Advanced HIV disease care at Lighthouse clinics in Malawi - How far have we come?

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HIV LEARNING NETWORK
The CQUIN Project for Differentiated Service Delivery

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Objectives of the presentation

- Describe the setup of Lighthouse Trust clinics in Malawi and the role AHD care and other DSD play within the clinics
- Highlight the extent of AHD services currently delivered in Centers of Excellence and in supported districts
- Share some thoughts on the M&E of AHD services and the importance of training in this field

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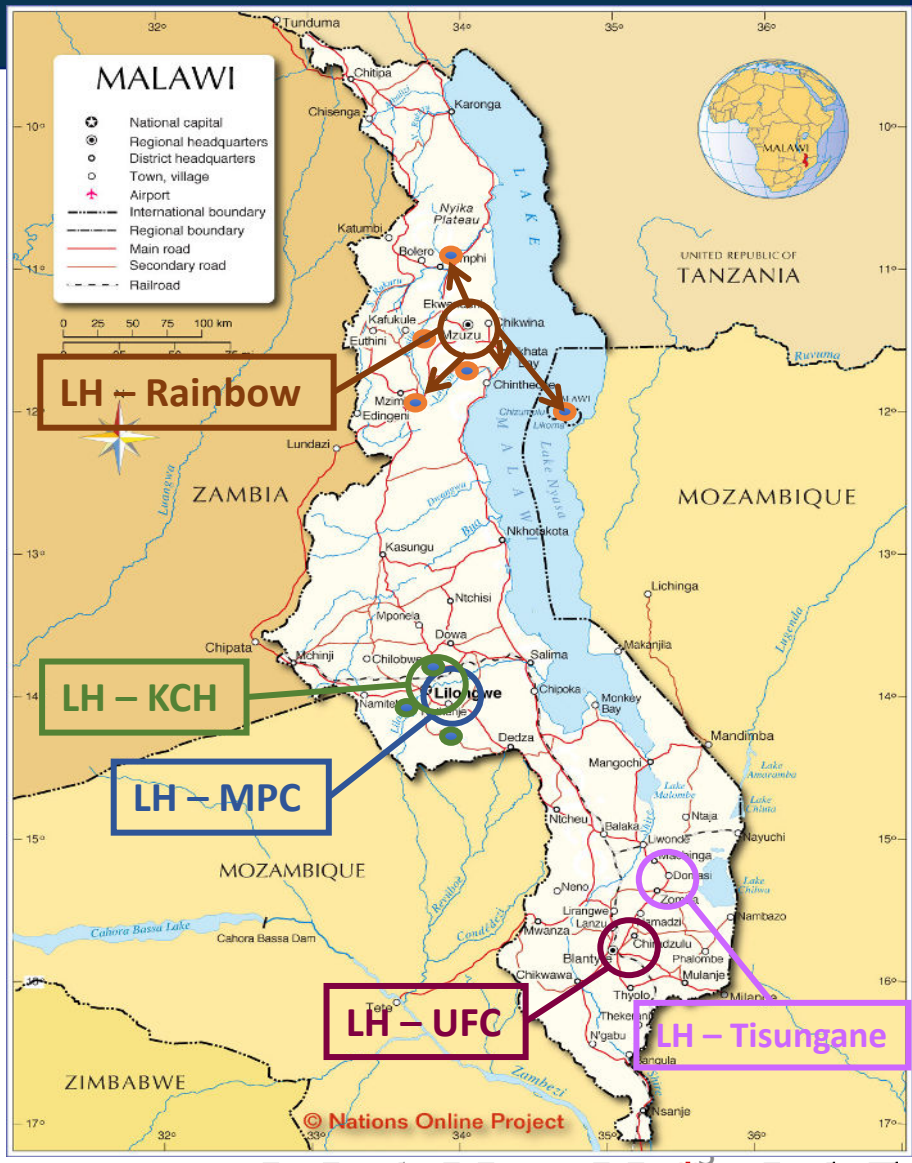
Lighthouse Clinic Trust operates five large referral level HIV/TB clinics and supports 5 districts in Malawi's North

Lighthouse clinic at **Kamuzu Central Hospital** in Lilongwe was founded in **2001**, is funded by **PEPFAR through CDC** since **2003** and was recognized as **Centre of Excellence** for HIV care in **2004** by the WHO

