

Sustainability Update: Step Up to Stop Falls

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Introduction

From 2007- 2015, the Health Foundation for Western and Central New York led a regional effort to reduce falls for older adults who were frail or at risk of becoming frail. The work included several initiatives, most notably, a series of learning collaboratives which engaged a variety of regional partners to make evidence-based change to both the individual behavior of local seniors and to providers' routine practice with elders. By comparing previous sustainability reporting from teams involved in the collaboratives with data obtained in a series of semi-structured interviews with past grantees, this report provides a view of the levels of sustained activity from collaborative efforts.

This report starts by providing the context necessary to understand the most current work. This is followed by an explanation of the methods used in this study, before providing a summary of the findings in section three. The report concludes with conclusions and suggestions for future practice.

Key findings regarding sustainability are:

1. **Community education and balance and exercise programs were most likely to be sustained.**
2. **Interest in expanding community education and balance and exercise programs is what each coalition sees as their primary focus for future work.**
2. **Programs engaging healthcare professionals have generally not been sustained.**
3. **If a coalition built a relationship with an EMS provider, this relationship and their engagement in falls prevention activities has been sustained.**
4. **All home safety activities have been sustained.**
5. **Three counties have secured new sources of funding.**
6. **Counties have experienced extreme turnover and staffing changes which has impacted the strength of the previous coalitions**
7. **Counties who were top performers during the original funding continue to stand out as most likely to have sustained and grown their work**
8. **Funding continues to be the primary need counties identify for sustainability**

Background

The Health Foundation for Western and Central New York has a long history of supporting organizations that are working to help older adults to live safely in their communities for as long as possible. A key focus of this initiative is their portfolio of work addressing risk factors for falls for older adults who are frail or at risk of becoming frail. Reducing this risk also reduces the devastating physical, emotional and financial impact of falls on seniors. Between 2007 and 2015, the Foundation invested over \$2.6 million in their initiative to reduce or eliminate the risks associated with falls.

The Foundation began their focus on preventing falls for older adults living in the community in 2007 with a grant to create the Western New York (WYN) Falls Prevention Consortium. Building on the success of the Consortium, the Foundation moved to focus on making sustainable local change in Erie County by funding the WNY Falls Prevention Collaborative (March 2009-May 2010). This Collaborative included 12 teams in Erie County which were awarded grants and participated in a learning community. Each team focused on changing individual and professional practice to reduce falls. This work culminated in the development of the widely-disseminated [Step Up to Stop Falls Toolkit](#).

The success of the WNY Falls Collaborative led the Foundation to expand their focus on making change through the learning collaborative model by funding the Step Up to Stop Falls regional collaborative from 2010 to 2012. This second Collaborative allowed six grantees from the original WNY Falls Collaborative to continue to expand their work to a new level, broaden the scope of impact and spread information about their work and successes throughout the community. The Collaborative also focused on building on the successes of the Erie county falls prevention work by funding seven community-based falls prevention coalitions in western and central New York. These coalitions, which included a minimum of four core partners and an executive leader, were in turn, able to implement multiple projects in Allegany, Cattaraugus, Genesee, Niagara, Onondaga and Tompkins counties.

The second phase of this work was aimed at previously funded county coalitions to help them be more successful in strengthening and sustaining their existing work. In addition, each coalition received funds to implement additional projects with a focus on multi-dimensional falls prevention programs and work that will have long-term sustainability. Professional practice change was expected to be part of this work. During this phase organizations In Erie County were invited to implement falls prevention projects that would lead to long-term sustainable community and professional practice changes to reduce falls and fall-related injuries. In addition, it was expected that this group of providers would engage together, and with other interested organizations, to create a community coalition that will work together to continue this work.

New counties in the Foundation service area were invited to develop coalition-led falls prevention efforts using the lessons learned in the previous 8 counties. Three coalitions were successful in completing the planning phase: Cayuga, Herkimer, and Oswego. Their work continued with Foundation support until summer 2015.

The experience of building coalitions and working in learning collaboratives to reduce falls and the risk of falls among older adults showed the value of employing a multi-disciplinary approach to the work. To ensure that all areas were addressed, each coalition undertook programming in a variety of areas, as outlined below.

1. **Community Education:** Community education programs focused on improving older adults and their caregivers' knowledge of the common causes and risk factors of falls in older adults. Community education may have been offered as a single educational event or may have been offered as an educational series involving multiple sessions.
2. **Balance and Exercise:** Balance and exercise programs focused on improving the strength and mobility of community-dwelling older adults. Examples of programs include "Six Steps to Better Balance", "Tai Chi", "Matter of Balance", and "Growing Stronger" among several other programs. These programs may have been offered in a community-based group setting or may have been offered one on one or through DVD in the home.
3. **Healthcare Professionals:** Healthcare professional programs focused on improving the knowledge and competency of individuals caring for older adults. The programs involved physicians, nurses, home healthcare aides and leaders within community-based organizations. These programs supported a variety of healthcare professionals to understand the importance of fall risk assessment in their care of older adults and provided support for improving their engagement of patients in understanding the impact of falls on older adults.

4. **Home Safety:** Home safety programs focused on helping older adults and their caregivers to identify hazards within their home and community that may contribute to their risk of falling. Examples of these hazards include the presence of a small throw rug, poor lighting in hallways, or loose railings on outdoor steps. The identification and remediation of these hazards helped reduce injury from falls.
5. **Medical Management:** Medical management programs represented a wide range of programs related to falls and fall risk. Examples of these programs included reviewing the prescriptions older adults were taking to identify medications that might increase falls risk, or working with local emergency medical services (EMS) providers to identify frequent fallers who might not go to the hospital after a fall. These programs looked more holistically at the medical needs of older adults and the linkage to falls risk.

A detailed summary of the work from 2009 through 2014 can be found in Appendix B. This draft final report from 2014 reviewed the activities within each of the above mentioned categories and the potential for sustainability within each category. It should be noted that any progress made by funded counties after 2014 is not covered in this report.

Methods

Semi-structured interviews were used in for the study as this approach allows questions to evolve over the course of research (Miles, Huberman and Saldana, 2013). In addition to this flexibility, the semi-structured interview also provides the researcher with an opportunity to uncover the “interdependencies and values of a system that can be harder to capture through quantitative methods” (Berkwits and Inui, 1998). A standard interview script was developed to gain an understanding of teams’ current sustainability efforts as compared with prior reporting.

The purpose of this qualitative analysis is to review the work of previously funded coalitions and determine the following:

1. The rate at which previously funded programs continued to be sustained within funded counties,
2. Where the work of the coalitions has grown and/or expanded into newly developed programs,
3. Where coalitions see the future needs of falls prevention activities, and
4. The current status of the coalition membership and viability including understanding if the coalition continues to meet routinely, and what organizations continue to participate in falls prevention activities.

Each of the ten previously-funded coalitions were contacted by email or phone to set up a semi-structured 90-minute telephone interview. Eight interviews comprise the final sample; two could not be reached, despite numerous emails, phone calls and support from the Foundation program team

. In addition to answering questions about their current work, participants reviewed the final sustainability reports that they submitted to the Foundation and compared them with their current activities. Follow up phone calls and emails were sent to each of the eight interviewees for further information and to summarize the outcomes.

Findings

The comparison of previously submitted work of coalitions to the information obtained during semi-structured interviews provides a comprehensive view of the sustainability of each county's falls prevention efforts. Information in this section is separated by topic area and summarizes the findings across all interviewed counties. A table summarizing programs sustained by each county can be found in Appendix A.

Community Education

Teams participating in the Step Up collaborative used community education activities throughout both phases of the collaborative. Increasing older adults' awareness of the risks of falls and providing education that falls are preventable, not inevitable, was a starting point for most teams' work. Teams also acknowledged that building knowledge is the first step toward accomplishing the behavior changes that are necessary to make falls prevention efforts successful.

Community education programs were universally implemented by coalitions. Most coalitions routinely conducted community based education on a variety of topics, which allowed them to incorporate falls prevention education into their work relatively easily. Some coalitions created large scale educational series, others conducted multi-disciplinary sessions that allowed older adults to hear about several aspects of falls risk at once, and others focused on the distribution of print and media items. In reviewing previous work in comparison to what counties are currently sustaining the following changes have been identified:

1. **All coalitions continue to conduct community education activities**, including events for Falls Prevention Day.
2. **Many coalitions continue to utilize the printed and social marketing material created by the Foundation.** There was specific interest in this material to continue to be available to counties. Many counties also continue to utilize a night light give away and find it to be one of their most effective items for engaging older adults in a conversation on falls.
3. **Many coalitions have decreased the scope of their community education activities.** For example, three coalitions that originally offered monthly educational sessions have found it necessary to reduce this to no more than three annually. Similarly, four of the coalitions that previously offered in person educational sessions are now relying to the distribution of print material or articles in a monthly newsletter instead.

