

# The Cost and Value of HIV Testing in Malawi

*CENTS Webinar Part 3: Costing and Value for Money for HIV testing*

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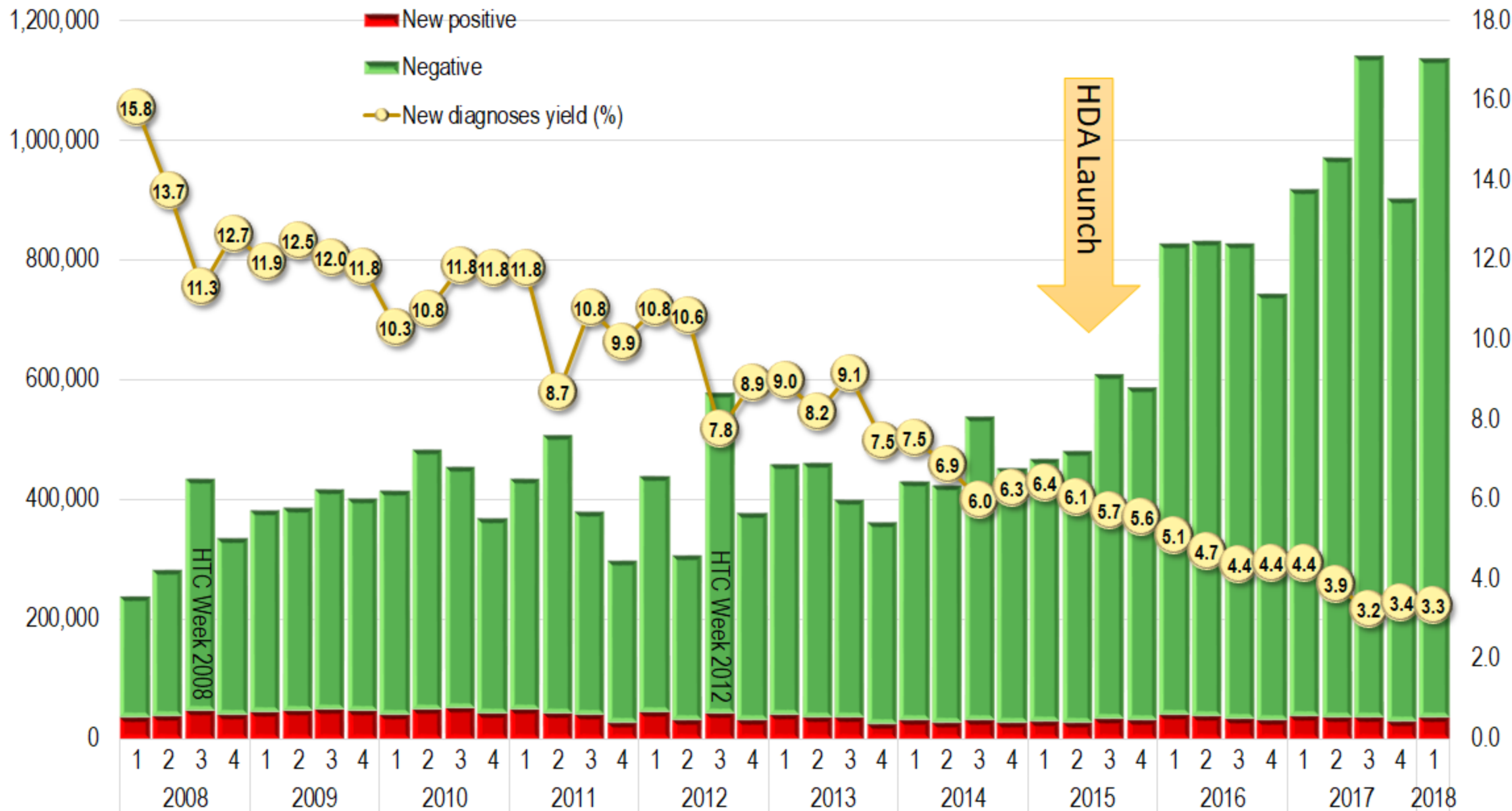
I-TECH, University of Washington, Seattle

# Evolution of HIV Testing Strategy: early 2000s

- *“Know your status”, “positive living”, HTC (with a big “C”)*
  - Perceived prevention effect
  - *“Asking God when you will die”*
- Task-shifting: Health Surveillance Assistants (HSA) delivered 99% of testing
  - Vulnerable to competing tasks → common service disruptions
- HIV Testing week campaigns
  - Tackle stigma, reaching the hard-to-reach, HIV service “mainstreaming”
  - Disruption of health services, unaccounted commodities, stock-outs
- HTC as a home for any budget / grant with “HIV label”
  - Proliferation of projects with poorly targeted testing → logistics and reporting challenges
- The eternal window-period → “pit-stop” testing
- ART only for advanced HIV
  - Introduction of ART → significant increase in demand for testing

