MASSACHUSETTS COMMISSION ON FALLS PREVENTION

Phase 1 Report: The Current Landscape

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Acknowledgements

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I. INTRODUCTION

This report documents research and findings of the Massachusetts Commission on Falls Prevention for Phase 1. The Commission is a requirement of Section 9, of Chapter 288, Acts of 2010 (Massachusetts session law), which was amended in 2012, adding two additional members. (See Appendix 1 for a list of Commission members.)

A statewide Falls Prevention Coalition comprised of over 75 organizations has been working since 2006 to promote legislation, disseminate research findings, conduct educational programs, and establish quality improvement initiatives to prevent and reduce falls in older adults. Their advocacy contributed to the passage of this statutory provision. The Commission's mandate is to:

> *"…make an investigation and comprehensive study of the effects of falls on older adults and the potential for reducing the number of falls by older adults. The commission shall monitor the effects of falls by older adults on health care costs, the potential for reducing the number of falls by older adults and the most effective strategies for reducing falls and health care costs associated with falls."* (See Appendix 2)

The Commission's inaugural meeting was held in August of 2012. The first several meetings involved informational presentation on the prevalence and risk factors for falls in older adults and current efforts to address the issue in the Commonwealth. As it moved forward, the Commission divided its work into two phases. The goal for Phase 1 is to scan the Massachusetts health care environment and describe the general state of older adult falls prevention. With this information in hand, Commission members will be able to move to Phase 2 where they will make recommendations regarding the most effective and feasible fall prevention strategies. This report is the result of the Commission's Phase 1 work.

II. EXECUTIVE SUMMARY

Falls and fall-related injuries impose a significant public health burden on Massachusetts' older residents and on the health care system that treats them. In the Commonwealth, falls are the leading cause of injuries and injury deaths for people 65 years and older.[i] These numbers are rising.[ii] This is both independent of and compounded by the fact that the population most at risk for falls (those 65 years and older) is also growing in number.[iii] Traumatic brain injuries, broken hips, loss of independence and death are some of falls' most serious outcomes. Falls are costly to the state. In 2010 in Massachusetts, total acute care hospital charges associated with older adult fall-related injuries totaled approximately $630 million. Moreover, the lifetime medical and work loss cost of the fall injuries among Massachusetts older adults that were sustained in 2010 is estimated to be over $8.5 billion.[iv]

The state's assets for addressing the health challenges of an aging population are many. These include academic institutions, hospitals and clinics that are the envy of the world, public health leadership that focuses on prevention, and an extensive system of elder care institutions and organizations including skilled nursing facilities, assisted living facilities, home health care agencies, councils on aging, and community programs. The state is home to a variety of professional organizations that set standards and advocate and organize for better health care delivery. And, Massachusetts leads the country in health care reform efforts, including those focusing on prevention and wellness and cost savings.

Each of these strengths play a vital role in falls prevention, since older adult falls are linked to many health and safety issues. Certain chronic conditions and acute illnesses, balance and strength deficits, vision limitations, use of multiple medications, home and outdoor safety and access issues are all related to or predictive of falls.

Further, we know what helps prevent older adult falls. A variety of tools for providers and community programs for older adults, have been evaluated, tested and proven to be effective in falls risk identification and/or prevention. These are called "validated" or "evidence-based" and are available for:

- Home safety assessments

- Fall risk assessments

- Exercise and balance programs in the community or home

In addition, regulations that require fall risk assessment, intervention or reporting by institutions supports programmatic efforts and can drive institutional behavior.

Professional guidelines and standards are also available to guide clinician behavior to prevent falls. And, specific fall risk remediation strategies such as correcting vision problems, use of

mechanical assist devices, or reducing use of multiple medications are valuable strategies in the fall prevention compendium.

The Massachusetts Commission on Falls Prevention is charged with investigating the state of falls prevention efforts in the Commonwealth and with developing recommendations to reduce falls and the associated health care costs. To undertake the first phase of this work, Commission members identified four general categories for review. Members divided themselves into four corresponding Task Groups, selected leaders and initiated their work. The four Task Groups are:

- Data and Surveillance
- Community-based Falls Prevention
- Providers and the Clinical Environment
- Public Education and Communication

Data and Surveillance Task Group

From statewide hospital and emergency department discharge databases to death registries, there are many data sources that inform our understanding of the medical, social and economic burden of falls. However, Massachusetts has limited data to accomplish the following:

- To measure statewide efforts on falls screening, treatment and prevention/intervention services currently being conducted in outpatient care facilities;
- For ongoing, systematic measures of the modifiable risk and protective factors for falls and the circumstances of falls (e.g. home hazards, medication profiles, vision, balance, and muscle strength), reducing our ability to plan, efficiently target interventions and evaluate their effectiveness; and
- To assess long-term outcomes and health care utilizations after treatment of a fall injury.

