

Paediatric HIV Estimates 2016

Mary Mahy

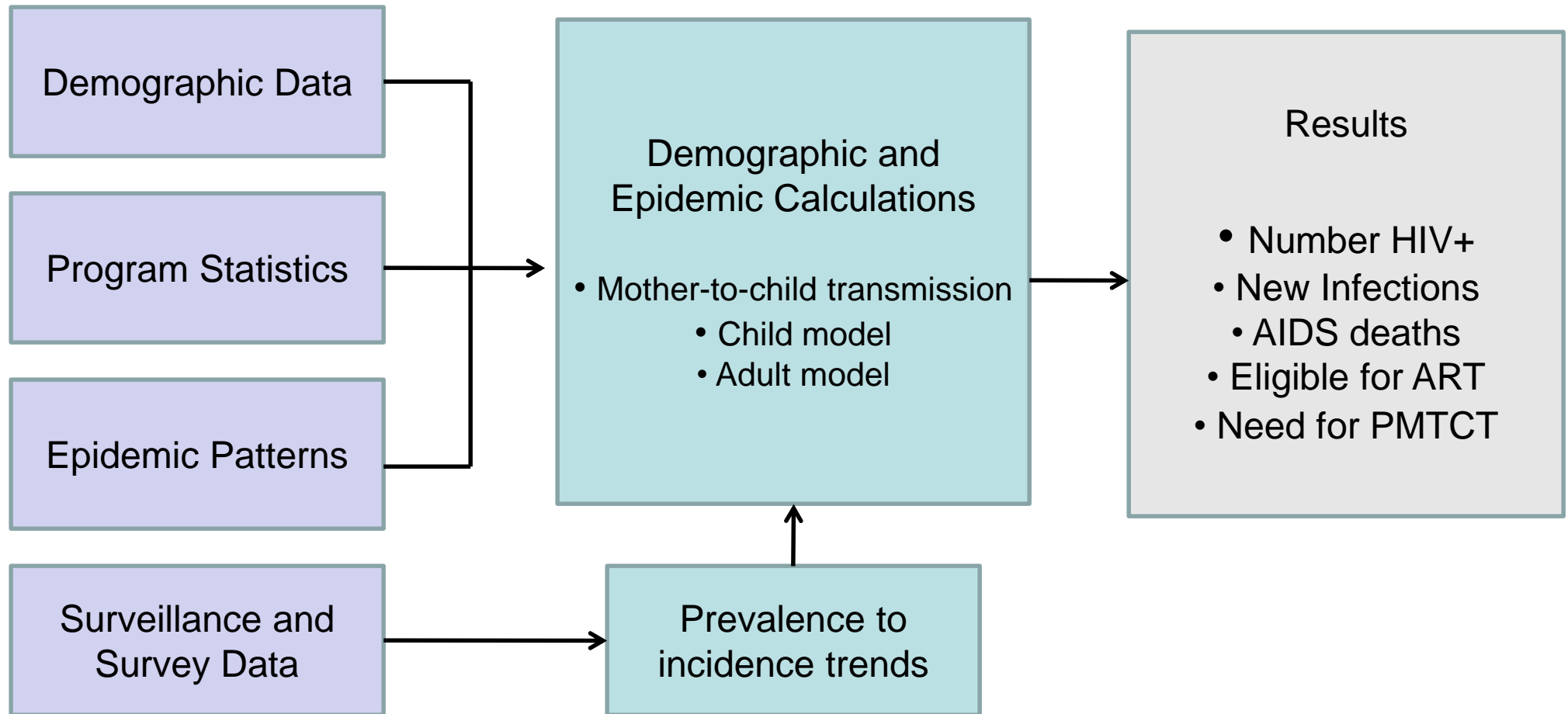
Division Chief, Strategic Information

UNAIDS, Geneva

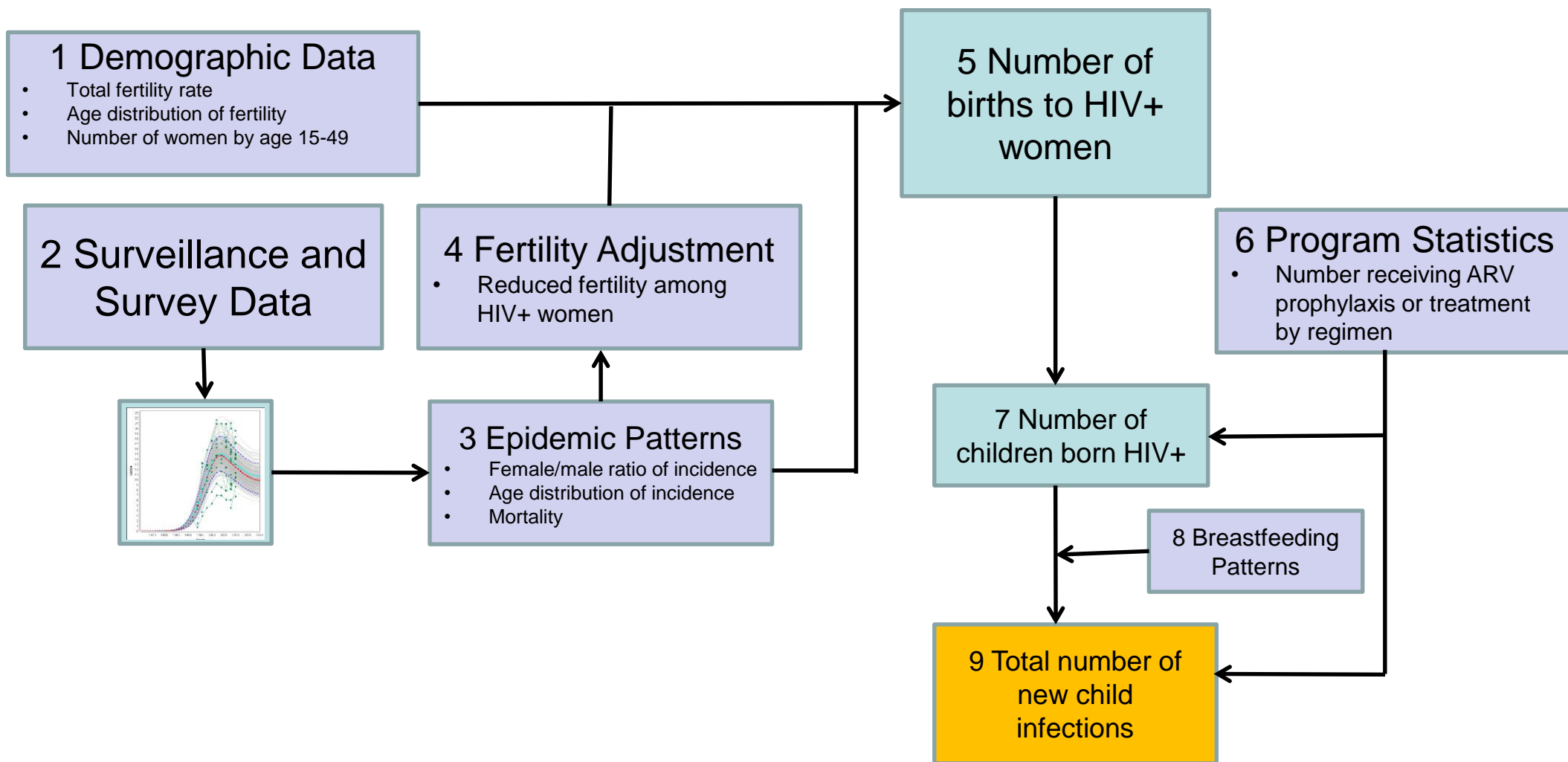
Estimates process

- Country teams develop estimates using Spectrum software annually (www.avenirhealth.org)
- Software guided by UNAIDS Reference Group on Modeling Estimates and Projections (www.epidem.org)
- Estimates change from one year to the next
 - Models are improved every year
 - Country teams update data entered in models