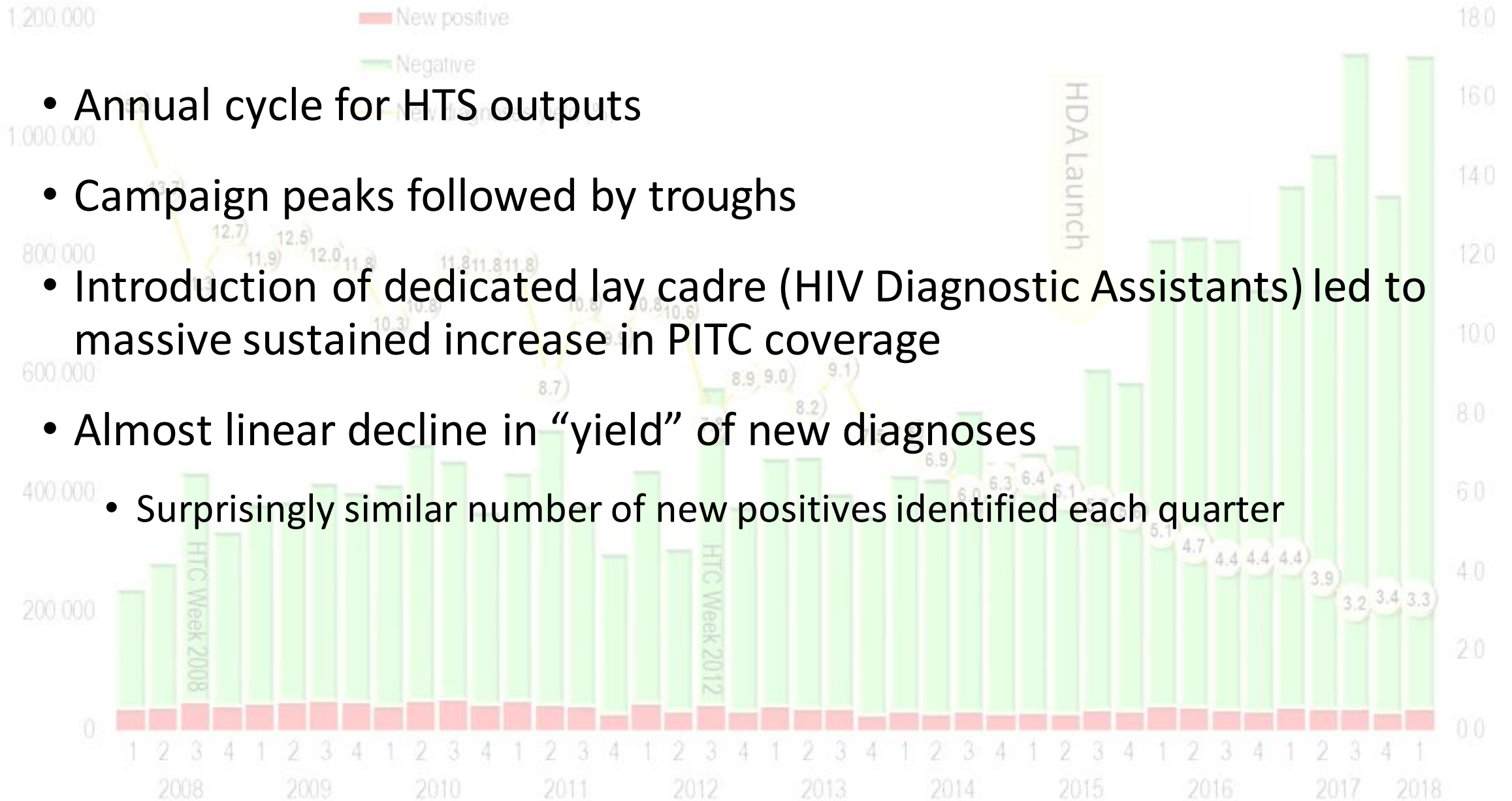
# HIV tests done

# New diagnoses yield %



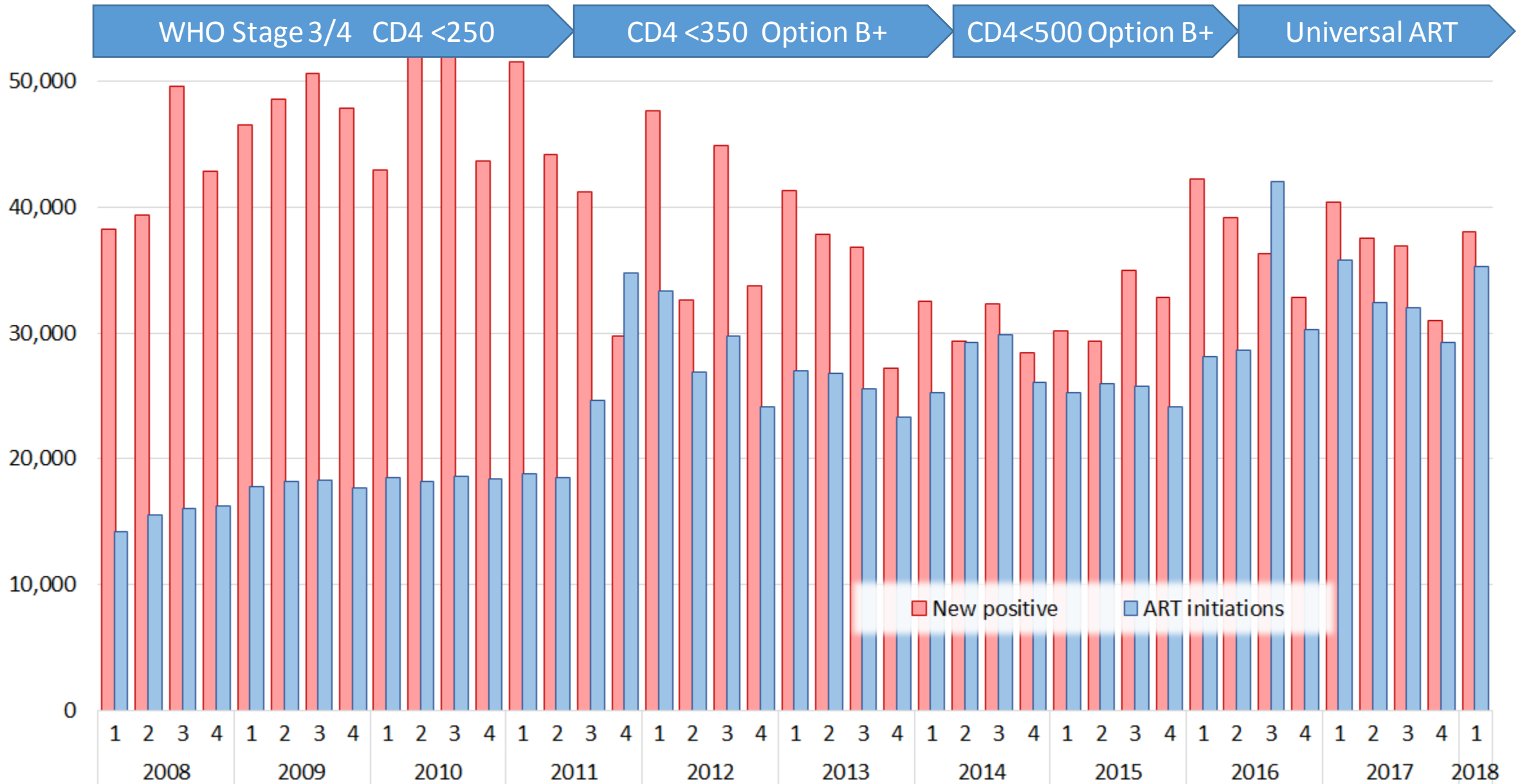
HIV tests done

New diagnoses yield %

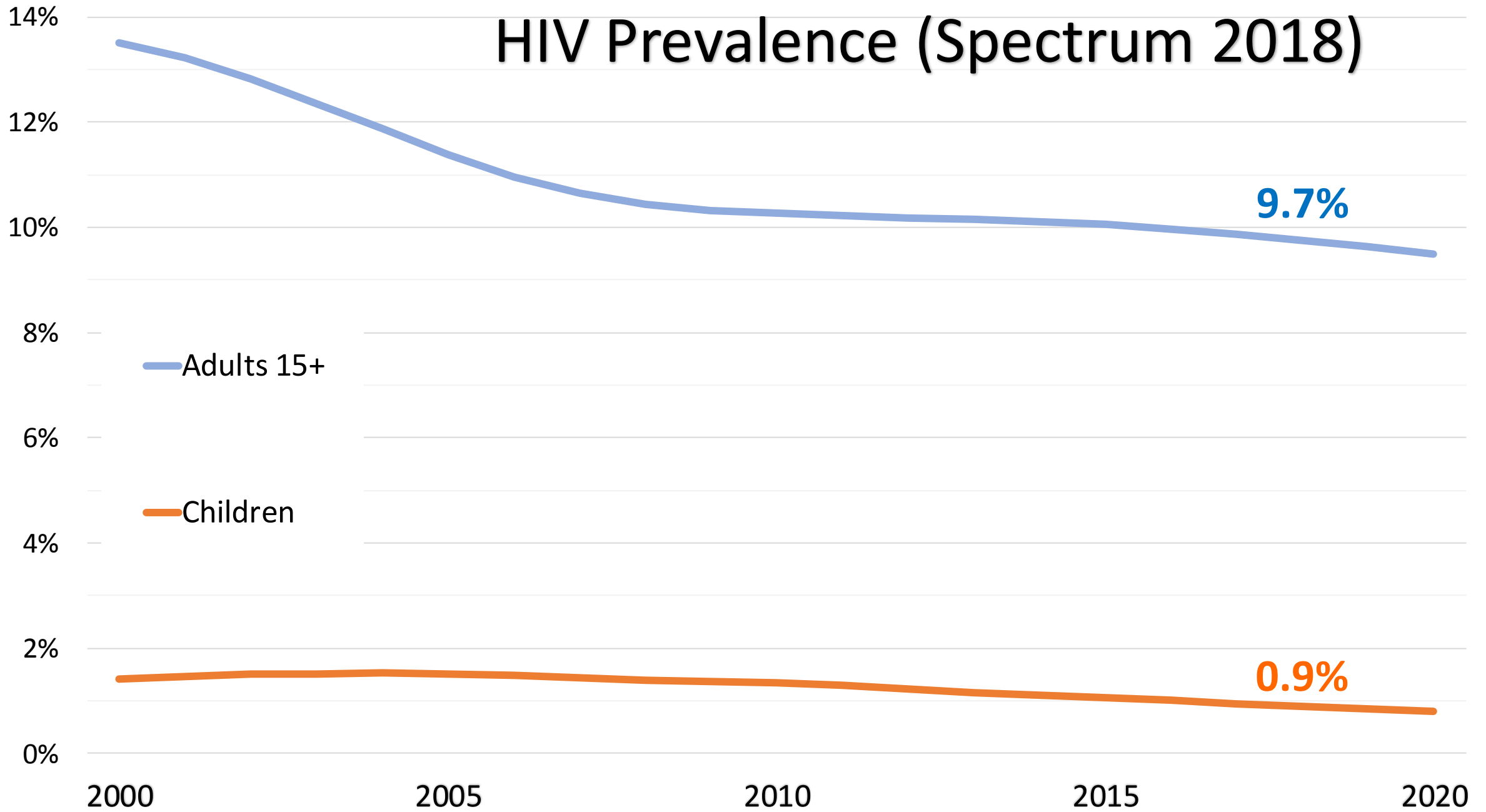


- Annual cycle for HTS outputs
- Campaign peaks followed by troughs
- Introduction of dedicated lay cadre (HIV Diagnostic Assistants) led to massive sustained increase in PITC coverage
- Almost linear decline in “yield” of new diagnoses
- Surprisingly similar number of new positives identified each quarter

