

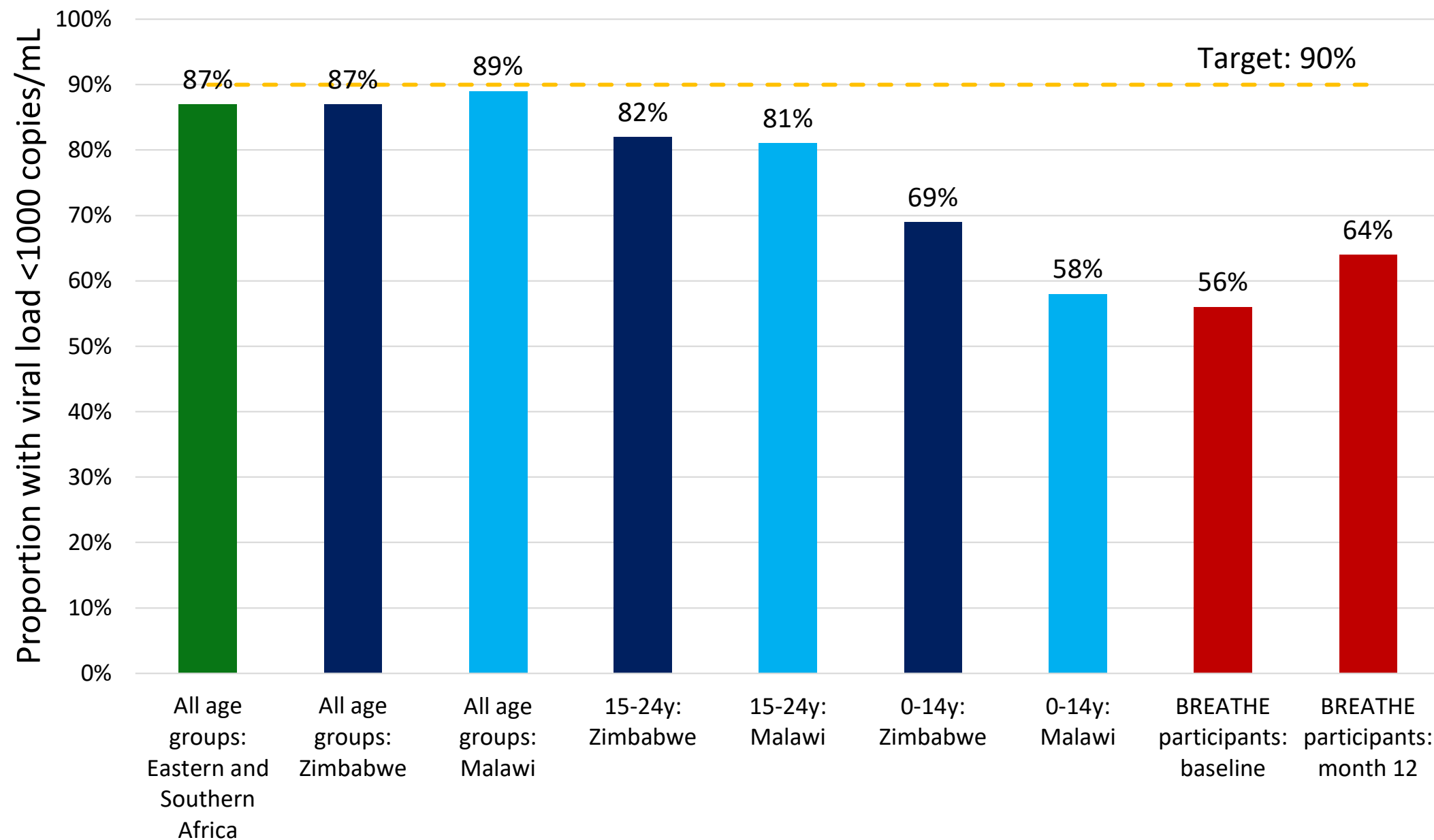
Viral loads and ART regimen changes in the BREATHE cohort

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Description of BREATHE population		
Age at ART initiation, median		8 years (IQR 6-12y)
Time on ART, median		6 years (IQR 4-8y)
Regimen	NNRTI	258 (75%)
	PI	86 (25%)
Dosing	Once daily	156 (45%)
	Twice daily	191 (55%)

