

DISADVANTAGED NEIGHBORHOODS AND HIV HEALTH OUTCOMES: THE PATH TO ENDING THE HIV EPIDEMIC (EHE) IN A DEEP SOUTH FAST TRACK CITY

US Fast Track Cities 2025 Summit

ID: USFTC251285

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KEY TAKEAWAYS

Our results emphasize the negative impact that one's environment has on HIV-related outcomes

Further efforts are needed to disrupt the compounding effect of neighborhood disadvantage and HIV

BACKGROUND

Disparities in HIV care are a consequence of a complex interplay of social determinants of health (SDoH) [Abdullah et al. 2025, Flannery et al. 2017]

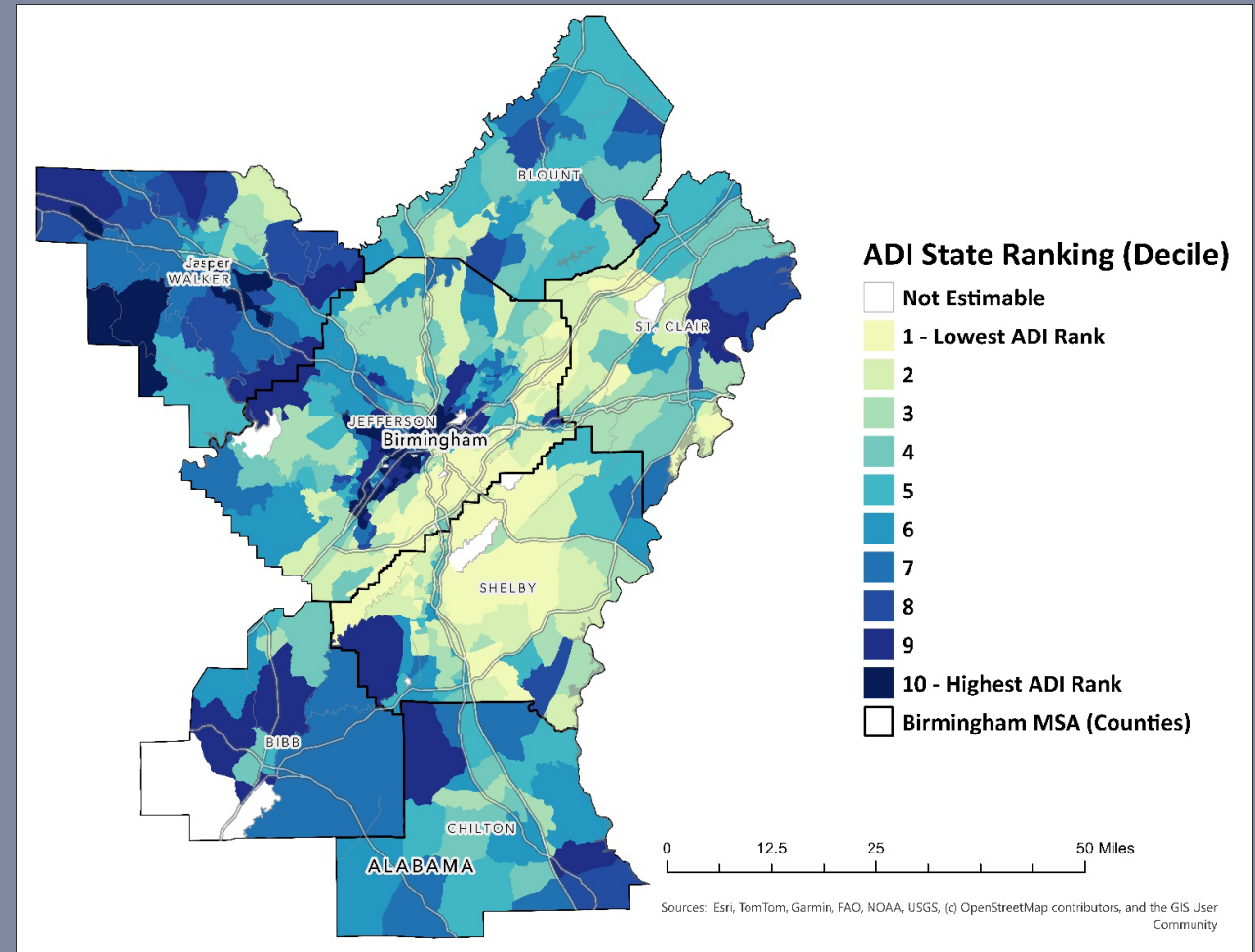


SDoH are not isolated factors but are integral components of an interconnected social structure shaped by policies and practices that influence an individual's access to and utilization of healthcare services [Flannery et al. 2017]

