

# 90-90-90 Trends and Modeling Implications for Getting to Zero in City and Municipal HIV Responses

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# LONDON

## FAST-TRACK CITIES 2019

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# WHERE WE WERE

## World AIDS Day 2014

**Fast-Track Cities** was launched  
**World AIDS Day 2014** in the **City of Paris** where **26** original cities  
signed *Paris Declaration on Fast-Track Cities*

- *Engagement of Mayors for the creation of political will around 90-90-90 and zero stigma and discrimination*
- *Most cities and many countries were not reporting baseline 90-90-90 data, many cities did not report baseline care continua*



# WHERE WE ARE

## *Fast-Track Cities 2019* Conference

- 300+ municipalities have joined the network in every region
- Countries including Brazil, France, South Africa, Ireland, Portugal, Spain, UK, USA, have a critical mass of Fast-Track Cities
- Many cities have Fast-Track City steering committees and strategic municipal implementation plans
- Several ~40 cities are reporting 90-90-90, care continuum, and other locally relevant data on Fast-Track City dashboards

# PARIS DECLARATION 2.0

## 90-90-90 as an entry point for:

- Getting to zero
- U=U, MIPA, GIPA
- HIV prevention
  - Primary HIV prevention
  - Biomedical (PrEP)
- Syndemic conditions
  - Mental health
  - Substance use
- Comorbidities associated with aging
- Viral hepatitis
  - HBV & HCV elimination

PARIS DECLARATION  
1 December 2014  
(amended 24 July 2018)

**FAST-TRACK CITIES:  
ENDING THE  
AIDS EPIDEMIC**

Cities achieving the 90–90–90 targets by 2020

**90%** of people living with HIV knowing their HIV status.

**90%** of people who know their HIV-positive status on treatment.

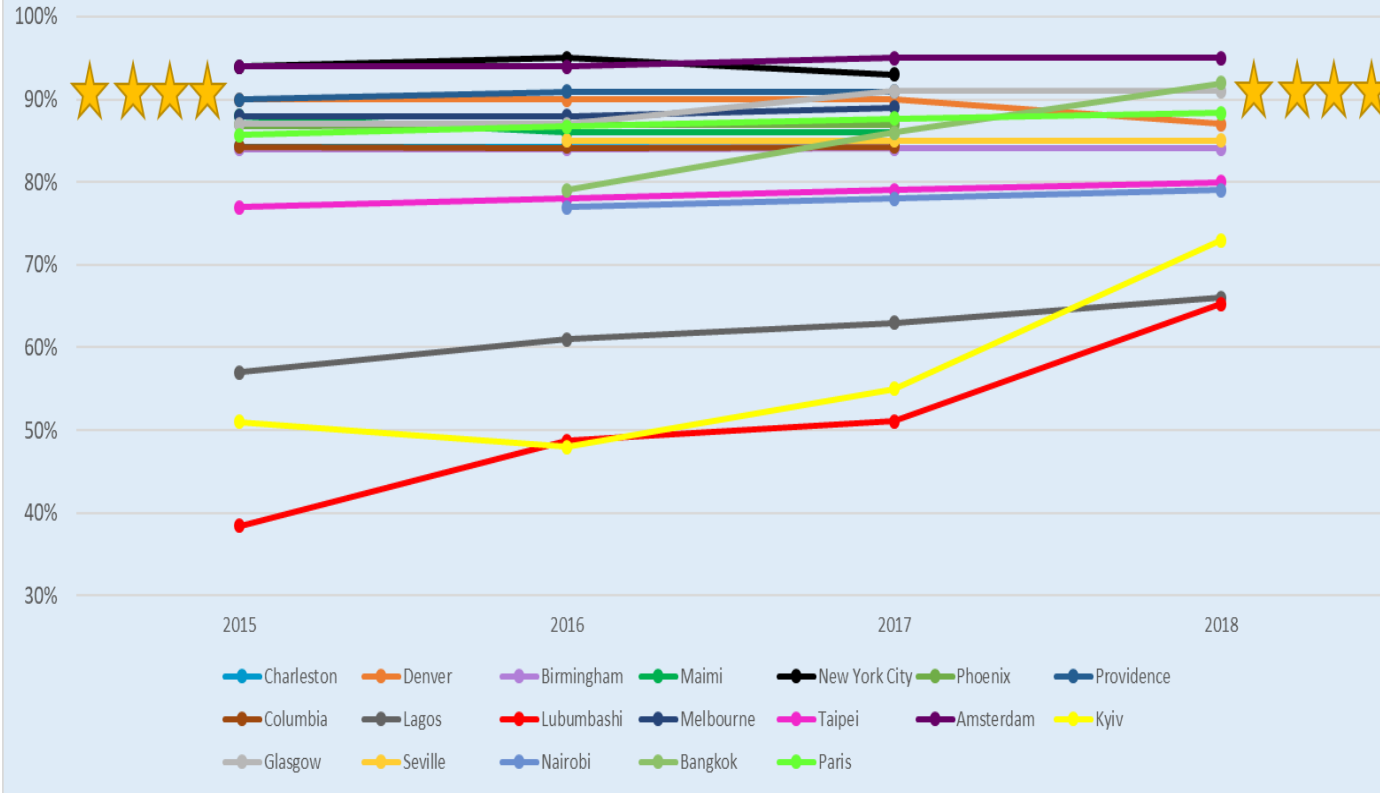
**90%** of people on treatment with suppressed viral loads.

