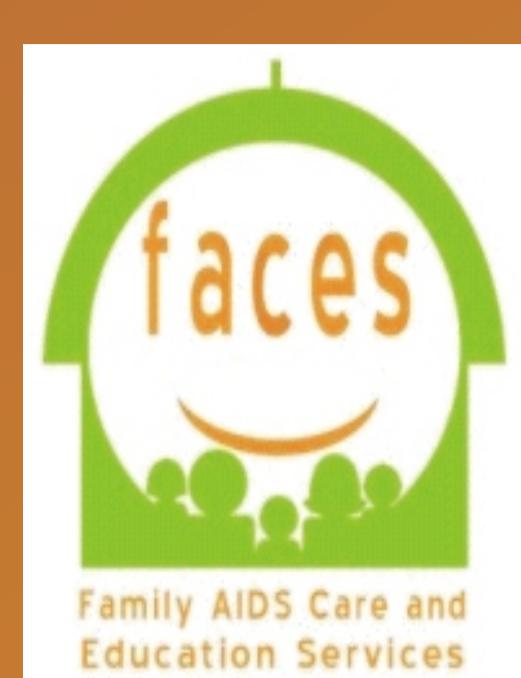
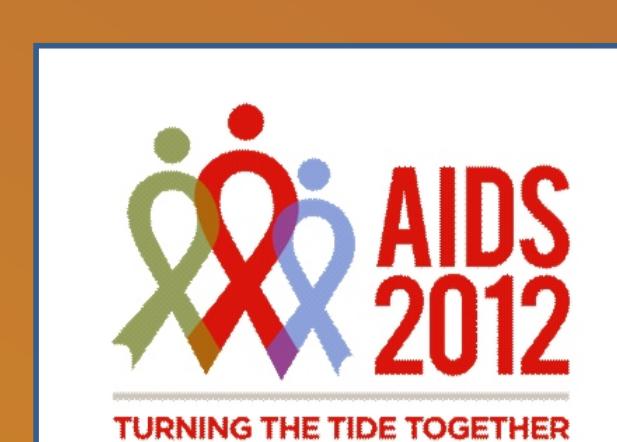


Effects of defaulter counseling on subsequent default rates among patients in HIV care in Kisumu, Kenya



Okumu D.^{1,2}, Lewis Kulzer J.^{2,3}, Shade S.B.^{2,3}, Penner J.^{2,4}, Oyaro P.^{1,2}, Dillabaugh L.^{2,3}, Oyanga A.^{1,2}, Owuor K.^{1,2}, Blat C.^{2,3}, Geng E.^{2,3}, Cohen C.R.^{2,3}, Bukusi E.A.^{1,2},

1. Kenya Medical Research Institute (KEMRI), Nairobi, Kenya
2. Family AIDS Care and Education Services, Kisumu, Kenya
3. University of California San Francisco, San Francisco, CA, USA
4. University of British Columbia, Vancouver, British Columbia, Canada



Background

Patients who default present significant challenges in HIV care and treatment clinics

Identifying defaulters is needed to:

- Prevent drug interruptions
- Monitor patient health status
- Prevent poor outcomes

Objectives

- To determine the effect of introducing increased attention to retention-in-care and retention-in-care class on defaulter rates
- To identify predictors of appointment adherence

Methods

Setting: Family AIDS Care and Education Services (FACES) is a comprehensive HIV prevention, care and treatment program primarily based in Nyanza Province, Kenya

- FACES partners with Kenya Ministry of Health (MOH)
- This study was conducted at two large FACES-supported health clinics in Kisumu, Nyanza Province

Intervention: Increased attention to retention-in-care through individual counseling by providers was initially introduced, followed 6 months later with the launch of a retention-in-care class conducted by lay healthcare workers for patients defaulting from their clinic appointments*. The class is aimed at providing a structured approach to improve appointment adherence.

- Lumumba Health Center
 - increased attention (Feb. 2008)
 - retention-in-care class (Aug. 2008)
- Pandipieri Health Clinic
 - increased attention (Aug. 2008)
 - retention-in-care class (Jan. 2009)

*Defaulting is defined as missing a clinic visit date by >3 days

Retention-in-care class content

- Discuss challenges to appointment adherence
- Refresher education on:
 - Treatment
 - Positive living
 - Consequences of defaulting

Measurement: Data from adult patients were abstracted from electronic medical records (EMR) 12 months prior to the class implementation through 12 months post class implementation. For each scheduled visit, we examined whether a patient defaulted.

Analysis: Logistic regression within a generalized estimating equations (GEE) framework were used to assess defaulting over time controlling for sociodemographic, clinical characteristics, and repeated observations within individuals.