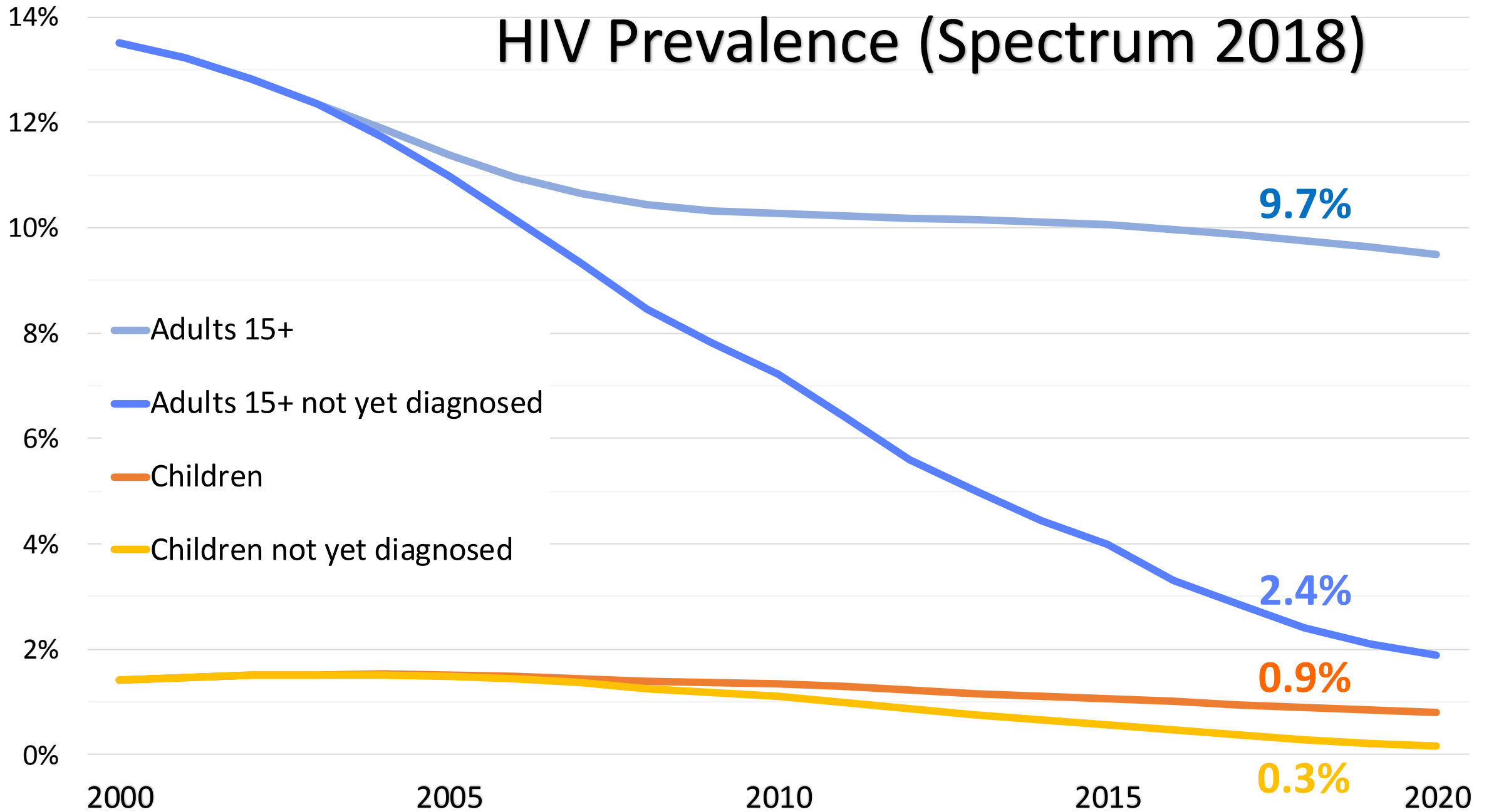
# Proxy Linkage from Diagnosis to ART (Program