Balance and Exercise

While a multi-dimensional approach to fall prevention is critical, the one most important feature of falls prevention programming is inclusion of balance and exercise. The Step Up Collaborative coalitions included exercise and balance activities in each of their workplans. The approaches to exercise included several evidence-based programs, such as OTAGO, Tai Chi/Qi Gong, Growing Stronger, Matter of Balance, Stronger Woman, Six-Steps to Better Balance, and yoga and modified strength and balance programs.

In reviewing previous work in comparison to what counties are currently sustaining the following changes have been identified:

1. **Most coalitions continue to maintain the evidence-based balance and exercise programs although there have been some changes in which program they are providing.**

Some coalitions have chosen to change which program they are offering. For example, a coalition may have offered Tai Chi during the collaborative but is now offering Growing Stronger. The decision to change programs was generally related to three different factors. First is the availability of staff trained in a specific program. If a coalition lost a trainer/leader of a program they may not have been able to afford sending a new staff member for training. A second factor are the routine training and participation costs of some evidence-based programs. Some were simply too high for a county to maintain, and therefore they changed what they were offering based on which program was financially sustainable. Finally, coalitions made changes based on the general interest level and participation by older adults.

As Step Up to Stop Falls was ending, the County OFAs learned they were required to offer evidence based balance and exercise programs. Those offering alternative programs ended these options and began focusing their efforts solely on approved programs. While most coalitions continue to offer these balance and exercise programs many are not offering them as frequently or they are not offering them in as many locations across the county. These decisions were based on financial sustainability as well as older adult interest.

2. **Sustainability the Stepping On program is threatened because New York State is not renewing their license with this evidence-based program.** Two counties offering this program are concerned about how they will be able to sustain this work in light of NYS's decision.

3. **Counties see offering new and innovative balance and exercise programs as one of their key interests for expansion.** Many coalitions note the creation of new programs that they are interested in trying locally but have concerns about the startup requirements.

4. **Counties also see expansion of balance and exercise programs as a need, but something they are not currently able to do because of competing demands.**

Healthcare Professionals

Teams engaged healthcare professionals through a wide variety of mechanisms, reaching a diverse group of professionals serving older adults. The main healthcare professionals teams focused their efforts on issues related to physical and/or occupational therapists, emergency medical services (EMS), physicians' offices, home health care providers, community volunteers, and hospital discharge planning staff.

In working with health care professionals, teams focused their efforts in three main areas. First, teams focused on increasing the knowledge of professionals working with older adults who are at risk for falls. A second focus was on increasing the engagement of professionals who may have regular access to an older adults' home and could be observant of potential falls risk. Finally, teams focused on increasing referrals from professionals who access older adults' homes and could serve as a conduit to the initiation of a further falls prevention efforts.

By comparing reviewing previous work to what counties are currently sustaining, the following changes have been identified:

1. **Seven of the ten participating counties are no longer participating in healthcare provider work.** Two of three counties who do maintain this work recently received renewed funding which has strongly influenced their ability to re-engage healthcare professionals
2. **Staff turnover has significantly impacted coalitions' ability to work with healthcare professionals.** Coalitions that have discontinued this work each experienced a change in their key contact from the medical organization, resulting in the end of the organizations' participation in the work.
3. **All counties acknowledge the importance of the medical community participation but have uniformly struggled to engage them.**

Home Safety

Environmental factors contribute to about half of the falls that occur in the home and the home is the most common place where older adults fall. For this reason, every coalition in the Step Up to Stop Falls Collaborative incorporated a home safety component into their work plans. The approach to home safety varied greatly and included:

- a. Educating older adults about the potential fall hazards that may exist in a home,
- b. Having older adults assess their own homes, seeking any hazard that might create a fall risk,
- c. Educating healthcare professionals on the potential home hazards that increase fall risk, and
- d. Having a health care professional assess all or part of an older adult's home to identify specific hazards.

Originally developed by the University at Buffalo Department of Rehabilitation Science for the Step Up Toolkit, the Home Safety Self Assessment Tool (HSSAT) was used by most projects. The tool was created as a guide for assessing an older adult's home, room by room, to identify common hazards that may be present at the point of assessment. The tool also offers tips for resolving identified issues, local resources for falls prevention (when applicable), and guidance on the availability of adaptive equipment.

In reviewing previous work in comparison to what counties are currently sustaining the following changes have been identified:

1. **All counties are maintaining their home safety programing with very little change.**
2. **Because the HSSAT has become embedded into the assessment OFA staff complete with older adults, this continues to be completed across all counties.**
3. **There continues to be minimal intervention when hazards are identified.** Three of the ten counties maintain relationships with community programs that can offer low cost or no cost home improvements, but the extent to which they can help continues to be very limited.
4. **While this work is sustained, it is not a focus for any county currently.**

Medical Management

To expand the multi-dimensional effort of the Collaborative work, several projects included medication review and/or management. This was based on the evidence that specific medications and/or a regime of four or more medications can create fall risk factors for older adults.

1. Engaging pharmacy students with staff and residents at an assisted living facility.
2. Adding medication review to a multi-factorial approach to falls prevention by a certified home health agency with nurse and therapist role changes.
3. Incorporating a pharmacist as a member of the home care team for medication review.
4. Engaging pharmacy students to work with community-based providers to change rural practice.
5. Engaging a community pharmacy as a partner in the education of older adults with increased awareness for the implications of medications in falls risk.
6. Educating therapists to be aware of the falls risk associated with medications.

Another core part of the medical management was engaging EMS providers in falls prevention efforts. This service professional is often overlooked by standard falls prevention efforts, yet EMS providers are the only person an older adult can call any time of day if they have fallen and are unable to get up. The truth is that EMS providers are frequently called on as the silent support to older adults who are experiencing a high quantity of falls.

In reviewing previous work in comparison to what counties are currently sustaining the following changes have been identified:

1. **Only two of the coalitions continue a strong relationship with pharmacy students**
2. **All work with individual and private pharmacies has not been sustained**
3. **The engagement of EMS services continues to be strong in counties with previous experience.**
All counties who had built strong relationships with EMS has been able to maintain these connections. In 2 counties the use of data for individuals who fall is not reviewed as frequently, but this data is still part of annual meetings and reports
4. **Two counties have since begun to engage EMS providers** after seeing the successes through Step Up to Stop Falls

Sustainability of Coalitions

In the process of gathering data for this evaluation of sustainability efforts, it became clear that there had been much change in composition of these groups. Every coalition had experienced the loss of at least two core team members in the coalition, and two coalitions are now spearheaded by new organizations. The impact of turnover was felt most strongly in the healthcare professional and medical management areas. Six of the coalitions lost their primary health workforce lead, and most have not been able to replace this part of their coalition.

Coalitions who had the strongest outcomes and coalition structure during funding were most likely to have the strongest sustainability outcomes at this interview. Furthermore, smaller and more rural coalitions were also highly likely to have strong ongoing coalition strength due to their need to work together frequently on a variety of healthcare topics. Only four coalitions state they still meet specifically to review county needs for falls prevention.

Conclusion and Recommendations

In conclusion, the work of the Step Up to Stop Falls Collaborative and the individual coalitions continues to influence the older adults in each of the funding counties. There has been much change to “how” this work occurs as well as “who” is taking the lead to keep the work sustained. Organizations struggle with several competing demands and a drastically changing healthcare landscape as the work to sustain the programs and their outcomes. Universally, coalitions identify participation in this collaborative as one of the best experiences they have had to work as a multi-disciplinary team and see improved outcomes for the older adults they serve.

A summary of key findings regarding programmatic sustainability are:

1. **Community education and balance and exercise programs were most likely to be sustained.** While most coalitions have been able to sustain some level of these programs, most coalitions have significantly reduced the scope of these programs since funding ended in 2015. Sustainability of these programs has been threatened by staff turnover, loss of certified trainers in evidenced-based programs, and increasing fees charged by evidence-based programs.
2. **Programs engaging healthcare professionals have generally not been sustained.** Building and strengthening relationships with healthcare providers was a key focus of the second phase of this work and quickly identified as a weakness when coalitions first began. While coalitions were able to build these relationships, the loss of funding along with staff turnover and a decrease in routine coalition meetings resulted in several of these programs ending.
3. **If a coalition built a relationship with an EMS provider, this relationship and their engagement in falls prevention activities has been sustained.** Coalitions have become an asset to EMS providers who are struggling with sustainability and the impact of frequent calls for non-emergency situations. This has been especially beneficial in supporting volunteer squads in rural communities.
4. **All home safety activities have been sustained.** This is primarily the result of a County Office of the Aging (OFA) policy change which incorporates home safety assessment into the intake and routine assessment of any older adult receiving services.
5. **Three counties have secured new sources of funding.** These three counties have the strongest levels of program sustainability and are utilizing this new funding to revitalize work done during their participation in Step Up to Stop Falls

References

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Miles MB, Huberman AM, and Saldana J. *Qualitative Data Analysis: A Methods Sourcebook.* 3rd ed. Thousand Oaks, CA; London, UK: SAGE; 2013.

Appendix A

Sustainability Summary:

Below is a table summarizing the programs sustained in each county interviewed.