In addition, the state has limited ability to monitor health outcomes of individuals receiving community-based fall prevention services.

We are also hampered by organizational barriers: state agencies and programs collect and utilize data from different types of systems, but there are only limited cross agency exchanges of the data or data findings on falls. Improvements in data integration and/or establishment of ongoing workgroups where agencies communicate and share data and data findings on falls could benefit fall prevention efforts.

Community-based Falls Prevention Programs Task Group

Community-based falls prevention involves both program interventions delivered in the community for older adults and modifications to home and community environments. A new,

professionally conducted inventory is currently gathering baseline data on the number, types and location of evidence-based fall prevention programs in the state. Results could inform the development of strategies as well as resource allocation to enhance community-based falls prevention programs.

Pending these survey results, we know from elder service professionals and informal surveys that community organizations offer falls prevention programs inconsistently. Lack of standards, infrastructure and oversight leads to programs that are likely to be unreliable in terms of quality and training. Insufficient or grant-dependent funding often means programs available to older adults in the community one year are not repeated the next.

Establishment of a functional infrastructure for delivery of evidence-based falls prevention programs is essential. Such an infrastructure can be found in the Healthy Living Center for Excellence (HLCE), a Massachusetts collaborative that implements evidence-based programs focused on healthy aging and chronic disease self-management. Using a regional infrastructure, centralized management and leadership training, the HLCE supports programs that are evidence-based, consistent, sustainable, and evaluated. Evidence-based falls prevention programs could be an ideal fit under this umbrella.

Providers and the Clinical Environment Task Group

Falls prevention strategies can be and are being implemented in both inpatient and outpatient settings across the Commonwealth. A combination of strategies support and drive falls reduction efforts in hospitals, and skilled nursing facilities as well as in home health care agencies, primary care and other outpatient settings. These include the federal and state regulations, professional standards, validated tools for falls risk and home assessments, and clinical guidelines.

A. Regulations, Standards and Tools

Federal and state regulations and professional standards drive efforts to reduce falls incidence in skilled nursing facilities, hospitals and in homes visited by home health care agencies. These drivers vary by setting, but are important strategies being employed throughout the Commonwealth.

B. Validated Tools in Practice

A variety of "validated" tools are available to providers to use in their falls prevention efforts. Such tools exist for assessing whether a patient is at high risk for falling and for conducting home safety assessments. These tools guide the provider through a process, ensuring that all steps are taken and none overlooked. While we know that, in Massachusetts, nearly all home health agencies use validated fall risk assessment tools and skilled nursing facilities use risk assessment tools that are either validated or facility-specific, much less is known about

outpatient office practice.

C. The Hospital Environment

Recognition of the falls burden on hospitals, has led hospitals and the organizations that represent them to develop a variety of falls prevention policies, systems and programs in and for hospital settings. These include initiatives focused on patient harm reduction, falls prevention and falls awareness training.

D. The Outpatient Environment

Anecdotal evidence leads us to believe that providers in outpatient offices are not consistently addressing falls with at-risk patients; in other words, some are failing to consistently assess or discuss fall risk, and/or refer patients to community prevention programs. The reasons for the lack of attention to falls are many. They include limited time allotted for a patient visit, inadequate reimbursement incentives, and lack of awareness of falls reduction strategies.

A new toolkit, developed by the Centers for Disease Control and Prevention (CDC), seeks to address this problem. Known as STEADI (Stopping Elderly Accidents, Deaths and Injuries), the toolkit offers providers information and resources to address falls risk in their patients. STEADI webinars are offered in Massachusetts for Continuing Medical Education credits for providers.

E. Care Transitions

Care transitions have been associated with high rates of adverse events, including falls. Inadequate communication between providers (such as nurses, physicians and others) about medication changes, fall risks, and changes in health and cognitive status are some of the problems that occur during care transitions. Acknowledgement of problems in care transitions has led to the implementation of a wide number of quality improvement programs statewide. Better management of care transitions is a necessary step for falls prevention.

