Uptake and adaptation of community adherence groups in Zambia

Monika Roy¹, Mpande Mukumbwa-Mwenechanya², Emilie Efronson³, Mwansa Lumpa², Anjali Sharma², Izukanji Sikazwe², Nancy Padian⁴, Carolyn Bolton Moore²,⁵, Elvin Geng¹, Charles Holmes²,⁵

¹University of California San Francisco, San Francisco, CA; ²Centre for Infectious Diseases Research in Zambia, Lusaka, Zambia; ³University of California Berkeley, Berkeley, CA; ⁴University of Alabama, Birmingham, AL; ⁵Johns Hopkins University, Baltimore, MD

BACKGROUND
• Community-based HIV treatment models are being increasingly employed to offload overburdened primary health care facilities and to improve long-term retention in care (by reducing opportunity costs of frequent clinic visits and leveraging social support in the community).
• The community adherence group (CAG) is a community-based HIV treatment model in which groups of six established HIV patients rotate visiting the clinic each month for individual monitoring and group medication pickup. A subsequent group meeting in the community to distribute medications to other CAG members reduces the number of individual clinic visits and provides a platform for disease self-management and social support.
• Existing data suggest that retention in HIV care is higher in CAGs compared to facility-based care.
• However, the overall public health impact of CAGs depends on the fraction of eligible patients who take up the model.

OBJECTIVES
1. To describe uptake of the community adherence group model (CAG) in Zambia using an implementation cascade for individuals offered CAGs
2. To identify adaptations to the CAG model during early implementation in Zambia

METHODS
• Setting: The Centre for Infectious Disease Research in Zambia (CIDRZ) is an NGO that supports HIV treatment services at a network of clinics across four of ten provinces in Zambia. Five rural primary health care clinics in Lusaka, Southern, and Eastern provinces were selected as intervention sites for a cluster randomized trial of the CAG model.
• Population: A systematic sample of eligible patients (HIV positive, on antiretroviral therapy greater than 6 months, not acutely ill, and CD4 >=200) were offered CAG participation at one of the five study clinics.
• Data/Analyses: We recorded number of persons that were: (a) Offered CAG group membership; (b) Formed with assistance of study staff; (c) Successfully placed into a CAG group (d) Retained during the assembly process (e) Attended first CAG group meeting. We additionally characterized adaptation by documenting changes to intended group size.

RESULTS
Figure 1. Map of Zambia and Community Adherence Group (CAG) study sites

Table 1. Characteristics of patients who accepted CAG participation

Table 2. Characteristics of CAG groups successfully formed

KEY FINDINGS
• Among 663 individuals offered a CAG, 543 (80%) accepted, 495 (82%) were placed into a CAG, 476 (79%) were retained during assembly, and 470 (79%) attended their first CAG group meeting
• CAG acceptance varied by site (range: 80-97%, median: 92%) and by the primary documented reasons for not accepting a CAG included fear of HIV status disclosure in the community and concern over needing to find members within their community to join their group.
• The primary reason for not being placed into a CAG was difficulty in finding other eligible members in the enrolled patient’s community.
• Of 84 CAG groups formed, 74 (88%) formed autonomously, while only 10 (12%) were formed with the assistance of study staff. In addition, 29 (35%) groups adapted group size from intended size of six (range: 3-8).
• CAG uptake was lowest at a site with a high proportion of fishermen and migrant workers. Frequency of drug-pick-up was adapted from monthly to bi-monthly at this site.

CONCLUSIONS
• Community Adherence Groups (CAGs) demonstrated high but heterogeneous uptake at rural primary health care facilities in Zambia.
• The proportion of self-forming groups (as opposed to group formation by study staff) was high and adaptation of CAG group size was common.
• At the site with the lowest uptake of CAGs and the fewest number of CAG groups formed, livelihood (fishermen who frequently migrated) was identified as a key barrier.
• Further qualitative work of site-specific challenges with patient acceptance of the CAG model and feasibility of CAG group formation are needed in order to optimize the public health benefit of this model at scale.

IMPLICATIONS
• As scale-up of community-based models of HIV care continues, adaptations to the CAG model and alternative ART delivery strategies will be necessary using a patient-centered approach to ensure long-term retention in care.

ACKNOWLEDGEMENTS
• We would like to thank CIDRZ Staff for assistance with data extraction.
• This research was made possible by funding support from the Bill and Melinda Gates Foundation

CONTACT INFORMATION
Monika Roy, MD
Division of Infectious Diseases, Department of Medicine
San Francisco General Hospital, UCSF
monikaroy@ucsf.edu
444 Potrero Ave Building M, Ward #4
San Francisco, CA 94110