Green Box: Sustained Program

Red Box: Unsustained Program

Gray Box: Not a program the county offered during Step Up to Stop Falls

Black Box: County not reached during interview process

County	Balance and Exercise	Community Education	Healthcare Professionals	Home Safety	Medical Management
Allegany	Green	Green	Red	Green	Green
Cattaraugus	Green	Red	Red	Green	Green
Cayuga	Black	Black	Black	Black	Black
Erie	Green	Green	Green	Green	Green
Genesee	Red	Green	Red	Green	Green
Herkimer	Green	Green	Green	Gray	Gray
Niagara	Black	Black	Black	Black	Black
Onondaga	Green	Green	Red	Green	Green
Oswego	Green	Green	Green	Gray	Green
Tompkins	Green	Green	Green	Green	Green

Appendix B: Summary Report on Phase 2 Collaborative



Summary Report on Phase 2 Collaborative

December 2012 – June 2014

Prepared by the Collaborative Faculty Team

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The *Step Up to Stop Falls*[™] Falls Prevention Collaborative (*Step Up*) is part of the Falls Prevention Initiative supported by the Health Foundation for Western and Central New York (Foundation). The goal of the initiative is to prevent falls, and the injuries that result from falls among older adults living in the community who are frail, or at risk of becoming frail, and reside in counties served by the Foundation. This work incorporates a multi-dimensional focus aimed at:

- Behavior change and other interventions targeting older adults who are at risk for falls.
- Professional and caregiver practice change to support a better understanding about falls and fall risks, and to promote action among providers for identification of fall risks, use of standardized assessment, and use of interventions that target fall risks .

Background

Falls are the leading cause of injury, deaths, hospitalizations and emergency department visits among adults 65 and older. Each year, one in every three adults age 65 and older falls, and one in every two adults 80 years or older falls.

The Health Foundation for Western and Central New York is committed to reducing falls among community dwelling older adults who are frail, or at risk of becoming frail, to help ensure they can continue to live safely in the community for as long as possible. Reducing falls minimizes the devastating physical, emotional, and financial impact resulting from falls. Since 2007 the Foundation has invested more than \$2.6 million to reduce or eliminate the risks associated with falls.

In 2007, the Foundation began its support of a falls reduction initiative through the Western New York Falls Prevention Consortium which gathered interested providers to begin learning about best practices and the impact of falls. This work led to the first collaborative, the WNY Falls Prevention Collaborative (March 2009-May 2010), with 12 grantee teams in Erie County. As part of their work, the Collaborative developed the Step Up to Stop Falls Toolkit which became a valuable resource for expanding the work.

Building on the success of the WNY Falls Collaborative, the Foundation supported a larger regional collaborative, Step Up to Stop Falls from 2010 to 2012. This Collaborative included six previous grantees from the WNY Falls Collaborative who received grants to expand their work, broaden the scope of impact and spread information about their successes throughout the community. In addition, the Collaborative funded seven community-based coalitions in western and central New York. These Foundation-supported coalitions have each implemented multiple projects in Allegany, Cattaraugus, Chautauqua, Genesee, Niagara, Onondaga and Tompkins counties. Each of these coalitions has at least four core partners and an executive leader. Several of the coalitions also engaged a group of secondary partners to expand their reach throughout their counties. The involvement of the executive leaders was significant and most coalitions had the active support of these leaders throughout their work.

The 2010-2012 Collaborative also included a robust evaluation with three components:

1. The project-related success through numbers served, project quality and outcome
2. The value of the process and structure of the shared-learning Collaborative structure
3. The cross-collaborative impact of the Collaborative which was based on data from common measures used across many of the projects

The external evaluation reports from Phase 1 are available from the Foundation. This report summarizes the final grantee reports for the 44 projects in the Step Up to Stop Falls Collaborative from

2012-2014 referred to as Step Up to Stop Falls - Phase 2. This summary and previous evaluations report on the improvements made at the project level to reduce individual risk or practice change. Recent New York State Department of Health data shows population-based improvements at the county level for hospitalizations due to falls for the counties participating in Step Up. While there may have been other causes for changes in population experience and the analysis of this data is not yet complete, it appears that in the time period between 2008 (which is the year prior to the first regional Collaborative) until 2012 (the year with the most recent data summarized) the incidence of hospitalizations due to falls dropped more in all of the participating Step Up counties as compared to the overall decline across NYS.

The feedback gained from the Collaborative Process evaluation conducted for Phase 1 was used throughout both Phase 1 and Phase 2 of Step Up to modify support and structures to maximize benefit. Given the high value of the structure of a Collaborative, and specifically the value of peer and faculty shared learning, the Collaborative was designed to facilitate cross-project learning. Discussion groups and some coaching calls were held by topic so that those working with specific projects, for example, physician offices, had time to share their successes and challenges. The result was cross-fertilization of ideas that began at the first Learning Session and continued throughout the Collaborative.

Step Up to Stop Falls-Phase 2:

The support of Phase 2 was aimed at previously funded county coalitions to help strengthen and sustain their existing work. In addition, each coalition received funds to implement additional projects with a focus on multi-dimensional falls prevention programs and work that will have long-term sustainability. Each coalition was expected to include work with health care professionals to change clinical practice. In Erie County, previously successful grantees were invited to implement falls prevention projects that would lead to long-term, sustainable practice change for community agencies and in professional practice. In addition it was expected that the Erie County grantees would engage together, as well as invite other interested organizations, to create a community coalition that will be responsible to sustain fall prevention work.

Also, new counties in the Foundation service area were invited to develop coalition-led falls prevention efforts using the lessons learned in the previous 8 counties. Three coalitions were successful in completing the planning phase: Cayuga, Herkimer and Oswego. Their work will continue in implementation with Foundation support until summer 2015. The results of their work are not included in this summary.

Sustainability of Previous Work and Expansion of Reach to Older Adults

The coalitions showed strength in their ability to continue their work with exercise, home safety and community education. All of the counties were able to continue their exercise programs. In some cases the number of programs decreased but efforts were directed at strengthening the exercise programs that were retained. Yet, in other cases, grantees were able to add more programs reaching new parts of their counties. All of the counties were able to continue home safety. Those who are most successful with this process have integrated home safety into the work of someone (homecare professional, family member, service provider) who is already in the home. Community education was also most successful when integrated into existing programming such as the ongoing programming of an Office for the Aging.

Overall 28,675 older adults and caregivers were reached through Phase 2 projects, including 2079 in outpatient or home care therapy, 1538 in exercise, 4,334 in home safety, and 16,977 through education programs. While demographics were not collected on all participants, if participation was similar to the previous cross collaborative evaluation of Phase 1, then about 80% of those who were reached were female. Because similar outreach was used to attract participants, it is expected that the projects continued to be successful in reaching “old-old” adults which means that at least 30% of those who participated in exercise were over 80. The community-based programs have been successful in reaching older adults before they experience the trauma of a serious fall.

In Phase 1, documentation focused on the impact to the older adults who participated in programs offered to them. Phase 2 however had a stronger focus on procedure and practice change so data was not collected on every older adult who was impacted by this work. Even so, the results continue to provide the same message as was found in the cross-collaborative evaluation of Phase 1. If older adults learn more about fall prevention, they believe they can and will make changes to reduce their fall risk. If older adults participate in exercise, their risks will decrease. Regardless of which standardized physical measures were used, older adults were able to perform better in post tests demonstrating reduced risk. Older adults demonstrated improved mobility, balance, and strength, all of which also led to anecdotal comments about improved quality of life.

The challenge with home safety continues to be the older adult’s acceptance of allowing a provider to enter the home to conduct the assessment. Coalitions found that using staff who are already in the home, such as home care staff and case managers, was most helpful. In addition, they found that starting the safety assessment with one room increased acceptance. Counties that had connections to handyman services had the best results for achieving change to identified risks. The Home Safety Self Assessment Tool (HSSAT) is easy for older adults and their family members to use and the latest revision adds an online version and video instructions.

To impact an increased number of older adults and to reach those whose lives have already been affected by an injury-related fall, Phase 2 emphasized changes to clinical practice of health care professionals.

Expansion to Professional Practice Change

Most of the previous work (Phase 1) focused on reaching older adults and family caregivers to bring them education, exercise and improved home safety and reduce their risk for falling. In Phase 2, the emphasis of the work shifted to focus more specifically on professional practice change. In previous work, projects that included professional practice were able to achieve substantial changes in factors such as therapist competency, consistency in practice when working with patients after a fall, and integration of new procedures for EMS workers when responding to fall-related calls. To provide a framework for continued expansion and strengthening of these initiatives, most of the grants in Phase 2 were given to coalitions/grantees to focus on professional practice change.

Projects worked to improve medication management, engage EMS personnel, and reach therapy and nursing students, as well as to change practice in rehabilitation services and primary care physician offices. As part of the work to change professional practice, two Erie projects implemented multi-factorial projects in certified home health agencies to move their work from stand-alone projects to processes that impact ‘systems’ in the way they work with at-risk older

adults. In total, almost 3,300 health professional and students were reached with education and practice change.

