<http://www.idi-makerere.com>

Serving the Millions in our Villages

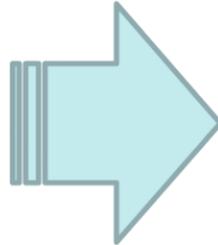


Core Functions of Infectious Diseases Institute (IDI)

- Prevention, Care & Treatment
- Research
- Laboratory Services
- Training
- Health Systems Strengthening

Building Partnerships

Partnership
between
Makerere
University/IDI
and John
Hopkins
University



Establishment
of IDI/MUJHU-
CORE LAB

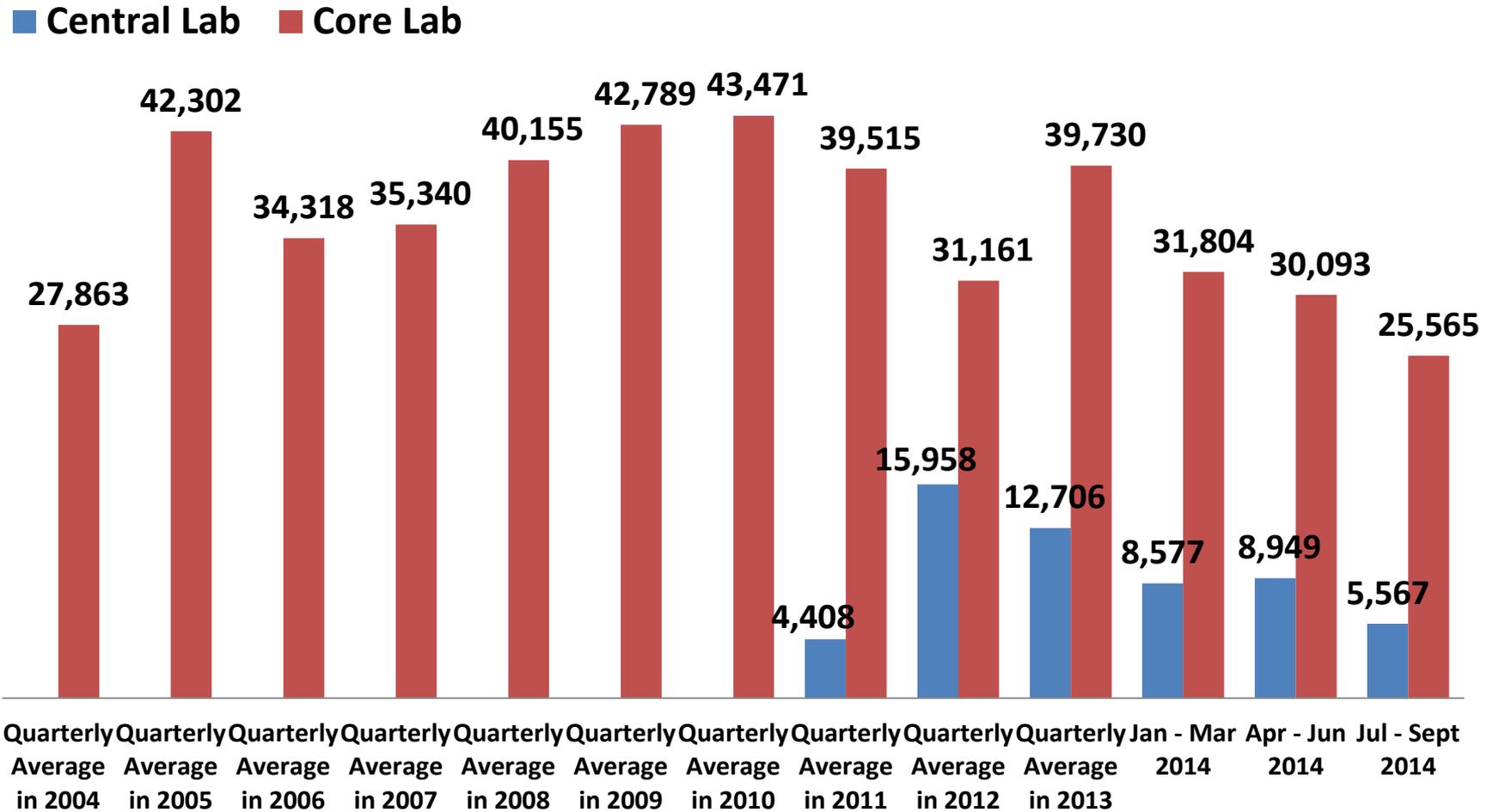
IDI-MUJHU CORE LAB



Makerere University-John Hopkins's University (MUJHU) Core lab at IDI

- First lab accredited by College of American Pathologists (CAP) in East and Central Africa
- Provides high quality services for Care and Treatment, Research, Monitoring disease trends & Teaching at the College of health Sciences/Mulago Hospital complex
- However quality/international accreditation costs money
- Therefore IDI used a parallel track to accredit public laboratories

IDI Core and Central Labs Quarterly Testing Volume



Attachment to an accredited lab – IDI MUJHU Core Lab



Exposure to a properly functioning lab (internationally accredited) to develop professional attitudes

Need to take excellence to the people in hard-to-reach, hard-to-work areas

- Identifying the need - mainly rural; with poor infrastructure, unreliable power and water supply systems
- Mapping of need and prioritization of resource allocation
- Re-aligning the support structures (TA and Direct Service Delivery)
- Seeking partnerships to mobilize resources

IDI Lab Systems Strengthening Program

Partnership between IDI and MOH, Becton Dickinson (BD), BD-PEPFAR Public Private Partnership, CDC/USAID CoAgs, other funding agencies

Packaging of a High Impact Capacity Development Modules with systematic follow up at places of work

IDI Lab Systems Strengthening Program (HOLISTIC APPROACH)

