

# Category D: Access, Linkage and Retention in Care



# Increasing Retention in Care for HIV+ Homeless Individuals: Harlem Model Implementation

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OBJECTIVE: Engagement in Primary Care for people living with HIV/AIDS (PLWH/A) contributes to better health outcomes. Unfortunately, structural barriers such as stigma and discrimination based on race/ethnicity or socio-economic factors prevent PLWH/A from accessing care and engaging in care. One of the emerging models of care coordination that has been frequently advocated is the patient navigation system. At Harlem United (HU), a community-based organization in Harlem, New York, a program called "Access to Care" (ATC) employs a continuum of care, addressing the need to link and retain PLWH/A in care, and provide effective support services. The program aims to provide supportive case management, patient navigation and re-engagement services, and supportive services, such as treatment adherence counseling, housing support, benefits enrollment, and mental health services.

METHODS: Unlike other case management programs that rely on referrals and verification of services received, ATC is unique due to its ability to link patients to a navigator who provides advocacy, education, supportive counseling, escorts, and connection to supportive services after case management assessments. ATC facilitates re-entry into care for PLWH/A, high-risk homeless individuals, high utilizers of emergency rooms and detox facilities, and individuals with co-occurring substance use and mental health disorders.

RESULTS: In 2011, a comparative study was conducted to evaluate ATC program efficacy. HIV+ clients receiving ATC services (ATC group, n=78) were compared to HIV+ clients not receiving ATC services (non-ATC group, n=78) on retention in care and Antiretroviral Therapy (ART) status. Sample size and demographics distribution in each group, such as gender, race/ethnicity, and homeless status, were ensured to be comparable. Findings showed that:- Of

the 78 clients in ATC group, 89% were retained, compared to 74% in non-ATC group. — Among ATC clients who were retained in care, 61% were on Antiretroviral Therapy (ART). On the contrary, only 29% of non-ATC clients who were retained in care were on ART.

CONCLUSIONS: Although there have been efforts to reduce health disparities in the US health care system, the underserved population still experience limited access to medical care, fewer treatment options, and higher rates of disease. Patient navigation model such as the ATC program plays a fundamental role in reducing barriers to care and improving health outcomes. Considering patient navigators' unique and integral position in health care delivery, they can help clients break the barriers to entry by providing assistance in insurance enrollment, build clients' trust, help clients adhere to medication, and improve client-provider communication.

#### **ABSTRACT 126**

# A Qualitative Assessment of Facilitators and Challenges to HIV Linkage to Care Models in Washington, DC

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OBJECTIVE: The importance of linkage, engagement, and retention in care to achieve viral suppression and prevent HIV transmission is well documented. However, successful models for linking HIV-infected persons into care are not clearly defined. This qualitative study aimed to identify and define the linkage to care strategies implemented within multiple types of HIV care and service organizations in Washington, DC, as well as identify challenges and facilitators to the models' successes.

METHODS: Semi-structured interviews were conducted with 14 key informants identified as providers of HIV clinical care and social services. Participants were selected from 10 organizations that provided HIV testing and



linkage to care. Among these organizations there were six community-based primary care clinics; one community-based HIV/AIDS clinical care and social service provider; one community-based non-clinical care provider; and two hospital-based providers. Atlas.ti was used to conduct the qualitative data analysis and coding. Thematic analysis was conducted to identify relevant themes and patterns.

RESULTS: Participants defined their individual roles within their organization as 1) Infectious Disease Nurse Case Manager; 2) Linkage to Care Coordinator, 3) Program Manager, 4) Physician's Assistant, 5) Director of Social Programs, 6) Systems Navigator, and 7) Hospital Emergency Department Physician. Several themes emerged to describe the linkage process: 1) organizational definition of linkage to care, 2) variations in staff involved in the linkage process, 3) effect of HIV testing venue on the linkage process, 4) linkage processes for newly diagnosed individuals, and 5) linkage and tracking processes for persons previously diagnosed who were reengaging in care. Facilitators to HIV linkage to care included a strong patient-provider relationship, patient advocacy, and an organization's ability to provide other medical and social services beyond HIV care, as well as serve as the patient's medical home. Limited program and patient resources and perceived stigma associated with HIV were commonly reported barriers to successful linkage. Other challenges included co-occurring conditions such as mental illness diagnoses and social issues including poverty and homelessness. HIV testing outside of a clinical setting was also mentioned as posing more of a challenge for successful linkage to care.

CONCLUSIONS: This study identified multiple models of linkage to care for HIV-infected persons. Despite the diverse set of approaches and settings for providing linkage to care and services, common facilitators and barriers were identified. System-wide challenges must be addressed in order to improve the health outcomes of HIV-infected individuals, as well as prevent future infections.

## **ABSTRACT 127**

# The Use of Person-Locating Software to Improve Surveillance-Based Estimates of HIV Prevalence and Retention-in-Care in New Mexico

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OBJECTIVE: The National HIV Surveillance System is the only population-based source for information to track the HIV epidemic in the United States. The surveillance process, in part, entails interstate case information reconciliation of individuals monitored throughout the course of their HIV infection; this interstate data sharing allows each state to better estimate HIV prevalence. Also, state-based surveillance data have been used recently to estimate retention in HIV care. To improve our state-based estimates of HIV prevalence and retention in HIV care, we determined to obtain up-to-date vital status and address information for persons reported to our surveillance program with HIV infection.

METHODS: We selected 348 persons who had been diagnosed with HIV in New Mexico and for whom we hadn't received a laboratory or other report in least 10 years. To obtain up-to-date residency and vital status data, we utilized Accurint®, an online locate-and-research tool. Accurint is a subscription-based, internet database that uses proprietary data linking and analysis technology to analyze billions of partial and complete demographic records from a variety of public sources to provide complete current residence information and vital status.

RESULTS: Of the 348 persons for whom we searched, 250 persons (72%) were identified as having a current address in a U.S. state other than NM. An additional 19 persons (5%) were identified as being deceased. Removal of these 269 out-of-state and deceased persons from our HIV registry improved our 2010 year-end prevalence estimates as well as estimates of those retained in HIV care.

CONCLUSIONS: Application of high-quality, up-to-date person-locating software enables more accurate estimation of state-based prevalence and retention in HIV care.



These prevalence and retention measures are important to measure the successful implementation of the National HIV/AIDS Strategy. Further, our approach can be used in other surveillance programs which monitor chronic diseases in a prevalence population.

have actively facilitated their clients' readiness to access care. Variations in linkage rates between testing sites are reflective of the client's readiness to access care and the intensity and type of linkage support must be tailored to the testing venue to ensure optimal linkage.

#### **ABSTRACT 128**

# To Link or Not to Link: That is the Question

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**O**BJECTIVE: To link newly identified HIV positive individuals within 72 hours of receiving a positive result and to study success rates based on testing modality.

METHODS: Linkage to care is crucial to improving patient outcomes among newly diagnosed HIV-positive clients. AHF's Linkage Program assists newly positive clients from a variety of sources with accessing free or low-cost HIV care. The linkage rate was compared among four different sources: a mobile unit, storefront testing sites, wellness centers (STD clinics); and referrals from partner agencies. AHF's intense linkage protocol attempts to ensure HIV positive individuals are linked to care (two appointments) within 72 hours of learning of their positive status.

RESULTS: Out of 1449 positive individuals identified from January 1, 2010 to December 31, 2011, clients who tested positive at a mobile unit (N=185) had the lowest linkage percentage at 50%. Clients who tested positive at storefront testing sites (N=355) had a linkage percentage of 63%. Wellness clients (N=234) were linked 86% of the time, while referral clients (N=675) had the highest linkage percentage with 90%.

CONCLUSIONS: Individuals who tested at storefront locations or wellness centers had sought out services and thus were more emotionally and mentally prepared to enter care. Those testing at mobile testing units were less prepared for their results, less emotionally and mentally prepared to enter care. Clients coming from referral agencies have been sent to us through case managers who

## **ABSTRACT 129**

# Follow-Up Testing for Hepatitis C Virus Infection: An analysis of Massachusetts Surveillance Data from 2007–2010

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OBJECTIVE: Determine the proportion of hepatitis C virus (HCV) antibody positive cases reported to the Massachusetts Department of Public Health (MDPH) that have had at least one HCV nucleic acid test (NAT) reported and analyze the demographics of cases that did not have this type of follow-up testing reported from 2007 through 2010.

METHODS: Surveillance data for HCV cases were extracted from the MDPH surveillance system, MAVEN (Massachusetts Virtual Epidemiologic Network), and analyzed using SAS v9.2. Cases with an event date between January 1, 2007 and December 31, 2010 were analyzed and followed through February 10, 2012. MDPH regulations require all HCV diagnostic laboratory tests to be reported, with the majority of laboratory test results reported electronically. The time between the first reported antibody test and the first reported NAT was determined for each case, as applicable. A multivariate logistic regression model was developed in order to analyze demographic determinants of cases having a NAT.

RESULTS: A total of 34,005 cases of HCV infection were reported to MDPH from 2007–2010. Thirty-five percent (n=11,863) had only an antibody test reported, while 53% (n=18,004) had an NAT reported. Of those with a reported NAT, 8,274 (46%) had a NAT reported after an antibody test and could be analyzed for chronological order of report. Sixteen percent of these cases (n=1,313) had a reported



NAT within one week of their antibody test, 25% (n= 2,068) within one month, 16% (n= 1,284) within one to three months, 9% (n= 734) within three to six months, 10% (n= 865) within six to twelve months, and 24% (n= 2,010) a year or more later. Age (p<0.0001), race (p<0.0001), and region of the state (p<0.0001) were found to be significant predictors of having a reported NAT compared to having only an antibody test reported. Younger, non-white, non-urban populations in the state were less likely to have a reported NAT compared to older, white, urban residents.

CONCLUSIONS: The high number of HCV infections reported to MDPH indicates substantial screening and testing efforts by medical providers. However, for 35% of reported cases a NAT was not reported, indicating that these cases may not have received appropriate follow-up confirmatory testing for HCV infection. Demographic analyses suggest that there are disparities among populations across the state. HCV provider education is needed, with a focus on appropriate diagnosis to address disparities related to age, race and geography.

#### **ABSTRACT 130**

# Mortality Trends Among People Reported with Hepatitis C Virus Infection: Massachusetts, 1992–2009

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OBJECTIVE: Hepatitis C virus (HCV) infection causes significant morbidity and mortality. Research indicates a substantial and rising burden of premature mortality due to chronic HCV infection and that HCV-positive individuals are also at higher risk of non-liver-related mortality. Despite effective treatments, most people living with HCV infection have not been diagnosed. An analysis was conducted to explore mortality trends among people reported with evidence of HCV infection in Massachusetts and to compare mortality trends among HCV-infected and HIV-infected Massachusetts residents

METHODS: Data from 1992 through 2009 were extracted from the Massachusetts Department of Public Health (MDPH) electronic surveillance system, MAVEN (Massachusetts Virtual Epidemiologic Network), and matched to the state's death certificate records. A total of 103,385 HCV cases were matched against 1,107,544 people in the death records on first name, last name, and date of birth using SAS approximate matching procedures and analyzed using SAS 9.3 software.