Currently Lighthouse Trust established Centres of Excellence in all Malawian referral hospitals:

- **Kamuzu Central Hospital, Lilongwe** (LH-KCH)
- **Bwaila Hospital, Lilongwe** (LH-MPC)
- **Queen Elisabeth Central Hospital, Blantyre** (LH-UFC)
- **Zomba Central Hospital** (LH-Tisungane)
- **Mzuzu Central Hospital** (LH-Rainbow) – under development

The Centres of Excellence treat more than **60,000 HIV patients with ARVs** and including other supported spoke sites this number exceeds **130,000**



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Integrated and differentiated care models at Lighthouse

All CoE sites offer **integrated service delivery:**

- Comprehensive HIV care
- Comprehensive TB care
- Kaposi's sarcoma diagnosis and treatment
- Cervical cancer screening and treatment (cryotherapy/thermocoagulation)
- Nutritional and psychosocial counselling and support
- **Differentiated service delivery**
  - 6 multi-monthly refills
  - Teen clubs
  - Nurse led-Community ART program
  - Advanced HIV disease care

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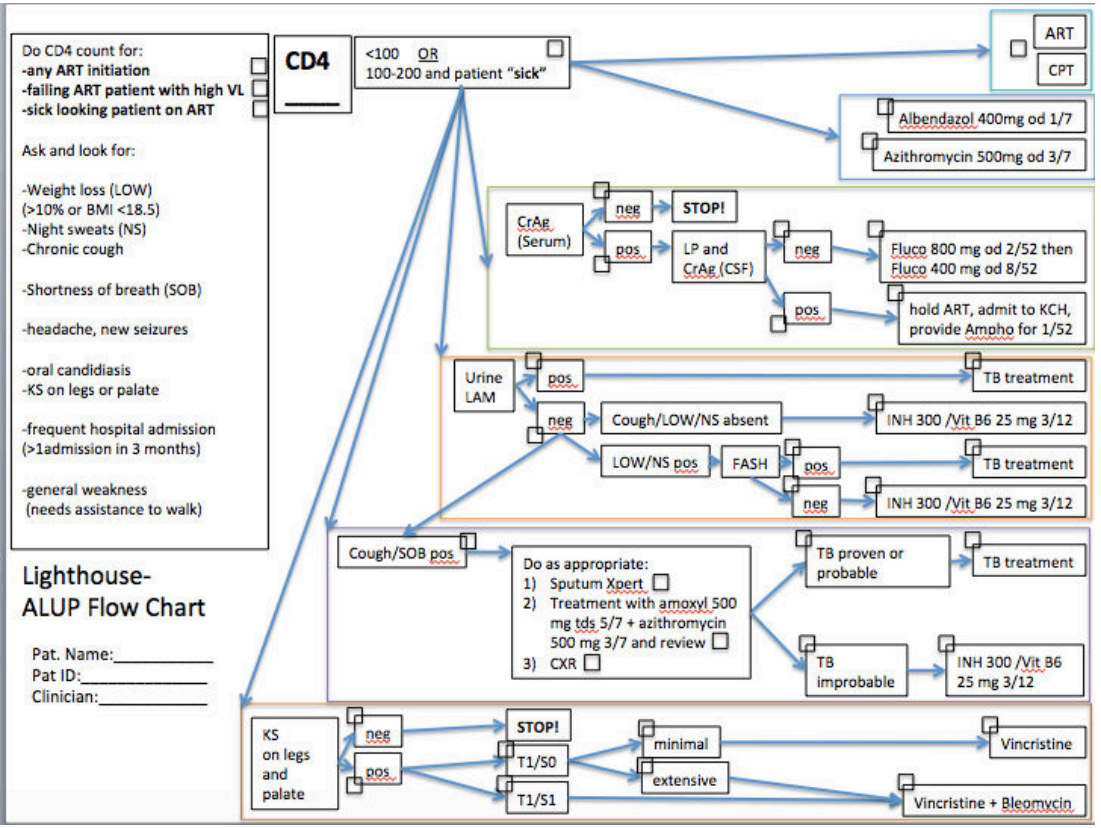
Advanced HIV care at Lighthouse KCH was established in 2016



