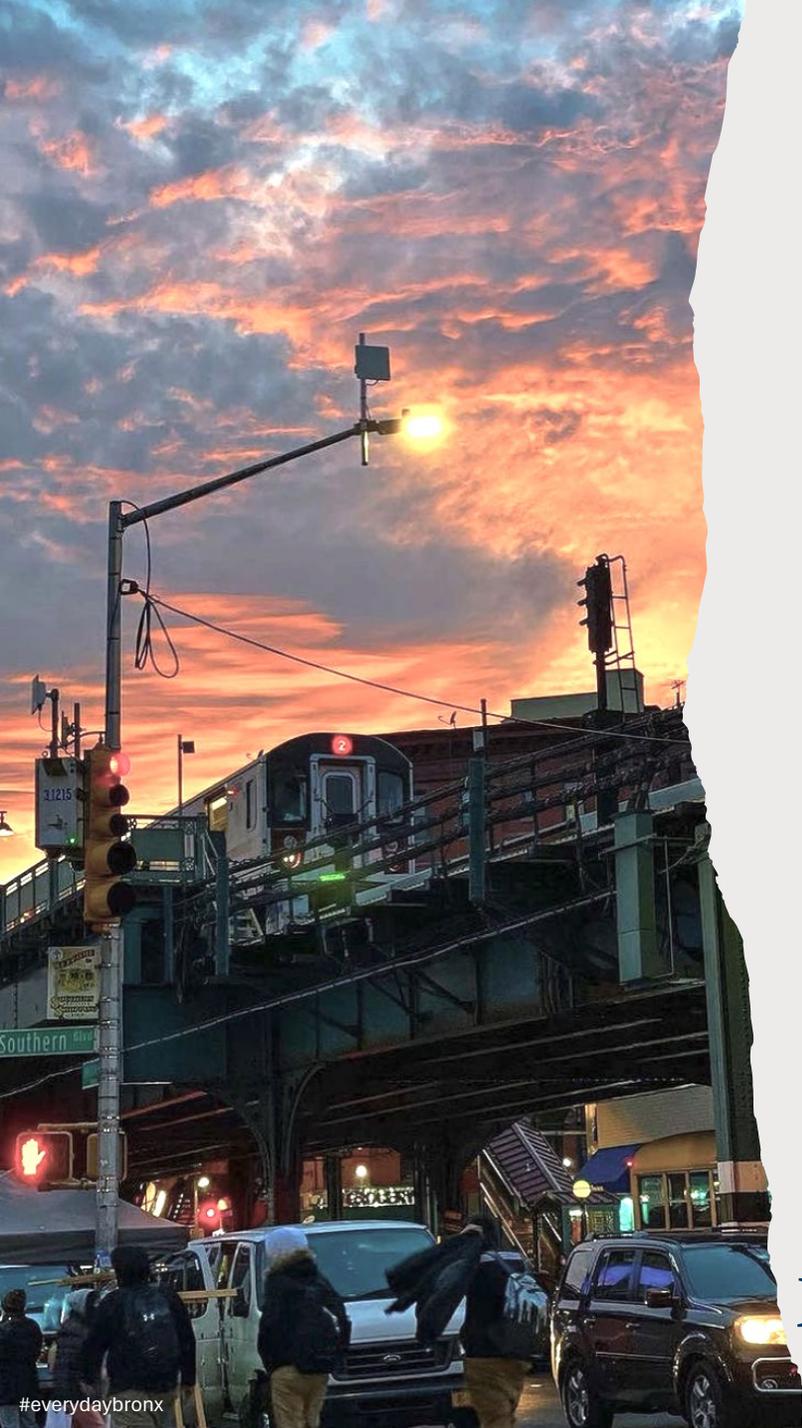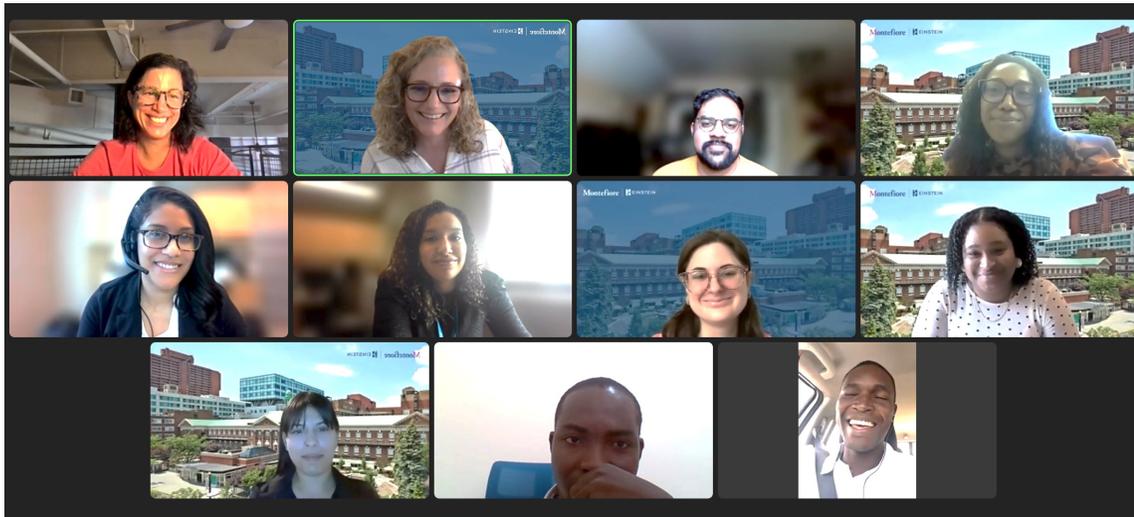# Assessing Context to Improve Implementation of Community Health Worker Interventions