RESULTS: Between 1992 and 2009, 8,499 reported HCV-positive individuals died in Massachusetts. The mean age of death was 75 years among individuals not reported with HCV infection, compared to 53 years in the HCV positive individuals (including deaths related to HCV and to other causes). The mean age of HCV diagnosis was 43 years. The highest average annual mortality rate for those with HCV was among the 50 to 54 year age group, with 38 deaths per 100,000. Starting with cases reported in 2002, the number of HCV related deaths (n=616) within 3 years of a HCV diagnosis greatly surpassed that among those diagnosed with HIV infection (n=75).

CONCLUSIONS: The analysis suggests that many HCV infections are likely diagnosed late, after disease has progressed. These results highlight the substantial burden of HCV infection in MA and the need for early detection. This analysis found that individuals with a known HCV infection die an average of 22 years younger than MA residents not known to be infected. This suggests that people living with HCV infection are not entering care at an optimal time and are therefore missing life-extending liver health interventions and treatment opportunities.



# Engagement in Care Applied to US Department of Veterans Affairs (VA): HIV Virologic Outcomes in an Integrated Health Care System

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OBJECTIVE: Many HIV-infected individuals receiving antiretroviral therapy (ART) can achieve undetectable viral loads and avoid or delay progression to acquired immune deficiency syndrome (AIDS). However deficits in the engagement in HIV care can pose significant barriers to realizing optimal treatment outcomes. The Department of Veterans Affairs (VA), the largest HIV health care provider in the US sought to measure the engagement in HIV care continuum in clinical practice to identify targets for improvement and to determine the proportion of HIV-infected individuals with an undetectable HIV load.

METHODS: Using the VA's Clinical Case Registry (CCR) — a database extracted from the VA's electronic medical record — HIV infected patients in VA care with laboratory diagnosed HIV by 30 June 2011 and alive through 31 December 2011 were identified. Measure definitions for engagement in care were: (1) "linked to care" — at least one outpatient visit in 2011 (2) "retained in care" — at least two outpatient visits to a primary care or infectious disease clinic at the same facility with at least one visit in each six-month period of the year with a minimum of 60 days between visits (3) "needed ART" — nadir CD4<500 or a history of an AIDS opportunistic infection (4) "on ART" — outpatient prescriptions filled for ART in the year including at least two drug classes and (5) "undetectable" — HIV RNA below the limit of detection on the most recent HIV RNA test in the year.

RESULTS: Nationally, VA had 23,863 with diagnosed HIV infection in 2011. Of those, 23,761 (99.6%) were linked to care, 20,282 (85.0%) were retained in care, 18,536 (77.7%) needed ART, 17,685 (74.1%) were on ART and 13,163 (55.2%) were undetectable. Among the patients on ART, 74.4% were undetectable.

CONCLUSIONS: Previous analysis of the engagement in care cascade in the US primarily relied on estimates from data collected from relatively small studies and concluded that less than 25% of patients diagnosed with HIV were undetectable largely because of deficits in linkage and retention to care. In the VA health care system, in contrast, the retention in care rate was extremely high (85%). As a result, over 55% of all HIV patients in care and over 74% of HIV patients on ART were undetectable indicating that extremely high rates of HIV viral suppression can be achieved in comprehensive integrated health care systems

#### **ABSTRACT 132**

# Routine Testing, Linkage and Retention in Care: A Federally Qualified Health Centers' (FQHC) Implementation Experience

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OBJECTIVE: The objective is to describe the FQHC experience in the implementation of routine HIV testing at Central Care Community Health Center (CCCHC), the oldest FQHC in Houston, Texas that provides primary and preventative care for the residents of Sunnyside/South Park which has the highest HIV rate in the city.

METHODS: Implementation of routine HIV testing began in 2010, and since has been part of the primary care protocol for all patients. Because of leadership buy in at all levels of the system (CEO to Lab Director), the offer of testing has been fully integrated into the clinic flow, and is included in the Electronic Medical Record system. All medical providers (MD, RN, and PAs) offer the test as opt-out. Since Texas is an Opt-out state the test can be administered without a separate consent and is included in the general consent; the provider informs the patient know this is part of clinical protocol and will be tested unless otherwise declines. Patients are offered a rapid test and if of the patient has an appointment for labs, a conventional blood draw is used.. Because of the significant distances a patient may have to travel for HIV testing in Houston (the US' least dense urban center), providing testing is vital



to reach the undiagnosed. In addition, Central Care has initiated the implementation of the "medical home" model for providing HIV care through its primary care services.

RESULTS: From October 2010—until present, 7,296 people were offered routine HIV screening; 68% of clients offered testing have accepted resulting in seven newly diagnosed. Of these, 4 are under the care of CCCHC for their HIV care and treatment. The majority of patients accepts the test (or do not opt-out) and Central Care has found the test is positively received by most patients. All three sites (2 currently phased in and a new clinic opening in Fall 2012 will also provided integrated routine screening) were phased in to HIV screening program simultaneously.

CONCLUSIONS: Routine HIV screening was successfully implemented in a high volume FQHC and did not disrupt the clinic flow. Incorporating routine HIV testing and care into a FQHC destigmatizes the association people have with HIV and where patients do not need to go to designated HIV testing sites. Most importantly, linkage to care is critical once the patient is first diagnosed as positive at the same site. The FQHC model plays an important role

#### **ABSTRACT 133**

# Utility of Identifying Out of Care HIV-Infected Patients in a Hospital Setting and Enrolling Them in a Retention Intervention

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OBJECTIVE: New strategies for finding and engaging HIV-infected patients who are out of care are needed. The hospital setting provides an opportunity to re-engage patients in HIV care. As part of a randomized intervention trial, we report the feasibility of identifying hospitalized HIV-infected patients who were out of care or newly diagnosed and offering them a retention intervention though enrollment into our study.

METHODS: Between July 2010 and June 2012, we identified hospitalized HIV-infected patients at a large publically-funded hospital for recruitment into a randomized intervention trial. Patients were identified by routine medical record review and clinician referral, and completed an in-person screening interview to confirm study eligibility. Eligibility criteria were: HIV-infected, age >17, able to provide informed consent and complete a baseline survey in English or Spanish, expected to spend at least one more night in the hospital, referred for follow-up care at Thomas Street Health Center instead of other HIV clinics, and either out of care or newly diagnosed with HIV infection. Out of care was defined as having a VL>400 and completed HIV primary care visits in 2 or fewer of the last 4 quarter-year periods.

RESULTS: 1,274 HIV-infected patients were identified. 83% (n=1,056) met the criteria for out of care based on medical record review. Of these, 22% (n=261) were reclassified as receiving care at another clinic based on the screening interview. Of the 795 remaining patients, 29% (n=228) were deemed ineligible, most commonly because they were cognitively unable to complete informed consent or the baseline survey (n=86), were discharged before the screening interview was completed (n=50), or were not expected to remain hospitalized at least one more night (n=44). Of the 567 eligible patients, 56% (n=318) were enrolled, 3% (n=16) declined enrollment, and 37% (n=209) were discharged before enrollment. Median viral load (VL) was higher in patients who were enrolled (VL=69,250 IU/mL) than all others not enrolled (VL=18,700 IU/mL) (p<0.01).

CONCLUSIONS: Targeting hospitalized populations is a useful and productive approach for finding and engaging HIV-infected patients who are newly diagnosed or out of care in retention interventions. Over 60% of all hospitalized patients (795 out of 1274) were recently diagnosed or out of care, and of those who were eligible for the study, more than half enrolled in the study. Efforts towards identifying and engaging hospitalized HIV-infected patients in retention in care activities should be considered.



# The State Healthcare Access Research Project on Access to Care for Persons Living with Hepatitis C in Massachusetts

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OBJECTIVE: (1) To identify challenges to access to care and treatment faced by people living with or at risk for Hepatitis C (HCV) in Massachusetts, (a post health care reform state in a pre-reform country); (2) to identify successful policies that facilitate access to care; and (3) to identify opportunities for improving access to care for persons living with HCV.

METHODS: Our law and policy research involved a three-pronged approach: (1) met with state government officials to review state epidemiological data and state-run HCV testing, care, treatment and prevention initiatives; (2) facilitated focus groups, meetings and individual interviews with people living with HCV and their health and support service providers; and (3) conducted independent research on the HCV epidemic nationally and in Massachusetts.

RESULTS: Almost universal access to health coverage in Massachusetts has reduced barriers to treatment related to lack of health insurance. Among other initiatives Massachusetts has: integrated HCV testing and prevention into its existing HIV and STD testing, referral, and counseling centers; funded medical management sites to provide enhanced case management to those living with HCV; and increased access to care and treatment through the ECHO model and use of telehealth initiatives. However, barriers to prevention, testing, care and treatment remain. Challenges include the need for: (1) greater prevention and screening efforts targeted to youth and adults at risk for HCV, to increase knowledge, decrease stigma, and promote testing and linkage to care; (2) stronger care coordination to support treatment and retention in care for individuals with mental illness and/or active substance use; (3) development of training models to support primary care providers in screening patients and/or providing treatment; and (4) increased funding to support education and

treatment in correctional institutions. Recommendations to address these challenges include: development of a statewide HCV education strategy (particularly for youth); implementation of broad based rapid testing initiatives; utilization of federal health reform opportunities to increase funding of coordinated care models; increased funding for treatment of incarcerated persons; expansion of telehealth models; and greater coordination with substance abuse and mental health providers.

CONCLUSIONS: Massachusetts provides an important example of how federal health care reform could increase access to care, treatment and support services for persons living with HCV. However, opportunities to increase HCV prevention, screening, linkage to and retention in care still exist, and can be addressed through effective implementation of health reform and other initiatives on the state and local level.

#### **ABSTRACT 135**

# Epidemiological Characterization and Linkage to Care of Newly-Diagnosed HIV-Positive Persons at an Urban Hospital in Washington, DC

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OBJECTIVE: Southeast Washington, DC east of the Anacostia River has the highest HIV prevalence in the city. A new HIV testing and linkage to care program was initiated to serve patients east of the river. Data are needed to understand HIV risk behaviors, demographics and initial disease severity in this population. We describe the population of newly-diagnosed persons who were identified at an emergency department routine screening program and linked to care in 2011 at a new infectious diseases care site in Southeast Washington, DC.