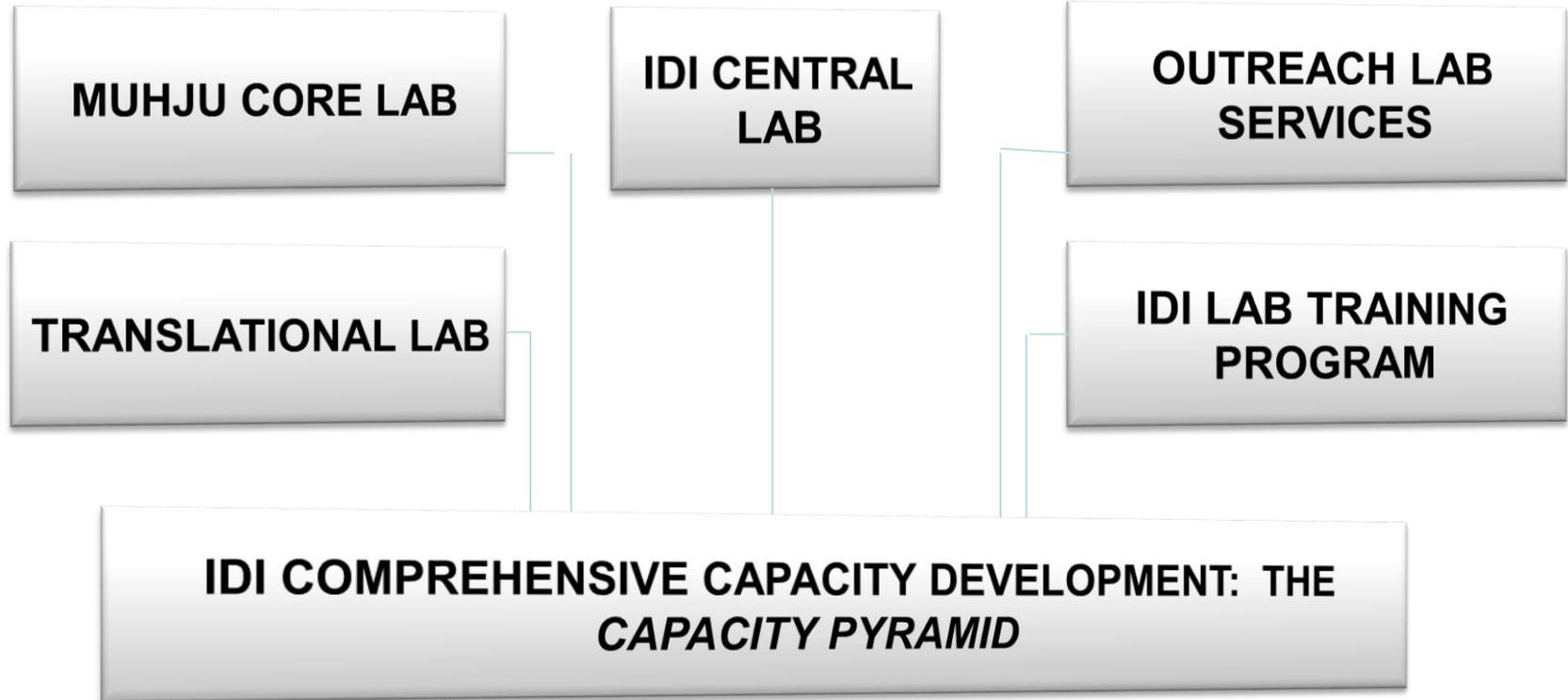
Internal (Uganda) support

External (other countries) support

Didactic Training at IDI Learning Hub (National & International trainees): BD Scholarship Fund; US Department of Defence, PEPFAR; MOH



