

Postpartum continuity of care for women with HIV: impact of Option B+ in South Africa

Evelyn Lauren^{1,2}, Karl Technau³, Kate Clouse⁴, Nicola van Dongen³, Amy Wise³, Thalia Ferreira³, Jacob Bor^{1,5,6,7}, Mhairi Maskew¹

¹Health Economics and Epidemiology Research Office, Johannesburg, South Africa; ²Boston University School of Public Health, Department of Biostatistics, Boston, MA, USA; ³Empilweni Services and Research Unit, Rahima Moosa Mother and Child Hospital, Department of Paediatrics and Child Health, University of the Witwatersrand, Johannesburg, South Africa; ⁴School of Nursing, Vanderbilt University, Nashville, TN, USA; ⁵Africa Health Research Institute, Somkhele, South Africa; ⁶Boston University School of Public Health, Department of Global Health, Boston, MA, USA; ⁷Boston University School of Public Health, Department of Epidemiology, Boston, MA, USA

Motivation

- Pregnant women living with HIV (PWLWH) face an increased risk of attrition in HIV care^{1,2,3,4}
- Poor maternal adherence contributes to new HIV infections^{5,6}
- Option B+ greatly simplifies the ART initiation process

Study context

Apr 2013: Option B

PWLWH:
CD₄ ≤350: Lifelong ART
CD₄ >350: ART until one week after breastfeeding cessation

non-PWLWH:
CD₄ ≤350: Lifelong ART

Jan 2015: Option B+

PWLWH:
Lifelong ART regardless of CD₄

non-PWLWH:
CD₄ ≤500: Lifelong ART

Sep 2016: Universal test-and-treat (UTT)

Lifelong ART for all

Study question:

What is the effect of Option B+ on the continued engagement in HIV care post-delivery for PWLWH?

Data source

- Linked de-identified delivery data from Rahima Moosa Mother and Child Hospital (RMMCH) in Johannesburg, South Africa to HIV laboratory episodes from the National Health Laboratory Service (NHLS) HIV cohort
- 1% overmatching rate and 6% undermatching rate in the linkage of the NHLS HIV cohort^{7,8}

Methods

Cohort: PWLWH giving birth at RMMCH between Jul 2013 and Jun 2016

- Delivery <Jan 2015: Option B; ≥ Jan 2015: Option B+

Analyses: Regression discontinuity design

- Assignment variable: delivery date (threshold: 1 Jan 2015)
- Assuming PWLWH on either side of the threshold are exchangeable, changes at the threshold reflect the impact of Option B+ on postpartum retention

Measures:

- Retention 6-24 mo postpartum: CD₄/VL 6-24 mo after delivery
- Newly on ART: Not in HIV care ≥18 mo before pregnancy
- Continually on ART: In HIV care ≥18 mo before pregnancy

References

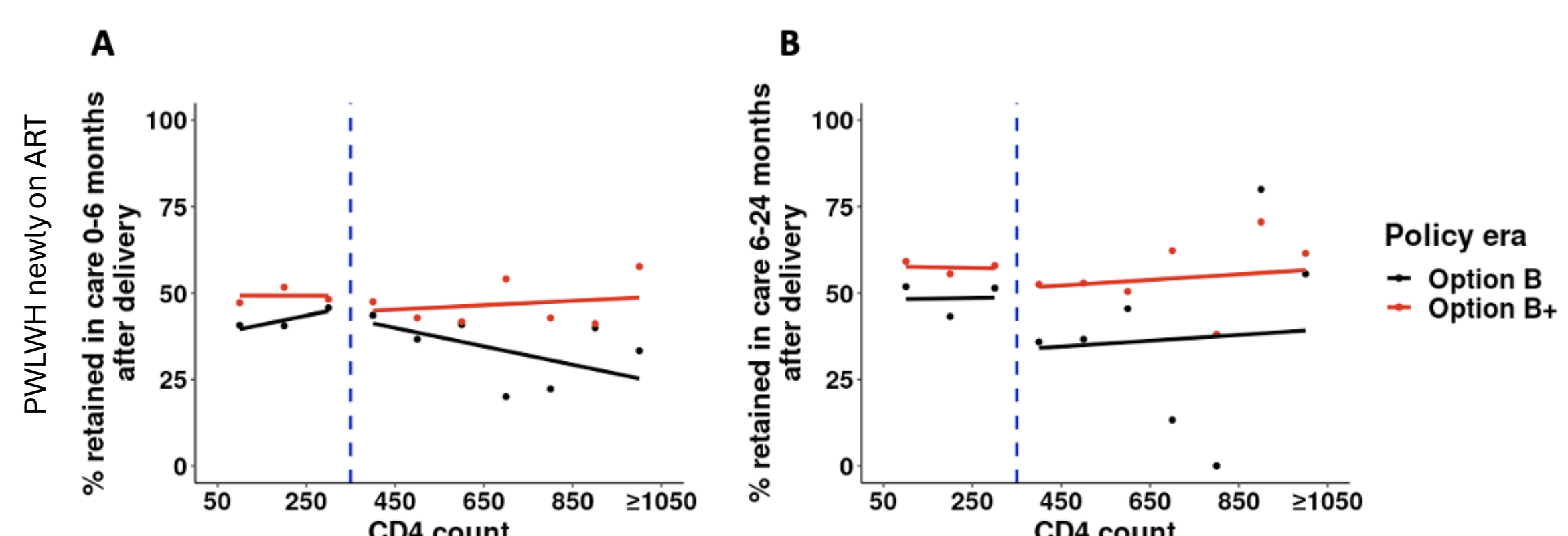
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Results