METHODS: A clinical database was established and populated prospectively from clinical charts with demographic, clinical and socio-behavioral data. Data were



analyzed to characterize the population and assess trends in clinical presentation and behavioral risk factors.

RESULTS: Of 195 patients referred from the emergency department screening program in 2011, 119 (76%) were linked for HIV care. Of linked cases the median age was 31 (range 22–78). 99% were black and 52% were male, 83% were single and 76% were heterosexual. 54% reported being sexually active and of these, 21% reported condom usage always. 56% were unemployed, 89% were either uninsured or publically-insured. 40% were smokers, 51% reported mild or moderate alcohol use and 38% reported a substance use history. Six people were simultaneously diagnosed with syphilis and 4 of these were MSM. Median CD4 count and viral load at diagnosis were 245 (range 2-1614) and 139,270 (30-2x106, respectively. Median CD4 at diagnosis for men and women were similar at 259 and 266, respectively. 69% had a CD4 count less than 500 cell/mm3 at diagnosis. Thirteen percent had at least one major resistance mutation and 23% were co-infected with either Hepatitis B or C. Less than 20% reported a history of or active mental disorder.

CONCLUSIONS: The newly-diagnosed population identified was largely black, heterosexual, single and publically-insured. Despite knowledge of serostatus, the majority remained sexually active and reported inconsistent condom usage. The median CD4 count at diagnosis was low and the majority were treatment eligible which suggests a need for earlier testing interventions. Sexual risk reduction and HIV prevention interventions are urgently warranted in this population. The rates of ongoing alcohol and substance use were high and also warrant intervention.

#### **ABSTRACT 136**

# Exploring the Perceptions of HIV and HIV Clinical Research Among Urban Native Americans in Order to Empower the Community to Participate in the Research Process.

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OBJECTIVE: Native American Engagement in HIV Clinical Research (NAEHCR) is an NIH-funded collaborative research project between the National Native American AIDS Prevention Center (NNAAPC), Legacy Project, and selected urban Native American communities that aims to increase Native American awareness of and engagement in HIV clinical research.

METHODS: This project utilized a participatory research framework in order garner input, stimulate interest, and encourage action among Native Americans living in Seattle, WA and Denver, CO. NAEHCR project staff identified key stakeholders to serve on formal advisory bodies in each city to provide feedback on all aspects of the project. One focus group was held in both Denver and Seattle with members of the advisory boards to explore perceptions of HIV and clinical research (n=24). Surveys were collected from Native persons in both cities to assess levels of awareness and experiences with HIV clinical research (n=115). Individual interviews were also conducted with clinical research staff to assess their perceptions and experiences with local Native communities (n=4).

RESULTS: Initial analysis of the quantitative surveys revealed that the majority of participants seek care from an Indian Health Service clinic, and health information is sought out first from friends/family, then doctors, elders, and web-based resources. Only 33% of respondents indicated that HIV/AIDS had a significant impact on the Native community; 40% of respondents had not been tested for HIV within the previous 12 months. 56% had not heard about the local HIV or vaccine research sites. 42% agreed that clinical researchers in their area respect the concerns of community residents, while 46% indicated



that clinical researchers care more about profit than the health of community members. 78% agreed, however, that the Native community would benefit from participation in the HIV clinical research efforts.

CONCLUSIONS: As biomedical interventions are becoming important components of HIV prevention, it is important that Native peoples have the opportunity to voluntarily participate in the research process. The results highlight mistrust and low awareness of research efforts. Yet a high number of participants indicate that they see vaccine research as valuable. Given these findings, researchers need to work with Native community members to address mistrust, misinformation, and increase awareness of HIV clinical research. Research staff would benefit from training to learn to approach and work with culturally distinct Native communities, and community-based education efforts need to continue — both around HIV and the efforts that are being undertaken locally to end the epidemic.

#### **ABSTRACT 137**

Integrating HIV Prevention with Hepatitis C Programs Targeting HIV Service Providers, LGBT Service Providers, Substance Use Centers, Correctional Facilities, and Criminal Justice Entities

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OBJECTIVE: Many U.S. HIV treatment and prevention education programs focus entirely on HIV, even as HIV and hepatitis C virus (HCV) co-morbidity prevalence rises. Because HIV/HCV co-infection requires specialized attention, ACRIA developed a curriculum addressing the specialized needs of people living with both infections. About 25% of people with HIV in the U.S. also have HCV. Studies indicate that 80–90% of active or former substance users with HIV are co-infected with HCV, and injection drug use continues to play a significant role in the transmission of these diseases. As needle exchange

programs have increased the availability of clean needles, risky sexual behavior is emerging as a more common means of transmission. The incidence of HCV among men who have sex with men is on the increase.

METHODS: A CDC-funded project initiated by the NYS Department of Health and ACRIA was designed to reach a variety of social service-providers that target communities at high risk for HIV and HCV: These included HIV service organizations, LGBT organizations, criminal justice agencies and programs, aging service providers, and substance using centers. An HIV/HCV co-infection curriculum was developed, addressing such issues as signs and symptoms of infection, treatments, and safer injection practices. This curriculum was used as the basis for several "Train the Trainer" seminars, peer education workshops, and education/treatment counselor trainings.

RESULTS: The development of an HIV/HCV co-infection curriculum is essential to meeting the special needs of people with both HIV and HCV. Programs specializing in HIV treatment and prevention education can enhance their services and better meet the needs of co-infected clients through the adoption and integration of a co-infection curriculum.

CONCLUSIONS: Creating HIV programs that include information on HCV and other STIs is critical. Presenting the information in understandable terms is essential in helping non-medical service providers to become part of the prevention/treatment/care continuum. Developing the capacity of non-medical service providers to speak to clients about hepatitis is essential to improving access to care and services, and to developing points of care in non-traditional sites.



# The New York State Center of Expertise on Aging, HIV, Hepatitis and STIs (Center of HIV and Aging)

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OBJECTIVE: Many U.S. HIV treatment and prevention education programs focus entirely on HIV, even as HIV and hepatitis C (HCV) co-morbidity prevalence rises. Because HIV/HCV co-infection requires specialized attention, ACRIA developed a curriculum that addresses the needs of people with both infections, and also develops the ability of aging service providers and those serving adults over the age of 50 to speak with clients about viral hepatitis. More than 75% of adults with HCV are "baby boomers" (born between 1945 and 1965). Baby boomers are five times more likely to be infected with HCV than any other group. The incidence of HCV among men who have sex with men is increasing, including among older MSM. Hepatitis A and B also affect a significant portion of the older population and could increase the damage to the liver caused by HCV or other causes. Testing people from this generation will make them aware of their HCV status and connect them with lifesaving care and treatment.

METHODS: The Center of Expertise is a NYS Department of Health program that funded ACRIA's HIV Health Literacy Program and our Center of HIV and Aging to reach a variety of HIV service providers, aging service providers, senior centers, and social service agencies that target older adults at risk for HIV and HCV. The purpose was to provide onsite training and capacity-building services, as well as web-based trainings, to providers throughout New York State. An HIV/HCV co-infection curriculum was developed, addressing such issues as signs and symptoms of infection, treatments, and safer injection practices. This curriculum was used as the basis for several "Train the Trainer" seminars, peer education workshops, and education/treatment counselor trainings. The objective was to create awareness about HIV, HCV, and other STIs among aging service providers, to improve or create working networks among HIV, hepatitis and

aging service providers, and to develop points of contact for people living with and at risk for HIV and HCV.

RESULTS: The development of an HIV/HCV co-infection curriculum is essential to meeting the needs of co-infected individuals. Programs specializing in HIV treatment and prevention education can enhance their services and better meet the needs of co-infected clients through the adoption and integration of such a curriculum.

CONCLUSIONS: Creating HIV programs that include information on HCV and other STIs is critical. Presenting the information in understandable terms is essential in helping non-medical service providers to become part of the prevention/treatment/care continuum.

## **ABSTRACT 139**

# Reaching and Retaining Co-Infected HIV/HCV Residents in Underserved Communities

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OBJECTIVE: An estimated 30% of people living with HIV are also co-infected with HCV. Untreated co-infection increases viral loads, predicting higher likelihood of transmission and disease progression. Communities of poverty are among those with the highest concentration of HIV/HCV cases and viral loads. Homelessness, substance use, and severe mental health needs are just a few of the challenges that limit engagement in care. In response, Tenderloin Area Center of Excellence (TACE) has developed a model of integrated care to provide culturally competent services to one of San Francisco's most impacted neighborhoods.

METHODS: In collaboration with the SFDPH Tom Waddell Health Center, TACE's model combines onsite medical care with behavioral health and social work services that address physical, psychological and environmental barriers to care. TACE augments medical services with a daily nutritional program, drop in counseling, peer advocacy, social opportunities and access to affordable



housing. Utilizing a client-centered, harm reduction approach, TACE serves the hardest to reach individuals and effectively retains them in care and treatment.

RESULTS: Utilizing HAB Quality Measures, the Tenderloin Area Center of Excellence outcomes from Jan.—July 2012 are higher the average in key indicators such as number of medical visits, HEP C screening, prophylaxis and ART. Undetectable HIV viral load currently at 56% with a target of 85%.

CONCLUSIONS: Developing an integrated, culturally sensitive model of care to address the psychosocial needs of co-infected individuals improves engagement in medical treatment, reduces mortality rates, and risk for new infections.

## **ABSTRACT 140**

# Linkage to HIV Care in the VA Healthcare System

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OBJECTIVE: Timely linkage to HIV care after diagnosis is critical for achieving optimal health outcomes from antiretroviral therapy (ART). The National HIV/AIDS Strategy seeks to improve linkage to care in the US from 65% to 85% by 2015. Our objective was to examine rates and predictors of linkage to care in VA, one of the largest HIV providers in the US.

METHODS: Retrospective cohort study, using the Clinical Case Registry (a national VA database of all HIV-infected veterans who received care at all VA facilities), including veterans identified with HIV in the VA for the first time (VA HIV date) from 1/1998 through 12/2008. The VA HIV date was the earliest VA date of: HIV ICD-9 code, antiretroviral medication (ART) prescription, positive HIV antibody or Western blot test, CD4 count, or HIV viral load (VL). Age, sex, race/ethnicity, first VA CD4 count, and prior outpatient VA use were abstracted. Transfer to VA care with viral suppression (VS) was defined

as first ART within 30 days of VA HIV date and VL<500c/mL before/within 30 days of ART. Linkage to care was defined as a clinic visit in an Infectious Diseases, Internal Medicine, or Primary Care clinic (as appropriate in each facility) within 90 days of VA HIV date. Multivariate logistic regression models of linkage were constructed.