F. Provider-Patient Communication

While communication between providers and patients is essential to falls prevention, provider communication with their patients on this issue is often lacking. There is a need to raise awareness of the importance of falls communication with older adult patients, and how to do so effectively and sensitively. Computerized reminders, assessment and tracking tools in electronic health records can be helpful in improving communication about fall risks and prevention.

Public Education and Communication

Despite the importance of public education and communication, there are few evaluated efforts. While most education or communication for falls prevention take the form of websites, print brochures and collateral products, we know little about their use or impact. We do know

that brochures and one-way education strategies are not effective alone. The most successful strategies use multiple media and distribution strategies.

The Task Group's most extensive findings for public communication were in the formative research category. Available research includes older adults' knowledge, attitudes and behaviors around falls, and how to frame fall prevention messages for the best response. This is critical information to inform campaign development, but is only one step in a well-planned and evaluated communication effort.

The following Phase 1 report details the work and findings of the Commission's four Task Groups. Each of the four sections also includes proposed directions to be explored in the development of the Commission's Phase 2 Report. In the Phase 2 report, the Commission will offer specific recommendations, emphasizing importance, feasibility, affordability, and results.

III. BURDEN OF OLDER ADULT FALLS*ᵛ

Falls and fall-related injuries impose a significant public health burden on Massachusetts' older residents and on the health care system that treats them. In the Commonwealth, falls are the leading cause of injuries and injury deaths for people 65 years and older. In 2010 falls in MA older adults resulted in over 40,000 emergency department visits and over 21,000 hospital stays, and 434 deaths. The rates of these events are rising even after adjusting for the growing older adult population.

> *In Massachusetts, on average, an older adult is treated in a hospital emergency department (ED) every 13 minutes and hospitalized every 25 minutes for a fall-related injury.*

From 2000 through 2010, the age adjusted fall death rate among older MA residents increased 154%. (Figure 1)

Figure 1: Age Adjusted Unintentional Fall Death Rates in 2000 Compared with 2010, MA and US Residents Ages 65+ Years
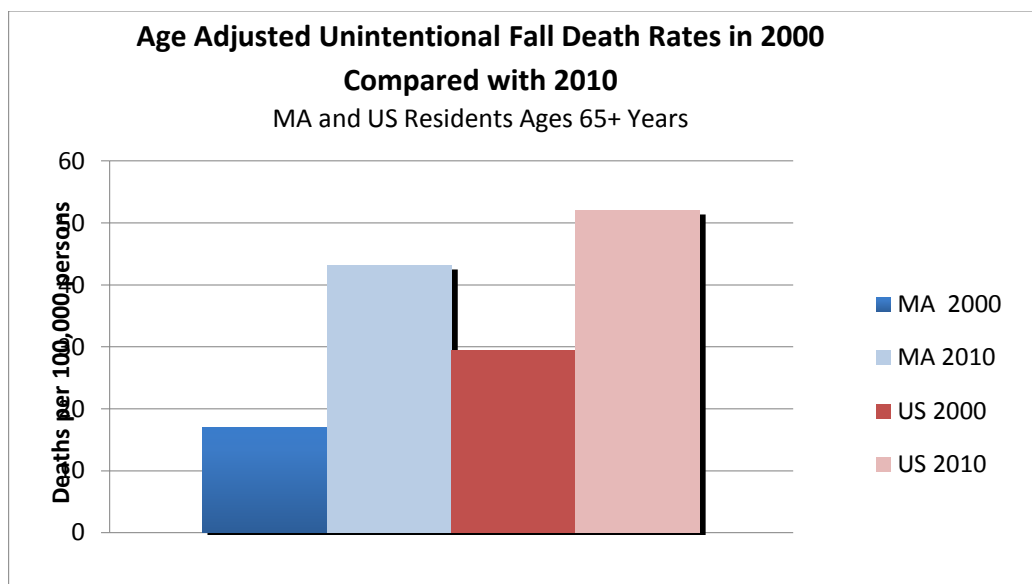
Data Sources: MA Registry of Vital Records and Statistics, MDPH; CDC WISQARS, web-based injury statistics online query system. Accessed 7/1/2013.

Non-fatal fall-related injuries are also increasing. From fiscal year 2002 through 2010, age adjusted rates of emergency department visits for fall-related injuries among MA older adults increased 8% (from nearly 35,000 to over 40,000 visits) and hospital stay rates climbed 10% (from over 18,000 to over 21,000).

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* Statistics provided in this section refer to unintentional falls only. All data reported in this chapter were prepared by the Massachusetts Department of Public Health (MDPH).

