

Rapid antiretroviral initiation among Thai HIV-infected youth through the National AIDS program in the era of treatment at any CD4

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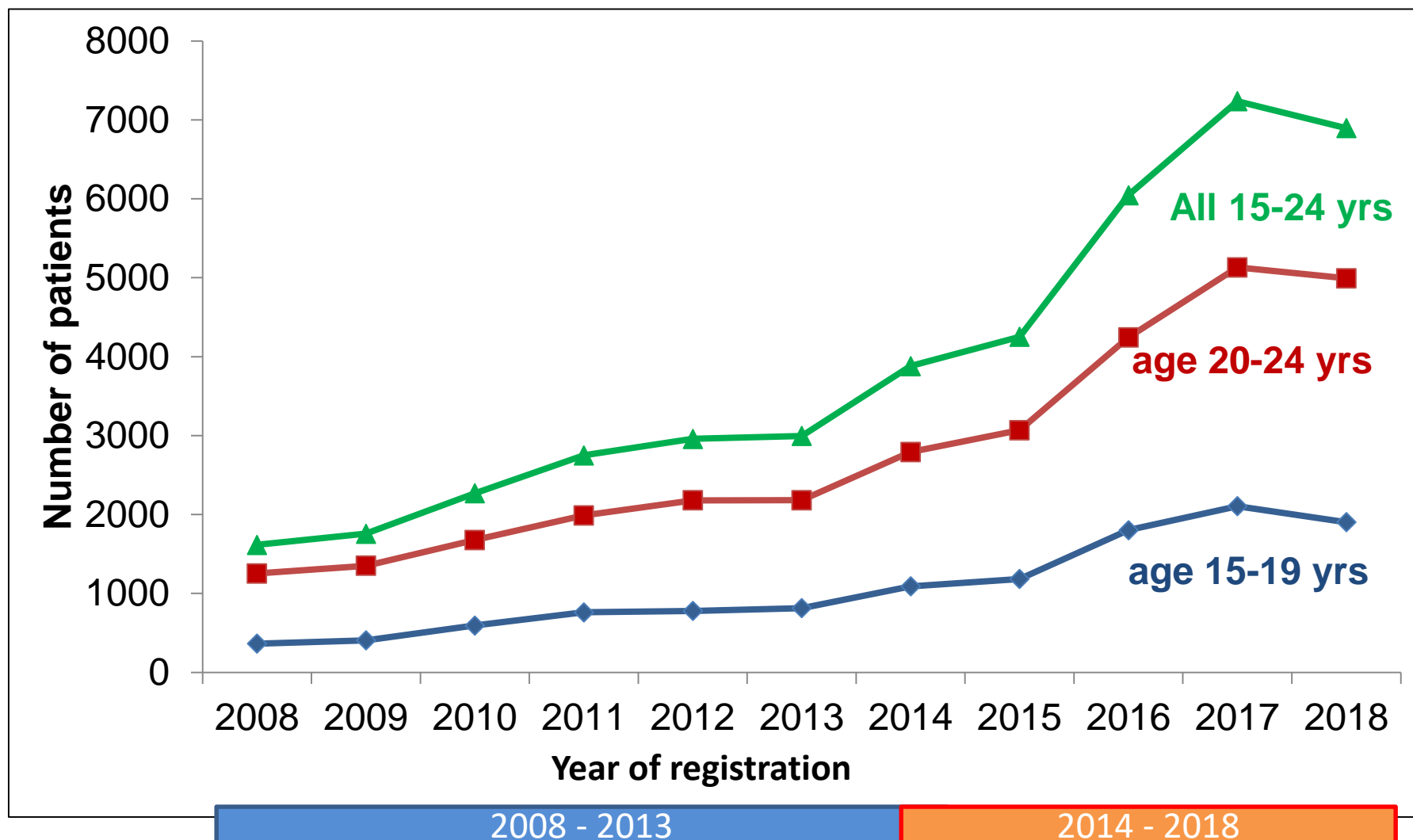
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Nothing to disclose