RESULTS: 20,363 veterans were identified; 97.3% male; 35.1% white, 50.1 % black, 5.3 % Hispanic, and 8.9% other/unknown race/ethnicity; mean age 47.2 years (SD 10.5); median first CD4 cell count 315 (IQR 132, 522); 10.7% were transfers with VS. Overall, 75.7% linked to HIV care. Transfers with VS were more likely to link to care (91.9% vs. 73.8%; p<0.001); other variables were statistically significant predictors but absolute differences in linkage were =6%. In multivariate analysis, predictors of linkage were age, race/ethnicity, year of VA HIV date, prior VA outpatient visits, and baseline CD4 cell count, but only transfer with VS had an adjusted OR>2 (3.65 [3.1, 4.3]; p<0.0001).

CONCLUSIONS: Linkage to HIV care within the VA, where both HIV care and medications are readily available, is below goal. VA will need effective interventions to increase access to HIV care and linkage to care to meet the National HIV/AIDS Strategy goal. These interventions should target all HIV-infected veterans with the possible exception of transfers with suppressed VL, since no readily clinically available characteristics or CD4 cell count was a clinically useful predictor of linkage to care.

#### **ABSTRACT 141**

# Navigating HIV Positive Clients to Care from an Integrated Routine HIV Testing Program in an Urban Hospital

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OBJECTIVE: HIV testing programs have been very successful at diagnosing unknown HIV infected people, but linkage to care remains a challenge. We hired a patient



navigator to successfully link patients who were newly diagnosed and previously known positive but not in HIV care.

METHODS: Mt. Sinai is a 350-bed, inner city, level one, trauma center and is the largest Medicaid Hospital in Illinois which has offered HIV testing through the emergency department for over 10 years and in 2011 began offering routine testing throughout the hospital. A patient navigator attempts to link newly diagnosed and known HIV positive patients who are not in care to care with intensive post-test counseling, identification of barriers to care, providing reminder calls, and escorting the individual to appointments. Data were analyzed amongst all individuals who were diagnosed at Sinai as of MONTH 2011 to MONTH 2012 and connected with the navigator.

RESULTS: From January 2012 to June 2012 we tested 1479 patients for HIV and found 20 to be infected. Thirteen were newly diagnosed and 7 were previously known. Fifteen met with the patient navigator. Eight of the 15 were linked to care, 1 was in care, 3 refused linkage to care, and 3 are lost to follow up. A time analysis was done in June 2012 for the then 17 navigated patients to examine time from the first visit where someone was identified as positive to the first attended medical appointment. Among the 17 patients who were linked to care there was an average of 45 days from diagnosis to the first attended ID visit. For those navigated the average was 41 days, if not navigated it was 59 days. New positives were linked in about a month if navigated and if not about 2 months. Those who self-identify took longer than those not navigated and known positives took the longest to get back into care.

CONCLUSIONS: At Sinai patient navigation has been successful at linking HIV infected clients to care, but success varies depending on whether the person is a new or known positive. The patient navigator model is improving Sinai's linkage to care system for all HIV infected clients. Finding out more information about why success in patients previously positive via completed risk assessments, medical records, and other information would be useful to develop strategies to engage them into care more quickly and increase their retention in care, resulting in better clinical outcomes.

## **ABSTRACT 142**

# Alaska LiverConnect: Providing Remote Specialty Liver Disease Education

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OBJECTIVE: In Alaska, more than 3,000 Alaska Native/ American Indian persons are infected with hepatitis B or C. These patients are at increased risk of developing cirrhosis or hepatocellular carcinoma. Rural providers need guidance from specialists on management of patients with abnormal liver function tests, cirrhosis, or liver failure. Vast distances between roadless communities create significant obstacles to care. Providers are dependent on remote specialty care and consultation from Anchorage. LiverConnect, a video-teleconference we developed, provides a critical link between frontline rural providers and hepatology specialists, improving access and quality of care to underserved communities. This bi-monthly program featuring up-to-date specialty education and case reviews enhances coordination among levels of care and regions of the state. Providers exchange information and learn techniques to improve patient diagnosis, shorten delays in receiving appropriate care, and better manage treatment.

METHODS: Continuing education through LiverConnect is offered to providers, nurses, and community health aides. The bimonthly video-teleconference features liver disease, HIV, and behavioral health specialists offering guidance and training through didactic presentations and case discussions. Patient confidentiality is protected. PowerPoint presentations are emailed to participants prior to the scheduled event and are archived online, along with video recordings of each LiverConnect program. Participants are emailed evaluation forms for each session. Evaluations include 7 indicators ranked on a 5-point Likert scale from Strongly Agree to Strongly Disagree.

RESULTS: Since March 2011, a total of 32 LiverConnect programs have focused on liver disease with more than half of the topics highlighting viral hepatitis and HIV prevention, diagnosis, and treatment. Participants have



joined the network from as far as Atka on the Aleutian chain, to Kotzebue in the north and Sitka to the south, distances of over 1100 miles. In the first 9 months of 2012, 12 programs drew a total of 259 participants. Sixty-eight CMEs were awarded to physicians and mid-level providers; 99 CEUs were awarded to nurses, and 92 participants did not request educational credit. Evaluation results indicated 67 percent of participants strongly agreed that LiverConnect objectives were met and the content was helpful to their practice.

CONCLUSIONS: LiverConnect is a valuable continuing education program, linking primary care providers over vast distances to receive specialized information and guidance to improve care of patients with liver disease and HIV.

#### **ABSTRACT 143**

# in+care Campaign: a National Virtual Collaborative to Improve Retention

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OBJECTIVE: The National Quality Center, funded through the Health Resources and Services Administration HIV/AIDS Bureau, has launched a national retention campaign designed to facilitate local, regional, and statelevel efforts to retain more patients in HIV care and to prevent patients from falling out of HIV care while building and sustaining a community of learners.

METHODS: Running between October 2011 and December 2013, the in+care Campaign is a voluntary nationwide initiative to engage HIV providers, people with HIV, administrators of government HIV programs and other stakeholder groups to improve retention rates. The Campaign has five aspects: data collection (reporting of 4 standardized performance and submissions of ongoing improvement strategies to Campaign staff), webinars curricula (general content for all participants, journal club for medical providers, specific calls for consumers), coaching by quality improvement experts, local capacity building and collaboration through Local Retention

Groups, and Partners in+care, the consumer component of the initiative. Campaign activities are communicated through a monthly newsletter and a dedicated website where relevant materials and past webinar programs are saved. Performance data are submitted to a custom-made database that allows real-time, immediate benchmarking against the national

RESULTS: To date, 484 individual providers have signed up to be a part of the Campaign, representing 403 HIV programs from 47 states and territories, and 238 cities in the U.S. These providers care for an estimated 421,000 patients (not unduplicated). In addition, 592 individuals have signed up to be Partners in+care. 501 of these Partners are participating in our Facebook community and 124 interact through our listsery. Of the enrolled provider programs, nearly 65% have submitted performance data and more than 40% have submitted improvement strategy data from their practices. The Campaign has hosted 18 webinars attended by registered participants and other observers. Coaches are actively providing feedback and supports to all 403 registered programs. 70% of participating sites are engaged in the 25 Local Retention Groups that have been established by our volunteer corps of 42 Local Quality Champions.

CONCLUSIONS: Initiatives like the in+care Campaign show promise in improving patient retention in HIV care, resulting in improved health outcomes downstream. Offering a range of levels for participant engagement builds momentum behind the Campaign and increases the likelihood that innovative strategies for improvement will be spread within communities and across the nation. In addition, including the full range of stakeholders diversifies the types of improvement strategies proposed and propels community buy-in for quality improvement



# Racial Disparities in Unprotected Sex, HIV Infections, and Engagement in Care, Viral Load Suppression Among Individuals Living with HIV in Hyperendemic MSM Community of Washington DC

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OBJECTIVE: After three decades of the HIV/AIDS epidemic in the United States, racial disparities among people living with HIV/AIDS continue to persist. The purpose of this study is to examine these disparities between among individuals living with HIV in hyperendemic MSM community of Washington DC namely White and Black men who have sex with men (MSM) in the areas of disease prevalence, unprotected sex, engagement in care, and viral load suppression.

METHODS: The HIV-related the National HIV Behavioral Surveillance Survey (NHBS) among MSM in 2008 and HIV diagnosed cases as of the end of 2010 were analyzed. Linkage to care and viral load suppression (<400 copies/mL) were assessed.

RESULTS: Among 500 NHBS-MSM participants in Washington DC, Black (N=146) use condoms at higher rates (receptive: 70%; insertive: 67%) than white (N=229) (receptive: 49%; insertive: 43%) (both rates, P<0.01, Black versus White), HIV prevalence rate is significant higher among Black MSM (27.4%) than that among White MSM (7.9%) (P<0.01). As of December 31, 2010, there were 5,853 adults and adolescents diagnosed and reported HIV/AIDS cases in DC among MSM with 3,299 of Black and 1,935 of White. Of the 1,095 HIV/AIDS newly diagnosed cases among Black MSM diagnosed and reported from 2005 to 2009, 88.7% of them were linked to care, and 54.1% had ever had viral load suppression, and 26.4.0% maintained viral load suppression as of the end of 2010; these rates

are statistically significant lower than that among the 567 White MSM HIV cases diagnosed and reported from 2005 to 2009, of them, 95.1% were linked to care, and 88.7% had ever has viral load suppression and maintained viral load suppressed (43.0%) (all rates, Black versus White, P<0.01).

CONCLUSIONS: Whereas higher rate of condom use among Black MSM versus White MSM is indicative of success of targeted prevention intervention, the rate of condom use however may be not high enough to curtail the epidemic and address racial gaps because of the 'sexual ecology", the dramatic racial disparities of HIV prevalence and engagement in care and treatment within the hyperendemic MSM community in DC. The findings underscore the need to intensify the effective combination of intervention measures, including continued condom promotion and prevention, novel approaches to expand HIV testing and evidenced-based prevention, improve engagement in care and adherence to antiretroviral therapy; all components needed to help reduce disparities and improve health behaviors and outcomes particularly in Black MSM.

#### **ABSTRACT 145**

# The State of HIV in Primary Care: A Fractured Landscape

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OBJECTIVE: Primary care providers (PCPs) are increasingly being called upon to treat patients living with HIV. They are increasingly seeing, treating, and managing HIV as a chronic disease. Therefore, primary care providers are critical links to continuity of care and keeping patients in care.