Figure 2: Age Adjusted Nonfatal Hospitalization Rates Associatated with Fall-related, Traumatic Brain Injury, MA Residents 65+ Years, FY2000-2011
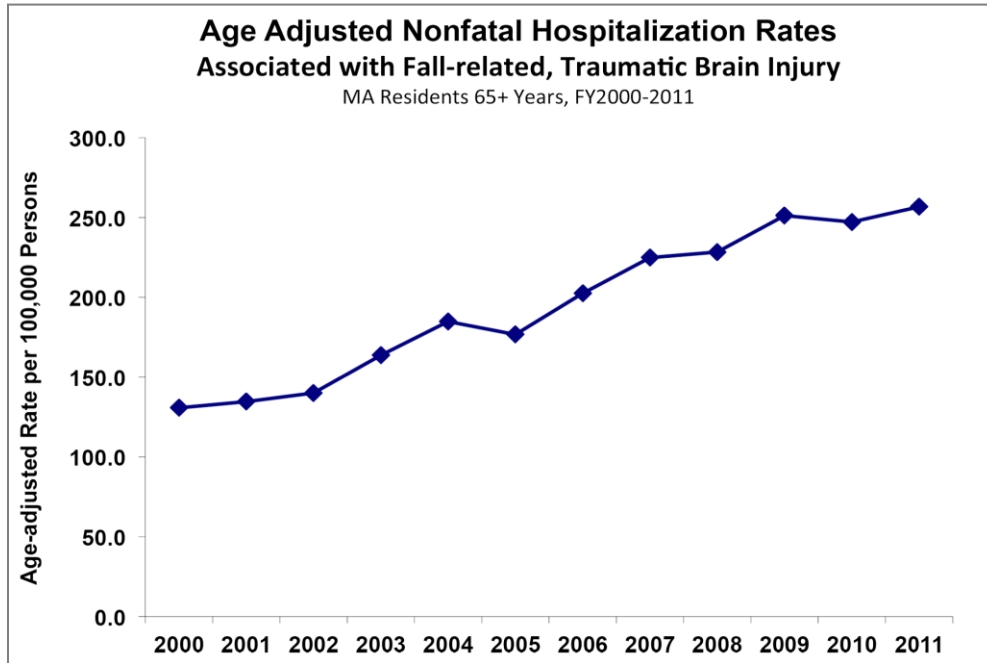
Data Source: MA Inpatient Hospital Discharge Database, Center for Health Information and Analysis

Many of these nonfatal injuries are debilitating. Among nonfatal falls treated in MA acute care hospitals, one in five is associated with a traumatic brain injury (TBI) and one in ten involves a hip or other femur fracture. Between 2000 and 2011, age adjusted rates of fatal falls involving a TBI nearly doubled (89% increase from 13.3 to 25.2 per 100,000). Furthermore, nine out of ten older adults hospitalized for a fall-related hip/femur fracture required additional long-term care.

The cost to the state of the rising fall injury rate is enormous. Acute care hospital charges associated with fall-related injuries in 2010 totaled over $630 million. This does not include costs related to pre-hospital ambulance services, outpatient follow-up, or rehabilitation and long term care. According to CDC (Centers for Disease Control and Prevention)[†] estimates, the lifetime medical and work loss cost of the fall injuries among MA older adults that were sustained in 2010 is estimated to be over $8.5 billion.

Some MA populations are more affected by falls than others. In 2010, adults ages 85 years and older, for example, experienced fall death rates 19 times higher than those ages 65 to 69 years. That same year, men ages 65 years and older had fall death rates 9% higher than women in this

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[†] The estimates listed here are from the CDC WISQARS on-line query system based on fall injuries resulting in death, hospitalization or Emergency Department care.

age group, while women had 41% higher rates of hospital care for non-fatal fall-related injuries than their male counterparts. In the years 2006-2010, older adults who were white, non-Hispanic or Asian had the highest fall death rates with white, non-Hispanics at 40.7 and Asians at 38.0 per 100,000 persons. They were followed by Black, non-Hispanic residents at 20.4 and Hispanic residents at 15.4 per 100,000 persons.

Without remediation, the trend of increased numbers of older adult falls will continue and the resulting impact on individuals, families, communities and health care institutions will grow accordingly.

IV. DATA AND SURVEILLANCE TASK GROUP

The Data and Surveillance Task Group was recruited to identify and evaluate the data we have, the sources that need expansion, and the information that is missing. Improving data collection and analysis is critical to our understanding of why, how and where people fall so that resources can be directed more effectively for prevention.

