



Accelerating Children's HIV Treatment (ACT): Rationale, Progress & Challenges

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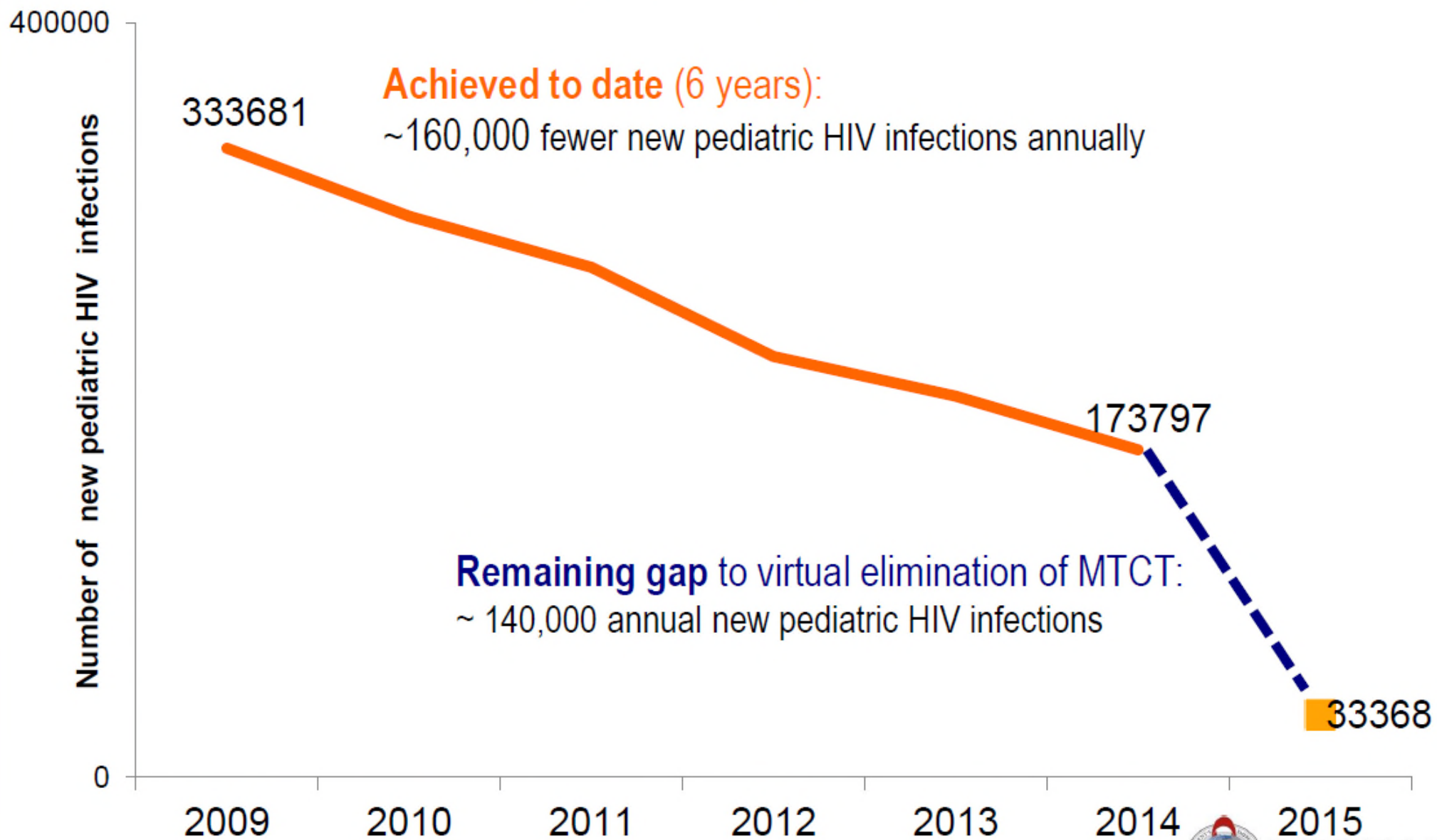
Compared to Adults, Children (<15) are at **Disproportionate Risk** of HIV Infection & AIDS-related Death

OUTCOME MEASURE (2014)		TOTAL	ADULTS	CHILDREN (<15)
PLHIV	Number	36.9M	34.3M	2.6M
	% of Total		93%	7%
New HIV infections	Number	2.0M	1.8M	220,000*
	% of Total		90%	11%
AIDS-related deaths	Number	1.2M	1.0M	150,000*
	% of Total		83%	13%

*Sum of estimates for children and for adults do not add to total estimates because of rounding.

Though children make up only 7% of PLHIV, they account for 11% of new HIV infections and 13% of AIDS-related deaths.