- Historical values are updated as well based on latest science

Spectrum structure

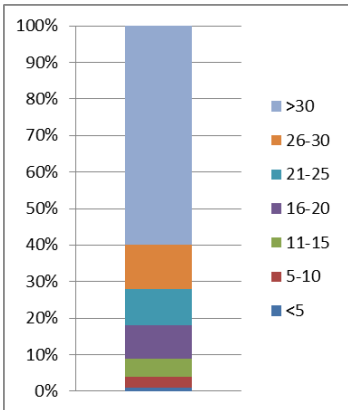


Estimating the number of new child infections

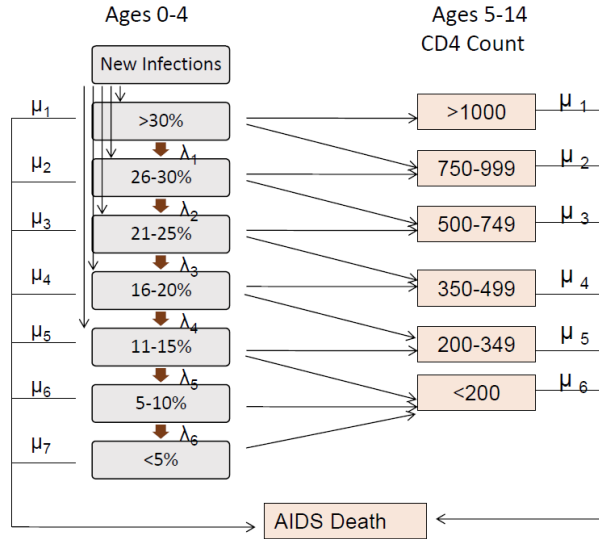


Child Model

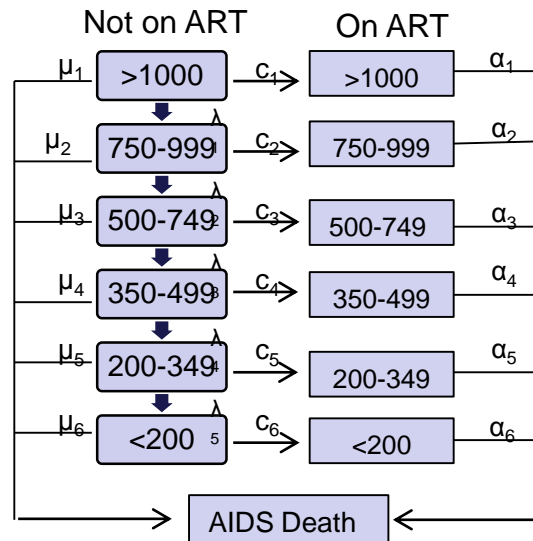
1. New child infections distributed across different cd4 %



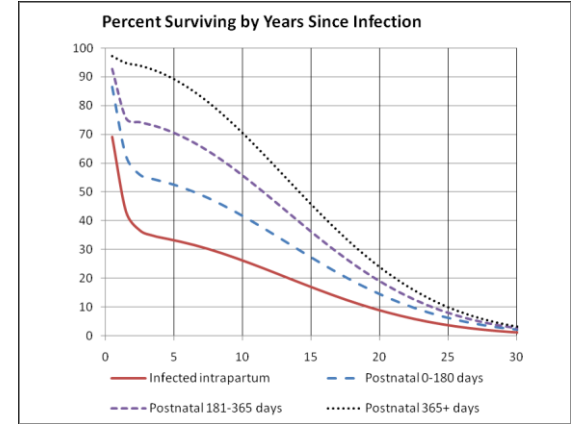
2a. Child progression among children 0-4 years



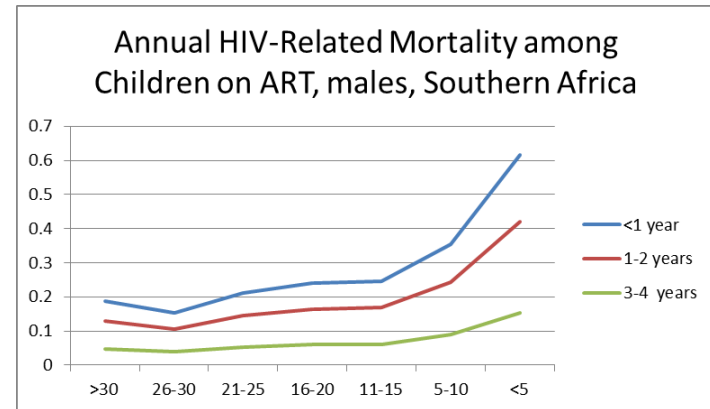
2b. Child progression among children 5-14 years



