

Promoting health equity through social media: A community engaged approach to bidirectional public health communication

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OBJECTIVES/GOALS: Access to accurate public health information is an essential component to ensuring health equity. We launched our social media channels on Instagram, Facebook, and TikTok to highlight, engage with, and bring culturally tailored and language appropriate health and research information to our target communities. **METHODS/STUDY POPULATION:** Monitoring engagement patterns with our content on each platform influenced the development of a range of innovative campaigns in both English and Spanish that were informed by our core values of inclusivity, trust-building, ongoing bidirectional communication, and co-creation. These three platforms were chosen to ensure reach and engagement with the different demographics within our target populations. The campaigns included those that provided relevant and accurate health information, highlighted the diversity of our team, uplifted our community partners, and gave voice to our community members. This content included health-related infographics, mini-documentary reels, video essays, interviews, and photos. **RESULTS/ANTICIPATED RESULTS:** We assessed effectiveness, reach, and engagement based on the robustness of the analytics for each platform. Facebook content, the majority of which is in Spanish, appealed more to older, Latino community members. TikTok content appealed more to younger (under 35), primarily English-speaking community members, while Instagram appealed more to organizational partners and community health workers. A 2023 trendline analysis of average monthly Instagram content reach and interactions indicated a moderate-to-strong relationship between our tailored content and audience engagement. Storytelling techniques consistently outperformed other content types across platforms, and community partner collaboration drastically enhanced our visibility, reach, and further validated our approach. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Social media has become increasingly central to bidirectional information dissemination. Implementing tailored strategies and leveraging storytelling techniques is an effective means of engaging diverse audiences, enhancing public health communication, and building and maintaining trust by providing accurate, accessible information.

Evaluating equity in utilization of initial health evaluations among World Trade Center Health Program members enrolled during 2012–2022

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OBJECTIVES/GOALS: To evaluate equity in utilization of free initial health evaluation (IHE) services among members of a limited health care program, the World Trade Center (WTC) Health Program

(Program), to inform intervention development and provide insights for similar healthcare programs. **METHODS/STUDY POPULATION:** We included Program members who newly enrolled during 2012–2022, and who had an IHE or were alive for ≥ 1 year after enrollment. Program administrative and surveillance data collected from January 2012 to February 2024 were used. We evaluated two outcomes: timely IHE utilization (proportion of members completing an IHE within 6 months of enrollment) and any IHE utilization (proportion completing an IHE by February 2024). We described IHE utilization by enrollment year and various members' characteristics and conducted multivariable logistic regression models to estimate adjusted odds ratios for IHE utilizations to identify factors related to potential inequities for the two member types: Responders, who performed support services, vs. Survivors, who did not respond but were present in the New York disaster area. **RESULTS/ANTICIPATED RESULTS:** A total of 27,379 Responders and 30,679 Survivors were included. Responders were 89% male, 70% 45–64 years old at enrollment and 76% White. Survivors were 46% female, 54% 45–64 years old at enrollment, and 57% White. Timely IHE utilizations remained relatively stable (~65%) among Responders across time and increased from 16% among Survivors who enrolled in 2017 to 68% among Survivors who enrolled in 2021. Timely IHE utilization was lower for younger members (enrolled **DISCUSSION/SIGNIFICANCE OF IMPACT:** This study highlights Program achievements and gaps in providing equitable IHE services. Strategies to improve members' equitable IHE utilization can include: adopt/expand flexible scheduling; increase non-English language capacity and cultural competency; and facilitate transportation/assistance for members with accessibility barriers.

Mindfulness-based stress reduction (MBSR) for chronic pain management: Patient and pharmacist perceptions of a community pharmacy-based program in the Rural Deep South

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OBJECTIVES/GOALS: The purpose of this study was to explore pharmacists' and patients' attitudes, contextual barriers, organizational readiness, and preferences regarding implementation of a mindfulness-based stress reduction (MBSR) program for chronic pain management in the community pharmacy setting in rural Alabama. **METHODS/STUDY POPULATION:** Pharmacists in independently owned community pharmacies and patients ≥ 18 treated for chronic pain in the past year in rural Alabama were recruited via purposive and snowball sampling. One-hour virtual semi-structured interviews were conducted by Marketry, a qualitative market research company. Interview questions were guided by the consolidated framework for implementation research (CFIR) and focused on 1) knowledge/awareness; 2) attitudes; 3) barriers/facilitators (e.g., demand, reimbursement); 4) pharmacies' organizational readiness (e.g., technology, personnel, and culture); and 5) program preferences (content, format) regarding a potential pharmacy-based MBSR program for chronic pain management. Interview transcripts were analyzed using deductive content analysis to identify themes. **RESULTS/ANTICIPATED RESULTS:** A total of

60 interviews were conducted (n = 30 pharmacists, n = 30 patients). Qualitative data analysis is ongoing and is expected to be completed by December 2024. Interviewee's responses describing knowledge, attitudes, barriers, facilitators, pharmacies' organizational readiness, and recommended program elements will be categorized according to the CFIR domains of "inner setting," "outer setting," "intervention characteristics," and "characteristics of individuals." Domains will be summarized with over-arching themes. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Findings are expected to inform development of a community pharmacy-based MBSR program for chronic pain management. This serves as the first step in building and implementing a sustainable, accessible community pharmacy-based program offering a nonopioid alternative for pain management in the underserved rural Deep South.

