

# **FINAL Progress Report for GA1501**

#### **TITLE PAGE**

Project Title: Primary Care Providers' Perspectives, Attitudes, and Practices Surrounding Fall Risk Screening for Older Adult Patients

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# **Final Report Components:**

# 1) STRUCTURED ABSTRACT:

**Purpose**- To characterize current perspectives and practices of primary care providers, surrounding screening for fall risk among older adult patients in the Western New York (WNY) region, and to gain a better understanding of patients' experiences around falls and fall risk screening in the context of primary care.

**Scope**- Data was gathered via questionnaire from 33 primary care providers and interviews of 25 older ( $\geq$  65) adult patients in the WNY region.

**Methods**- An anonymous survey questionnaire was disseminated to 100 primary care providers in the WNY region via Redcap, with a focus on exploring provider perspectives and practices surrounding fall prevention. In addition, 25 older adult patients were recruited to participate in a brief semi-structured interview, to better understand their experiences with falling and fall risk screening in the context of their primary medical care. Both quantitative and qualitative methods were utilized to assess provider- and patient-based outcomes.

**Results**- In all 33 providers completed the survey questionnaire, giving a response rate of 33%. In addition, a total of 25 older adult patients completed the brief, semi-structured interview. Our quantitative findings reveal that the majority (84.8%) of medical providers in this analysis reported that they routinely screen for fall risk among their older adult patients, with 54.5% of these providers screening annually. Our qualitative findings reveal that older adult participants who experienced at least one previous fall in the past last 6-months, reported general interest in participating in a future fall prevention program if available. Some participants reporting interest in such a program, revealed a fear of falling again as well as concerns with loss of ability to perform activities of daily living such as cleaning and personal hygiene. In addition, some participants interested in a fall prevention program demonstrated a desire to continue to engage in activities that are important to them such as exercise and socialization.

**Conclusions**- While the majority of providers in our analysis reported regularly assessing fall risk in their older adult patients, our analysis helps to identify areas in which primary care practices can better support older adults through use of comprehensive, evidence-based screening methods, as well as through facilitating meaningful, ongoing discussions surrounding the importance of regular fall risk screening.

# 2) PURPOSE

Our objective was to explore primary care providers' perspectives and current practices surrounding fall risk assessment among their older adult patients. Additionally we sought to develop a better understanding of patients' experiences with falling, fall risk screening, and their interest in participating in future fall prevention initiatives within primary care and their broader community.

# 3) SCOPE

According to the Centers for Disease Control and Prevention, falling is the leading cause of injury among older adults in the United States. <sup>1,2</sup> It has been shown that 30% – 40% of older adults, aged 65 years or older, fall annually, with roughly 50% of those falls resulting in injury. In an outpatient setting, a fall is defined as "coming to rest unintentionally on the ground or lower level, not due to an acute overwhelming event" (i.e. stroke, seizure, loss of consciousness) or external event to which any person would be susceptible". In vulnerable older adults falls often have far-reaching and detrimental effects on independence and quality of life. With aging, fall risk increases for a host of diverse reasons that healthcare providers must be aware of, including overall muscle weakness and frailty, impaired vision, balance problems, cognitive decline, medications, and environmental hazards.<sup>2</sup>

Further, the economic impacts of falls must not be ignored. Burns et al. (2016) reported that in 2012 in the United States there were 24,190 fatal falls and 3.2 million medically treated, non-fatal falls among adults aged 65 years or older. Associated total direct costs were estimated at \$616.5 million for fatal falls and \$30.3 billion for non-fatal falls<sup>4</sup>. These figures are staggering when we consider our rapidly aging society.

Primary care providers are uniquely positioned to lead efforts to reduce rates of falling among their older adult patients by helping to identify patient's needs for support and therapeutic intervention, and by facilitating referral to appropriate treatment strategies including physical and occupational therapy, pharmacy,

neurology, podiatry, ophthalmology, and others. Primary care providers must also be willing to take the time to work with their older patients and their family members to explore patient perceptions regarding causes of their falls, and their interest in making changes to prevent a future fall. This collaborative process is critical to development of more comprehensive and effective fall prevention initiatives both integrated into the practice of primary care and the community at large.

In order to begin this conversation, we have conducted a brief exploration of primary care providers' perspectives and current practices surrounding fall prevention, as well as a qualitative investigation of patients' experiences with falling and risk assessment, as well as their interest in participating in future falls prevention programs.