ALUP = Advanced, Late, Unstable Patients

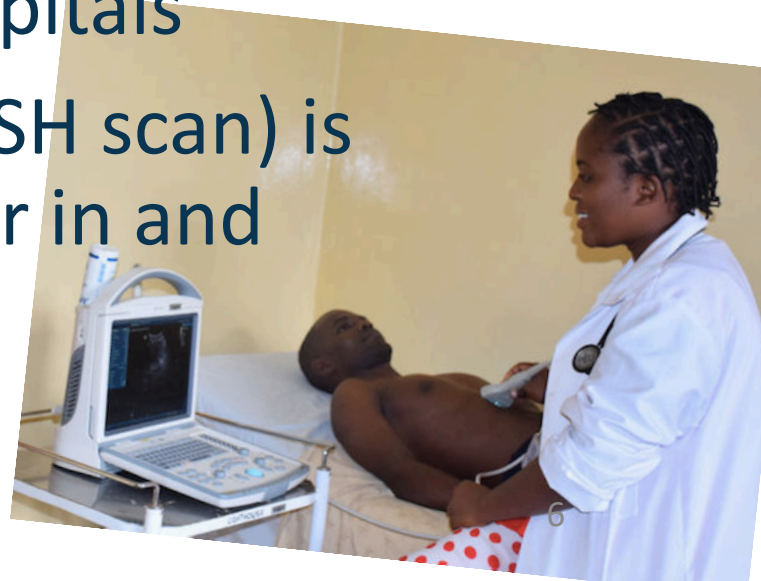
After results of the REALITY trial were published the "ALUP algorithm" was implemented (which can still be found the AHD toolkit –CQUIN website)

Patients initiating ART or failing on ART are screened with CD4 and subsequent CrAg and LAM reflex POC-test if results < 200 cells/ml (initially < 100 cells/ml)

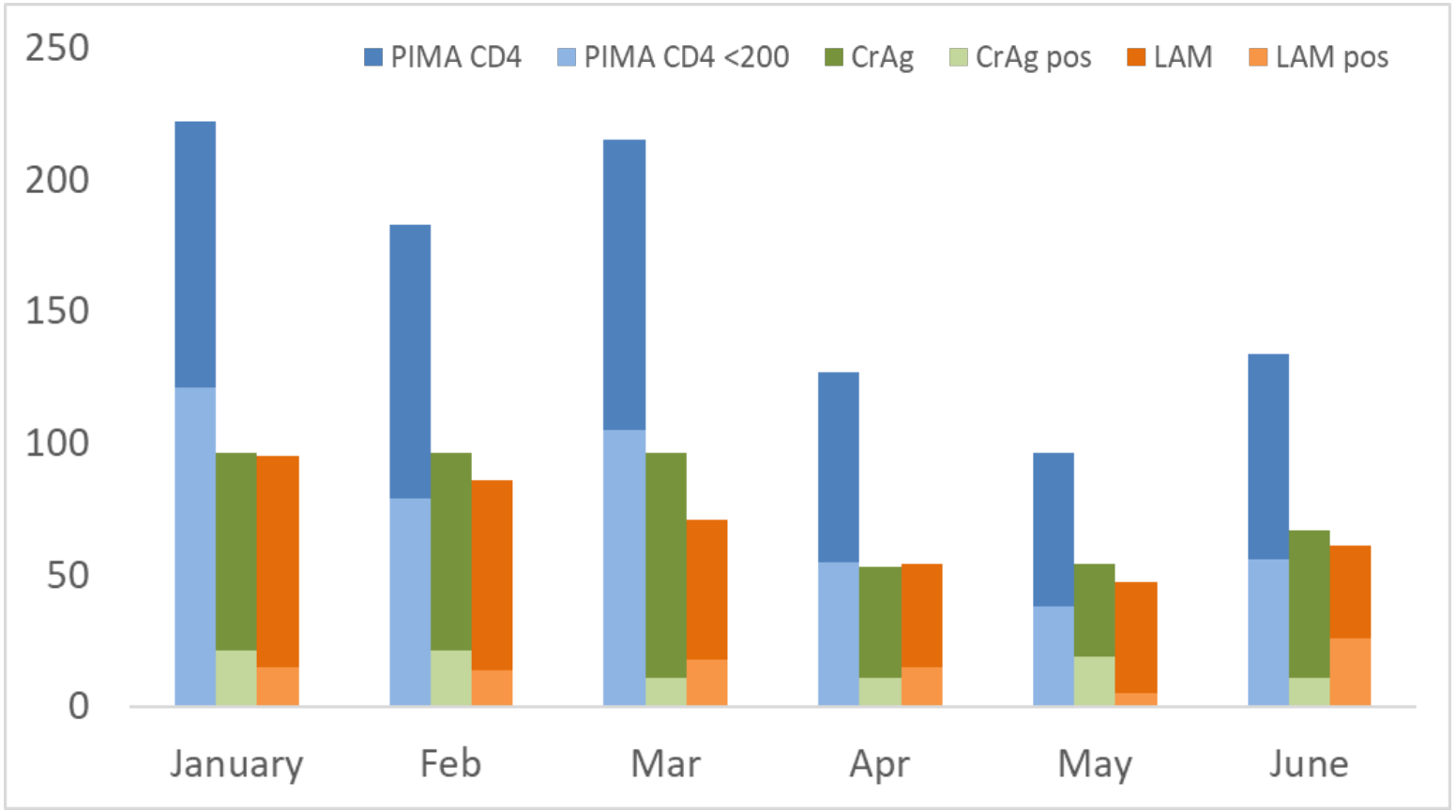
CoE clinics are equipped with point of care labs for side effects management (Crea, LFT), POC-VL for "targeted VL" and CD4 point of care machines