Alignment & Refinement of structures to meet national and international needs

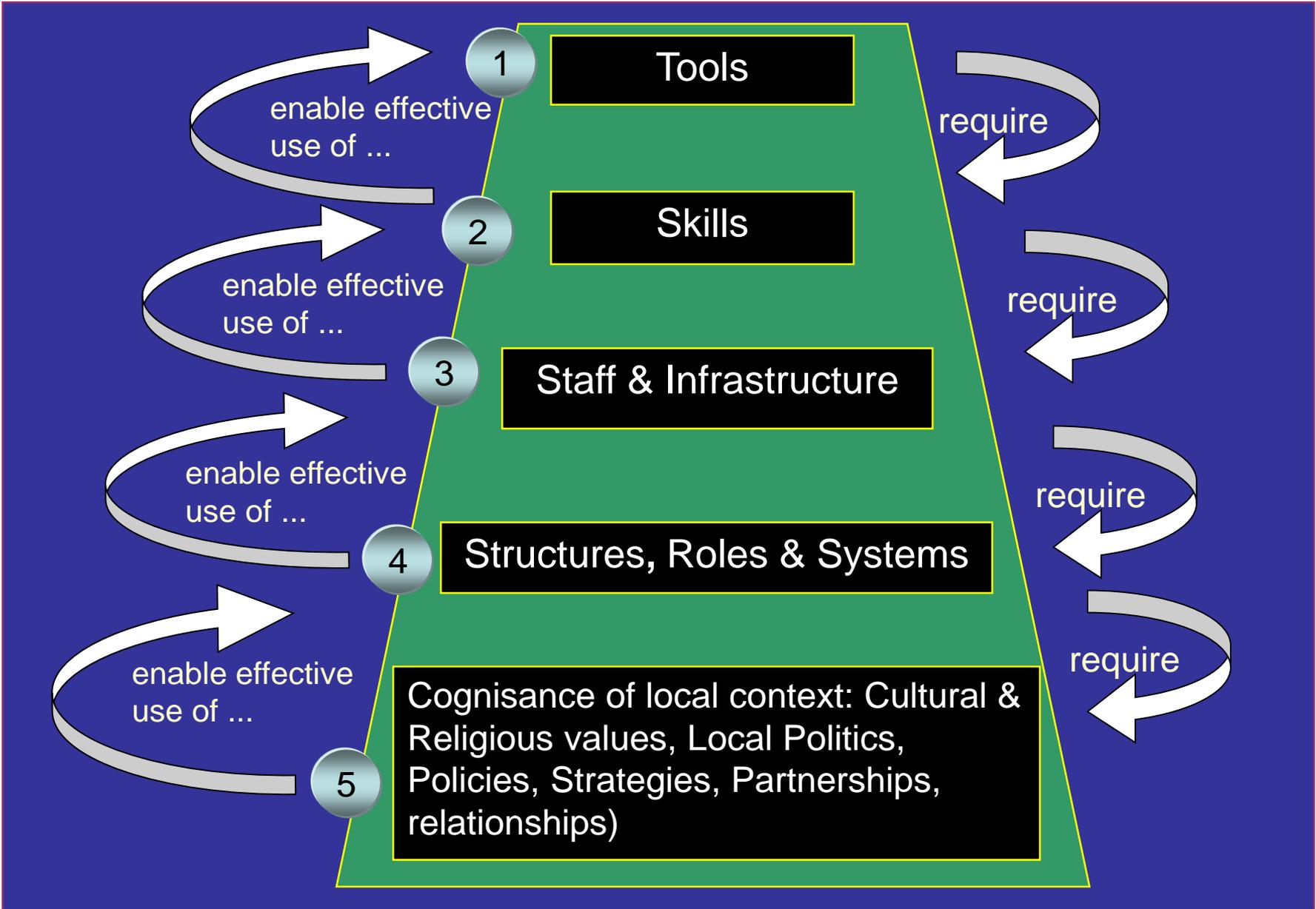


Internal support: Provision of infrastructure, Additional HR, Lab equipment (including POC), Supplies, development of Leadership & management Skills at all levels, Development of Lab Quality Management Systems, provision of interim/ backup lab services



External support: Sharing experiences, developing partnerships & networks, training, mentorship, coaching

Review of approach : movement towards comprehensive capacity development



Development of Leadership, Management capacity & lab specific M&E systems at national, regional and district levels: A Partnership between Accordia Global Health Foundation, BD and PEPFAR