3. Off ART survival Patterns by timing of infection, and CD4 category

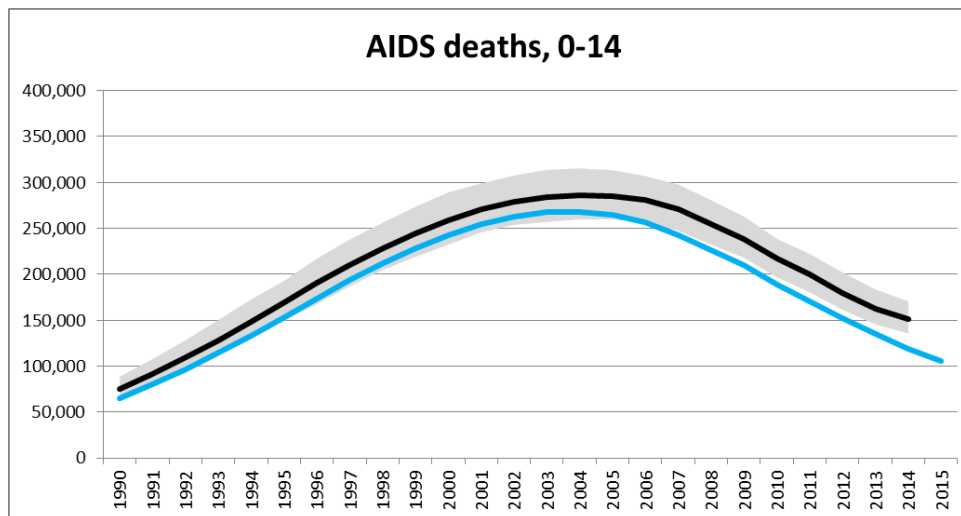
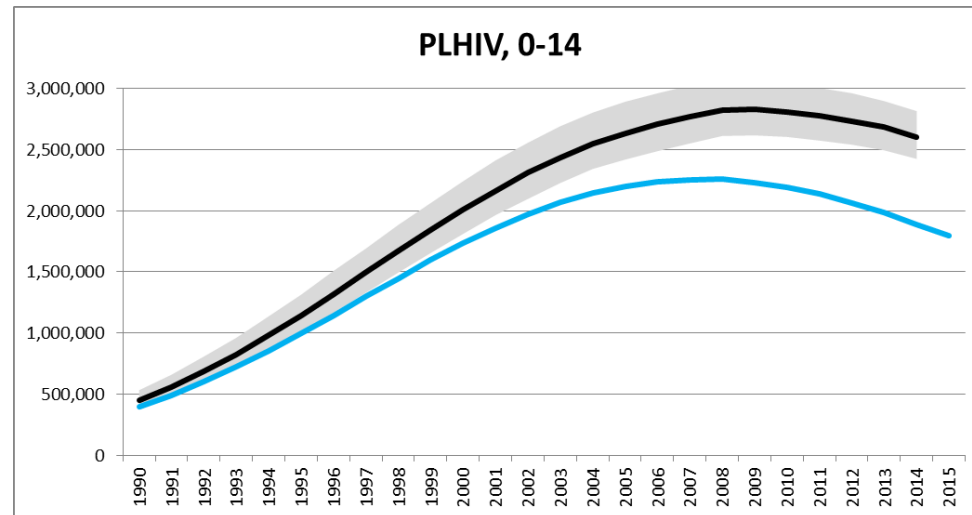
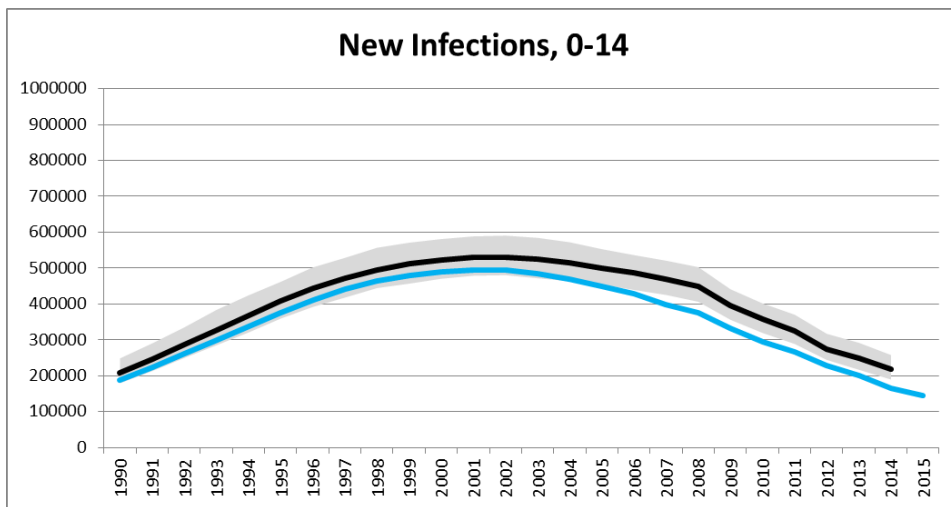


3. On ART survival from leDEA Patterns by sex, age, CD4 percent, CD4 count and region



Important differences in child estimates

2016 results EMBARGOED UNTIL 8 June 2016



-- 2015 estimates
■ 2015 bounds
-- 2016 estimates



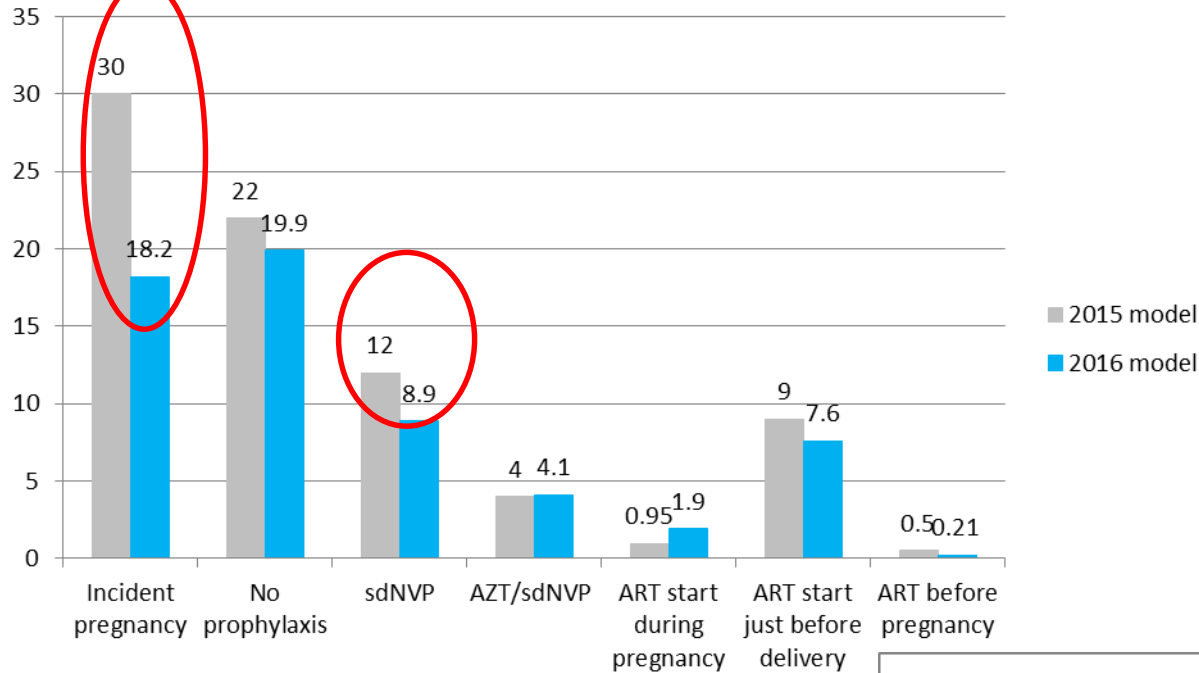
Recommendations made in 2015

Paediatric Reference Group Meeting October 2015

Report available at www.epidem.org

1. Update mother-to-child transmission probabilities to reflect latest research
 - last update in 2012
2. Use leDEA data on distribution of children starting ART
 - Previously distributed based on need for ART
3. Incorporate drop out of women on ART during post natal period

