

Dr. Mariano Kanamori Receives Grant to Study Impact of Social Network Structural Factors on PrEP

The National Institute of Mental Health – the lead federal agency for research on mental health – has awarded Mariano Kanamori, Ph.D., assistant professor of public health sciences at the University of Miami Miller School of Medicine, an R01 research project grant to study how social network structural factors affect access, encouragement, uptake and adherence to pre-exposure prophylaxis (PrEP).



Mariano Kanamori, Ph.D.

PrEP is a highly effective medicine that at-risk people take to prevent getting HIV from sex or injection drug use.

“The goal of this R01 study is to determine how social networks impact PrEP uptake and adherence among Latinx men who have sex with men – both those who self-identify as gay and the unstudied group of those who self-identify as bisexual or straight,” Dr. Kanamori said.

The study will be conducted in Miami-Dade County, which is the epicenter of the HIV epidemic in the United States. Among racial/ethnic groups in Miami, Latinx men who have sex with men have the highest HIV incidence. Despite PrEP being the most effective HIV prevention measure currently available, few eligible Latinx men who have sex with men in Miami are enrolled in a PrEP program. Only 6% were enrolled in 2018.

Dr. Kanamori and his team have established partnerships with Latinos Salud and the University of Miami’s Mobile PrEP and Rapid Access Wellness Clinics, which will provide access to 8,000+ Latinx men who have sex with men, including 1,500+ PrEP users and 500+ who self-identify as bisexual/straight.

Findings from preliminary studies that were conducted by Dr. Kanamori and his team and funded by National Institute on Drug Abuse and the Centers for AIDS Research-Adelante – an NIH-funded Center for AIDS Research – suggested that social network structures may be contributing to low PrEP use by Latinx men who have sex with men.

High-risk encounters

In these studies, Dr. Kanamori developed a Spatially Explicit Social Network Model that merges four social network methods –

dyadic, egocentric, socio-centric and two-mode – with spatial analysis to address the intertwining epidemics of HIV and substance misuse. This model, capable of identifying how social network structures and interactions blend the sexual risk networks of Latino and non-Latino men who have sex with men and how sexual risk and drug use networks overlap, also discovered that a large proportion of high-risk sexual encounters involved Latinx men who have sex with men who self-identified as bisexual or straight.

Supporting this model, Dr. Kanamori's lab has developed a culturally tailored application to collect HIV and drug-risk spatial network data.

"This new study includes self-identified bisexual/straight Latinx men who have sex with men who are a bridge between men who have sex with men – in whom the HIV epidemic is concentrated – and the general population in Miami," Dr. Kanamori said.

The R01 grant is the original and historically oldest grant mechanism used by the National Institutes of Health and provides support for health-related research and development based on the mission of the NIH.

Dr. Kanamori expects that the study will provide new information that will allow PrEP interventions to include the self-identification of Latinx men who have sex with men. These new interventions could then serve as models for PrEP programs targeting males from other hard-to-reach populations.

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