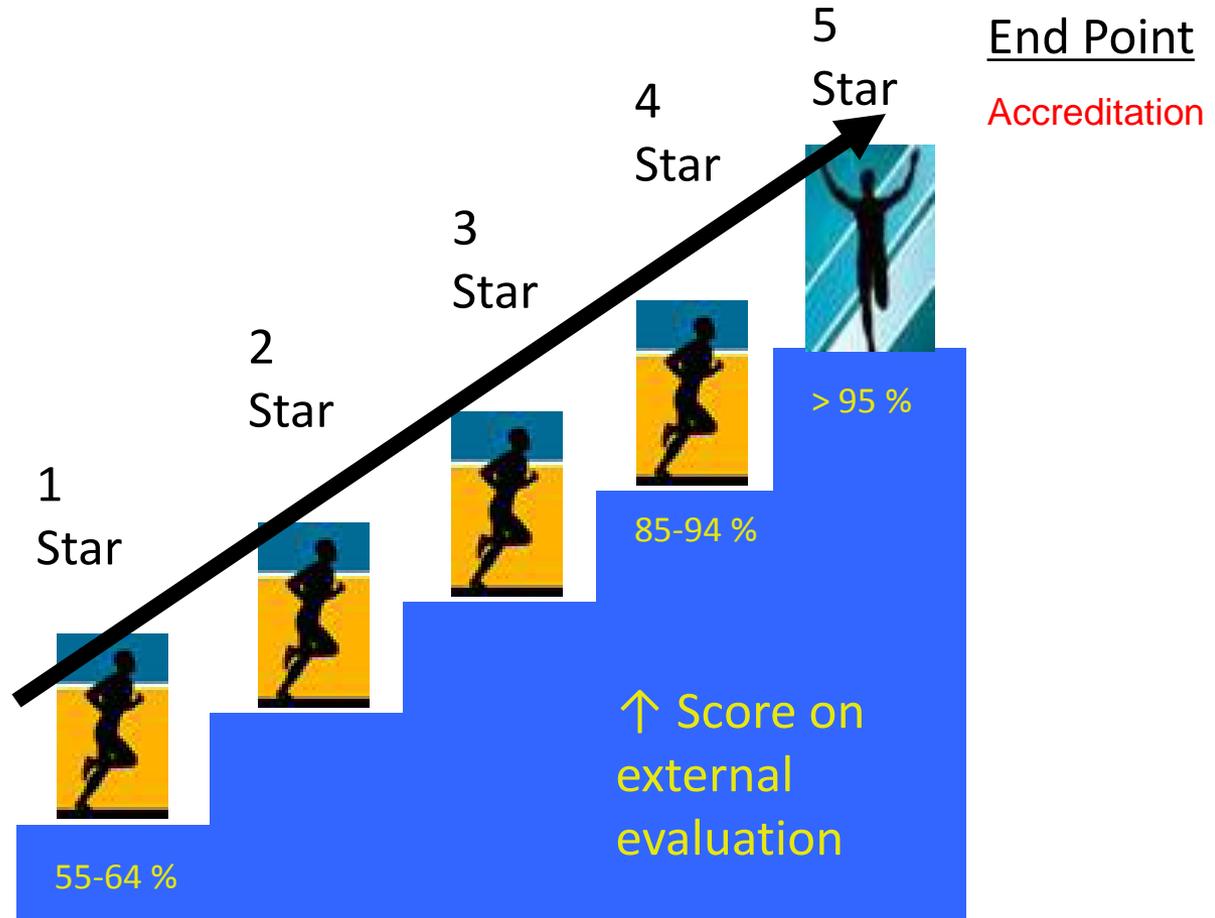
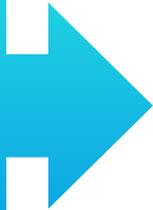
A participatory approach in development of Leadership & Management capacity & M&E systems for the Central Public Health Laboratory, MOH, Uganda

SLMTA/SLIPTA

From Stars to National/International Accreditation



Planning + Resources
+ Commitment



Incremental Process

Priorities of the Systems Development Program

- Organization, leadership and management at all levels (national regional, district, facility)
- Increasing testing capacity (infrastructure, equipment , supplies, adequate and skilled HR)
- Improving quality focus and capacity
- Lab specific M&E systems and Information management systems

MODEL FOR CAPACITY BUILDING AT ALL LEVELS - eg UGANDA

Uganda National Health Laboratory Services Strategic Plan – (2010 – 2015)

Capacity of Uganda lab services

Capacity of CPHL

CPHL is building its own capacity in order to build capacity of Uganda lab services