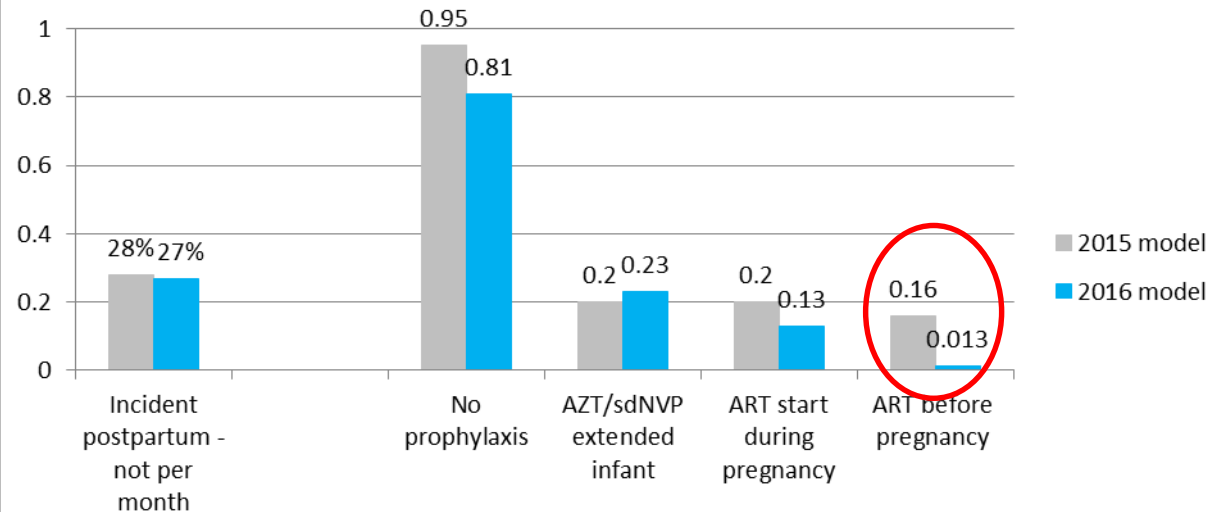
Peripartum transmission (%)



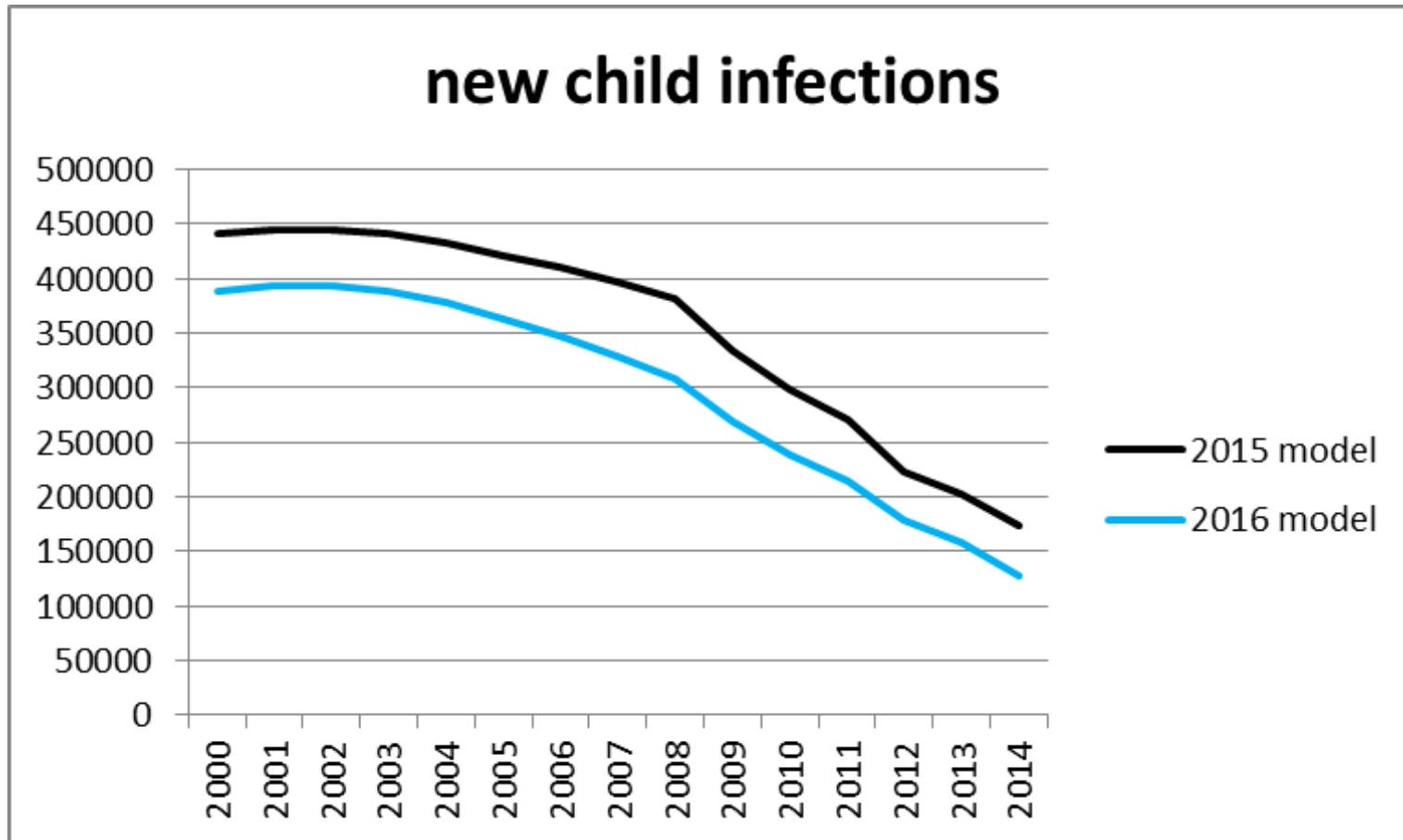
1. Update transmission probabilities

Impact: Fewer new child infections

Postpartum transmission (% per month)

