The CQUIN Learning Network

Patients at High Risk:
Innovations and Experience

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HIV LEARNING NETWORK
The CQUIN Project for Differentiated Care

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Outline

- What the University of Maryland has done/ does towards improved management of patients at risk of poor outcomes in Kenya
- How UMB has implemented the clinic-based recommended interventions
- Impact of the interventions – examples

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Training/mentorship towards improved patient outcomes (2009-15; 2017-22)

- Sustainable model for in-service training – moving training from hotels to the workplace
  - *National Integrated HIV Training Manual*
    - Competency based, self learning, facility based training; reduced cost of training by 90%
- National system for training coordination and quality management
  - National HIV Clinical Support Center
  - Training database
- Unit of Clinical Infectious Diseases
  - UON, Department of Medicine
  - Sustainably support education, policy, research, practice
- Faculty training in Innovative Teaching Methodologies
  - >300 faculty trained, 6 universities,
  - Medical education unit established in 1 university

UMB Approach to Management of at Risk Patients – Patient-centered Care

UMB HIV Prevention, Care and Treatment Program Kenya (n=86000 patients)

Nairobi (50 Facilities 2010-21)

Kisii (109 Facilities 2016-21)

Migori (73 Facilities 2016-21)

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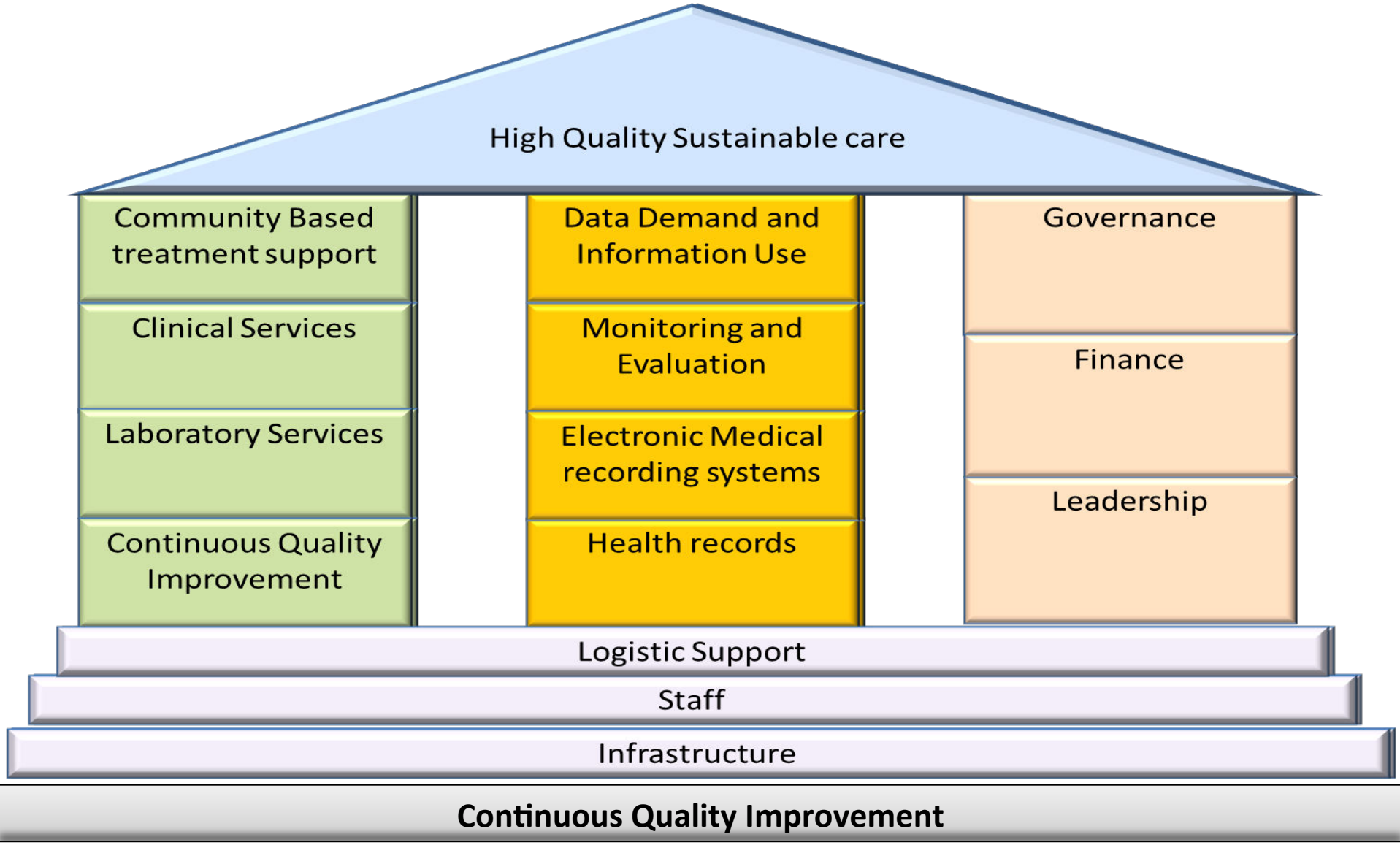
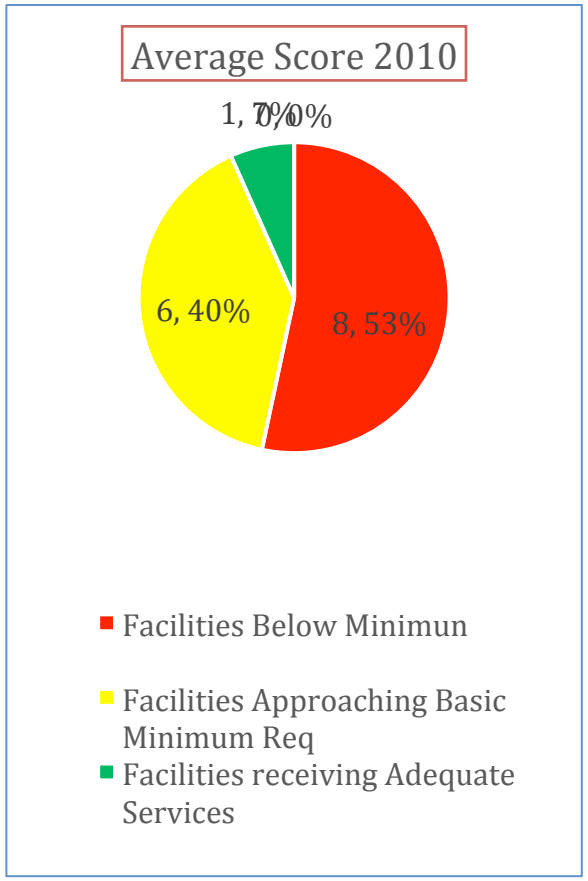
The Strategy: Whole System Orientation