Jessica Haughton, MPH, MA
Community Health Systems Lab
Department of Pediatrics
Albert Einstein College of Medicine

Montefiore Einstein

INTEGRATE
HEALTH

#everydaybronx

Acknowledgements

Kevin Fiori, MD, MPH, MSc

Renee Whiskey-LaLanne, MPH

Lisa Hirschhorn, PhD

Samantha Levano, MPH

Priya George

Elissa Faro, PhD

Désiré Dabla, PhD

Agnes Miziou

Komivi Badohoun, MS

Melissa Lennox, MPH

Community Health Workers in Togo and the Bronx

Agenda

1) Assessing Context for Implementation Research

2) Community Health Worker Models

3) Togo: Integrate Health

4) Bronx: Community Health Worker Institute

5) Context & Generalizability

Assessing Context

Context is "a multi-dimensional construct encompassing micro, meso, and macro level determinants that are pre-existing, dynamic, and emergent throughout the implementation process"

(Rogers et al 2020)

- Context represents normal conditions of practice and a team's ability to implement change

- Dynamic relationship between implementation and context

- Role that context plays in moderating effectiveness is often neglected
  - Focus on interventions that "work"

Rogers L, De Brún A, McAuliffe E. Defining and assessing context in healthcare implementation studies: a systematic review. BMC Health Serv Res. 2020;20(1):591. Published 2020 Jun 29. doi:10.1186/s12913-020-05212-7

Community Health Worker Models

- Various CHW models used throughout the world and in the US
  - In low- and middle-income countries, CHWs provide community-based primary care services, with a focus on maternal and child health
  - In high-income countries like the US, CHWs fulfill non-clinical roles including care navigation, linkage to social services, and education

Global context

Growing advocacy for salaried, supervised, and supported CHW models

WHO guidelines
Cometto, et al 2018

US context

Move toward integration within healthcare systems, including reimbursement

1115 Medicaid waiver
Joint Commission requirements

Cometto G, Ford N, Pfaffman-Zambruni J, et al. Health policy and system support to optimise community health worker programmes: an abridged WHO guideline. Lancet Glob Health. 2018;6(12):e1397-e1404. doi:10.1016/S2214-109X(18)30482-0

Context:
Togo and the
Integrated
Primary Care
Program

Togo

- Small country in West Africa (population: 8.8 million)

- 2022 UN IGME estimate for U5M: 60.38 deaths per 1000 live births

- Worse progress toward SDG 3 in northern regions

- Fragmented health system

- 5 doctors per 100,000 people; 70% located in Lomé

opædia Britannica, Inc.

INTEGRATE HEALTH

To

- Sm
  (po
- 20
  60
- Wo
  no
- Fra
- 5 d
  70

UN Inter-agency
https://childmo

Togo: Integrate Health

SANTÉ INTÉGRÉE

2004	2015	2018	2018-2022
NGO started with focus on HIV	Expanded to primary care	Launched Integrated Primary Care Program	Expanded IPCP to 4 additional districts

Community Health Workers
Trained, equipped, supervised, and salaried Community Health Workers expand the reach of the healthcare system to patients' front doors.

