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### Community Health Worker integration as a culturally competent component of patient-centered wellness

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**OBJECTIVES/GOALS:** 1) Discuss process of pilot integration of Community Health Worker (CHW) services as a component of patient-centered healthcare service delivery in 3 clinic models. 2) Summarize profiles of patients who self-select to utilize CHW services. 3) Discuss social determinants of health impacts of underserved and historically marginalized populations. **METHODS/STUDY POPULATION:** The priority population consists of individuals living in Mobile AL at or below poverty level. USA Health Center for Healthy Communities (CHC) piloted the integration of CHW services at USA Health Stanton Road Clinic (SRC), at USA Student Run Free Clinic (SRFC), and as part of a Medi Hub Outreach Clinic with the historically underserved MOWA Choctaw native American population. SRC is a high-utilization clinic for uninsured or underinsured patients across the breadth of the Gulf Coast. The other 2 sites serve similar clientele. Social determinants of health (SDOH) screenings at intake facilitate CHW referral for a clients' unique needs for support at healthcare or social care agencies. Referral summaries can then be used to guide planning, community collaborating partner intervention, and clinical quality certification. **RESULTS/ANTICIPATED RESULTS:** Results include identification of referrals process by which CHWs are able to provide culturally competent support to persons accessing healthcare services at the 3 clinic models identified. Identification of top SDOH needs that preclude access to care among the patients served during a 24-month pilot period, e.g., (i) housing insecurity, (ii) food insecurity, (iii) transportation, (iv) health Ins, and (v) pharmacy access and payment assistance. Discussion of beneficial impacts for health care service delivery with other members of the multidisciplinary clinical teams as recorded referrals can be used to guide planning, clinic certification efforts **DISCUSSION/SIGNIFICANCE OF IMPACT:** Patient utilization of CHW services though self-selective offers opportunities for equity in access to care services from direct SDOH impacts, where CHWs act as responsive resource coordinators within the multi-disciplinary service delivery team.

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### A qualitative analysis of at-home central venous catheter (CVC) care by caregivers of children with intestinal failure

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**OBJECTIVES/GOALS:** Children with intestinal failure rely on central venous catheters (CVCs) for at-home delivery of hydration and nutrition to sustain life. CVC associated infections are the leading driver of morbidity in this population. It is currently unknown what

challenges caregivers of this patients face for at-home infection prevention tasks. **METHODS/STUDY POPULATION:** This is a qualitative analysis of the clinical implementation of at-home CVC care. Participants will be caregivers of children with intestinal failure in the Children's Hospital of Los Angeles' Intestinal Rehabilitation Program (a program with a large Spanish speaking population). The study team will conduct, record, and transcribe four synchronous remote focus groups using Zoom, two in English and two in Spanish, with 4–6 participants per focus group (n = 16–24). Questions will focus on caregiver experiences of CVC care. Transcripts will be analyzed using rapid qualitative analysis, an implementation science-oriented approach. The study team will review transcripts and summarize key points into matrices to examine relevant themes and quotes efficiently and systematically, using midpoint data analysis. **RESULTS/ANTICIPATED RESULTS:** Illustrative quotes of all themes and domains discussed by caregivers will provide a person-centered overview of the specific types of facilitators and barriers to infection prevention task performance. Focus groups will be conducted in January 2025 with analysis in February. Facilitators and barriers will be mapped onto the Capability, Opportunity and Motivation behavioral model (COM-B), allowing for additional topics participants introduce by participants. Facilitators and barriers will affect all domains of the COM-B model and may also describe factors that cross multiple domains or fall outside the COM-B domains. Facilitators and barriers may differ between English and Spanish speaking caregivers. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Identifying facilitators of and barriers to infection prevention tasks will allow clinicians to maximize infection prevention efforts and improve quality of life for caregivers of children with intestinal failure. Additionally, this bilingual study will have improved external validity and address potential language-related barriers to care.

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### The link between sarcopenia and frailty in persons with HIV on integrase strand-transfer inhibitors (INSTIs)

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**OBJECTIVES/GOALS:** To assess the association between integrase strand-transfer inhibitor (INSTI) use and sarcopenia, pre-frailty, and frailty in people living with HIV (PLWH) compared to non-INSTI users and HIV-seronegative controls, focusing on changes in muscle strength, function, and physical activity over time. **METHODS/STUDY POPULATION:** We analyzed data from the MACS/WIHS Combined Cohort Study (CCS) as part of the SPPACE INSTI Study. Eligible participants were PLWH on ART for ≥2 years or individuals at risk for HIV, with exclusions for pregnancy, active tuberculosis, malignancy, or PrEP use. Participants were grouped into 1) INSTI group (PLWH who switched/added INSTI), 2) non-INSTI group, and 3) HIV-seronegative controls. A total of 2,071 women and 1,807 men (2006–2020) were included. Sarcopenia analyses (AIM 1) included participants with grip strength/BMI data, and frailty analyses (AIM 2) included those with frailty data. **RESULTS/ANTICIPATED RESULTS:** We anticipate that INSTI use will be associated with a higher prevalence of sarcopenia, pre-frailty, and frailty compared to PLWH on non-INSTI

ART and persons without HIV (PWOH). Specifically, we expect greater declines in muscle strength, grip strength/BMI, gait speed, and overall physical function in the INSTI group. Furthermore, we predict that the INSTI group will show increased frailty markers, such as unintentional weight loss, weakness, and slow walking speed, over time. These findings could highlight a critical need for monitoring physical health in PLWH on INSTIs. **DISCUSSION/SIGNIFICANCE OF IMPACT:** PLWH may experience sarcopenia and frailty earlier than those without HIV, and INSTIs might contribute. Given their widespread use, it is essential to assess the link to improve prevention and care strategies for those affected.