Number of new pediatric HIV infections, 2009-2014



Source: UNAIDS Estimate, 21 Countries, 2015

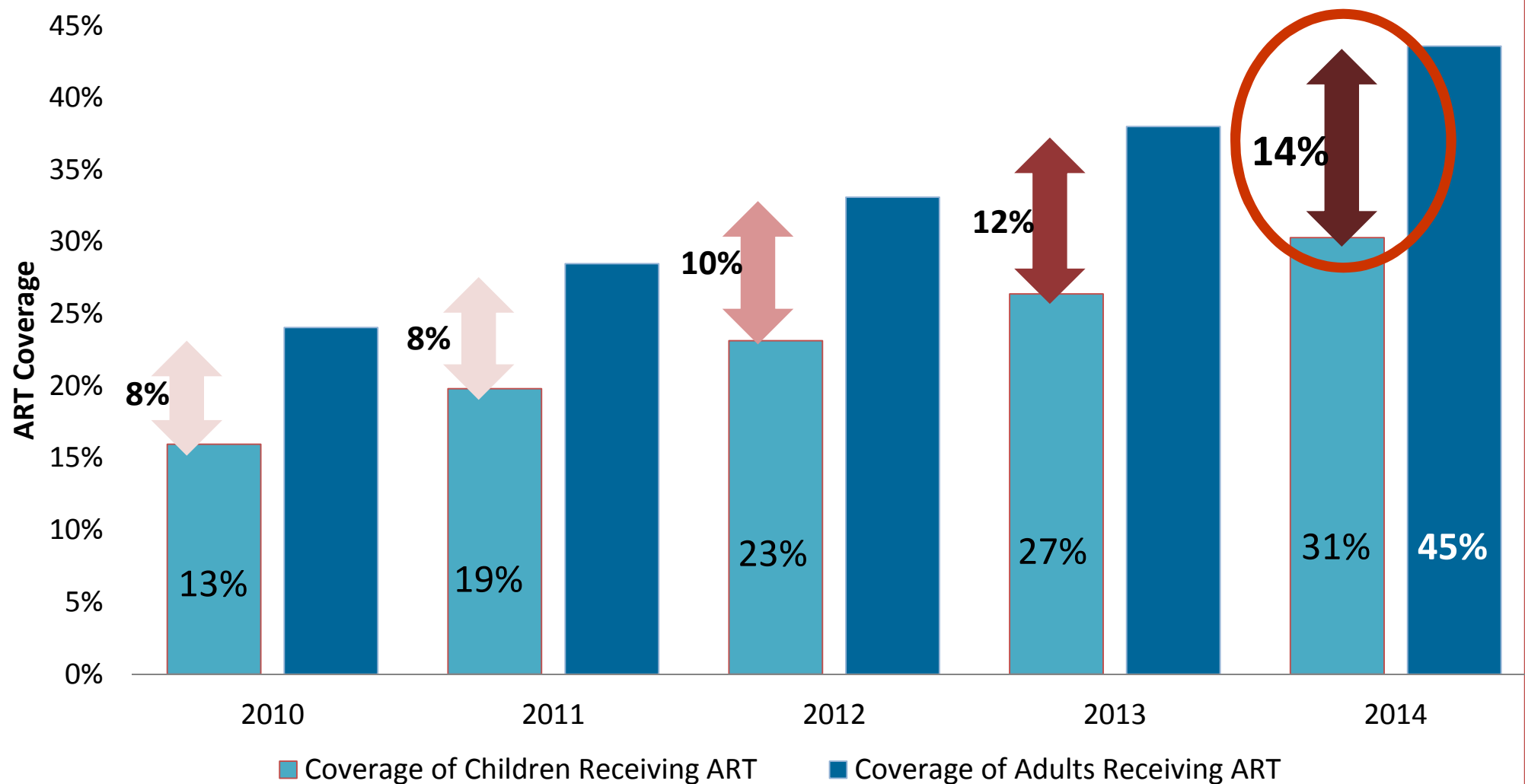


% Change in New Pediatric HIV Infections (2000-2014)



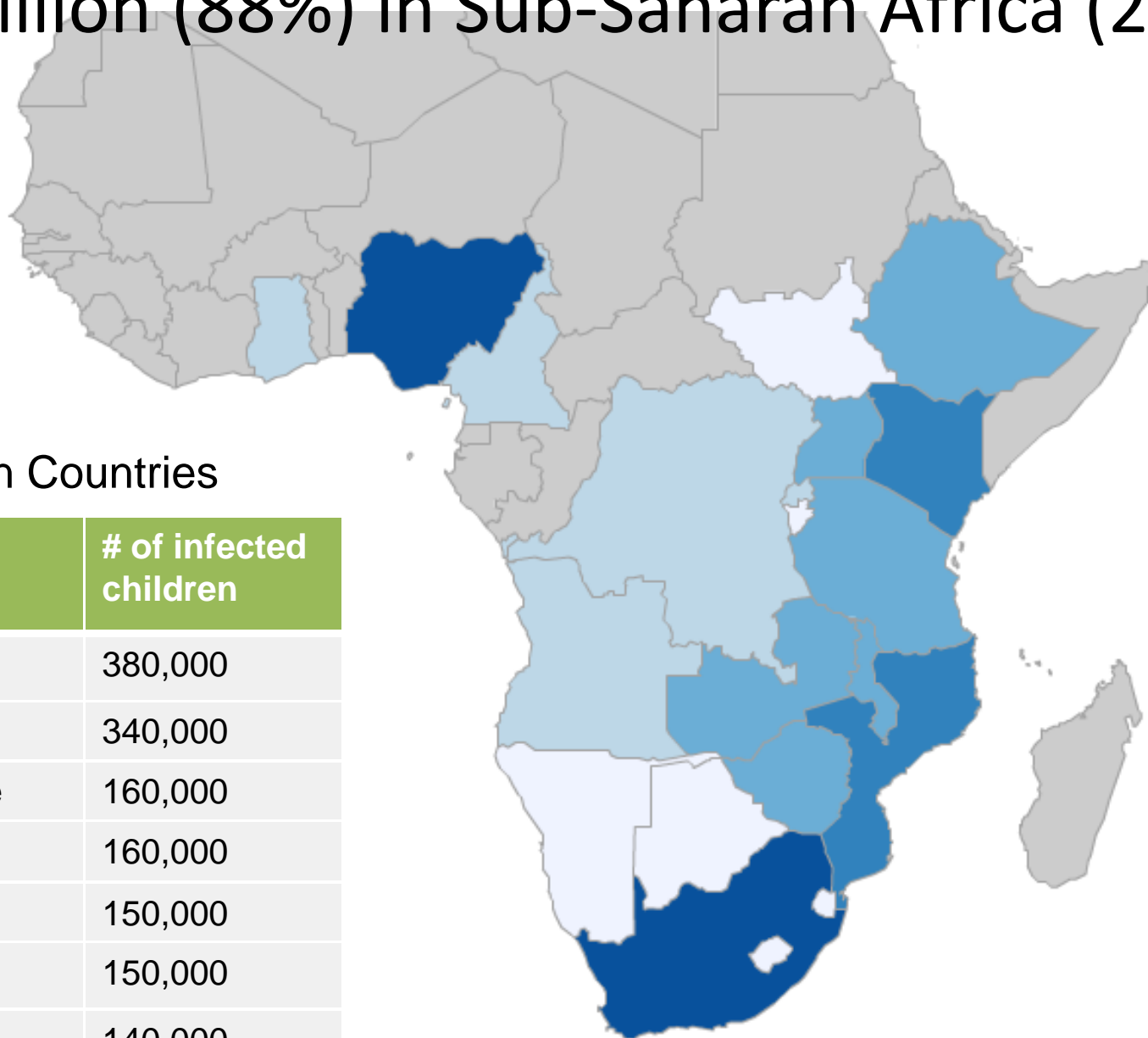
Source: UNAIDS, 2015

Children are almost one-third less likely to be put on treatment than are adults



Source: UNAIDS Estimate, 2015

Of 2.6 Million Children with HIV Globally, 2.3 Million (88%) in Sub-Saharan Africa (2014)