- 58 cities have reported partial/full 90-90-90 data\*
- 38 cities have reported full 90-90-90 data\*

|                                   |           |  |
|-----------------------------------|-----------|--|
| <b>Cities reaching first 90</b>   | <b>13</b> | Amsterdam; Austin; Bangkok; Brighton and Hove; Glasgow; Kigali<br>Kingston/St. Andrew; London; Lusaka; Manchester; New York City;<br>Providence; San Francisco   |
| <b>Cities reaching second 90</b>  | <b>16</b> | Amsterdam; Berlin; Brighton and Hove; Casablanca; Kampala; Lagos;<br>London; Lubumbashi; Manchester; Melbourne/Victoria; Milan;<br>Montreal; Nairobi; Paris; Seville; Taipei   |
| <b>Cities reaching third 90</b>   | <b>23</b> | Amsterdam; Berlin; Brighton and Hove; Brussels; Denver; Kyiv;<br>London; Manchester; Melbourne/Victoria; Milan; Montreal; Nairobi;<br>New York City; Odesa; Paris; Phoenix; Providence; Quezon City;<br>Salvador de Bahia; San Francisco; São Paulo; Seville; Taipei |
| <b>Cities surpassing 90-90-90</b> | <b>4</b>  | Amsterdam; Brighton and Hove; London; Manchester   |
| <b>Cities surpassing 95-95-95</b> | <b>1</b>  | London   |

\*Reported publicly, on FTC dashboard, or shared by city with IAPAC; additional cities may also be reporting 90-90-90