The shift toward work on professional practice change was challenging in many respects. Therapists juggle pressures to provide billable services and expectations for evidence-based practices with the reality of time constraints. A noted result was a reluctance to add anything new, but perhaps more striking was the push back that accompanied their perceptions that they already include falls prevention. From earlier projects, it was demonstrated that therapists approached fall prevention in many ways, but most often from a 'balance' and 'safety' aspect based on the completion of a simple balance screening/assessment as well as a basic inquiry about home environment (e.g. stairs, throw-rugs). It was noted that therapists in practice had few common methods or procedures to ensure accountability for assessment/screening, intervention, and documentation aspects of their work. Some of the most exciting work in Phase 2 included changes to the electronic data systems (EHR) that support ease and compliance in documenting falls risk assessment data, therapeutic practices and treatment outcomes. Complementing this work was extensive training of therapy staff to increase competency with standardized assessments and interventions and to prepare them for this more comprehensive, multifactorial, evidence-based approach.

An area of significant practice change integrated professional pharmacy schools which allowed clinical placements of students to work and train in a residential setting and with a rural community's community-based services. Pharmacy students and secondarily, primary care physicians, learned about medications that increase fall risk and how to adjust both medications and medication regimens to reduce these risks. This created a win-win situation with both the addition of a rich learning experience for the students and the addition of a new way to enhance clinical practice with a focus on medication assessment.

The backdoor approach to reaching physicians through medication management proved more successful than the work that ensued to engage primary care physician offices using the CDC endorsed STEADI (Stopping Elderly Accidents, Deaths, and Injuries) toolkit. Despite the persistent efforts of six projects, only a few physician offices incorporated a falls risk screening, or assessment, into their practice. However, many primary care offices were interested and responded favorably to the continuing education and pharmacy consult regarding the impact of medications to falls risk. As another benefit, engaged primary care physician offices increased referrals to community falls prevention programs. In these times of tremendous change in regulation, reimbursement models, and documentation technology, the coalitions found they were able to make only small changes in professional practice. In addition, the resistance to data collection left grantees with sometimes uncertain or incomplete information regarding their impact.

Working to change professional practice clearly requires a champion, whether it is a leader in an EMS group, a professor at a school, or a physician in an office practice. Once a champion is engaged, the coalition can support the champion with resources and services.

Conclusions and Recommendations

The Health Foundation's initiative in falls prevention began in 2007 as a small local effort in Buffalo, New York. The Foundation encouraged those who provide care and services for older adults to share what they do and work toward adopting some common practices and awareness of services that could be recommended for the communities involved. Over time, this work expanded to 11 counties in Western

and Central New York. In Phase 2 this included over 40 projects that are summarized in this report as well as about 9 projects led by three new CNY coalitions as well as a number of other projects that continue from previous Collaborative work.

County-based, coalition-led efforts for falls prevention are a successful way to integrate practice change in communities. The drop in rates of hospital admissions as a result of falls in the Step Up counties validates the strength of this coalition work where several projects, led by different partner organizations, moved forward at the same time. The Foundation's support of this work over seven years provided reinforcement and structure to embed changes that will be able to continue indefinitely.

Building from the recommendations that were included in the 2012 cross-collaborative report and the experience of Phase 2, the following recommendations result:

- Communities should continue to focus on education, exercise and home safety. The work should shift from sharing knowledge and assessment of risks to establishing behavior change with specific focus on exercise and comprehensive home safety assessment. While most falls are preventable, they have a more devastating result when older adults fall, making it imperative that continued efforts to reach older adults involve education and prevention strategies important.
- The two home health projects, and the out-patient rehabilitation project, demonstrated that changing professional practice improves the clinical outcomes for older adults. This success suggests that expansion of coalition efforts should focus on practice change in home health and out-patient therapy settings has the potential for significant impact on those who are most at risk for falling and injury-related falls.
- A broad, multi-factorial approach was demonstrated to be most effective and should be continued. Coalitions expanded both their reach and scope through adding new factors of focus, such as medication management, and through engaging new partners. For example, this work brought together pharmacy schools with community-based services, and a local YMCA with aging services. By working together, these organizations achieved mutually beneficial outcomes as well as sustained fall prevention projects that continue to serve older adults. These types of relationships have the potential for wide replication.
- Opportunities to continue to impact the professional practice of physicians, nurses, occupational therapists, physical therapists, EMTs, pharmacists and others who care for older adults are significant. Workforce development efforts can integrate the assessment and management of falls risks to improve outcomes of care for older adults.

Exercise and Balance

Summary

While a multi-dimensional approach to fall prevention is critical, the one most important feature of falls prevention programming is inclusion of balance and exercise. The Step Up Collaborative coalitions and projects include exercise and balance activities initiated in Phase One and continued, modified and/or expanded in this phase of work. The approaches to exercise included several evidence-based programs:

- a. OTAGO
- b. Tai Chi/Qi Gong
- c. Growing Stronger
- d. Matter of Balance
- e. Stronger Woman
- f. Six-Steps to Better Balance
- g. Yoga and modified strength and balance programs.

All of these programs were evidence based except Six-Steps. Six Steps training is well distributed in the region with support from Excellus Blue Cross.

Programs for older adults took place in a number of locations, including the YMCA, senior living centers, senior centers and day programs, churches, congregate meal sites, hospitals, rehab facility, and during community events. The exercise program locations included both city and rural areas, with a large geographic spread in some counties. As was noted in the Cross-Collaborative evaluation many coalitions are effective and in this phase became more effective in reaching older adults who live throughout their counties.

Key Findings

Older adults

Of the 7 coalitions, 9 projects included exercise or balance programs in this phase of work, most achieved their goal for enrollment and the programs were effective in retaining participants for their planned sessions. By engaging a vast network of over 550 professional caregivers, health practitioners, and trained lay persons, exercise and balance-based programs were carried out and data collection for outcome measurement was achieved with over 1500 older adults.

Number reached and participating

Older adults	Professional Caregivers	PT/OT	MD & Pharm	Students & Faculty	Volunteers & Trainers
1538	147	105	68	169	67

Comparing reach to the previous phase, more older adults, as well as those who led programs, were reached in Phase 2. This does not include those reached by projects that are fully sustained in Phase 1 and were not included in this report. Most of the exercise projects continued to focus on older adults who reside in the community. While data wasn't gathered on demographics, it is expected that the projects continued with their success in reaching a high number of people over the age of 80.

In this phase of work some projects focused on attracting older adults with hearing, vision, or mobility issues, while adapting exercise programs for these groups. One team specifically targeted very frail elders, developmentally disabled older adults and adults with limited literacy, English skills, or those who were considered low income.

Physical measures such as pre-to-post test scores on TUG, sit-to-stand test, 2-minute step test, functional reach test, arm curl test, back scratch test, were used to measure effectiveness for many of the programs. Effectiveness was realized in the majority of older adults involved in programs across all teams, as demonstrated by data analysis by each team. All teams reached their set goals, with percentages of older adults performing better at post-test on the standardized tests.

Specific evidence-based programs were effective in improving balance, strength, and overall health in many of the teams work. In Allegany county, for example, Growing Stronger participants continued to demonstrate better health outcomes, improved mobility, flexibility, and strength, according to both qualitative and quantitative data; leading to an improved sense of independence and opportunity to "Age in place." Similarly, Six Steps to Better Balance program results from pre/post survey reflected a reduced fear of falling and an improved sense of balance by the majority who completed the program. For patients in physical therapy who participated in the OTAGO program, results indicated improvement in balance.

To expand their exercise and balance programming, some teams partnered with faculty and students, recruited trainers who received training, YMCA staff, professional caregivers, physical and occupational therapists, and volunteers. To train staff/volunteers to conduct exercise and/or tai chi programming, online training or certified/trained trainers were utilized. Many teams conducted frequent fidelity checks to ensure the programs were being carried out properly.

To spread the word about exercise and balance programs offered for older adults, various forms of media were utilized. This included print and radio, advertisement and highlighted articles featuring falls prevention activities and information in publications seniors would access, physician office materials,

Qualitative Measure Results

Participants reported their health was better because of the exercise program, that they felt physically stronger, had more energy, slept better, experienced less pain, and had become more active.

Older adults also expressed to their exercise instructors that they felt the program had benefitted them in the areas of balance, overall confidence in avoiding falls as they move about, and increased awareness of falls risks.

community resource guides, and other materials. Presentation on falls prevention often led to greater interest and participation in programming. Presentations were also effective for increasing physician referral to community exercise programming, in addition to their referral to PT.

Other benefits:

Many of the exercise programs added components to make a multi-factorial approach. Some included medication reviews, falls prevention education, and one included use of a Personal Health Record (PHR).

“detection of critical drug interactions were addressed with the patient's physician”

Conclusions

Through efforts to engage older adults in exercise, balance programs, tai chi or qigong, awareness surrounding falls prevention increased within agency programs, and the community. Falls prevention programming was in demand by older adults. The older adults learned that they liked the exercise programs and that if they continued with exercise they reduced their risk for falling.