# 4) METHODS

Our assessment consisted of an anonymous survey questionnaire that was developed utilizing ongoing feedback from a team consisting of a primary care provider, a geriatrician, a pharmacist, and geroscientist. Through an iterative process, over a 3 month period, we developed this questionnaire to explore providers' perspectives and current practices surrounding fall prevention. Feedback regarding topics of exploration, participant engagement strategies, as well as proposed data collection methods was sought several times throughout the development process and then and integrated into our final instrument and dissemination strategy. This survey questionnaire was disseminated to primary care providers in the WNY region via Redcap. In an effort to maximize participation, buy-in was sought at each recruitment site from a 'Champion' or other "influencer" demonstrating a willingness to support dissemination of the instrument to appropriate audience members via email. Given the ubiquitous use of email in this population, reminder emails were then sent periodically (bi-weekly) to ensure sufficient engagement and sufficient participation levels. In addition to assessing provider perspectives regarding fall risk, we endeavored to explore older adult patients' experiences with previous falls, risk assessment in primary care, as well as their willingness to participate in future fall prevention programs. In all, 25 older adult patients were recruited to participate in a brief, semi-structured interview. Interviews were conducted by a trained research assistant. Our research protocol was approved by the University at Buffalo, SUNY Institutional Review Board (IRB).

We utilized both quantitative and qualitative methods to assess primary and secondary outcomes. To examine the data collected by questionnaire we utilized descriptive statistics and measures of central tendency; frequencies, mean, and median. Preliminary item analysis was conducted using frequencies and crosstabulations. Immersion/crystallization was utilized to identify common themes within the patient interview data related to previous experiences with falling, perception of risk of falling, as well as interest in participating in future fall prevention programs.

### 5) RESULTS

#### 5a) Provider Survey

A total of 33 primary care providers completed the anonymous survey. In all, 54.5% of participants self-identified as male. In addition, the mean age for the entire sample population was equal to  $47.8 \pm 10.60$  years, with a median age equal to 49.00 years. The mean age among males equaled  $51.8 \pm 9.76$  years, and  $42.90 \pm 9.70$  years among females (p = .013), demonstrating that female providers who completed the survey were significantly younger than male providers. Results regarding practice size were as follows. The mean number of older adults seen per provider weekly for the entire sample was equal to 23.00 patients. In addition the mean total number of older adult patients within the practices was equal to 1,646 patients. Please refer to Table 1 for a breakdown of estimated practice size. In terms of providers' years of experience in primary care, the largest sub-group of providers reported having more than 15 years of experience (39.4%). Table 2 provides the breakdown by year ranges.

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**Table 1: Mean Practice Size Estimates for the Entire Sample Population** 

Practice Size Variable	Mean (SD)	Median	Min	Max
Total Number of Older Adult Patients Seen at	1646 (2682)	800.00	50.00	15000
Practice				
Number of Patients Seen Weekly by Each	23.00 (14.37)	20.00	5.00	60.00
Provider				

Table 2: Providers' Years of Experience

Providers' Years of Experience	Frequency	Percentage
< 5 Years	7	21.2
5 - 10 Years	6	21.2
11 - 15 Years	7	18.2
> 15 Years	13	39.4

# 5b) Results by Selected Questionnaire Item

# Fall Risk Screening Frequency:

When providers were asked about their practice's screening procedures related to fall risk, the majority (84.8%, n = 28) reported that they do screen for fall risk routinely. Further, when asked how often providers screen for fall risk (Figure 1), a small majority (54.5%, n = 18) reported that they screen older adults for fall risk "Annually", compared to 30.3% who reported screening "only if patient is concerned" (p < .001) A much smaller proportion (15.2%, p = 18) reported that they screen their older adult patients at "every visit". When asked for reasons why providers did not screen for fall risk, the most commonly reported response was "More Pressing Health Concerns" (57.6%, p = 18), followed by "Not Enough Time" (36.4%, p = 18).