METHODS

Area Deprivation Index (ADI)

A scientifically validated measure of the adverse social exposures (i.e., neighborhood disadvantage) that can be used to evaluate and improve factors that impact health across populations [Kind & Buckingham 2018]

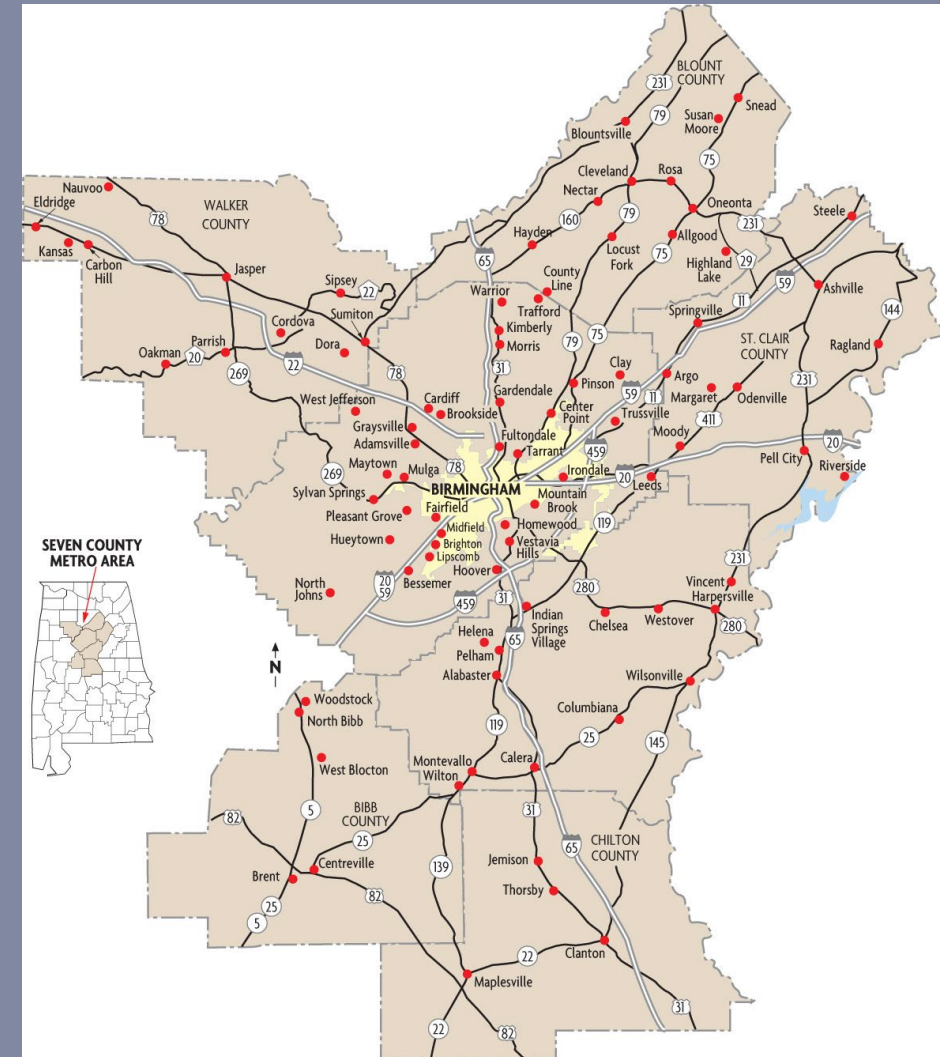


METHODS

Outcome: Time to Viral Suppression (TVS)