This work led to many other types of successes. For example, more referrals were received from primary care physicians, and OT/PTs due to improved trust and greater awareness of falls programming. The limited number of visits allowed by insurance companies for patient rehab has led providers to recommend community-led evidence-based programs. Interest often exceeded ability to offer programming.

Many older adults were exposed to Tai Chi who had no prior knowledge of this form of exercise. It also provided an opportunity for many of them, who had not been taking part in any exercise, to take part in an exercise program on a regular basis.

Introducing medical professionals, such as PTs, to OTAGO helps them become more active in falls prevention with their patients bringing falls prevention to an at-risk population.

Coalitions have been able to embed programming into the existing services of their partner agencies positioning them well to sustain this work for the future. Continued offering of exercise programs are planned at the same or slightly reduced levels will need focus on the following:

1. Coalitions will need to continue to work with obstacles including having enough trainers and trained volunteers, conducting fidelity checks to ensure competency, maintaining agency support to include in program budgets, promotion to reach interested older adults and data collection for both the sponsor agency and for participating individuals.

Home Safety

Summary

Environmental factors contribute to about half of the falls that occur in the home and the home is the most common place where older adults fall. For this reason, every coalition in the Step up to Stop Falls Collaborative and some of the Erie grantees incorporated a home safety component into their work plans. The approach to home safety varied greatly and included:

- e. Educating older adults about the potential fall hazards that may exist in a home,
- f. Having older adults to assess their own home, seeking any hazard that might create a fall risk
- g. Educating healthcare professional on the potential home hazards that increase fall risk
- h. Having a health care professional assess all or part of an older adults home to identify specific hazards
- i. Educating first responders and Emergency Medical Service (EMS) providers about the potential home hazards that increase fall risk

Originally developed by the University at Buffalo Department of Rehabilitation Science for the Step Up Toolkit, the Home Safety Self Assessment Tool (HSSAT) was used by most projects. The tool was created as a guide for assessing an older adult's home, room by room, identifying common hazards that may be present at the point of assessment. The tool then offers tips for resolving identified issues, local resources for falls prevention (when applicable), and guidance on the availability of adaptive equipment.

While this tool was designed to be completed by the older adult/family as a self-assessment, several projects involved use of the tool by healthcare professionals as a standard approach to assessing potential hazards. Only a few projects approached home safety with other methods.

Key Findings

Older Adults

Many teams began their home safety work by creating greater community awareness regarding the significant impact ones home environment might have on their risk of falling. This education typically occurred through community presentations and the distribution of material. These events typically occurred at Senior Living Centers(48) and Congregate Meal Sites(14), with the session focused on both on raising awareness and on encouraging older adults to have their home assessed for potential risk.

The organizations involved in this collaborative were highly effective at getting older adults to agree to a home safety assessment. A common barrier to this work is hesitation by the older adult to have their home assessed. The experience of teams found that older adults were more likely to agree to having one room assessed rather than their whole home. Several teams also noted that older adults preferred to have common living spaces (living room, kitchen) assessed rather than more private spaces (bedroom, bathroom). Teams also acknowledged that most older adults were willing to make many changes based on the findings of this assessment. Not all teams tracked the overall percent of targeted home hazards that were resolved, but of those who did, on average 71% of targeted home hazards were resolved (3 teams 74%, 55%, 86%). Teams

report that the presence of a “handyman” or low cost/no cost home repair program is critically important to the success of many home safety programs. Building a strong relationship with the local program allowed several teams to support older adults to make structural changes to their home that significantly reduced their overall risk of falling. The lack of a program often meant some of the most serious hazards went unresolved.

Community education	3061 older adults	1273 caregivers
Home Assessment	2725 homes	71% hazards were resolved

Comparing this reach to the previous phase, about 500 more home assessments were conducted during this phase as reach expanded.

Healthcare Professionals

Teams engaged healthcare professionals through a wide variety of mechanisms, reaching a diverse group of professionals serving older adults. The main healthcare professionals teams focused their efforts on included:

- a. Physical/Occupational Therapists
- b. Emergency Medical Services(EMS)
- c. Community Volunteers
- d. Hospital Discharge Planning Staff

In working with health care professionals teams focused their efforts on :

- a. Increasing the knowledge of professional working with older adults at risk for falls
- b. Increasing the engagement of professionals who may have regular access to an older adults home and could be observant of potential falls risk.
- c. Increasing referrals from professionals who access older adult homes and could serve as a conduit to the initiation of a home assessment.

Team Highlight: Cattaraugus County

A HSSAT was completed for a 62 year old woman with Sarcoidosis, among other health issues. She has very little lung function and is on oxygen continuously. Her two daughters currently live with her, one has Cerebral Palsy. During the home safety assessment, two hazards were identified - a lack of a railing for part of the basement stairs and a lack of a railing for the stairs on the back porch. With the client's permission, a referral was made to Bona Responds for assistance with railing installation. During that time, The Bona's director assessed the front porch and saw it could use some repair. At this time, the client also mentioned that a ramp was supposed to be built for her daughter. He agreed to come back at a later date and not only repair the front porch, but also install the ramp. Not only will the ramp enable the daughter to have more independence, it also will provide the client with a greater ease in getting in and out of her home. The client expressed great satisfaction with the work the Bona Responds group has already done, and she is looking forward to the upcoming projects.

Through these efforts teams found the greatest success at increasing the knowledge of healthcare professionals working with older adults. They found often professionals working with older adults regarding a variety of topics that contribute to living well, but never considered the impact of home safety. Through this collaborative teams engaged these individuals to support improving older adult knowledge of the falls risk within their home. While many teams hoped this work would lead to increased referrals for home safety assessments, this goal was often not realized. Teams also struggled to engage physicians as an active source of referral during this work.

Physician Offices	Physical & Occupational Therapists	EMS Workers	Community Volunteers	Professional Caregivers
129	158	255	66	350

Conclusions

The home safety component of many teams work was highly effective, allowing many teams to both assess older adults' homes for potential risk and to engage older adults to actively improve their home environment so that less risk was present. The greatest remaining opportunities in this content area include:

1. Supporting older adults to assess their own homes
2. The engagement of physician offices to serve as an active referral source.
3. Improving the inter-organizational connections so that more organizations are referring for homesafety assessments

Community Education

Summary

Teams participating in the Step Up collaborative used community education activities throughout both phases of the collaborative. Increasing older adults' awareness of the risks of falls and providing education that falls are preventable, not inevitable, was a starting point for most teams' work. Teams also acknowledged that building knowledge is the first step toward accomplishing the behavior changes that are necessary to make falls prevention efforts successful.

In Phase I, the Foundation supported this effort through the hiring of a communications consultant, and the creation of a social marketing workgroup. This workgroup was responsible for creating a variety of materials including:

1. A falls prevention brochure for providers interacting with older adults
2. Key falls prevention messages and talking points
3. Tips and fact sheets about falls
4. Testimonials from older adults participating in falls prevention programming
5. Presentations to be utilized during community education events
6. Publicity material including placemats, envelop suffers, bus advertisement, etc.
7. Focus group data from older adult community members

Team Highlight: Niagara County

The Niagara County coalition utilized a program called "Stay Well on Your Feet" to educate older adults about the risks associated with falls and to encourage them to begin to take actions to reduce those risks. When asked, a participated named Audrey shared:

"All of us have heard about people who fell and broke bones or had hip problem. The majority of my friends feel the information the program provides has really helped them stay healthy."

These materials served as a common resource for grantees, allowing many community partners to use and modify them to meet the needs of their individual work. Teams took a variety of approaches to their community education efforts including:

- Distribution of materials, brochures, and publications to increase awareness
- Planning short, in person, educational events
- Participating in large community events through "tabling"
- Running ongoing educational series based either on evidenced based approaches, or creating their own series
- Using the internet to accumulate falls prevention information and resources

These strategies proved to be critical throughout the collaborative, as teams began new efforts, looked to increase participation, and worked to spread to new

populations within the county. Teams also found that engaging a diverse set of healthcare professionals gave their work added success. Teams partnered with local pharmacies, hospitals, YMCA’s, church groups, and many more to help spread the message deep into the community.