A. Existing Data Resources

Massachusetts is fortunate to have a variety of excellent statewide databases that enable us to understand the social, medical and economic burden of falls and fall injuries among older adults. The databases identified by the Data Task Group, along with select details of the information they provide, are listed in Figure 3. (Please note that the databases listed may not be exhaustive of all fall-related data systems in Massachusetts.)

Our understanding of the social, medical and economic burden of falls comes from a variety of data sources. For example:

- Using statewide acute care hospital billing data, we can assess the number and rates of fall-related injury hospitalizations and emergency department visits and their associated charges. We can monitor the changes in these statistics over time. These databases also provide information on the payer, and details on patient demographics.

    o Mapping hospital discharges associated with fall injury by city/town of residence enables us to identify regions with the highest prevention needs.

- Annual telephone survey data known as the Behavior Risk Factor Surveillance System (BRFSS) and collected by the Massachusetts Department of Public Health (MDPH), provides estimates of falls with and without injuries among older adults in Massachusetts. These estimates can be broken down by some basic demographic and risk categories.

- Serious Incident Reports and Serious Reportable Events submitted by hospitals and ambulatory care centers, and Long Term Care Incident Reports enable MDPH to monitor fall injuries occurring in hospital and long term care settings.

- 911 and EMS data enable the state to monitor the emergency services required following a fall, although this data is not currently centralized.

- Aging Services Access Points (ASAPs) collect data on falls, fall risk, and other indicators that are related to fall risk. Stored in the Senior Information Management System (SIMS), this data is from assessments of older adults receiving select ASAP services.

- Massachusetts hospitals voluntarily and publicly report patient falls and falls with injury data on the quality and safety website *PatientCareLink, at* www.patientcarelink.org. Patient falls and related injury are reported using the Nursing Quality Forum endorsed

Nurse Sensitive Care Measure 3 and patient falls with injury are reported using the Nursing Quality Forum endorsed Nurse Sensitive Care Measure 4.

- Falls and injuries that are Hospital Acquired Conditions (HAC) measures are reported by CMS on the *Hospital Compare* website. CMS calculates the HAC measure from the claims hospitals submit for Medicare beneficiaries enrolled in the traditional Fee-For-Service (FFS) Medicare. These measures are expected to be removed from the *Hospital Compare* site in late 2013.

Figure 3: Fall Prevention Data Sources and Measurements

Data Source	Demographics (e.g., age, sex, race, city/town)	# and rate of fatal and/or nonfatal fall injuries	# of 911 emergency transports for falls	# of serious fall events in health care facilities	Severity of Injury	Prevalence of falls	Risk/ protective factor	Circumstance information	Medical charges & costs of treatment	City of injury incident	Nature of Injury (e.g., hip fx)	# of seniors applying for; # receiving, services
Registry of Vital Records and Statistics	✓	✓		limited	✓			limited		✓	✓	
Medical Examiner Records	✓	✓						limited		✓	✓	
Acute Care Hospital Claims: Inpatient, Observation Stay, Emergency Department	✓	✓		limited	limited		limited	limited	✓		✓	
Insurance Claims Databases: Medicare, Medicaid, Commercial	✓	limited			✓		limited		✓		✓	
MA Trauma Registry	✓	✓			✓			✓	✓	✓	✓	
Behavioral Risk Factor Surveillance	✓	✓				✓	limited					
WISQARS, CDC Cost Module*	✓								✓			
MA Ambulance Trip Reporting System	✓	✓	✓					✓		✓		
911 Data Calls	✓		✓					✓		✓		
Serious Incident Reporting System: Hospitals, Ambulatory Centers	✓			✓				✓		✓	✓	
Long Term Care Incident Reporting	✓	✓		✓				✓		✓		
Home Health Care/Patient Tracking Database	✓						✓				✓	
Senior Information Management System	✓					✓	✓					✓
PatientCareLink		✓			✓							

* CDC Web-based Injury Statistics and Reporting Query System; WISQARS Cost Module is a calculator for estimating medical and lifetime costs of injuries.

B. Data Gaps

Despite our data strengths, our understanding of fall injuries in older adults and the measurement of prevention efforts in the state are incomplete. The gaps that were identified by the Data Task Group include:

- Limited data systems to measure statewide efforts on falls screening, treatment and prevention/intervention services currently being conducted in outpatient care facilities;

- Limited ongoing, systematic measures of the modifiable risk and protective factors for falls and the circumstances of falls (e.g. home hazards, medication profiles, vision, balance, and muscle strength), reducing our ability to plan, efficiently target interventions and evaluate their effectiveness;

- Limited information on long-term outcomes and health care utilizations after treatment of a fall injury; and

- Limited ability to monitor health outcomes of individuals receiving community-based fall prevention services.