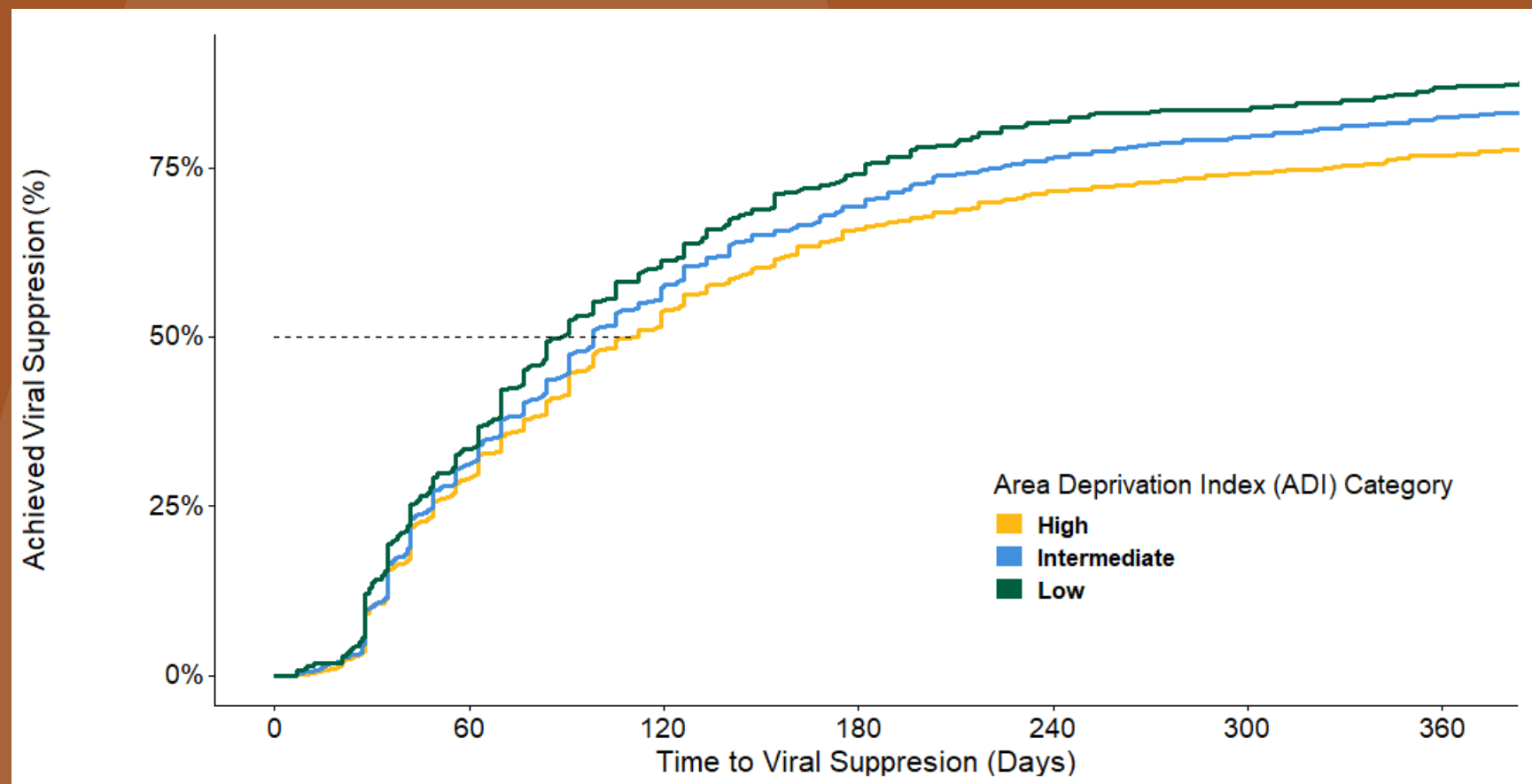
Definition: Time (days) from one's initial HIV care visit to the date of first viral load of less than 200 copies per milliliter (copies/mL) of blood *

* Key distinction – any PWH who was virally suppressed within 7 days of their initial HIV care visit at the 1917 Clinic presented evidence of being previously established in care, and were not included in TVS estimates



