

# Challenging Escalating HIV Test & ART in Indonesia

Dreaming ART for Prevention?



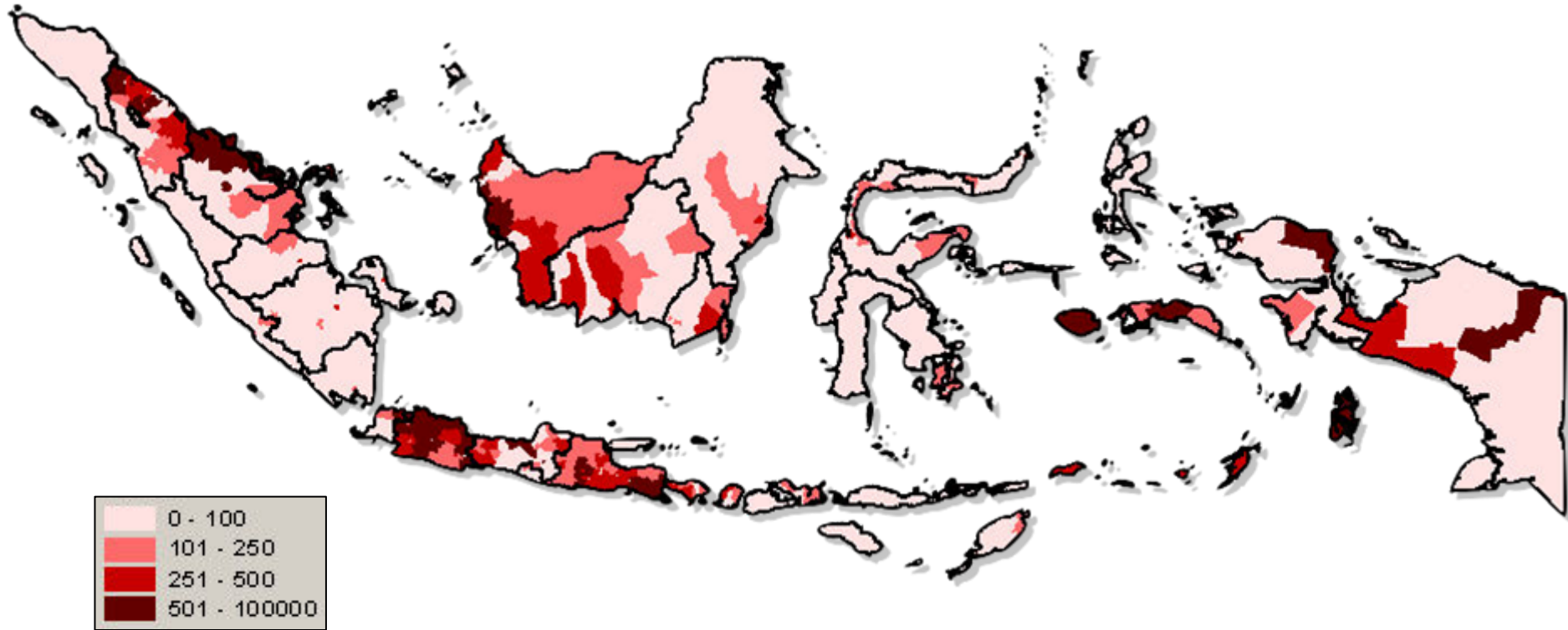
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# HIV epidemic in Indonesia

- Concentrated Epidemic In Indonesia
- No single Epidemic type in Indonesia
- Multiple Epidemic Type:
  - Papua
  - Non Papua
- Indonesia's epidemic exhibits great heterogeneity and diversity (including within Papua or non Papua)

