research in progress to understand the utility of self-reported data with communicable disease outbreaks. METHODS/STUDY POPULATION: Individuals voluntarily completed an online questionnaire at HelpBeatCOVID19.org which captured SDOH data and other disease surveillance variables including zip code, gender, age group, race, ethnicity, symptoms, underlying conditions, type of home (e.g., single-family, mobile home, etc.), and household COVID-19 diagnosis status. The data are stored on HIPAA-compliant servers. De-identified self-reported data were culled from the HelpBeatCOVID19 database, cleaned, sorted, and analyzed by zip code. Using STATA/SE 16.1, we employed regression analysis to determine if there might be any statistically significant associations that could be made based on zip codes, especially where there are health disparities in historically African American neighborhoods in Jefferson County. RESULTS/ANTICIPATED RESULTS: To date, 102,308 people have reported their symptoms in HelpBeatCOVID19. Of those, 77,903 are from Alabama. More than half of the people who completed HelpBeatCOVID19.org reported zero symptoms. However, 19.3% of Alabamians reported having underlying health conditions. Midfield, AL, a predominantly African-American neighborhood (81.1%), has 74.1% of people reporting underlying conditions where the median household income is $38,750. By comparison, Vestavia Hills, AL, a more affluent neighborhood with an 88.8% White population and median household income being $109,485, had more people participating in HelpBeatCOVID19 (3,920), yet a smaller percentage (15.2%) with underlying health conditions. Final results will be reported during the ACTS Conference. DISCUSSION/SIGNIFICANCE: Our analysis of the data reveals that in Jefferson County, AL, a greater number of people in affluent communities participated in the study. Whereas state-wide, a greater percentage of individuals indicated that they had zero symptoms. Identifying self-reported underlying conditions that impact persons with COVID-19 symptoms will be significant.

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Helpline Services Before, During, and After the COVID-19 Pandemic: A Time Series Analysis

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OBJECTIVES/GOALS: This study examined patterns in helpline call data as the COVID-19 pandemic evolved including the impact of stay-at-home orders, relaxing of restrictive orders, and stages of vaccine uptake, as well as differences in call volume by Chicago neighborhood health indicators. METHODS/STUDY POPULATION: From November 1, 2018 to June 30, 2021, 56 NAMI-Chicago workers accepted 26,173 helpline calls from 9,374 individuals from 438 zip codes across northeastern Illinois with the majority of calls from high poverty Chicago communities. Descriptive and time series analyses examined patterns in call volume related to the onset of the COVID-19 pandemic, Illinois Stay-at-Home Order, and Illinois reopening and vaccine uptake plan relative to comparable times the prior year. Health indicators from the Chicago Health Atlas (https://chicagohealthatlas.org/) were examined to determine patterns related to NAMI call volume and various health indicators at the zip code level. RESULTS/ANTICIPATED RESULTS: Time series analysis indicated the greatest number of calls occurred in 2020; specifically,

there was a 212% increase in call volume and 331% increase in repeat callers (three or more calls per caller) during the first and second phase (March 20th to May 28th) of Illinois Stay-at-Home Order from 2019 to 2020. Analysis of the callers primary need indicated NAMI provided resources and referrals to people with unmet basic needs such as housing, food, and access to healthcare during the height of COVID-19 Pandemic in 2020. A series of ANOVAs indicated that individuals from Chicago zip codes with high levels of uninsured rates, poverty rates, households using SNAP benefits, and economic diversity called NAMI significantly more than those with low levels of these health indicators. DISCUSSION/SIGNIFICANCE: Helplines are a much-needed model to assess needs and implement services during public health crises, particularly in communities experiencing economic hardship and stress. Implications for behavioral health service needs both during and following the pandemic will be discussed.

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Implementing a Multi-Component Intervention to Reduce Hypertension Through DASH Diet Congregate Meals and Self-Measured BP (SMBP) at Two NYC Senior Centers

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OBJECTIVES/GOALS: To test whether implementing DASH-aligned meals in a congregate meal program, combined with Self-Measured Blood Pressure (SMBP) monitoring, lowers systolic blood pressure in community-living seniors at two senior centers. Secondary Aims included cognitive and behavioral change, and attention to client preferences. METHODS/STUDY POPULATION: The Carter Burden Network (CBN) provides services and congregate meals to older adults in NYC, many with low income, and unmet health needs. Eligible participants at two CBN sites, aged 60 or older and consuming >4 congregate meals/week, were recruited. After baseline assessments, participants received DASH-aligned meals onsite, education on nutrition and BP management, and personal devices and support for self-measured blood pressure (SMBP) monitoring. Primary outcome data (BP measured by health professional) was collected at Month 1, with secondary assessments at Months 3 and 6. Staff downloaded SMBP data regularly. Study surveys tracked cognitive and behavioral changes. Qualitative feedback from a project Advisory Committee, participants and study partners was collected throughout implementation. RESULTS/ANTICIPATED RESULTS: 97 Participants enrolled (49% White, 32% Black, 19% Other races; mean age 73). At Baseline, 67% were overweight/obese; 80% were hypertensive (32% Stage I; 48% Stage 2). Primary outcome: Mean change in systolic BP at Month 1 compared to Baseline, was -4.41 mmHg (n= 61; p=0.07). By multiple regression analysis, change in BP at Month 1 was associated with BMI, age, and baseline blood pressure (p= .02, .04, .00, respectively). SMBP: Mean change in systolic SMBP by End-of-Study was -6.9 mmHg (p=.003). 56% participants completed SMBP through Month 1 and 30% to End-of-Study. Mean frequency of

> 1 SMBP measure/day was 3 days/week. Women (n= 22, 88%) and Black participants (n= 15, 60%) were more likely to continue taking their home blood pressure measurements to End-of-Study (p=.002, p=.037, respectively). DISCUSSION/SIGNIFICANCE: This study provides the first data to support the potential of DASH as part of an effective community-implemented program for seniors and demonstrates the feasibility of implementing a multi-component intervention using existing congregate meal programs at senior centers that can reach minority and low-income communities.