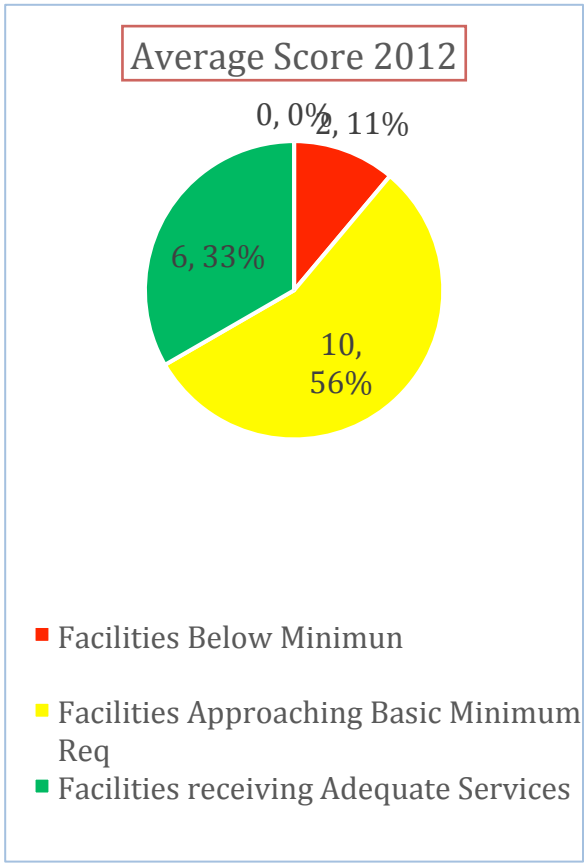


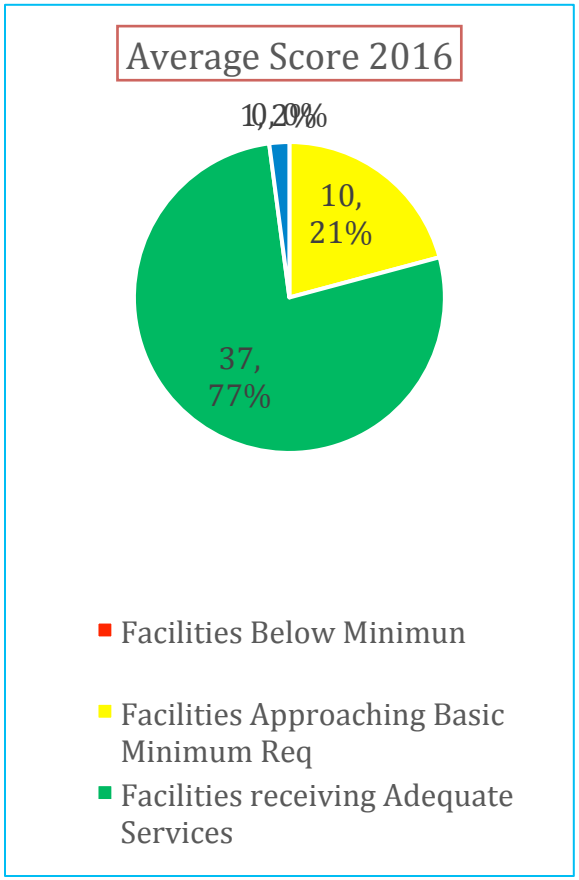
Whole system orientation: key components

- **Working with county management and technical leadership** through multi-competency technical advisors team and clinical systems and services improvement specialists with the objective of knowledge translation and skills transfer
- Baseline systems and service **assessment** that guides project strategy development and implementation
- Developing and institutionalizing **quality improvement capacity** at leadership/supervisory and service level
- Providing access through **functional data management systems/EHR** to routine patient care process and outcomes data, and developing capacity for use of data for improvement of services and for decision making (leadership and service levels)
- Comprehensive capacity building for health care work teams - integrated in-service training and mentorship; MDT
- **Clinical care delivery/chronic care systems** development
- **Patient case management** – patient centered care
  - Includes population-specific protocols, care navigation within/between facilities and using community-facility linkages; MDT case discussion and care planning; accounting for each individual

Average SCA score for facilities assessed: UMB_Nairobi







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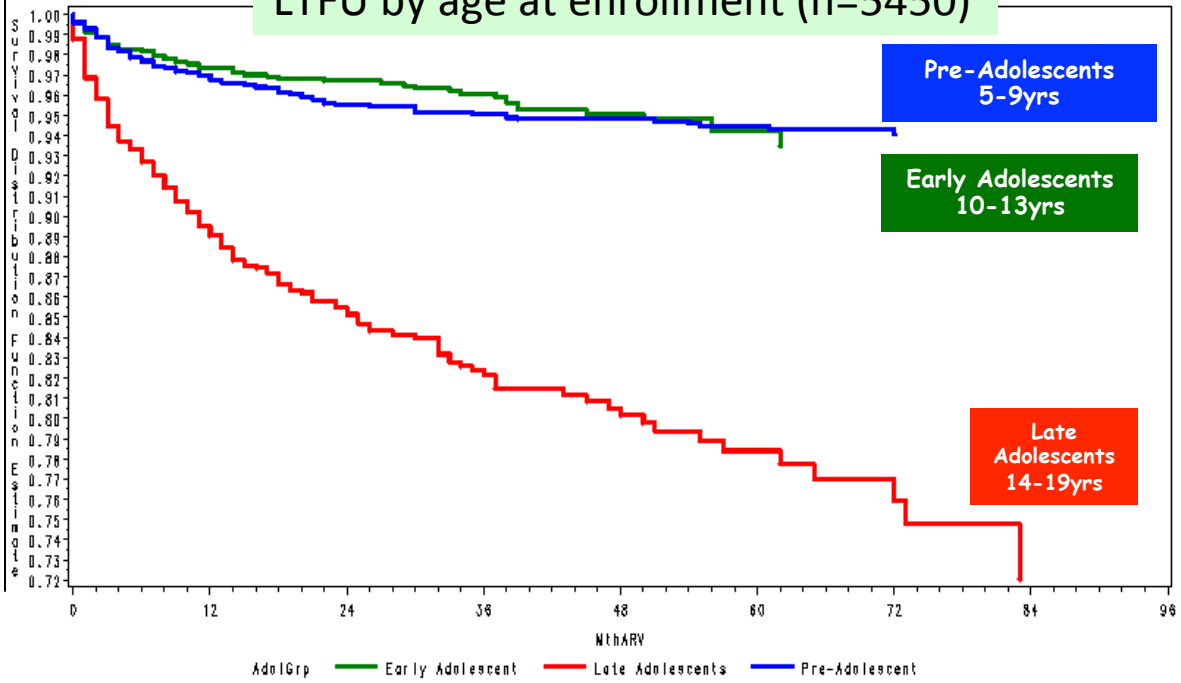
Care delivery systems- Strategic information