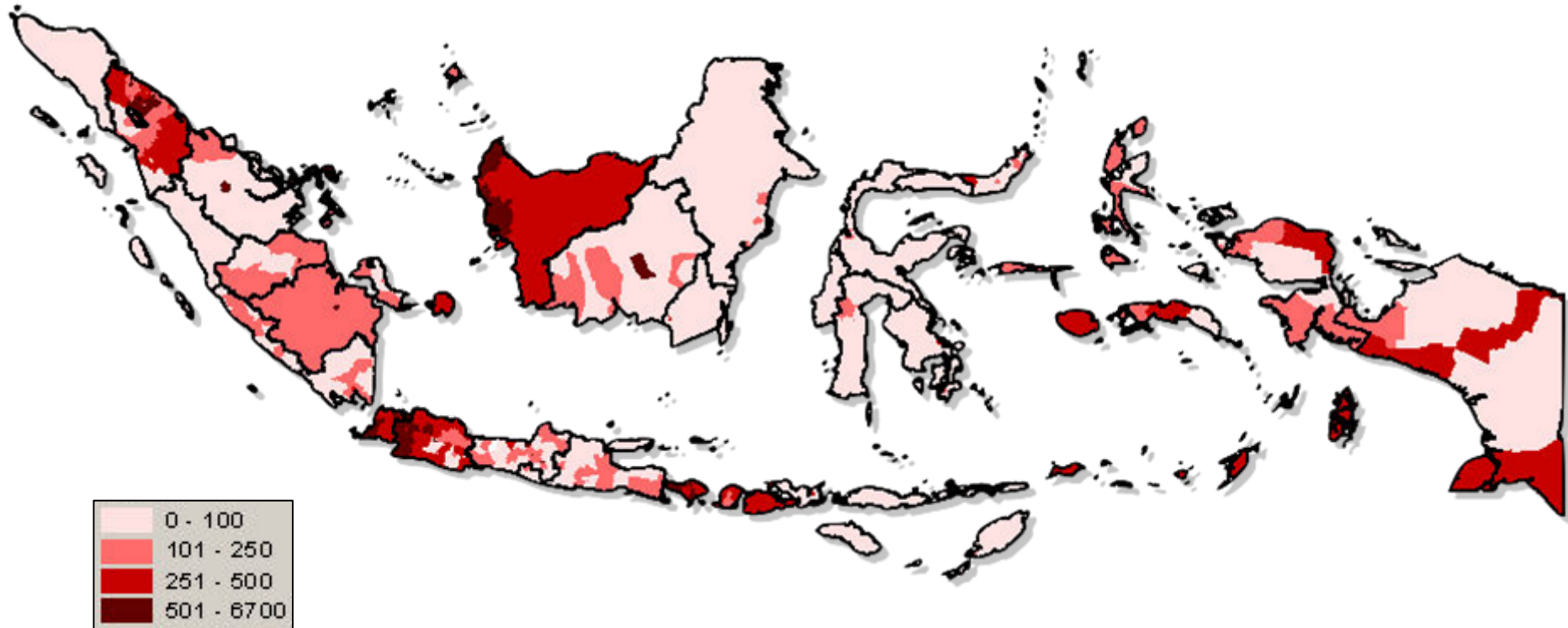


# The distribution of direct FSW



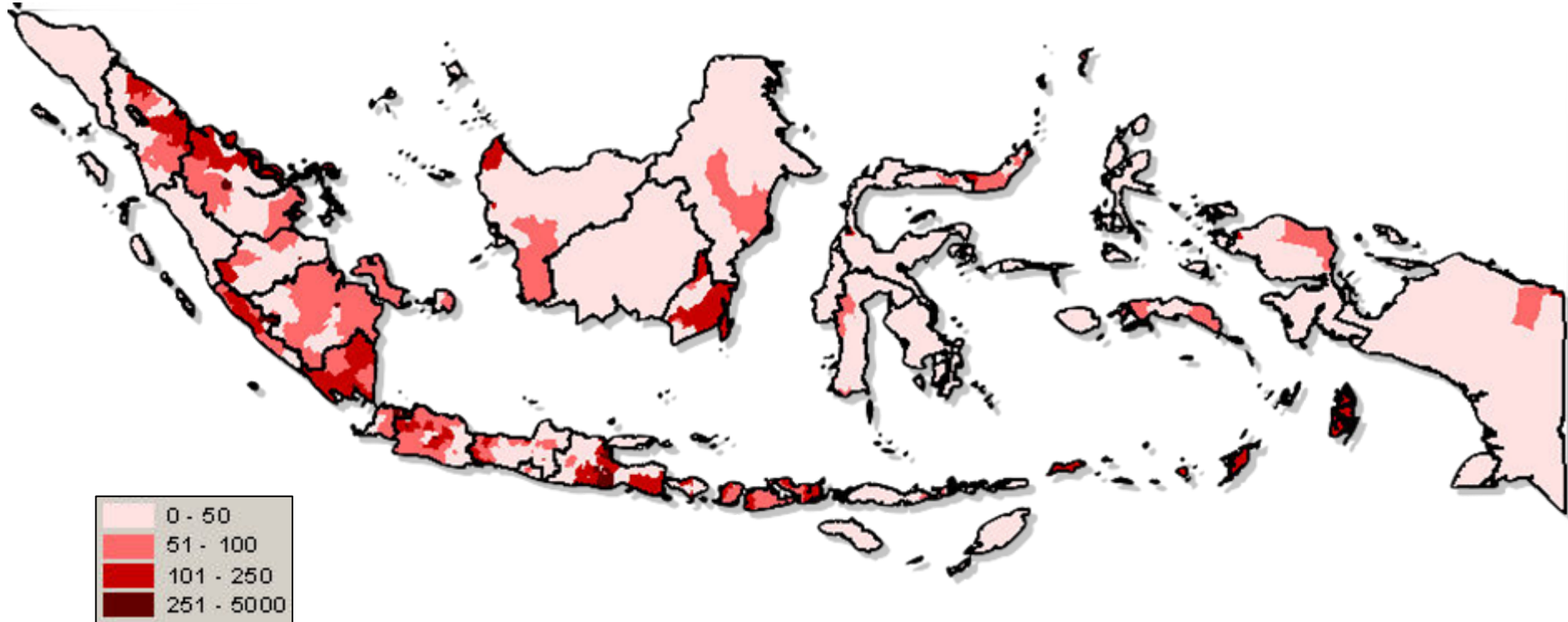
Year	Median	Low	High
2009	106,011	90,245	124,296