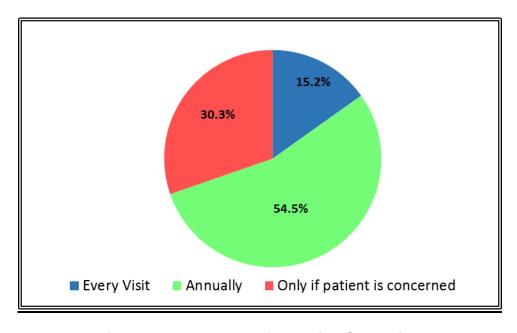


Figure 1: Frequency of Fall Risk Screening

#### **Fall Risk Classification:**

When providers were asked about their care teams' abilities to classify individual fall risk (Figure 2), 33.3% (n = 11) self-reported that they felt their care teams were able to classify individual patient risk in terms of low, medium, and high. A larger proportion (66.0%, n = 22) responded that their practice was not able to classify patients' risk in terms of low, medium, and high risk (p = .012).

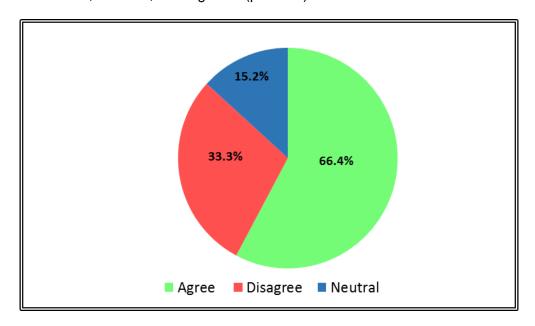


Figure 2: Provider Perception of Ability to Classify Individual Risk

# **Individual Interventions for Each Level of Risk:**

When asked about their perceptions surrounding their practices' abilities to intervene at every level of fall risk, the highest proportion of providers (60.0%, n = 20) reported that they perceived that their practice did not have individualized interventions to address patients' risk at every level, while a much smaller proportion (18.2%, n = 6) reported that their practice did have individualized interventions for every level of risk (p = .034) (Figure 3). Further still, 41.8% of providers responded to this question with "neutral".

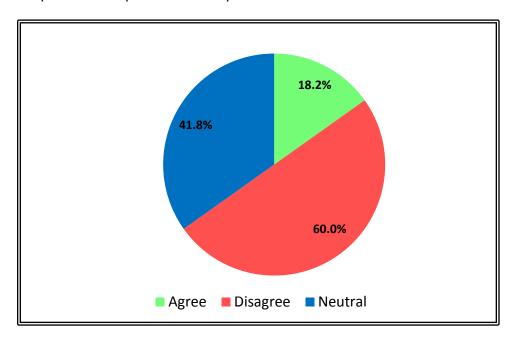


Figure 3: Proportion of Providers Reporting an Ability to Deliver Individualized Interventions

### The Centers for Disease Control and Prevention STEADI Algorithm

Providers were also asked about their awareness and use of the Centers for Disease Control and Prevention STEADI algorithm for assessing fall risk in older adults. In all, a minority of providers (27.3%, n = 9) reported that they know about the STEADI algorithm. Further, when asked if their medical practice employs the STEADI algorithm, 72.7% (n = 24) reported that their medical practice does not utilize this method of assessing fall risk in older adults, compared to 9.1% who reported using the CDC STEADI algorithm (p = .031).

**Table 3: Provider Awareness of the STEADI Algorithm** 

I know about the STEADI Algorithm	Frequency	Percentage
Strongly Disagree	6	18.2
Disagree	15	45.5
Neutral	3	9.1
Agree	7	21.2
Strongly Agree	2	6.1

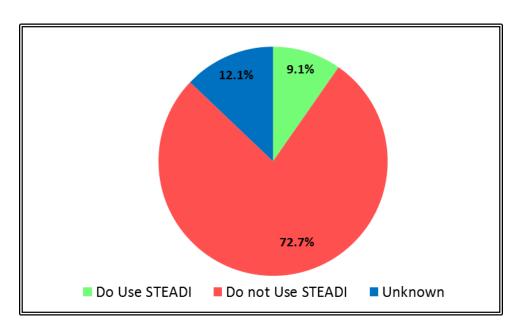


Figure 4: Proportion of Providers Reporting their Medical Practice Uses STEADI Algorithm

### The Primary Care Provider and Fall Risk Screening

The vast majority (87.9%, n = 29) of providers surveyed reported that it should be the responsibility of the primary care physician to assess fall risk in older adult patients (Table 4). When asked if fall risk screening should be mandatory, conducted at least once annually, again the vast majority (90.9%, n = 30) of providers responded that it should be mandatory and performed at least annually. Further, when respondents were asked if their medical training prepared them sufficiently to properly assess fall risk in older adults, in all 54.6% (n = 18) of respondents reported in the negative, that their medical training was not sufficient to prepare them to properly assess fall risk in this population. In contrast, 33.4% of providers surveyed, felt that their medical training was sufficient to properly assess risk of falling in their older adult patients (p = .036) (Figure 5).