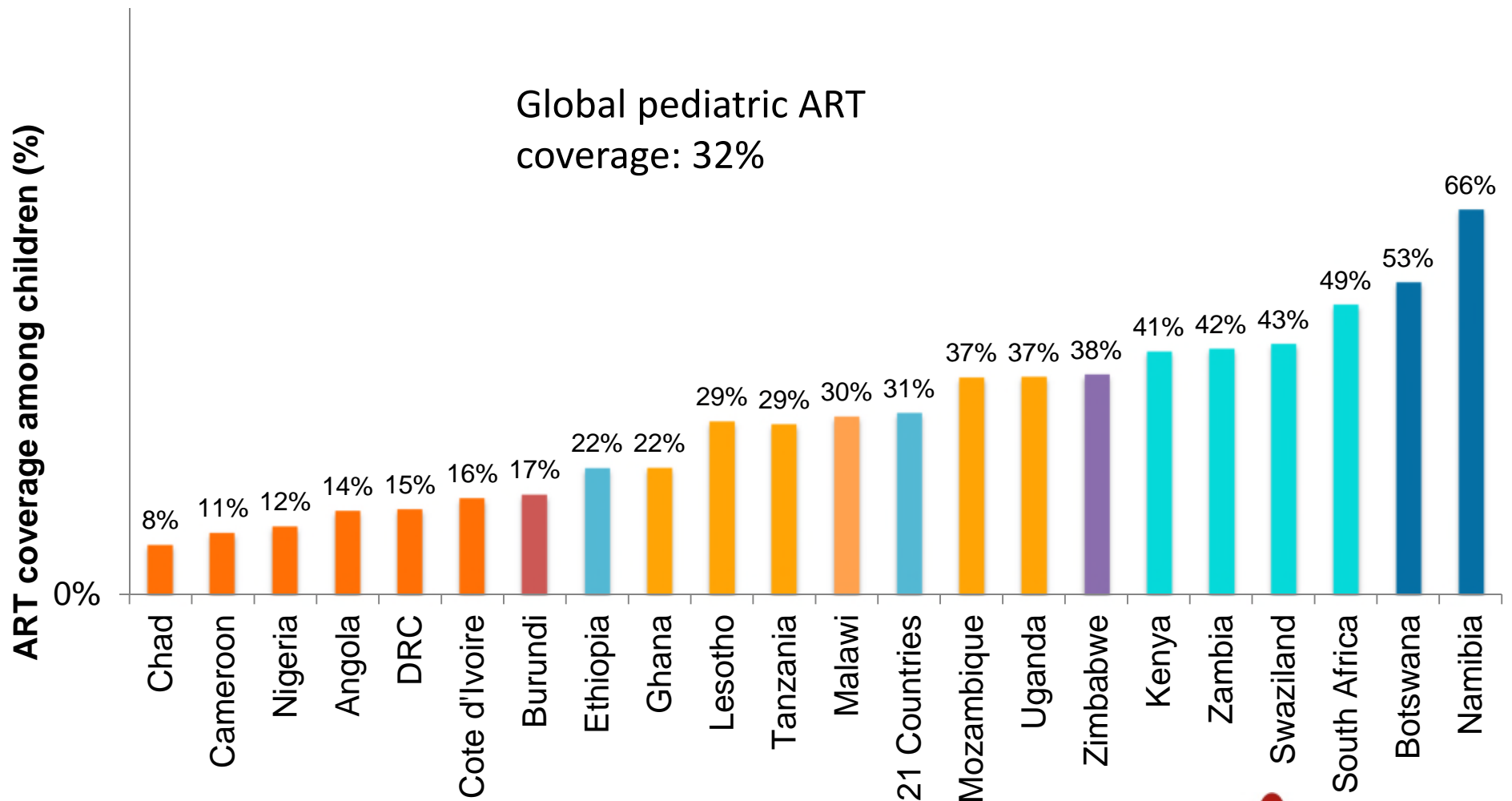


Top Seven Countries

Country	# of infected children
Nigeria	380,000
South Africa	340,000
Mozambique	160,000
Kenya	160,000
Zimbabwe	150,000
Uganda	150,000
Tanzania	140,000

Source: UNAIDS Estimate, 2015

Pediatric Treatment: Percent of children <15 years living with HIV on ART by country, 2014



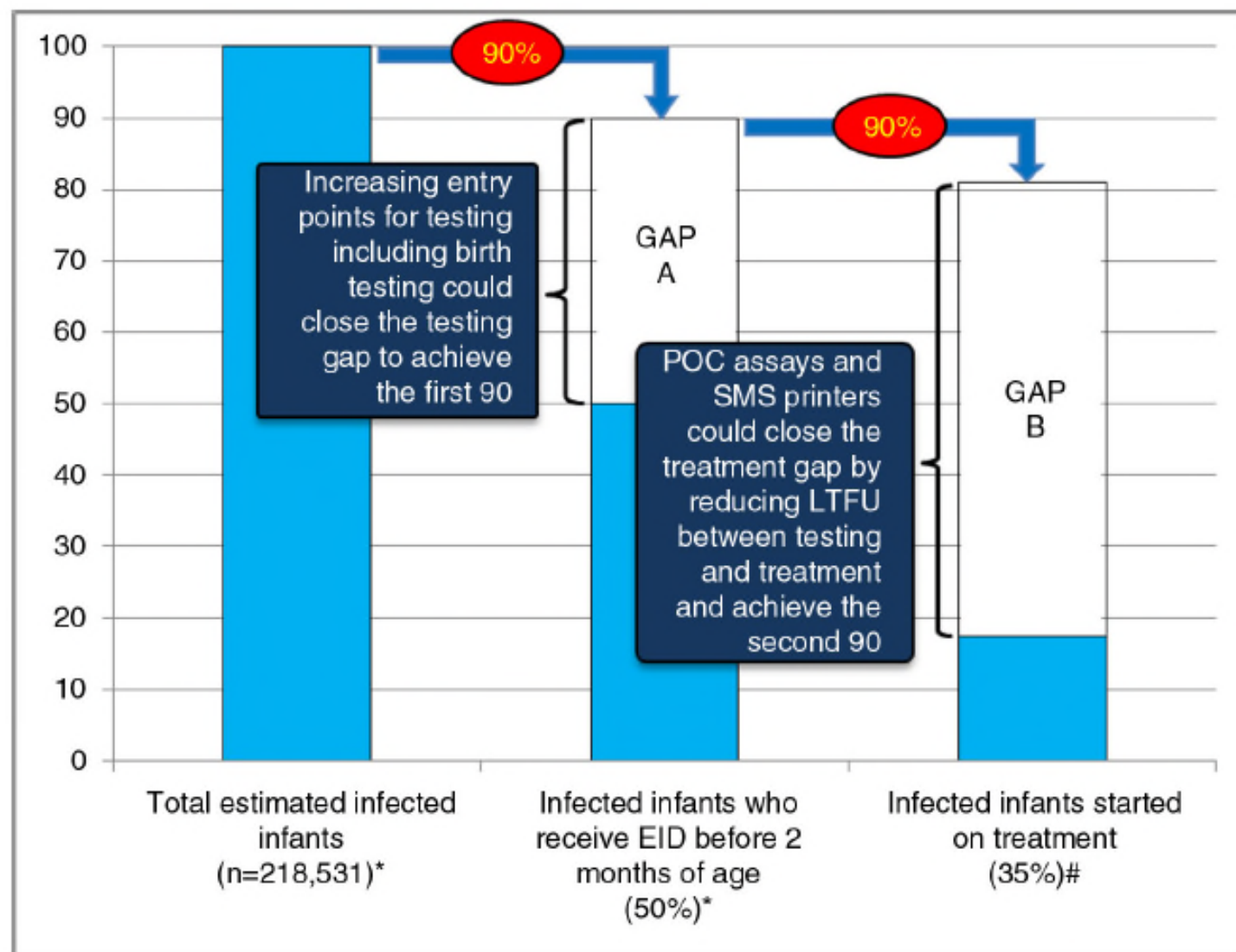
Source: UNAIDS Estimate, 21 Countries, 2015

