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Emergency Department - Community Partnership to Coordinate Older Adults Falls Prevention Programs

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ABSTRACT

Falls and injurious falls are common causes for emergency department visits in older adults. Prior literature describing ED care of older adults has focused on the patients' injuries and their ED care. There is a gap in the literature describing community- based falls prevention strategies and interventions deployed by community organizations, beyond health systems. We identified variation in approaches to older adults among paramedic programs from one community to the next within Milwaukee County, Wisconsin. We also noted no organized falls prevention program spanning all communities, emergency departments and health systems in the county. We describe the implementation of the Milwaukee County Falls Prevention Coalition. We document participation in the coalition, the dissemination of a fall's prevention toolkit, and participation in outreach events. We document baseline falls rates, as an outcome measure which we will track over time. Emergency Department - Community programs can be implemented with the goal to prevent falls for older adults. Next steps include refining the falls prevention strategy and setting county-wide targets for reduction in falls rates based on implementation of targeted fall prevention interventions.

BACKGROUND

Every 11 seconds, an older adult in the United States is treated in the Emergency Department for a fall, accounting for 2.8 million injuries treated annually.[1] Older adults presenting to the ED after a fall are at greater risk for loss of function and balance, and depression.[2] Recent multidisciplinary guidelines cite the increasing frequency and severity of falls in older adults and ask that a higher level of care be provided in the ED. They recommend that the ED workup include "not only a thorough assessment for traumatic injuries, but also an assessment of the cause of the fall, and an estimation of future fall risk."[3] This recommendation recognizes that the ED has evolved beyond simply providing emergency evaluation and treatment. The ED is now a key site for the acute risk assessment and care coordination of frail older adults. Prior initiatives demonstrate that population-based fall prevention strategies can be effective when implemented in community settings. From this unique position in the geriatric continuum of care, ED providers serve as powerful advocates for community falls prevention programs.

We initiated our community fall prevention program through meetings with community paramedics, fire departments, and ED leaders. We learned that falls in older adults are a common reason for EMS calls in our community. Many of the individuals who have fallen are assessed by the paramedics and do not need or refuse transfer to the emergency department. Some individuals called EMS repeatedly for lift assistance, eventually requiring ED evaluation for their injuries and/or illness. While some community paramedic programs offered falls prevention resources, other programs did not. We found no consistent strategy to link those who had fallen to evidence- based community falls prevention programs. Further, the community falls prevention programs were not well integrated into ED care, nor into the primary care in our three local

health care systems. In short, we found poor coordination between those older adults who were at risk of falls, their primary care and emergency health care providers, and the community programs designed to prevent falls.

This paper describes a novel falls prevention collaboration between emergency departments and community-based resources- the Milwaukee County Falls Prevention Coalition (MCFPC).