Evolution of Strategic information in PACT supported sites

LTFU by age at enrollment (n=5450)



Pre-Adolescents 5-9yrs

Early Adolescents 10-13yrs

Late Adolescents 14-19yrs

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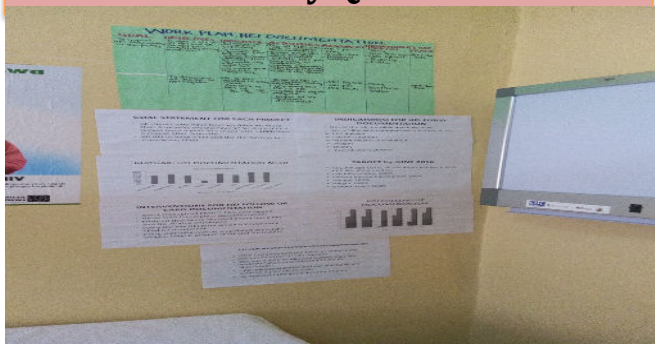
Service team: capacity for self-assessment and improvement

- Work as a multi-disciplinary team
- MDT meetings with minutes – data and case reviews
- Capacity for and active QI interventions based on site level outcomes and national and program indicators
- Clear roles for team
- Facility leadership
- Patient engagement

Facility QI Plan



Performance Monitoring Charts

Effective triage – central

- Adequate staff
- Managed appointment diary (line lists for attention)
- Vitals recorded and used
- Cough triage
- Patient engagement

Track	Category of Patients	Pathway
Yellow	• Coughers • TB on first 2 months of TB treatment • "Poorly"/ unstable vitals • Same day RX	Clinician/no waiting
Green	Priority patients	Special clinic days; short TCA; out of hours clinics
Blue	Fast track stable patients	Drugs direct; service direct;

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Case management of patients at risk of poor outcomes

Identify of at risk patients

- Patient prioritization – SOP (who is most likely to be LTFU/ die?)
  - Newly diagnosed
  - Newly enrolled on ART
  - Severely unwell/active co-morbidity
  - Adolescent especially those enrolled after age 13 years
  - Pregnant women
  - Pediatric
  - Viremic

Case management

- Case management provided – each patient has an assigned case manager (Clinic-based/CHV – assigned area; rewarded for positive outcome)
- Clinical case-management through:
  - Patient track
  - "special" clinics
    - PMTCT
    - Peds; adolescents
    - Viremia
- MDT; patient referral

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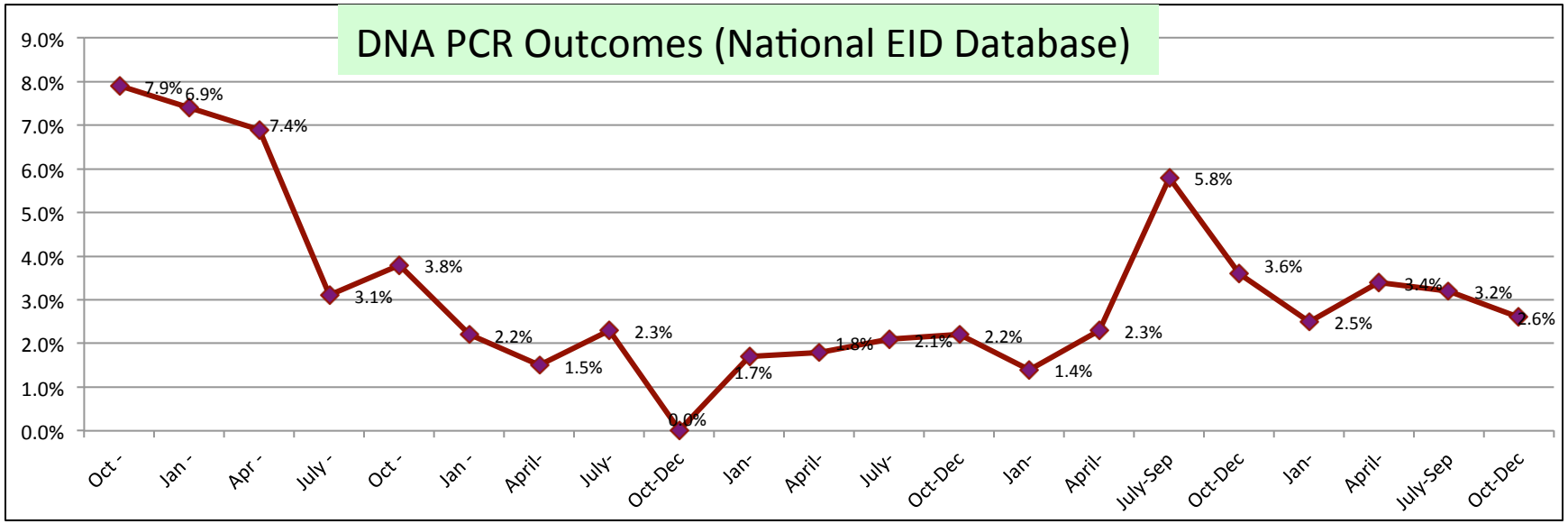
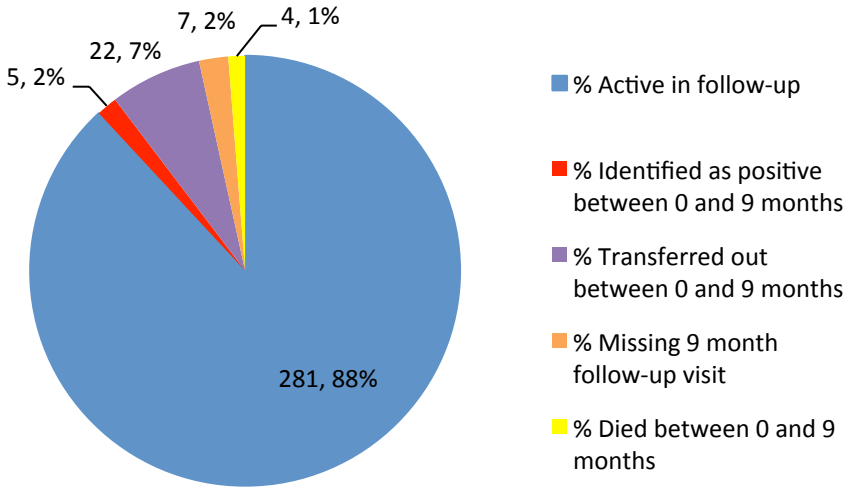
PMTCT Outcomes (to Dec 2016)

