with SCD and parents of children with SCD). DISCUSSION/SIGNIFICANCE OF IMPACT: Most rural and urban families affected by SCD have no systematic way to engage in, or lend their expertise to, PCOR. A statewide network of patient partners, community stakeholders, researchers, and medical professionals will ultimately increase the standard of care for patients, and provide valuable insight for SCD research. The opportunity to create the underpinnings for coordinated patient-centered education for patients with SCD and their caregivers holds promise for developing a scalable PCOR process model for replication and implementation in other states and emulate this model with other rare disease populations.

Improving minority health and reducing health disparities: Research at the intersection of health disparity science and clinical and translational science

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OBJECTIVES/SPECIFIC AIMS: (1) To explain and discuss minority health and health disparities and the mechanisms, for example, individual behaviors and lifestyle, genetics and epigenetics, physical and cultural environment, and clinical events and health care, that lead to health disparities. (2) To explore the intersection between health disparity science and clinical and translational science. (3) To present and discuss the NIMHD Framework and how it can be used to guide multilevel research to address minority health and health disparities. (4) To highlight examples of NIMHD-funded novel and innovative research relevant to clinical and translational research from a health disparities perspective. METHODS/STUDY POPULATION: The NIMHD Research Framework will be introduced that is currently being used by NIMHD to address minority health and health disparity research. The Framework looks at targeted populations in relation to biological, behavioral, physical, and socio-cultural environmental domains of influence as well as the health care system. These domains have different levels of influence: individual, family/inter-personal, community, and population. Targeted populations include NIH-designated health disparity populations, that include racial/ethnic minorities, socioeconomically disadvantaged populations, underserved rural populations, and sexual and gender minorities. The following research opportunities are among the many opportunities offered by NIMHD: Disparities in Surgical Care and Outcomes Social Epigenomics for Minority Health and Health Disparities Addressing Health Disparities Among Immigrant Populations. RESULTS/ANTICIPATED RESULTS: Select examples of NIMHD supported minority health and health disparities research that intersects with clinical and translational research will be presented. Candidate examples include: Genetic Architecture of Lupus (SLE) in individuals with Asian ancestry; A Novel Racial Disparity Marker for Risk Prediction in Triple Negative Breast Cancer Patients; Self-Applied Wearable Ultrasound Therapy for Osteoarthritis Management in Rural Central NY; Design and Development of a Multifunctional Self-service Health Screening Kiosk. DISCUSSION/SIGNIFICANCE OF IMPACT: Despite notable improvements gained as a result of medical and scientific advances, there continues to be an alarming disproportionate burden of illness and lack of representation in research among minority and other socially disadvantaged and underserved populations. To meet this challenge, NIMHD is committed to supporting a wide range of clinical and translational research aimed at the development of innovative strategies and approaches to reduce and, eventually, eliminate health disparities. NIMHD's mission, research priorities, and funding opportunities are relevant to the efforts and interests of clinical and translational scientists, especially those interested in the translation of research findings into interventions, products, and tools that may improve minority health and quality of life, increase adherence to medication and treatment regimens, increase access, and improve the delivery of health services.

Risk factors for poor retention in HIV care using clinic and statewide surveillance data

