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Integration across programs- perspectives from a cross-cutting donor

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CQUIN 8th Annual Meeting | December 9-13, 2024 – Johannesburg, South Africa

Why? That Last Mile to Epidemic Control will be the hardest

PEPFAR has aged **20** years. So has our toolbox:

2003:

HIV Treatment:

- Clinical assessments (WHO staging) and CD4 testing to determine ART initiation every 3-6 months
- Complex ART regimens (AZT/3TC or d4T/3TC with EFV, NVP or LPV/r) requiring multiple pills taken twice daily and with significant side effects
- Guidelines required clinicians to assess staging, initiate ART and evaluate success with repeat CD4 tests. Only once CD4 falls below a certain threshold does ART get started.
- Availability of CD4 testing limited; non-existent sample transport networks
- Even with ART, limited life-expectancy due to resistance, toxicity, etc.

HIV Prevention:

- Toolbox Focused on the 'ABC's: Abstinence, Be Faithful, Condoms
- Significant stigma associated with HIV positivity

Rudimentary paper-based M&E tools with few indicators capable of reflecting quality healthcare; significantly deficient logistics systems.

2023:

HIV Treatment:

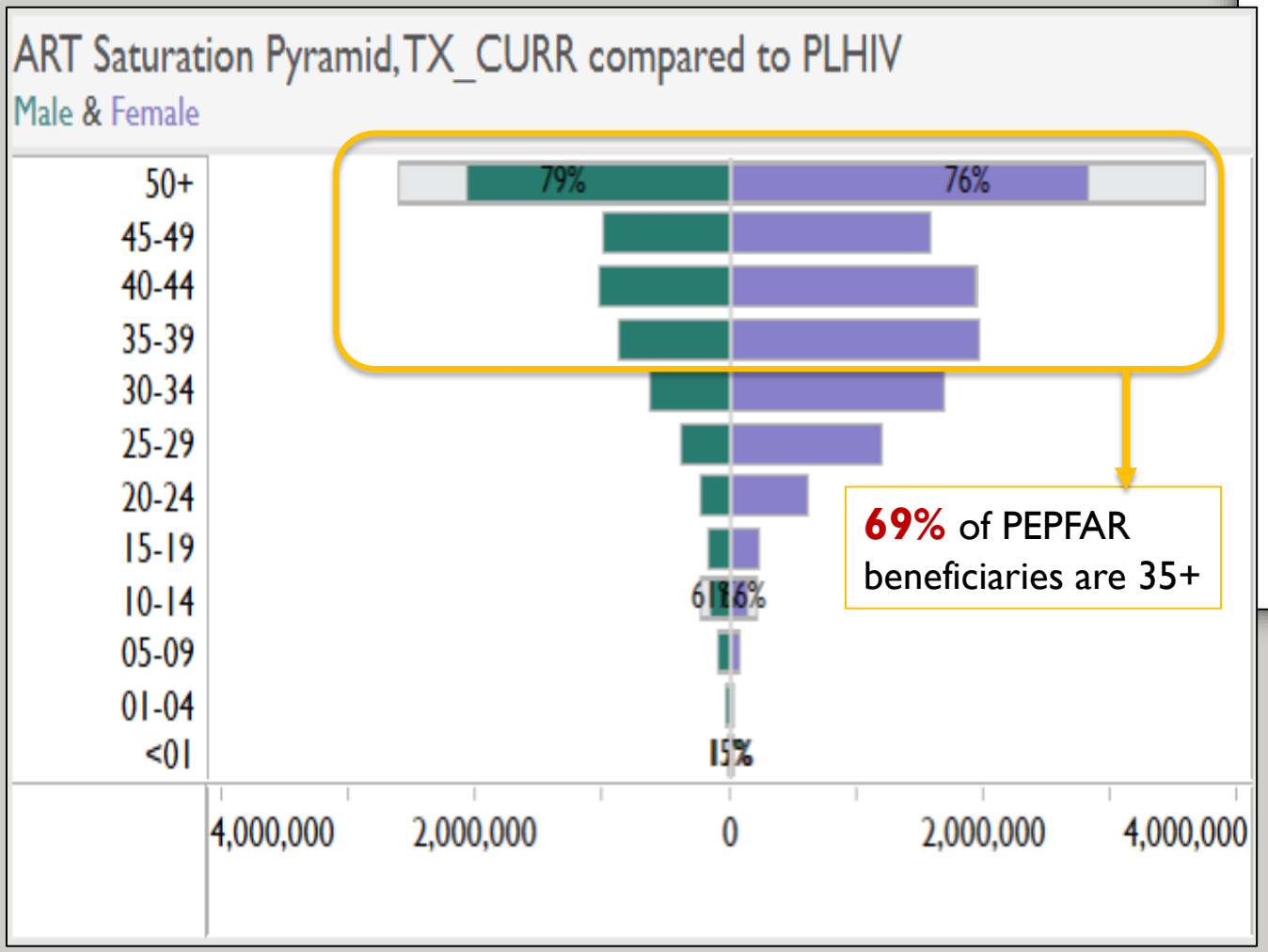
- One pill, once daily with minimal side effects
- One blood test, once yearly (for most)
- Strong sample transport networks