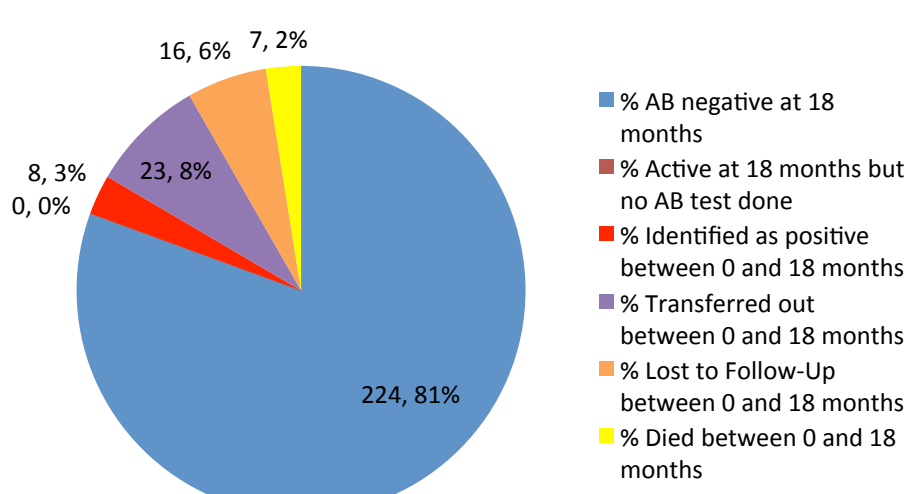


9-month cohort (Oct-Dec 2015)



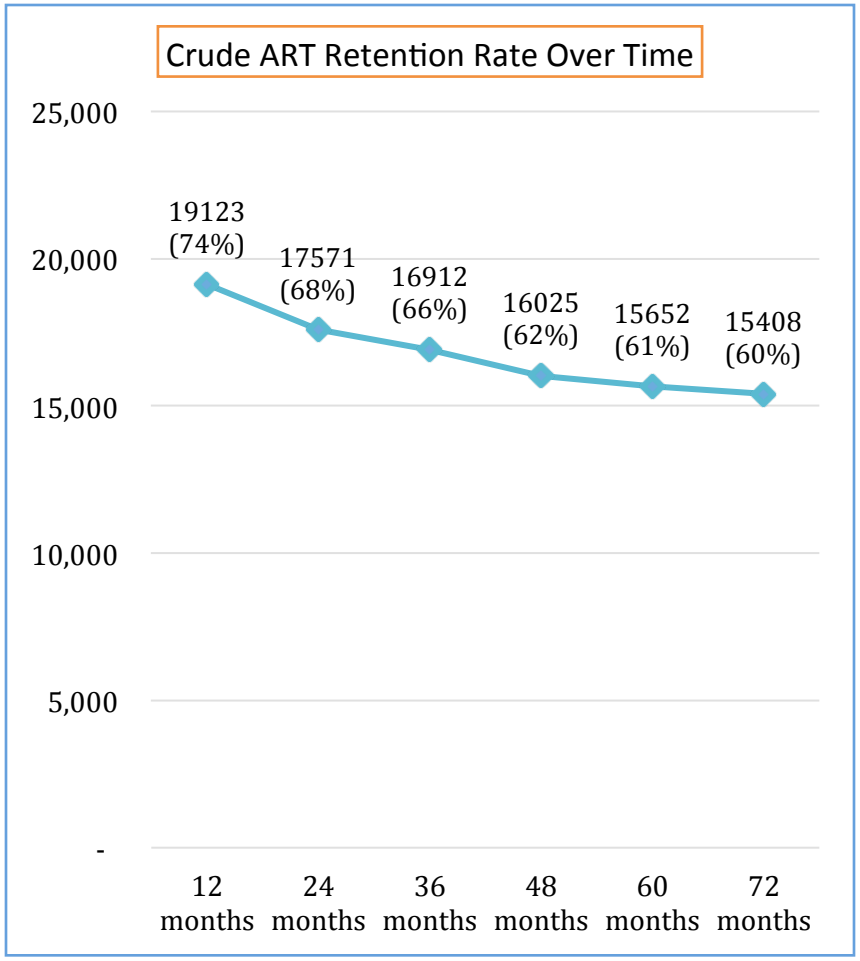
97% adjusted retention at 9 months

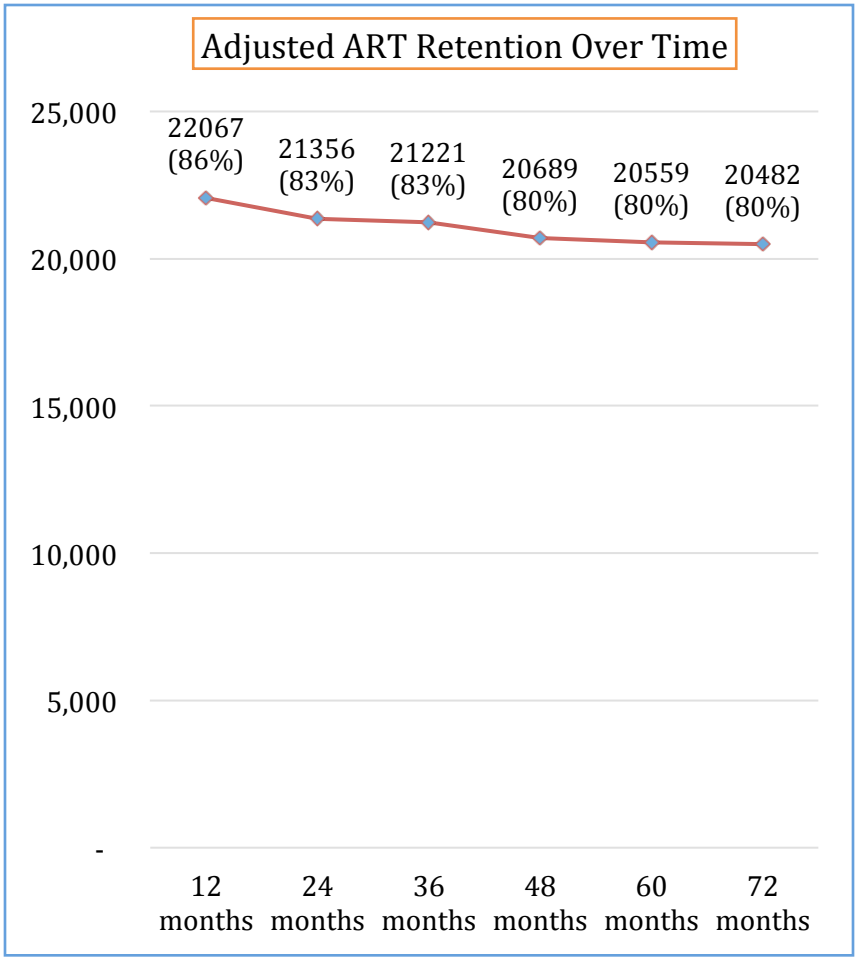
18-month cohort (Oct-Dec 2014)