21 African Global Plan Countries



PEPFAR
U.S. President's Emergency Plan for AIDS Relief

Gaps in the first two “90s” for children



Partnering to save children

PEPFAR & Children's Investment Fund Foundation (CIFF)

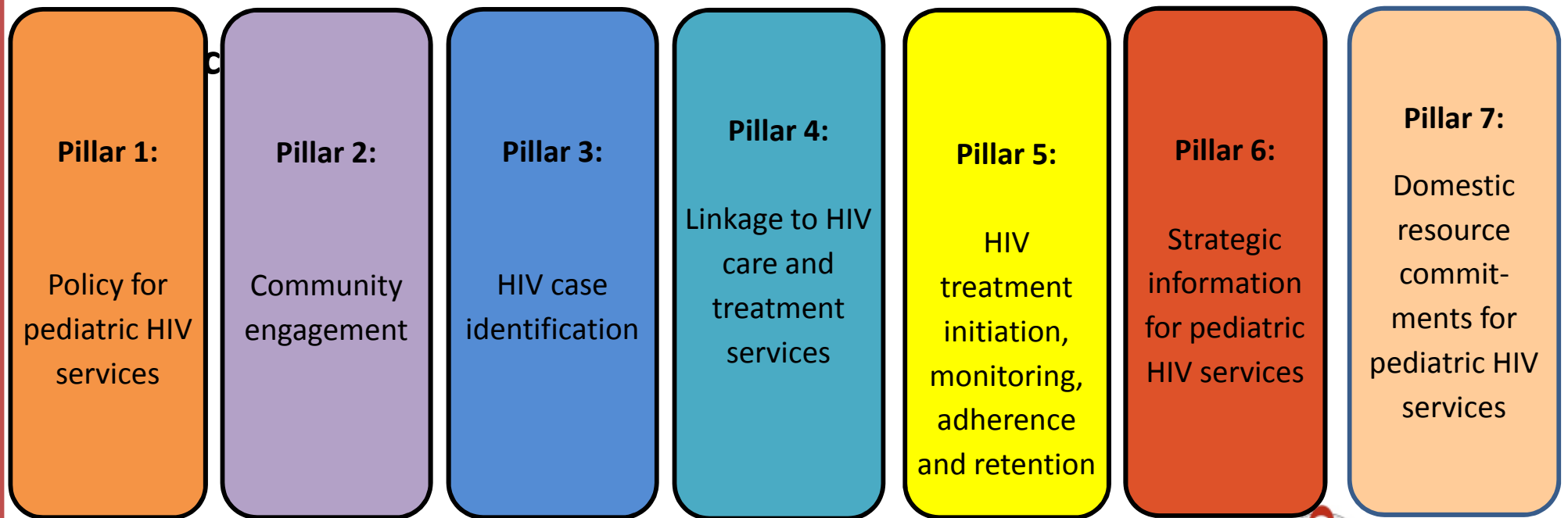
Accelerating Children's HIV/AIDS Treatment (ACT)

- \$200M partnership
- Announced August 2014
- Doubling the number of children on life saving ART
- FY 2017 Target: 600,000 on treatment
- Interim FY 2016 Target: 500,000 on treatment
- **Countries** : Cameroon, DRC, Kenya, Lesotho, Malawi, Mozambique, Tanzania, Zambia, Zimbabwe

Targeted Approach to Dramatically Increase Pediatric Treatment Coverage

Objectives

- Provide ART to an additional 300,000 children living with HIV
- Increase # of adolescents (15-19) on ART by the end of 2016

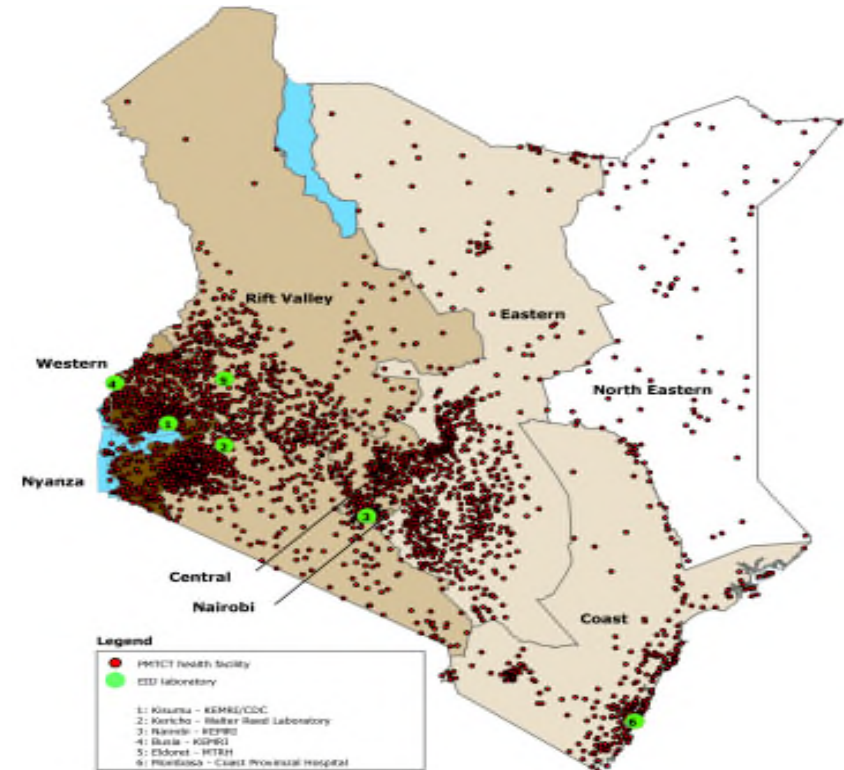


Identification of HIV-infected children

Maximize Case Identification by Targeting Approaches to HTC

- **Optimize Early Infant Diagnosis**
- **Active case finding of children**
 - Family-centered and index patient approaches to HIV testing
 - Provider-initiated testing and counseling in high yield settings (inpatient, TB, malnutrition)
- **Aim for universal testing of children receiving OVC services**
- **Targeted community testing**

