



Age Matters: Inconsistent HIV Care and Outcomes Among Adolescents and Young Adults in Nigeria

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Background on Youth

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- Aged 15-24yrs
 - Adolescents (11-19yrs)
 - Young adults (15-24yrs)
- Unique time of development
- Poorer adherence to care and outcomes in those with chronic disease



HIV among Youth

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- 2.1 million adolescents living with HIV worldwide
- 80% of adolescents with HIV live in SSA
- Opposing mortality trends (2005-2012)
 - 30% decrease in adult AIDS-related deaths
 - 50% increase in adolescent AIDS-related deaths

Objectives

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- To determine whether youth is a risk factor for poor adherence to care in the first year after ART initiation
- To compare rates of viremia among youth (15-24yrs) and adults (>24yrs) who remain in care in the first year on ART

Study Setting: Nigeria

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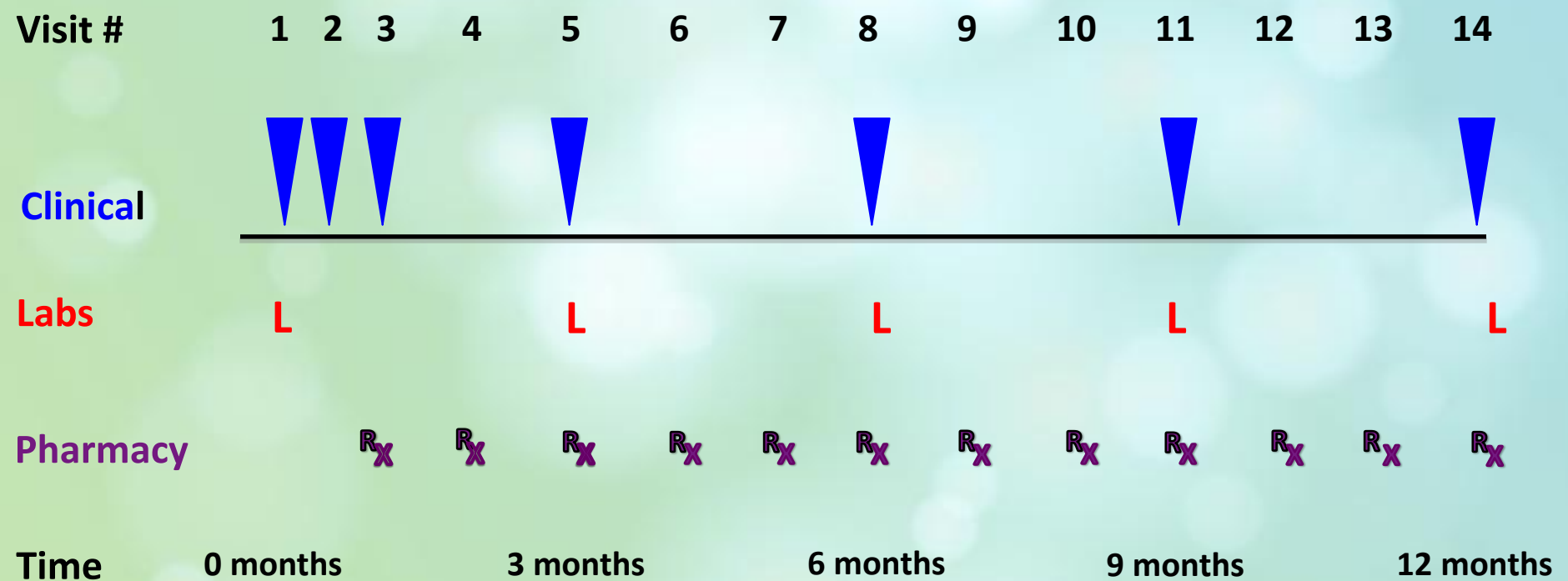