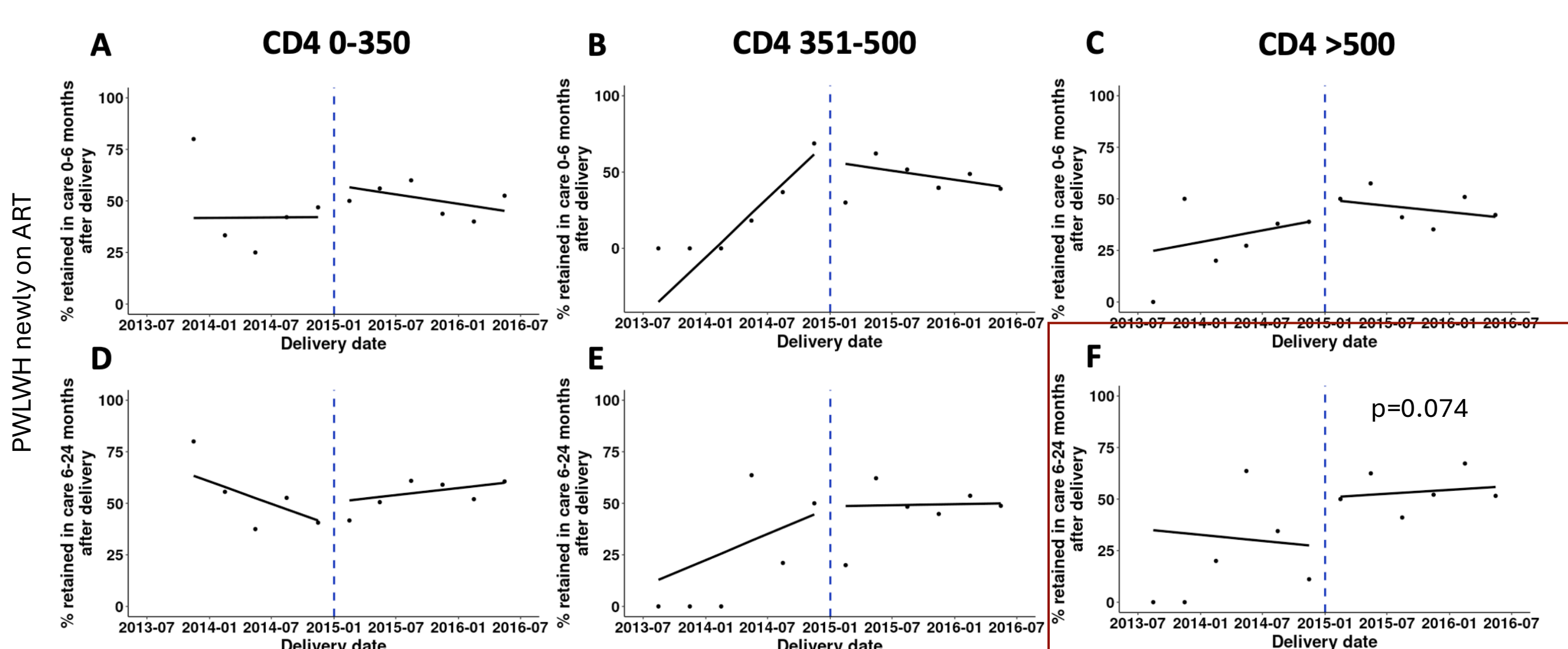
1. Baseline characteristics are similar across policy periods