Data)



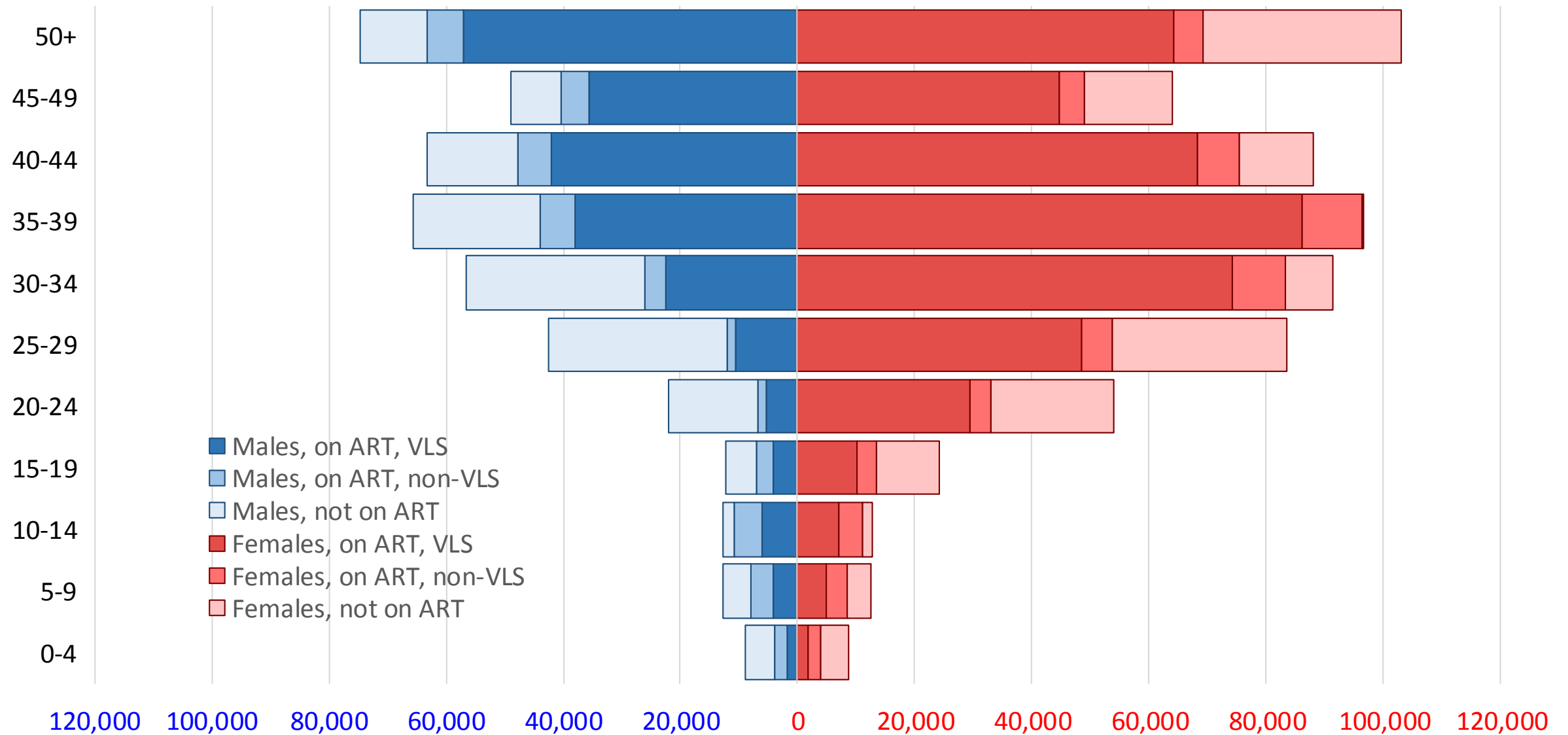
# HIV Prevalence (Spectrum 2018)