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Table 4: Primary Care Physicians' Responsibility to Screen for Fall Risk

It should be the responsibility of the primary	Frequency	Percentage
care physician to screen for fall risk in older		
adult patients.		

Strongly Disagree	6	18.2
Disagree	12	36.4
Neutral	4	12.1
Agree	9	27.3
Strongly Agree	2	6.1

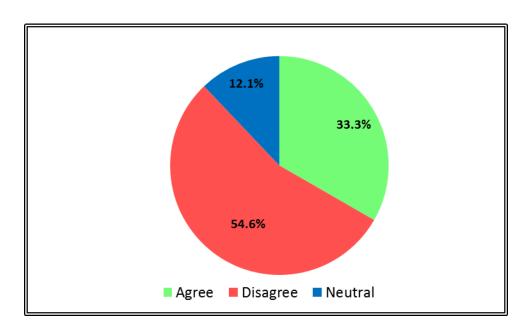


Figure 5: Proportion of Providers Reporting their Medical Training was Sufficient to Properly Assess Fall Risk

# Referrals From The Annual Wellness Visit (AWV)

Providers were asked about the ways in which the AWV is utilized to address fall risk. When asked if at-risk patients were assigned a member of the care team to educate the patient and caregiver after the AWV, a total of 51.5% (n = 17) of providers responded in the negative, that at-risk patients were not assigned a member of the care team for educational purposes. This is in contrast to 24.3% of respondents who stated that at-risk patients were indeed assigned a team member to educate the patient and caregivers in order to minimize risk of falling (p = .036) (Figure 6). Providers were then asked if the AWV is routinely utilized to make referrals to physical therapy, podiatry (foot and footwear problems), ophthalmology (vision problems), home safety, and pharmacy (medication). In all, a majority of providers (78.8%, n = 26) responded in the affirmative, that the AWV routinely makes referrals to physical therapy or other services to improve physical function, compared to 9.1% reporting the AWV did not routinely refer at-risk patients to physical therapy (p < .001) (figure 7). With regard to referrals to address foot and footwear problems, a smaller proportion of respondents answered in the affirmative. In all 39.4% (n = 13) reported that the AWV routinely referred at-risk patients to podiatry services, compared to 45.5%, however these proportions were not found to be statistically significantly different (Figure 8). With regard to referrals to ophthalmology, 36.4% of provider respondents replied that the AWV did refer at-risk patients to services to optimize vision compared to 42.4% of those reported the AWV did not routinely refer patients for vision problems (Figure 9). Regarding the AWV referral to home safety services, 36.4% of

providers responded that the AWV routinely referred at-risk patients to home safety services (Figure 10). When providers were asked about the AWV medication review (pharmacy), a majority (84.8%) stated that through the AWV, patients were routinely referred to medication review to help to identify at-risk patients (p = .020). With regard to routine screening for cognitive impairment, 78.8% of providers surveyed stated that they do regularly screen older adults for cognitive impairment (p = .016).

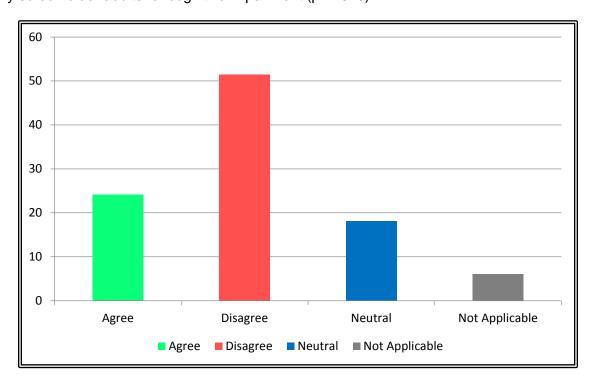


Figure 6: Percentage of Providers Reporting their Practice Provides Post-AWV Education for At-risk Patients