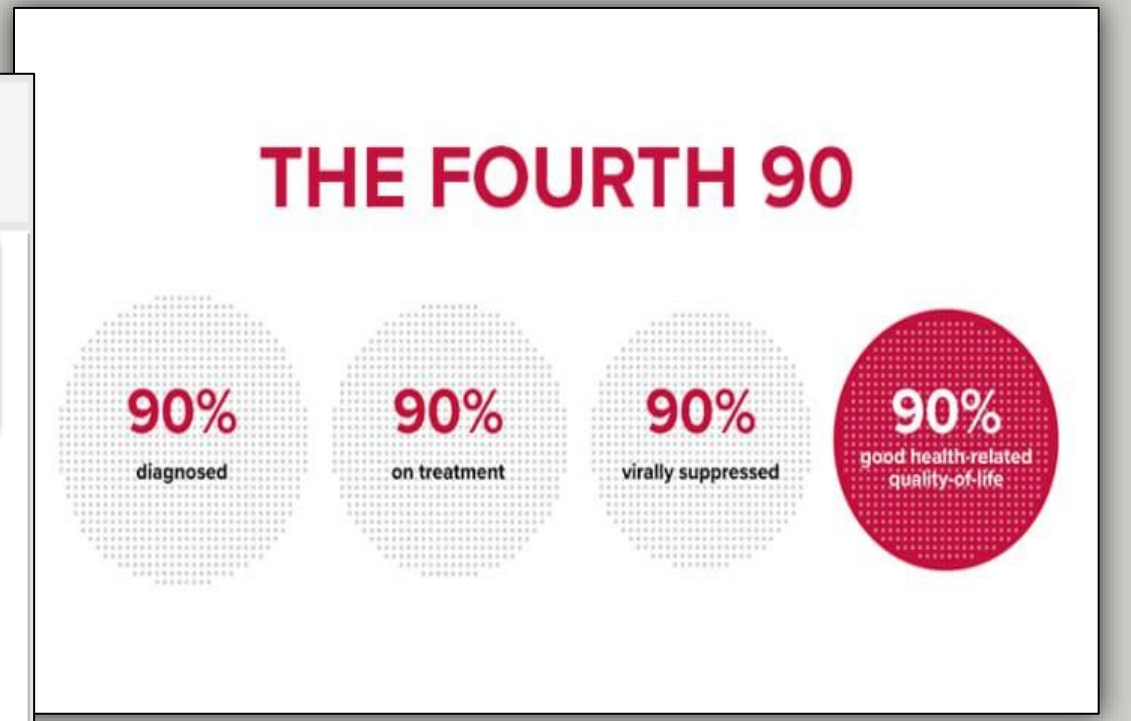
HIV Prevention:

- Simple Oral, on-demand and long-acting PrEP with One-time VMMC
- U=U messaging to help reduce stigma and increase agency

Increasingly digitized and linked/linkable logistics and M&E systems able to track client-level retention and VLS

PLHIV are getting **older** – we need to support the **4th 90** as they do so

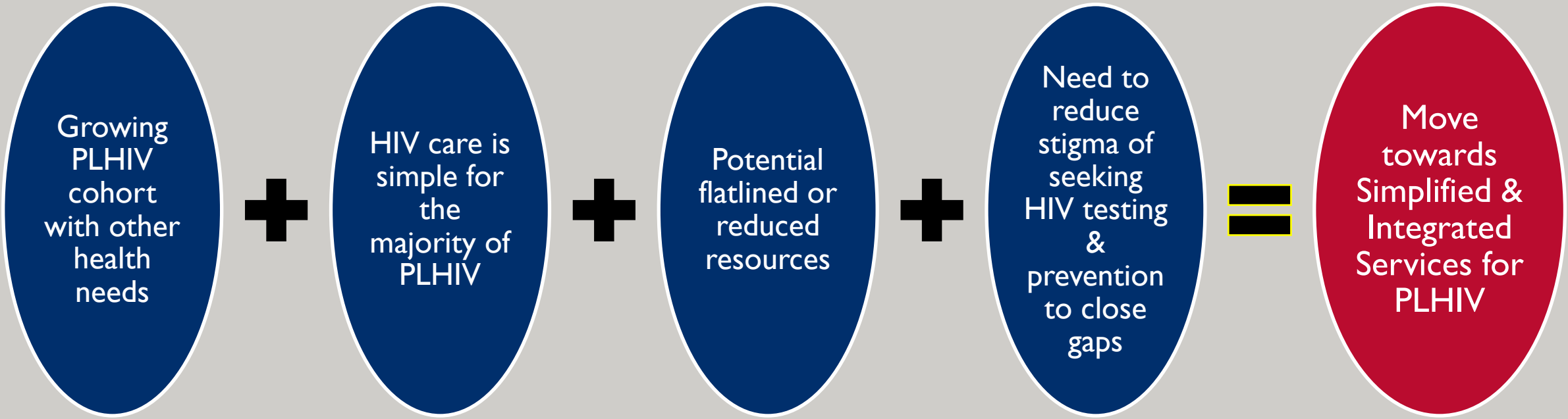




Can We Become More **Efficient**?

- Given the foreseeable financial climate globally, it is reasonable to expect **flat or potentially decreasing** resources available to combat the HIV epidemic.
  - *Disclaimer: Future funding levels have not been set and I have no direct insight. (Statement reflects author's likeliest assessment only)*
- Regardless, our **cohort of beneficiaries on ART will be increasing**, becoming older, and likely facing a higher cost of good compared to 2024.
- Two ways to think about efficiency of a large global program: '***programmatic simplification***' (how we program through IPs), and ***simplification of services*** (which may be even more important).
- If we want to find money for high-impact prevention, health systems work to sustain the impact, and addressing challenging (socioeconomic) drivers of IIT, we need to become even more efficient with HIV clinical services.

Integrated Services can be a pathway to Epidemic Control



As a donor, we can try to align our partners and programs ("programmatic simplification") as part of sustainability efforts, but if it's a high-intensity service delivery model for clients or for HCWs, it *won't* be sustainable for beneficiaries or health systems.

Sure - it all sounds nice…
But won't quality of care suffer?