Clinical Capacity-Building
Mentored nurses and midwives in public health centers provide patients with high-quality healthcare.

IPCP core components

Supply-Chain Infrastructure
Trained pharmacists ensure patients have the medicines and health products they need when they need them.

User Fee Removal
Removed point-of-care fees for pregnant women and children under five so even the poorest can access healthcare.
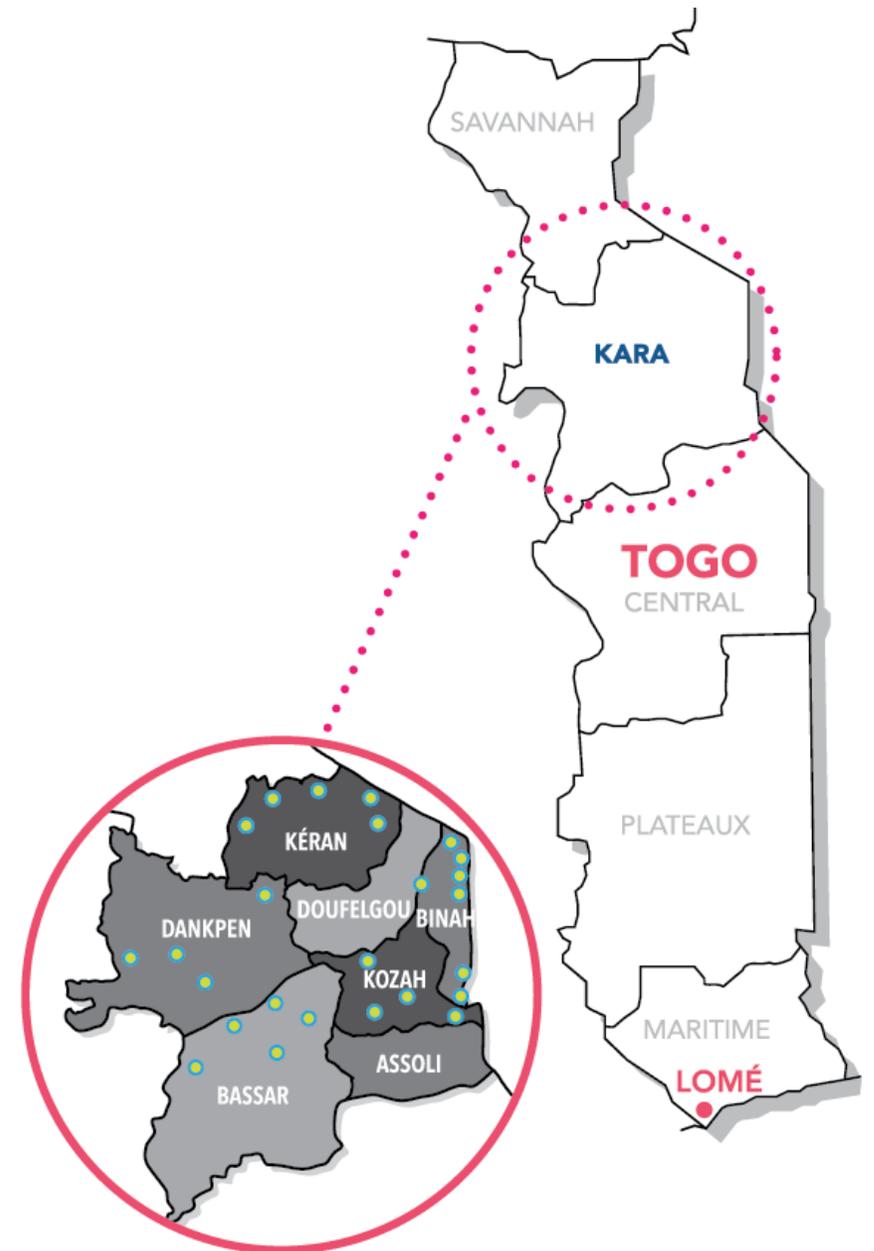
201 CHWs

