



**NIH PRAGMATIC TRIALS
COLLABORATORY**

Rethinking Clinical Trials®



Nonpharmacologic Pain Management in Federally Qualified Health Center Primary Care Clinics

Pragmatic and Implementation Studies for the Management of Pain (PRISM)

NIH
HEAL
INITIATIVE



AUCH

ASSOCIATION FOR UTAH COMMUNITY HEALTH

UNIVERSITY OF UTAH



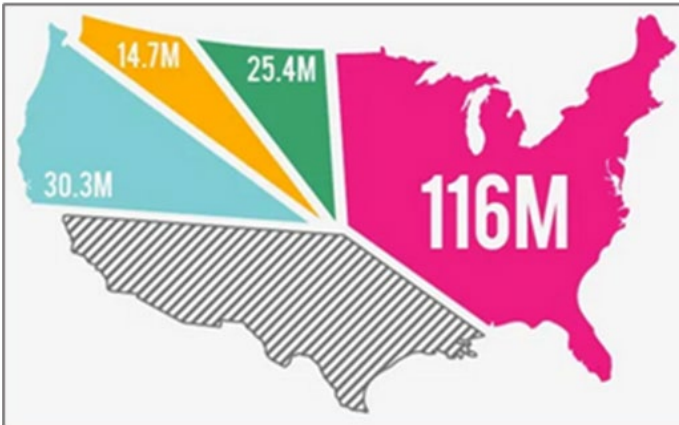
HUNTSMAN
CANCER INSTITUTE



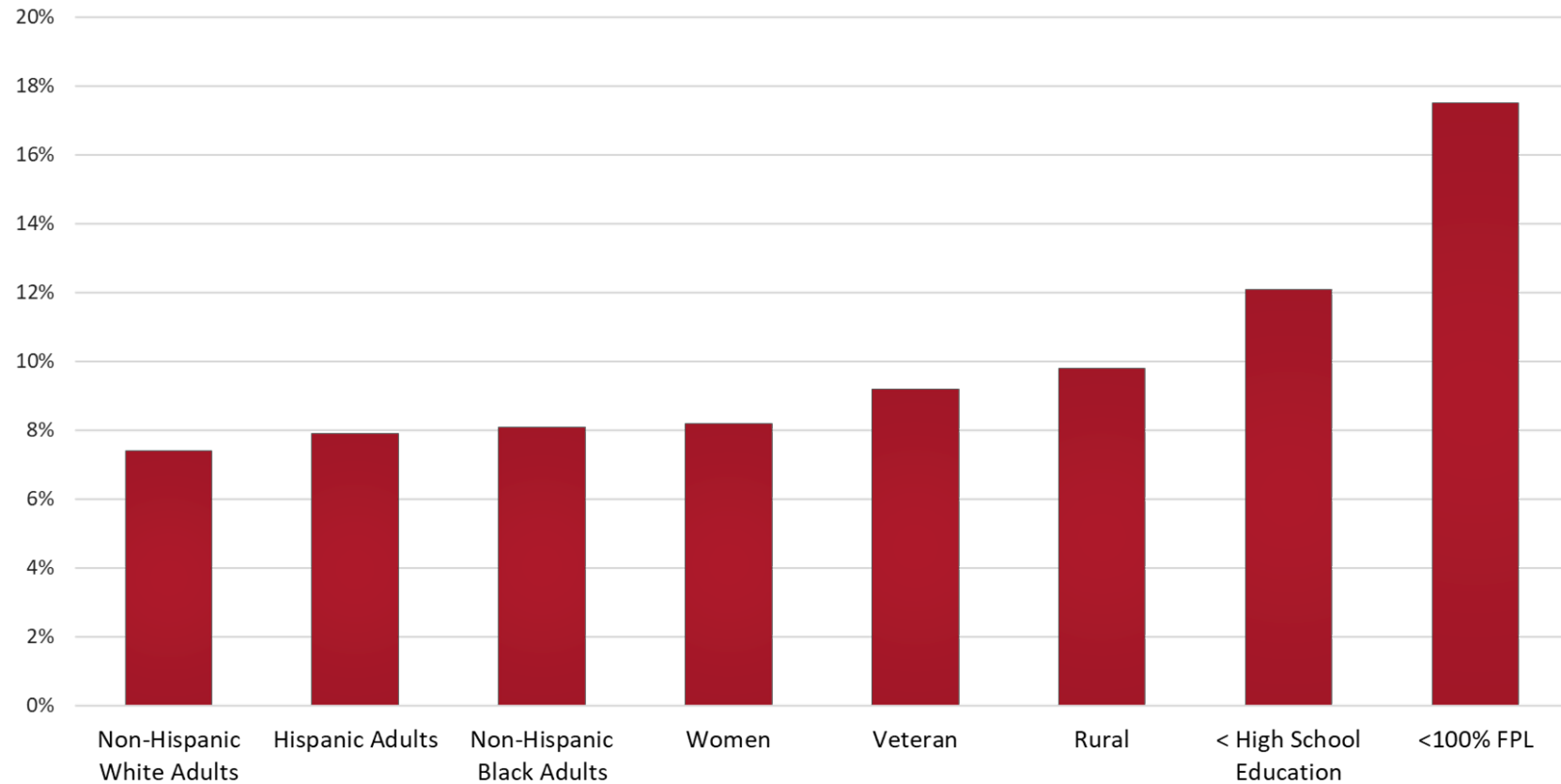
HEALTH
UNIVERSITY OF UTAH

Pain in America

MORE PEOPLE LIVE WITH CHRONIC PAIN THAN CANCER, HEART DISEASE, AND DIABETES, COMBINED



Age-Adjusted Prevalence of High Impact Chronic Pain