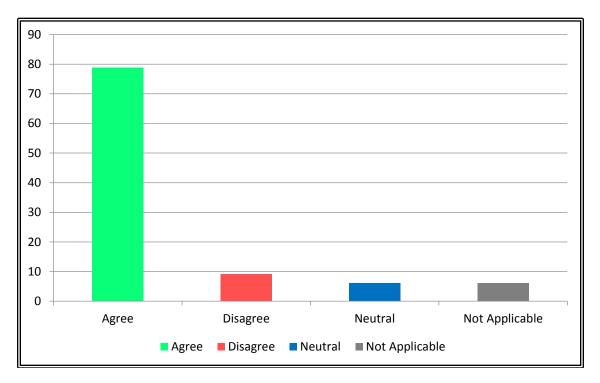


Figure 7: Percentage of Providers Reporting the AWV Routinely makes Referrals to Physical Therapy

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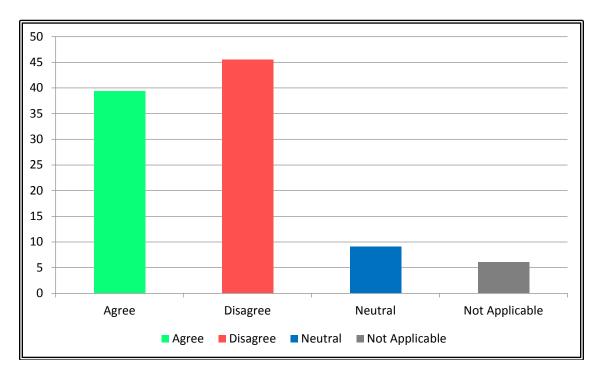


Figure 8: Percentage of Providers Reporting the AWV Routinely makes Referrals to Address Foot and Footwear Problems

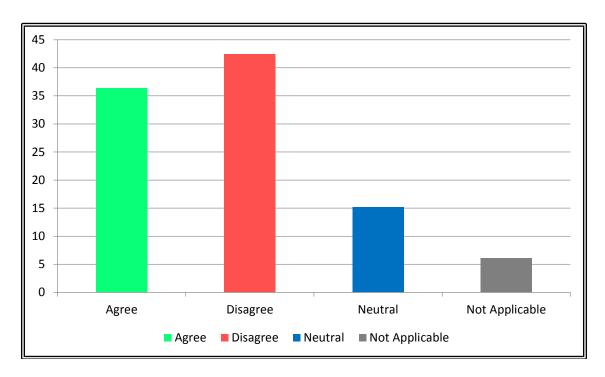


Figure 9: Percentage of Providers Reporting the AWV Routinely makes Referrals to Optimize Vision

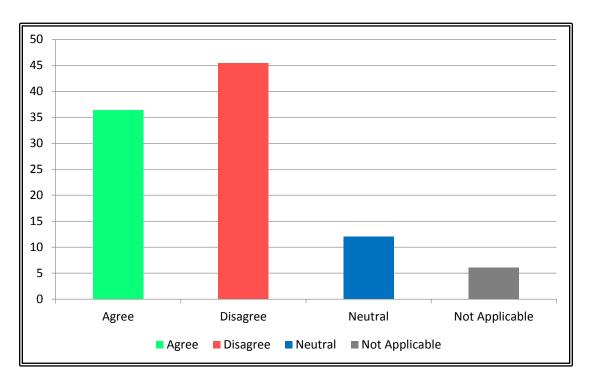


Figure 10: Percentage of Providers Reporting the AWV Routinely makes Referrals for Home Safety Assessment

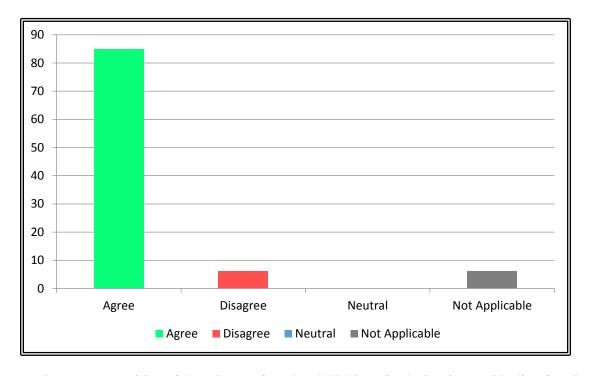


Figure 11: Percentage of Providers Reporting the AWV Routinely Performs Medication Review

# **Fall Prevention Programs in the Community**

Providers were asked about their awareness of fall prevention programs that exist in the community. Equal proportions (48.5% vs. 48.5%) of providers were, and were not aware of fall prevention programs in the community (Table 5). Further, 66.7% of respondents stated that they have and/or would refer at-risk patients to fall prevention programs in WNY.