LH supports AHD inpatient care in referral hospitals where AHD is frequent

- Extensive inpatients HIV testing services
- Provision of all AHD tests in the ward
- Treatment advice and consultation for the teams
- GeneXpert MTB/RIF as well as CXR facilities are available through the central hospitals
- Ultrasound to diagnose EPTB (FASH scan) is available in all clinics and used for in and outpatients



Trend of Lighthouse KCH AHD services 2020



- PIMA CD4 is regularly used and yield of AHD fluctuated between 40 and 54%
- The number of CrAg and LAM tests approx. mirrors the AHD yield
- The average yield of the reflex-tests was
  - CrAg 20% (range 11-35%)
  - LAM 22% (range 11-42%)
- The changes due to COVID in April onwards reduced service utilization significantly

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AHD lab data – Comparison of the referral level clinics

	PIMA CD4	PIMA CD4 <200	CrAg	CrAg pos	LAM	LAM pos	Yield%	CD4	CrAg	LAM
KCH-LH	977	454	462	94	414	93		46,5%	20,3%	22,5%
Bwaila-MPC	1276	360	343	15	356	41		28,2%	4,4%	11,5%
QECH-Umodzi	1474	598	601	42	637	72		40,6%	7,0%	11,3%
ZCH-Tisungae	881	220	317	33	355	56		25,0%	10,4%	15,8%
MCH-Rainbow	535	167	166	6	236	57		31,2%	3,6%	24,2%

- The large Lighthouse clinics did 5143 CD4 (35% <200), 1889 CrAg (10% pos) and 1998 LAM (16% pos) tests from January to June 2020
- The proportion of patients with AHD differ significantly - highest in LH and Umodzi based in the larger Lilongwe KCH and Blantyre QECH referral hospital
- LH KCH Lilongwe has substantially more CrAg positives while this is very low in Bwaila-MPC (which is mainly a “walk-in” clinic) and Rainbow MCH in the North
- Also LAM positivity is higher in the LH KCH – but surprisingly also high in Rainbow clinic in the North which geographically has a lower TB prevalence in general