### First 90 Trend Data 2015-2018

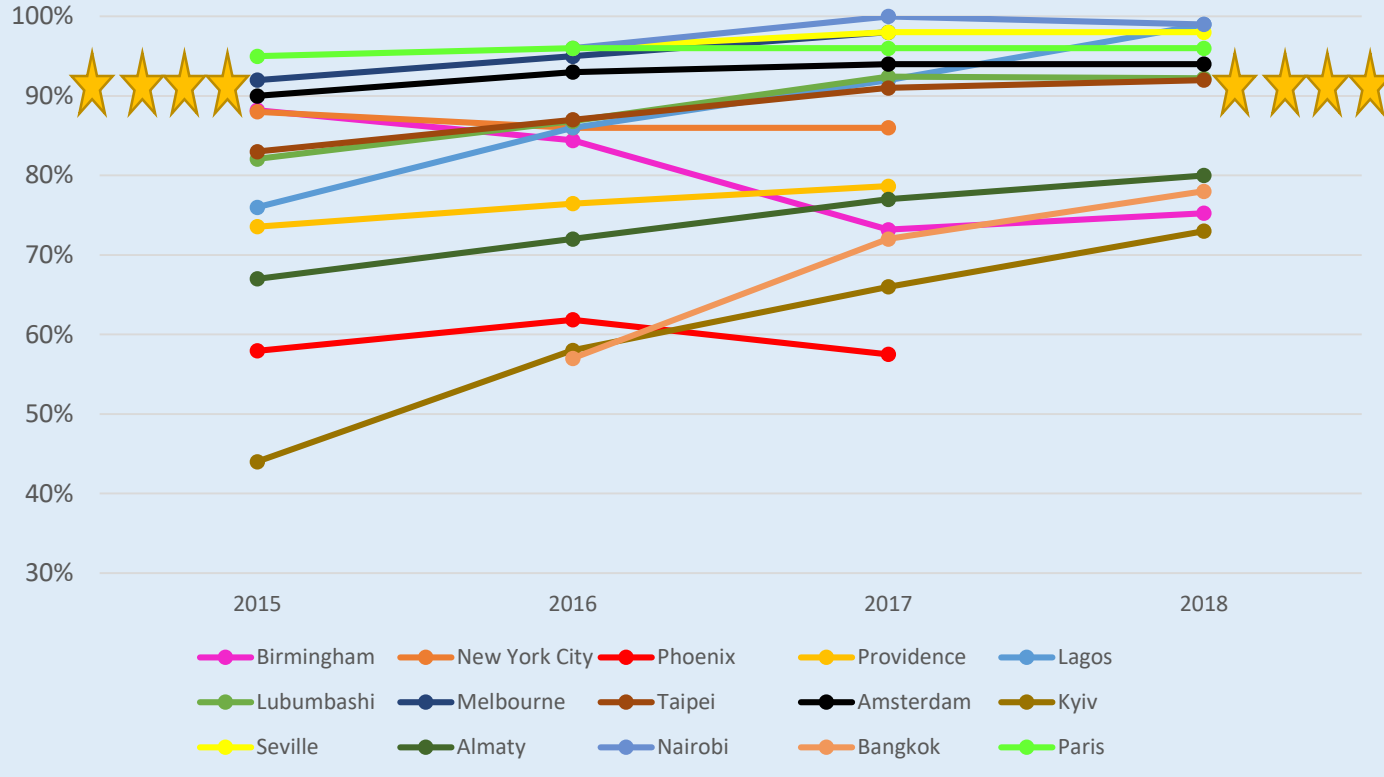


- 11 of 19 cities have shown improvements in their first 90
- 4 of 11 cities have had  $\geq 5$  percentage point increases
- 3 of 4 cities have had  $\geq 10$  percentage point increase

\*Includes cities reporting 3-4 years of trend data from a 2015 baseline (start of FTC initiative)



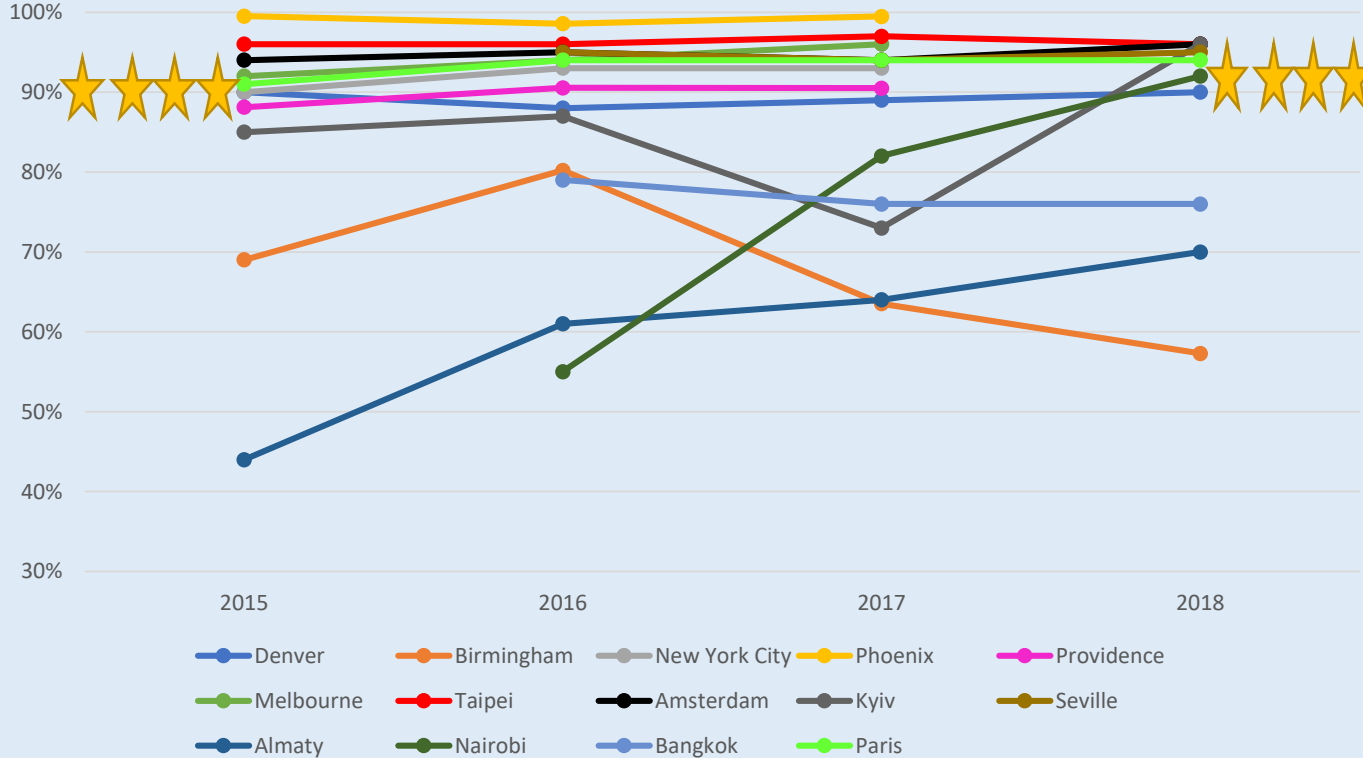
## Second 90 Trend Data 2015-2018



- 12 of 15 cities have shown improvements in their second 90
- 9 of 12 cities have had  $\geq 5$  percentage point increase
- 5 of 9 cities have had  $\geq 10$  percentage point increase

\*Includes cities reporting 3-4 years of trend data from a 2015 baseline (start of FTC initiative)