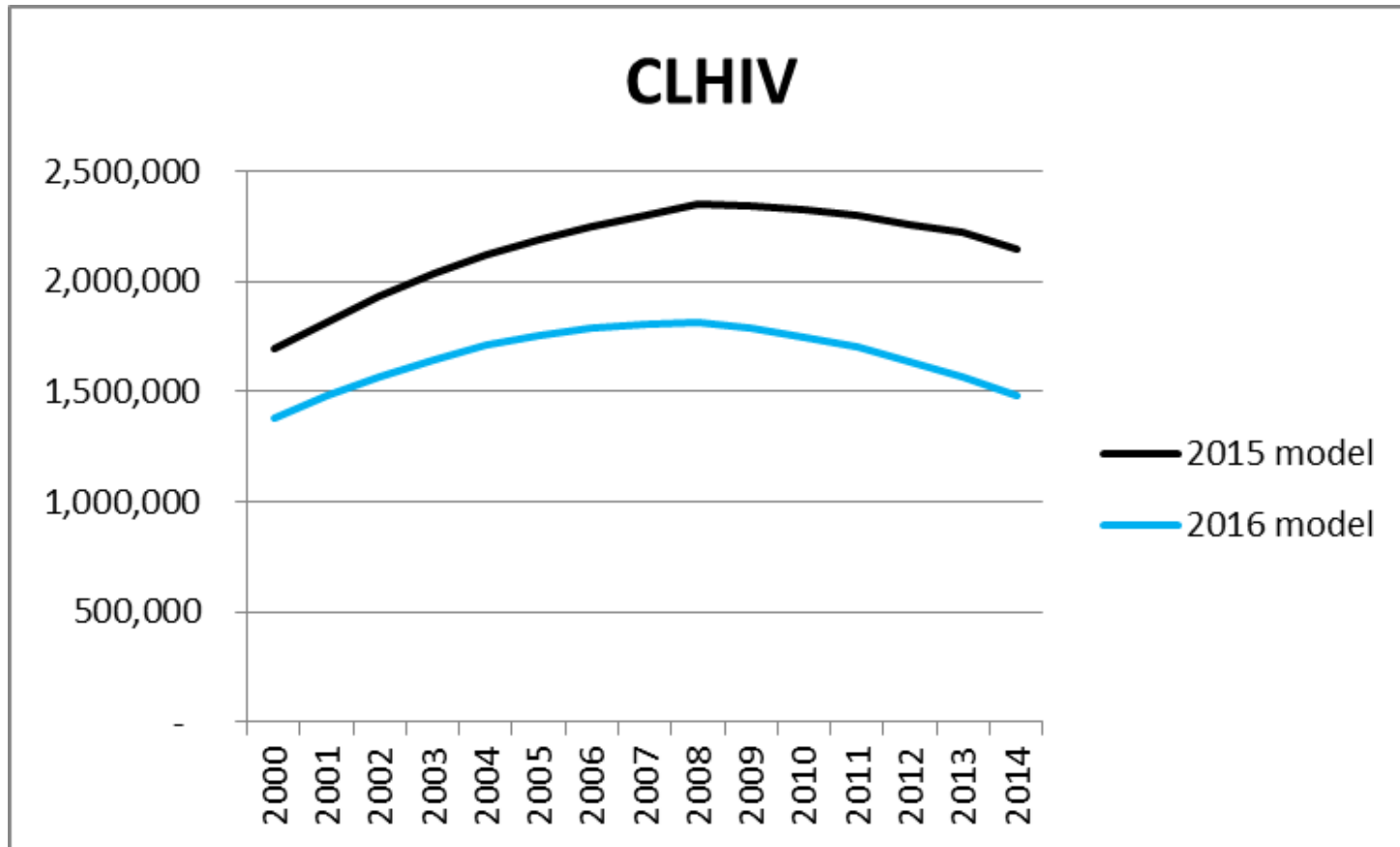


TEST RESULTS



**Test results only reflect changes in assumptions
Do not reflect updates from countries
THESE ARE NOT 2016 ESTIMATES**

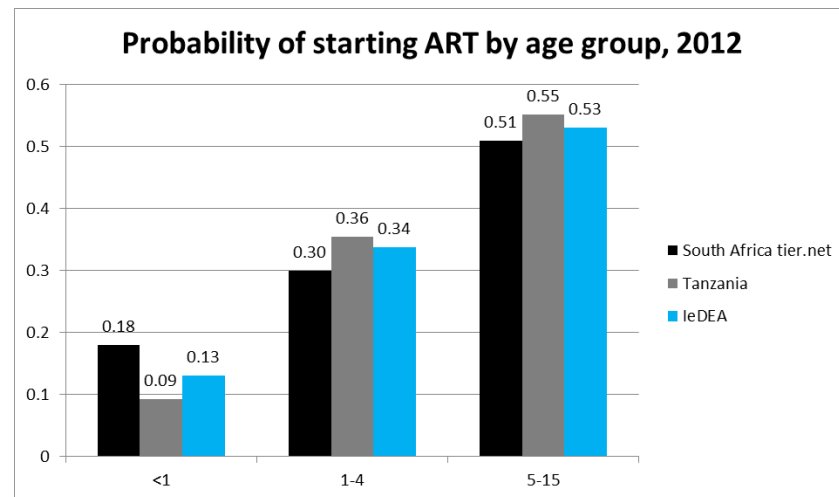
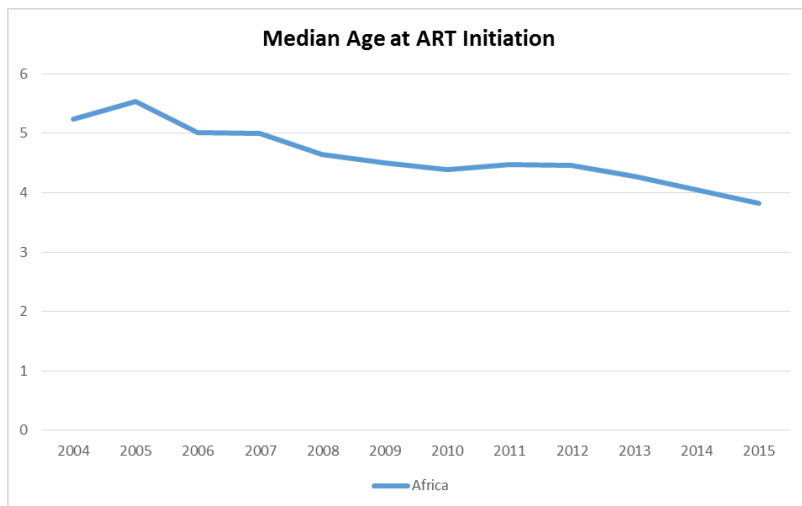
TEST RESULTS