METHODS

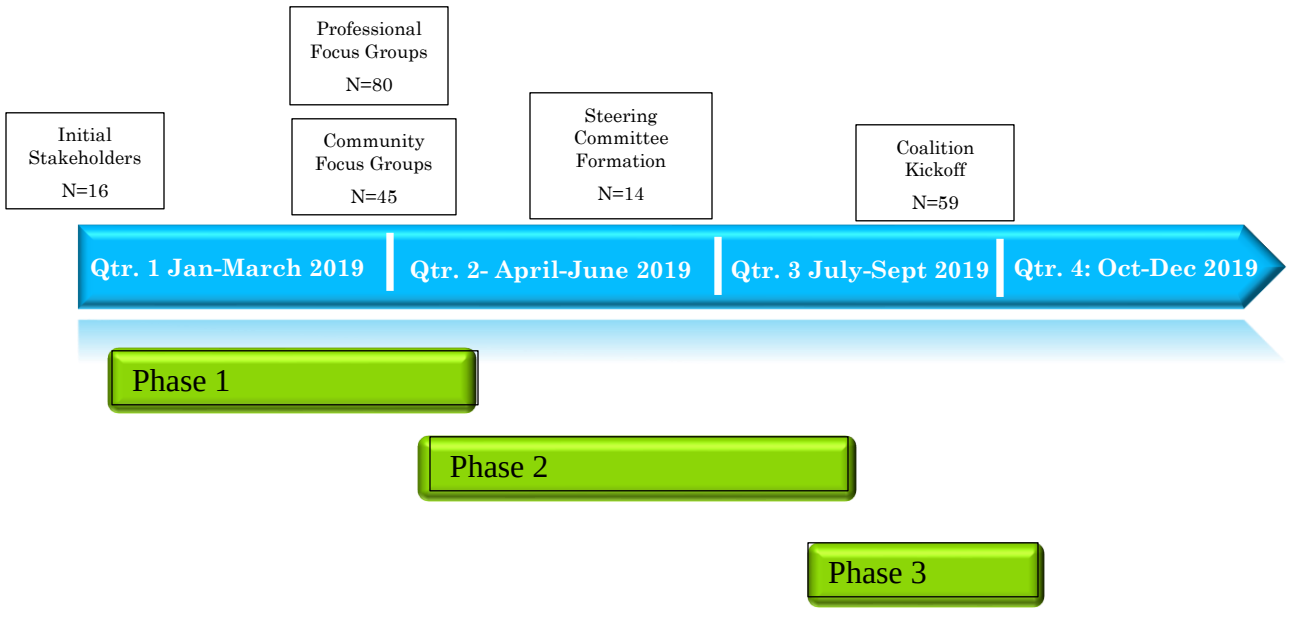
Settings and Services

This project was performed in Milwaukee County, Wisconsin with a population of approximately 945,000. The racial make up of the county is 61% White, 27% Black or African American, and 13% Hispanic. 13 % of the population is aged ≥ 65 years. The county is comprised of ten cities and nine villages. Several of the cities and villages have consolidated paramedic services. Three health systems serve Milwaukee County with nine local ED sites. The Department on Aging in Milwaukee County provides services for older adults in the community.

Stakeholders and Approach

The implementation of the coalition occurred in three phases which is outline in Figure 1. Initially in Phase 1, leaders from Advocate Aurora Health began meeting with other health system stakeholders to understand their perspectives. We then held stakeholder meetings over a period of six months with over 100 participants. We listened to the problems through the lens of older adults and their family caregivers We described the challenges to a community group of older adults and listened to their concerns. We then proposed a vision for a county-wide falls prevention coalition through the work of an interdisciplinary and interagency steering committee in Phase 2.

Figure 1: Implementation Timeline and Key Milestones



Strategies

We developed five strategies to address key areas of concern identified by stakeholders (Table 1). We then gained support from strategic partners in the health systems, community paramedic programs and home modification companies in the community in Phase 3 of the implementation (see Figure 1).

Table 1: Key Strategies for the Milwaukee County Falls Prevention Coalition:
1. Create access to fall screening and prevention programs in all communities in the county.
2. Build awareness of fall prevention strategies and community benefit through branding, education and communication.
3. Establish a network to link programs across the county and between different levels of care.
4. Capture data from across settings and leverage technology to identify patterns, track success of interventions, and prevent falls.
5. Educate the community on screening and intervention by leveraging the CDC STEADI toolkit across settings of care.

Funding

The program was funded for 3 years by allocating .3 FTE of a program manager and 0.05 FTE administrative assistant from Advocate Aurora Health Senior Services. .5 FTE of another position as program manager was funded from a philanthropic gift to the Aurora Health Foundation. The total salary support to administer this program is approximately $90,000 per year. We launched the Milwaukee Department on Aging Falls Prevention Coalition in December 2019.

Participants

Table 2 describes the participants in the Falls Prevention Coalition.

Table 2: Key Participants in the Milwaukee County Falls Prevention Coalition:	
Community primary care clinicians from multiple health systems.	Home repair / modification companies.
Physical therapists.	AARP leadership from Wisconsin.
Emergency department providers.	Geriatricians from multiple health systems.
Older adults from the community.	Senior Services leadership from health systems.
Department on Aging leadership.	Home health professionals.
Fire Department paramedics from multiple communities.	Public health nurses.
Evidence- based falls prevention program leaders.	Administrative support to build website and develop the social media strategy.

RESULTS

Engagement

Coalition participation increased by 10% over the course of the first year. Participation was defined by attendance in monthly coalition meetings and/or involvement in activities of the coalition. We also launched a website which featured national and local resources for fall prevention at www.mcfpc.net. The website has received 441 unique visitors with nearly 1,000 page views in the first three months since launch.

Deliverables

The coalition created a community fall prevention toolkit using national and local resources to promote fall screening, fall prevention and healthy aging. The toolkit was distributed digitally to the member organizations. Two thousand copies were distributed as folders with printed materials and flyers to senior dining programs, including in home meal delivery and community public health departments and EMS partners.