FROM: National Center for Health Statistics, National Health Survey, 2019.

FROM: (Dahlhamer J et al, *MWMMR Morb Mortal Weekly Rep*, 2018)

Community Health Centers

NATIONALLY

1 in 5

67%

20%

37%

24%



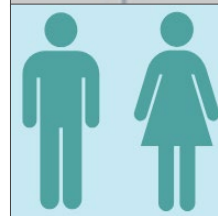
Residents of Rural Communities



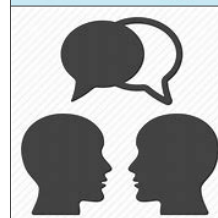
At or Below the Federal Poverty Level



Uninsured



Hispanic/Latino Ethnicity



Communicate in a Language Other Than English

UTAH

1 in 2

66%

45%

49%

37%

*Between 2011 and 2021, the number of patients served by FQHCs increased 50%



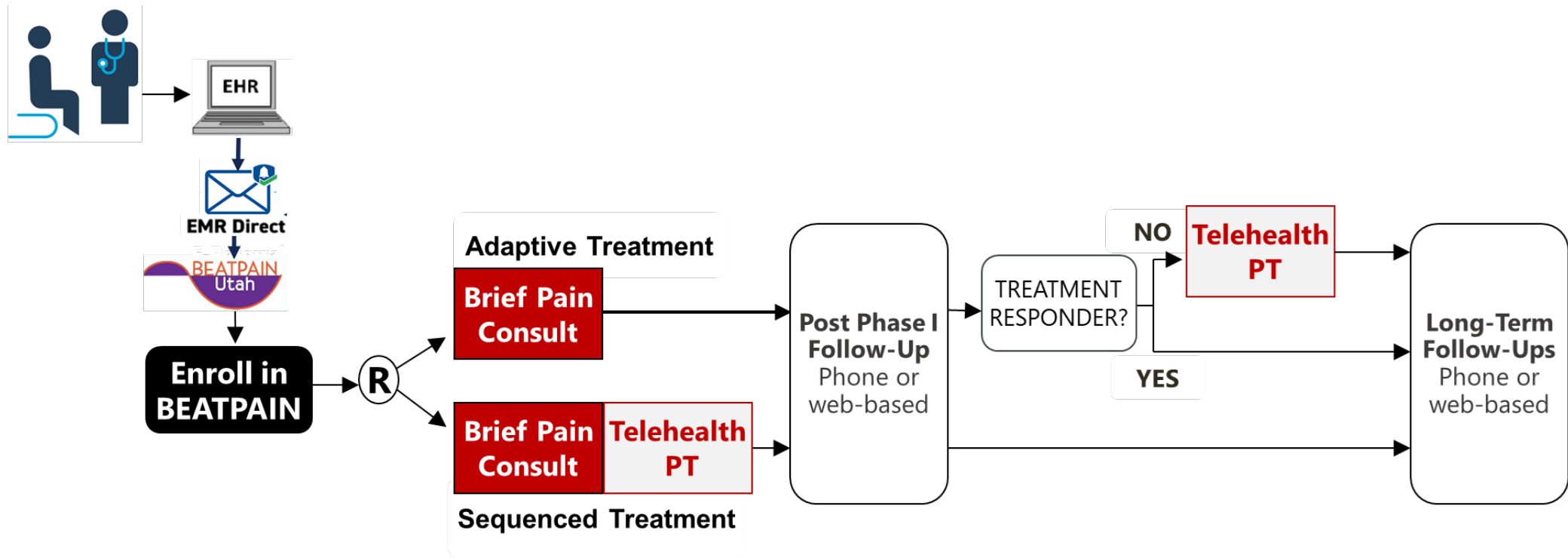
Nonpharmacologic Pain Management in Federally Qualified Health Center Primary Care Clinics