92% adjusted retention at 18 months

ART Clients' Retention over a 72 Months' of Follow-up Period (Urban Setting) *(n=22 CCCs, n=25,704 Clients)*





We lost 6,581 (26%) and 8,133 (32%) patients within the 1st and 2nd year of ART start, respectively. Notably, the highest attritions happen within the 1st 24 months of ART start. Thereafter, the attritions decline considerably from year 4.

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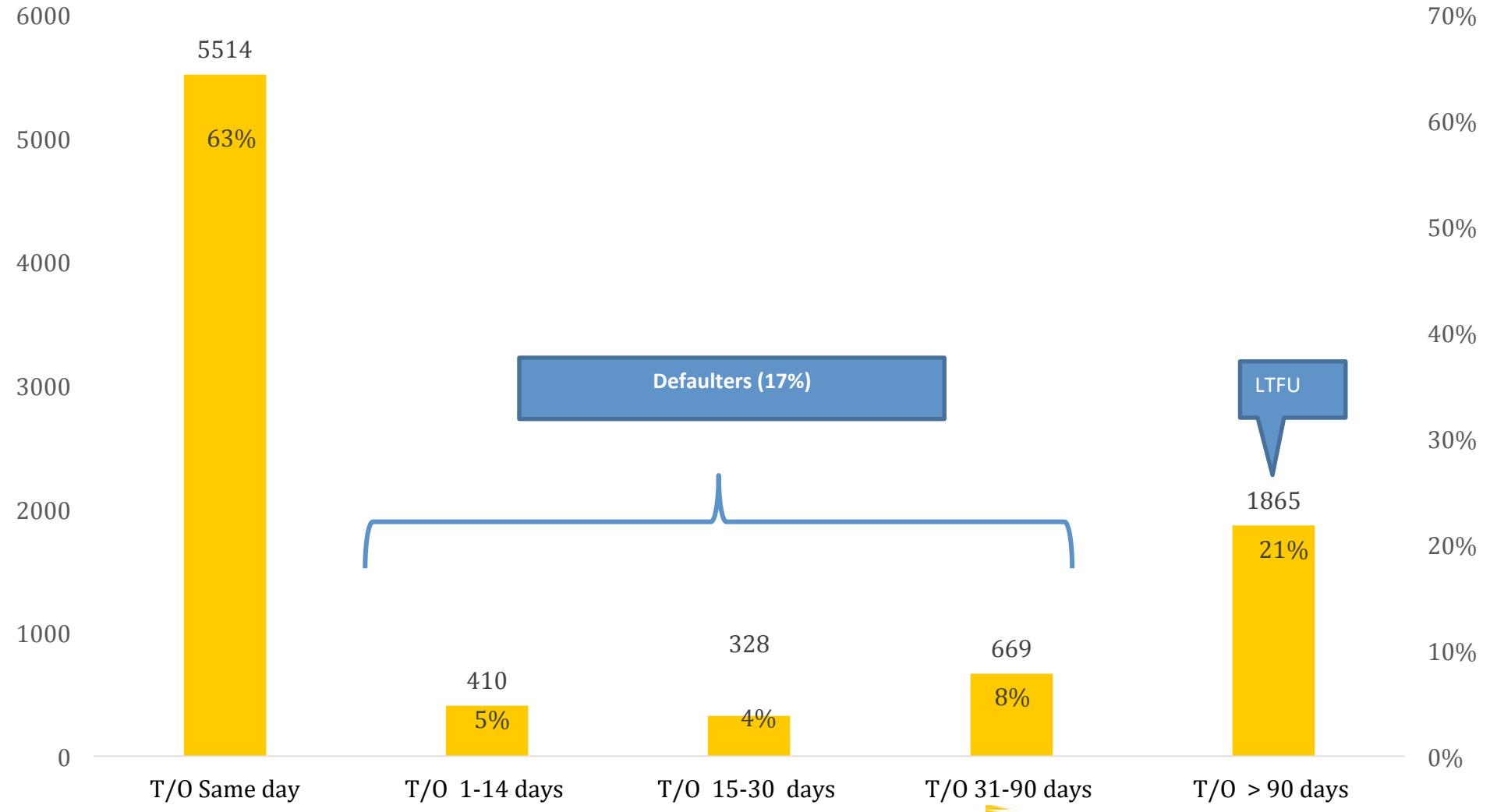
Audit of the Transfers-Out (TO) from the Last Clinic Visit

(n=8,786 TOs; n=24 CCCs (Excl. SOS and the 7 SWOPs)