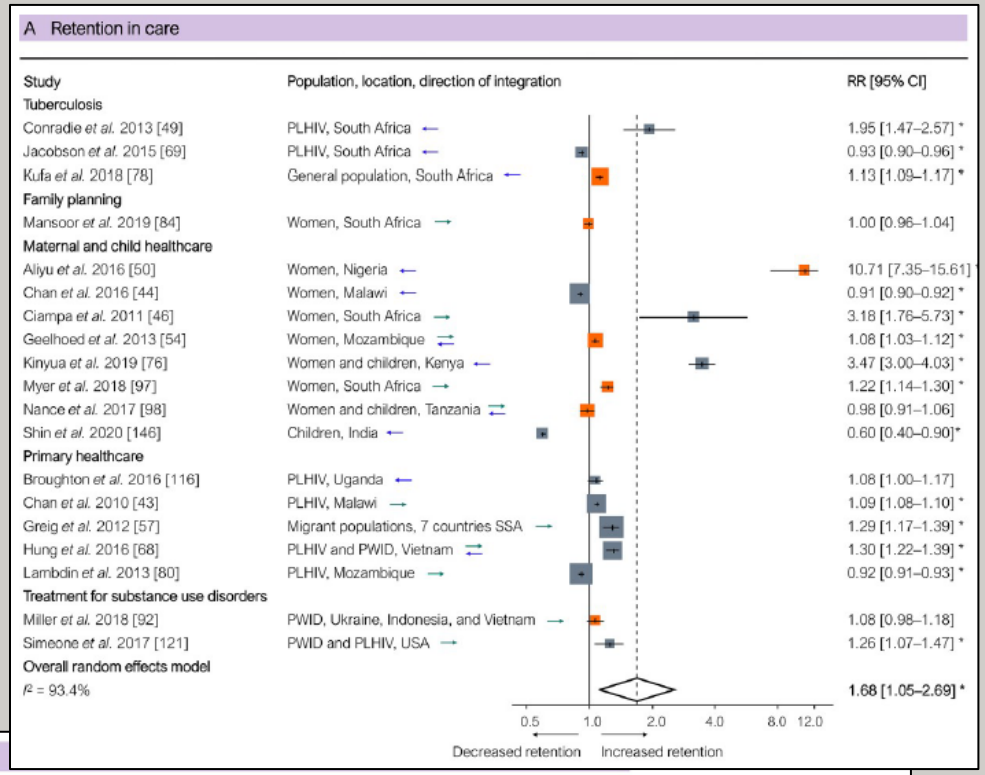
Bulstra, et al[1], meta-analysis of 90 trials of HIV integration in sub-Saharan Africa demonstrated that integrated services tended to improve outcomes in HIV care:

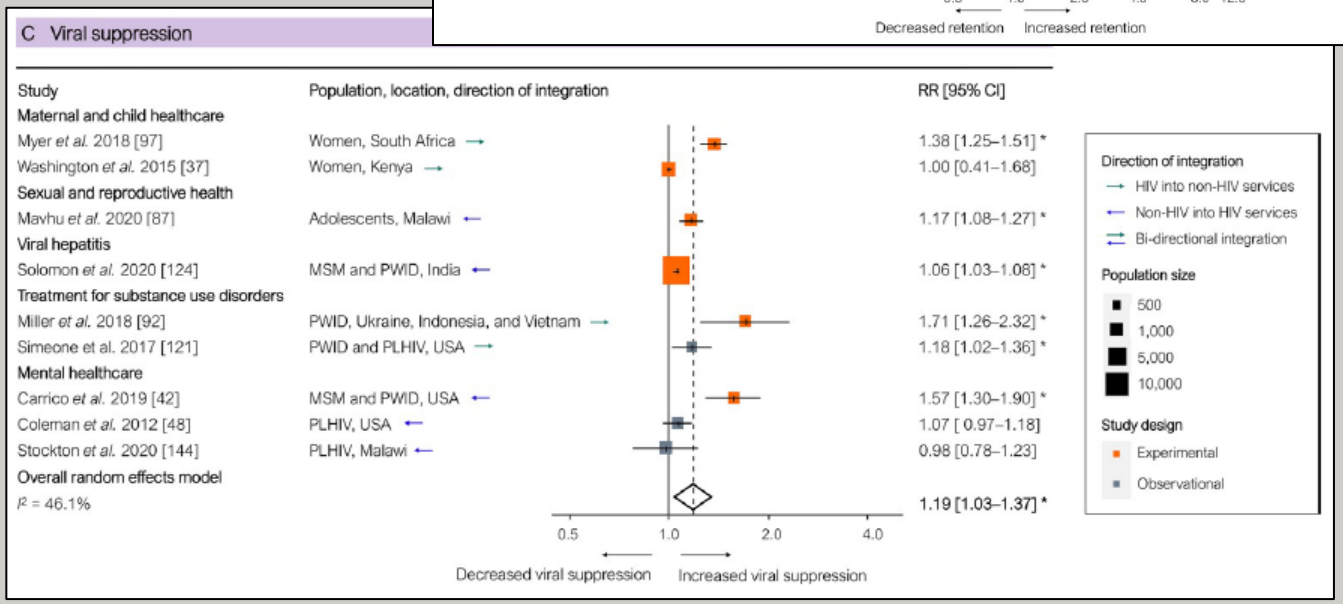
- Improved uptake of HIV testing
- Improved uptake of ART
- Reduced time to ART initiation
- Improved retention in care
- Improved viral suppression

Integrated HIV and primary health care models were also found to improve primary health outcomes:

- In addition to references below, check out this CROI 2022 webcast: https://www.croiwebcasts.org/console/player/50098?mediaType=slideVideo&

And remember, we have the tools to monitor quality of care as we integrate





1. Integrating HIV services and other health services: A systematic review and metaanalysis. Bulstra, et al. PLOS Medicine. Nov 2021. https://doi.org/10.1371/journal.pmed.100383.