# The distribution of indirect FSW



Year	Median	Low	High
2009	108,043	87,718	133,711

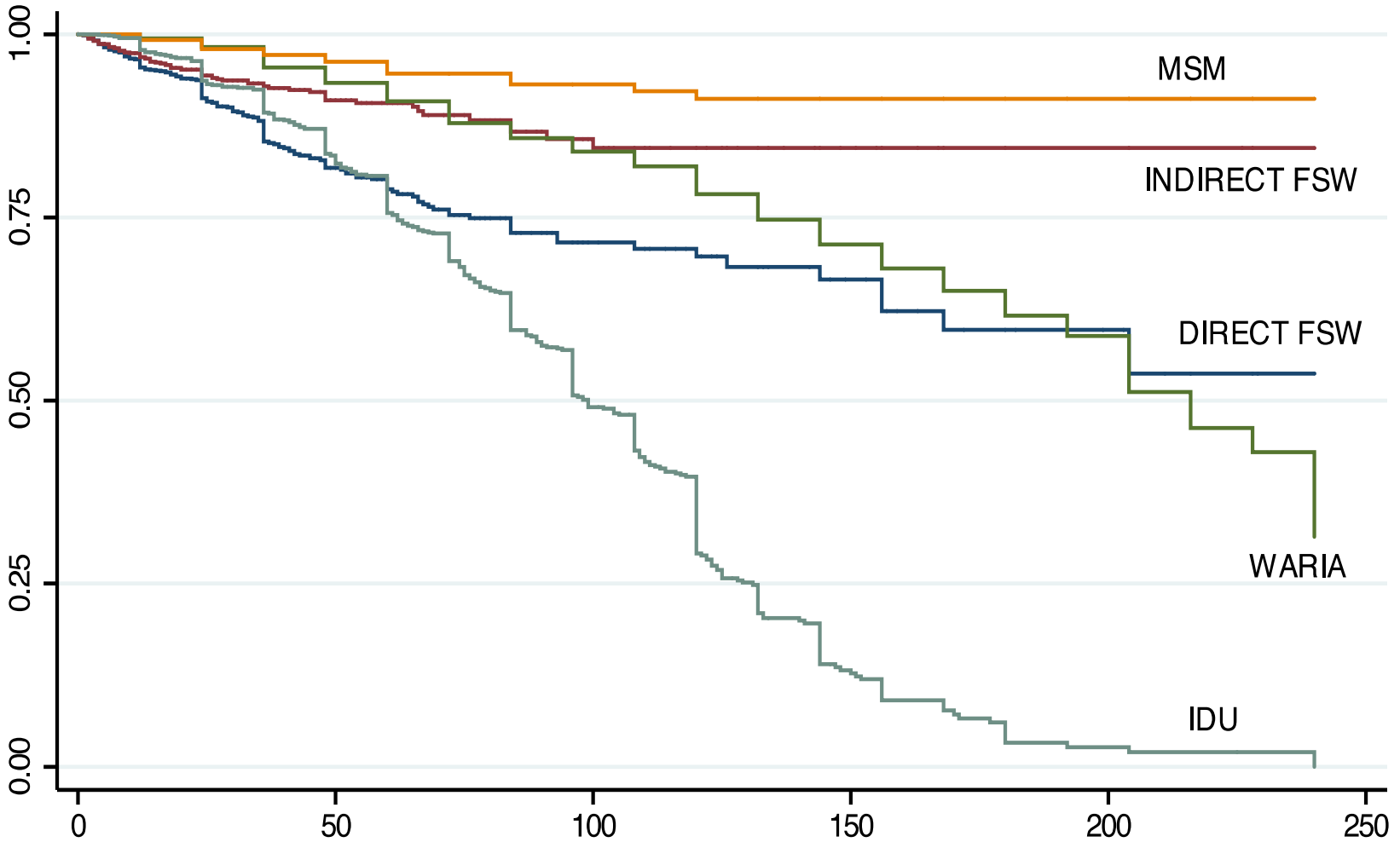
# The distribution of waria



Year	Median	Low	High
2009	32,065	21,589	51,235

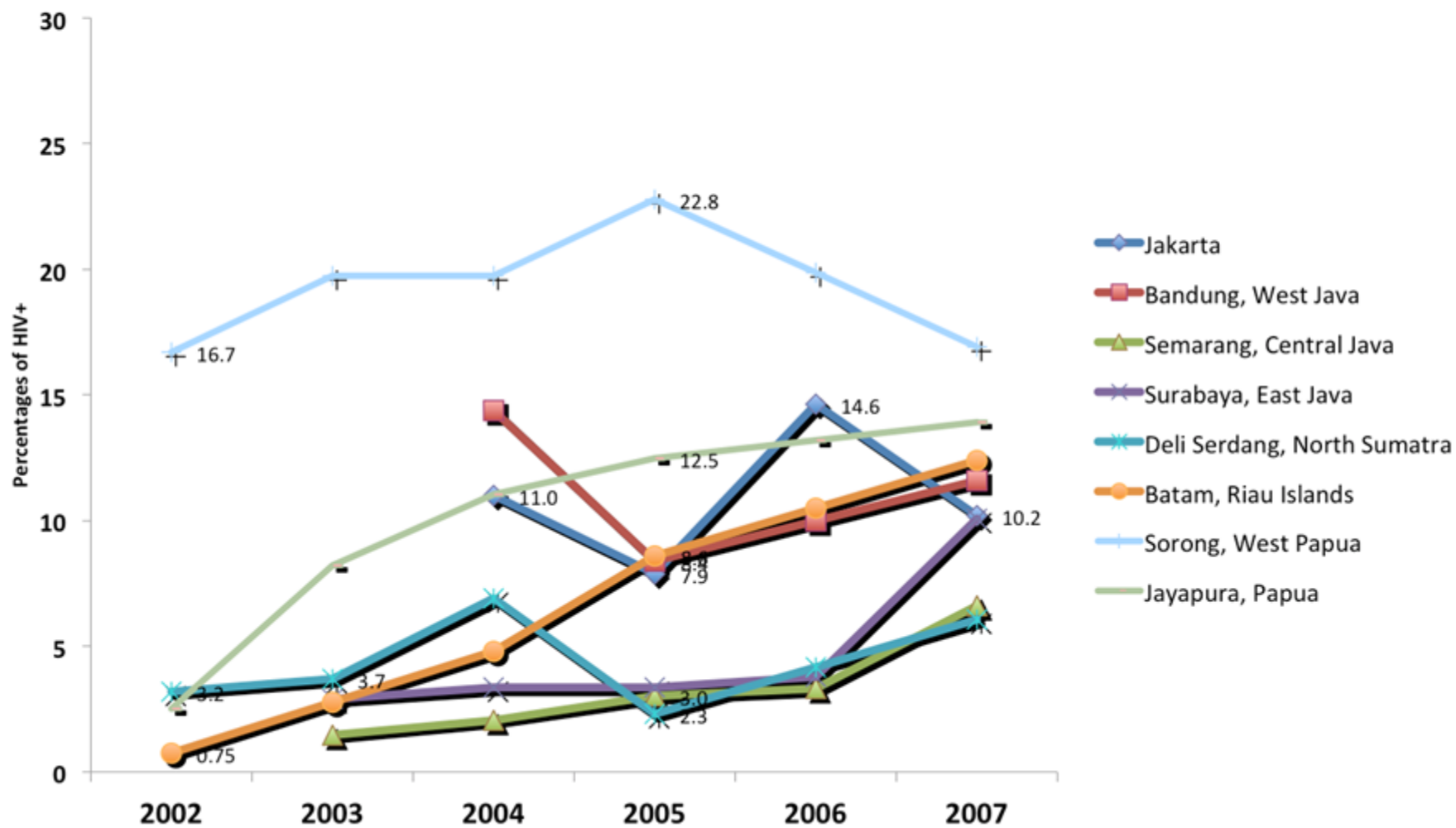
# HIV occurrence rate among MARGs

Indonesia, 2007



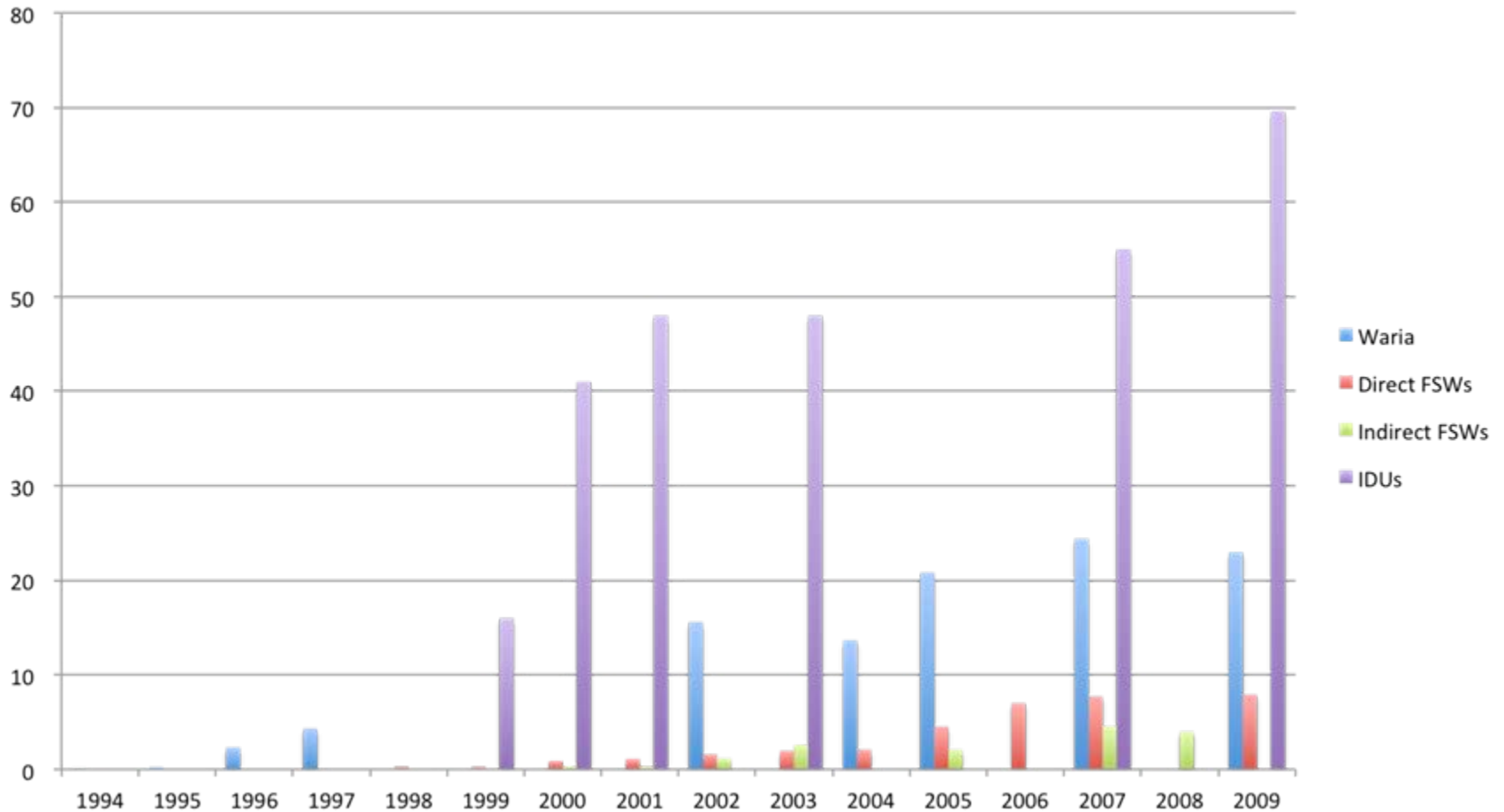
Duration of selling sex (SW)/injecting drug (IDU)