- Most populous African country (160 million)
- 3.5 million PLWHA
- 10% of global HIV population
- AIDS Prevention Initiative in Nigeria (APIN)
 - Comprehensive HIV treatment center
 - University teaching hospital
 - Semi-urban
 - Kaduna state
 - “Adult” clinic \geq 15yrs



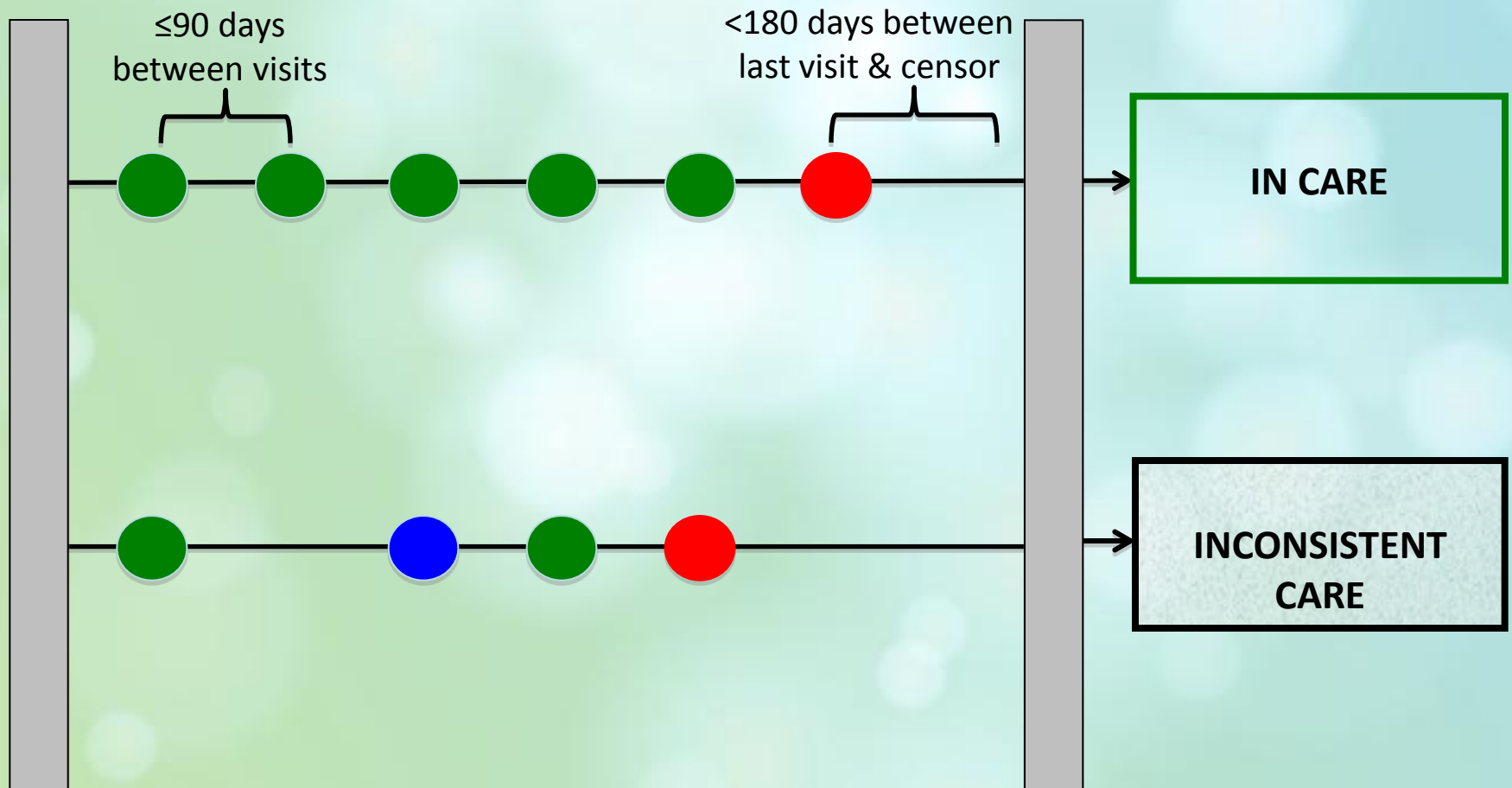