2. Integrating Global HIV services with Primary Health Care: A key step in sustainable HIV epidemic control. Goldstein, et al. Lancet Global Health, 2023.

Sure - it sounds nice (part 2)…
But will it really help us reach epidemic control?

The **Family Health Strategy (FHS)** in Brazil:

- Empanelment of ~3500 people living near local health centers
- Multidisease preventive & curative care by a physician, nurse & CHWs
- CHW (often lives in community) visits households monthly

2024 Analysis compared municipalities with full (100%) FHS coverage to areas with low (<20%) coverage (but still had health centers):

- **24%** Reduction in AIDS Incidence (RR 0.76, CI=0.68-084)
- **32%** Reduction in AIDS mortality (RR 0.68, CI=0.56-0.82)
- Controlled for as many risk factors as possible

PLOS MEDICINE

RESEARCH ARTICLE

The impact of primary health care on AIDS incidence and mortality: A cohort study of 3.4 million Brazilians

Priscila F. P. S. Pinto[1,2], James Macinko[3], Andréa F. Silva[1,2], Iracema Lua[1,2], Gabriela Jesus[1,2], Laio Magno[4], Carlos A. S. Teles Santos[5], Maria Yury Ichihara[2], Mauricio L. Barreto[2], Corrina Moucheraud[3], Luis E. Souza[1], Inês Dourado[1], Davide Rasella[1,5]*

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Citation: Pinto PFPS, Macinko J, Silva AF, Lua I, Jesus G, Magno L, et al. (2024) The impact of primary health care on AIDS incidence and mortality: A cohort study of 3.4 million Brazilians. PLoS Med 21 (7): e1004302. https://doi.org/10.1371/journal.pmed.1004302

Academic Editor: Elvin Hsing Geng, Washington University in St Louis School of Medicine, UNITED STATES OF AMERICA

Received: September 24, 2023

Accepted: May 22, 2024

Published: July 11, 2024

Data Availability Statement: All data supporting the findings presented were obtained from the Centro de Integração de Dados e Conhecimentos para Saúde (CIDACS). Importantly, restrictions apply to access to the data, which contains sensitive information, were licensed for exclusive use in the current study and, due to privacy regulations from the Brazilian Ethics Committee are not openly available. Upon reasonable request and with express permission from CIDACS (mailto cidacs.coordoria@fiocruz.br) and approval from an

Abstract

Background

Primary Health Care (PHC) is essential for effective, efficient, and more equitable health systems for all people, including those living with HIV/AIDS. This study evaluated the impact of the exposure to one of the largest community-based PHC programs in the world, the Brazilian Family Health Strategy (FHS), on AIDS incidence and mortality.

Methods and findings

A retrospective cohort study carried out in Brazil from January 1, 2007 to December 31, 2015. We conducted an impact evaluation using a cohort of 3,435,068 ≥13 years low-income individuals who were members of the 100 Million Brazilians Cohort, linked to AIDS diagnoses and deaths registries. We evaluated the impact of FHS on AIDS incidence and mortality and compared outcomes between residents of municipalities with low or no FHS coverage (unexposed) with those in municipalities with 100% FHS coverage (exposed). We used multivariable Poisson regressions adjusted for all relevant municipal and individual-level demographic, socioeconomic, and contextual variables, and weighted with inverse probability of treatment weighting (IPTW). We also estimated the FHS impact by sex and age and performed a wide range of sensitivity and triangulation analyses; 100% FHS coverage was associated with lower AIDS incidence (rate ratio [RR]: 0.76, 95% CI: 0.68 to 0.84) and mortality (RR: 0.68, 95% CI: 0.56 to 0.82). FHS impact was similar between men and women, but was larger in people aged ≥35 years old both for incidence (RR: 0.62, 95% CI: 0.53 to 0.72) and mortality (RR: 0.56, 95% CI: 0.43 to 0.72). The absence of important confounding variables (e.g., sexual behavior) is a key limitation of this study.