IDI



Tools

Attitudes & Skills

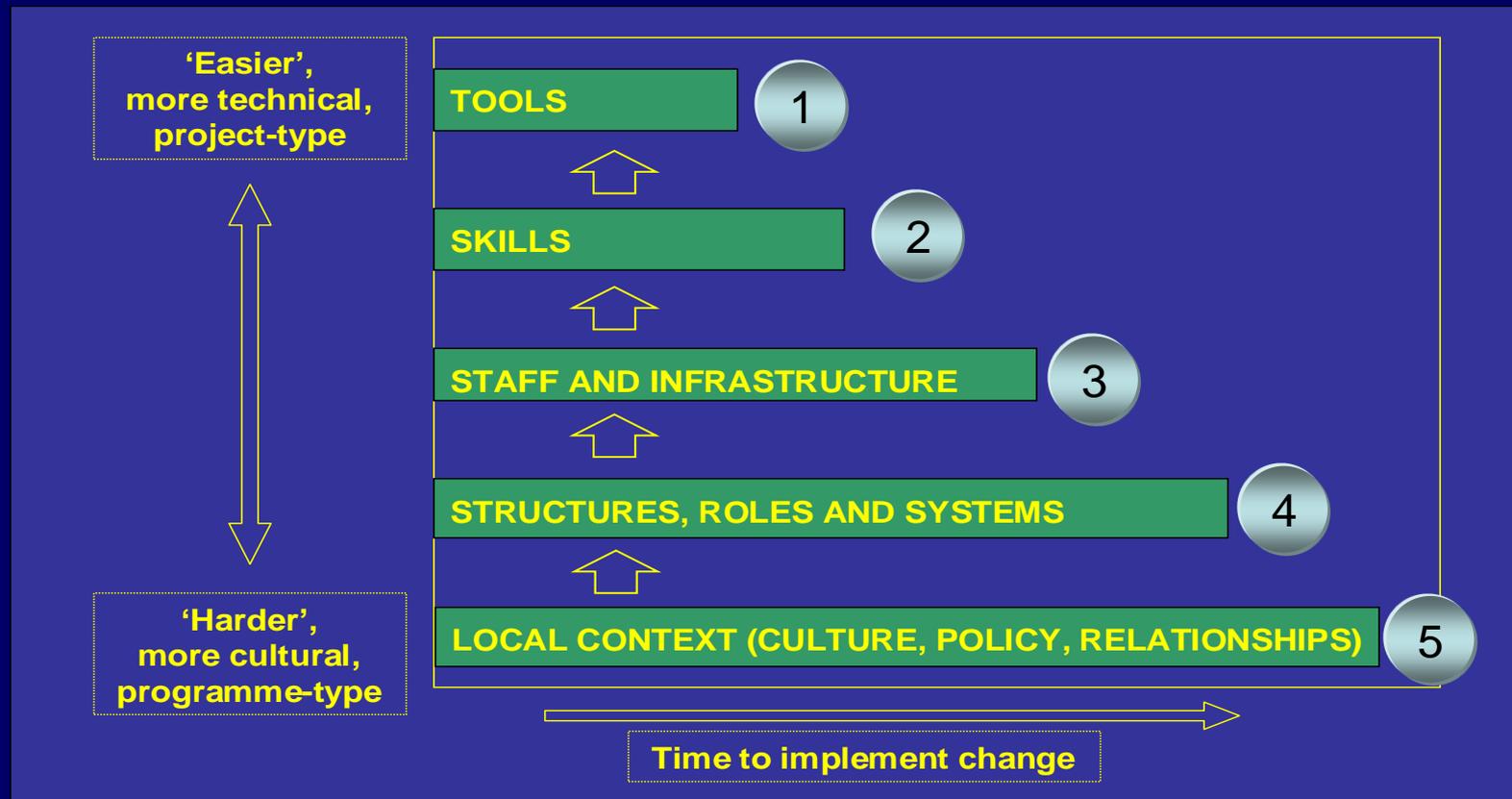
Staff and Infrastructure

Structures, Roles & Systems

Cognisance of local context: Local cultural values, national policies & strategies, partnerships, political environment

Appreciating limitations on the ground

Complexity and time dimensions of capacity building



Kagadi District Hospital-Before (WHO Star 0)



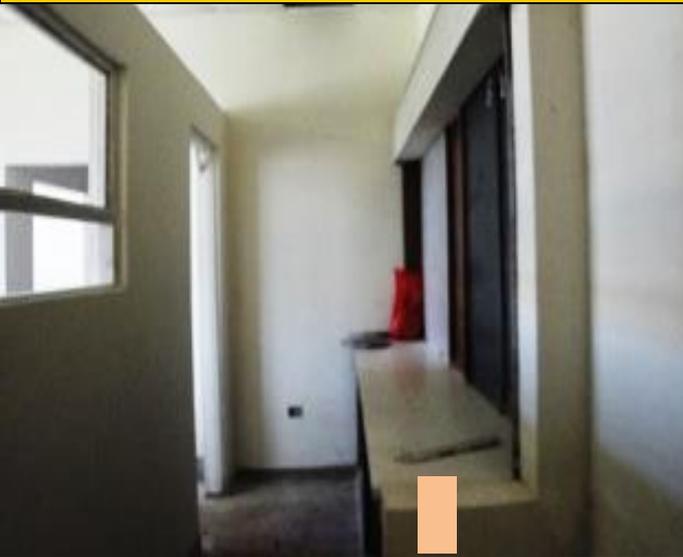
Kagadi Hospital-After (WHO Star 3)