Frequency of Visits First Year on ART



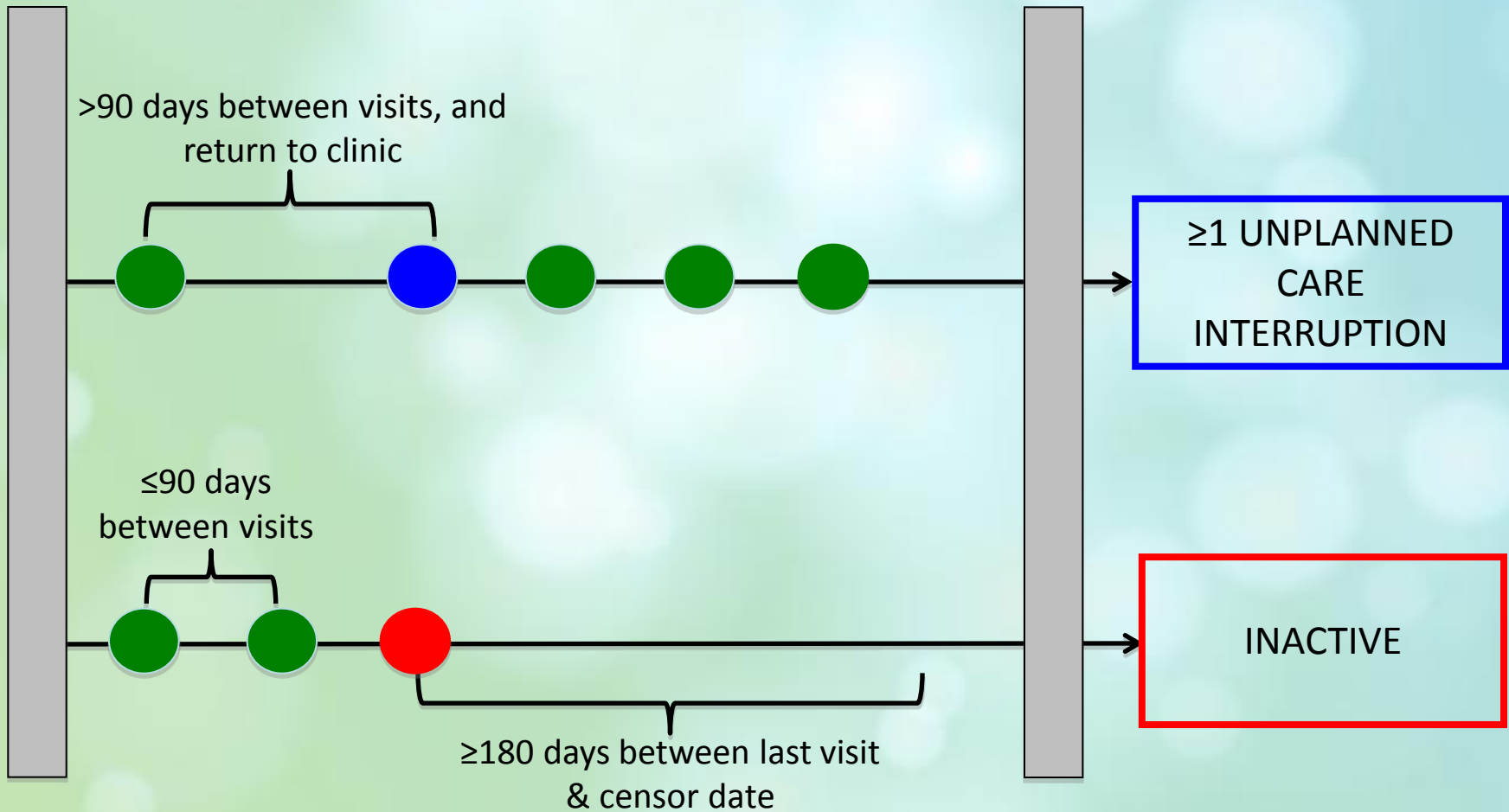
Study Design

- Retrospective cohort study
- Patients who initiated ART 2008-2011
- Follow-up through 2012
- Categorized into 2 groups based on visit patterns





Study Design: Inconsistent Care



Analysis

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IN CARE

vs.