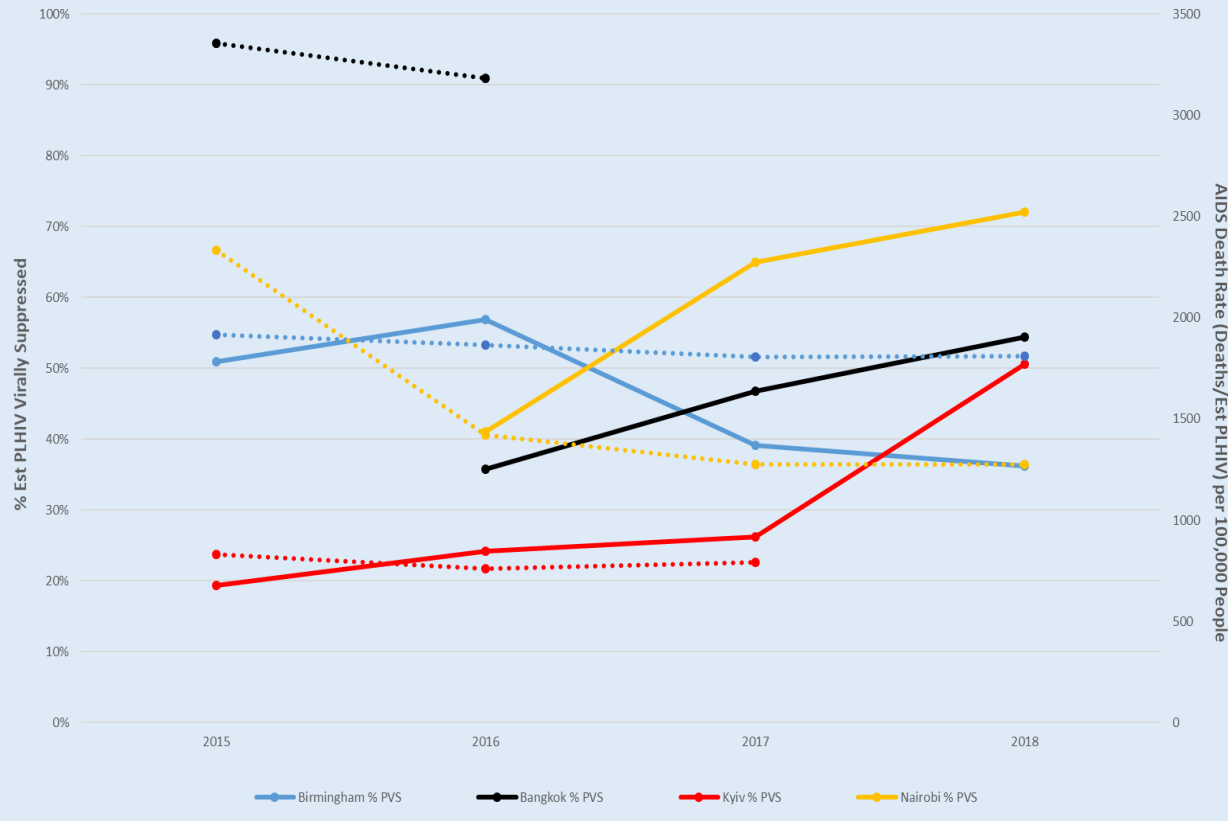
### Third 90 Trend Data 2015-2018



- 10 of 14 cities have shown improvements in their third 90
- 3 of 10 cities have had  $\geq 5$  percentage point increase
- 3 of 3 cities have had  $\geq 10$  percentage point increase

\*Includes cities reporting 3-4 years of trend data from a 2015 baseline (start of FTC initiative)

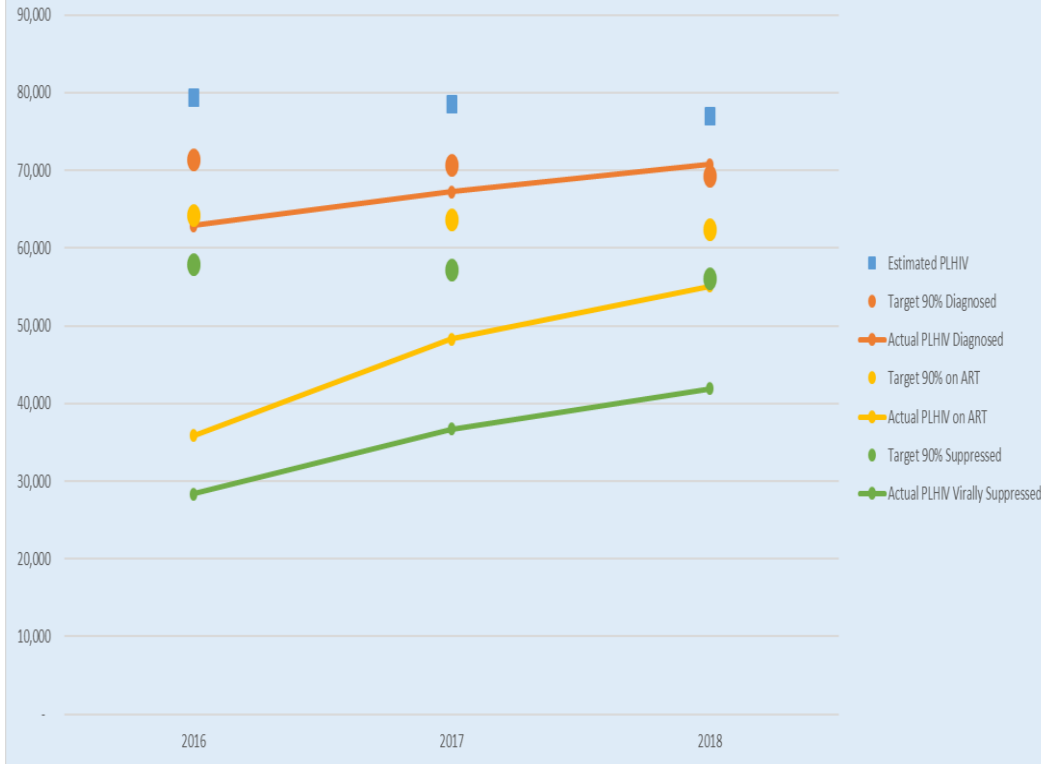
Percent of Estimated PLHIV Population Virally Suppressed & AIDS-related Death Rates  
2015 - 2018