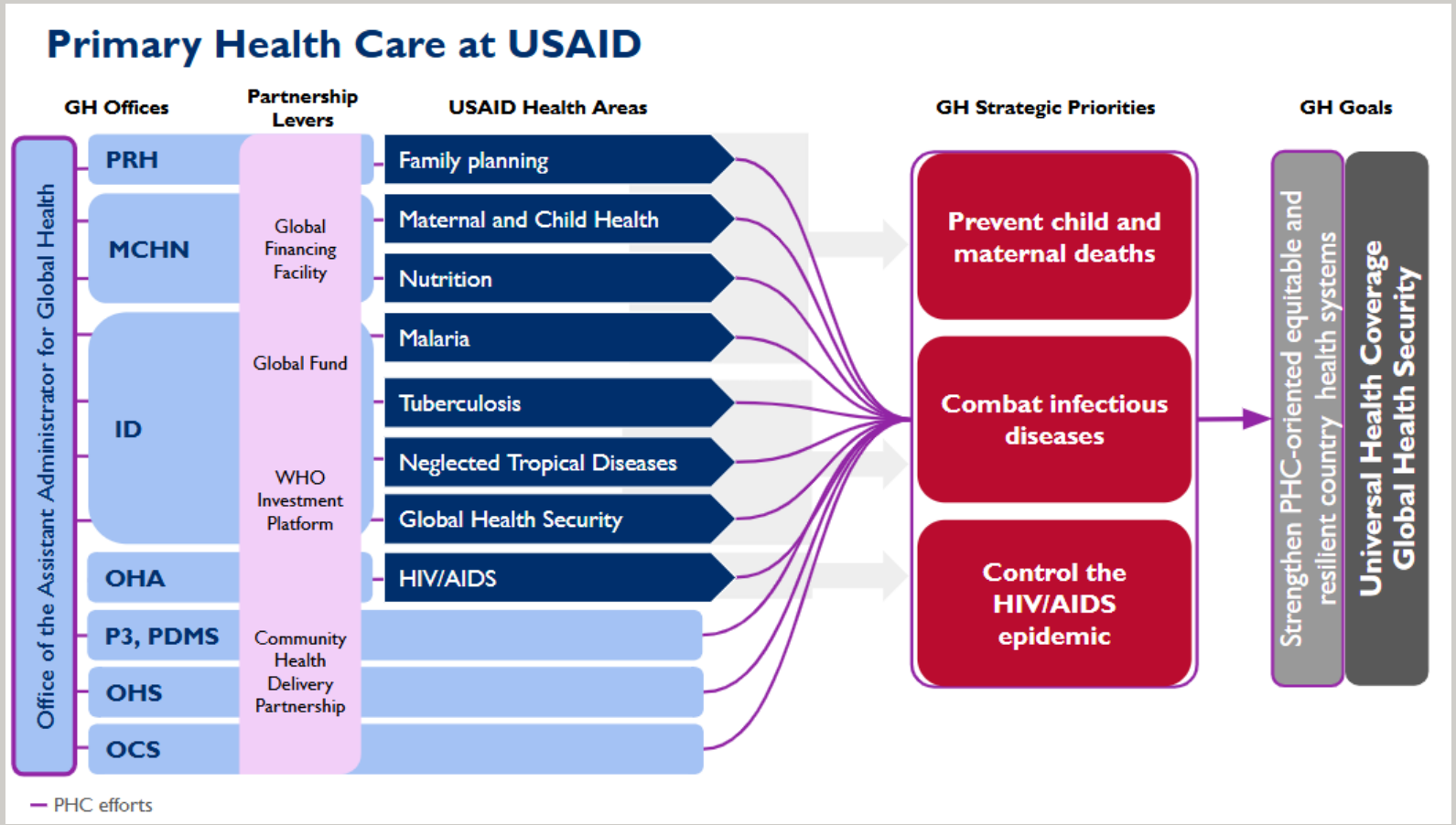
The impact of primary health care on AIDS incidence and mortality: A cohort study of 3.4 million Brazilians. Pinto, et al. PLOS Medicine. July 20204. https://doi.org/10.1371/journal.pmed.1004302

Essential Elements for Successful HIV services

- Simplified person-centered services
- Appetite for and rapid adoption of innovations
- Community leadership and engagement
- Skilled workforce
- Attention to social determinants of health
- Tackling stigma and discrimination
- Sustainable supply chains
- Cross-sectoral guidance
- Continuity care

Slide courtesy of Wafaa El-Sadr, Plenary

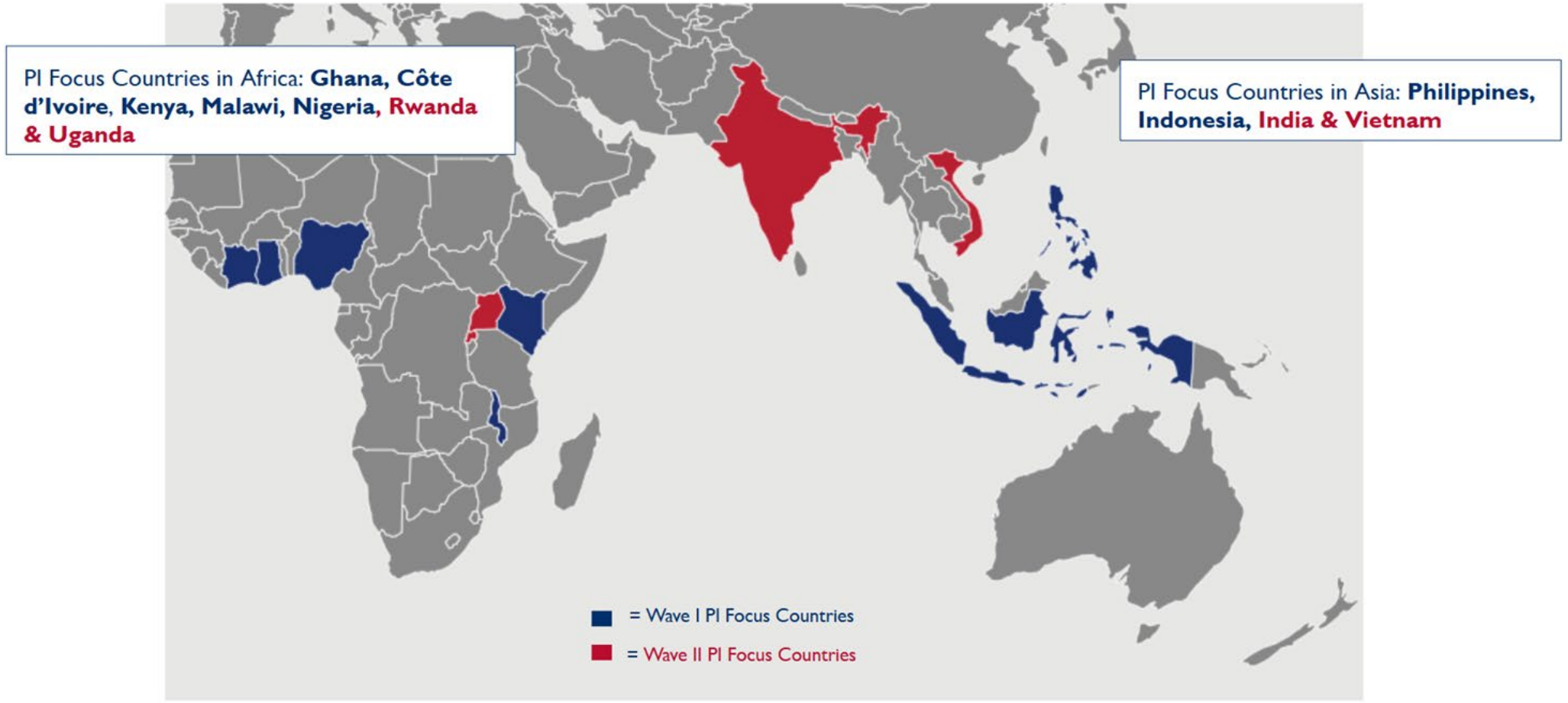
USAID's "Primary Impact" Efforts



- USAID is taking a deliberate approach across all the health areas we support to better coordinate across disease areas and strengthen service delivery for those core strategic priorities at the PHC level