## HIV Sero-prevalence among direct female sex workers in eight Indonesian cities, 2002-07

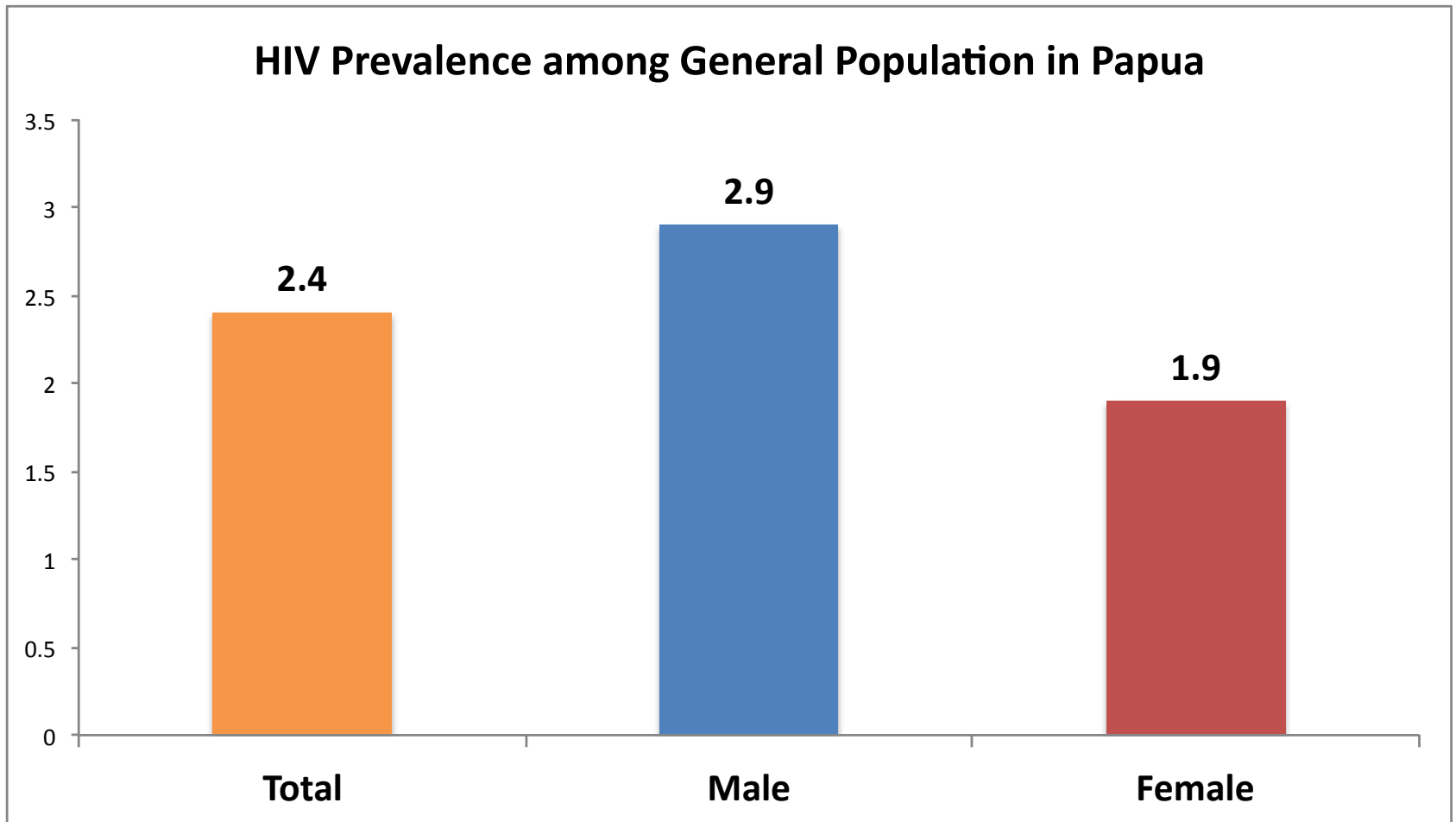




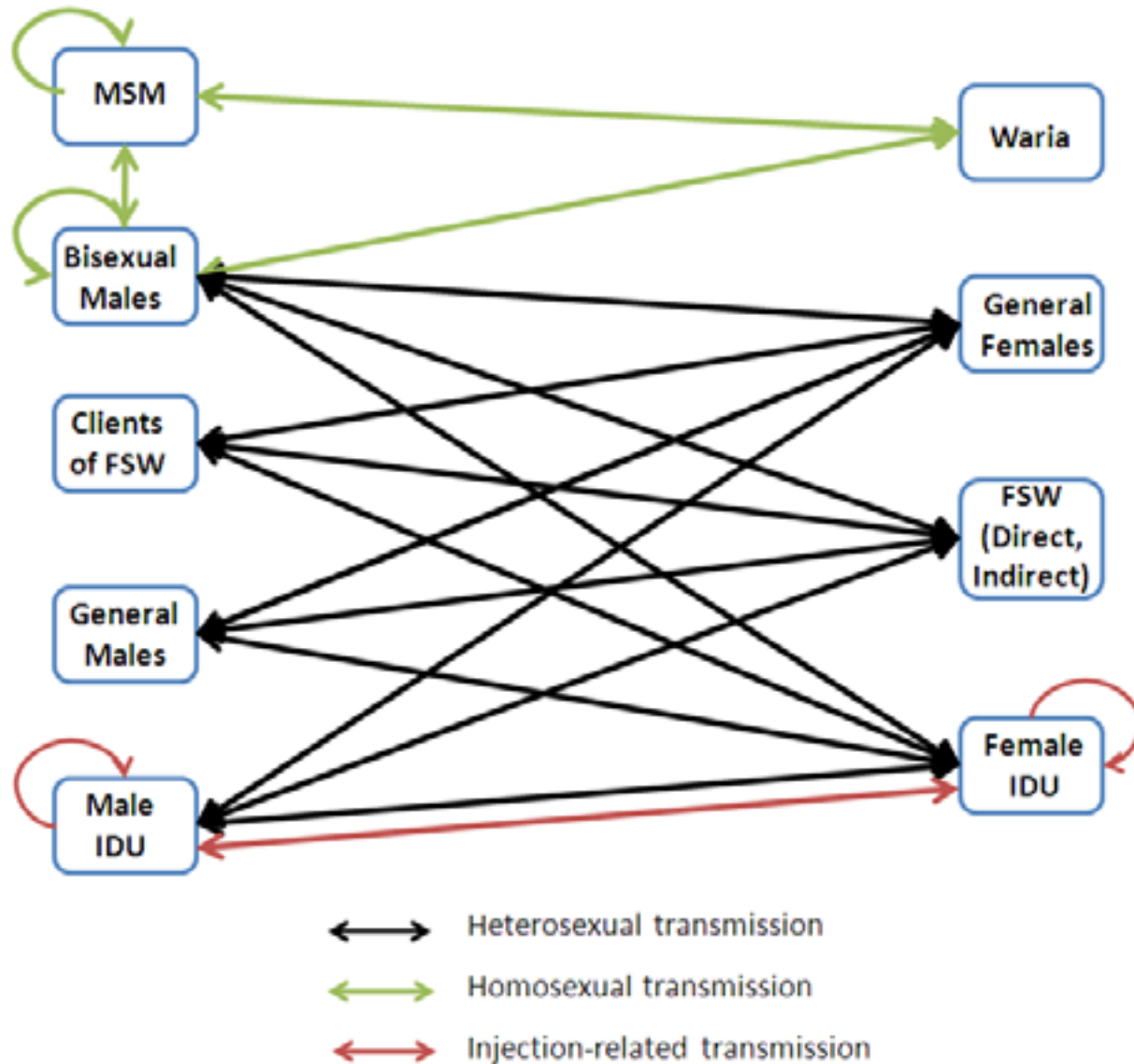
# Observed HIV Prevalence Trend



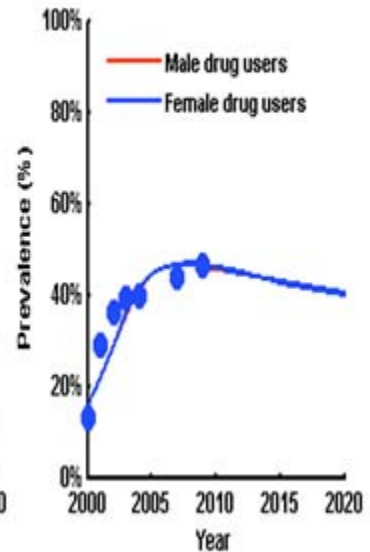
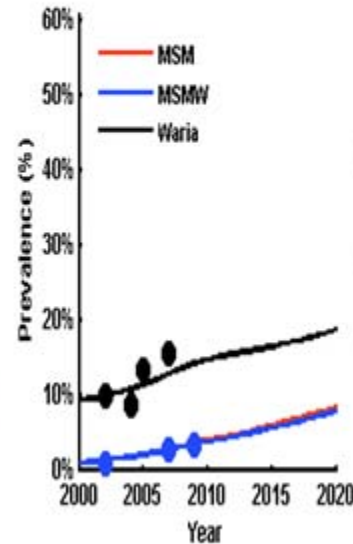