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The Blacker the Berry: A study of anti-neuroinflammatory food preferences and acceptability among Black American pregnant and postpartum people living in food apartheid

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OBJECTIVES/GOALS: This study aimed to identify preferences for nutrient-dense foods with critical nutrients associated with reduced neuroinflammation and perinatal depression risk. Aim two evaluated the acceptability of daily intake and preparation methods of select foods in Black American pregnant and postpartum people living in food apartheid in St. Louis. **METHODS/STUDY POPULATION:** The study included a mixed-methods sequential explanatory design with data collection at the YWCA of Metro St. Louis during Early Head Start programming with 21 participants living in geographies with low grocery-to-convenience store ratios. We conducted an open-ended online survey to determine participants' preferences for specific foods with high nutrient density. Food preferences were subjected to nutrient analyses using FoodData Central, and foods with the highest concentrations of critical nutrients associated with reduced neuroinflammation and perinatal depression risk were identified. We presented results during a focus group with participants who completed the survey and evaluated the acceptability of daily intake and preparation methods. **RESULTS/ANTICIPATED RESULTS:** Preferred food choices with the highest concentrations of critical nutrients associated with reduced neuroinflammation and perinatal depression risk included dark red kidney beans, black beans, pinto beans, black-eyed peas, peanuts, almonds, pistachios, walnuts, pecans, carrots, spinach, red bell pepper, sweet potatoes, and salmon. Participant justifications for low acceptance of daily intake included allergic reactions, "dry" or "slimy" texture, undesirable taste or appearance, absence of cravings, preferring alternatives, complicated preparation methods, and financial tradeoffs. Participant justifications for high acceptance included desirable taste and texture, diverse modification and preparation options, and nutrient composition critical for anemia treatment. **DISCUSSION/SIGNIFICANCE OF IMPACT:** The study identified nutrient-dense food preferences within a sample vulnerable to nutrient-poor alternatives and health consequences. Participant acceptance of nutrient-dense intake was contingent upon recipes fulfilling cravings, acceptance among persons preparing meals, and diverse options to prevent boredom with preparation methods.

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Community engagement in secondary analysis research: A case example

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OBJECTIVES/GOALS: Community engagement is critical to promoting equity for those affected by clinical and translational research. Despite its importance, investigators rarely involve community stakeholders in ancillary projects such as secondary analyses. I use a study example to demonstrate how to meaningfully partner with communities in ancillary research. **METHODS/STUDY POPULATION:** Using data collected in a previous study, the aim of this secondary analysis was to examine whether pregnant women's reports of social adversity during the third trimester were associated with their infant's resting cortisol level at 1, 6, and 12 months of age. Community engagement at the study design phase included consultation with an institutional Community Advisory Board (CAB) whose expertise included lived experiences relevant to the context of the study (i.e., social adversity and pregnancy). Community engagement at the analysis and dissemination stage included deeper collaboration with three community research consultants (CRCs) from the CAB; all identified as women of color and mothers with relevant lived experiences. CRCs received compensation for time and effort and an invitation for co-authorship. **RESULTS/ANTICIPATED RESULTS:** Consultations included written review as well as a live presentation and discussion with the CAB for feedback on the study proposal prior to submission for IRB approval. The focus of discussion was around the use of inclusive terminology and ensuring respectful and equitable representation of all participants in the original study, including those who reported experiences with social adversity during pregnancy. After receiving study approval, statistical analyses were finalized and CRCs actively engaged in discussions with the PI around the interpretation of results. CRCs significantly contributed to the development of solutions-oriented implications for practice, policy, and future research. All CRCs were co-authors on the study manuscript that was published in a top-tier international journal. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Community engagement in ancillary research is feasible and essential. True equitable collaboration requires partnership during all study activities, including critical phases (e.g., developing aims, data analysis). Researchers also should prioritize the use of datasets from studies that incorporated community partnership and engagement.

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Appalachian Kentucky Rural Research Hub: Ensuring the success of community-engaged research

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OBJECTIVES/GOALS: To facilitate engagement between university researchers and Appalachian Kentucky communities, the UK Rural Research Hub (RRH) promotes Community Engaged Research (CEnR) and academic-community partnerships that have the greatest potential to conduct impactful research to improve health and reduce regional health disparities. **METHODS/STUDY POPULATION:** Through the UK RRH, a wealth of expertise and a range of services sustain successful CEnR. Hub coordinators provide research consultations, accelerate researchers' engagement with