RESULTS

Kaplan-Meier Analysis,
univariable and
multivariable Cox
Gamma Frailty analysis

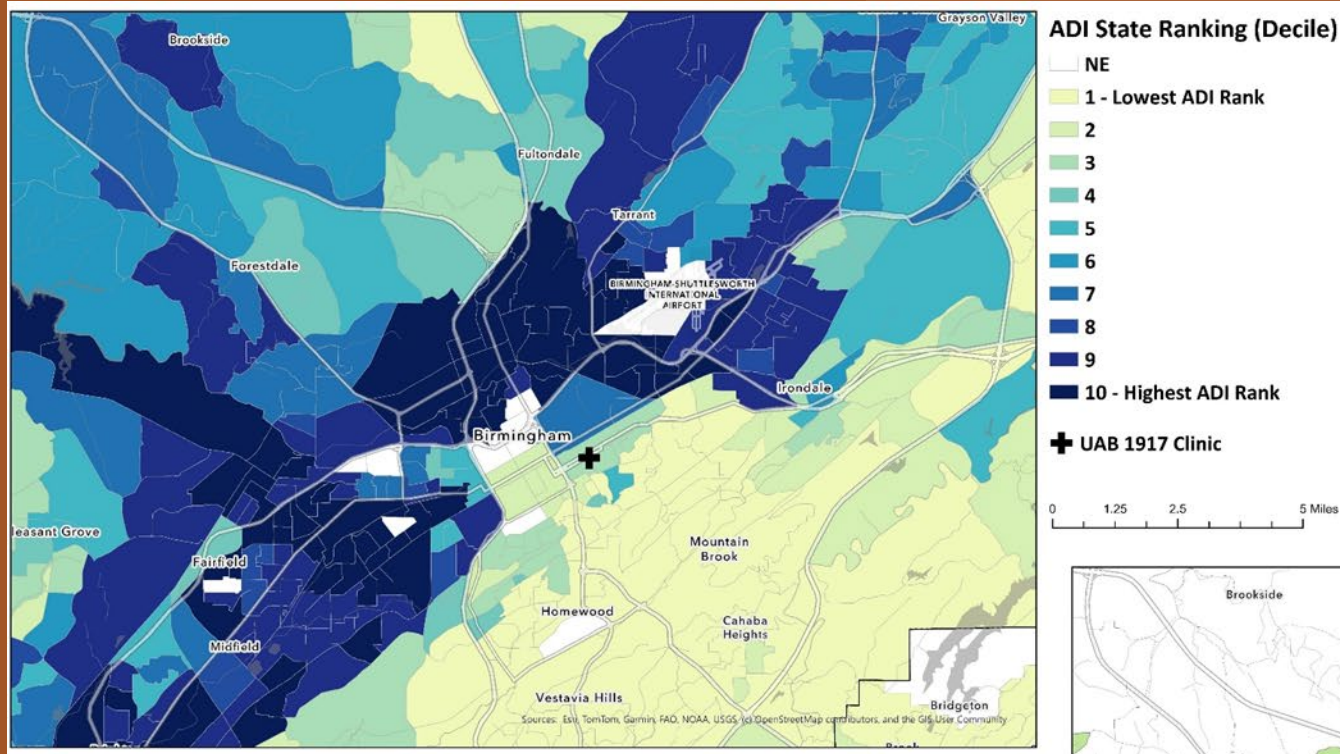


PWH living in highly deprived
neighborhoods experienced longer
(slower) time to viral suppression