METHODS: HealthHIV's 2nd Annual State of HIV in Primary Care survey was implemented to identify trends in the provision of HIV care among PCPs and HIV Specialists. The national survey was conducted online with respondents recruited through targeted invitations between July and October 2011. HealthHIV and Medscape fielded the 45-question instrument in Survey Monkey™. Qualitative analysis was conducted in order to code and



develop themes of participants' views of the current state of HIV in Primary Care.

RESULTS: The survey obtained 1,806 US-based respondents to the survey. The survey asked participants their views on the current state of HIV in primary care. HIV Specialists by far described the current state of HIV in primary care as "excellent" and 'good' overall. HIV PCPs stated that that although the state of HIV primary care is getting better, the current state is overall challenged by many factors including level of funding, barriers to access, and fragmentation across the health care system. Responses from primary care providers that do not provide HIV care were contradictory suggesting a chaotic and perplexing view of the state of HIV primary care.

CONCLUSIONS: Providers cited facts and other details demonstrating their current involvement and complex understanding of the political and environmental factors affecting the HIV primary care landscape. Others shared little or no additional information possibly demonstrating a lack of information or knowledge. This demonstrates a need to close the gap among HIV care providers to provide a united healthcare front against HIV/AIDS.

#### **ABSTRACT 146**

# Influencing Blacks and African Americans' Decision to Provide HIV Care: Greater Focus on Medically Underserved Communities and Health Equity

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OBJECTIVE: According to the Centers for Disease Control and Prevention (CDC), African Americans are disproportionately affected by HIV/AIDS, accounting for more HIV/AIDS cases than any other racial/ethnic group in the U.S. The Association of American Medical Colleges, Diversity in the Physician Workforce publication indicates that the HIV workforce is aging, with 77.9% of Black or African American providers 35 years of age and older. Identifying motivational factors is critical to build the next

generation of providers to provide culturally appropriate HIV services to high-risk populations.

METHODS: HealthHIV's 2nd Annual State of HIV in Primary Care survey was implemented to identify trends in HIV care among primary care providers and credentialed HIV specialists. The national survey was conducted online with respondents recruited through targeted invitations between July and October 2011. HealthHIV and Medscape fielded the 45-question instrument in Survey Monkey™. Qualitative analysis, specifically deductive reasoning, was conducted in order to code and develop themes of participants' views of the current state of HIV in Primary Care.

RESULTS: There were 627 providers surveyed, 82 of which were African American or Black. The providers who specifically provide HIV care are more influenced by the needs of their communities than by training or job opportunities. African American providers specifically are more likely to live in communities highly affected by HIV (49%), and more likely than other clinicians to focus on HIV because of: 1. Interest in medically underserved communities (85%), 2. Concern about health equity and disparities (76%), 3. Significant need in the area (71%), and 4. Training and education (49%).

CONCLUSIONS: Professional and personal factors greatly influence providers' decisions to focus on HIV care. There are opportunities to increase greater mobility and influx of providers to areas of need through greater targeting of their interests.



# Check Hep C: A Demonstration Project for Providing Comprehensive Community-Based Screening, Linkage and Medical Services to New Yorkers with or at Risk for Chronic Hepatitis C Infection

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OBJECTIVE: Hepatitis C virus infection (HCV) disproportionately affects marginalized and stigmatized populations such as drug users, the homeless, and immigrants from high prevalence areas, many of whom lack health insurance and social support and, thus, experience difficulties accessing and maintaining HCV-related care. To help reduce illness and death from HCV, the New York City Department of Health and Mental Hygiene developed the Check Hep C program which includes 1) community awareness, 2) expanded HCV screening and diagnosis, 3) support to link HCV RNA positive patients to services, and 4) mentoring and training of community physicians.

METHODS: Using Knowledge Translation as our theoretical framework, Check Hep C was developed to address individual and structural-level barriers to the implementation of these evidence-based HCV screening and care practices.

RESULTS: Beginning 5/2012, a diverse set of community partners located in neighborhoods with excess numbers of reported cases of HCV began collaborating on Check Hep C. Screening of high risk individuals is conducted in syringe exchange programs, a drug users' union and federally-qualified health centers (FQHCs). Each participant with a positive HCV RNA test is assigned to a patient navigator, who provides HCV education and counseling, assists with enrollment in benefits programs, accompanies patients to medical appointments, refers patients to supportive

services such as housing and substance use treatment, and facilitates effective patient-provider communication. Clinical providers at FQHCs receive in-person and telemedicine mentoring from academic HCV clinicians. A community-wide electronic medical record has been implemented to ensure continuity of care starting from initial contact with Check Hep C program providers; this system will record patient outcomes related to diagnosis, retention in care and response to treatment.

CONCLUSIONS: Although treatment of HCV can be curative and reduce morbidity and mortality, many chronically infected individuals remain undiagnosed and do not receive appropriate care or treatment. Check Hep C seeks to address these gaps at the community level by increasing the capacity to screen, diagnose and care for patients with chronic HCV and to coordinate services within a large urban area where many people are at risk of HCV and many barriers to care exist.

#### **ABSTRACT 148**

# Patterns and Correlates of Linkage to Appropriate HIV Care following HIV Diagnosis in the U.S. Medicaid Population

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OBJECTIVE: Timely linkage to appropriate care after human immunodeficiency virus (HIV) diagnosis is critical for optimizing patient outcomes. A key goal of the U.S. National HIV/AIDS Strategy is to develop a "seamless system to immediately link people to continuous and coordinated quality care when they learn they are infected with HIV." Information on the patterns and correlates of linkage is prerequisite to the development of optimal linkage policies. While several studies have investigated these issues, none have focused solely on Medicaid beneficiaries — the largest segment of the insured HIV population, which will grow even larger under the Patient



Protection and Affordable Care Act. Therefore, this study examined patterns and correlates of linkage to appropriate HIV care following HIV diagnosis in the U.S. Medicaid population.

METHODS: Retrospective study using claims data from 15 U.S. Medicaid Programs. Study sample comprised patients aged 18–64 years with =1 HIV test between 1/1/2003–5/1/2010, accompanied or followed by HIV diagnosis. "Test Index" corresponded to the HIV test that was temporally proximate to first HIV diagnosis. Study endpoint was linkage to appropriate HIV care, defined as receipt of CD4 and viral load tests as per U.S. treatment guidelines; a more restrictive definition — receipt of CD4, viral load, and drug resistance testing — was developed for use in sensitivity analyses. Time-to-event and multivariable logistic regression analyses characterized patterns and correlates of linkage to appropriate care.

RESULTS: Study included 6,684 patients: mean age 35 years, 70% female, 47% black race. In the main analysis, the 1-year Kaplan Meier-estimated probability of linkage to appropriate HIV care was 21.0%, increasing to 26.4% after 5 years; in sensitivity analyses using the more restrictive definition of appropriate care, these probabilities were 9.2% after 1 year and 11.5% after 5 years. In both analyses, the majority of patients who linked to appropriate HIV care did so within 3 months after Test Index. Multivariable logistic regression analyses indicated that the odds of linkage varied significantly by sex, race/ethnicity, and clinical factors.

CONCLUSIONS: This study determined that for every 10 Medicaid patients diagnosed with HIV, only 1 to 2 linked to appropriate HIV care within 1 year of Test Index. These findings underscore the need for more effective interventions in the Medicaid HIV+ population promoting timely linkage to appropriate post diagnosis care.

## **ABSTRACT 149**

# Impact of Payer Type on HIV Stage of Illness at Time of Initiation of Antiretroviral Therapy in the United States

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OBJECTIVE: Research has linked earlier initiation of HIV antiretroviral therapy (ART) with better outcomes. Because Medicaid generally covers a population of lower socioeconomic status (SES) who experience greater barriers to care, we hypothesized that HIV severity at time of ART initiation is worse for Medicaid patients than other patients.

METHODS: US retrospective database analysis using GE Centricity Outpatient Electronic Medical Records spanning 01/01/1997 through 9/30/2009. Subjects included all adult HIV patients initiating first-line ART who had CD4+ results within 90-days pre-initiation. HIV stage was defined using CD4 ranges: >500 (n=520), 351-500 (n=379), 201–350 (n=580), or =200 (n=406) cells/ mm3, with lower CD4 count indicating increased disease severity. Payer type was defined as the patient's primary payer: Medicaid, Medicare, commercial insurance, selfpay or other/unknown. Note that many HIV patients with primary coverage through Medicare have secondary Medicaid coverage ("dual eligibles"). After controlling for significant demographic and clinical covariates, cumulative logit models assessed the effect of payer type on HIV stage at ART initiation.

RESULTS: Study included 1885 subjects with their primary payer being Medicaid (n=218), Medicare (n=330), commercial insurance (n=538), self-pay (n=159) or other/unknown (n=640). Final logit models found that, compared with Medicaid, odds of initiating ART at a higher CD4 range were similar for Medicare (odds ratio [OR]=1.11; p=0.521) and significantly greater for commercial insurance (OR=1.53; p=0.005), self-pay (OR=1.56; p=0.023), and other/unknown (OR=1.79;



p<0.001). Final logit models controlled for age, race, preinitiation office visits, days since last CD4 test before initiation, HIV category B, HIV category C, opportunistic infections, and anemia.

CONCLUSIONS: Medicaid patients initiated ART at more advanced stages of HIV than patients whose primary payer was commercial insurance, self-pay, or other/unknown. Similarity between Medicaid and Medicare patients in HIV severity at treatment initiation could reflect secondary Medicaid coverage among lower SES Medicare patients. Results warrant further study.

#### ABSTRACT 150

# Increasing the Capacity to Treat Hepatitis C and HIV in Primary Care Using the Project ECHO Model in a FQHC

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OBJECTIVE: Nationally, 3.9 million people live with chronic Hepatitis C (HCV)1 and 1.2 million persons with HIV2. Many medically underserved HCV and HIV patients do not receive timely antiviral treatments for various reasons: predisposing socioeconomic variables, health insurance barriers, and the high cost of antiviral therapy3-6. Novel approaches are needed to ensure that all patients can access specialty care and treatment options. Conceived at the University of New Mexico to address rural access barriers, Project Extension for Community Health Outcomes (ECHOTM) is an evidence-based intervention that uses teleconferencing, disease management, and case-based learning to bridge the gap between specialty and primary care.

METHODS: To address similar barriers in a urban/suburban setting, the Community Health Center, Inc. (CHCI) studied the Project ECHO model, developed its internal capacity, implemented the necessary technological infrastructure, and adapted the model capitalize on its integrated electronic health record. To fully assess the impact of the model, clinical and operational data

was collected for all presented cases and self efficacy and knowledge questionnaires were administered to participating providers at baseline and after six months of participation. Surveys will be administered at the one-year mark as well.