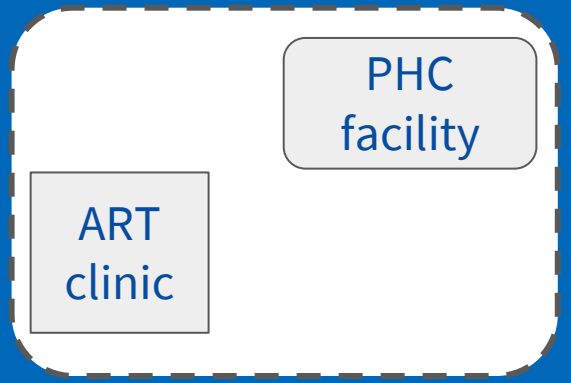
- This involves better integration at service delivery points, and creating stronger, more integrated health systems.

USAID Primary Impact Wave 1 and Wave 2 Countries



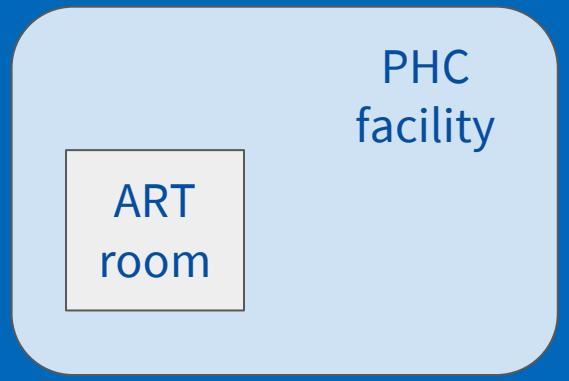
Different models of service integration

Separate services



Separate structures, separate clinicians.

Co-located services



One room in PHC facility for ART clinic. Separate staff, separate services.

Partial program integration

CHWs provide home ART and MH screening

OR

ART clinicians provide HIV services and hypertension treatment

2 or more services are delivered in the same place, by the same staff, but not as part of comprehensive package of care.

Integration of HIV services with PHC

Fully integrated ART services within primary health care

Same place, same time, same provider.
All PHC and ART services available in all consult rooms and provided by all clinicians. Same EMR. Shared pharmacy, lab.

Example: Rushere Community Hospital, Uganda

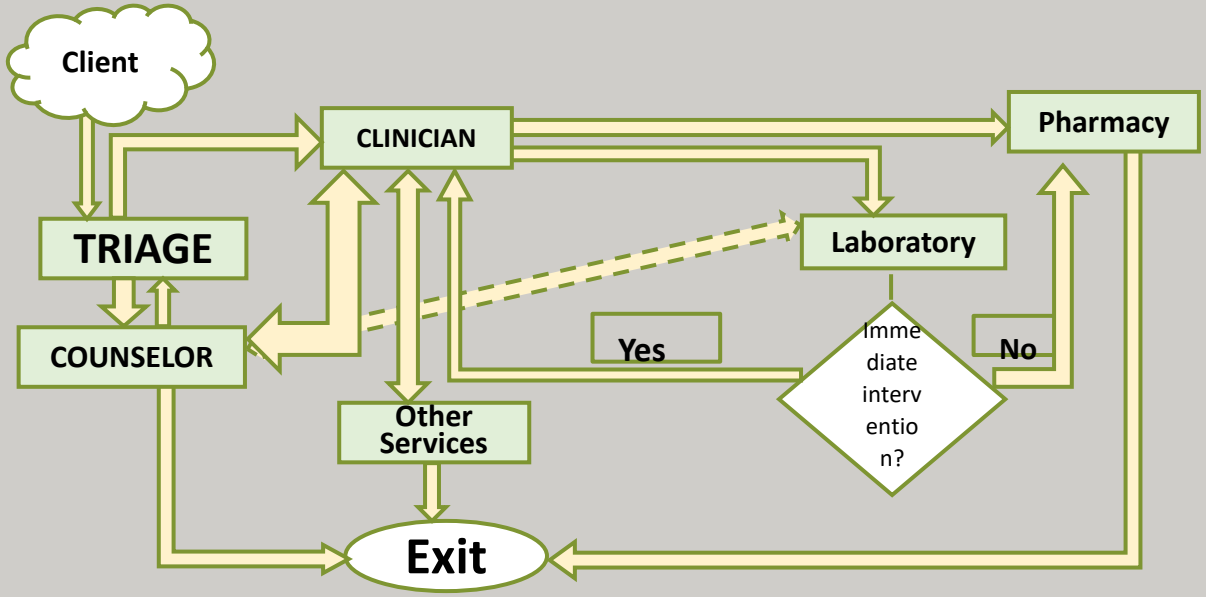
Private, nonprofit hospital (ART cohort=1580) previously with an **HIV clinic offered on designated days**, causing:

- Missed opportunities for HIV and TB case identification
- PLHIV having to return multiple days for different services
- Staff shortages in ART and OPD clinics
- Stigma

June, 2023: RCH conducted a service quality analysis of ART clinic including client flow, workload, and service needs; compared data with OPD to determine necessary adjustments:

- **Merged ART clinic with OPD services**

Now all clients regardless of HIV status are issued medical cards with unique identifier for tracking, and all clients are seen in the same setting.