- It is necessary to look at 90-90-90, and particularly the 3<sup>rd</sup> 90, in the context of AIDS mortality (and HIV incidence)
- Mortality and incidence can help validate whether upward 90-90-90 trends are accurate and assess if we are moving towards ending urban epidemics
- More data points are needed to accurately denote association/trends over time; as Fast-Track Cities continue to provide these data, this graph can provide better insight into these metrics

\*Inclusion criteria: >3 years of continuum of care data, >2 years mortality data. >75 AIDS-related deaths.

## Bangkok: 90-90-90 Targets and Actuals 2016-2018

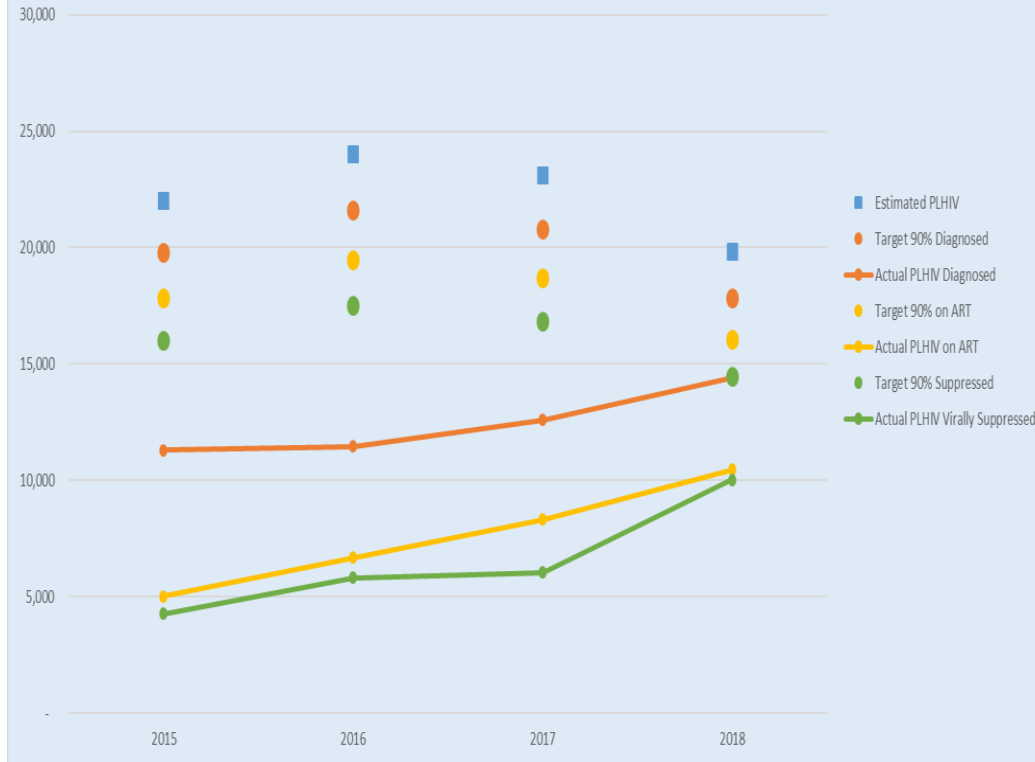


Baseline 2014: 66-57-76  
Current 2018: 92-78-76

- Development of FTC committee and a FTC Road Map
- Improvement in HIV and KP estimation methodologies
- Key population led services
- Innovations to reach KPs and youth
- Increased domestic funding for KP and CBOs