BMJ Open
Protocol

Julie M Fritz ¹, Guilherme Del Fiol ², Bryan Gibson, ² David W Wetter, ³ Victor Solis, ¹ Emily Bennett, ⁴ Anne Thackeray, ¹ Adam Goode, ⁵ Kelly Lundberg, ⁶ Adrianna Romero, ¹ Isaac Ford, ¹ Leticia Stevens, ² Tracey Siaperas, ⁴ Jennyfer Morales, ⁷ Melissa Yack, ⁸ Tom Greene ⁹

BMJ Open 2022;12:e067732.

Goal: Improve back pain management for persons with chronic back pain in Utah Community Health Centers through accessible and effective nonpharmacologic care.



TIMELINE: Baseline.....Randomization.....12-Week Follow-Up.....26-Week.....52-Week F/U

PHASE I TREATMENT

PHASE II TREATMENT

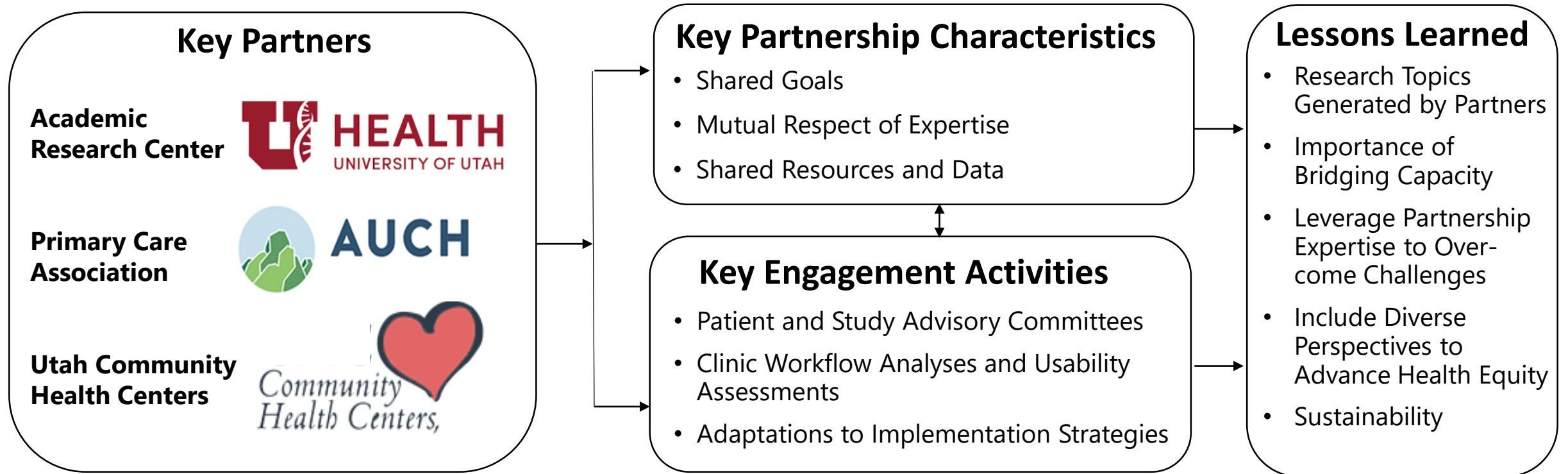
CENTER FOR HOPE

HEALTH OUTCOMES & POPULATION EQUITY

Mission: Bring communities and researchers together to create long-term solutions to prevent cancer, chronic and infectious disease, and improve health among underserved populations.