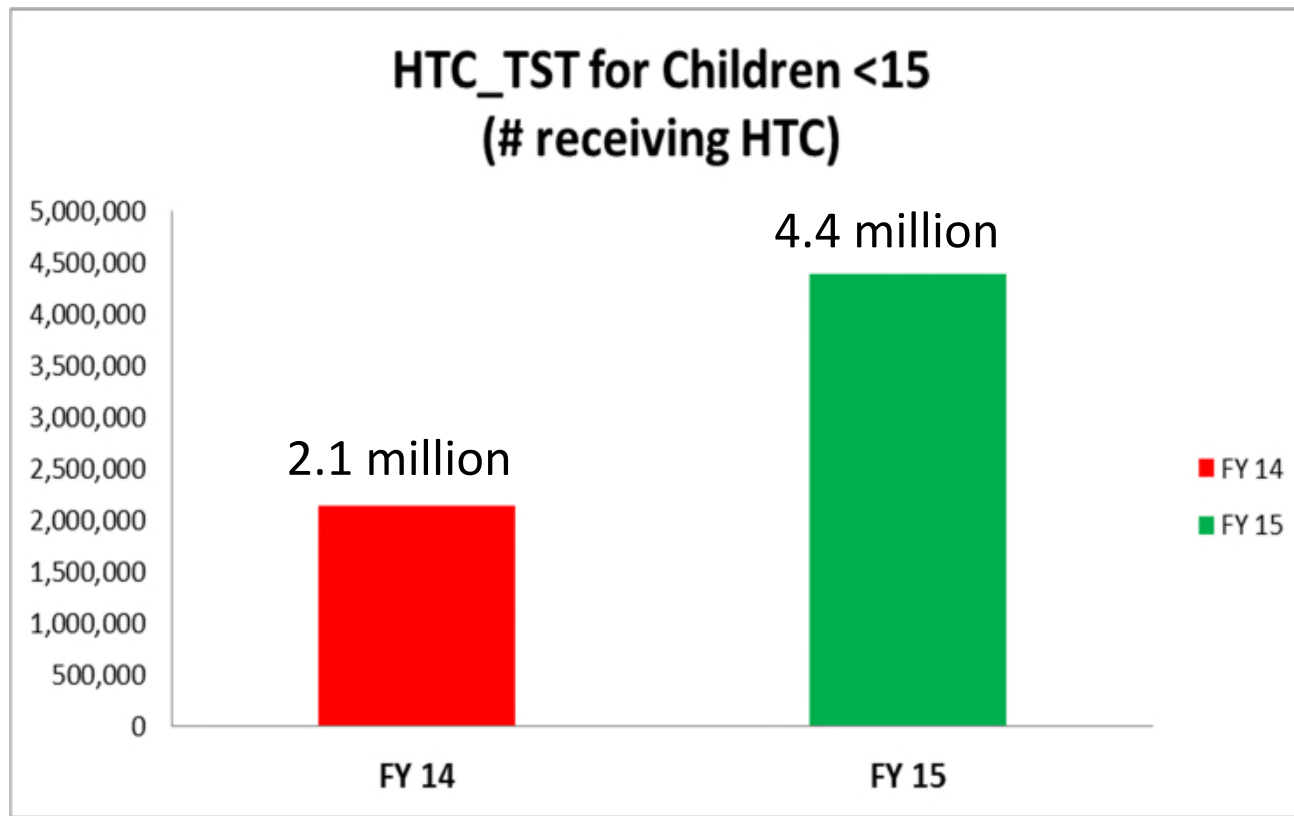
Early infant diagnosis services in Kenya



- 6 EID laboratories
- >5,000 PMTCT sites

ACT Year 1: Robust Testing

- The number of children (<15 yrs old) tested for HIV has more than doubled during the first year of ACT compared to the previous year.



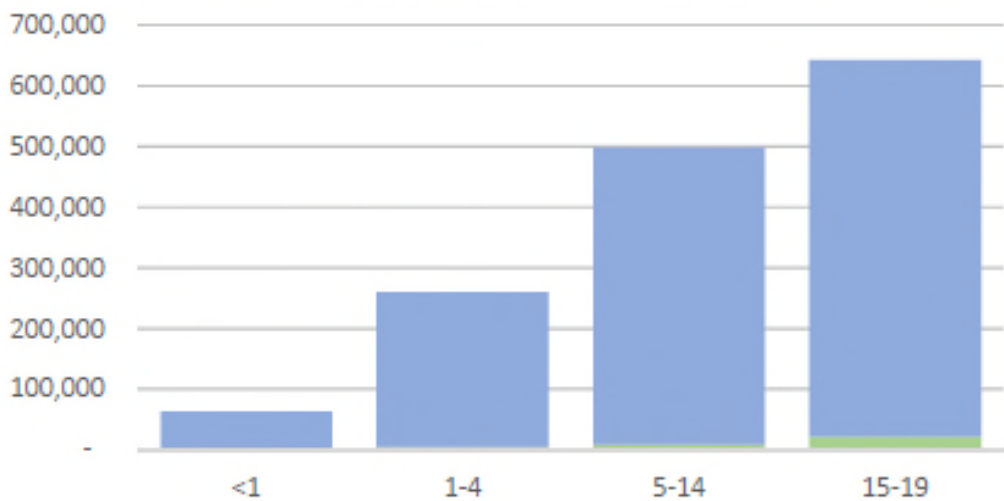
- Near doubling of the number of children and adolescents tested (<20) :
 - 3.5 million (FY14) -> 6.9 million (FY15)