**Test results only reflect changes in assumptions
Do not reflect updates from countries
THESE ARE NOT 2016 ESTIMATES**

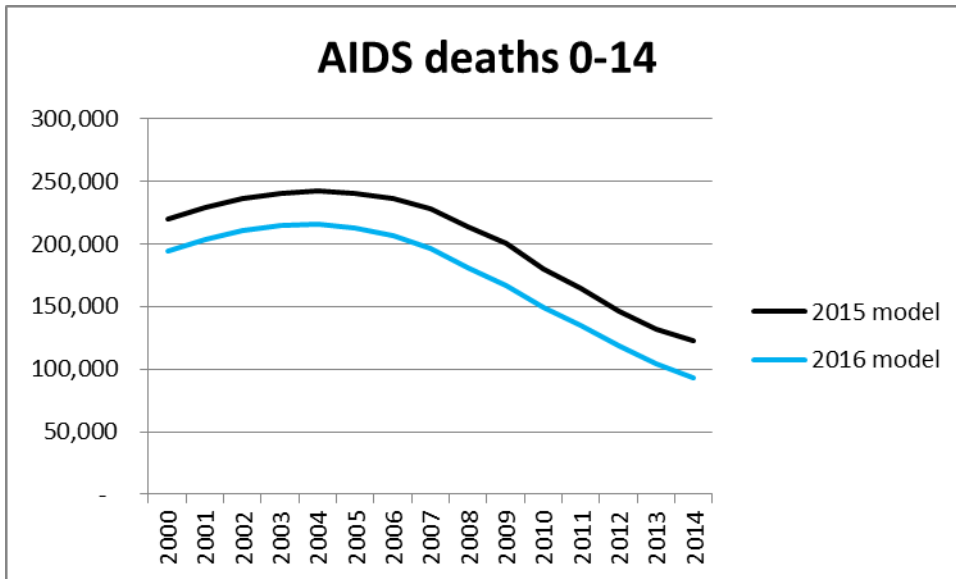
2. Distribution of children starting on ART

- IeDEA provided distribution for three regions, by single year age group
- Tanzania and South African programme data for comparison
- Translated into relative risk of starting on ART by single age
- **Impact: Higher mortality historically, fewer children living with HIV**