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OBJECTIVES/SPECIFIC AIMS: Approximately 50% of people who have been diagnosed with HIV are either not linked to a care provider or not retained in medical care. This has substantial implications for both individual and public health outcomes. On an individual level, being retained in care is necessary for continuous receipt of antiretroviral therapy and sustained viral suppression. The public health implications of poor retention in HIV care are also serious, as it is estimated that people with HIV who are not retained in medical care are responsible for a majority of HIV transmissions, even more than the number of transmissions attributable to those who are HIV infected but undiagnosed. State departments of health routinely collect surveillance data including positive HIV test results, CD4 counts and viral load measures for monitoring trends in HIV infection. A shift in the use of these surveillance measures, guided by the CDC, has brought forth the opportunity to use these data for direct patient services and, more specifically, to direct re-engagement and retention in care efforts. Although the risk factors for poor retention in HIV care have been characterized using information from individual or multiple clinics, this study seeks to incorporate state surveillance data into the retention measures. METHODS/STUDY POPULATION: This retrospective cohort study was performed at the University of Alabama at Birmingham 1917 HIV/AIDS Clinic among patients with at least one attended HIV primary care visit during the calendar year of 2015. Retention during the calendar year of 2016 was then measured as whether or not a patient had 2 or more completed clinic visits which were separated by more than 90 days (in accordance with the Health Resources and Services Administration or HRSA guidelines, a National HIV Quality Indicator). For patients who did not have any primary care visit in 2016, the Alabama Department of Public Health will provide a status of care (out of care, in care elsewhere, died, moved out of state, and cannot locate) based on HIV laboratory results reported from all clinics and labs across the state and/or mortality information. A multinominal regression model of the status of care will be fitted to demographic, clinical, laboratory, and behavioral patient reported outcomes captured during an index visit in 2015. RESULTS/ANTICIPATED RESULTS: Data were recently obtained and is currently being analyzed on 3107 patients included in this study. We anticipate that there will be differences in the factors significantly associated with patients classified as out of care, poorly retained (patients who have only one completed clinic visit), and retained in care by the HRSA measure during calendar year 2016. DISCUSSION/SIGNIFICANCE OF IMPACT: By incorporating state surveillance data into our analysis, we expect to obtain a more precise picture of the risk factors for poor retention among HIV patients. For the first time, we will be able to determine if patients lost to our HIV clinic (~10% annually) are entirely lost to medical care or are seeking care elsewhere as indicated by HIV lab data reported to public health via surveillance. Identified risk factors will then be able to better inform the efforts to proactively improve the efficiency for HIV patient retention and re-engagement, and therefore lead to better individual outcomes for HIV patients and reduce the incidence of new HIV cases.

Depression and mental health service use: Data from National Health and Nutrition Examination Survey (NHANES) 2006–2012

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OBJECTIVES/SPECIFIC AIMS: Examine mental health service use and its correlates among depressed group in a national sample of population ≥ 20 years old. METHODS/STUDY POPULATION: Analysis of data for adult ≥ 20 years old from the NHANES 2006–2012. Depression was assessed using the 9-item PHQ. The use of mental health and antidepressant drug were used to indicate the service use. We utilized multiple logistic regressions to determine the independent association between service use and each independent variable (demographics, health status, food security, chronic conditions, and depression severity) controlling for other independent variables. Data were presented as adjusted odds ratio (AOR), 95% confidence interval (95% CI), and p-value of statistical significance. p-value of < 0.05 indicates statistical significance. RESULTS/ANTICIPATED RESULTS: Of the 17,824 subjects, 22% had mild to severe depression. Among the depressed group, 25% used antidepressant, 17% used mental health service. For the use of mental health services among the depressed group, African-American (AA), ≥ 60 years old, uninsured and foreign born were less likely to use the mental health service relative to other groups [AOR $= 0.58$ (95% CI $= 0.45$–0.75), 0.21 (95% CI $= 0.14$–0.33), 0.61 (95% CI $= 0.45$–0.83), 0.41 (95% CI $= 0.17$–0.99), respectively, $p < 0.05$]. For the use of antidepressant drug among the depressed group, AA, Hispanics, uninsured and foreign born were less likely to use antidepressant drug relative to other groups [OR $= 0.26$ (95% CI $= 0.20$–0.33), 0.42 (95% CI $= 0.31$–0.57), 0.41 (95% CI $= 0.31$–0.56), 0.20 (95% CI $= 0.10$–0.78), respectively, $p < 0.05$). For the use of mental health services and/or antidepressant drug among the depressed group, 40–59 years old, AA, Hispanics, uninsured, foreign born were less likely to use mental health services and/or antidepressant drug relative to other groups [OR $= 0.52$ (95% CI $= 0.38$–0.72), 0.35 (95% CI $= 0.28$–0.43),