RESULTS: After eight months of operation, CHCI Project ECHO has conducted 16 HCV and 13 HIV sessions, and PCPs have presented and created care plans for 54 unique HCV patients and 28 HIV patients. One PCP, whom previously never started a patient on HCV treatment, was able to do so because of Project ECHO. Survey responses showed an improvement in partipants knowledge, skill, learning, and competence in both HCV and HIV treatment after 6 months of active participation: PCPs reported "moderate degree of learning" gain in both HCV and HIV clinical content from the previous average rating of "less than average knowledge."

CONCLUSIONS: In this project, CHCI integrates the ECHO model into a medical home and uses it to bring urgently needed care to more patients with HCV and HIV. CHCI is the first Federally Qualified Health Center to replicate Project ECHO independently. Experience, although still limited, suggests that PCPs are gaining competence and confidence. Preliminary data from this project suggests that preparing a patient for treatment is a lengthy process that can take months. Further experience in the coming months will determine whether treatment outcomes of similar success to the original Project ECHO6 can be obtained in this context.



# Understanding Barriers to Linking Persons Living with HIV to Care in the United States: Findings from the Positive Charge Initiative

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OBJECTIVE: Research suggests that approximately 50% if people living with HIV/AIDS (PLWHA) are not engaged in regular HIV care (CDC, 2011; Gardner, McLees, Steiner, Del Rio, & Burman, 2011). Hundreds of thousands of persons in the U.S. have unmet care needs, and the AIDS Drug Assistance Program waiting lists are but the mere tip of the iceberg. Understanding the barriers PLWHA who are out-of-care face in accessing regular HIV care is necessary for the development of effective linkage to and retention in care programs.

METHODS: Supported by AIDS United, Positive Charge (PC) is an evidence-based linkage to care initiative with sites in New York, California, Chicago, Louisiana and North Carolina. While interventions at each site are different, all are based on a client-centered framework. Participants are PLWHA over the age of 18 who are either out-of-care or in danger of falling out-of-care. They were recruited through outreach, in-reach and referrals. At enrollment, participants completed an interviewer-administered questionnaire that included standardized questions about barriers to HIV care.

RESULTS: During its first year, PC enrolled 1,378 participants of whom 72% were male, 49% were black, and 53% were over 40 years of age. The mean number of years from first seropositive diagnosis was seven. Across sites, patterns in barriers to care emerged. The most commonly reported barriers were structural, including transportation, homelessness, and competing priorities. Drug use was reported as a barrier by 44% of clients in California and 33% of clients in North Carolina. HIV stigma continues to be an important barrier to care with 20% of PC participants

reporting that they avoided treatment because someone might find out about their HIV.

CONCLUSIONS: Out-of-care PLWHA face a range of structural and psychosocial barriers to care. In order to be successful, linkage-to-care programs must identify and address the barriers that keep PLWHA out-of-care. This finding has important implications for sustaining the Ryan White Care Act even after the full implementation of the Affordable Care Act in 2014.

#### **ABSTRACT 152**

# Intervention Using Motivational Interviewing Improves Retention in HIV Care

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OBJECTIVE: Retention in care is a necessary aspect of adherence to HIV treatment. Recent data from the National Quality Center found that only 60% of individuals seen in reporting HIV clinics had a medical visit in each half of the previous 2 years, indicating less than optimal retention. This study tested a multidimensional intervention targeting retention and adherence-related information, motivation, and behavioral skills (IMB) through in-person and phone based motivational interviewing (MI). Results presented are specific to effects on retention in care.

METHODS: 99 HIV-positive individuals who had documented difficulties with medication and/or appointment adherence were randomly assigned to the MI intervention or to continue receiving standard of care. The intervention consisted of two face-to-face sessions and six telephone calls, to make it readily transferrable to a low-resourced clinic setting. The 8 sessions included HIV education, motivational interviewing (MI) and a video to promote social motivation, and training on a variety of skills (eg., patient-provider communication, calendars and use of other reminder and organizational devices). Outcomes included appointment retention as measured by a visit in each 4-month block of the year on study.

RESULTS: While there was no significant Intent to Treat effect, subgroup analysis for those who had a history of poor retention in HIV care (<1 visit in each 4-month block of the year prior to randomization; n = 60), dose effects were noted, where those who had at least three of the eight intervention contacts (n = 27) had significantly higher rates of optimal retention (at least one visit per 4 month period on study) and also did not experience a decline in retention in comparison to those with less or no intervention exposure (X2 = 7.70, p = .05, and F = 6.41, p= .01, respectively). Motivational Interviewing Treatment Integrity (MITI) coding was used throughout for training and reinforcement, and consistently ranged from beginner to competent level. Younger intervention arm participants and males tended to engage less in the intervention than older participants or females.

CONCLUSIONS: A multidimensional intervention significantly promoted retention in HIV care and reduced declines in retention for those who received minimal exposure (at least 3 out of the 8 contacts). Strategies to promote engagement in the intervention are explored as next steps for this promising intervention.

#### **ABSTRACT 153**

# Responding to HIV Stigma and Lack of Data Collection within African Immigrant and Refugee Communities in the US

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OBJECTIVE: Issues African immigrants represent one of the fastest growing groups of immigrants to the US. Recent analysis of national HIV surveillance data has revealed that the percentage of annual HIV diagnoses among foreign-born people, including African immigrants, in the U.S. is growing. However, there is paucity of data on the African immigrant and refugee population in relation to HIV/AIDS and stigma. Scattered studies have pointed to high levels of stigma and negative attitude towards HIV/AIDS and those living with the disease. But

the lack of resources has limited the capacity of service providers and community organizations to provide HIV prevention services. Sometimes agencies working with this population end up closing their doors due to inability to sustain the organization. The Office of Minority Health Resource Center (OMHRC) has initiated a new project to educate the African community on what stigma is and how to prevent it by producing culturally appropriate curricula. Two versions of the curricula exist: one tailored to the needs of community and its members, and the other focuses on community-based organizations (CBOs) and service providers working with African immigrant populations. The OMHRC's National African Immigrant Project (NAIP) strives to improve the cultural, educational & outreach to Africans who are living with HIV and their family members in the United States. OMHRC has also produced a policy paper that addresses the gaps in data and make a compelling case of the need to disaggregate African immigrant and refugee data.

METHODS: Strategies/Methods The OMHRC National African Initiative project is providing train a trainer programs for the curricula in states with the highest number of African immigrants. Contacts are being initiated throughout the US with agencies, stakeholders, OMH regional offices and institutions of higher education eager to collaborate on this initiative. Work will be conducted by the Office of Minority Health Resource Center, which has a capacity building division that offers capacity development and

#### **ABSTRACT 154**

# I. Bridging Cultural Competency with Comprehensive Sexual Health Services for African Clients

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OBJECTIVE: Hennepin County Ryan White Program engaged the Office of Minority Health Resource Center (OMHRC) to close this cultural competency gap with the program objectives: 1) preserving the values of



cultural competent services 2) improving clients' health outcomes and reducing HIV transmission risks, and 3) increasing providers' understanding and recognition of the importance of engaging clients in sexual health dialogue on sexual risk behavior and sexual identity.

METHODS: 1. A series of assessment meetings, trainings, and interviews were conducted with the providers to strategically identify challenges in conducting a comprehensive health/sexual assessment among African immigrant clients, assess challenges from the provider's perspective, and identify feasible (short-term and longterm) strategies to overcome such challenges. Thirty-five providers were engaged in the first step of this technical assistance process. Data was conducted and analyzed. A survey and training was conducted to prepare providers with recruiting clients to participate in the second step client engagement. Twenty-five African clients were expert interviewed to collect information around attitudes around sexual health assessment. Input from clients was recorded for analysis. The outcome included a data analysis report, a cultural competent sexual health assessment tool, and training of providers in how to utilize this tool.

RESULTS: Input from clients was recorded for analysis. The outcome included a data analysis report, a cultural competent sexual health assessment tool, and training of providers in how to utilize this tool.

CONCLUSIONS: The result is a sexual health assessment that meets both objectives. The next steps will include evaluation of providers utilization of this tool as well as follow-up interviews with clients identify ways the tool may be improved.

#### ABSTRACT 155

# Assessing Organizational and Network Change for a Linkage to Care Intervention in Louisiana

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OBJECTIVE: Supported by AIDS United, Positive Charge (PC) is an evidence-based linkage to care initiative with sites in New York, California, Chicago, Louisiana and North Carolina. In Louisiana, at the time of this study, PC employed three strategies to link PLWHA into care: Disease Intervention Specialists (DIS), health navigation, and a pre-post release management. The PC network in Louisiana is comprised of ten organizations that work on linkage to care in New Orleans, Baton Rouge, and Lake Charles. This study assessed structural change at the organizational level and change in network density during the first year of PC in Louisiana.

METHODS: Two individuals from each of the ten partner organization were asked to participate in the study, one individual at a managerial level and one individual at the service delivery level (N=20). An on-line survey was used to collect quantitative data on organizational ties. Semi-structured one-on-one interviews qualitatively assessed internal structural change.

RESULTS: Prior to PC, the network had 24 ties and a density of .27. Approximately one year into the implementation of PC, the network had 56 ties and a density of .62. Organizations described internal structural changes such as hiring of new staff and sharing of staff. Organizations reported improvements to their internal systems of care delivery including their systems for intake, appointment making, referrals, and identification of PLWHA how are out of care.

CONCLUSIONS: The organizations that make up the Louisiana Positive Charge network have developed a highly interconnected network of HIV organizations. The network is dense and includes strong ties with HIV care



organizations, governmental public health organizations, and community-based organizations. The high level of intra- and inter- organizational collaboration has facilitated successful linkage to care in Louisiana.

#### **ABSTRACT 156**

# Emergency Department Utilization and Hospital Admissions after a New Diagnosis of HIV

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OBJECTIVE: Rapid HIV testing is performed in many Emergency Departments (EDs); however, minimal data exists on subsequent hospital utilization of those diagnosed as a result of these programs. We assess the frequency with which newly diagnosed HIV patients (as a result of ED rapid HIV testing) visit the ED and are admitted to the hospital in the year following their diagnosis.

METHODS: Patients who tested positive for HIV in an urban ED between 5/31/2006 and 12/31/2010 were identified. Patients found to be known HIV positives (repeat testers) were eliminated from the data set. We collected demographic information, ED chief complaints, admission diagnoses, and CD4 counts/viral loads. We queried hospital records for subsequent ED visits and hospital admissions after initial diagnosis.