Viral suppression rates in different populations



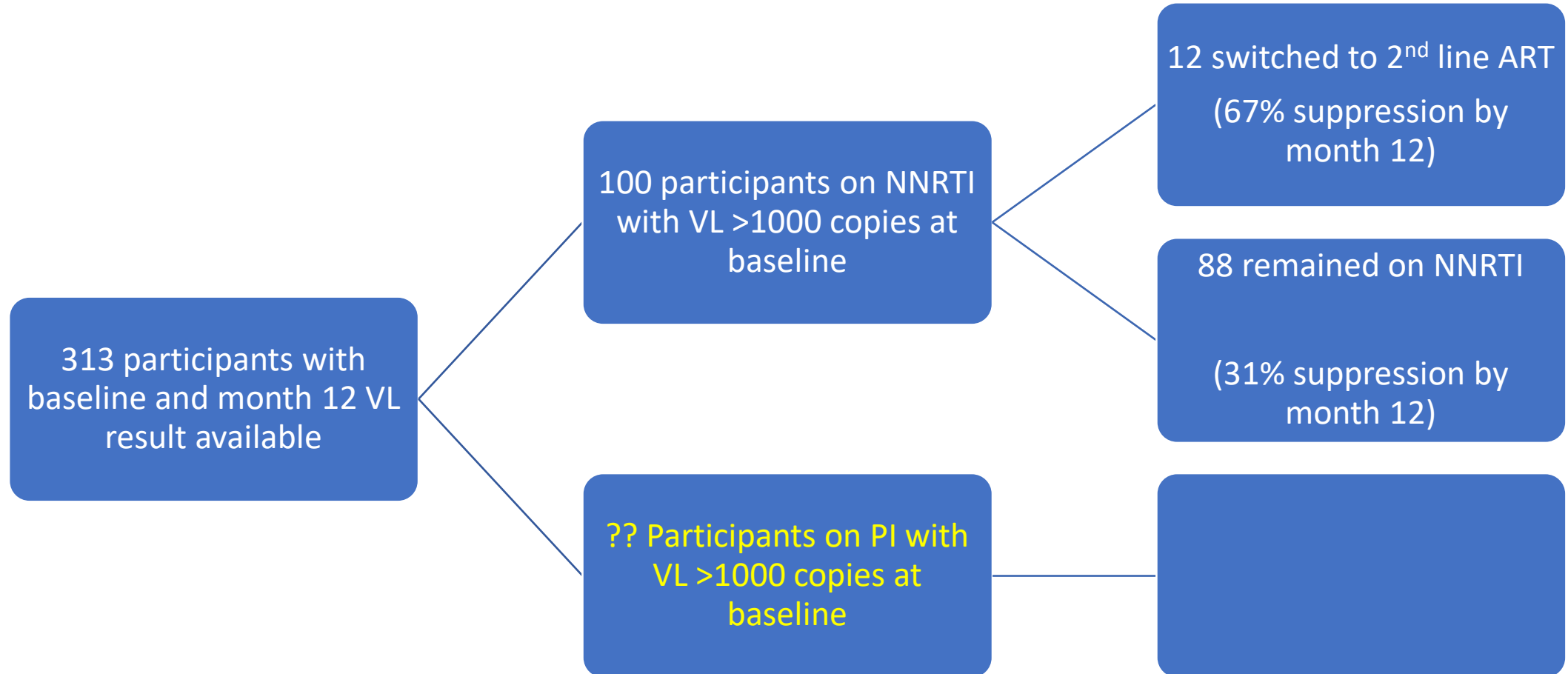
Changes in viral suppression rates from baseline to month 12		VL at month 12 (copies/mL)		
		<1000	≥1000	Total
VL at first visit (copies/mL)	<1000	150 (48%)	27 (9%)	177 (57%)
	≥1000	49 (16%)	87 (28%)	136 (44%)
	Total	199 (64%)	114 (36%)	313 (100%)

In participants with VL >1000 copies/mL at baseline: Risk factors for having a second viral load >1000 copies at month 12

	Adjusted Odds Ratio (95% CI)	p-value
Age 16-19 years	6.31 (1.25, 31.93)	0.008
Age 11-15	0.82 (0.22, 3.12)	
Remained on same ART regimen	7.68 (1.38, 42.63)	0.020

N=109. Adjusting for country, mother's education, and duration on ART

ART regimen changes



Why were so few patients changed to 2nd line regimens?

- Provider associated factors
 - Lack of knowledge of guidelines?
 - Lack of confidence to implement guidelines?
 - Concerns about higher pill burden?
 - Concerns about patient adherence?
- Health system associated factors
 - Lack of access to viral load monitoring?
 - Unavailability of 2nd line ART drugs?
 - Cost of 2nd line ART?

Possible interventions

- Clinical record reviews to identify reasons for delayed regimen switches
- Interviews with clinicians to explore reasons for delayed regimen switches
- Train and mentor clinicians on management of patients with unsuppressed viral loads
- Strengthen referral pathways
- Point of care viral load testing
- Stock management
- Enhanced adherence support for patients and families