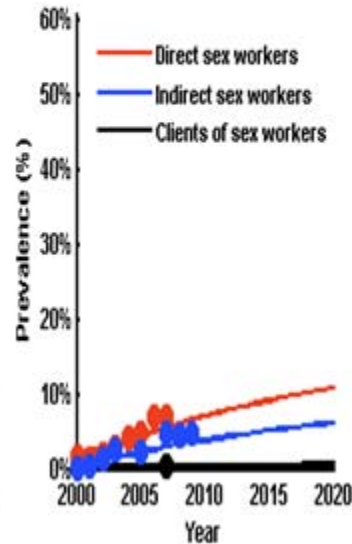
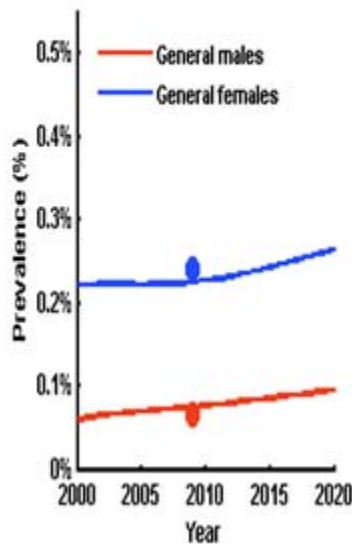
# HIV Prevalence in Papua, 2007



# Tracking of HIV Chain Transmission in Indonesia



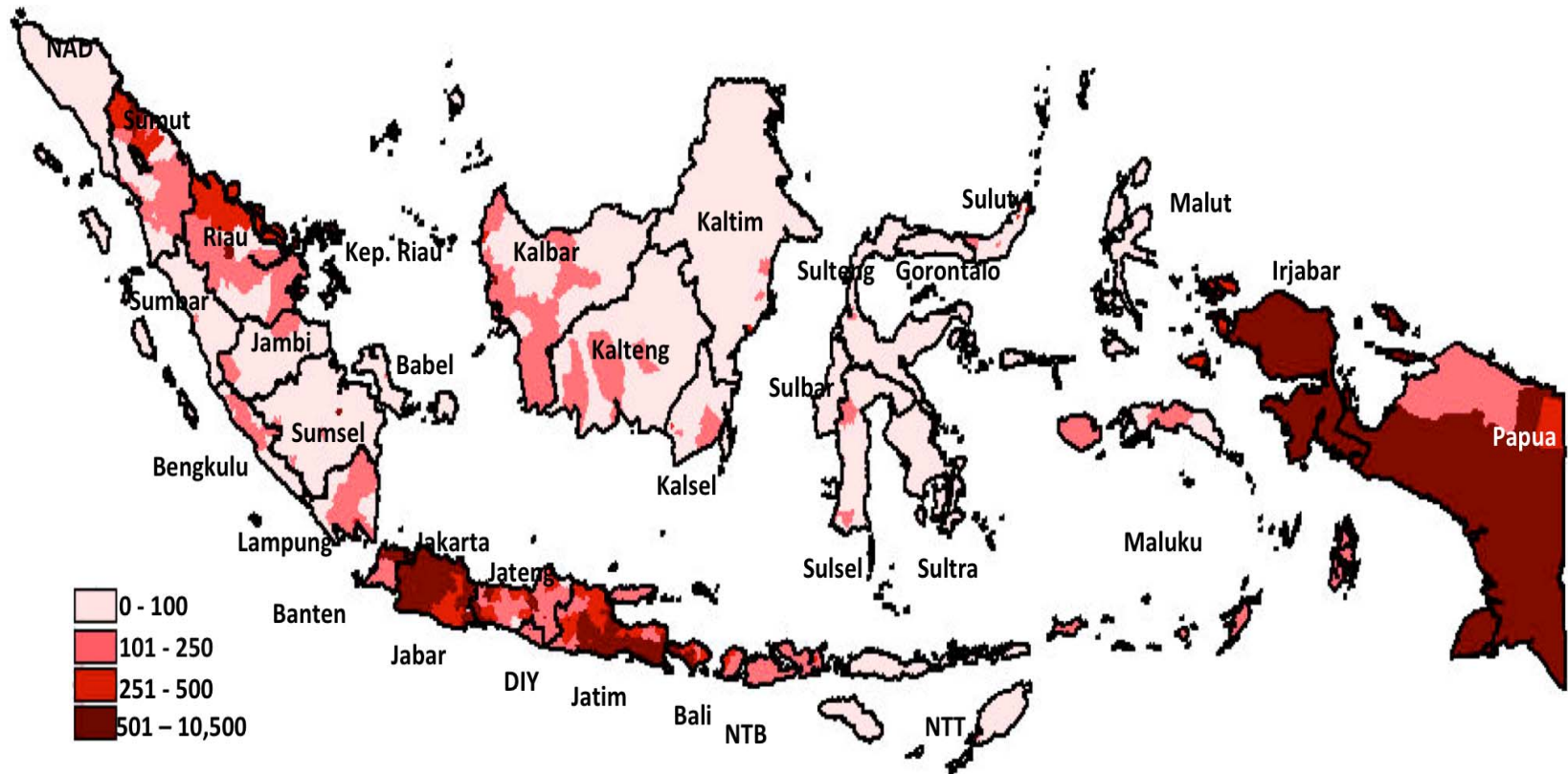
# Future Trend of Infection in Indonesia (HIM: HIV Indonesia Modeling)