RESULTS: During the study period, 124 patients were newly diagnosed with HIV. The average age of newly diagnosed patients was 39.5 and the majority of these were minorities (57.6% black, 28% Hispanic). Most patients (33%) identified as self pay, followed by Medicaid (32.5%), commercial insurance (28%) and Medicare (6.5%). Of the 78/124 patients in whom laboratory data was available within one month of diagnosis, the mean CD4 count was 226 and mean viral load was 114,541. Out of these patients, 49/78 (63%) had AIDS on diagnosis. CD4 counts were inversely correlated to the rates of admission (r=-0.24), and AIDS patients had more admissions (mean 1.9) than patients who had CD4>200 (mean 1.1), p<0.001. Surprisingly, AIDS patients had less ED visits (mean 2.9)

compared to those with CD4>200 (mean 4.6), p<0.001. During the study period following their diagnosis, the majority of patients (62.4%) made at least one visit to the ED and 60% had at least one hospital admission. When evaluating exclusively the first year after diagnosis, 50.4% of patients had an additional ED visit (mean 1.9 visits), and 54.4% were admitted (mean admissions 0.91), compared to an annual ED admission rate of 21.4% in 2006 and 16.8% in 2010 for our hospital.

CONCLUSIONS: To our knowledge, this is the first data on ED utilization and hospital admissions for patients newly diagnosed with HIV as a result of an ED rapid HIV testing program. Patients with new diagnoses in the ED become frequent users of the ED and hospital services. The inverse correlation between CD4 count and rates of hospitalization as well as the correlation between a diagnosis of AIDS and hospitalization provide a public health and economic incentive for early diagnosis.

#### **ABSTRACT 157**

# Increasing Access to Hepatitis and HIV Testing, Care and Treatment: Identifying Provider Training Needs and Services Provided

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OBJECTIVE: To improve provider capacity to provide HIV care given the burden of hepatitis among HIV positive persons, HealthHIV includes assessments of provider competency to offer hepatitis services in its programs. Using this assessment data, the objective of this study is to compare the hepatitis training needs of two groups — providers that offer HIV care and those that do not offer HIV care.

METHODS: In order to assess the needs of individual providers (MD, DO, NP, PA), 473 completed self-assessments were analyzed to assist with the construction of organizational training plans as part of clinical capacity building for 54 Community Health Centers in the AIDS Education and Training Centers National Center for HIV



Care in Minority Communities (AETC NCHCMC). 445 prescribing providers (MD, DO, NP, PA) also answered questions about the hepatitis services they provide, confidence providing such services, and training needs as part of HealthHIV's annual State of HIV in Primary Care survey. The survey reaches both credentialed HIV specialists and PCPs that provide HIV care and was fielded in October 2011.

RESULTS: Overall, prescribing providers participating in the AETC NCHCMC reported capacity to provide basic hepatitis B and C services, but did not report an ability to perform such services independently. Findings from the State of HIV in Primary Care include that those that offer HIV care (HCV testing — 86%) generally offer more hepatitis services than providers that do not offer HIV care (HCV testing — 50%). Both groups of providers are more likely to request training on hepatitis testing and treatment as compared to vaccination recommendations. Lastly, all types of providers are seeing more HIV/HCV co-infection than HIV co-infection with either hepatitis A or B.

CONCLUSIONS: Findings highlight the need to focus trainings on hepatitis testing and treatment in order to build the workforce capacity to provide these services. Specific training on HIV/HCV co-infection should be given to all providers since all are seeing increases in HIV/HCV co-infection. Also, it is worthwhile to specifically target non-HIV care providers for hepatitis training, as they are less likely to be providing hepatitis-related services to their HIV positive clients.

# **ABSTRACT 158**

# Hepatitis Outreach Network: A Practical Strategy for Hepatitis Screening with Linkage to Care in Foreign Born Communities

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OBJECTIVE: Many foreign-born persons in the U.S. are at high risk of chronic hepatitis B (HBV) and C (HCV)

infections, yet are not aware of their infection, and lack healthcare coverage or linkage to care.

METHODS: A unique partnership, the Hepatitis Outreach Network (HONE), combines the expertise and resources of the Mount Sinai School of Medicine, the NYC Department of Health and Mental Hygiene, and community-based organizations, to provide education and screening in communities with high prevalence of chronic viral hepatitis. Importantly, HONE provides linkage to care. Comprehensive HBV and HCV viral screening identifies infected patients, who then receive further evaluation from either local or Mount Sinai physicians, combined with patient-navigators who organize follow-up visits.

RESULTS: Of 1603 persons screened, 76 had HBV and 75 had HCV. Importantly, screening for HCV based on traditional risk factors would have missed 67% of those who tested positive. Of the 76 persons with HCV infection, 49 (64%) received a medical evaluation (26 with local providers and 23 at Mount Sinai). Of the 49 HCV-infected persons evaluated, treatment was recommended in 11 and begun in 8 (73%). Of the 76 persons with HBV infection, 43 (57%) received a medical evaluation (31 with local providers and 12 at Mount Sinai). Of the 43 HBV-infected persons evaluated, treatment was recommended and begun in 5 (100%).

CONCLUSIONS: HONE has successfully established novel proof of concept for identifying HBV and HCV infections in foreign-born persons through use of several unique elements that effectively link them to care.

#### **ABSTRACT 159**

# HIV/AIDS and Hepatitis Health Department Collaborations with Community Health Centers: Successes and Challenges

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OBJECTIVE: The purpose of this national assessment was to examine the level of collaborations between State



Health Department HIV/AIDS and hepatitis programs (HD) and Community Health Centers (CHCs). In light of the passage of Affordable Care Act and the release of the National HIV/AIDS Strategy, there is a need and desire to begin to focus on identifying collaborative best practices between the health departments and the CHCs, as well as with their Primary Care Associations and to identify and strategize to overcome barriers that may still exist.

METHODS: The National Alliance of State and Territorial AIDS Directors (NASTAD) examined the level of collaboration between HDs and CHCs through a one-day consultation and a nationwide online survey of all state and territorial health departments in 2011. The consultation was an opportunity for HDs, CHCs and federal partners to come together and identify "models of excellence," opportunities to collaborate, the factors driving the need for collaboration and barriers and challenges to collaboration. The online survey was designed to substantiate the themes from the consultation.

RESULTS: Out of the 54 state and territorial HDs, 43 responded (80 percent response rate). Thirty-six HDs (84 percent) reported that they are collaborating with CHCs, while seven (16 percent) stated they do not collaborate directly with CHCs. Out of the 1200 CHCs across the country, approximately 130 Ryan White Part C funded CHCs and 151 non-Ryan White Part C funded CHCs are involved collaboratively with HDs. Most collaboration is primarily focused on HIV/AIDS prevention and testing (84 percent) and HIV/AIDS treatment services (81 percent) versus hepatitis prevention and testing (56 percent) and hepatitis treatment services (25 percent). The level of collaboration varies from contractual support (69 percent), provide technical assistance (67 percent), referral system (61 percent), to data sharing (36 percent).

CONCLUSIONS: Obstacles are present that may hinder efforts to build collaborative relationships. Capacity and resources of both HDs and CHCs are central to the success or failure of most relationships. Both HDs and CHCs need continue to communicate better and build more effective relationships. With the implementation of Health Care Reform, and with the goals of the National HIV/AIDS Strategy and the Viral Hepatitis Action Plan, effective leadership and the ability to take risks are valuable principles for achieving effective collaborations.

#### **ABSTRACT 160**

# Evaluation of a Highly Intensive, Comprehensive, and Individualized Linkage to Care Pilot Intervention in an Emergency Department HIV Screening Program

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OBJECTIVE: Linkage to HIV medical care is often difficult, particularly for disadvantaged populations. Emergency departments (EDs) commonly encounter disadvantaged populations without other access to healthcare, including those newly diagnosed with HIV and those previously diagnosed and not in care. We tested the acceptability and feasibility of a multi-component, comprehensive, individualized linkage intervention that was designed to overcome the multitude of barriers inhibiting linkage to care.

METHODS: The evaluation was conducted from May to November 2012 within a lower prevalence urban academic medical center at an ED with 90,000 visits annually and an infectious diseases clinic serving 1,800 patients. Program evaluation included 1) survey of HIV+ individuals about their perceptions of the proposed intervention, 2) focus groups with HIV+ persons, and 3) linkage outcomes from a pilot of the intervention. The intervention included a comprehensive needs assessment of client barriers to accessing care, including inability or unwillingness to access care, followed by a menu of component interventions selected based on need and patient willingness to participate. Intervention options, implemented by trained personnel, included motivational interviewing, case management, and support from an HIV+ peer-navigator. The intervention lasted up to 90 days or until linkage was achieved.

RESULTS: Surveys were completed by 71 HIV+ individuals of whom 68 were in care. Age range was 21–63, 63% were black. Most believed that at the time of their diagnosis they would have chosen to participate

in the intervention as follows: case management (96%), motivational interviewing (89%), and peer navigation (79%). Focus groups were also highly supportive of the proposed intervention. Ten patients participated in the intervention; 8 accepted motivational interviewing, 6 accepted case management and 6 accepted peer navigation. Age ranged from 18 to 54; 9 were black, 3 were female, 6 were previously diagnosed HIV+ but were not in care, and 4 were newly diagnosed. All faced numerous barriers to care including: homelessness, psychiatric illness, substance abuse, and rejection of the diagnosis. Eight patients were successfully linked within 90 days. One patient who had moved out of state during the linkage period was linked to care at 113 days.

CONCLUSIONS: Intensive and comprehensive linkage approaches may be efficacious for newly and previously diagnosed people living with HIV. However, linkage must be individualized as patients differ in their needs and acceptance of different linkage intervention elements.

## **ABSTRACT 161**

# Using Surveillance Data to Identify HIV-Infected Persons Out-of-Care in New York City and Offer Linkage to Care and HIV Partner Services

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OBJECTIVE: Persons living with HIV (PLWH) require regular medical care to achieve a consistently suppressed viral load (VL) and its associated benefits of reduced morbidity, mortality, and probability of sexual transmission to HIV-uninfected partners. Only 51% of PLWH in the US, however, are retained in care. In 2008, the NYC health department began using its HIV Surveillance Registry (HSR) to identify out-of-care (OOC) PLWH, re-engage them in care, and offer partner services.

METHODS: A CD4 or VL report in HSR was considered a proxy for receipt of care. PLWH were considered OOC and prioritized for outreach if lacking care during the previous 9 months and had a NYC residential address at last report in HSR. Located OOC persons were offered partner and linkage-to-care services. Reasons for OOC were ascertained, and partners were notified and tested for HIV. Return-to-care was confirmed using HSR.