\*Targets calculated based on converted care continuum proportions 90%-81%-72.9%

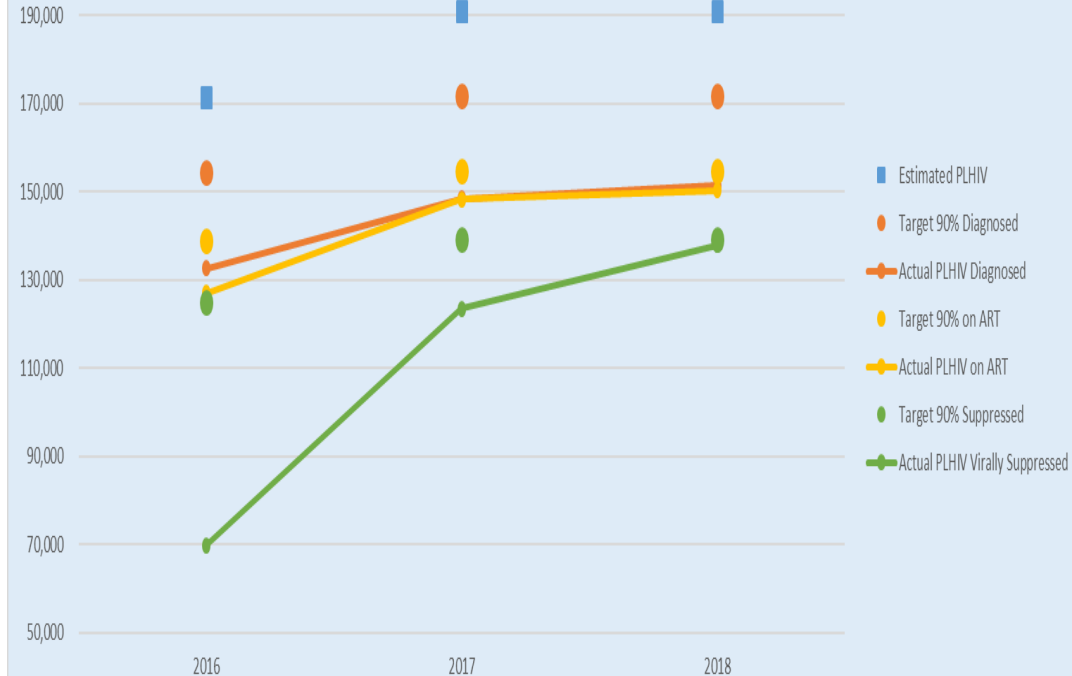
### Kyiv: 90-90-90 Targets and Actuals 2015-2018



Baseline 2015: 51-44-85  
Current 2018: 73-73-96

- Strong political advocacy
- Decentralized ART and testing
- Increased public/private partnerships
- Increased intersectoral partnerships
- PrEP roll out and increased OST and other prevention programs

## Nairobi: 90-90-90 Targets and Actuals 2016-2018



Baseline (2017): 77-96-55  
Current (2019): 79-99-92

- Focused efforts for adolescents, Key Populations, populations in informal settings, girls and young women
- PrEP and HIV self testing rollout
- Granulated HIV and TB data by facility
- Improved EMR systems for data management

# WHERE WE'RE GOING

Ending Urban HIV Epidemics by 2030

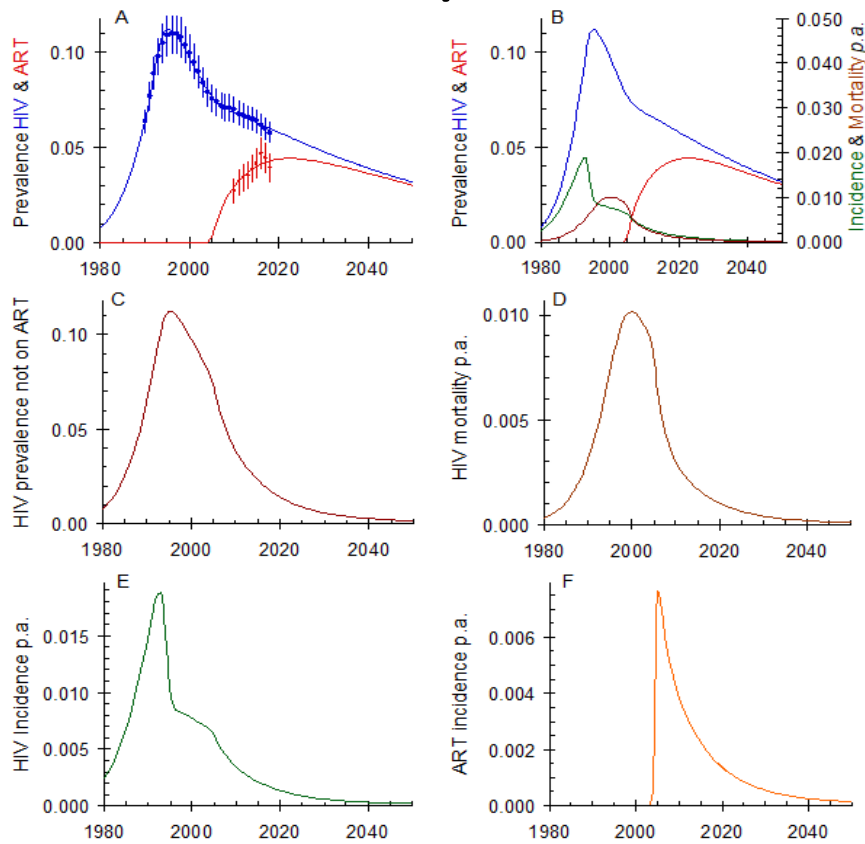
# Ending HIV Epidemics in Fast-Track Cities