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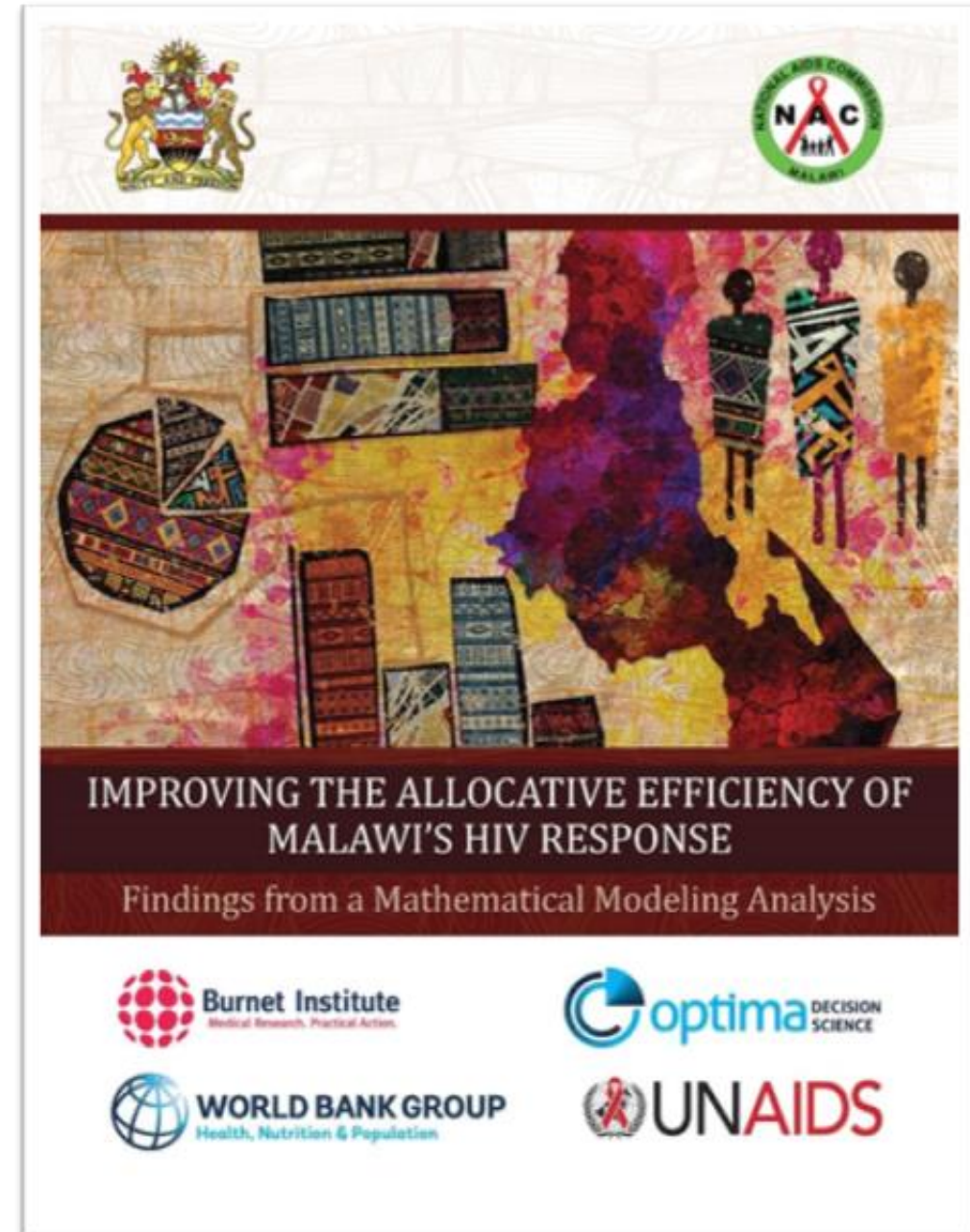
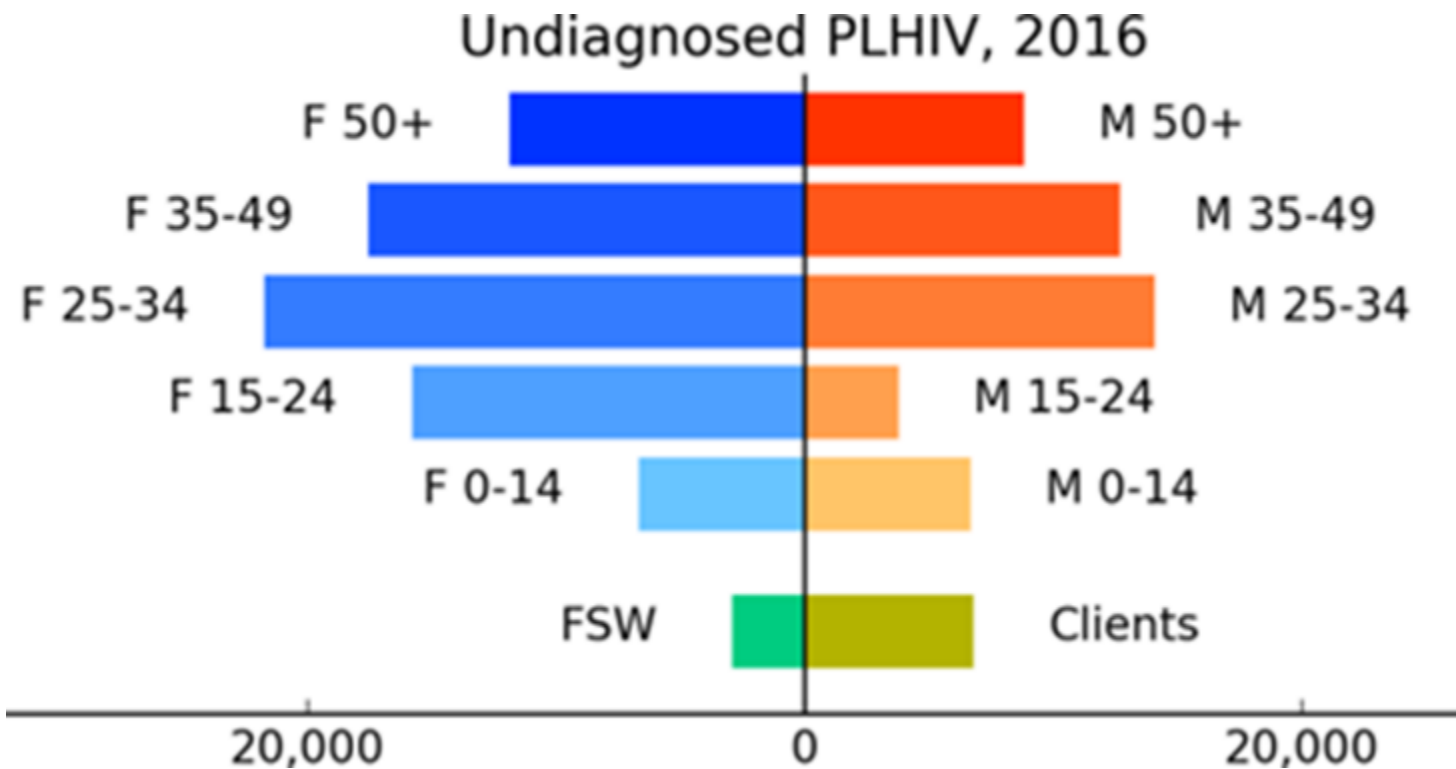


