

## **Postdoctoral Scholar in Quantitative Methodology HIV and Opioid Use Disorder at the University of Chicago**

The Department of Medicine and the Chicago Center for HIV Elimination (CCHE) announces a Postdoctoral Scholar position at the University of Chicago, for a quantitative methodologist working in the following areas: epidemiology; network science; predictive analytics and/or computational modeling/simulation. The substantive focus will be on HIV and opioid use disorder research. We anticipate having multiple positions; the specific research portfolio for each candidate will comprise specific areas that match their specific skills and strategic CCHE research goals.

The position is under the direct supervision of John Schneider MD, MPH and in collaboration with other Center faculty (<http://hivelimination.uchicago.edu/people/faculty>) to support a skilled quantitative methodologist in developing a career in epidemiology, social science, or public health research. The position includes opportunities for didactic course work, leadership roles on ongoing projects, grant writing and developing an independent area of research. The selected candidate will also conduct data analyses and/or computational modeling and publish empirical papers from ongoing studies in the United States.

A central characteristic of the program of research is its integration of advanced methods that bear on the most vulnerable populations impacted by HIV, opioid use disorder and related structural factors. The goal of analyses and modeling is to directly impact clients, networks and systems to improve health and well-being. The successful candidate will be situated within a dynamic research environment that has published novel computational models addressing the themes described above, and will benefit from a unique shared space with direct service and other front-line program staff. This administrative structure allows for study analytic findings to directly translate to community-level interventions and to inform policy changes. The candidate will benefit from a rich research environment including multiple UChicago-affiliated research centers (i.e., the Third Coast Center for AIDS Research, Advanced Opioid Methodology Center, University of Chicago Urban Labs, Center for Health And Social Sciences, Department of Public Health Sciences, and National Opinion Research Council [NORC]). The computational methodological development will be supported by research partners at Argonne National Laboratory and the UChicago Center for Spatial Data Sciences, Center for Data and Computing. Ongoing data is available from cross-sectional surveys, large longitudinal cohort studies, venue-based surveys, Department of Public Health interventions, and multi-city multisite network-based interventions funded by multiple institutes of the National Institutes of Health (NIAID, NIMH, NICHD, NIDA) and the Centers for Disease Control and Prevention. Innovation is at the core of the research program and includes novel modeling approaches along with adaptation of novel biomedical prevention strategies.

Requirements for this position include having completed a doctoral degree, demonstrated strong quantitative analytic skills, evidence of scientific articles published in collaboration with multidisciplinary research teams, and a strong interest in publishing in the area of HIV and/or opioid use disorder. Candidates interested in developing a computational portfolio are expected to have facility with R or Python (within a collaborative reproducible coding environment) and experience with Java or C++ is a plus. This position offers a competitive stipend/salary,

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benefits, office space, access to internal sources of pilot project support, travel support to research conferences and access to internationally-based University of Chicago Academic Centers.

Candidates should email a current CV, two representative papers/publications, and names of at least two references to Jessi Dehlin at [jdehlin@medicine.bsd.uchicago.edu](mailto:jdehlin@medicine.bsd.uchicago.edu). Candidates should also clearly identify the specific methodological areas that they are interested in developing.

Our aim is to eliminate new HIV transmission events domestically by 2041 which would mark the second 30-year period since the first cases were identified in 1981. For example, at the end of this period in South Chicago, we would envision new transmission events as being newsworthy – and not just numbers collected for research or other documentation purposes. We take an innovative approach to HIV transmission elimination through network science, next-generation testing and notification methods, integrated prevention, and community mobilization. Through this approach, we advance previous strategies to limit onward infectious disease transmission, such as those targeting polio and smallpox.

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