Community Health Worker Intervention

- Community Health Workers are…
  - Recruited from villages where they will work
  - Trained
  - Salaried (full-time)
  - Supportive supervision model
- Home visits include treatment and follow-up
- <u>Proactive</u> case finding
- Integrated care with health centers

Study Design

- Following improvements in U5M in the pilot region (Kozah), Integrate Health launched expansion into 4 districts (2018-2022)

- To assess impact, used a hybrid type II effectiveness-implementation study with annual measures including:

  - Household surveys (10,000+ per year)
  - Facility assessments (WHO's SARA tool)
  - **Key informant interviews**

Lauria ME, Fiori KP, Jones HE, et al. Assessing the Integrated Community-Based Health Systems Strengthening initiative in northern Togo: a pragmatic effectiveness-implementation study protocol. *Implement Sci.* 2019;14(1):92. doi:10.1186/s13012-019-0921-3

Data Collection

- In-depth semi-structured interviews (N=79) one year following launch in each of the 4 districts

- Interview guides developed using CFIR 2009 to assess barriers and facilitators to implementation, feasibility, and context

- Participants purposively selected to include: health center staff, district health directors, IPCP staff, CHWs, and community leaders

- Interviews were audio-recorded, transcribed, and translated to English (from French or other local language) for analysis

Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implement Sci*. 2009;4:50. doi:10.1186/1748-5908-4-50

22 semi-structured interviews in Bassar district in 2019

Check for updates

A Pragmatic Approach to Qualitative Formative Evaluation of an Integrated Primary Care Program in Togo, West Africa

Elissa Z. Faro[1] · Jessica Haughton[2,3] · Molly E. Lauria[2,3] · Essodinam Miziou[2,3] · Amanda Singer[2,3,4] · Désiré Dabla[2,3] · Sesso Gbeleou[2,3] · Didier K. Ekouevi[5,6] · Lisa R. Hirschhorn[7] · Kevin P. Fiori[2,3,4,8]

Abstract

Despite the utility of formative evaluation in implementation research, few published projects in low- and middle-income countries have used this approach and incorporating qualitative data into implementation projects can be challenging. Implementation science and qualitative formative evaluation can help inform the delivery of evidence-based practices, specifically identifying gaps in service delivery and implementation fidelity. Including stakeholders in formative evaluation facilitates actionable feedback and practical problem-solving of real-time implementation challenges. This paper presents a real-world

Qualitative Formative Evaluation

- Implementation-focused formative evaluation identifies differences between the proposed implementation and what ***actually occurs*** and to characterize the contextual factors that may impact change

- Answers "how" and "why" questions and can be an efficient way to improve implementation in ***real-time***

Stetler CB, Legro MW, Wallace CM, et al. The role of formative evaluation in implementation research and the QUERI experience. *J Gen Intern Med*. 2006;21 Suppl 2(Suppl 2):S1-S8. doi:10.1111/j.1525-1497.2006.00355.x

Qualitative Formative Evaluation

| Implementation-focused formative evaluation categories		Key findings
a) Highlighting Actual Versus Planned Interventions	→	Frequent medication stock-outs; lack of essential medications
b) Identifying Modifiable Barriers	→	Low uptake of family planning due to community perceptions and limited access
c) Facilitating Needed Refinements in Implementation	→	Health centers struggle to complete additional paperwork needed for IPCP evaluation
d) Enhancing Interpretation of Project Results	→	Analysis and dissemination of research results takes too long to be useful
e) Identifying Critical Details and Guidance for Taking the Program to Scale	→	Contextual differences among districts where IPCP is implemented

Qualitative Formative Evaluation

Lessons learned

- Questions that arise during implementation can be answered pragmatically with…
  - *A relatively small team*
  - *Structure provided by an implementation framework (e.g., CFIR)*
- Identified gaps missed in quantitative data
- Meaningful interpretation of findings
  - *Actionable steps*
  - *Using data to improve care delivery*