In addition, state agencies and organizations that manage data sets tend to operate independently, each collecting and analyzing a select aspect of information (see Figure 4). Improving awareness of existing data on falls across state agencies and programs, and building processes to facilitate communication across data owners may improve fall prevention planning and evaluation.

Figure 4: Where's the Data? How is it Connected?
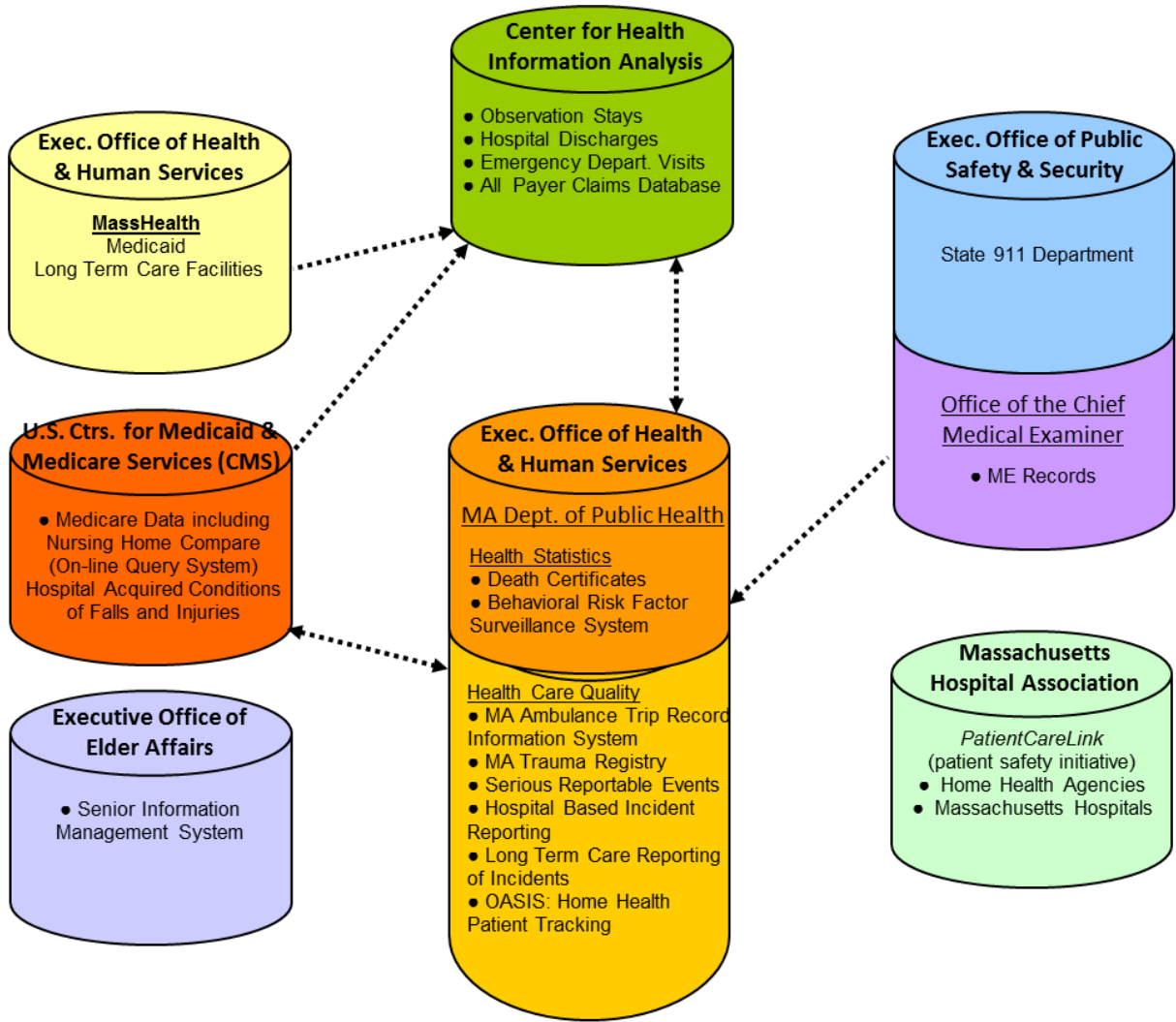
- Agencies conduct analyses with the data they maintain.
- MassHealth and CMS provide data to the All Payers Claims Database.
- MDPH obtains data from Medical Examiner records & the Center for Health Information and Analysis to assess the burden of injuries to MA residents.
- Joint communication between MDPH, CHIA, OME is sporadic but ongoing.