Vision: Equity in cancer and chronic disease incidence, morbidity, and mortality in Utah/Mountain West.

Community-Engaged Dissemination & Implementation (CEDI) Framework



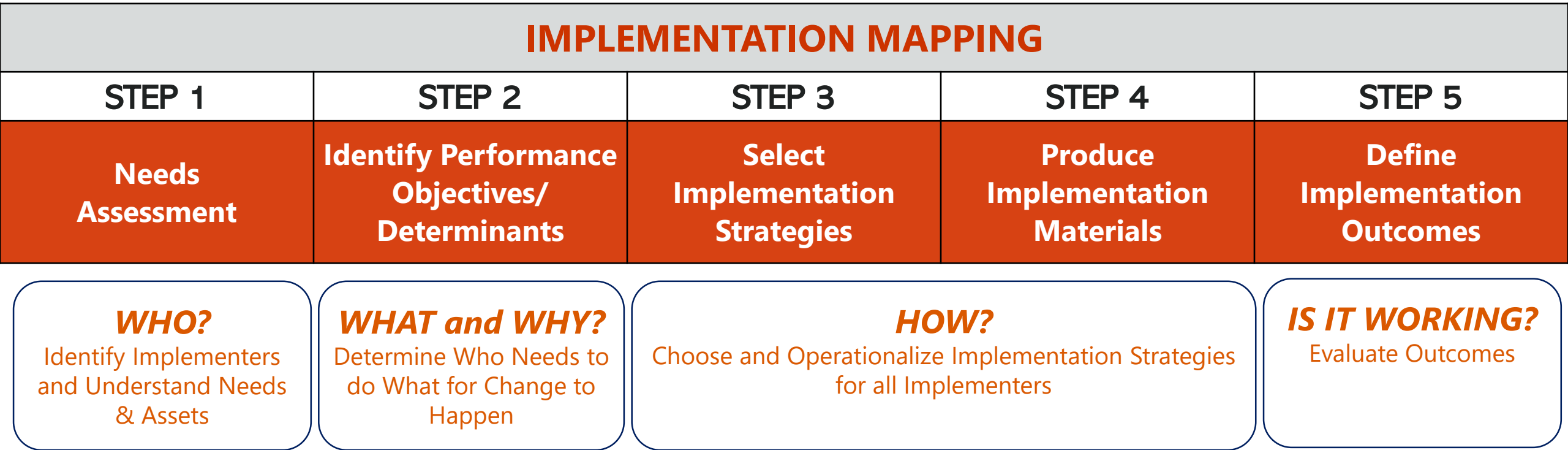


Key CEDI Methods

- Consistent partnership model – topics reflect priority domains for CHCs
- Efforts to implement new procedures with clinic staff and patients informed by ***implementation mapping***
- Clinical workflow and usability analyses from a sociotechnical perspective
 - ❑ Manage IT considerations to connect with patients
 - ❑ Understand how clinicians interact with IT and be ready to troubleshoot technical issues.
- Adaptations to decentralize research and clinical procedures

Implementation Mapping

A systematic process for developing strategies to improve the implementation of EBIs in real-world settings.



FROM: Fernandez M, et al. Implementation mapping: using intervention mapping to develop implementation strategies. *Front Public Health*. 2019;7:158.