Kiboga District Hospital-Before (WHO star 0)



Kiboga District Hospital Lab –After (WHO Star 3)



Masindi District Laboratory-Before (WHO Star 0)



Masindi District Laboratory-After (WHO star 3)



The Lab as a Springboard for large scale Public Health Programmes in Uganda

Extending HIV testing platforms from Facilities to Communities



HIV testing: outreach by boat to remote islands on Lake Albert



Open air HIV testing in communities in mid-western Uganda



HIV testing and Counseling Outreach on shores of Lake Albert





Investing in the Future: Impacting Real Lives



Extending the platform to Maternal & Child Health

Before



After



Revitalization & Repair of Operating Theatres at lower levels



Extending the lab ANC profile & introduction of Blood transfusion services at facilities with theatres

Providing a platform for lab training at district labs



Providing a platform for Research at improved district labs



Research study at Kiswa Health Centre IV



Gene-Xpert in a peripheral Health Facility supported by IDI

Extending the platform to respond to disease epidemics : Ebola 2012 outbreak, Kagadi Hospital, Kibaale District, Uganda



Provision of tools & supplies



Working with, and encouragement of, HCWs at the front line



... plus revamped laboratory supported lab testing for Ebola

Extending the platform to provide TA to other countries: Mali



Partnership with Accordia Global Foundation and US Department of Defense to develop a lab training program in Mali



Extending the platform to provide TA to other countries: Swaziland (partnership between SHLS, URC/CDC)



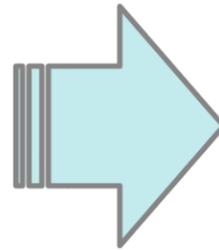
TA to develop
Leadership &
Management
capacity & M&E
systems at SHLS,
Swaziland



TA to develop Lab
Quality
Management
Systems in selected
labs in Swaziland
followed by an
ASLM Audit

The IDI Translational Lab

Partnership
between IDI,
Academia and
private sector



**TRANSLATIONAL
LAB**



**Testing of Point of Care
Diagnostics & New and affordable
technologies & support to
research studies**

Translational Lab

- Functional lab: Immunology, PCR, Mycology, PK Studies

- On-going Studies

1. PK-ARTEM
2. GI-PARASITE STUDY
3. ORCAS
4. SOUTH
5. TBCDRC NAAT
6. POLYMER study
7. PK-SALIF
8. ASTRO
9. BACTEC



- Over 2,600 tests performed by September 2014
- An additional 2,500 tests planned by June 2015