Photo by Beth Novey

Results

Patient characteristics

- 4084 patient records examined
- 2,795 (70%) female
- Mean age: 33 years old (range 15-80; SD=10)
- Median CD4 count: 308 (range=1-2811)
- On antiretroviral treatment (ART): 643 (16%) at the first sample visit

Defaulting outcomes

- Prior to increased attention to retention-in-care:
 - Rate of default increased from 25% to 32% over 6 months
 - +3.5 per month; 95% CI=2.7, 4.3; p<0.001
- During increased attention to retention-in-care:
 - Rate of default immediately declined to 18%
 - -3.8% per month; 95% CI=4.7, -2.8; p<0.001
- Post retention-in-care class implementation:
 - Rate of default declined to 11%
 - -3.6% per month; 95% CI=4.4, -2.9; p<0.001
- Overall decline in default rate:
 - 25%, 12 months prior to retention-in-care class
 - 11%, 12 months post retention-in-care class

Figure 1. Illustration of the rate of default pre- and post- increased attention to retention-in care and retention-in-class implementation

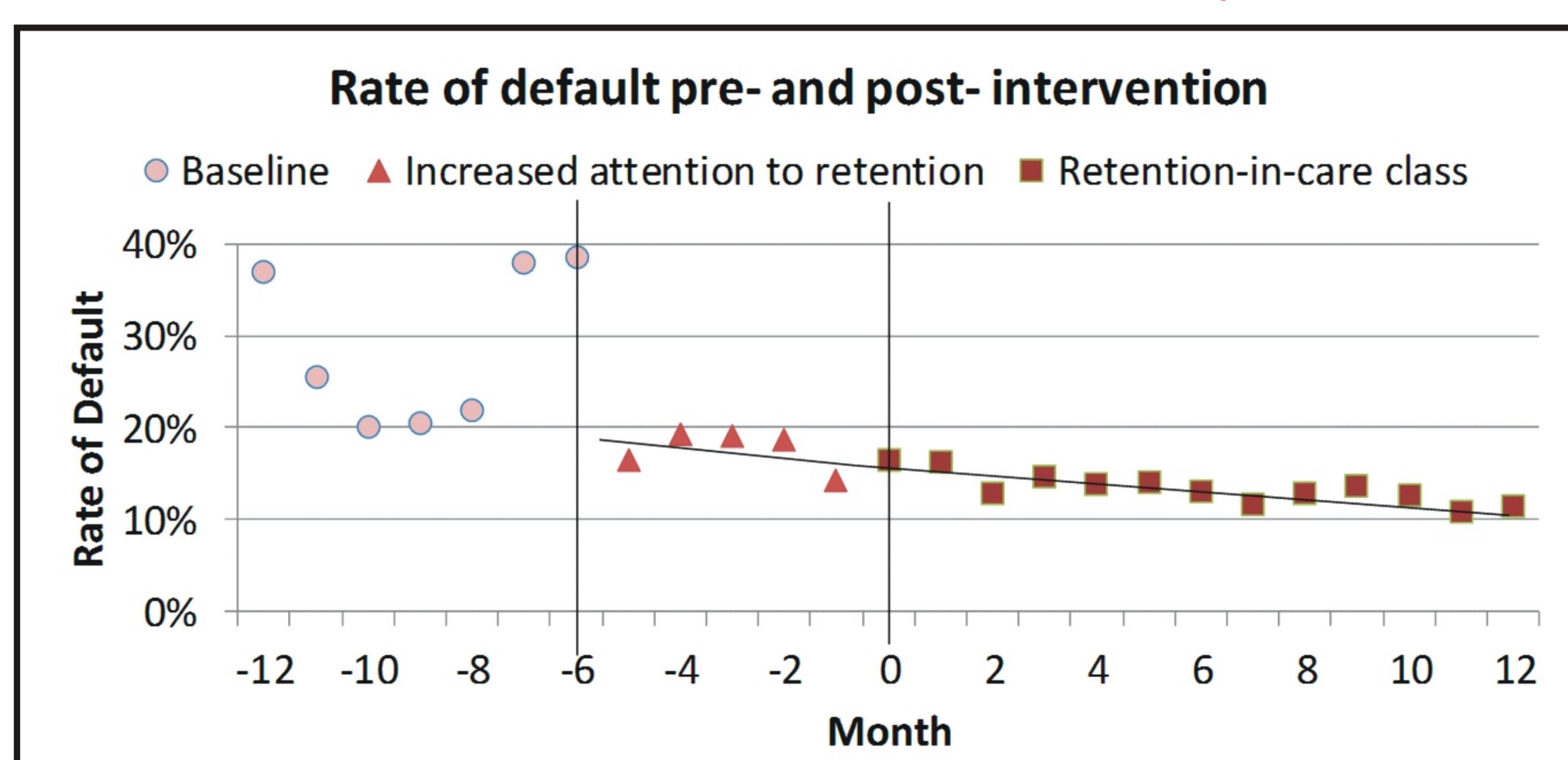


Table 1. Factors associated with rate of default

Factors	Estimate	95% CI	p-value
Female gender	-2.0%	(-3.0, -1.0)	<0.001
Older age (per 10 year increase)	-1.2%	(-1.6, -0.7)	<0.001
Disclosed HIV	-4.6%	(-6.2, -3.0)	<0.001
Increased Cd4 (per 100 cell increase)	-0.5%	(-0.6, -0.3)	<0.001
WHO stage	1.2%	(0.7, 1.7)	<0.001
ART	-11.4%	(-12.4, -3.0)	<0.001

Conclusions

Targeting defaulting patients for structured education on the importance of continued care, even when feeling well or less symptomatic of HIV, can lead to better appointment adherence in this setting.

Acknowledgments

We wish to acknowledge the Kenya MOH, U.S. Centers for Disease Control and Prevention (CDC), U.S. President's Emergency Plan for AIDS Relief (PEPFAR), and FACES clients and families.

Sources of Support

FACES is a collaborative program of the University of California San Francisco (UCSF) and Kenya Medical Research Institute (KEMRI). FACES is funded by PEPFAR/CDC (Cooperative Agreement 1U2GPS001913).