Table 5: Provider Awareness of Fall Prevention Programs in the Community

Are you aware of fall prevention programs in our community?	Frequency	Percentage
Strongly Disagree	3	9.1
Disagree	13	39.4
Neutral	0	0
Agree	15	45.5
Strongly Agree	1	3.0

# 5b) Themes Identified from Patient Interviews

A total of 25 patients were interviewed to explore their pervious experiences with falling, perceived risk factors, and experiences with fall risk screening in the context of their primary medical care. Several themes were identified within the interviews. This section will outline these themes.

# - Having a previous fall impacts concerns about falling again and interest in future fall prevention programs

- Some patients who experienced at least one fall in the previous 6 months demonstrated a concern for falling again, and showed interest in participating in a future falls prevention program if available.

A participant named "Abbey" conveyed that she fell at a wedding while hurrying to get to the ceremony. While walking down a hill, she lost her balance, falling forward, causing her husband to fall as well. She reported that she was "mildly" injured with a scraped knee and bump on her head, for which she never sought medical treatment. She also indicated that "everyone was around and saw what happened". She also stated she is much more aware of the possibility that she might fall again. "Abbey" also showed interest in participating in a falls prevention program in her community if available.

# - Current functional status impacts concerns with falling and interest in future fall prevention programs

- Participants who perceived that their current function is sufficient seemed less concerned about falling and showed less interest in falls prevention programs.

A participant named "Clive" conveyed that he has never fallen doing, "normal stuff", but did fall out of a tree-stand a "few years back". He reported that he has not changed his activities, having no concerns about falling, because he is "so steady". When asked if he has interest in a falls prevention program, "Clive" responded with "Not really", echoing his perception that he is "steady currently". Importantly, "Clive" stated that he was open to such a program if he became, "kind of leery", then he would want to know how to prevent falling.

- Feeling unsteady or having a previous fall impacts perceived ability to maintain daily activities.
  - Some patients who reported feeling unsteady or having a previous fall stated that they have ceased or altered some daily activities and leisure activities.

A participant named "Eve" reported falling while walking on a treadmill. She is not sure but she may have lost consciousness for moment after she fell. Even with many years of experience using a treadmill, "Eve" stated that she no longer goes on a treadmill having fallen off of one.

Another participant name "Charlie" reported feeling unsteady but she has never experienced a fall. She has slowed down and now walks with a cane. She stated that, "I've felt unsteady. I walk with a cane, so I try to walk slowly. But even with a cane, I do sometimes feel like, especially getting in and out of the bathtub, even with the handhold, it could happen. It could happen, it's very possible."

"Charlie" also stated that she avoids "many activities" due to her feeling unsteady and fear of falling.

When asked to talking about the activities she avoids "Charlie" stated that, "I have a social life that I enjoy. I used to go to more places where people congregated, like bars and concerts and that sort of thing. I don't do that anymore because it just doesn't make sense to me to go."

# Other Common Findings from the Patient Interviews

- None of the 25 participants have taken part in a falls prevention program.
- Most of the participants (17 / 25) reported that their physicians did not ask them about their concerns surrounding falls.
- Even when injured, participants who fell rarely sought medical treatment or sought it several days after the fall.

# 6) Discussion

Our analysis revealed that the majority (84.8%) of providers surveyed, reported that they do routinely assess their older patients for fall risk. Further, among the providers who routinely assess fall risk, just over 50% reported that they assess annually. This frequency of risk assessment is consistent with the American Geriatrics Society and British Geriatrics Society (AGS/BGS) clinical practice guideline on fall risk screening, assessment, and management, that recommends screening all adults aged 65 years and older for fall risk annually. However it must be noted that approximately 30% of providers stated that they assess fall risk in their older patients only when their patient shows concern. This practice may rely too heavily on the judgement and awareness of their patient and family members to determine when risk of falling is of significant concern. Thus, this may inadvertently allow for missed opportunities to prevent future falls among these patients. Further, previous studies have shown that older adult patients are often hesitant to voice concerns about falling and have been found to be in denial of their level of personal risk. These findings underscore the need for physician-initiated screening for fall risk in order to ensure that patients receive the comprehensive care they need. The providers are often that they assess fall risk in order to ensure that patients receive the comprehensive care they need.