INCONSISTENT CARE

- Summarized outcomes across age groups
- Compared proportion of patients in care 1 yr after ART & end of follow-up
- Used logistic regression methods to model odds of inconsistent care at 1 year (youth vs. adults)
- Determined rates of virologic suppression after 1yr on ART for patients remaining in care

Baseline Demographics

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	Youth (n=354) 15-24yrs		Adult (n=2,140) >24yrs		Total N=2,494
SEX					
Female	315	89%	1398	65%	p<0.01
Male	39	11%	742	35%	
EDUCATION					
No	107	30%	464	22%	p<0.01
Any	247	70%	1676	78%	
EMPLOYMENT					
Unemployed	170	49%	542	26%	p<0.01
Employed	100	29%	1450	68%	
Student	79	22%	122	6%	
MARITAL STATUS					
Married	178	50%	1328	62%	p<0.01
Single	176	50%	812	38%	

Baseline Clinical Factors

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	Youth (n=354) 15-24yrs		Adult (n=2,140) >24yrs		Total N=2,494
BASELINE CD4 cells/μL					
Median	252	IQR [107, 404]	204	IQR [96, 447]	p<0.01
<100	67	24%	448	26%	
101-200	47	17%	410	23%	
201-350	77	27%	489	28%	
350-500	92	32%	398	23%	
BASELINE TB					
Yes	8	2%	89	4%	p<0.09
No	346	98%	2051	96%	

<50% of youth remained in care after starting ART

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End of first year on ART

Age (yrs)	In Care (n=1292)	Inconsistent Care (n=1202)	In Care vs. Inconsistent Care
	%	%	
Adults	53	47	p<0.01
Youth	45	55	

After Median 1.8yrs Follow-Up

Age Category	In Care (n=1091)	Inconsistent Care (n=1405)	In Care vs. Inconsistent Care
	%	%	
Adults	45	55	p<0.01
Youth	36	64	

Youth were at increased risk for inconsistent care

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	adjusted OR	P value
Female (ref)	1	
Male	1.56	p<0.01
Married (ref)	1	
Single	1.17	p<0.01
No education (ref)	1	
Any education	0.81	p=0.04
No baseline TB (ref)	1	
Baseline TB	1.55	p=0.05
Baseline CD4 (cells/ μ L)		
<100 (ref)	1	
101-200	0.75	p=0.03
201-350	0.59	p<0.01
350-500	1.96	p<0.01
missing	1.83	p<0.01
Adult (ref)	1	
Youth	1.36	p=0.01

*Multivariate logistic regression model




Do youth who remain in care have good virologic outcomes?

IN CARE

VS.

INCONSISTENT CARE

Youth at  risk



40% of youth in care at 1 year have substantial viremia

Patients In Care After 1 Year on ART N=1,098

Age (yrs)	≤ 1000 copies/mL	> 1000 copies/mL	p=0.03
	%	%	
Adults	74	26	
Youth	60	40	

Conclusions

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- Youth had 40% increased risk of inconsistent care compared to adults, with clinic absences >3 months
- Youth presented to care with higher median CD4 counts than adults
- 40% of youth who remained in care after starting ART had poor virologic outcomes at 1-year

Implications

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- Youth-friendly models of HIV care are needed to optimize health and outcomes
- Better understanding youth-specific barriers to retention and adherence particularly among females

Thank-You

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