Over 2,000 individual contacts were made through social media during Falls Prevention Week between September 21 - 25, 2020. We likewise hosted live and recorded outreach events for clinicians and older adults which received over 600 views. The sessions described actionable steps to reduce falls by

leveraging the CDC STEADI Stay Independent Brochure and the National Council on Aging Falls Free Checkup. During one session the Milwaukee County Executive bestowed a Certificate of Commendation to the coalition for its contributions to Milwaukee County.

Patient Outcomes

Table 3 shows 2019 fall rates for older adults in Milwaukee County and the Southeastern Wisconsin region as reported by the Wisconsin Department of Health Services. In addition, the Milwaukee County Office of Emergency Management found a baseline rate of 1,422 EMS calls for falls per 100,000 adults in 2019.

Table 3: Adjusted Baseline Falls Rates for 2019 for Older Adults in Milwaukee County and the Southeastern Wisconsin Region:

Location:	Unintentional Falls Injury Visits per 100,000 for Adults age >=65 years:	Injury Hospitalizations per 100,000 for Adults age >=65 years:	Deaths per 100,000 for Adults age >=65 years:
Milwaukee County	4515	1301	205
Southeastern WI	4635	1358	182

DISCUSSION

This paper describes that implementing a community-based falls prevention program is feasible and leads to increased collaboration amongst community organizations, increased ability to reach community members, and the ability to leverage and disseminate evidence-based resources to the community in the form of a toolkit.

This project was developed based on challenges encountered as the health system was on its journey to create certified geriatric emergency departments. Geriatric emergency departments are designed to meet the unique needs of older adults in the ED through the use of geriatric-trained staff, standardized approaches to care of common concerns in the geriatric population, and quality improvement efforts to enhance the patient experience and outcomes. In the development of a protocol for older adults who had presented to the ED after a fall, the need for an upstream public health approach to address fall prevention was identified. This led to engagement with the Department on Aging in order to pull multiple organizations and agencies together from across the county. Because the coalition is integrated into the county department on aging, the project is likely to be sustainable.

A prior paper describes falls prevention interventions deployed in a large region of Connecticut.[4] That program encouraged providers across multiple, diverse sites to adopt effective risk assessments, and strategies for the prevention of falls. That large project involved numerous practice change interventions at 212 primary care practices, 26 home care agencies, 41 senior centers, and 133 outpatient rehab offices. The Connecticut project noted approximately a ten percent decrease in adjusted serious falls- related injury rates from before to after the intervention, as compared to no change in the usual care region. Given a similar impact for the Milwaukee County project, a reasonable goal would be to prevent 500 ED visits and 100 hospitalizations per year.

Another population-based intervention for the prevention of fall- related injuries in older adults described a significant reduction in hospitalizations and ED visits.[5] This paper was a randomized controlled community trial in Wisconsin and focused the implementation of the Stepping On programs in county departments on aging or health departments. This paper provides a local example to further develop falls prevention programs by integrating community programs with emergency departments and health care systems.

Several limitations should be noted. First, this work is still early in the implementation period. The outcomes described are preliminary. Second, the interventions are being implemented in one county, and hence may not be relevant broadly throughout the state. Third, most ED's do not have the band- width to

engage in public health strategies beyond their site. Lastly, the rate of hospitalization for acute injury (which we have chosen to track as a primary outcome) has fallen during the COVID-19 pandemic.[6] One potential strategy to engage the ED in this work is through the partnership with existing ED initiatives, such as trauma or injury prevention committees. Leveraging these existing committees and initiatives will not only enhance the knowledge of the coalition but ensure alignment between community and health system outcome measures.

This coalition is unique, and made potentially more impactful, through the combination of emergency and community perspectives and resources. It recognizes that ED providers are powerful advocates for reducing falls-related morbidity and mortality in their communities. The ED falls evaluation, risk stratification and referral to outpatient resources, is key to preventing future falls. To be effective in the hurried ED environment, fall prevention strategies require a rapid, standardized assessment and an expedited transition between the ED and community resources.

CONCLUSION

This program extended falls prevention from the ED to the community by joining multiple stakeholders in a public health strategy. The coalition demonstrated a 10% increase in participation in the first year and reached over 2,000 community members through outreach efforts. Next steps include refining the falls prevention strategy and setting targets for reduction in fall rates based on implementation of targeted fall prevention interventions.

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