- We reviewed epidemiological trends in select cities with respect to the HIV and incidence, AIDS-related mortality, and antiretroviral therapy (ART) coverage
- Our aim was to better understand progress in ending urban HIV epidemics and what needs to be done in terms of ART scale-up to achieve this objective

**“Ending HIV Epidemics” defined: Less than one new HIV infection and one AIDS death per thousand adults**



# Nairobi County

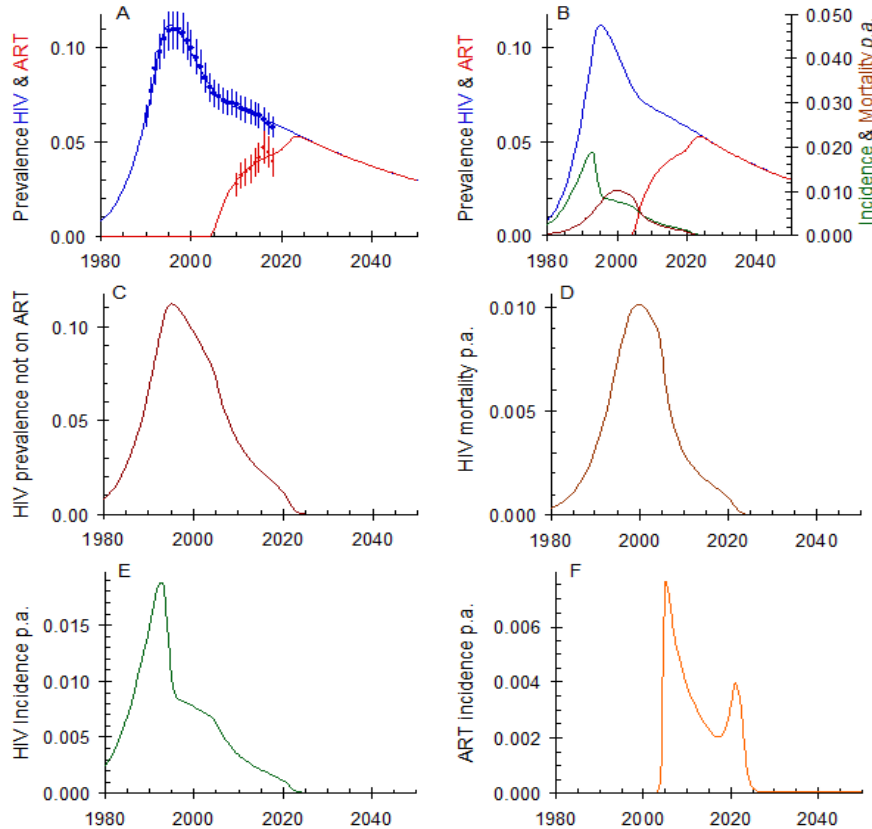


Source: Spectrum 2018

## Current ART Coverage Levels Maintained

- Considerable progress has been made
- HIV incidence (E) and AIDS-related mortality (D), as well as the number of people starting ART each year, will continue to decrease slowly
- Nairobi's HIV epidemic could end by ~2050 (C to F)