Key Findings

Many teams found that a multifaceted approach to community education was the key to success. There was no one type of educational material, or approach to delivering education that stood out as more successful than others. It was the combination of messages and approaches that proved most effective at supporting older adults in identifying their role in reducing their risk of falls. There were however some learnings specific to the type of effort the team engaged in. A summary of some of these learnings is below:

Type of Educational Activity	Key Lessons Learned
Distribution of materials, brochures, and publications to increase awareness	<ul style="list-style-type: none"> • Having trusted medical providers (physicians, pharmacists) distributing materials increased the likelihood that older adults would use the information • Getting materials into the places older adults already go is critical • The use of “give aways” like nightlight help to draw in older adult audiences
Planning short, in person, educational events	<ul style="list-style-type: none"> • Short sessions could be bundled with something an older adult is already doing. For example these session were held with Bingo, or immediately following a meal at a congregate meal site • Planning these sessions along with something enjoyable often increases attendance
Participating in large community events through “tabling”	<ul style="list-style-type: none"> • Tabling can be effective at a variety of venues such as local fairs, home and garden shows, home improvement seminars, Emergency preparedness events, and job fairs. The event does not need to be limited to health fairs
Running ongoing educational series based either on evidenced based approaches, or creating their own series	<ul style="list-style-type: none"> • The use of the evidence-based program “Matter of Balance” was highly effective at engaging participants and increasing awareness • When creating an ongoing series, the use of dynamic, engaging presenters increases ongoing participation
Using the internet to accumulate falls prevention information and resources	<ul style="list-style-type: none"> • This approach was especially important when working with health care professionals and family caregivers • The resources enable professionals to have the information on appropriate programs and interventions “at their fingertips” when a need is identified

Measuring the impact of community education events is often difficult. Many teams conducted follow up phone calls or pre/post survey during education events. Teams who did this measurement found participants were almost unanimously satisfied with the event/education, and typically showed improved knowledge at the end of a session. Through this work, coalitions were able to engage a significant number of older adults. Below is a breakdown of participation for all teams working on community education events.

Older Adults	Family Caregivers	Physicians	Students	Pharmacists	Community Volunteers
16,469	508	291	90	19	27

Conclusions

The community education effort of many teams experienced a significant reach into the communities engaged in the Step Up collaborative. Every community was also able to embed their community education efforts into the work of their partner organizations to support sustainability. While measuring the impact of social marketing efforts is difficult, teams have significant anecdotal evidence that their work was effective. The greatest remaining opportunities in this content area include:

1. Community education is a critical first step to any falls prevention effort, and it's important to stay focused on older adult behavior change as the long term goal of this effort
2. These activities can be sustained when incorporated into the activities of many organizations serving older adults.

Physician Practice

Summary

Successful change toward community falls prevention requires not only reaching older adults, it also requires changing professional practice. The Center for Disease Control found that “Less than half of the Medicare beneficiaries who fell in the previous year talked to their healthcare provider about it” (CDC, 2012). Thus, engaging physician offices in the area of falls prevention could be very helpful in identifying those at risk for falls, or those with previous falls, so that interventions to reduce fall risks can occur. Physicians have the opportunity to identify those who are at risk through “Welcome to Medicare,” annual wellness visits, as well as during routine office visits.

Just as Phase 2 was being launched, the Centers for Disease Control released the STEADI (Stopping Elderly Accidents, Deaths, and Injuries) Toolkit intended to support and facilitate physician office engagement in falls prevention with the older adults that are on their caseload. Numerous tools and information were developed and made available at no charge for primary care providers with the goal of providing:

Guidance on how to talk to older adults about falls,

Access to simple assessments and interventions that are appropriate, and

Tools and materials to assist physicians offices in educating and engaging older adults, caregivers, and healthcare providers in reducing falls.

Six Step Up teams with 8 different projects focused on engaging primary care physician offices, with the goal of working with physician practices so they could increase their awareness of and understanding about the seriousness of falls, as well as how they could screen for risk and respond when risks are identified. The coalitions used the resources of STEADI to both inform physician offices of the resources available for working with older adults and to engage them as partners who would include falls prevention as part of their standard practice. All of the coalitions received push back from physician offices because of competing demands including the role out of the Affordable Care Act, recent Medicare and Medicaid changes, movement toward electronic medical records, and the enforcement of Medicare's Physician Quality Reporting System (PQRS). Though interested, some physician offices declined participation altogether, some screened or assessed their patients for fall history and fall risks, but either could not collect data or could not sustain data collection and reporting back to the Step Up team. Some offices referred their patients to exercise/tai chi programs and to physical therapy for assessment and intervention toward reducing fall risk factors and falls, though this number is unknown because tracking was insufficient.

Key Findings

In the end, none of the eight projects were successful with meeting their team/coalition goals in gaining a physician partner in their work. There were, however, many physician offices that were introduced to the seriousness and issues related to falls in older adults, the STEADI toolkit, and falls prevention resources and services in their own county. Some small gains were made, however, through numerous and laborious attempts to engage a physician office(s). Three teams were successful in educating physician offices (n=5) and representatives of the offices (n = 164) attended presentations and PQRS workshops.

In one practice, 100% of patients (n = 201) were screened by the office for fall risks, many of those with falls risks received referrals to falls prevention resources (15/61), and all patients received falls prevention information packets from the physician office. After this group of patients, the office no longer gathered data, however they stated their commitment to continue screening for falls.

Although gaining a falls prevention physician office partner was not realized, many projects ended up reaching physicians in some way. The following successes were realized:

- **Allegany Coalition:** medication management project reached 29 physicians; all were provided information on falls related medication concerns for their 111 patients. Similarly, Brothers of Mercy reported 94 medication- related concerns to the physicians of older adults who had medications screened.
- PQRS training and falls prevention education for medical professionals was offered by (Cattaraugus/Genesee/ Tompkins/Onondaga Coalitions). This trained offices on the use of PQRS Fall Prevention Codes in an effort to increase falls prevention screenings/assessments. Offices were informed of the codes and falls prevention screening as part of the Annual Wellness visit for patients on Medicare. The codes help to capture reimbursement for falls prevention activities and meet PQRS requirements.
- One significant success was in Tompkins Coalition: Two PCP offices incorporated changes in their practices by including changes to their EMR systems to document falls.

Physician Quality Reporting System

Coalitions organized four regional workshops to help physician offices learn about reimbursement options to incorporate falls assessment and risk reduction.

“Billing & Coding Strategies to Maximize Medicare Reimbursement— Falls Prevention in an Office Setting”
The workshops provided information that could assist physician offices with methods for complying with: Physician Quality Reporting System (PQRS) and how to meet PQRS falls screen during “Welcome to Medicare & Annual Wellness Visits”

Total medical professional reached through various aspects of the projects:

Though difficult to track and have data to fully know the actual number reached:

- At least 180 medical professionals were communicated with, or educated, on the topic of falls in older adults, through medication management by pharmacists, presentations, or workshops.
- At least 28 Physician offices reached through work of Step Up teams
- Many medical professionals were notified of medication-related issues with their patients.
- The Electronic Medical record was altered in at least 2 known practices to include falls screening questions.
- Coalitions noted increased referrals to falls prevention programs, although the total number is not known.
- PQRS education was offered by coalitions in 4 locations

Conclusions

Even with the support of the STEADI toolkit and the endorsement of the CDC, coalitions and teams found that engagement of physician practices was time consuming and seldom successful. Since the national evaluation of STEADI was in process during the first year of Step Up Phase 2, the Collaborative coalitions were not able to benefit from the lessons learned in the national project, or in the NYS county's pilot, until they were more than half way through this work. As community-based coalitions it was difficult for them to identify and engage physicians who had the potential to become champions on this issue.

Just as it has taken time for the other aspects of fall prevention work to become embedded into practice, it is believed that, with time, there is potential for change in physician practices. Falls prevention is compatible with the prevention agenda of Medicare. When the offices are able to work beyond the numerous changes affecting clinical practice today, engaging physician practices would likely be more effective. Most of the coalitions will continue to be available as a resource for practices, however none will continue this work in their sustainability plans.

Emergency Medical Services (EMS)

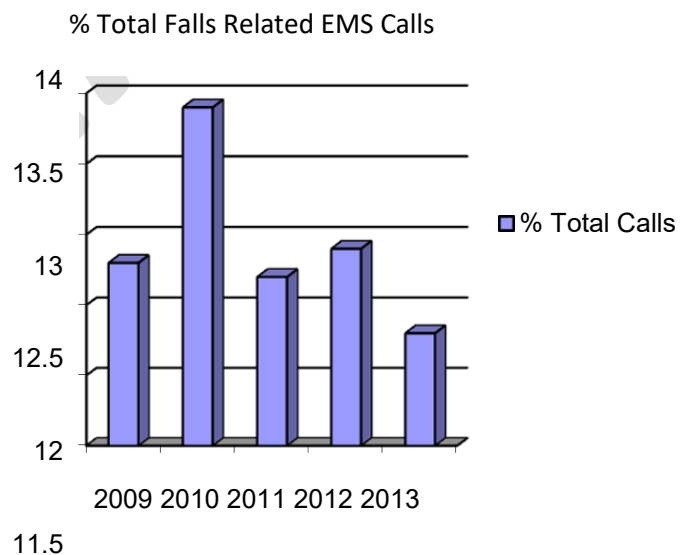
Summary

Engaging Emergency Medical Service (EMS) provider is an innovative and creative approach to falls prevention efforts. This service professional is often overlooked by standard falls prevention efforts, yet EMS providers are the only person an older adult can call any time of day if they have fallen and are unable to get up. The truth is that EMS providers are frequently called on as the silent support to older adults who are experiencing a high quantity of falls. Furthermore, these same older adults often are not injured, or refuse transport to the hospital, therefore they are not accounted for in any local or publically available data.

