

PROJECT SUMMARY

Clinics caring for persons living with HIV (PLWH) receive Federal funding through various titles of the Ryan White (RW) C.A.R.E. Act. Alabama (AL) has seven designated clinics that receive such funding through Part C, Early Intervention Services and provide primary medical services to PLWH. The geographic assignment of RW service areas was developed to ensure that all PLWH have geographically convenient access to a qualified HIV care provider. These service areas have remained static for more than 20 years even with dynamic shifts in disease distribution.

Despite flat Federal funding in the interval between 2006 and 2013, the number of active patients at the University of AL at Birmingham (UAB) 1917 HIV Outpatient Clinic (1917 Clinic) increased by approximately 1,500 patients. In the same time period, due to its uncompromising dedication to providing world-class HIV care to PLWH in AL, the 1917 Clinic bore an operational deficit as high as \$1.2 million. In 2015 alone, of the 3,159 PLWH that received care at the 1917 Clinic, 629 (19.9%) resided outside our designated RW service area (Jefferson County, AL and the six contiguous counties). These PLWH traveled to the 1917 Clinic seeking medical care despite their proximity to other designated RW service area clinics. The decision to bypass designated RW service area clinics results in increased personal costs (time & travel) and distorts the distribution of services intended by the statewide network of RW Part C clinics. This unduly burdens the 1917 Clinic, which ultimately bears a disproportionate share of patients and service provision. In addition, data on the impact of increased clinic distance on HIV care outcomes, such as appointment adherence and treatment success, are lacking.

Using advanced Geographic Information Systems (GIS) in combination with qualitative research methods, we propose to evaluate the personal- and clinic-level financial implications of PLWH bypassing more proximal RW Part C clinics in favor of the 1917 Clinic and to identify factors contributing to their decision. This research will evaluate the utilization and financial implications of the current RW service area distribution and the impact of distance from care on clinical outcomes. These data will serve as a foundation to assess the current distribution of RW service areas in AL and to promote optimal utilization of state RW funds. Our specific aims include:

Specific Aim 1: *To use GIS methods to quantify the excess distance and associated costs incurred by PLWHs in AL bypassing more proximal RW clinics and to characterize the clinic-level impact on service utilization and costs of providing care to such individuals.*

Specific Aim 2: *To determine patient-level factors contributing to excess travel and determine the impact of physical distance on clinical outcomes for treatment naïve patients two years after initiating HIV care.*

Specific Aim 3: *To employ qualitative methods to investigate reasoning for excess travel among PLWH attending the 1917 Clinic from outside the clinic's designated RW service area.*

Generally speaking, the proposed study will investigate research questions proposing that patients who circumnavigate assigned HIV primary care at RW clinics incur greater primary medical care costs and poorer HIV outcomes—specifically, retention in primary care, viral load (VL), and viral suppression—than those patients who receive their HIV primary care as assigned. We will test the hypotheses that: 1) Over 50% of current 1917 Clinic patients residing outside the clinic's RW service area travel an excess of 100 miles to receive care; 2a) treatment naïve patients initiating care living outside the 1917 Clinic RW service area have a greater proportion of missed visits and no-show visits in the two years after initiation of care; and 2b) treatment naïve patients initiating care living outside the 1917 Clinic RW service area have a greater proportion of virologic failure at 24 and 48 weeks after initiation of antiretroviral therapy (ART). Using qualitative methods, we will also gain insight into barriers and facilitators for local RW clinic utilization by characterizing factors influencing patients' decisions to circumnavigate their care.