Our analysis also revealed that 66% of providers perceived that their practices were not capable of classifying individual patients' risk levels by low, medium, or high risk. In conjunction, a similar proportion, about 60%, reported that their practice did not have the capabilities to provide individualized interventions to reduce risk of falling among their older adult patients. This is important in that it may be reflective of the complexity and challenges associated with fall risk management and identification of associated risk factors within a busy primary care setting. This also highlights a challenging reality that preventing falls in older adults is a complex endeavor, necessitating coordinated strategies from a multidisciplinary and inter-professional team of care providers. Interestingly, when we examine these findings along with the reasons why providers

do not routinely assess fall risk, we see that competing demands are important barriers to routine fall risk assessment. Primary care providers in our analysis reported that, "More Pressing Health Concerns" (57.6%, n = 19) and "Not Enough Time" (36.4%, n = 12) were barriers to performing routine assessment of fall risk. This is consistent with several previous reports, that competing constraints in general such as more pressing health concerns, lack of time, as well as uncertainty surrounding how best to manage multiple co-morbid conditions in older patients, are perceived to be significant barriers to assessment of fall risk in this vulnerable population.<sup>10-14</sup> This paints an important picture of a very busy primary care provider who feels they must prioritize other co-morbid conditions and pressing health concerns while struggling to address fall risk as a very important and undertreated problem in aging.<sup>13</sup> These findings emphasize the need for a coordinated effort from every member of the care team, in order to reduce the burden on the primary care physician, to optimally meet the complex care needs of many older patients. Current evidence suggests that due to the multifactorial nature of falls, early primary care-based interventions that integrate multidisciplinary methods and rely on a variety of strategies, will be the most effective at preventing falls<sup>15,16</sup>

The primary care physician is an integral part of the care team and can be positioned to direct efforts to prevent falls among their older adult patients. Our analysis found that 88% of providers surveyed agree that fall prevention should be the responsibility of the primary care provider and that about 91% responded that it should mandatory, performed at least annually. However our analysis found that just over 30% of providers surveyed, reported that they perceived their medical training was sufficient to prepare them to properly assess fall risk in older adults. This leaves the majority of providers feeling unprepared in addressing this important issue. Our finding is consistent with a recent report by Howland et al. (2018) that found that about 50% of primary care providers felt they had the expertise to assess fall risk. Taken together, these findings are critical in that while the vast majority of primary care providers feel it is their responsibility to assess risk of falling, a significant proportion of these providers do not perceive they have the expertise and training to effectively do so. Given these circumstances, we might hypothesize that assessment of fall risk is not being performed at an optimal level in the primary care setting.

One of the ways in which primary care providers can be supported to routinely assess fall risk is to facilitate use of evidence-based strategies in clinical practice. The Centers for Disease Control and Prevention's Stop Elderly Accidents, Deaths, and Injuries (STEADI) Fall Prevention Algorithm is the most noteworthy evidence-based tool to assess fall risk in older adults. The STEADI algorithm provides standardized guidance to healthcare providers to conduct fall risk screening, assessment, and intervention for older adults. Utilizing an evidence-based, standardized approach will promote consistency and continuity of methods used and will help the care team prioritize the needs of older patients with regard to preventing falls. In our analysis we found that a 27% of providers surveyed reported knowing about the STEADI algorithm, and that 72% of providers surveyed, reported that they do not use the STEADI algorithm to assess fall risk in their older adult patients. Unfortunately, these findings are consistent with previous reports. In a recent study, Howland et al. (2018) found that only 14% of primary care providers were aware of the STEADI algorithm, and that 50% of those providers who were aware of it, reported that their medical practice employed it to assess fall risk. Given that the STEADI algorithm is among the most ubiquitous evidence-based tools, it is noteworthy that only a small proportion of our respondents reported being aware of and using it to assess fall risk in older adult patients.