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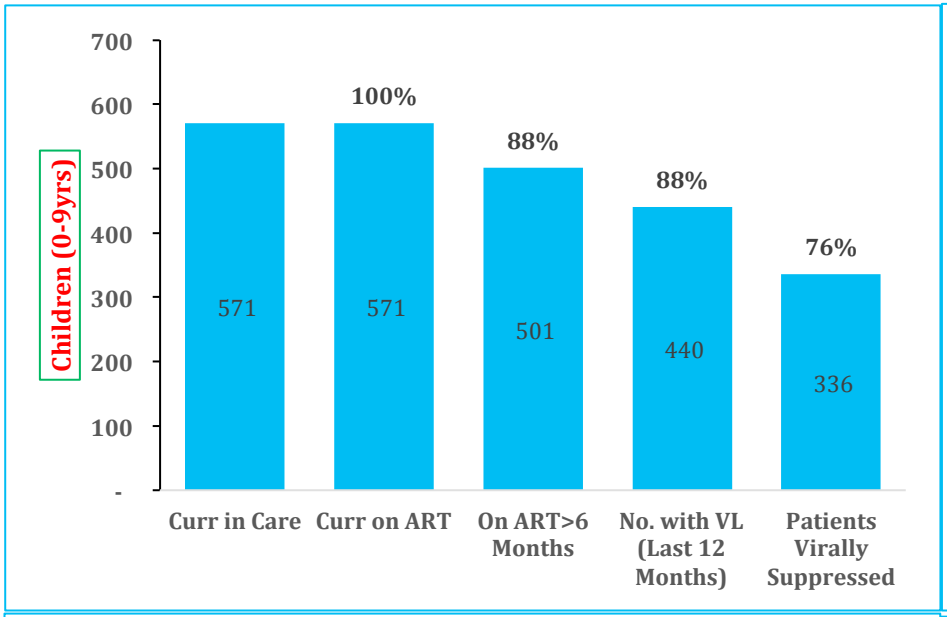
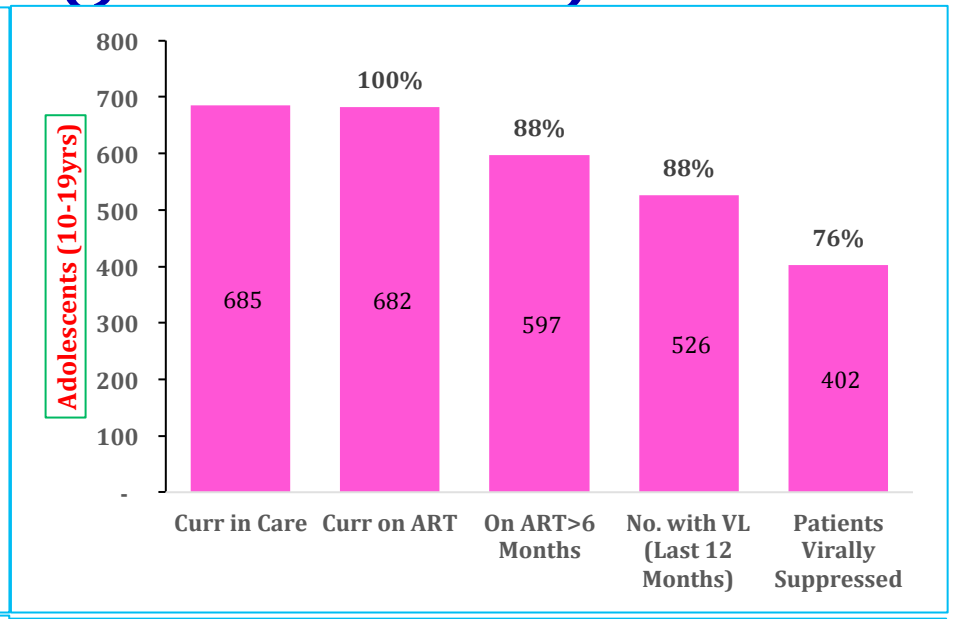
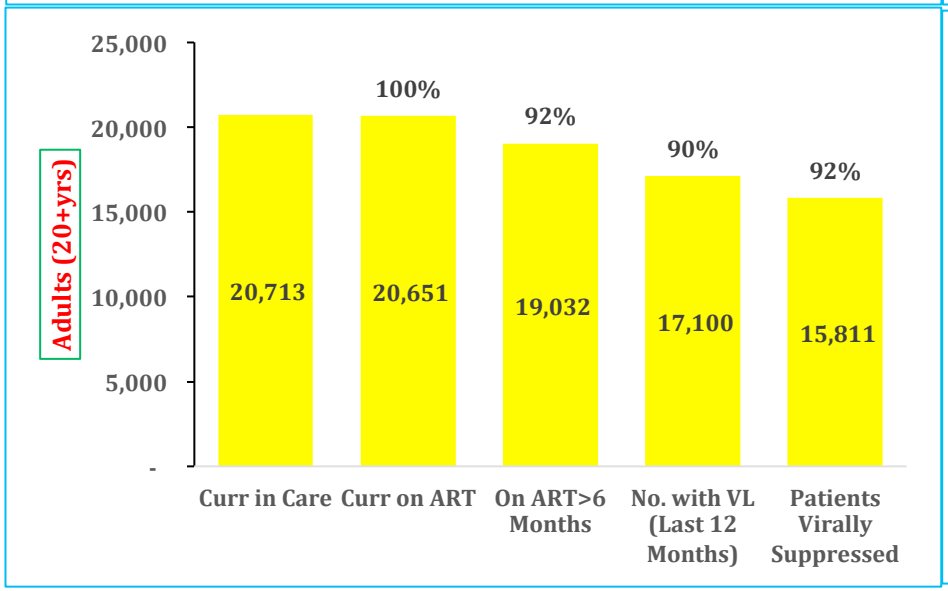
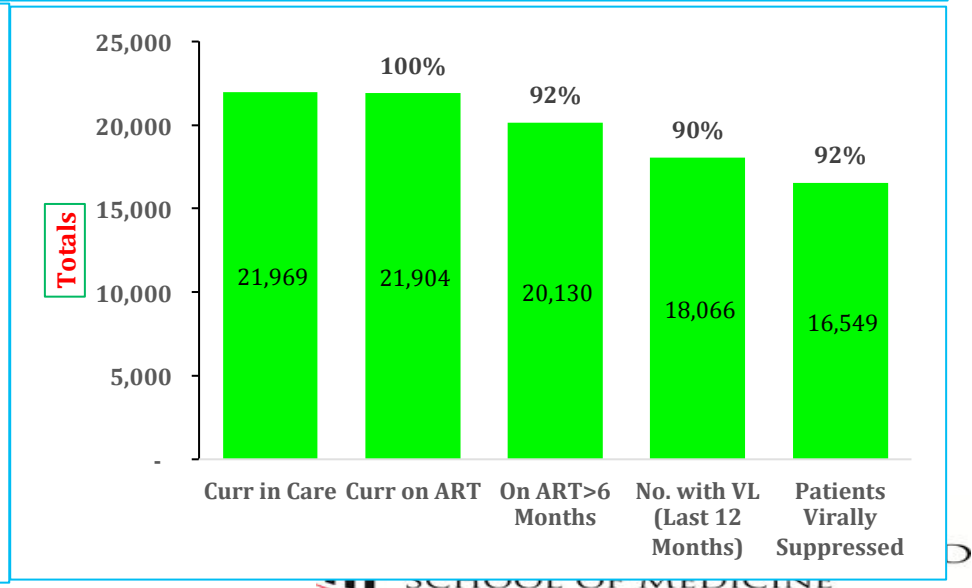
Viral Load Uptake and Suppression: UMB_Nairobi (June 2017)