Context:
Bronx and the
Community
Health Worker
Institute

The greatest story ever told started in the BRONX
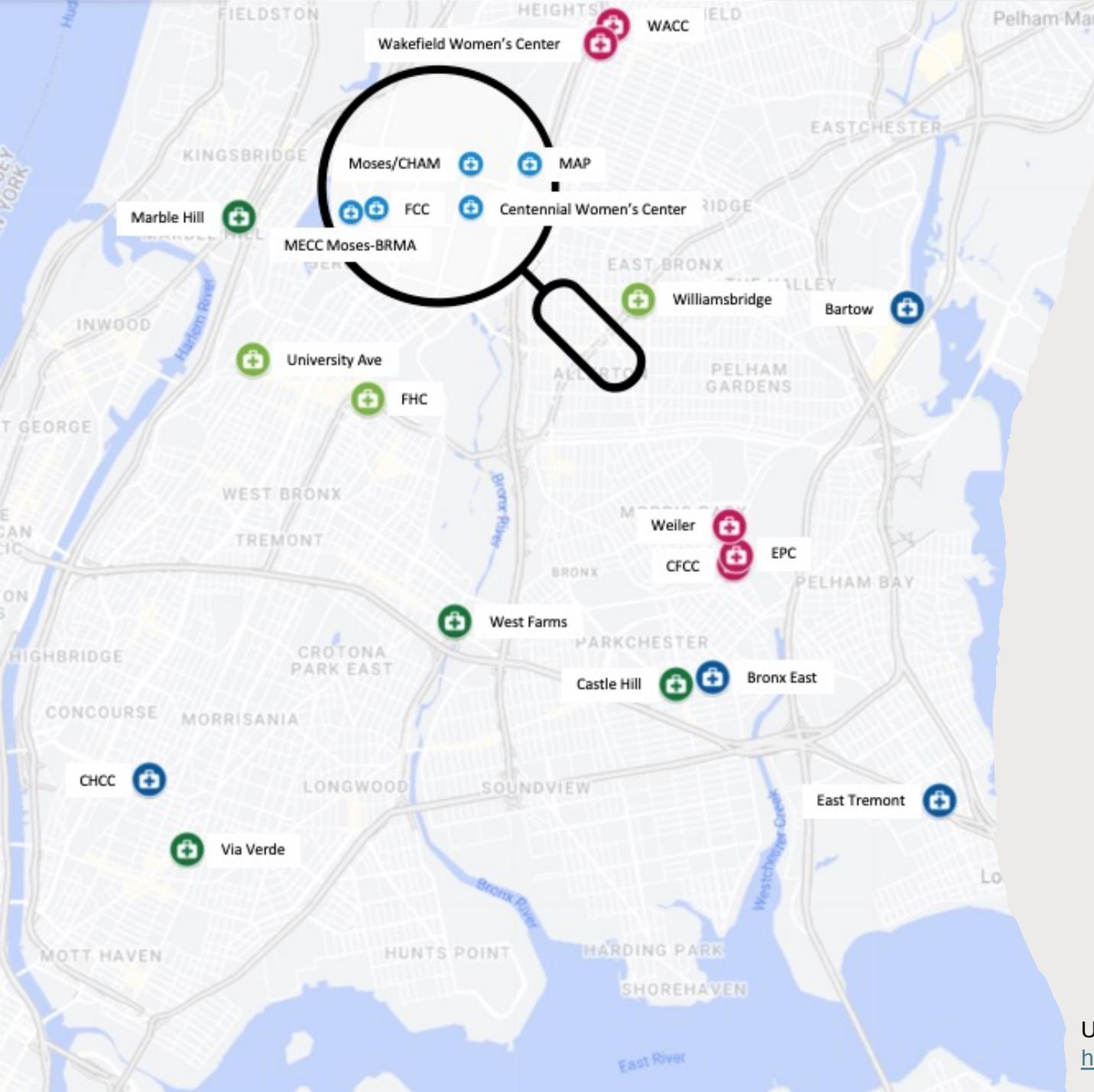
Bronx County

- 1.3 million residents

- Poorest county in the US

- 75% Medicaid recipients

- Montefiore Health System:
  - 11 hospitals
  - 68 primary care sites
  - 73 specialty care sites

US Census Bureau. QuickFacts Bronx County, New York.
https://www.census.gov/quickfacts/fact/table/bronxcountynewyork/PST045222

Bronx: Community Health Worker Institute

2017: Montefiore Health System began screening for health-related social needs (HRSNs)

- To date, **256,096** patients screened
- Jan-Apr 2024, **58,142** patients screened

2022: Community Health Worker Institute launched

- CHWs integrated within the health system

HealthLeads. The Health Leads Screening Toolkit 2023.
https://healthleadsusa.org/news-resources/the-health-leads-screening-toolkit/