# Nairobi County



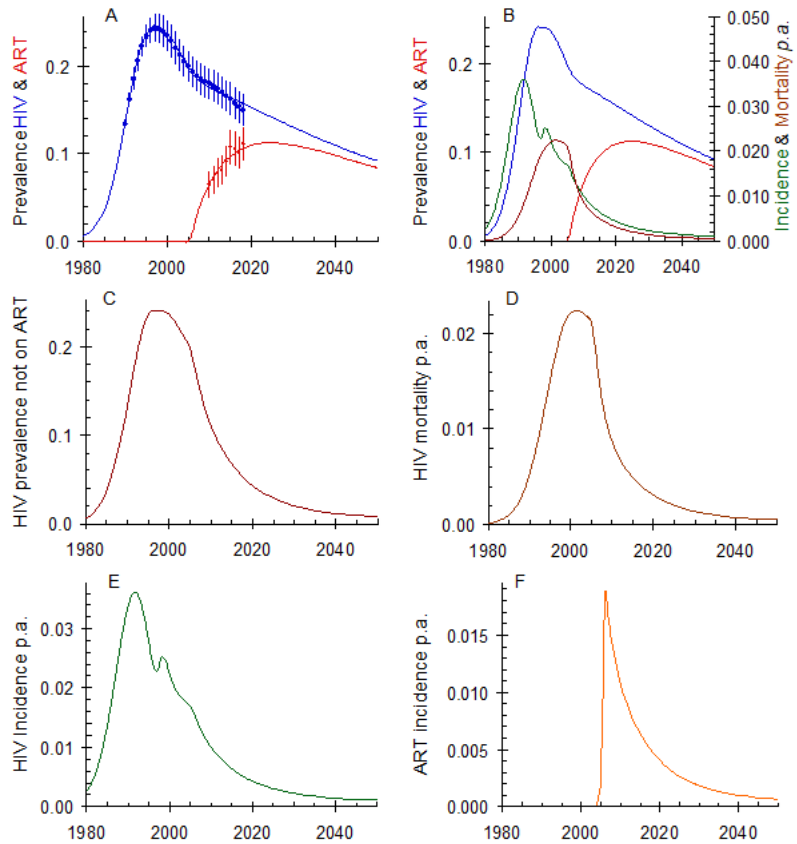
Source: Spectrum 2018

## Aggressive ART Scale-Up\*

- Scaling up ART now (F) will decrease HIV incidence (E) and AIDS-related mortality (D) as well as the number of people starting ART each (F) year
- Nairobi's HIV epidemic could end by ~2024 (compared to 2050)

*\*aggressive ART scale up defined as annual testing for anyone at risk followed by immediate ART*

# Lusaka

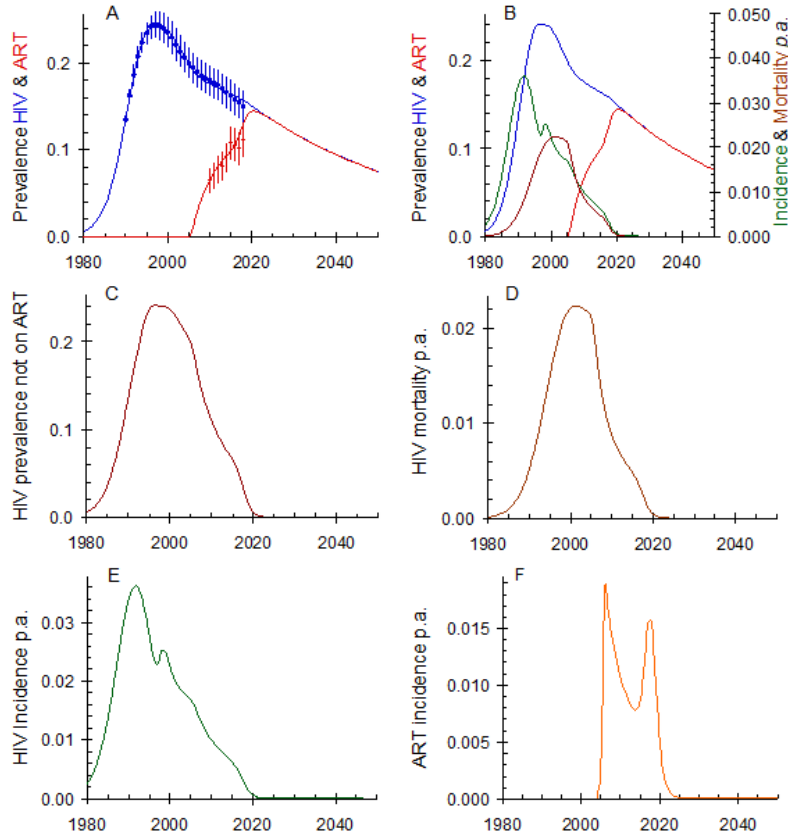


Source: Spectrum 2018

## Current Levels of ART Coverage Maintained

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# Lusaka



Source: Spectrum 2018

## Aggressive ART Scale-Up

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- Lusaka's HIV epidemic could end by ~2020

# Limitations to the Model

- PrEP uptake and other HIV prevention data are not taken into consideration since several years of temporal data were not available
- The early data, at the start of the epidemic, are important because they determine the underlying dynamics which in turn determines the impact of control. Improved trend data increases the accuracy of the model
- Where possible data on particular risk groups are important because the dynamics and impact of control are very different

# Conclusions

- Fast-Track Cities have made considerable progress towards 90-90-90 targets with many cities having surpassed one or more of the 90s
- Ending the Epidemic and Getting to Zero requires that we cannot consider 90-90-90 in a silo and must jointly focus on HIV mortality and incidence trends
- Sustained efforts of treatment scale up have seen improvements in lowering incidence and mortality in Lusaka and Nairobi, but an aggressive scale up could be necessary in many cities to meet the 2030 deadline
- Now is not the time to be complacent

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# Thank You

For more information on the presentation, data reported by Fast-Track Cities, or the FTC initiative, contact me at: [sravishankar@iapac.org](mailto:sravishankar@iapac.org)

For more information on the modelling contact Brian Williams at: [williamsbg@me.com](mailto:williamsbg@me.com)