Another area in which our analysis focused was on the use of the Medicare Annual Wellness Visit (AWV) and the potential to facilitate comprehensive fall risk screening and assessment in the primary care setting. A fall risk assessment is required as part of the Welcome to Medicare Examination and primary care providers can receive reimbursement through the AWV. Given the multidimensional nature of fall risk, adoption of multifactorial clinical assessment and management strategies has the potential to reduce this risk. In a 2012 review by Gillespie et al. it was found that clinical assessment by a healthcare provider combined with individualized treatment for identified risk factors, referral when needed, and follow-up reduced rates of falls by 24%. The AWV can be leveraged to initiate this step when a focused, evidence-based strategy is employed. In our work we explored whether providers routinely utilized the AWV to make referrals to supportive services to address important risk factors for falling. These included: 1) patient education; 2) physical therapy; 3) foot and footwear problems; 4) home safety and occupational therapy; 5) Vision problems; and; 6) medication review. We found that the most commonly referred services reported by primary care providers were physical therapy (74.8%) and medication review (84.8%). For each of the remaining services, we found that a higher proportion of providers did not routinely refer patients to each service than did. This is

important in that lack of referral to critical services such as occupational therapy or ophthalmology may mean that patients in need of these critical services will never receive them or will receive them only after experiencing a fall. These modifiable risk factors are low-hang fruit, for which evidence-based treatment often already exist. Optimizing the effectiveness and focus of the AWV to detect these risk factors must be a priority in primary care.

Our brief analysis revealed several important findings that reflect the perceptions and current practices of some primary care providers in the Western New York Region. From these findings and based upon a review of existing scientific literature, we have develop a series of recommendations to help optimize screening, assessment, and management of fall risk in older adults, within the primary care and community settings.

### 7) Recommendations

# a) Enhance Communication

Given the multidimensional and inter-professional nature of fall prevention in the clinical setting, communication among various healthcare providers, allied health professionals, as well as stakeholders is essential. Efforts should be made to develop and test systems of communication that bring providers together with the common goal of reducing risk of falling among older adults patients. These efforts might include modifications to the electronic health record, use of patient-navigators to create bridges between specialists, and other practice-based systems.

# b) Empower the Primary Care Provider

The primary care provider can be optimally positioned to lead efforts to reduce risk of falling among older adult patients. The evidence is clear that primary care providers are willing to embrace this role. However, we must focus on providing physicians with the expertise and experience they require to confidently assess fall risk, guide intervention efforts, and evaluate outcomes. Educational efforts should be ongoing, focused on helping providers synthesize the scientific evidence, evaluate clinical guidelines, and should emphasize the importance of fall risk assessment using evidence-based strategies. These efforts could be provided in-service, a combination of didactic and experiential, and should be provided from medical school onward, as guidelines change.

# c) Focus on the Evidence

Evidence-based, multidimensional clinical strategies for fall risk reduction have been developed and tested. Yet, they have not been ubiquitously adopted in clinical settings. Efforts that explore the barriers and facilitators to adoption of these guidelines such as the CDC's STEADI Toolkit, will help us to understand how clinical practice might better embrace these guidelines and how best to integrate them without adding significant burden to the practice. These efforts could focus on adapting existing guidelines to better meet the needs of primary care practices or testing changes to practice workflow to better integrate existing evidence-based strategies. In addition, communities wishing to deliver interventions to reduce fall risk should look to the evidence to guide selection of appropriate and effective programs for their community members.

# d) Raise Public Awareness about Falls and Fall Prevention

Previous reports have shown that older adults are resistant to talking about fall risk and even reporting falls when they happen. A concerted effort involving all stakeholders could be developed and tested to increase public awareness of the gravity of falls and the importance of fall prevention, with an overarching focus on eliminating the stigma associated with falls in aging. Again, the multidisciplinary nature of fall risk reduction requires a team approach with strong linkage to key community stakeholders.

# e) Strengthen Evaluation of Falls Prevention Programs

Community-based fall prevention programs have the potential to reduce risk factors and assist older adults maintain independence. There is an ongoing need for scientifically rigorous evaluative strategies integrated into these community-based programs. It is critical that from inception the desired outcomes, methods, and outcome measures are optimally aligned and can be leveraged to propel the science forward, having a true impact on fall risk within the community.

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