		YES / NO
🏠	Are you worried that in the next 2 months, **you may not have a safe or stable place to live?** (eviction, being kicked out, homelessness)	Y N
🧍	Are you worried that the **place you are living now is making you sick?** (has mold, bugs/rodents, water leaks, not enough heat)	Y N
🍎	In the last 12 months, did you worry that **your food could run out before you got money to buy more?**	Y N
💡	In the last 3 months, has the **electric, gas, oil or water company threatened to shut off services to your home?**	Y N
🚗	In the last 3 months, has **lack of transportation kept you from medical appointments or getting your medications?**	Y N
🧑‍⚕️	In the last 3 months, did you have to **skip buying medications or going to doctor's appointments to save money?**	Y N
👩‍🍼	Do you **need help getting child care or care for an elderly or sick adult?**	Y N
⚖️	Do you **need legal help?** (child/family services, immigration, housing discrimination, domestic issues, etc.)	Y N
✋	Does anyone in your life **hurt you, threaten you, frighten you or make you feel unsafe?**	Y N

25 CHWs

Community Health Worker Intervention

- Community Health Workers are...
  - Recruited from neighborhoods where they will work
  - Trained
  - Salaried (full-time)
  - Supportive supervision model
- Work in outpatient, in-patient, and specialty care sites, including the cancer center
- Support patients to access social services through our network of 30+ CBOs
- Integrate social and medical care

Community Health Worker Institute

A patient attends an appointment or is admitted in-patient at any Montefiore facility

Patient (or patient's family) completes 9-item health-related social needs screener

If a social need is identified, provider asks patient if they would like to be connected to a CHW for assistance and places referral

CHW contacts patient to schedule initial phone or in-person appointment

RESEARCH

Advancing social care integration in health systems with community health workers: an implementation evaluation based in Bronx, New York

Kevin P. Fiori[1,2*], Samantha Levano[1,2], Jessica Haughton[1,2], Renee Whiskey-LaLanne[1,2], Andrew Telzak[1,2], Hemen Muleta[1], Kavita Vani[3], Earle C. Chambers[2] and Andrew Racine[1]

17% of patients screened reported 1 or more unmet HRSNs

78.1% of referred to CHW received social services

22.2% of those with HRSNs referred (3.7% to 68.7%)

Abstract

Background In recent years, health systems have expanded the focus on health equity to include health-related social needs (HRSNs) screening. Community health workers (CHWs) are positioned to address HRSNs by serving as linkages between health systems, social services, and the community. This study describes a health system's 12-month

Community Health Worker Institute

A patient attends an appointment or is admitted in-patient at any Montefiore facility

Patient (or patient's family) completes 9-item health-related social needs screener

If a social need is identified, provider asks patient if they would like to be connect to a CHW for assistance and places referral

CHW contacts patient to schedule initial phone or in-person appointment

Improving Referrals to CHWs

STUDY DESIGN

1. Identify barriers and facilitators to HRSNs referrals to CHWs

Hypothesis: if we know what they are, we can work to remove barriers (what's not working) and capitalize on facilitators (what is working)

2. Assess the integration of CHWs within clinical teams

Hypothesis: better integration of CHWs in clinical teams will improve implementation of referral process

Improving Referrals to CHWs

METHODS

- Semi-structured interviews with program implementers at multiple levels (CHWs, clinicians, CHWI staff)

- Guides were developed using the updated (2022) Consolidated Framework for Implementation Research (CFIR)

- Interviews were conducted via Zoom between November 2023 and February 2024 and were audio-recorded and transcribed using an intelligent verbatim technique

- Employed a rapid qualitative methodology for analysis

Damschroder LJ, Reardon CM, Widerquist MAO, Lowery J. The updated Consolidated Framework for Implementation Research based on user feedback. *Implement Sci*. 2022;17(1):75. doi:10.1186/s13012-022-01245-0

Results

INNOVATION

Evidence-base, Complexity, Design

Seminal quotes	Barriers	Facilitators	Seminal quotes
"We hope that the front desk follows through and schedules the patient before they leave. Which requires that the patient stops at the front desk, **which doesn't always happen**, and that the front desk schedules the appointment, **which doesn't always happen**." (Clinician)	• Confusion about referrals to social work or CHWs • Referral process may require multiple steps and individuals • Insufficient planning prior to CHW deployment	• High value for program and CHWs • Hands-on training for CHWs • Patient work queue • Knowledge on each person's role in the workflow	"Our current **CHWs are really good advocates**." (Clinician) "The training is okay. But I do like the **hands-on training** where I can actually know what a patient needs and where to go for resources." (CHW)