HIV Testing & Positivity Rate by Age

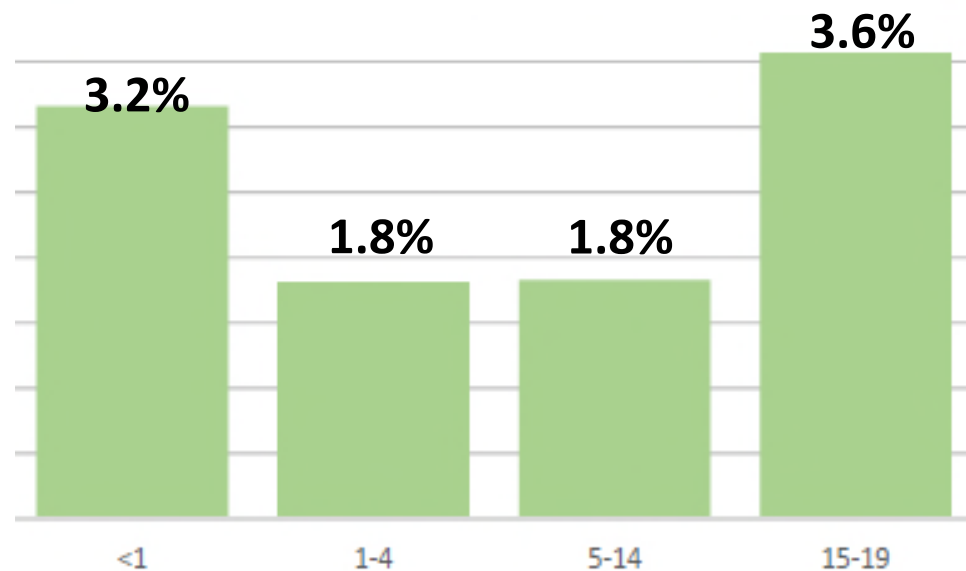
All ACT Countries

Age Distribution of HTC_TST

HTC_TST_POS HTC_TST



Age Distribution of % HTC_TST Positivity



Number of children tested increases with age but positivity rates (among those tested) highest in infants and older adolescents.

Pillar 3: Identification of HIV-infected children

Maximize Case Identification by Targeting Approaches to HTC

- **Positivity rates ranging from <1% to >10%**
 - **Inpatient wards**
 - **DRC: 1%. Kenya: 0.63% -1.5%. Malawi : 1-2%**
 - **Outpatient departments**
 - **DRC: 3%; Kenya: 0.42%- 0.67%**
 - **Malnutrition services**
 - **DRC: 7%. Malawi: 11%.**
 - **Under-5 (well child)**
 - **Lesotho: 0.9%**
 - **OVC**
 - **Kenya: 1.5% (community-based testing) to 4.5% (HCW referral).**
 - **Mozambique: HH testing ranged from 0.7% (Zambezia) to 6.14% (Gaza.) Focus: school absence, malnutrition, skin problems**

Pillar 3: Identification of HIV-infected children

Family based Testing

- ***HIV testing for children with parent(s) attending an HIV/ART clinic or with parent or HH member with HIV***
 - DRC – facility based family testing: 12%
 - Malawi – children of adult ART patients: 4.61%
 - Higher in younger children: <5yo 7.14% vs ≥5yo 4%
 - Different by district: Dedza 1.7% vs Ntcheu 7.84%
 - Kenya – children of adult index clients: 1.48%
 - 0-9 yo: 1.63%
 - 10-14 yo: 0.91%
 - 15-19 yo: 2.20%
 - Tanzania
 - 2.15% in one group of 11 sites
 - 5.42% in a group of 4 other sites.

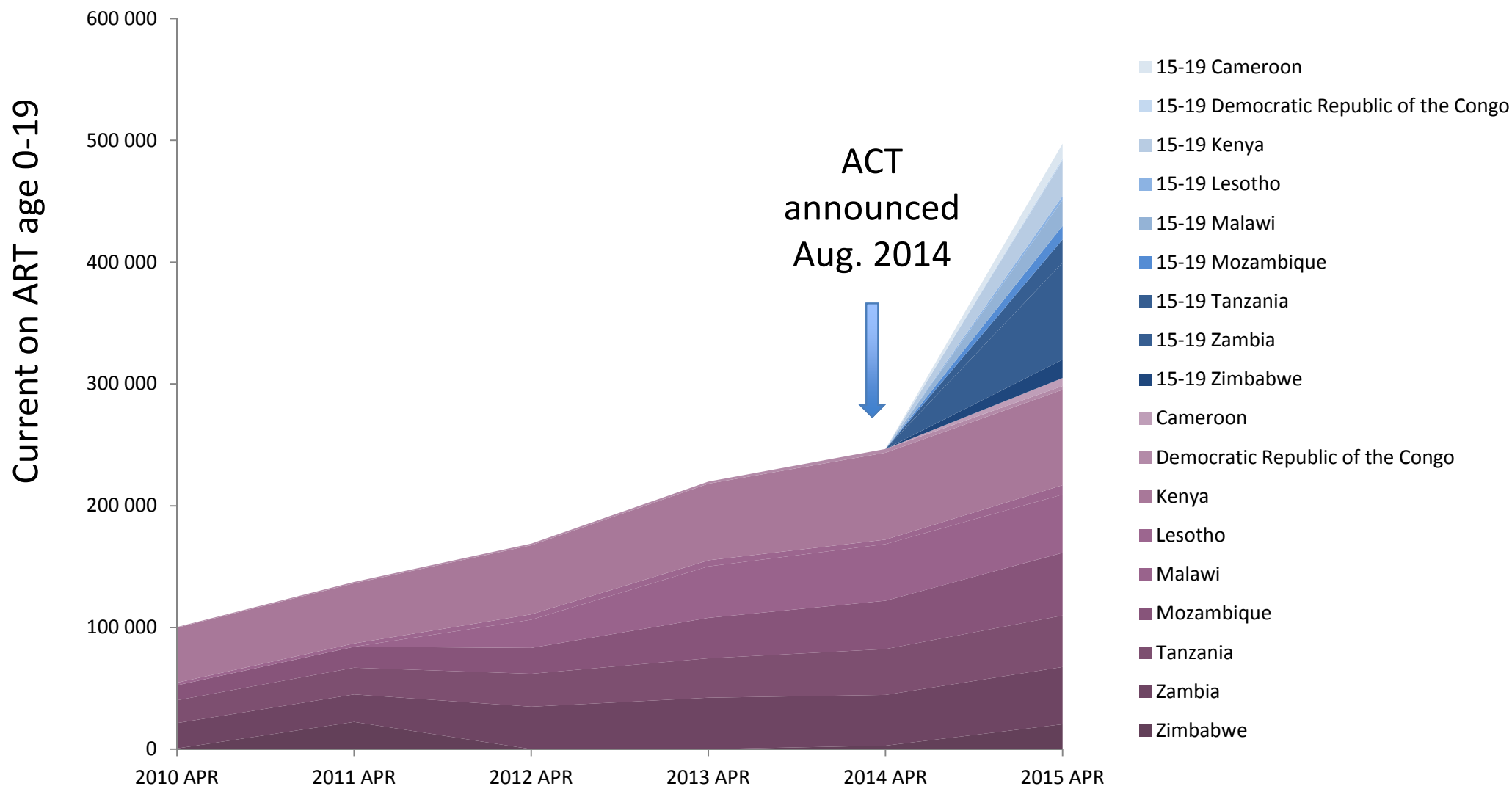
What is the right testing “target”?