Background: Thai HIV-infected youths registered to NAP



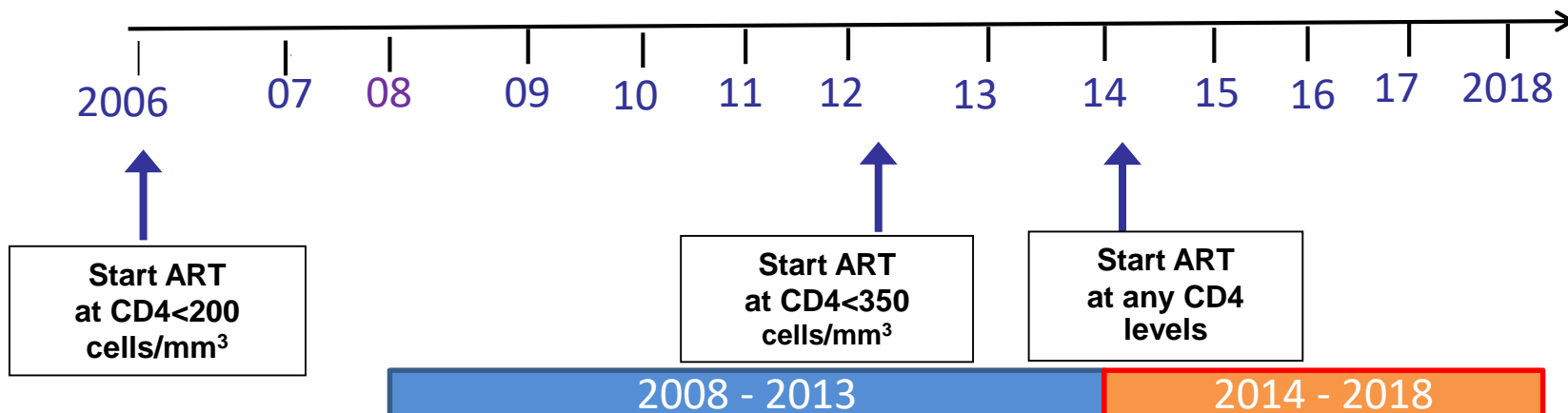
Source: NAP web report 2019



Universal Health Coverage (UHC)

National AIDS program (NAP)

managed by
National Health Security Office (NHSO)





- To compare characteristics the linkage from HIV diagnosis to treatment initiation of HIV-infected youths between 2008-2013 (1st) and 2014-2018 (2nd).
- To assess factors associated with rapid ART initiation within one month of registration.

*Ethics approval was obtained from the Institute for Development of Human Research Protection, Ministry of Public Health, Thailand



□ Study population

- NAP database, linked with the National Death Registry.
- Patients registered into NAP at age 15-24 years between 2008-2013 (1st) and 2014-2018 (2nd).
- Date of registration was used as surrogate for the date of diagnosis.
- The primary outcomes of interest were time from registration to starting ART, mortality and lost to follow-up (LTFU) prior to ART initiation.

From registration to ART initiation





□ Study Outcomes

- **Mortality** – confirmed death, by linkage with the National Death Registry before ART initiation
- **LTFU** - not in active in care \geq 12 months, irrespective of whether or not patients later returned to NAP before ART initiation
- **Rapid ART initiation within one month of registration**

□ Statistical analysis

- Competing risk analysis was used to calculate the cumulative incidence of accessing ART.
- Logistic regression was used to assess factors associated rapid ART initiation within one month of registration.