Much of the work of grantees was based on the learnings of the Tompkins County Coalition in Phase 1 of the Step Up collaborative. Tompkins County Emergency Medical Services (EMS) partnered with five other community organizations for the purpose of reducing the number and severity of falls in the aging population. Through review of the 911 Center data, a fall was the number one reason for calling an ambulance in Tompkins County; this was a consistent finding each year. The focus of EMS involvement in this project was three-fold:

1. To gather more detailed information about our patients who were falling. A multi-month study was conducted and ambulance services completed a questionnaire whenever they cared for a patient who fell; questions included age and sex of patient, location of fall, cause of fall, injuries, medications and living status (alone).
2. Focused on patients who had fallen but did not need or refused transport to the hospital. These patients were given the 4-page falls brochure, and night light and an offer for follow-up by staff from the County's Office for the Aging. These referrals included requests for home safety assessments, emergency notification buttons (PERS) and home care help.
3. Education; a presentation on geriatrics and falls was developed, that could be utilized for CEU credit.

The chart to the right shows a decrease in the percentage of calls for patient who have fallen as compared to the total number of EMS calls in Tompkins County from 2009 to 2013.



Teams in Phase 2 of the Step Up collaborative

use the learning in Tompkins County to begin their work by educating EMS provider on the risk of falls for older adults. Following education teams encouraged provider to proactively support older adults who had experienced a fall by providing the individual with information on local community based supports.

One team took a slightly different approach to this issue, focusing their efforts on older adults who had a “Personal Emergency Response System” (PERS), which is a button worn by an older adult that can be called when there is a medical emergency. This team reviewed the data from calls into the PERS system to identify those older adults who had called for help because they had fallen. The team developed a system so that each older adult who fit this criteria received a phone call from a staff member to discuss falls risk and to offer a home safety assessment to the older adult.

Key Findings

Engaging EMS providers in falls prevention activities can be difficult. This was especially true for rurally-based and/or volunteer squads. Successful programs were able to identify key champions, within the EMS system, who could support the team throughout the project. These champions added credibility to the issue and made it a priority when training decisions were being made. Another key finding was the difficulty in clearly identifying the scope of these projects. Teams determined it was critical to view the EMS providers as a support to referring clients to appropriate falls prevention services. In general, it was decided that it was not appropriate for EMS providers to educate older adults on the risk associated with falls, but it was a perfect time for the EMS provider to inform the older adult that there were resources available to them.

The chart below summarizes the individuals reached through Phase 2 of this work:

Older Adults	EMS Providers
70	73

Conclusions

The EMS effort of many teams was an innovative approach to falls prevention. The engagement of this new partner helped take teams work to new levels. The conclusions to this work include:

1. Engaging EMS provider reaches a new population of older adults, one that may not be reached by other falls prevention efforts
2. Engaging a EMS champion is critical to success
3. Developing a process by which EMS providers distribute falls prevention information consistently can be difficult

Medication Management

Summary

To expand the multi-dimensional effort of the Collaborative work, several projects included medication review/management. This was based on the evidence that specific medications and/or a regime of 4 or more medications create fall risk factors for the older adult. Two homecare agencies and one assisted living facility developed successful process improvement plans that incorporated medication review into standard operating procedures. Some other projects involved a medication review for older adults who either received education in community settings or participated in exercise programs. These projects utilized faculty-pharmacists from University at Buffalo or D'Youville College, students from each of the colleges, consultant pharmacists, community pharmacists, and/or nurses to review medication regimes. The pharmacists, in turn, consulted the older adults' primary physicians to make medication recommendations about dosage, type, monitoring, or dispensing schedule. The recommendations often included alteration, discontinuation, or avoidance of certain medications that have been cited by the American Geriatrics Society to pose fall risk. Specific projects include:

- a. Engaging pharmacy students with staff and residents at an assisted living facility
- b. Adding medication review to a multi-factorial approach to falls prevention by a certified home health agency with nurse and therapist role changes
- c. Incorporating a pharmacist as a member of the home care team for medication review
- d. Engaging pharmacy students to work with community-based providers to change rural practice
- e. Engaging a community pharmacy as a partner in the education of older adults with increased awareness for the implications of medications in falls risk.
- f. Educating therapists to be aware of the falls risk associated with medications

Key Findings

The medication reviews conducted in the various locations resulted in recommendations that were shared with primary physicians to make them aware of falls risks related to medications. In most cases the physicians approved changes to the medication regime. In addition, a medication questionnaire was incorporated into practice at one homecare agency, while the other homecare agency followed up with patients three months after the pharmacist intervention to record falls. These results demonstrated the value of this intervention with the incidence of falls dropping from 43% prior to the review to 6.8% at 3 month follow-up. Also upon the 3 month review, re-hospitalization rates for the older adults who were part of the fall prevention program were 6.8% as compared to the agency average of 19.8%.

Education was critical to the success of these projects. In the assisted living facility, education started with administrative personnel who were Step-Up grantee leaders and spread to staff, residents, and family. In other projects, Step-Up grantee leaders provided

Brothers of Mercy reduced falls by 20%

Pharmacy students working with faculty reviewed the medication regimens of 154 assisted living residents for dosage, interactions, time of day, and to identify high risk medications. 94 recommendations were made to physicians with 83 changes approved.

Educational sessions for staff demonstrated an increase in knowledge by 50% and a 40% increase in reporting of falls risks.

Wellness meetings held with residents /family to explain why medications might be changed.

education about medication and medication management to volunteers who administered a community exercise programs through a Train-the-Trainer program. Other options to include education in the falls prevention efforts were delivered via formal continuing education, community education, both formal and informal, and infusion of falls prevention information into existing health professional curricula.

Medication review became part of a tri-factorial falls prevention program with the skilled nursing rehabilitation team involved in medication education, chart review for medications that impact falls risk in all patients, nurse education about medications and falls risk through an online module, and a medication questionnaire incorporated into practice.

In the rural project, a partnership was established with UB School of Pharmacy to implement a model of practice developed in Oklahoma City into two community-based fall prevention programs. Medical education with CMEs was provided to 22 healthcare professionals. Community Education was provided by a Pharmacist guest speaker at 3 events reaching a total of 122 older adults. These educational sessions resulted in increased knowledge about risk factors and health problems related to medications for those who attended the events.

As part of the rural county's primary care project, 52 older adults received medication review with the MFRS tool. As a result, 29 were assessed as at risk for falls due to medications. 111 recommendations were made to primary care physicians resulting in practice change by the rural physicians.

As a secondary benefit, changes have been made to the PharmD curriculum to include falls risk assessments. Fourth year pharmacy students are now engaged at the FQHC and in pharmacy clinicals. Other professional education occurred in another county where 9 therapists in 5 practices and all new hires completed education on medications as they relate to falls risk. Medication review is included in community-based Matter of Balance and Tai chi classes.

In Syracuse, a partnership was established with community pharmacists. Medication management was incorporated into the train-the-trainer program for strength and exercised program leaders (PTA students), in exercise programs and through medical management education sessions conducted at the YMCA. Older adult participants in the balance and exercise program received education about the effects of medications and falls, how to complete a medication log, and how to communicate with their healthcare provider regarding their medications. The coalition developed a "tear off" medication management information piece that is distributed through Wegmans at eight locations; this reached approximately 5000 older adults and 100 caregivers when they picked up their prescriptions.

In another effort, PT students at Ithaca College now receive education about medications as they relate to falls risk. The Ithaca College Gerontology Institute is implementing plans to educate practicing therapists and healthcare providers about falls and fall risk factors as they relate to medications. Finally, one physician, through their physician practice project, now uses the PQRS medication measures as a result of the efforts of the falls prevention coalition.

Conclusions

This work presents examples of best practices that can be replicated in other communities and agencies. First, coalition projects found opportunity in the development of relationships with Pharmacy Schools and with local pharmacies to bring this expertise to their communities. Benefits of the relationship are

mutual between schools and agencies, in that student education is enriched by the work with older adults and the agencies are able focus on the impact of medications on falls prevention by having the pharmacy school as partner. In addition, placements for pharmacy students are created via these projects and services to the older adults are more comprehensive with these fall prevention efforts.

Another best practice that grew out of this work is the role of medication review in both home care and rehabilitation practice. The review of medications by a member of the falls prevention team, whether the nurse, pharmacist or physician, ensures a multifactorial approach in the rehabilitation of older adults. Therapist collaboration with the team member(s) who review medications strengthens therapy personnel's understanding and appreciation of the role of meds in fall prevention, thus making the multifactorial approach a connected process. These changes to practice will have an enduring benefit for patients served.