Baseline measure		Option B (N = 341)	Option B+ (N=1946)
Age at delivery	Median (IQR)	28.7 (24.9, 32.7)	30.6 (26.5, 34.7)
VL	Median (IQR)	49 (0, 608)	57 (0, 399)
CD ₄	Median (IQR)	385 (216, 570)	398 (250, 584)
Newly on ART	N(%)	240 (70%)	1186 (61%)
Continually on ART	N(%)	101 (30%)	760 (39%)
Last CD ₄ count before delivery	Median (IQR)	386 (227, 543)	377 (245, 551)

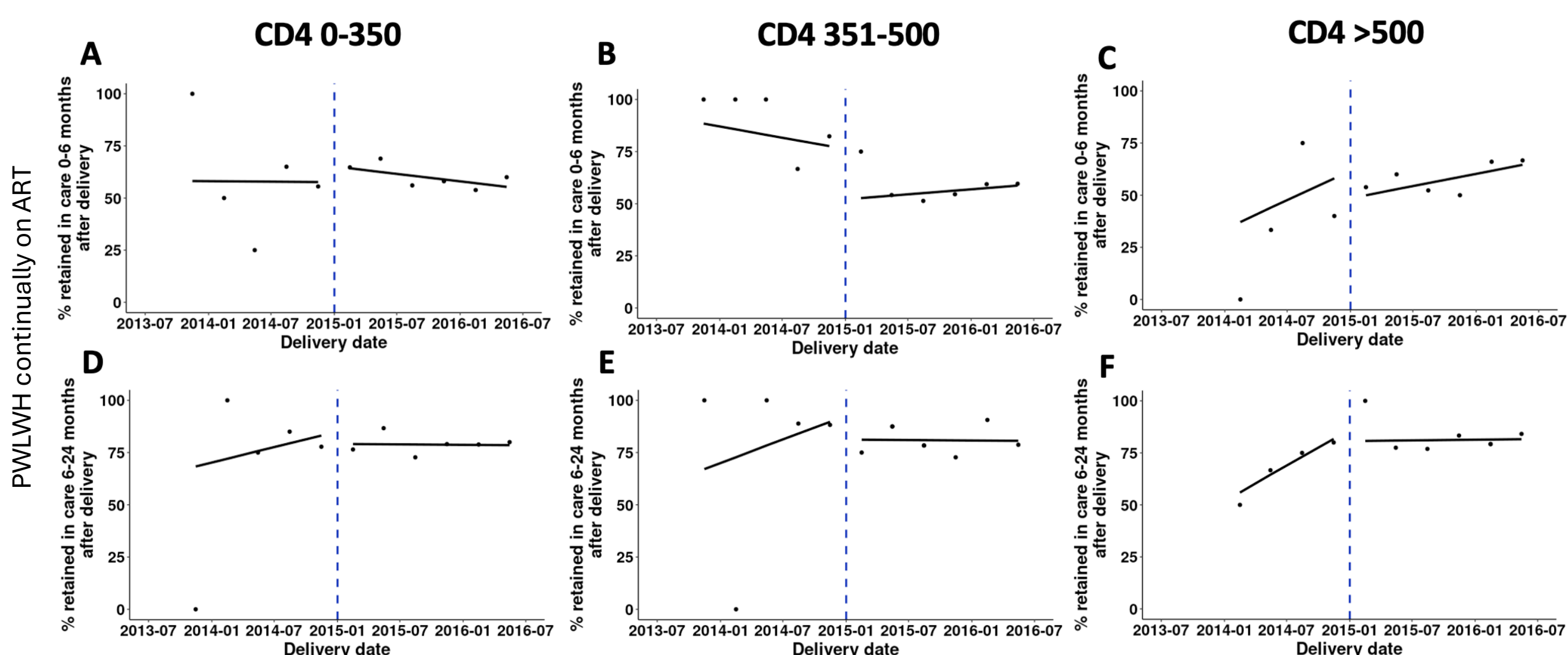
2. Extending lifelong ART eligibility to all PWLWH eliminated retention gaps at the threshold of CD₄ 350



3. Option B+ improved retention rates among PWLWH initiating care with CD₄ >500 cells/μL



4. New initiators continue to have lower retention rates than those already on ART before pregnancy



Takeaway:

Option B+ improved retention rates for PWLWH newly initiating ART with high CD₄ counts. However, new initiators still show low retention rates, highlighting the need for targeted interventions.

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Author for correspondence: Evelyn Lauren (elauren@bu.edu)