# How to target by age / sex? Who is missed?

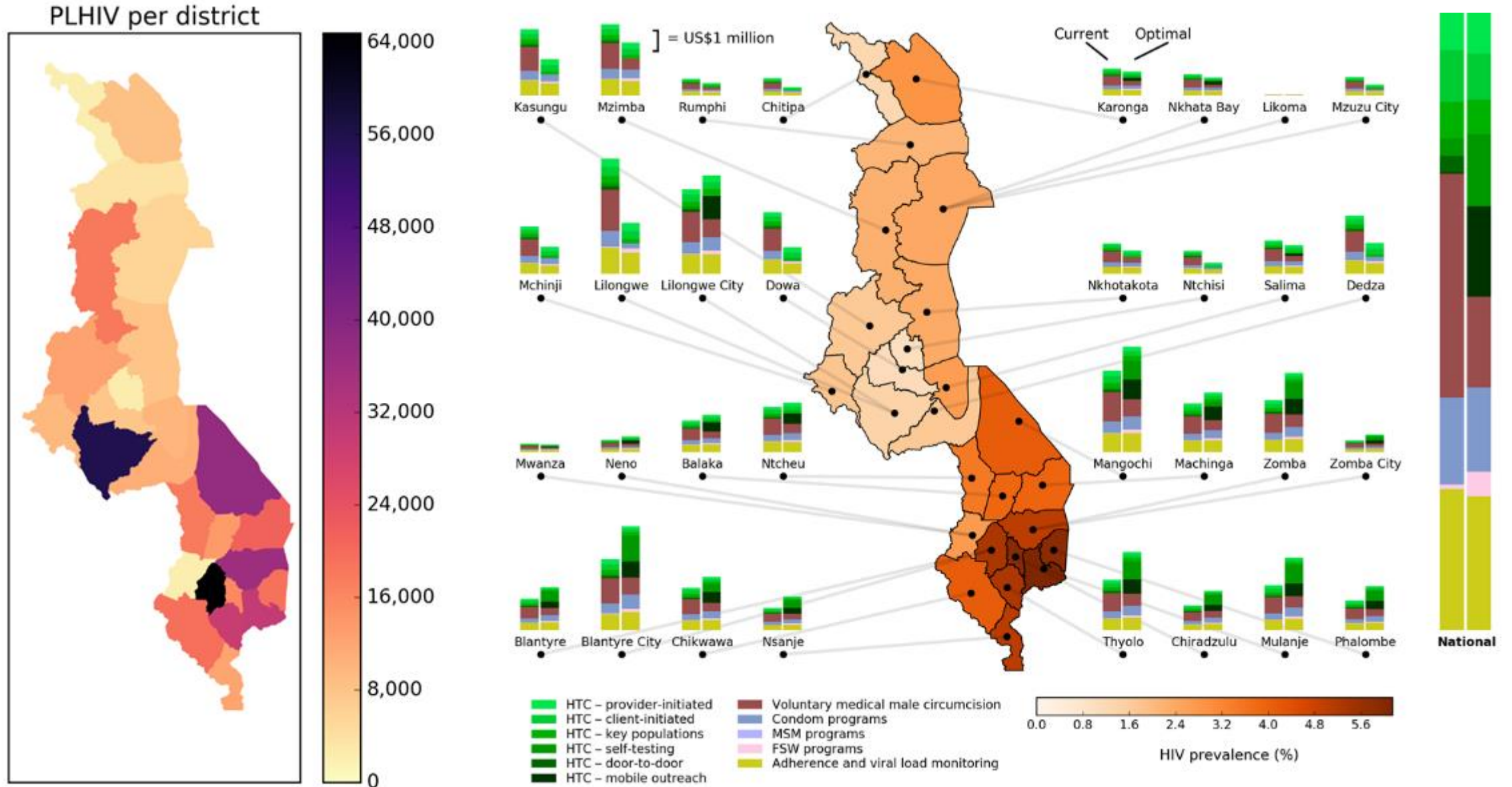


# Optima Model

- Preliminary results
- Not yet endorsed
- Unexpected findings → challenges



# Geographic targeting



# Emerging HTS Challenges

## **Repeat positives**

- Many undisclosed: hints from ART referral registers, PHIA
- 3 Groups: never started ART – interrupted ART – currently on ART
- Probably different proportions of repeat positives by HTS mode / location
- Very difficult to make formal adjustments
- Key data gap for cost-effectiveness / allocative efficiency
- Self-testing may complicate classification further

## **Rapid adjustments for HTS strategy needed**

- “Pockets” of undiagnosed PLHIV are rapidly exhausted
- Undiagnosed are increasingly recently infected

# Emerging HTS Challenges

## **Prioritizing testing modes**

- Maintaining high PITC coverage at health facilities ethical imperative for MOH
- Huge draw on resources

## **Accurate cost data**

- Commodity cost – easy
- Programmatic cost – challenging
- Comprehensive expenditure data by mode – (almost) impossible

## **Economies of scale?**

- No simple linear / multiplicative association between budget input and HIV diagnosis outputs
- Focus on new on ART / total alive on ART as HTS program impact