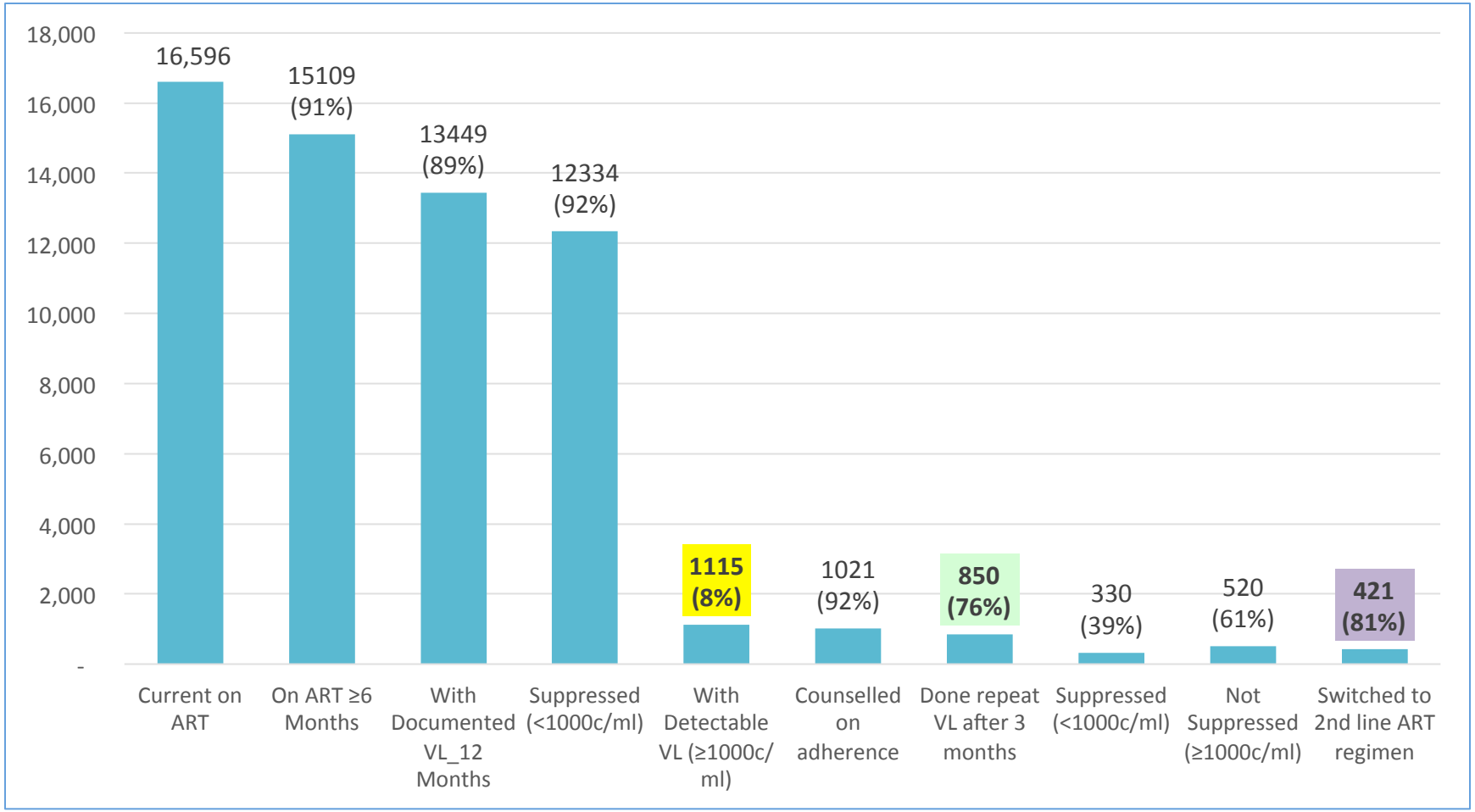






“Viremia Cascade”

(Period under review: Oct-Dec. 2016; n=21 CCCs)



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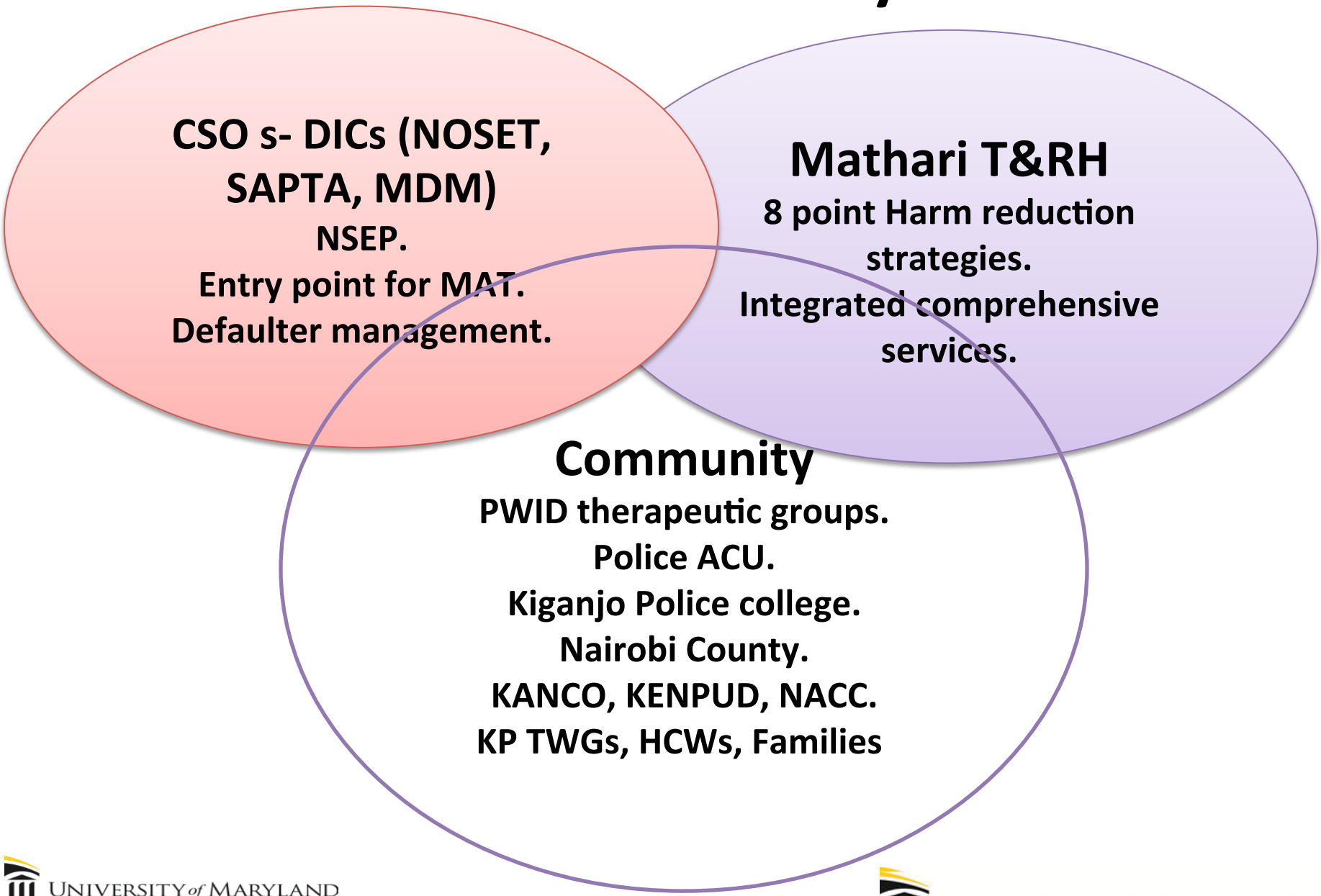
PWID Service Delivery Model



