#1: Applications of a System Dynamics Simulation Model of the HIV Test-and-Treat Care Continuum to Reduce Community Viral Load
Facilitator: Margaret “Peg” Weeks, PhD, Institute for Community Research, Hartford, CT

The research team of the Institute for Community Research (ICR), Hartford CT, and modeling collaborator at Albert Einstein College of Medicine, NYC, in partnership with a 25-member community consortium, are developing a prototype system dynamics (SD) simulation model of the Greater Hartford HIV test-and-treat (T&T) care continuum, the local treatment cascade, and community viral load (CVL). The goal of the simulation model is to represent factors associated with successes and delays in moving all people with HIV from diagnosis (case finding) through initiation of care and treatment, to sustained viral suppression in a small urban area (Hartford/ New Britain and surrounding towns in Hartford County). This research/community consortium of diverse stakeholders has been building the model to reflect the feedback loops, delays, and other conditions that interfere with or accelerate change to improve the outcomes of the local HIV care continuum. Over the next several months, the simulation of this model will be designed into a web-based app that community members can use and modify to reflect the specific and changing conditions of the epidemic and care continuum in their community. The app will also be designed as a tool that stakeholders can use to simulate various intervention options expected to improve T&T outcomes (increased maintenance of viral suppression in all PWH, reduced CVL, reduced new infections) in order to forecast the relative benefits of different policies/programs and resource allocations to generate best outcomes. We anticipate that this web-based app could be adapted as a unique tool for stakeholders and consortia in other small urban areas to understand the strengths and weaknesses of their local T&T care continuum and to inform planning and resource allocation efforts.

As a follow-up to the current NIMH study that funds the development and creation of the SD simulation model of HIV T&T and CVL in Greater Hartford, our research and modeling team proposes to submit a grant application to test implementation of the simulation model and web-based app for community implementation. In addition to testing the model’s applications in Greater Hartford, we hope to assess the potential for adaptation of the SD model and use of the simulation app by other small urban areas and research/community collaborations willing to participate in a multi-site study. At the NEHIVSN symposium, we would like to facilitate a discussion group in which we provide a quick 15-minute overview of SD modeling, present the current conceptual model(s) generated by our Greater Hartford community consortium, review the anticipated timeline for development of the simulated model and web-based app, and discuss our plans for next steps in model/app implementation to improve community level T&T care. We can then discuss potential for a joint effort to develop and submit this grant application for a multi-site model implementation test.

#2: PrEP Acuity Scale
Facilitator: Daniel Davidson, MPH, Department of Public Health, CT

Insufficient uptake of PrEP among priority populations is being addressed in part by healthcare navigation or case management services described as PrEP Navigation, Prevention Navigation, etc. Navigation or case management services theoretically encompass a wide variety of tasks including health education, risk reduction counseling, insurance benefits assistance, linkage to medical care, medication adherence support, behavioral health screening, and linkage to substance use, mental health, or other needed medical or social service resources. PrEP clients may need all of these potential services, or few to none. Health departments, medical clinics, and others implementing PrEP-supportive services are challenged with determining the necessary level of expertise or credentials, appropriate caseloads, and scope of work for PrEP program staff. All of these factors impact the allocation of resources and development of service contracts.
Determining the level of service need among clients is often managed through the use of acuity scales—ratings systems that assess client functioning and resources across various domains such as housing, substance use, social supports, risk activity, language, and cognitive ability, etc. While acuity scales exist for HIV case management, validated tools have yet to be developed for PrEP clients, and areas relevant to PrEP linkage and adherence may differ from HIV case management. A project to develop a PrEP acuity scale could have immediate impact on the ability of health departments and other organizations that fund or implement PrEP services to design, develop contracts and funding allotments for, evaluate, and improve PrEP-supportive programming.

#3: Reducing HIV Stigma among Persons Living with HIV to Improve Outcomes on the Care Continuum
Facilitator: Kelly Thompson, MA, Alliance for Living, New London, CT

HIV stigma is frequently identified as an issue that negatively impacts people living with HIV. It is often identified as a barrier to people getting tested and accessing HIV care, being retained in care and achieving viral suppression. We are looking for potential partners in developing a research project to address HIV stigma in order to improve outcomes on the care continuum. We are currently evaluating a SAMSHA-NREPP certified EPB used to reduce mental health stigma that we can adapt for use in this project. This project will be peer-based both for the adaptation and facilitation components. We propose to design the program, implement it at several sites in New England and evaluate its effectiveness.

Facilitator: Elaine O’Keefe, MS, CIRA at Yale, CT

State health departments across New England are concerned with optimizing primary prevention of HIV infection and addressing gaps in the HIV continuum of care to ameliorate risk, arrest incidence rates, and improve both prevention and treatment outcomes. Several states are actively engaged in developing and/or executing “90-90-90” or “Getting to Zero” campaigns. At the symposium on May 25, each of the six New England state health departments will present recent data on the continuum of care in their state, HIV trends including disparities, and other vital information of relevance to the Network. In keeping with the goal of the symposium, i.e., to accelerate the development of new collaborative implementation research projects, each of the panelists presenting in the morning plenary session will pose a set of potential research questions related to their state’s HIV prevention and care goals. This breakout session will be dedicated to discussing these state level research questions, considering potential synergies and thematic concerns that may be relevant to multiple states, and exploring research project ideas and collaborations. Participants will include the panelists from the six health departments, and others who are interested in participating in this discussion.

#5: Implementing PrEP Uptake Effectively Through Social Media for Black/African American and Hispanic/Latino Young MSM
Facilitator: Jacob van den Berg, PhD, Brown University, RI

Black/African American and Hispanic/Latino men who have sex with men (YMSM) are not being reached by current HIV prevention efforts. It is estimated that if rates of new HIV diagnoses persist that 50% of Black/African American MSM and a quarter of Hispanic/Latino MSM will be diagnosed with HIV in their lifetime. Recent developments in HIV prevention efforts hold promise in reversing this anticipated trend in new diagnoses. Pre-exposure prophylaxis (PrEP), an oral antiretroviral taken daily by HIV-uninfected individuals to prevent HIV acquisition, has demonstrated efficacy for reducing HIV acquisition among high-risk groups, such as Black/African American and Hispanic/Latino YMSM. However, PrEP uptake among these groups continues to be slow. Social media (e.g., Facebook, Twitter, online date apps) provides an efficient and cost-effective way to identify and reach these men. The overall goal of the proposed project will be to develop and pilot test a social media-based peer led intervention to promote PrEP uptake among Black/African American and Hispanic/Latino YMSM. Our aims are to: (1) identify factors associated with interest in and adoption of PrEP among Black/African American and Hispanic/Latino YMSM; (2) develop a social media-based peer-led intervention to increase PrEP uptake among these men; and (3) conduct a small randomized controlled trial to test the preliminary efficacy of the intervention in comparison to a control condition (general health and wellness) at baseline, 6, and 12 months.