Rehabilitation Practice

Summary

Current literature discusses evidence-based practices that are effective in reducing falls and fall risks in older adults. In order to best serve older adults, healthcare professionals and service providers need to utilize evidence-based practices as well as be linked with community-wide efforts toward falls prevention. More specifically, rehabilitation professionals should be a part of the community's plan for falls prevention as well as be the leaders in a comprehensive, multifactorial evidence-based approach for risk reduction and intervention. Building upon the successes of some Phase One Step Up efforts which enhanced knowledge about falls prevention and which promoted competency among rehab professionals with fall risk screening, assessment and interventions, several Phase Two projects were directed toward changing professional rehab practice. Phase Two projects took into account the learnings from Phase One which demonstrated that in order to affect change in practice, process improvement measures must be set into action. Rehab professionals, specifically occupational therapists (OTs) and physical therapists (PTs), are generally familiar with balance assessments and interventions. However, these practitioners typically do not follow a comprehensive falls prevention regimen unless policy and procedures drive a process that embeds falls prevention within daily decisions and actions. A falls prevention regimen is inclusive of standardized patient screening at intake, standardized fall risk assessment, thorough fall risk factor identification in documentation, targeted interventions addressing fall risk factors, and referral/ resource linkages upon discharge. These practices, when combined with enhanced education and training about falls and fall risk factors, encourage rehab professionals to weave knowledge and competency about falls and falls prevention into their regular practice.

Specific projects in Phase Two Step Up to Stop Falls Collaborative included:

- a. Introduction of, as well as competency in and adherence to the use of a clinical outcomes tracking software package, namely, Focus on Therapeutic Outcomes-(FOTO®) across 6 outpatient rehab sites in Erie County. Therapists from this private practice also educated the community on falls prevention and self-improvement, medical/rehab personnel on fall risk assessment, STEADI, and best-practice, and payor organizations about sustainable practice.
- b. Continuing education and competency training/audits about falls prevention for therapists (PTs and OTs) to improve knowledge, instill competency and confidence in falls screening and assessment, and identify falls risks factors & interventions.
- c. Introduction and incorporation of falls prevention information into student curricula.
- d. Train-the-Trainer classes with PTA students to enable them to conduct balance and exercise classes to older adults at an on-campus YMCA. Instruction about frailty, falls, homeassessment and medication audits were included in their training.
- e. Targeted mailings to physical therapy practices to promote and support free/inexpensive professional development and to increase awareness about the coalition, falls prevention, and community resources. Face-to-face collaboration with private practitioners also ensued.
- f. A tri-factorial falls prevention approach involving home care therapists within Erie County. PTs learned and administered the TUG, ABC and Otago exercises, while the OTs administered a home assessment with use of the HSSAT. Therapists were trained online for Otago.
- g. A separate set of Erie County homecare therapists were educated in the proper use of an EMR falls checklist form that was devised specifically to promote consistent practice and documentation about falls and to facilitate improvement in the number of documented falls prevention risk factors addressed by therapists.

Key Findings

1. Rehab Practice Change (Standardization):
 - a. Buffalo Rehab Group (BRG): The use of FOTO, ABC, PQRS, TUG, and SLS were successfully adopted as a “battery approach” to standardized clinical testing among 23+PTs, 9+ PTAs and 10+ administrative professionals. Clinical results revealed good to very good improvement of performance in older adults related to falls risk analysis as well as self-perceived improvements following treatment. Standardized clinical testing allowed for greater customization and specificity in formulating rehab treatment plans and for compelling outcomes reports. The use of the HFWCNY “3-question” screening tool proved to be accurate in identifying higher-risk patients in both clinical and community settings.
 - b. McAuley Seton Homecare: Consistent practices and standardized EMR documentation revealed 100% compliance by the 88 therapists who also demonstrated a 300% improvement in the number of documented falls prevention risk factors addressed.
 - c. Upper Allegany Health System: 100% competency for fall risk assessment and intervention was attained in 5 rehab practices (9 OTs /PTs) in multiple locations in Cattaraugus County. Policy/practice changes were instituted: falls assessments are tracked as part of QA; new rehab hires complete competency training in falls prevention tests; updated EMR inquires about falls for all hospital admissions; monthly chart audits ensure documentation that all older adults (age 65+) receive a falls screening.
 - d. Collaboration with Cayuga Medical Center by Tompkins County Coalition resulted in CMC’s use of the coalition’s 4-page Fall Prevention brochure in the discharge process. Ithaca College 58 OT and PT students completed training in SAFE, provided training in 3 community locations and organized falls health screenings. The Ithaca College Gerontology Institute has planned a continuing education event for health professionals and service providers in the fall.
2. Systems Change:
 - a. VNA established significant fall prevention awareness and multifactorial processes across the agency via team meetings about role delineation, in-services, and adoption of new processes by a champion therapist(s). Baseline and discharge scores were tracked on 179 older adults with a 66% improvement in patient ABC scores and 44% improvement in TUG scores. Challenges occurred related to uniformity in documentation however retooling the new IT system allowed optimal tracking of patients enrolled in the falls prevention program, with referrals of homecare clients to the falls prevention program from 1.2% to 10% within 2 months. Use of the HSSAT by OTs promoted more comprehensive assessments and documentation of the environment while standardized testing by PTs established a system for compliance and documentation of fall risks.
3. Student Involvement/Education:
 - a. Niagara County Coalition members provided instruction to 186 nursing students at Niagara Community College. The Coalition members were invited as lecturers in the next academic year

McAuley Seton Home Care

Since implementation of an EMR falls prevention checklist, monthly audits revealed that 100% of audited charts include falls prevention documentation.

The number of checklist items addressed in patient documentation increased from 4.8 items (at initial audit) to 14.6 items (7 months after implementation).

This is a 300% improvement in quality of patient care and demonstrates that focused efforts on fall prevention

to continue to educate about falls prevention; pre/post test measure will be utilized to measure increase in knowledge.

- b. Thirty PTA students at Onondaga Community College attained competency (>80% on posttest) as Trainers for balance and exercise classes and were able to instruct older adults about home/environmental assessment and about medication management. The trained PTA cohort were able to train the next class of PTA students.
- c. Ithaca College graduate OT and PT students designed and implemented a 10-station falls prevention education/activities at Health Fair for over 200 older adults. OT students also designed a 4-week falls prevention program at 3 senior residences using the (Safety Assessment and Falls Education (SAFE) model. Secondary outcomes of student involvement resulted in a research project conducted by an OT student (videotape of older adults doing routine tasks in home safely), a clinical internship for an OT student doing home safety assessments, and OT interventions incorporated into a county home modification program for older adults.
- d. Students at Olean General receive the same evaluation training as new hires during orientation
- e. Buffalo Rehab Group educated 250 physicians and held 10 community events about falls prevention. Spread of information is an important consideration related to these efforts.

Number involved, affected, educated and reached

OT staff	PT staff	PT/OT students	Faculty	Nursing students	Profess. caregivers	Family members	Older adults
77	188	60	13	192	55	1700	2834

Conclusions

Practice/policy change: Professional practice change can begin on a small scale, with new processes being tested by a small subset of clinicians. Utilization of any new tool (assessment, intervention, software, EMR, etc.) should be conducted by a few champion therapists prior to implementation as their feedback and analysis allows practical readjustment, reassessment, progress, and most importantly success toward adoption of the new implementation. Sustained improvements will impact quality care for older adults and in turn provide rehab practices that target falls.

Quality Improvement: The importance of a quality improvement process was evident in the successes of these projects.

- Process mapping is very useful tool when attempting to put new measures into place. Initial and follow up in-services and monitoring are crucial in securing staff- buy-in and compliance.
- Chart audits play an important part of process improvement and sustainability of fall prevention measures in rehab practice. Chart audits (on a small scale, with greater frequency, and included in process mapping) established both baseline data as well as outcome data. Grantees learned to appreciate the value of data.
- Adherence is another factor that affects both clinical practice and quality improvement. In order to impact change in therapists' competency and their adherence to use of clinical outcomes, specific organizational structure and dedicated monitoring is required. Clinical practice pattern changes are most successful throughout an entire organization if a champion exists at each clinical site/area within that organization.
- Evidence-based multifactorial approaches to fall prevention are strongly supported in the literature. One-on-one conversations between a rehab professional and medical/service provider (versus mass mailings) about fall prevention programming enhances the referral

process and more effectively links older adults to multifactorial fall prevention programs in which therapy and clinical personnel use evidence based practices.

Education is essential: To ensure that fall prevention is embraced by all involved, education of all stakeholders is a necessity in defining similar concepts, issues and goal.

- Therapists, despite number of years in practice, need comprehensive education about multifactorial approaches to fall preventions (problem of falls, fall risk factors, screenings, assessments, documentations, falls prevention strategies). Live or online education was effective in delivering the required information.
- Direct involvement of therapists/rehab practices in area coalitions, colleges, universities, community service agencies and professional associations and geriatric societies empowers therapists to better affect change. Connection with and awareness of up-to-date practices, community needs, and area efforts toward fall prevention enhances opportunities for therapy personnel to be engaged in education: to educate self as well as educate others.
- Sustaining clinical practices was done effectively in several manners: annual education updates and/or competency trainings, new employee orientation, annual competency audits of therapist, monthly chart audits, and identification and utilization of specific fields in the EMR for entry of standardized assessment data.
- Student involvement promotes best practice moving forward.

Therapy practice change demands inspection of systems and required policies and procedures. Cultivation of a culture of best practice can be aligned with written requirements that will best serve help therapists deliver treatments that will help to avert falls, and thus decrease frailty in older adults.