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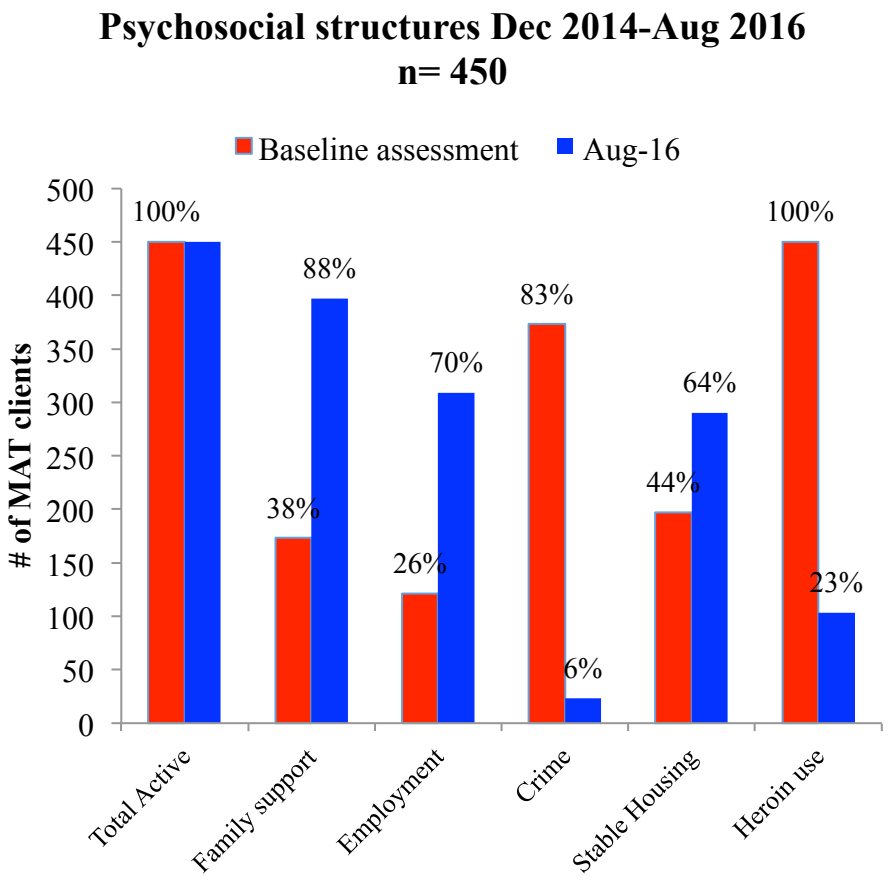
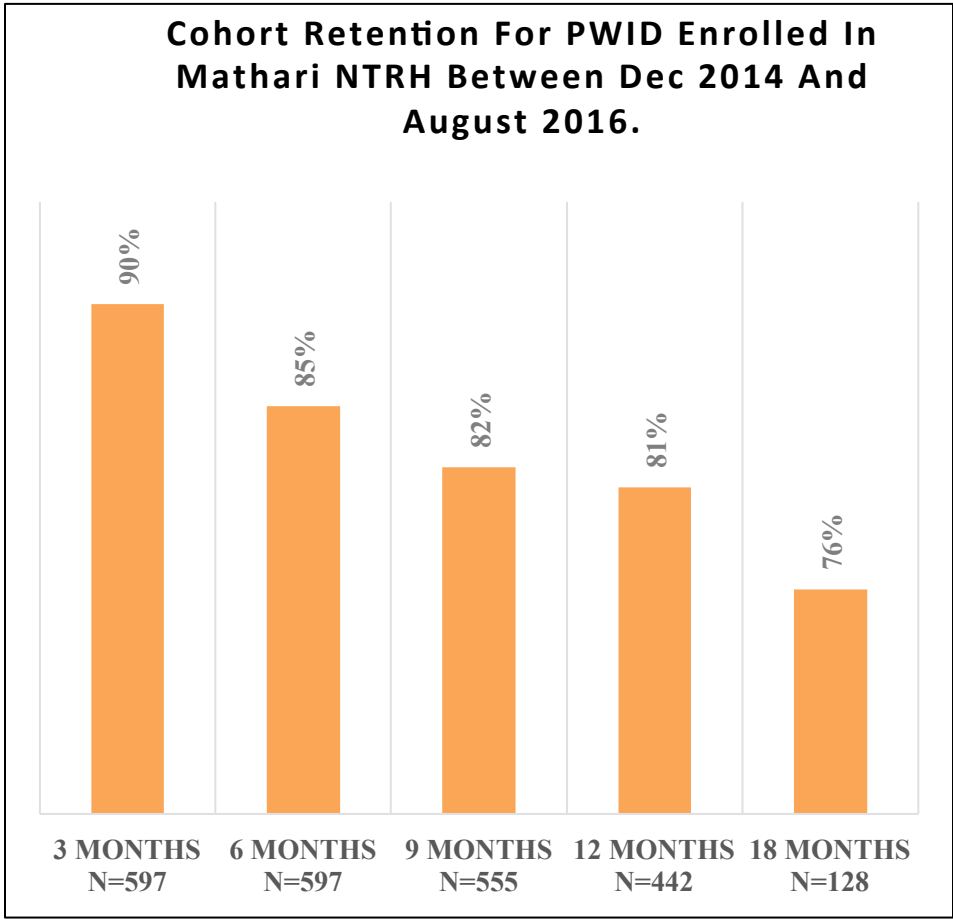
PWID overall outcomes





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Thoughts

- Whole system orientation critical for predictable standardized management of at risk patients
- A multi-disciplinary team approach has been useful to ensure effective service interfacing
- Capacity for review/critique of clinic processes and services outcomes useful for overall improvement of population specific outcomes
- At risk groups and services packages should be defined a priori including indicators that denote quality of services