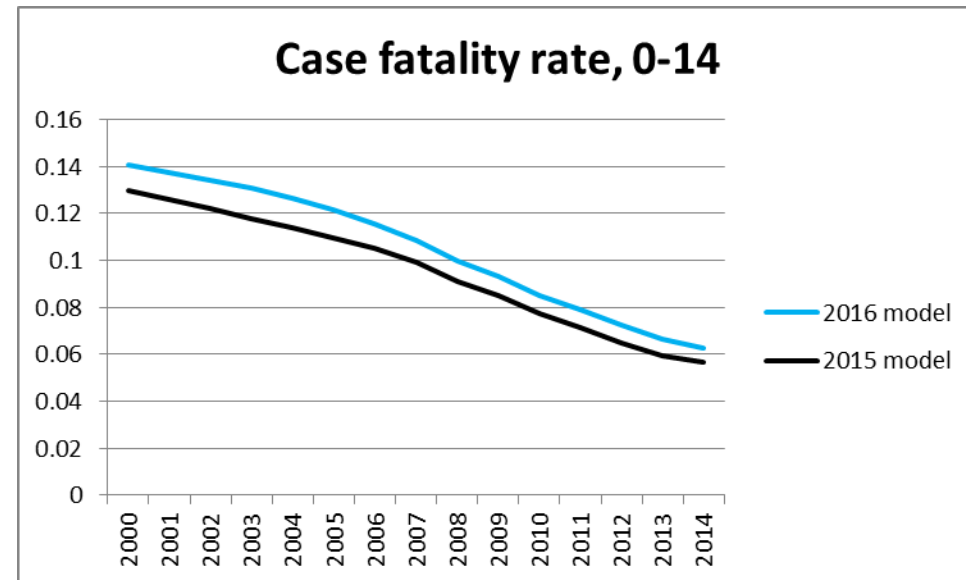


TEST RESULTS

Overall fewer deaths ... but fewer children living with HIV



Case fatality rate 0-14 is 10-12% higher

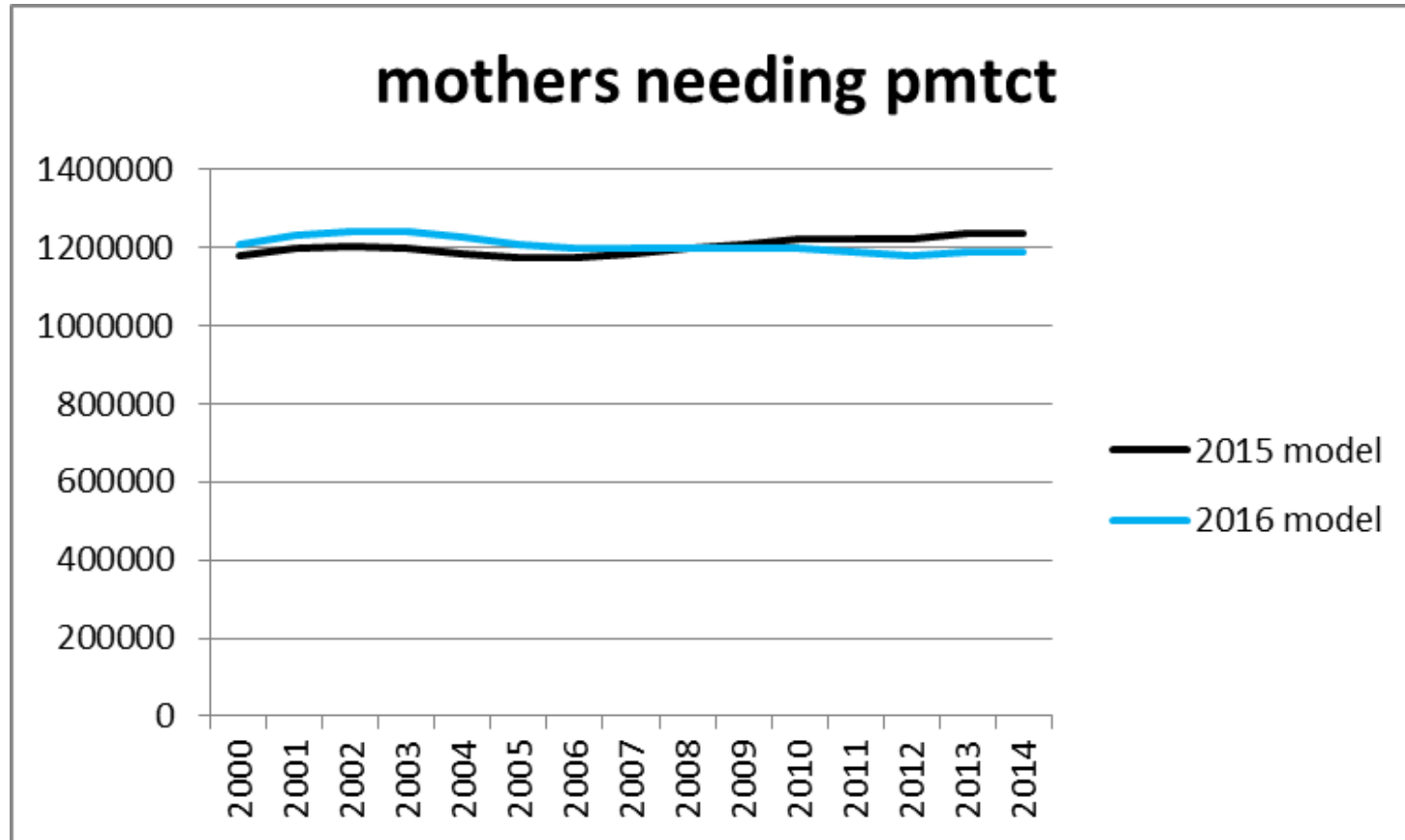


**Test results only reflect changes in assumptions
Do not reflect updates from countries – limited to 21 countries
THESE ARE NOT 2016 ESTIMATES**

3. Drop out among breastfeeding women receiving ART

- Requested IATT M&E working group to identify potential countries with data
- Not yet implemented
- Data?
- **No change** but implies we might be underestimating new child infections

TEST RESULTS



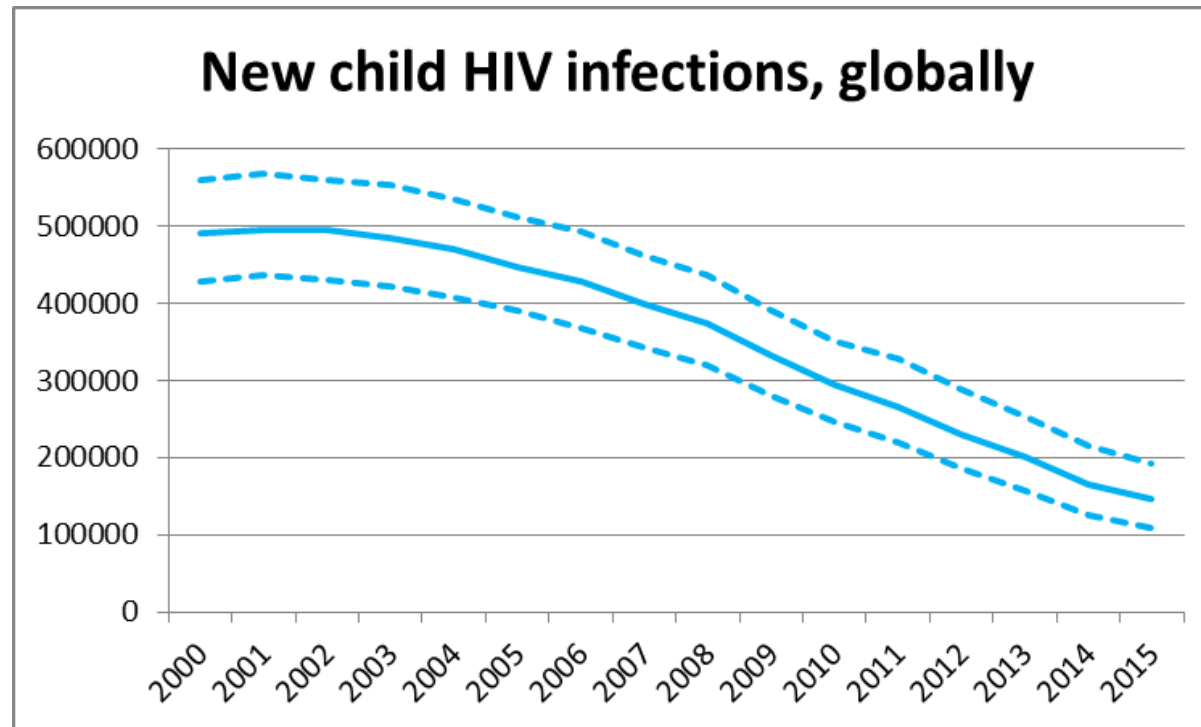
**Test results only reflect changes in assumptions
Do not reflect updates from countries
THESE ARE NOT 2016 ESTIMATES**