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### **Human-centered design research: A Blueprint for community engagement**

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**OBJECTIVES/GOALS:** Now in its 10th year, Research Jam, Indiana CTSI's Patient Engagement Core, has proven to be an effective approach to patient engagement, foregoing generalized CABs for study-specific groups, personally invested in the research. Here we share our methods to benefit CTSAs seeking deeper engagement. **METHODS/STUDY POPULATION:** Research Jam is unique from patient engagement efforts in other CTSAs in almost every aspect. The composition and background of our team, the methodology to our practice and often our outcomes. This poster will use 10 years of projects, publications, and participant evaluations to explore our approach both quantitatively and qualitatively to see how it has contributed to the Indiana CTSI's commitment to community engagement. **RESULTS/ANTICIPATED RESULTS:** We will present quantitative data from 10 years of participant evaluations illustrating that Research Jams are received positively by those that attend, and qualitative analysis of the evaluations around themes of feeling heard, valued, and integral in research. By finding themes in evaluations across 10 years of studies, with different topics, different population types, and different investigators, we can speculate on what aspects of our approach appeal to the community, contribute to their positivity toward research and researchers, and could be reproducible in other CTSAs. **DISCUSSION/SIGNIFICANCE OF IMPACT:** We use "blueprint" instead of "toolkit" when describing our process, as we hope others can see this not as a tool to fix a problem, but a plan to be iterated on in agreement with the community that will benefit from it. The relationships researchers need to build with communities are not cookie cutter neighborhoods, but rich, colorful and vibrant ones.

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### **The role of psychological factors impacting expecting mothers' meal delivery intervention engagement**

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**OBJECTIVES/GOALS:** Nearly 42% of adults in the USA have obesity; women are disproportionately affected. Women with obesity that become pregnant are especially prone to developing health condition; thus, aid is needed to achieve appropriate gestational weight gain (GWG). GWG interventions would benefit from examining the

effects of social support and stress has on GWG. **METHODS/STUDY POPULATION:** The proposed study will examine whether expecting mothers' social support predicts their perceived stress. Also, examine whether receiving aid, in the form of weekly meal delivery, changes perceived stress. Lastly, this study will explore if social support mediates the relationship between meal delivery and perceived stress. The study will use data gathered from a pilot GWG intervention focused on providing pregnant women weekly meal delivery. Participants (N = 14) will complete 2 visits at 16–20- and 35–36-weeks gestation, while receiving weekly meal deliveries. Data from both visits will be used for the purpose of this study. Women's social support will be measured using the Multidimensional Scale of Perceived Social Support. While stress will be measured via the Perceived Stress Scale. **RESULTS/ANTICIPATED RESULTS:** Previous behavioral weight loss studies have found that individual who endorse experiencing social support report less perceived stress. Although the relationship has seldomly been examined in pregnant women, similar results are anticipated. Often aid, such as meal delivery, can impact perceived stress and is likely to cause a positive change. To our knowledge, this is the first study to explore whether social support mediates the changes in perceived stress after receiving weekly meal delivery. Therefore, there is no known literature to suggest anticipatory results. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Few studies have examined the association between social support and perceived stress in pregnant women. This study will examine the effects social support has on a pregnant women's stress. The proposed study will aim to identify if meal delivery changes perceived stress. If so, the study will explore if perceived social support mediates this change.

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### **Harnessing the power of the participant perspective: CCTST's Research Participant Advisory Group**

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**OBJECTIVES/GOALS:** The Research Participant Advisory Group (RPAG) was born out of the concept that, by creating a structured way for researchers to collaborate with research participants and/or community, we can improve, grow, and support clinical/research-based research, from design to dissemination. Three distinct groups exist across our Academic Health Center (AHC). **METHODS/STUDY POPULATION:** The RPAG has 3 groups: The Cincinnati Children's Hospital Research Participant Advisory Council (CCHMC RPAC) addresses clinical research needs, such as research design, recruitment, and consenting. Adult/youth research participants and family members (n = 21) provide feedback about how to improve a research process, form or other research tool. In Cincinnati's underserved West End, the West End Community Research Advisory Board (WE C-RAB; n = 18) focuses on the needs of underserved minority groups and supports researchers wishing to do community-based research. The newly formed University of Cincinnati RPAC (UC RPAC; n = 17) addresses the UC research needs. All groups meet monthly and are offered a meal and incentive. All members have received training in the responsible conduct of research. **RESULTS/ANTICIPATED RESULTS:** Over 70 researchers have brought research challenges to the RPAG groups over the last 8