Results:

- Improved health workforce efficiency - same staff manage ART & OPD
- Only additional cost was training/CME- conducted 5-day facility-based training for all health facility staff ($1,750)
- HCW salaries aligned to the hospital structure payroll. Staff rotate through different units with same expectations of service delivery.
- No new staff were hired but assigned roles to facilitate integration: 1 doctor to oversee OPD/ART integration; 1 doctor for MCH/ART integration; a counselor, a supply chain officer; 2 midwives, 2 clinicians.

Example: Mirugi Kariuki Health Center, Nakuru County, Kenya

Leadership of this Health Center decided in **Q2FY23 to move HIV services and PEPFAR staff from stand-alone building into the outpatient department.**

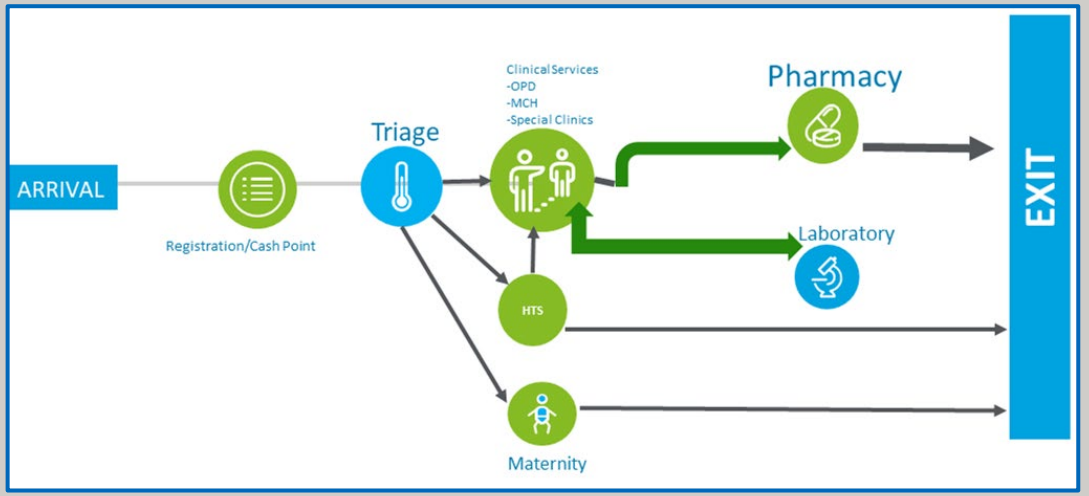
- Patient flow mapped for all clients (both HIV and non-HIV clients)
- Clients are registered, triaged and seen by a clinical officer in a single care path; all health needs addressed by same clinical officer at the same visit.

Efficiencies:

- More providers available to handle walk-in concerns from PLHIV (in addition to other services).
- All staff, regardless of funding source, contribute to efficient service delivery (no more coverage gaps and workload imbalances).
- PLHIV have ALL their health needs addressed by the same clinical officer at the same visit.

Cost-Impact: no additional donor resources required.

Stigma reduction



Mirugi Kariuki				
	FY21	**FY22**	**FY23**	**FY24**
VLC overall	79%	24%	77%	77%
VLC peds	85%	83%	85%	85%
VLS overall	97%	98%	98%	98%
VLS peds	89%	92%	98%	100%
IIT overall	1%	0	9%	0
IIT peds	0	0	0	0

Example: District Health Posts in Central & Copperbelt, Zambia

"One waiting area, one clinic room, one provider, one pharmacy, one lab"

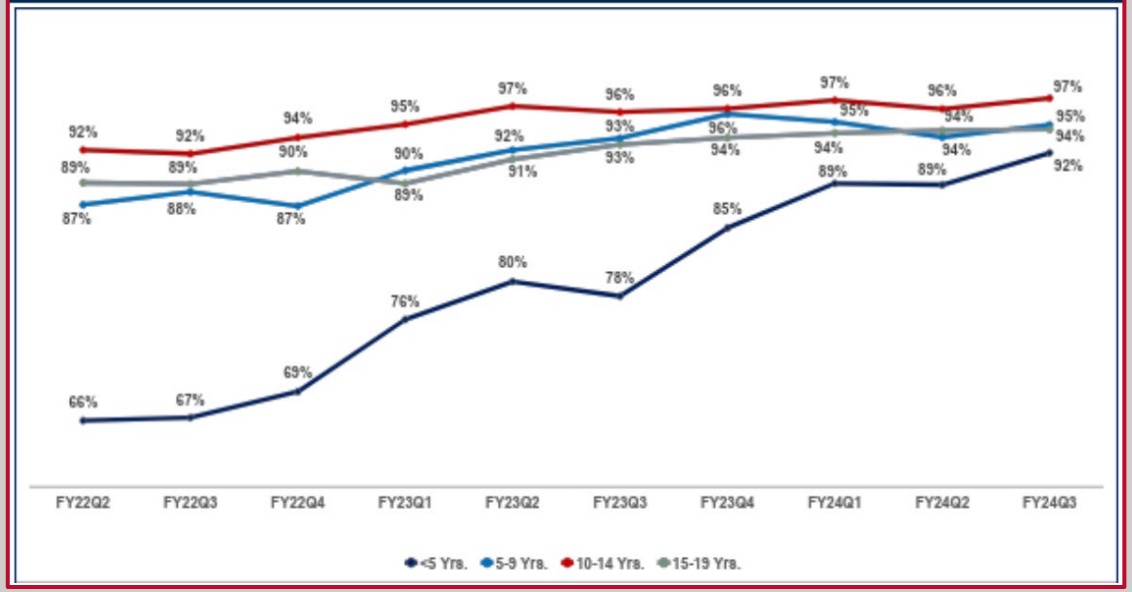
Due to the limited infrastructure and HCW available, these 187 urban, peri-urban and rural district health posts **integrate staffing and services**

- All facilities offer basic health promotion/disease prevention and TB/MNCH/FP/RH, HIV services at one time.