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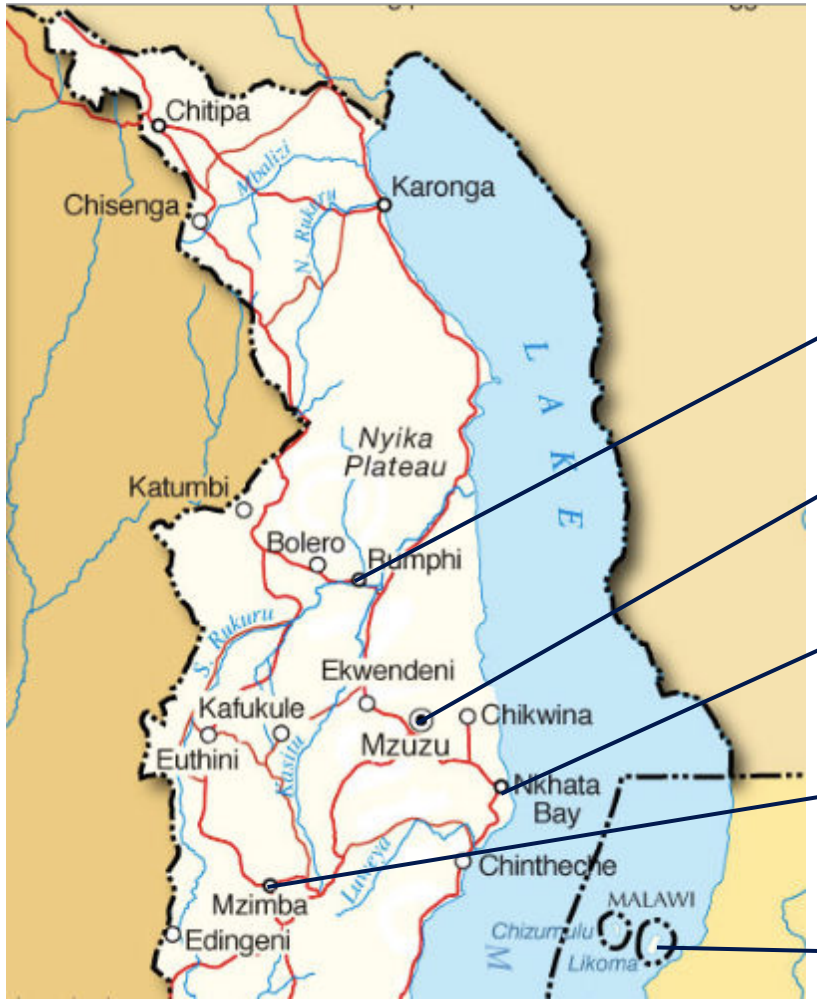
AHD implementation in Northern District Hospitals January-June 2020



CD4 65 (41%) – CrAg 55 (16%) – LAM 70 (11%)

CD4 535 (31%) – CrAg 166 (4%) – LAM 236 (24%)

CD4 41 (32%) – CrAg 18 (6%) – LAM 41 (15%)

CD4 116 (37%) – CrAg 40 (8%) – LAM 51 (20%)

CD4 0 (-%) – CrAg 0 (-%) – LAM 0 (-%)

- Four of five district hospitals operate ADH diagnostics
- Although absolute numbers are smaller in district hospital than in the **referral hospital** the yield is not negligible
- "Remote districts" (Likoma) still pending implementation
- It is planned to roll-out AHD services (PIMA/CrAG/LAM) 13 more rural hospitals in the near future (COVID permit)

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Some considerations on M&E of AHD

- AHD services need to be monitored – but health care workers in ART programs already suffer from overburden of multiple registers
- **"Registeritis = every pet initiative in the clinic needs a special, new register" – DHA estimates that there are an endless line of more than 60 registers for the HIV program alone – "severe registeritis"**

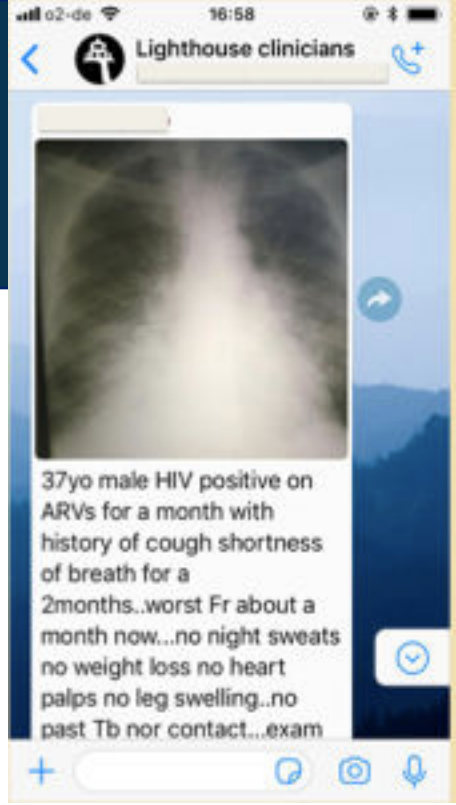
1) AHD cascade for newly initiating in CoEs (excluding inpatient data, excluding patients on ART tested CD4)