Walker TJ, et al Using Implementation Mapping to develop and test an implementation strategy for active learning to promote physical activity in children: a feasibility study using a hybrid type 2 design. *Imp Sci Commun*. 2022;3:26

Implementation Mapping – Patient Level

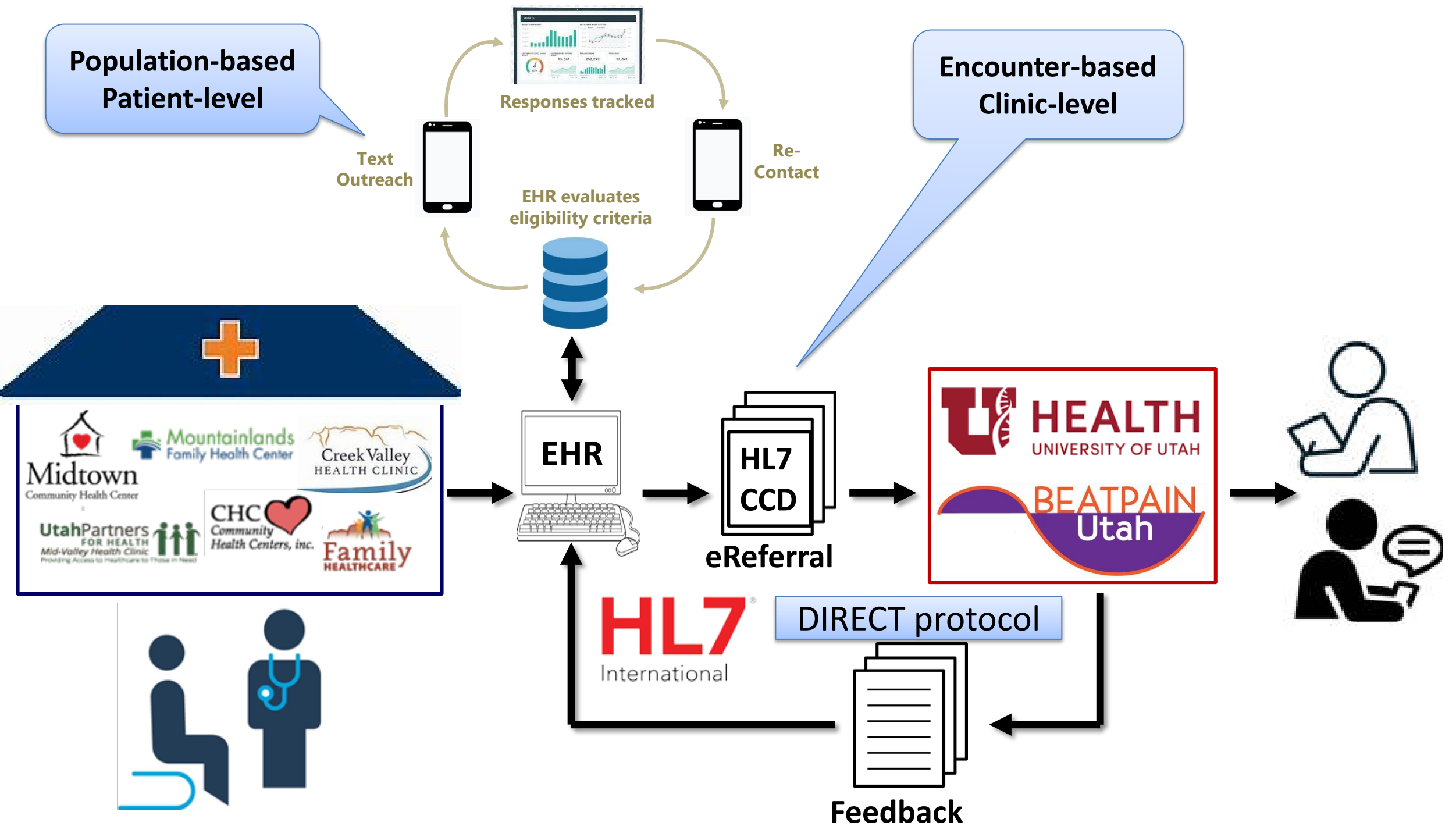
	Issues Encountered	Facilitators Identified	Strategies Implemented
Patient Access to Care	<ul style="list-style-type: none"> • Less predictable work hours • Multi-generational homes or housing instability • Limited tech for video visits 	<ul style="list-style-type: none"> • Mobile phones are common • Respect for participants' time, being flexible, builds trust 	<ul style="list-style-type: none"> • Offer sessions outside regular work hours • Flexible, non-judgmental (re)/scheduling
Adaptations to PT Interventions	<ul style="list-style-type: none"> • Limited community resources for physical activity • More likely to experience stressors contributing to HICP 	<ul style="list-style-type: none"> • mHealth resources are available to support patients • Interventions for active coping with relaxation, mindfulness amenable to telehealth delivery 	<ul style="list-style-type: none"> • Integrate mHealth to support education and exercise interventions • Integrate cognitive behavioral techniques
Patient-PT Working Alliance	<ul style="list-style-type: none"> • Remote delivery, language, culture are challenges in developing a working alliance 	<ul style="list-style-type: none"> • Motivational interviewing is effective for building self-efficacy for behavior change using telehealth 	<ul style="list-style-type: none"> • Train PTs in motivation and problem-solving (MAPS)
Culturally Competent Care	<ul style="list-style-type: none"> • Patients and PTs often have different cultural backgrounds • Patients' pain beliefs and coping preferences may be mismatched to evidence-based principles 	<ul style="list-style-type: none"> • Care that respects participants' cultural perspectives helps build trust in PT • MAPS delivery can reduce risk for implicit bias from provider 	<ul style="list-style-type: none"> • Train PTs in cultural competencies and awareness of their own cultural background • Training in person-centered MAPS delivery