All providers are cross-trained:

- Initially, all staff were PEPFAR-funded through DISCOVER-H. But now MoH assigns and places staff at these health posts
- DISCOVER-H trains MoH providers in HIV care and still supports cross-trained CBVs

FY22-24: VL Suppression among Pediatric ART clients



Q3FY24: TX_CURR 82,747

Overall: IIT 0.5%, VLC 92%, VLS 98%.

Peds: IIT 0.6%, VLC 92%, VLS 96%.

Example: Mbale Region, Uganda:

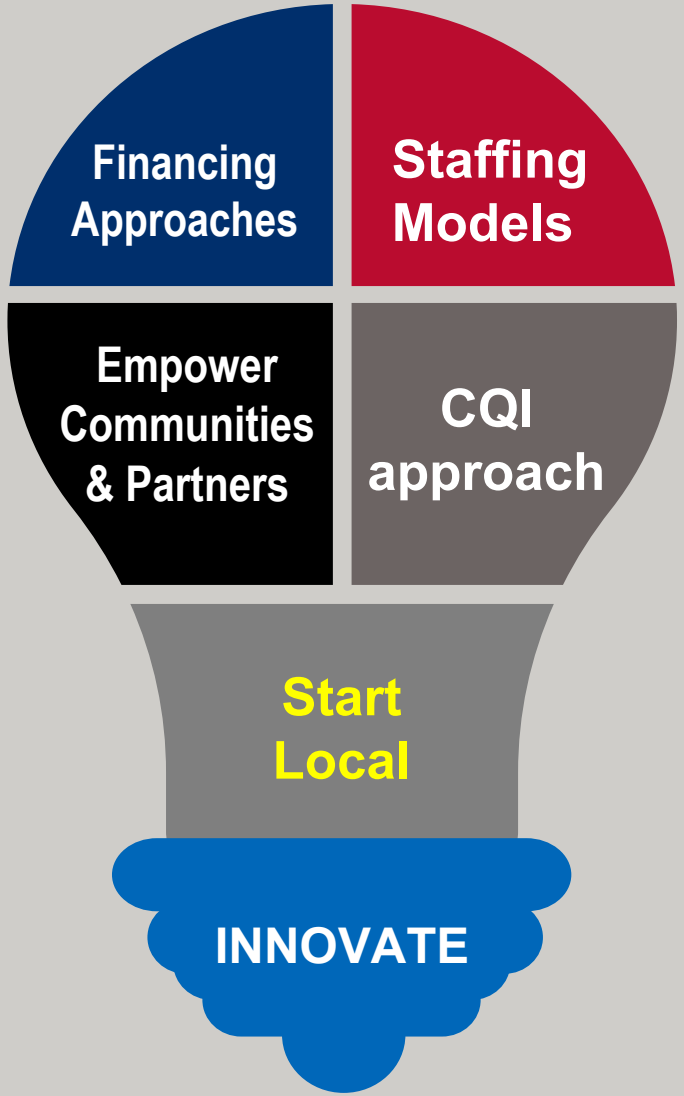
Many elements need to be considered to make this work

Themes	Common Observations & Actions across Mbale RRH, Bufumbo HCIV & Bunapongo HCIII
Governance	▪ Identifying focal person in charge of the integrated clinic ▪ Defined staff roles
Human resources	▪ Initial cross-training of all staff – training NCD staff in HIV care and HIV staff in NCD care. ▪ Supplemented with ongoing (weekly?) CPD sessions and mentorship ▪ Developing staffing schedules for the integrated clinics – typically resulted in more HF staff able to handle HIV issues on non-HIV clinic days (at smaller facilities).
Supply chain	▪ Inadequate NCD commodities a common theme
Data Management	▪ Need to create improvised tools to capture NCD and HIV data ▪ Frequently using unique identifiers for HIV+ clients, but names for NCD-only clients
Infrastructure	▪ Required assessment of existing infrastructure and detailed plan for where and when integrated clinics would occur, as well as how patient flow would work.
Service delivery	▪ Rebranding of ART clinics as Chronic Care Clinics (CCC) → helps reduce stigma, and increase clinic attendance. ▪ Minimum package of care defined including Appointment tracking and patient education across diseases ▪ Created client flow charts for management of both HIV and NCD clients ▪ Use of a hub and spoke system between Mbale RRH and lower level health centers. ▪ Sample referral and creation of dedicated 'satellite' labs and pharmacies.
Quality improvement	▪ Teams set up regular meetings to discuss client feedback and results.

What have we learned?

Local factors will determine what integration and staffing patterns look like - even across facilities within a country:

- **Epidemiology (e.g. what about HCV? Pattern of NCDs?)**
- **HIS**
- **HRH renumeration & cadres**
- **Financing models**
- **Existing Infrastructure**



What it should look like:

- Empower partners to innovate with staffing models to deliver HIV results - what is the right spread between community & facility?
- Salary alignment & cross-training allows more providers to handle HIV
- Use CQI approaches to design and modify new models
- Evaluate HIV outcomes
- Think local: While the national level can set the *framework*, development and innovation at the *local level* (from communities and local health leaders) will make it succeed – and can inform the national picture.

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Thank You!