RESULTS: From 7/2008 to 12/2010, 797 PLWH were prioritized for outreach; 113 (14%) were never located. Of 684 who were located, 229 (33%) were actually current to care in NYC, 30 (5%) had moved or were incarcerated, 16 (2%) had died, and 409 (60%) were verified OOC. Most verified OOC were black or Hispanic (97%), USborn (73%), male (55%), or 40-49 years old (42%). Once located, 315/414 (77%) expressed willingness to return to care and received clinic appointments; 240/327 (76%) were confirmed as having returned to care. Among the 240 returned-to-care PLWH, most (95%) had a VL and almost half (49%) had a CD4 drawn within 3 months of their first return to care visit. More than half of those with a CD4 had a value < 200 upon return-to-care, and two-thirds had a CD4 less than 350. Most PLWH LTFU who were returned to care had a VL=10,000 copies/mL upon returnto-care and 40 (18%) had an initial VL >100,000 copies/ mL. Among the 161 who provided reasons for being OOC, the most commonly reported was "felt well" (41%). Only 52/409 (13%) OOC PLWH named partners; 37 (57%) of 65 named partners were located, and 3 (20%) of 22 partners with unknown or negative HIV serostatus were newlydiagnosed with HIV.

CONCLUSIONS: Health department-based outreach initiatives utilizing surveillance registries can successfully re-engage OOC PLWH in medical care, but partner notification among OOC may yield few new HIV diagnoses.



Support for the Information, Motivation, Behavioral Skills-Model Situated to Retention in HIV-Care (sIMB) in Identifying Theory-Based Intervention Targets to Provide Point-of-Care Support for Sustained Retention in HIV Medical Care

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OBJECTIVE: A measure of situated Information, Motivation and Behavioral Skills retention in HIV-care (sIMB-RIC) was developed and administered to evaluate the model's ability to characterize recent gaps in HIV-care (> 3 months between medical visits) and to guide development of point-of-care intervention strategies to reduce HIV-care gaps and promote sustained retention. Point-of-care strategies to promote sustained retention in HIV-care are important additions to clinical care services.

METHODS: A cross-sectional survey of 101 HIV-positive patients (52 male, 33.7% detectable VL) experienced with HIV (M= 16.26 years HIV-positive) attending an innercity integrated primary care clinic completed the measure in English or Spanish via in-person interview. Theory-based subscales were calculated and used to test the ability of the model to characterize the total number of days spent in an HIV-care gap over the previous 18 months; 44.6% had gapped in last 18 months.

RESULTS: Evaluation of information items produced an information subscale (alpha= .773, k= 10) that assessed awareness of and knowledge about care-related resources (in general and in specific contexts such as depression or drug use), biomarkers monitored in HIV-care, accuracy (or lack thereof) of relying on subjective-physical health to signal need for HIV-care, and an HIV-diagnosis emotional adjustment process. The motivation items reflected the two theory-based factors: personal motivation (alpha= .684, k= 7) reflecting attitudes towards engaging in care under various conditions and contexts (e.g., when under emotional distress or anticipating negative outcomes from

care attendance) and social motivation (alpha= .763, k= 11), reflecting attitudes towards social facilitators and barriers to attending HIV-care. Evaluation of responses to behavioral skills items produced two scales; intrapersonal behavioral skills (alpha= .831, k= 5) reflecting strategies for managing HIV-affect, coping, and adjustment to diagnosis and interpersonal behavioral skills (alpha= .856, k= 11) reflecting strategies for navigating the care system and coordination of care in the context of competing priorities. The overall fit of these scales in characterizing recent gaps in HIV-care, where information and motivation scales are mediated by (work through) the behavioral skills scales produced a good fitting model (Chi Square(4)= 3.265, p= .5146; RMSEA= .000; CFA= 1.000).

CONCLUSIONS: Tools to prevent or reduce gaps in care are necessary clinical strategies to maximize individual and public health outcomes. Interventions targeting an individual's retention-related information, motivation and behavioral skills contextualized by the systems-, affective-, and structural-level factors influencing individual patient behavior may be very valuable as point-of-care delivered support for sustained retention in HIV-care.

# **ABSTRACT 163**

An Innovation in Provider HIV Education: University of New Mexico (UNM) Project ECHO (Extension for Community Healthcare Outcomes) Telehealth & New Mexico AIDS Education and Training Center (NM AETC) HIV Clinic

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OBJECTIVE: The 2010 National HIV/AIDS Strategy calls for programs such as the AETCs to expand training to address provider-associated factors that affect HIV treatment adherence. To address this call, we implemented an innovative telehealth strategy to reach providers in rural and underserved areas with limited HIV specialty



training. We recruited interested providers with the goal of increasing workforce capacity of rural and underserved providers to improve health outcomes of people living with HIV/AIDS (PLWHA).

METHODS: UNM's Project ECHO model was used to reach providers throughout NM treating PLWHA with the aim to improve provider knowledge and self-efficacy to provide care to PLWHA by: using technology to leverage specialized resources; training on HIV guidelines; casebased learning, and outcomes monitoring. Guided by expert consultation from the Project ECHO-NMAETC team, community-based providers are able to treat PLWHA, while rapidly gaining working knowledge of best care practices and increasing self-efficacy to treat this chronic and complex disease. Program evaluation included pre and post-test surveys to record demographic information and to assess changes in HIV-knowledge and self-efficacy. Providers were asked to report their perceptions of the effectiveness of the program in the postsurvey.

RESULTS: From 10/2010–9/2011, 48 Project ECHO Telehealth HIV weekly clinics were held with 226 unique participants (including physicians, midlevel providers, pharmacists, nurses, counselors, social workers, community health workers), averaging 36 per session. The majority of survey responders (78%) provide direct care to PLWHA, and 67.6% presented a clinical case during a session. HIV knowledge test scores improved from 68.5% to 76.4% (p=0.03). Ninety-five percent reported that they used the information that they received from attending the clinics and 89% reported that they believed attending the sessions influenced their practice. Participants reported increased self-efficacy to treat PLWHA. Perceived benefits of participating in the clinics included readily available expert consultation and continual practice.

CONCLUSIONS: Project ECHO Telehealth-NMAETC HIV Clinics are an effective way to increase workforce capacity to care for PLWHA in underserved areas. We continue to hold weekly clinics and have expanded the evaluation of the program to further assess health and provider education outcome measures.

## **ABSTRACT 164**

# Project ECHO: Outcomes of Hepatitis C Treatment by Primary Care Providers

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OBJECTIVE: The Extension for Community Healthcare Outcomes (ECHO) model was developed to improve access to best practice care for complex health problems such as hepatitis C virus (HCV) infection for underserved populations and minorities in rural areas and prisons. Using videoconferencing technology, best practice protocols, and case based learning, ECHO trains and supports primary care providers to develop knowledge and self-efficacy to deliver appropriate care for patients with complex diseases.

METHODS: A prospective cohort study compared the efficacy of treatment of HCV at the University of New Mexico (UNM) HCV clinic to treatment by primary care clinicians at 21 ECHO sites in New Mexico. A total of 407 treatment naive patients with chronic HCV were enrolled. The primary end point was a sustained viral response (SVR) defined as undetectable virus 24 weeks after the end of therapy.

RESULTS: The rate of SVR for UNM and ECHO sites was 57.5% (84 of 146) and 58.2% (152 of 261 patients), respectively. In genotype 1 infection the SVR rate was 45.8% (38 of 83) at UNM and 49.7% (73 of 147) at ECHO (P=0.572). More ECHO patients were minorities, 67.8% (166 of 261) versus 49.3% (72 of 146) at UNM (P=0.001).

CONCLUSIONS: This study demonstrates that the ECHO model is an effective way to treat HCV in rural and underserved communities and expands access to treatment for minorities. By implementing this model other states and nations can treat many more patients with HCV, thereby preventing an enormous burden of illness and death.



# A Comprehensive, Multilevel Approach to Engaging and Retaining Marginalized Heterosexual Black Males in Wards 6, 7, and 8 of the District of Columbia in HIV Care

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<sup>1</sup>Community Education Group, Washington, DC, United States of America

OBJECTIVE: The Community Education Group's HIV testing and linkage program is designed to increase the proportion of individuals in high HIV prevalence neighborhoods who know their status; identify seropositive individuals who are not in care; and engage and retain seropositive individuals in HIV care.

METHODS: The model incorporates tasks associated identified as needed for successful implementation of the National HIV/AIDS Strategy (NHAS) — early identification; linking and retaining individuals in HIV care; and assessing the impact of multilevel interventions (Morin, S. 2011). Multiple partnerships are formed with agencies and organizations that serve the community. Individuals indigenous to the target communities are recruited and trained as community health workers. Behavioral theory based target outreach is used to encourage HIV testing. Social network testing using mobile units is utilized to identify individuals of greatest risk. Individuals with preliminary reactive results to rapid testing are immediately escorted by trained linkage workers to medical partner organizations for confirmatory testing and enrollment in primary medical care. Through collaborative partnerships, linkage workers receive notification of confirmed reactive results along with individuals. upon receipt of confirmed reactive results, linkage workers provide follow-up and support that includes appointment reminders and transportation to medical appointments, assistance securing necessary documents, adherence counseling, and referrals and/or linkages to other support services. Additionally, linkage workers enroll individuals in substance abuse treatment services through a partnership with the city's Addiction Prevention and Recovery Agency to improve treatment

retention.Quantitative and qualitative data were collected from collaborating medical and core service providers, testing sites, worker logs, and clients over a three year period (2008–2011). Comparative analysis of counseling and testing data, linages, positivity rates, level of effort, medical appointments kept, CD4 and viral load, and retention in HIV care to determine increases in the proportion of people with HIV identified, linked to, and retained in HIV care.

RESULTS: Incremental increases were noted in testing, linkage, and retention. Group changes noted in health indicators:

	2008-2009	2009-2010	2010-2011
Tested	2824	6487 (129.7% increase)	10,480 (61.6% increase)
Preliminary Positive	75	153 (104% increase)	175 (14.4% increase)
Confirmed Positive	43	127	146 (14.9% increase)
Linked to Primary Care <sup>1</sup>	113	145	120
Retained in Primary Care (90 days)	2	117 (80.7% linked)	140 (90.3% linked)

	Initial	6 month Follow-up
Total Viral Load	405,310/mL	146,263/mL (177.1% decrease)
Average CD4 Count	484	650 (34.4% increase)

Level of effort decreased 73.9%, the cost<sup>2</sup> decreased 140%.

CONCLUSIONS: Approaches that combine strategies informed by social and behavioral theories with aggressive testing, medical treatment, and tracking can be successfully implemented and can improve health outcomes of individuals living with HIV in resource poor communities.

<sup>&</sup>lt;sup>1</sup> Linked to primary care numbers include individuals who presented with a confirmed positive diagnosis but had dropped out of care (or never in care) and were re-linked to primary care

<sup>&</sup>lt;sup>2</sup> Per patient cost to link and retain individuals in care (staff effort and transportation costs)