New 2016 results

EMBARGOED UNTIL 8 JUNE 2016

Significant decline in new child infections

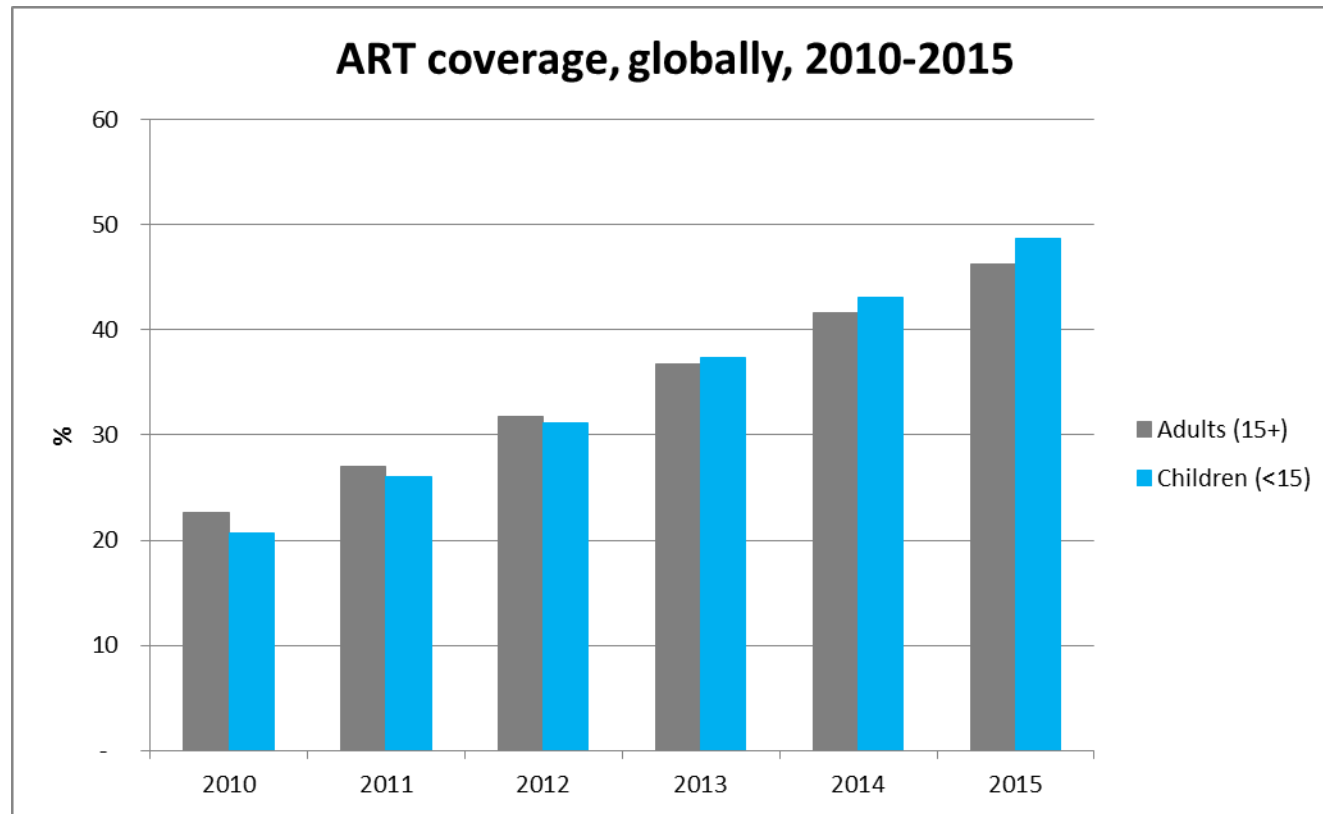
EMBARGOED UNTIL 8 JUNE 2016



Source: UNAIDS 2016 estimates

Child ART coverage similar to adults

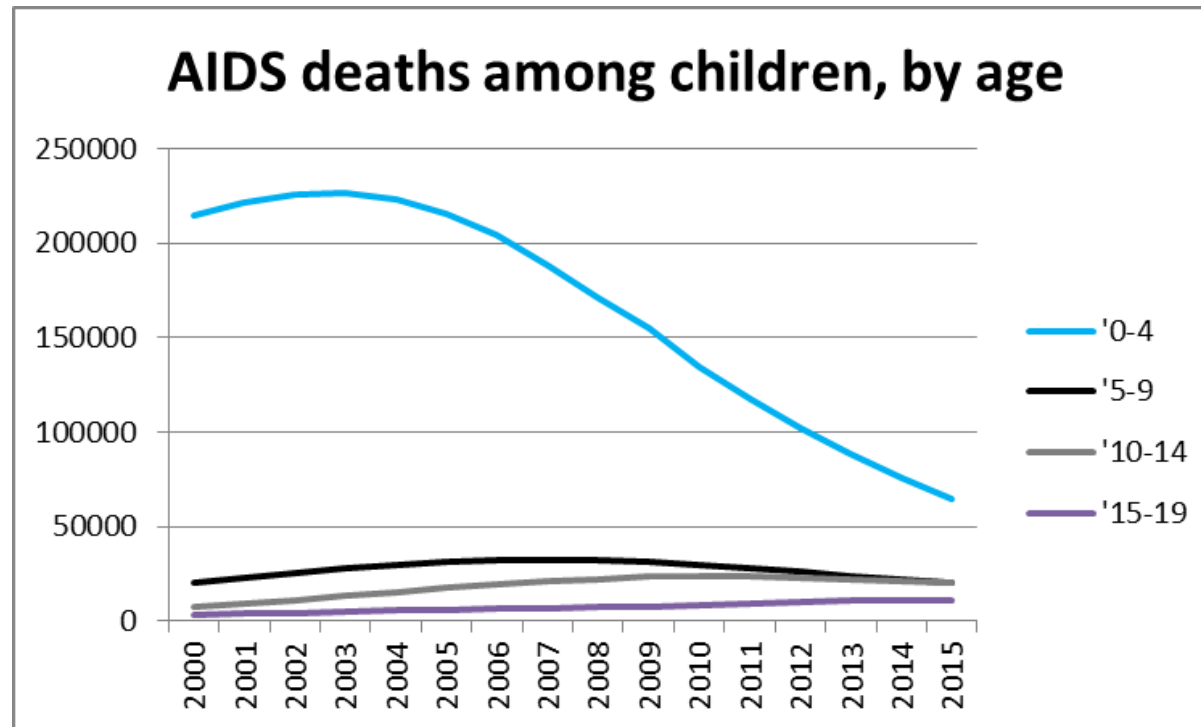
EMBARGOED UNTIL 8 JUNE 2016



Source: UNAIDS 2016 estimates

AIDS deaths declining among children (increasing among ages 15-19)

EMBARGOED UNTIL 8 JUNE 2016



Source: UNAIDS 2016 estimates

Additional information

Progress report on the Global Plan available tomorrow at unaids.org

ON THE FAST-TRACK TO
AN AIDS FREE GENERATION



THE INCREDIBLE JOURNEY OF THE GLOBAL PLAN TOWARDS
THE ELIMINATION OF NEW HIV INFECTIONS AMONG
CHILDREN BY 2015 AND KEEPING THEIR MOTHERS ALIVE

2016

Country specific results at aidsinfo.unaids.org

UNAIDS | AIDSinfo

Indicators: Map, **Data Sheet**, Graphs, Compare, Quick Links

Search: [] [Q]

Regional [x] National [x] Export [ALL] [CSV]

COVERAGE OF PREGNANT WOMEN WHO RECEIVE ARV FOR PMTCT

Country	2011	2012	2013	2014
Afghanistan	1 [1 - 3]	2 [1 - 4]	2 [1 - 3]	1 [0 - 2]
Algeria				32 [10 - 71]
Angola	14 [10 - 20]	17 [12 - 24]	30 [21 - 42]	45 [32 - 63]
Azerbaijan	37 [21 - 59]	45 [30 - 66]	48 [32 - 71]	46 [30 - 69]
Bahamas				70 [63 - 78]
Bangladesh	8 [6 - 9]	12 [10 - 14]	13 [11 - 15]	18 [15 - 21]
Belize	89 [79 - >95]	56 [27 - 62]	77 [68 - >95]	76 [66 - >95]
Benin	26 [22 - 30]	30 [25 - 35]	29 [24 - 34]	53 [12 - 63]
Bolivia (Plurinational State of)	45 [31 - 76]	65 [43 - >95]	54 [34 - >95]	56 [35 - >95]
Botswana	92 [86 - >95]	92 [85 - >95]	>95 [90 - >95]	91 [85 - >95]

Indicators list:

- People living with HIV
- New HIV infections
- AIDS-related deaths
- Prevention
 - Sex workers
 - Men who have sex with men
 - People who inject drugs
 - Elimination of mother-to-child transmission**
 - Coverage of pregnant women who receive ARV for PMTCT**
 - Pregnant women who received ARV for PMTCT
 - Pregnant women needing ARV for PMTCT
 - Infections averted due to PMTCT
 - Early infant diagnosis
- Treatment

- UNAIDS AIDS update released on 31 May
- UNAIDS Global report due out in early July