Results: Baseline Characteristics



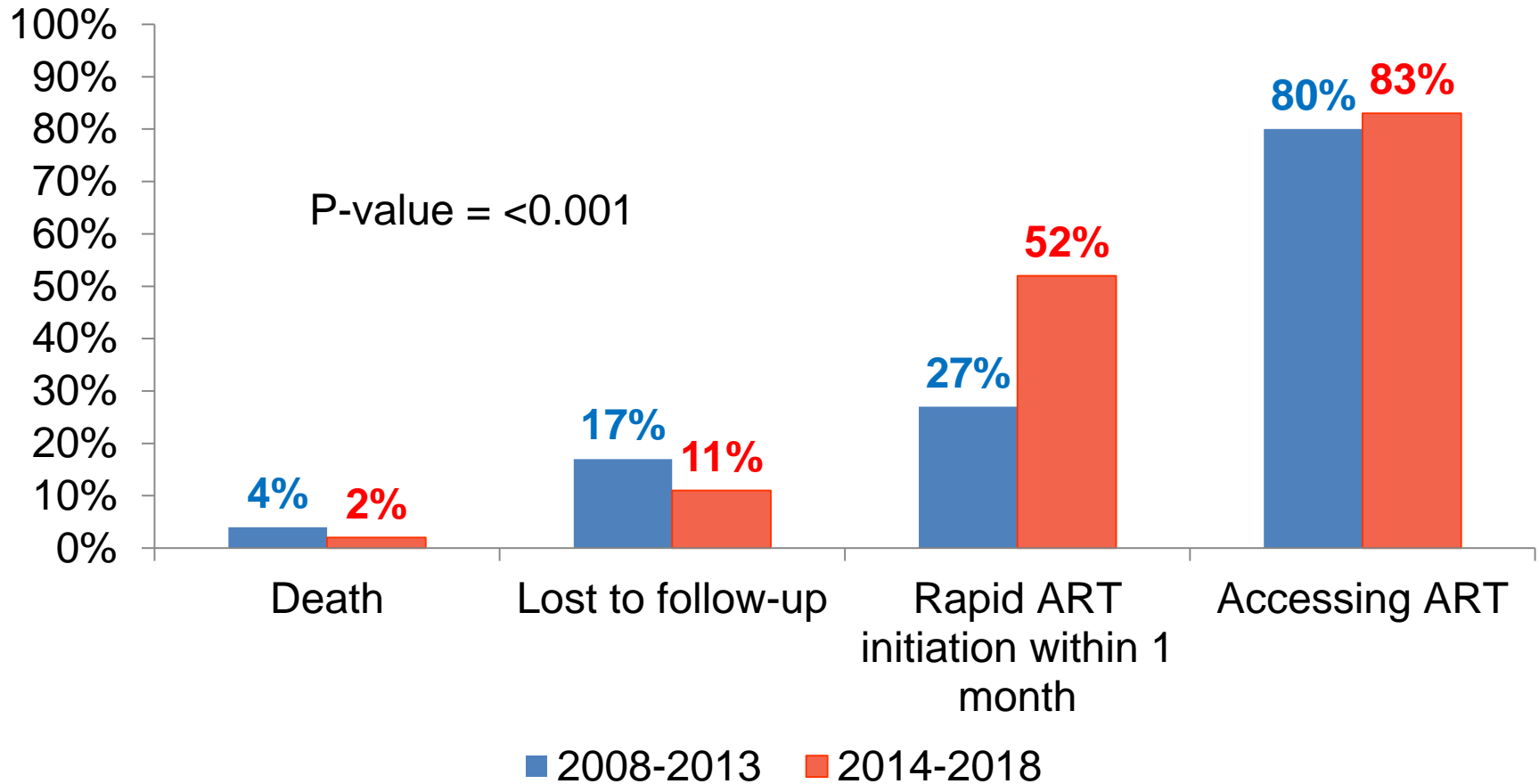
Characteristics	2008-2013 (1 st)	2014-2018 (2 nd)	Total	P
N	21,825	29,782	51,607	
Median age, years	22 (19-23)	21 (20-23)	21 (20-23)	<0.01
20-24 years	18149 (83)	25296 (85)	38,728 (75)	0.04
Male	11013 (50)	22075 (74)	33088 (64)	<0.01
OI history	2105 (10)	1588 (5)	3693 (7)	<0.01
Region				<0.01
BKK	2987 (14)	5609 (19)	8596 (17)	
Northeastern	6015 (28)	7651 (26)	13666 (26)	
Northern	3853 (18)	5079 (17)	8932 (17)	
Central	3397 (16)	5092 (17)	8489 (16)	
Eastern	2225 (10)	2900 (10)	5125 (10)	
Southern	2440 (11)	2265 (8)	4705 (9)	
Western	908 (4)	1186 (4)	2094 (4)	

Note: Baseline was defined at the date of register; OI – opportunistic infection 8