ACT COUNTRY	CLHIV (UNAIDS)	PED HIV prev. (%)	Adult (15+) HIV prev	Ratio of Child:Adult Prevalence	# ALHIV for each CLHIV
CAMEROON	58000	0.57	4.42	0.13	8
DRC	59000	0.17	0.86	0.20	5
KENYA	160000	0.84	4.47	0.19	5
LESOTHO	19000	2.99	22.88	0.13	8
MALAWI	130000	1.55	9.72	0.16	6
MOZAMBIQUE	160000	1.40	10.08	0.14	7
TANZANIA	140000	0.62	4.93	0.13	8
ZAMBIA	100000	1.44	12.32	0.12	9
ZIMBABWE	150000	2.78	15.84	0.18	6
TOTAL	976,000	0.82	5.52	0.15	7

- How to identify large numbers of children when % low?



Achievement: Acceleration of Rise in Number of Children on ART



- By the end of the first year of ACT:
 - About 498,000 children & adolescents (0-19) on ART in ACT countries
 - More than 56,000 children (<15) started on ART in 1st year (APR15)
 - 55% faster rise in children (<15) on ART compared to pre-ACT

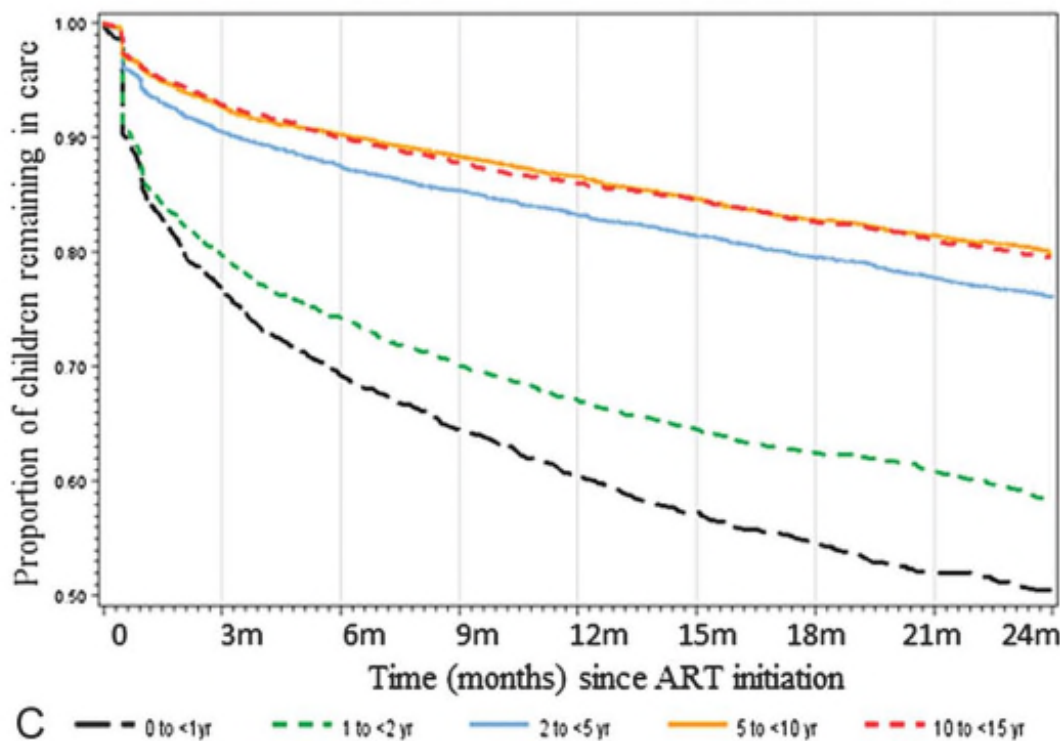
ACT: Year 1 Treatment Progress

	On ART by Sept, 2015 (End of ACT Year 1)			Progress towards ACT targets (Target: $\geq 75\%$)
	<u><15</u>	<u>15-19</u>	<u><20</u>	
Cameroon	6,663	12,172	18,835	154%
Dem Rep of Congo	2,989	1,447	4,436	50%
Kenya	78,409	29,391	107,800	91%
Lesotho	7,644	3,336	10,980	91%
Malawi	47,791	21,220	69,011	79%
Mozambique	51,493	11,031	62,524	69%
Tanzania	42,277	19,136	61,413	70%
Zambia	47,051	79,783	126,834	119%
Zimbabwe	20,581	14,922	35,503	51%
All ACT Countries	304,898	192,438	497,336	84%