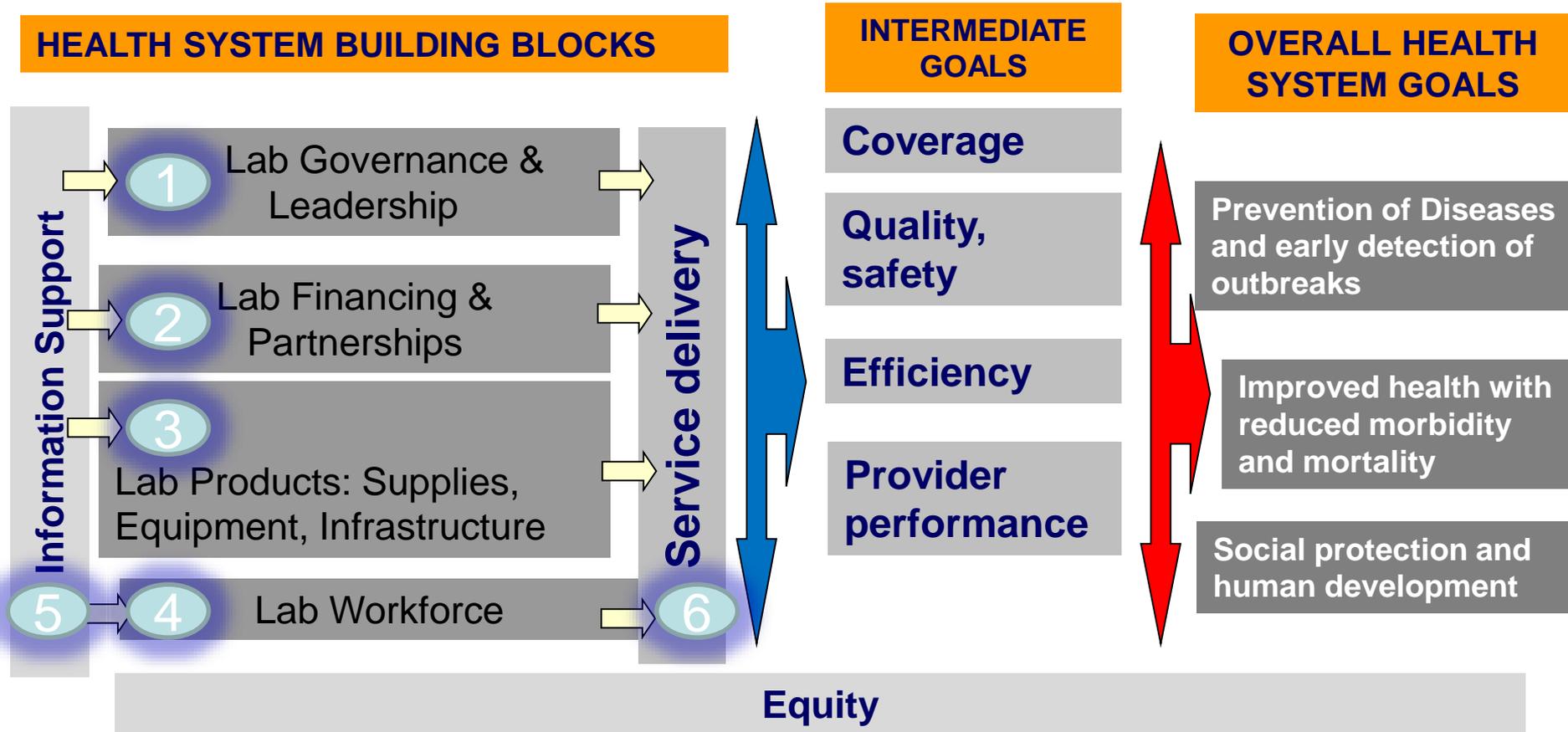
Clinical Trials Unit

- Additional Phase 2 capacity (drug safety studies) developed in partnership with PCT programme
- 9 ongoing studies in CTU
- Highlighted Studies
 - SOUTH Study (TB PK)
 - Low dose D4T Study (Optimization)
 - SALIF Study (ART Substitution)
 - ASTRO CM (Adjuvant CM therapy)
- Key In-coming Studies
 - DolPHIN Study- (Dolutegravir in pregnancy)
 - DolACT Study- (Dolutegravir in health volunteers)



2-Bed Phase 2 Clinical Trials Facility at IDI

End-point: What is the lab's contribution in achieving the **OVERALL HEALTH SYSTEM GOALS** ?



CONCLUSION

- An initial partnership with Johns Hopkins University has grown over 10 years to support and build capacity of 65 Labs across Uganda as well as provide support to the Central Public Health Laboratory, Ministry of Health
- This platform in turn has trained thousands of laboratory personnel in Uganda and beyond
- The lessons learnt are being transferred to Swaziland and other African countries
- The lab platform continues to support essential research relevant to Africa

ACKNOWLEDGMENTS

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