Directions for Phase 2

As it prepares recommendations for inclusion in the Commission's Phase 2 Report, the Data and Surveillance Task Force will explore the following:

- Identification of the data gaps that would provide the most valuable information and would be the most feasible to address

- How a more integrated data approach could be implemented and managed and whether such an approach is feasible

- Identification of those agencies and organizations that have data sources that would be beneficial and feasible to link or integrate

Summary Findings

Data and Surveillance Task Group

A. Existing data in MA measures the medical burden of falls and characterizes the demographic groups most at risk. This information is used in planning, implementing and evaluating prevention services. Identified data strengths include:
- Statewide numbers and trends: prevalence of falls in the community; fall injuries treated at acute hospitals; deaths due to falls; how the numbers and rates of fall injuries and deaths change over time
- Rates of falls and falls with injury sustained in MA hospitals
- Populations with high rates of fall injuries and deaths: by age, sex, and race/ethnicity
- Types of injuries sustained in falls that are treated in the hospital setting
- Serious falls in hospitals and nursing homes

B. Data gaps impede our ability to efficiently focus and evaluate interventions. Identified gaps include:
- Limited ability to measure statewide efforts on falls screening, treatment and prevention/intervention services currently being conducted in outpatient care facilities
- Limited measures of the modifiable risk and protective factors for falls and the circumstances of falls (e.g. home hazards, medication profiles, vision, balance, and muscle strength), reducing our ability to plan, efficiently target interventions and evaluate their effectiveness
- Limited measures on long-term outcomes and health care utilizations after treatment of a fall injury
- Limited ability to monitor health outcomes of individuals receiving community-based fall prevention services
- Data within programs/agencies tends to remain isolated. Improving cross-agency awareness, communication and coordination of fall data may assist prevention efforts

V. COMMUNITY–BASED FALLS PREVENTION TASK GROUP

Members of the Community-based Falls Prevention Task Group were recruited to assess falls prevention activities on the community level in the Commonwealth. The task group pursued two categories of inquiry: fall prevention programs offered by community organizations and fall prevention through the built environment.

A. Falls Prevention Programs in the Community

1. Inventory of Community-Based Falls Prevention Programs

In order to gain a better understanding of community-based falls prevention programs in the state, a team of professional injury prevention researchers led by Jonathan Howland, PhD, is conducting a statewide inventory. Using a web-based survey, they are assessing the number and types of evidence-based falls prevention programs, their location, the number of older adults participating, and the training and background of program facilitators. The survey will be conducted in a variety of community organizations from Area Agencies on Aging and hospitals, to community development corporations and YMCAs. The research team created a list of evidence-based programs they have culled from three, highly vetted sources (Appendix 3). The study's aim is to provide baseline data on the current statewide infrastructure for community-based falls prevention interventions by identifying gaps in program availability by geography and facilitator training. The anticipated completion date is 2014. Results could inform the development of strategies and resource allocation to enhance community-based falls prevention programs.

2. Structure of Falls Prevention Programs

We know from elder service practitioners and from informal surveys that there are challenges in providing effective falls prevention programs in the community. Lack of infrastructure and oversight can lead to programs that are unreliable in terms of consistency and training. Insufficient or grant-dependent funding often means that programs offered one year may not be repeated the next.

In order to maintain consistency, quality and sustainability of community-based falls prevention programs, members of the Community Task Group sought to find a statewide structure that could be used or adapted to provide effective falls prevention programming. They conducted a scan of the public health environment looking for model structures that could meet the following criteria:

- It has an infrastructure that can function statewide
- It is sustainable in terms of funding, staffing, organization

- It offers ongoing, consistent leadership training

- It has a process for retaining fidelity to original program content

- It incorporates program and participant monitoring and evaluation to determine program effectiveness

Only one model met the desired criteria, The Healthy Living Center for Excellence (HLCE).[vi] The HLCE, a collaboration between Elder Services of the Merrimack Valley and Hebrew Senior Life, was formed to address similar kinds of structural challenges as those faced by the falls prevention community. With partial funding through a federal grant given to the Executive Office of Elder Affairs and MDPH, the HLCE implements evidence based programs for chronic disease self-management (CDSM) created by Stanford University. The HLCE, which holds bi-monthly meetings, is comprised of over 200 members representing approximately 162 community organizations. Falls prevention is not (yet) part of this initiative.