Implementation Mapping – Clinic/Provider Level

	Issues Encountered	Facilitators Identified	Strategies Implemented
Clinic Staffing Levels	<ul style="list-style-type: none"> Challenges with turnover, COVID-related Expanding patient demand 	<ul style="list-style-type: none"> Brief updates in staff meetings Long-standing relationship with primary care association (AUCH) 	<ul style="list-style-type: none"> Develop a population health recruitment strategy Work through AUCH liaisons
Variability in EHR systems	<ul style="list-style-type: none"> 3 different EHRs used by Utah Health Centers Variable functionality 	<ul style="list-style-type: none"> Standards-based protocols Academic IT support 	<ul style="list-style-type: none"> Direct protocol for secure, bi-directional messaging between BeatPain and EHR
Trust in University Researchers	<ul style="list-style-type: none"> Concerns about sustainable research commitment 	<ul style="list-style-type: none"> Established partnership model through Center for HOPE 	<ul style="list-style-type: none"> Only clinic priority research topics advance Regular communication and updates
Direct Outreach to Patients	<ul style="list-style-type: none"> Concerns about overwhelming patients with messages and invitations 	<ul style="list-style-type: none"> Communication among study teams through HOPE 	<ul style="list-style-type: none"> Coordinate text messaging campaigns among studies

Population-based
Patient-level

Encounter-based
Clinic-level



Lessons Learned

- ✓ **Engaging lower resource, rural communities requires a consistent partnership model**
- ✓ **Having a trusted partner in the Primary Care Association representing FQHCs has been essential**
- ✓ **The UG3/UH3 mechanism beneficial to have time to build trust and build infrastructure.**
- ✓ **Bridging IT capacity is critical to tie disparate EHR systems together and create sustainable infrastructure.**

Multi-Disciplinary Team Science



University of Utah

- Tom Greene
- Jincheng Shen
- Nora Fino
- Biostatistics**
- Kelly Lundberg
- Psychiatry**
- Guilherme Del Fiol
- Bryan Gibson
- Leticia Stevens
- Biomedical Informatics**
- Julie Fritz
- Anne Thackeray
- Physical Therapy**



AUCH

- Alan Pruhs
- Courtney Dinkins
- Leadership**
- Emily Bennett
- Tracey Siaperas
- Care Coordination**
- Shlisa Hughes
- Quality Improvement**



Center for HOPE

- Melissa Hall Yack
- Community Engagement**
- Jennifer Wirth
- Jennyfer Morales
- Program Management**



BeatPain Team

- Adrianna Romero
- Victor Solis
- Dania Iniguez
- Research Staff**
- Isaac Ford
- Laura Vinci de Vanegas
- Kate Addis
- Cynthia DeFrancesco
- Physical Therapists**



Duke University

- Adam Goode
- Physical Therapy**