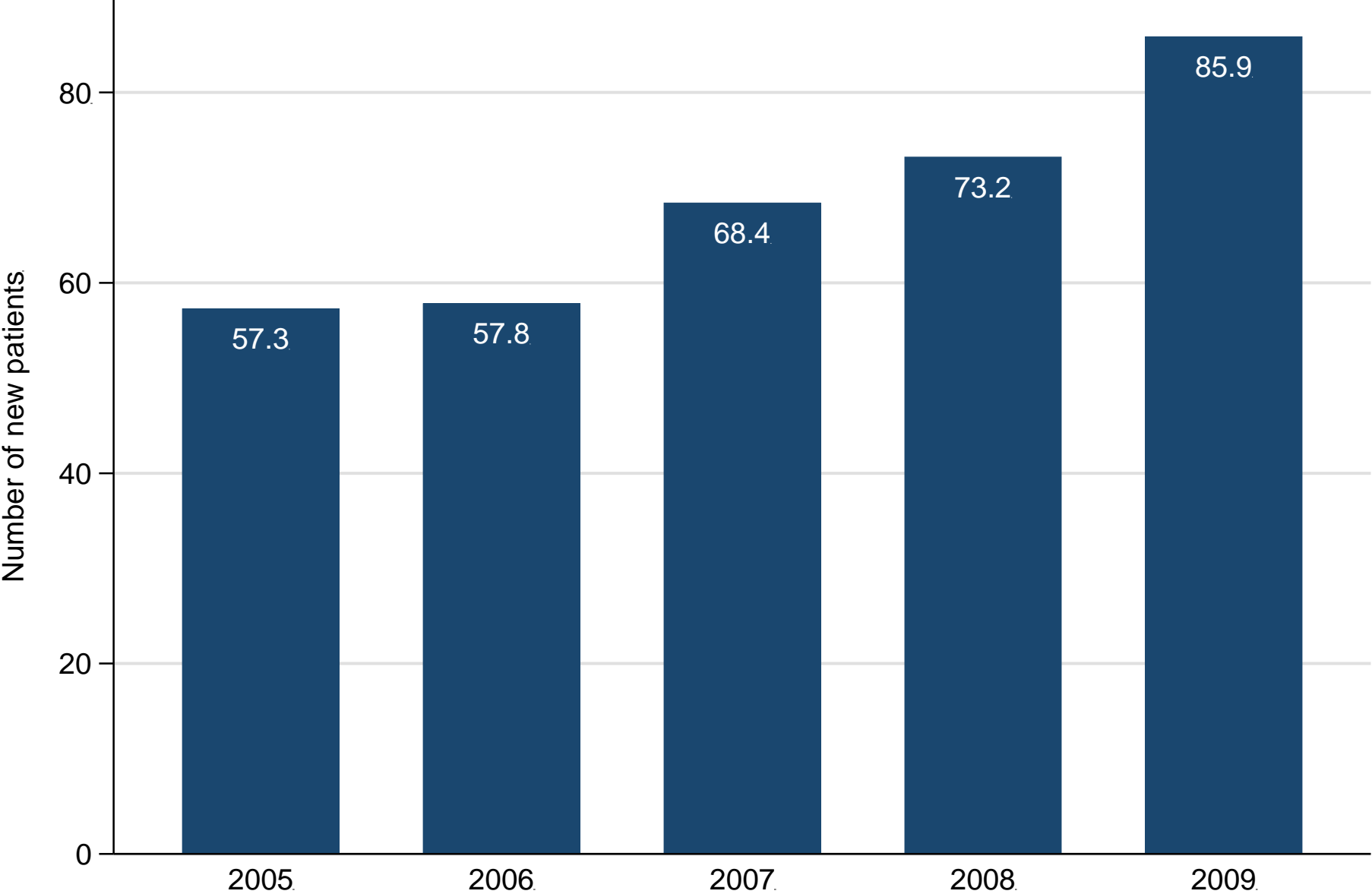
# ART Services in Indonesia

- Aggregative Data
  - By hospital, month and year of cohort, period of follow-up (baseline, 6, 12, and 24 months)
  - 2005-2009
  - 44 hospitals
- Individual Data
  - 2003-2010
  - 10 hospitals
  - 3,821 patients  
(out of 16,982 PLWHA on treatment up to June 2010)

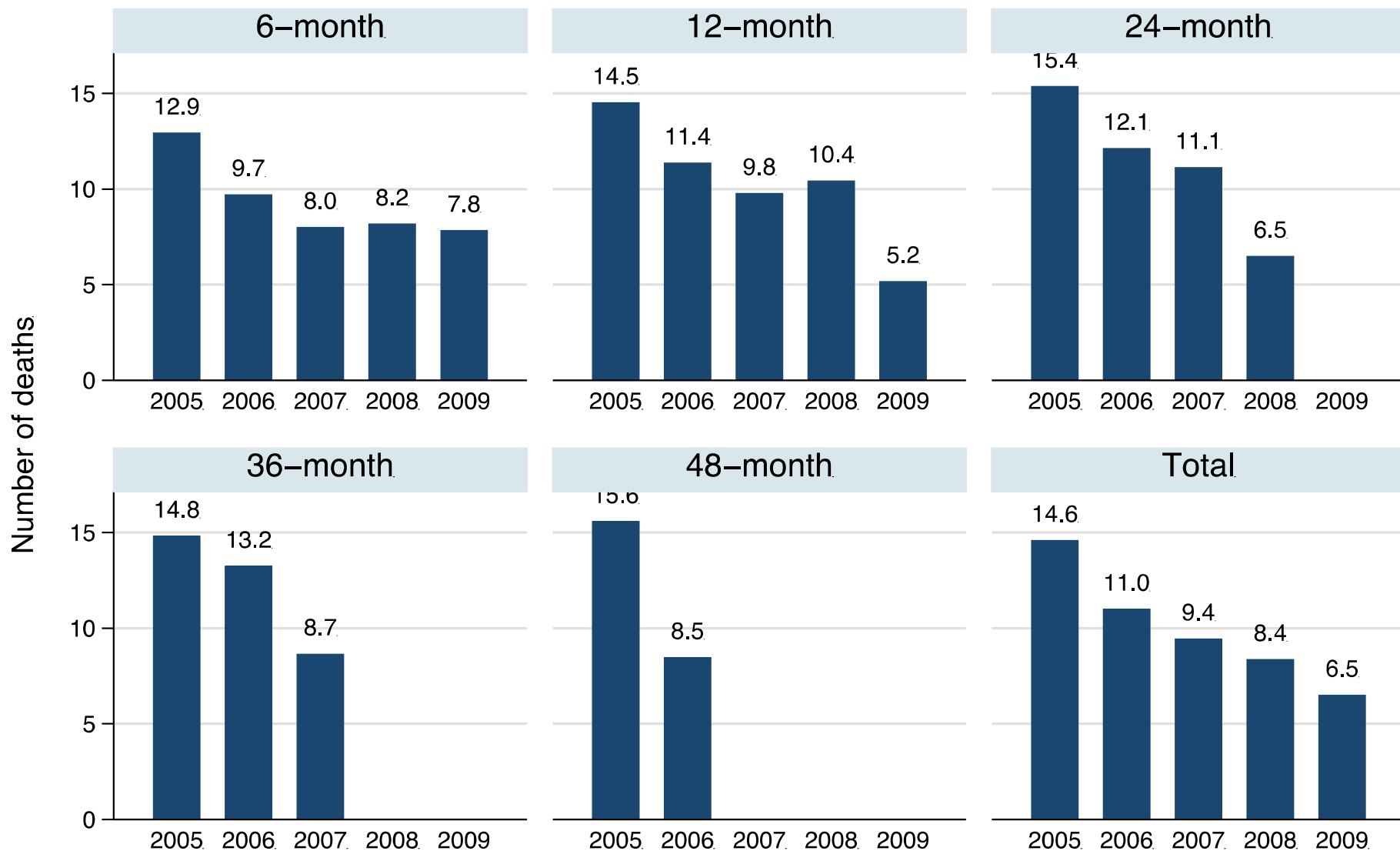
# Estimation of Distribution HIV People in Indonesia, 2009



Average number of new patients per hospital per year by year of entry.