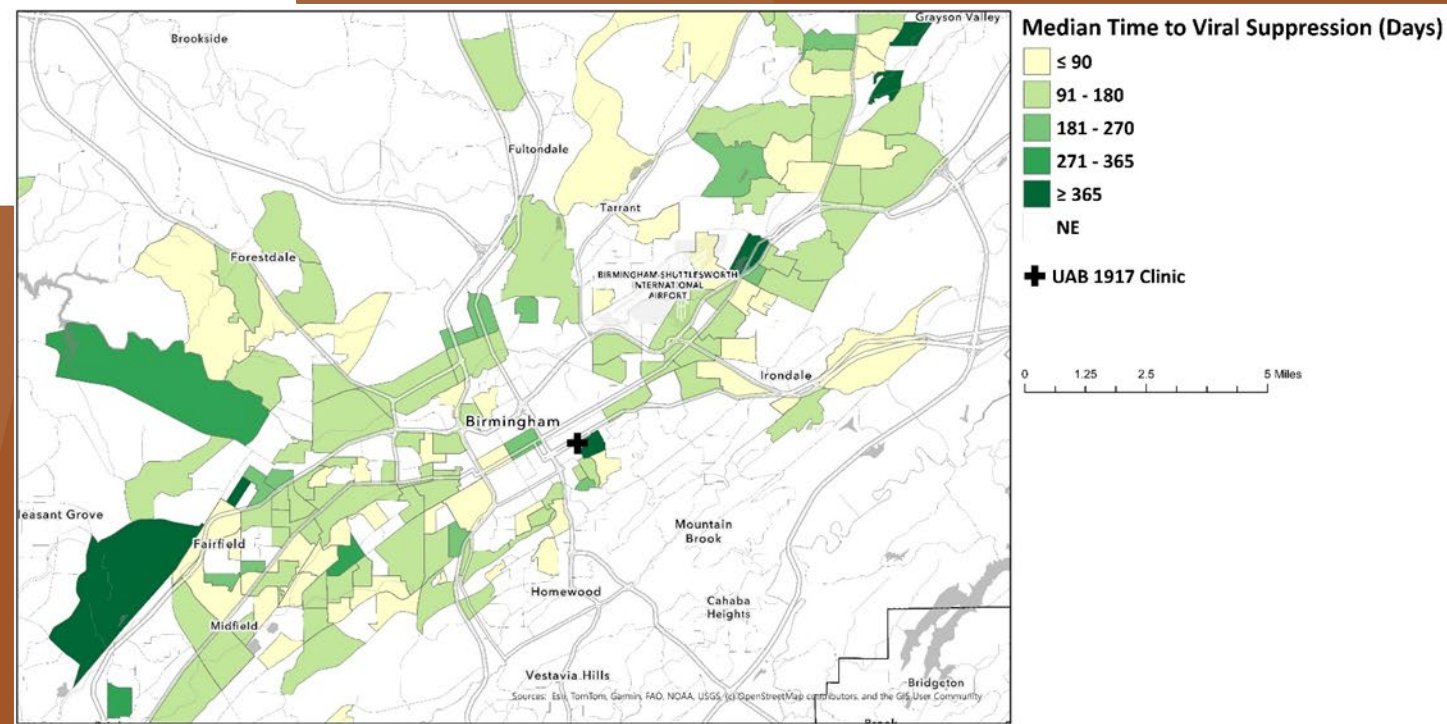
	Total (VS, %)	Median TVS, days (95% CI)	Univariable Hazard Ratio (95% CI)	Multivariable Hazard Ratio (95% CI)
Area Deprivation Index			<.0001	.0378
Low (ADI: 1-2)	408 (390)	90.0 (78.0-98.0)	Reference	Reference
Intermediate (ADI: 3-8)	1148 (1074)	98.0 (92.0-105.0)	0.87 (0.77, 0.98)	0.91 (0.80, 1.03)
High (ADI: 9-10)	924 (846)	112.0 (98.0-119.0)	0.77 (0.68, 0.86)	0.84 (0.73, 0.96)

Abbreviations: TVS = time to viral suppression, ADI = area deprivation index, VS = viral suppression, CI = confidence interval
BOLD Hazard Ratio (95% CI) or p-value indicates significance at the $\alpha = 0.05$ level

Choropleths of neighborhood deprivation state rankings within Birmingham, Alabama; and median time to viral suppression



PWH living in highly deprived neighborhoods experienced longer (slower) time to viral suppression





CONCLUSIONS

Our results emphasize the negative impact that one's environment has on HIV-related outcomes

Further efforts are needed to disrupt the compounding effect of neighborhood disadvantage and HIV

A collection of surgical instruments, including forceps and scissors, arranged on a dark surface. The instruments are metallic and polished, with some showing signs of use. The background is dark and slightly blurred, emphasizing the instruments.

THANK YOU

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