Results: Study outcomes

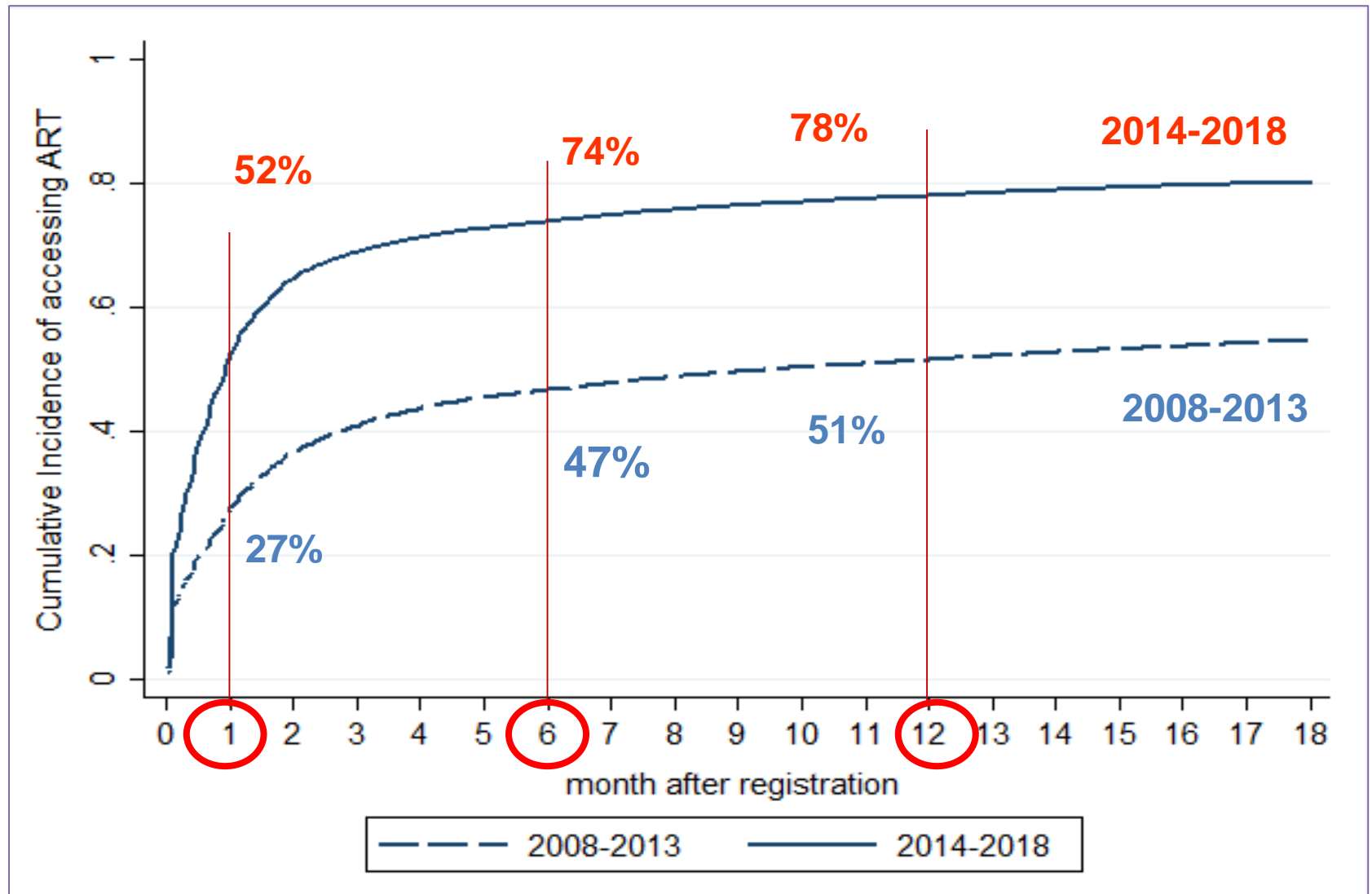


Proportion of study outcomes



Outcomes	2008-2013	2014-2018
Median (IQR) duration from registration to ART initiation	5.6 months (0.7-25.1)	0.9 months (0.2-4.2)

Figure 1: Cumulative incidence of accessing ART at 1st year after registration



Results: Factors associated with ART initiation within 1 month



Characteristics	Multivariate	
	aOR (95%CI)	P
Age at baseline		
15-19 years	1.14 (1.10-1.19)	<0.01
Female	1.61 (1.54-1.68)	<0.01
No OI history	1.43 (1.33-1.54)	<0.01
Year at baseline		
2014-2018 vs 2008-2013	3.20 (3.07-3.33)	<0.01
Region (BKK as reference)		<0.01
Northern	0.81 (0.76-0.86)	
Northeastern	0.80 (0.76-0.85)	
Central	0.76 (0.71-0.81)	
Eastern	0.70 (0.65-0.75)	
Southern	0.67 (0.62-0.72)	
Western	0.46 (0.42-0.51)	

Note: OI – opportunistic infection; aOR- adjusted odd ratio; CI-confidence interval; P-p-value



❑ Limitations

- NAP database included mainly patients from UHC program. This might be underestimated a percentage of accessing ART from patient in private sector.
- Information of CD4 and Viral load testing are in process for the second phase analyses.

❑ Strengths

- Evaluating outcomes based on a practical healthcare setting
- Linkage to National death registry enabled us to accurately estimate mortality and LTFU rates



- In the period from **2014-2018 (2nd)** when Thai guidelines advocated initiation of ART at any CD4 count, more than half of HIV-infected youth initiated ART within 1 month.
- This more rapid ART initiation is likely influenced the lower rates of mortality and loss to follow up seen in this period.
- Continued improvement in early access to ART is needed to reach the target of treating 90% of HIV-infected youths with ART.

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