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Fibromyalgianess and Glucocorticoid Persistence Among Patients with Rheumatoid Arthritis

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OBJECTIVES/GOALS: Over 30% of patients with rheumatoid arthritis (RA) exhibit fibromyalgianess, a symptom cluster associated with increased pain sensitivity. Up to half of RA patients use oral glucocorticoids (GCs) long-term despite their known, dose-dependent toxicity. We examined the association between fibromyalgianess and oral GC persistence in RA patients. METHODS/STUDY POPULATION: We used data from the Central Pain in Rheumatoid Arthritis (CPIRA) cohort to follow participants with active RA on oral prednisone who initiated a new disease-modifying anti-rheumatic drug. We measured fibromyalgianess using the Fibromyalgia Survey Questionnaire (FSQ), previously shown to correlate with key fibromyalgia features often superimposed upon RA. We stratified fibromyalgianess severity as follows: FSQ<8 low, 8-10 moderate, >10 high/very high. We defined GC persistence as GC use at 3 month followup visit. We assessed the association between baseline fibromyalgianess (exposure) and GC persistence at followup (outcome) using multiple logistic regression, adjusted for demographics, RA duration, serostatus, and inflammatory activity measured by swollen joint count and C reactive protein. RESULTS/ANTICIPATED RESULTS: Of 97 participants on prednisone at baseline, 65% were taking prednisone at follow-up. Fifty-seven percent of participants with low baseline fibromyalgianess had persistent GC use, compared to 84% with high or very high fibromyalgianess. After adjustment as outlined above, participants with high/very high baseline fibromyalgianess remained more likely to be on prednisone at follow-up, relative to those with low fibromyalgianess (OR 4.99 [95% CI 1.20 – 20.73]). DISCUSSION/SIGNIFICANCE: In this cohort of patients with active RA, high fibromyalgianess is associated with persistent GC use, independent of inflammatory activity. This finding suggests non-inflammatory pain related to fibromyalgianess may be misclassified as inflammatory pain related to RA disease activity.

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The Acute to Chronic Pain Signatures Program (A2CPS): Conceptual Design and Protocol Implementation of a Multi-site Observational Study Assessing Risk and Resilience Biomarkers

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OBJECTIVES/GOALS: The A2CPS was funded by the National Institutes of Health (NIH) Common Fund to identify biomarkers and their collective biosignatures (combination of several biomarkers) that predict susceptibility or resilience to the development of chronic pain. METHODS/STUDY POPULATION: The A2CPS includes 2-Multisite Clinical Centers (10 recruitment sites and 6 data collection sites), 1-Clinical Coordinating Center, 1-Data Integration and Resource Center, 3-Omics Data Generation Centers, and representation from the NIH. The A2CPS will recruit a large cohort from 2 different surgical interventions, total knee arthroplasty (n?1800) and thoracotomy (n?1800). This observational study will collect candidate and exploratory biomarkers across the following domains: clinical pain, fatigue, function, sleep, psychosocial, genomics, proteomics, metabolomics, lipidomics, pain sensitivity, and brain imaging. Data will be collected before and up to 3 months after surgery to determine factors that predict chronic pain at 6 months. RESULTS/ANTICIPATED RESULTS: Recruitment started in 2021 following standard operating procedures and is ongoing at both Multisite Clinical Centers. The A2CPS will provide an example of collaborative, multidisciplinary efforts in establishing a data repository consisting of biopsychosocial markers that will be available to the research community to test novel hypotheses. This presentation will describe the conceptual design, study aims, biomarker selection, protocol standardization and study implementation for the A2CPS. An update on study progress and data completeness will be presented. Final results will be reported after study completion which is anticipated by 2024. DISCUSSION/SIGNIFICANCE: Identifying biomarkers and biosignatures that predict high- versus low-risk for the transition to chronic pain will inform future clinical trials, identify novel therapeutic targets, and advance personalized pain treatment strategies; ultimately transforming the prevention and treatment of chronic postsurgical pain.

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Feasibility of A Dietary Sodium Reduction Intervention Using mHealth Technology to Improve Adherence in Hypertensive Patients

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OBJECTIVES/GOALS: Despite the large body of evidence concerning the effects of dietary interventions on blood pressure, trials have often reported poor adherence to sodium restriction. We implemented the Sodium Watcher Program-Hypertension (SWPH) program using digital self-monitoring. The purpose of this study was to determine the feasibility of the SWPH program. METHODS/STUDY POPULATION: The SWPH is a pilot two-arm, 2-month randomized controlled trial that enrolls adults with hypertension. The intervention group received personalized feedback on dietary