Results

INNER SETTING

Available resources, Culture, Communications, Access to Knowledge & Info, Compatibility, Relative Priority

Seminal quotes	Barriers	Facilitators	Seminal quotes
"There's always a **revolving door** when it comes to new residents. So, it's like they're never on the same page." (Program Staff) "The reality is, more and **more gets put on our shoulders**. But nobody's ever given us more time to do any of it." (Clinician)	• CHWs unable to text patients • Patient language and literacy • Resident and staff turnover at sites • Clinicians have limited time with patients	• Leadership buy-in • CHWs have space on site to see patients • Frequent communication between CHWs and clinicians • Continuous clinician education by CHWs	"They [clinicians] know who I am because every single day when I walk in, **I make sure I do rounds to remind them that the CHW is here** if they need any help or assistance and remind them to refer patients." (CHW)

Results

Seminal quotes	Barriers	Facilitators	Seminal quotes
"Some of the [patients] think that we can magically give them things...it's **a lot of education going on about what we can and cannot do**." (CHW) "I'm working 9 to 5 as well. So, it's just **difficult to accommodate the working individuals**." (CHW)	• Clinicians miss positive screens • Inappropriate referrals to CHWs (i.e., "patient dumping") • No flexibility in CHW schedules • Lag time between need and first CHW contact	• Patients see CHWs in person • Reminders about referral workflow • Clinician plays a crucial role in framing CHW to patient	"Recently a lot of patients wanted to come in and speak with me face to face, which I like. We get to **face to face interact with them** and show that I'm going to assist them with whatever they need help with." (CHW)

Results

Seminal quotes	Barriers	Facilitators	Seminal quotes
It's only going to be as good as the services. You can connect people to services, but **if the services themselves are not good then it's not going to help**. I've definitely been a little disillusioned by government run services for high-risk patients." (Clinician)	• High number of needs, including housing crisis • Social services overwhelmed • Scarce resources for migrants	• Strong collaborations with CBOs • Healthcare workers can serve as advocates in improving social services	"It would be great for community health workers to have **individual relationships with community organizations.**" (Clinician)

Improving Referrals to CHWs

NEXT STEPS

- Feedback from larger group of CHWs and CHWI program staff

- Recruit a group of stakeholders to develop change processes
  - *Identify important and changeable intervention components*
  - *Develop processes to implement and communicate workflow changes*

- Evaluate

Damschroder LJ, Reardon CM, Widerquist MAO, Lowery J. The updated Consolidated Framework for Implementation Research based on user feedback. *Implement Sci*. 2022;17(1):75. doi:10.1186/s13012-022-01245-0

Assessing Context in CHW Interventions

1. Is especially important given the roles of CHWs
   - *Primary program implementers*
   - *Work independently*
   - *Situated within communities where context is always changing*

2. Helps to avoid making assumptions
   - *What we think we know v what is actually happening*

3. Highlights complexity of the implementation sites AND the intervention
   - *Implementation strategies can be designed to fit into current workflows*

Rogers L, De Brún A, Birken SA, Davies C, McAuliffe E. Context counts: a qualitative study exploring the interplay between context and implementation success. *J Health Organ Manag.* 2021:802-824. doi:10.1108/JHOM-07-2020-0296

Context & Generalizability

- Ongoing conversation in implementation research
- Context: we see things for what they are, so it can be easy to impose our own understanding
  - *Remedy: formative research/evaluation*
- Critical realist approach to healthcare research

intervention fidelity

contextual fit

Rogers L, De Brún A, Birken SA, Davies C, McAuliffe E. Context counts: a qualitative study exploring the interplay between context and implementation success. *J Health Organ Manag.* 2021:802-824. doi:10.1108/JHOM-07-2020-0296

Sturgiss EA, Clark AM. Using critical realism in primary care research: an overview of methods, *Family Practice.* 2020: 37(1): 143-145. doi: 10.1093/fampra/cmz084

Jessica Haughton

jessica.haughton@einsteinmed.edu