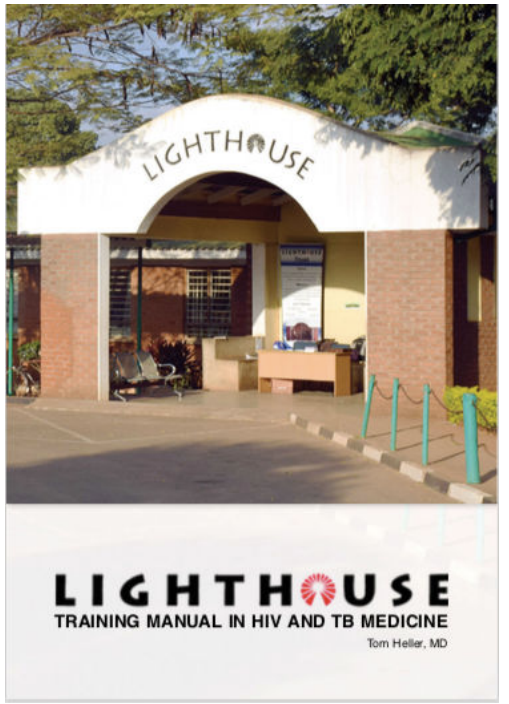
ART_NEW
CD4 test done in ART_NEW
CD4 test done in ART_NEW < 200
CD4 test done in ART_NEW < 200, CrAg done
CD4 test done in ART_NEW < 200, CrAg done, CrAg positive
CD4 test done in ART_NEW < 200, LAM done
CD4 test done in ART_NEW < 200, LAM done, LAM positive
(NB: On demand this data should be available disaggregated by sex and age)

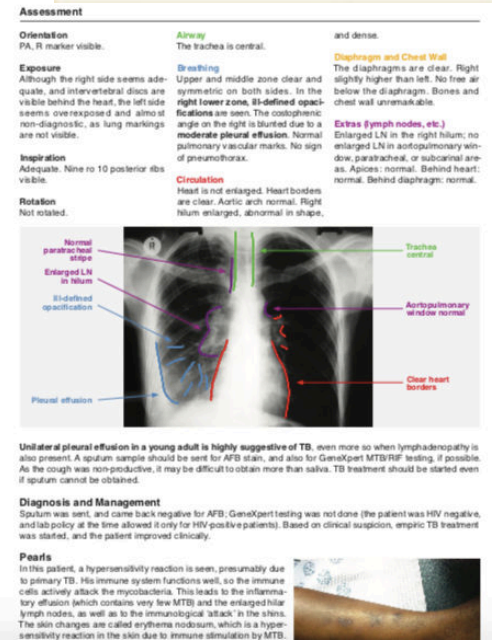
- LH is currently developing a reasonably comprehensive AHD monitoring system from **existing** registers and especially from **existing** electronic data systems (e.g. EMRS, lab machines)
- Transitions between services delivery points e.g. lab-clinic, clinic-hospital make it hard to capture patient data. Therefore we are currently ending our AHD cascade at the CrAg/LAM test **results** (not LP done, treatment given, etc…)
- Data quality is a difficult issue and our clinic and M&E teams are working on this actively

Training considerations for AHD

- Provision of tests is important – but it is equally important to train clinicians and nurses to adequately act upon the results
- Since LH operates clinics far apart, basic telemedicine needs to play an important role
  - WhatsApp clinician group
  - ECHO sessions
- Development of training material for AHD is an ongoing priority for Lighthouse
  - Case manual
  - Chest X-ray manual







Summary

- Lighthouse has a history of AHD care and in the large clinics algorithms are well established
- Proportion of AHD is high and yield of CrAg and LAM is significant
- AHD services can be successfully rolled out in districts and further decentralized services are planned
- M&E and training in AHD are important points of consideration- which should not be forgotten over the provision of the relevant tests

Acknowledgements

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