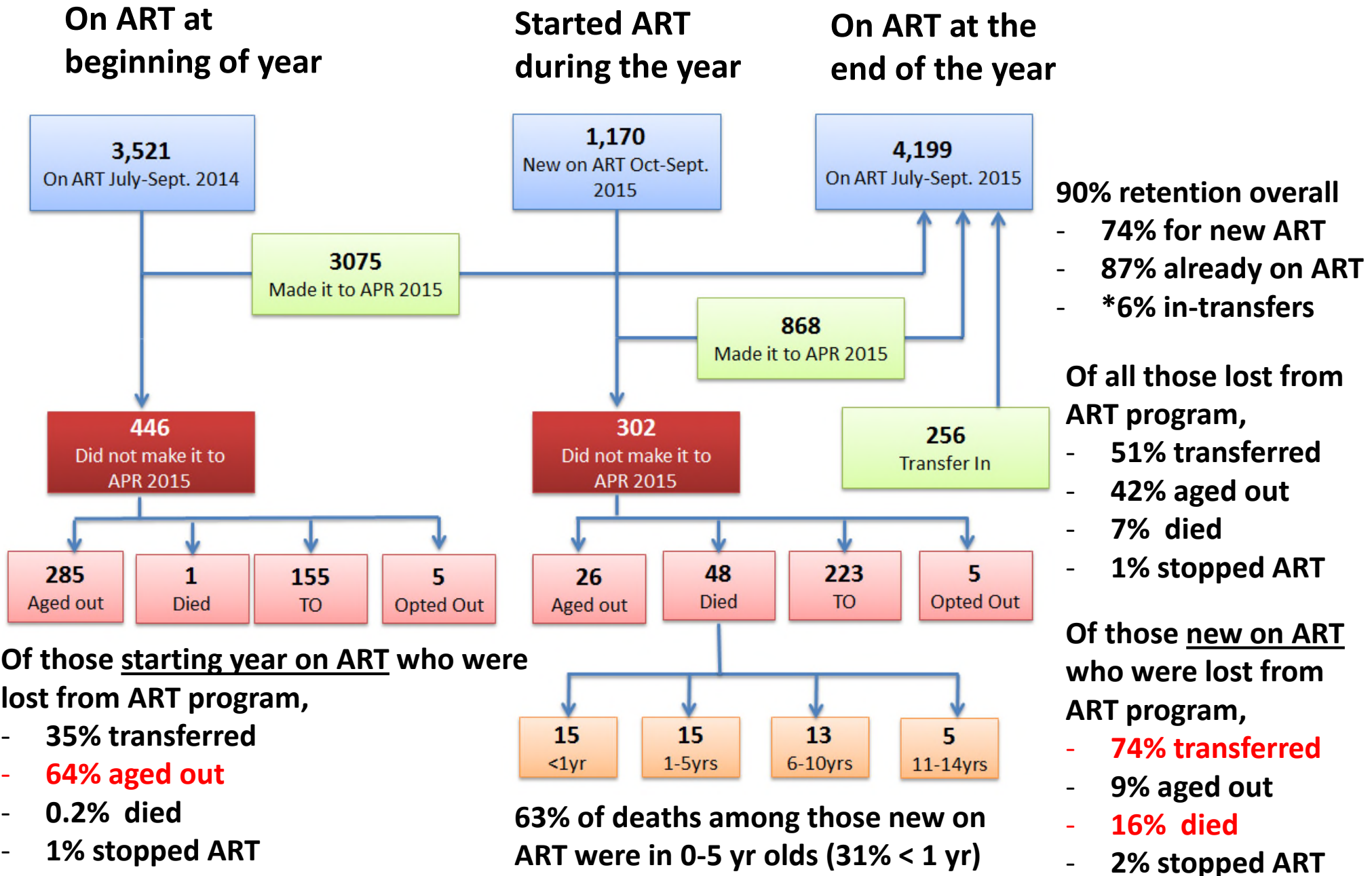
Retention in Care: Children

- 17,712 children (<15 yrs old) in Kenya, Moz., Rwanda, Tanz. (McNairy JAIDS 2013)
 - Started ART 2005-2011
 - LTFU at 12 mos: 16% overall but 30% (highest) for <1 yo
 - LTFU at 18 mos: 22% overall but 39% (highest) for < 1 yo

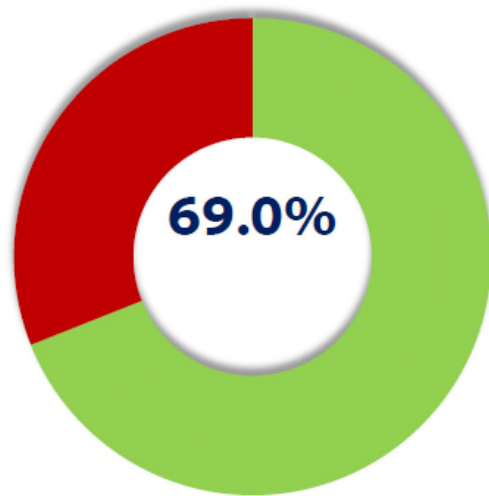
- Retention at 12 mos was 80% overall and 61% for < 1yr old
- Retention at 24 mos was 72% overall and 51% for < 1 yr old



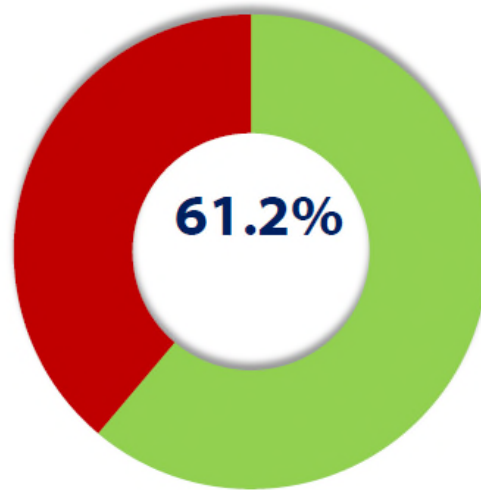
Case Study: Pediatric ART Retention (<15yo)



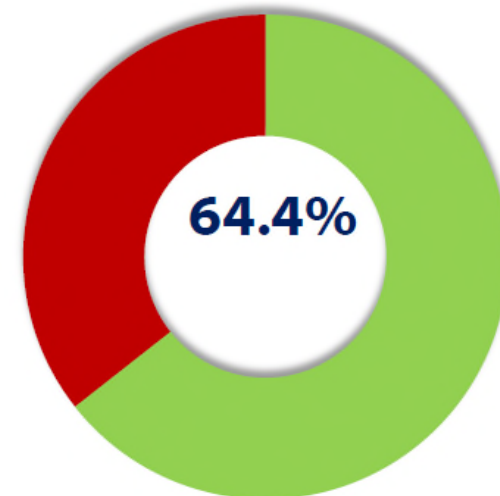
Viral Suppression Rate in Children Retained on ART



Kenya
(N=461)



Tanzania
(N=399)



Mozambique
(N=682)

Viral suppression (VS) is defined as viral load <1000 copies/ml

RED: VL \geq 1000 copies/mL

HIVDR Prevalence Among Children Failing Treatment

Group	N	VF (n)	Genotyped (n)	HIVDR (n)	HIVDR %	95% C.I.
Kenya	461	143	136	121	<u>89.0%</u>	76.7%-95.2%
Tanzania	399	155	141	122	<u>86.5%</u>	78.4%-91.9%
Mozambique	682	243	232	222	<u>95.7%</u>	92.3%-97.6%

Conclusion: Most children failed treatment due to HIVDR

ACT: Improving Pediatric & Adolescent HIV Care Performance

- EID task force
 - Systems for specimen delivery/results tracking
 - Synergistic efforts with VL and TB diagnostics (Xpert)
- Improving strategies for testing in OPD
- Prioritization of children/adolescents with viral load scale-up
- Prioritization of children/adolescents in countries adopting Test & Start
- Service delivery models for those stable on ART
 - School-aged children likely to benefit from longer intervals between visits & ARV pick-ups
 - Adolescents?
- HIV impact assessments (HIAs) and Demographic and Health Surveys (DHS) will help refine prevalence estimates and 90-90-90 progress in children and adolescents
- PEPFAR Pediatric-Adolescent Technical Working Group working with Nigeria (non-ACT) technical team to advance EID and pediatric ART progress

ACT – Year 2

- 1st 90: Build on progress in identifying children and adolescents with HIV infection
- 2nd 90: Continue acceleration of rise in number of children/adolescents on ART
 - Boost as countries move to Test and Start
- 3rd 90: Enhance focus on ensuring retention and virologic suppression
- On track to reach goal of 600,000 children and adolescents on ART in ACT countries by the end of 2016