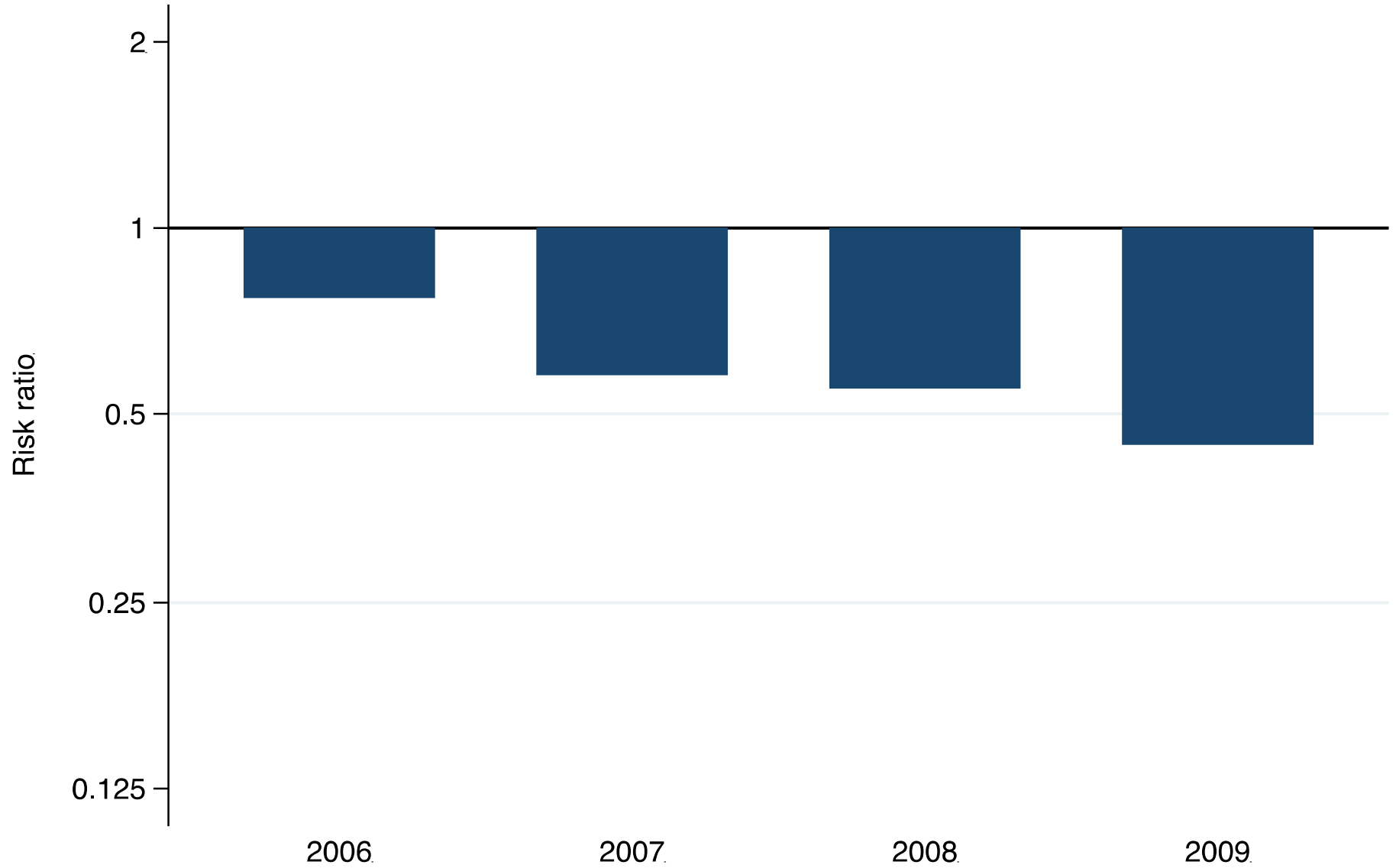


Average number of deaths per hospital by period of follow-up and year of cohort

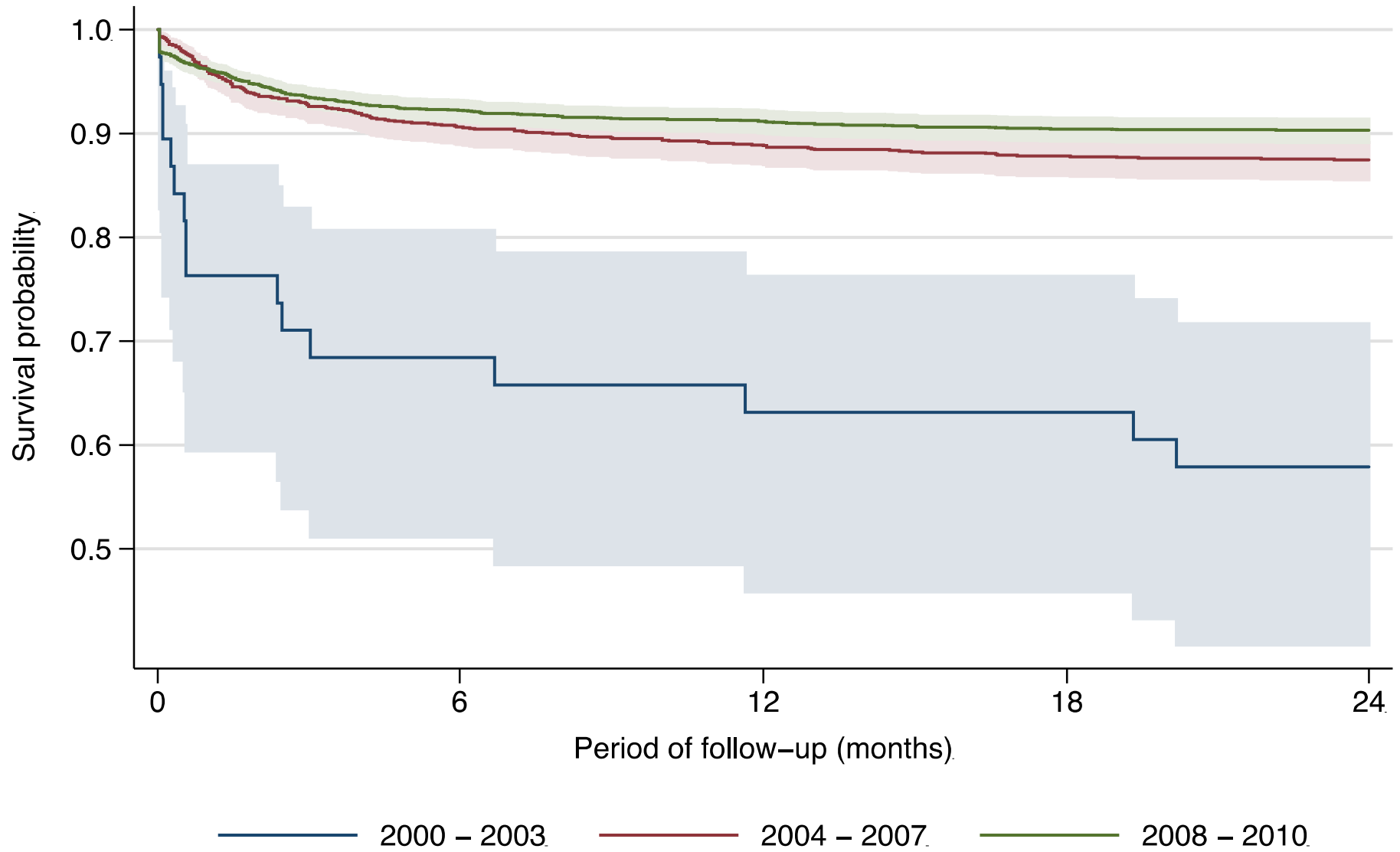




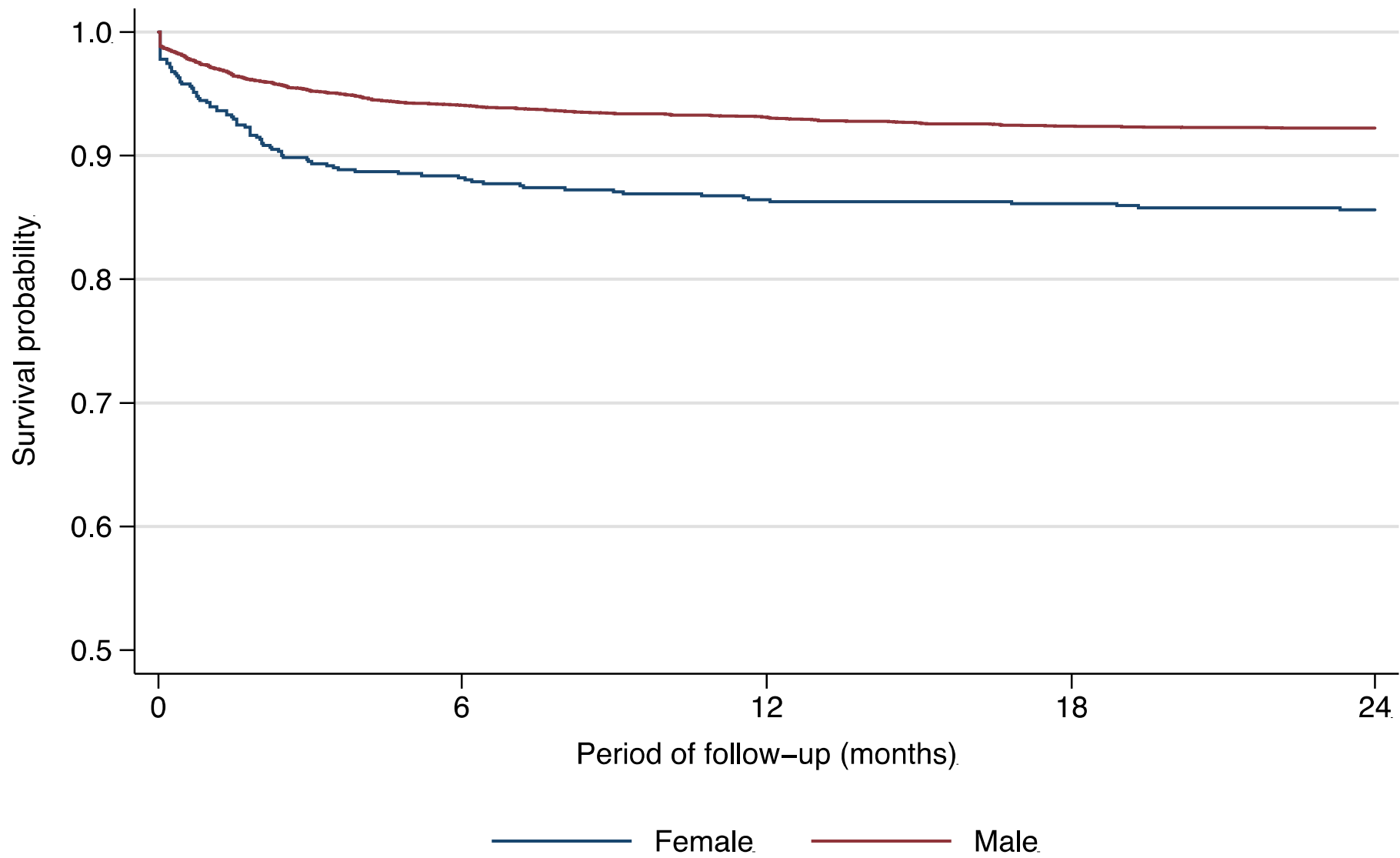
Period of follow-up adjusted risk ratio  
(base year: 2005)



# Survival curves comparison by year of cohort (failure: dead).

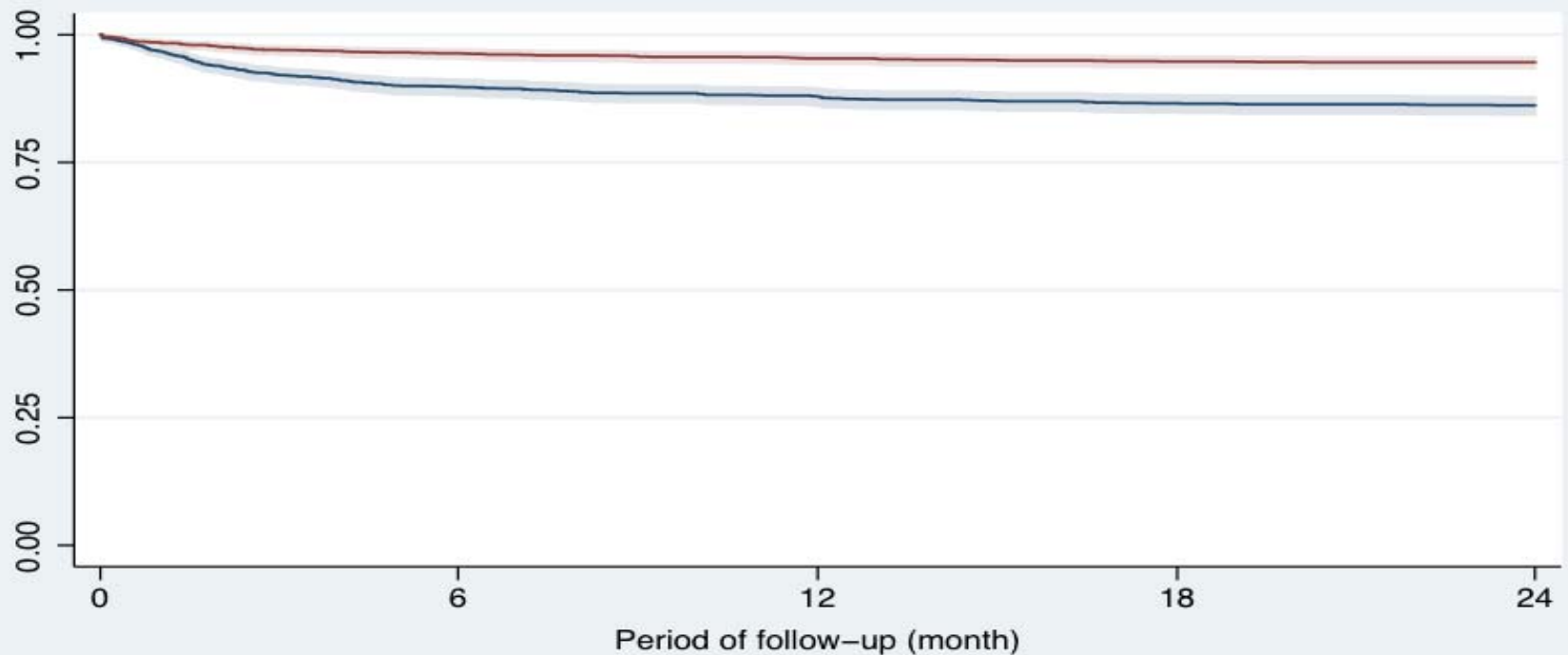


Kaplan–Meier survival estimates by sex adjusted for age  
(failure: dead).



# CD4 and Survival

Kaplan–Meier survival estimates by CD4 count  
(failure: dead)



95% CI  
cd4group = <50  
95% CI  
cd4group = 50+

# The Current Challenge of ART

- Positive impact of the ARV treatment: reducing death significantly among PLWHA
- It was estimated the coverage of ART Services approximately around 50%
- Around 16.00 PLWHA on currently on ART
- People come to the treatment at late condition, very low CD4
- Weak in support laboratory system for monitoring HIV treatment
- There are still problems in maintaining the logistic of ARV (Stock-out, expired drugs)

# ART for Prevention?

- The failure of behavioral intervention in Indonesia, then many Indonesian's doctors are thinking about treatment as prevention
- Limited HIV Testing and low coverage PMTCT
- Problems on the current treatment treatment as public health intervention: helminth infections (blanket treatment), filariasis, STI (Periodic treatment)
- Problems in adherence of TB treatment, and other chronic diseases

# Prediction based on Modeling

Prediction based the evaluation the impact the current program coverage in Indonesia:

- Needle-exchange and methadone programs have averted an estimated 62,167 (49%) HIV infections among IDU;
- ART programs have averted an estimated 3,299 (3%) HIV infections;
- Condom promotion has averted an estimated 16,147 (13%) HIV infections overall

# If feasible, how do we start?

- We need more evidence from operation research study in strengthening the sustainability program
- Escalating HIV test services & Removing the Barriers for the services, including partners of high risk and pregnant women
- Started with Group of IDUs, Waria (Transgender) and MSM (for infected)
- Started with young sexual workers (for uninfected)



# Treatment as Prevention (?)

- Treatment as prevention will not work, unless behavior intervention support and work for increasing testing and get the treatment
- Health services system should be strengthening and expanding all the country
- Who should financing this new program?

# Integrating with existing services?

- By expanding the metadon clinic should provide testing to IDUs and the partners and also provide treatment as prevention
- This is only one option
- Thank you