The HLCE has built an infrastructure that includes a centralized office and six regional collaboratives. The central office collects data from the regional collaboratives, manages fund distribution to local programs, and has a system of monitoring programs for fidelity to program mission and content. A training program for master trainers and leaders provides web-based updates and continuing education. The HLCE website also has information about programs, their locations, and schedules, as well as about training offered by webinars. The regional coalitions provide their own marketing and outreach to promote their programs to their constituents.

HLCE has devised a plan for financial sustainability within the next three years by a variety of funding mechanisms. This includes bridge funding from federal and foundation grants, and a combination of Medicare/Medicaid reimbursement, contracting with third party payers (including HMOs and ACOs), some limited federal funding under Title IIID of the Older Americans Act, training and consultative services, limited ongoing philanthropic support, and organizational support from HLCE founders, Elder Services of the Merrimack Valley and Hebrew SeniorLife.

HLCE has expressed interest and desire to incorporate evidence-based falls prevention programs under its management and programmatic umbrella.

B. Environmental Modification for Falls Prevention

There are many strategies that help make buildings and environments more accessible to and safe for older adults and people who are disabled. Many of these strategies help prevent falls. Examples include streets that are well lit, smooth, free of ice and snow and walkable; buildings that have entryways without stairs; and contrast markings on sidewalks, curbs and barriers. Falls prevention strategies include adaptations for home interiors such as grab bars in bathtubs, or special handrails on stairways.

A number of organizations and individuals are working in Massachusetts to improve the "built environment" for greater safety. While many are committed to falls prevention, there is no collaborative effort to do so. Among current activities and organizations are the following:

- The city of Brookline has been accepted as the first New England member of the World Health Organization's network of Age-Friendly Cities and Communities. Brookline has already created a detailed strategic plan for an environment that is inclusive and accessible to its elders.[vii]

- Complete Streets looks at alternate modes of travel, including non-motorized transport and public transportation, and seeks to improve travel options for residents who are elderly, disabled or unable to drive. A "complete streets" sample policy has been developed for Massachusetts' cities and towns.[viii]

- Concrete Change is an international network whose goal is making all new homes "visitable." It has a Boston office.[ix]

- The Institute for Human Centered Design (IHCD) is an international non-governmental educational organization whose work balances expertise in legally required accessibility with promotion of best practices in human-centered or universal design.[x]

- Massachusetts builders can be "Certified Aging-in-Place Specialists" (CAPS). CAPS is a training program developed by The National Association of Home Builders (NAHB) in collaboration with Home Innovation Research Labs, NAHB 50+ Housing Council, and AARP.[xi] CAPS graduates have been trained to identify and make home modifications that enable older adults to live more safely and independently in their homes.

- Home modification is an essential component of training for occupational and physical therapists. Additional, specialized home modification certification is also available for health professionals.

Directions for Phase 2

As it prepares recommendations for inclusion in the Commission's Phase 2 Report, the Community-based Falls Prevention Task Force will explore the following:

A. Community-Based Programs

- Use preliminary survey data, as it becomes available, to inform programmatic efforts

- Develop partnership with HLCE to determine feasibility of incorporating falls prevention programs under its umbrella, and devise strategy for doing so

B. Environmental Modifications

- Get buy-in to establish collaborative

- Identify partners willing to participate in collaborative to draft recommendations for environmental modifications for falls prevention

- Determine where and how collaborative will function in state infrastructure

Summary Findings

Community Task Group

A. Falls Prevention Programs in the Community
- Community organizations offer falls prevention programs inconsistently. Lack of standards, infrastructure and oversight leads to programs that are unreliable in terms of quality and training. Insufficient funding often means programs given one year are not repeated the next.
- A new professionally conducted inventory will gather baseline data on the number, types and location of evidence-based fall prevention programs in the state.
- The inventory establishes criteria for categorizing programs as "evidence-based."
- The Community Task Group identified a model structure that can be used for falls prevention programs. The Healthy Living Center for Excellence (HLCE) delivers chronic disease self-management programs in communities statewide, through a regional infrastructure. HLCE provides leadership training, data collection and evaluation. A strong fiscal plan makes sustainability possible.

B. Environmental Modification for Falls Prevention
- Strategies exist to make buildings and environments safer for older adults. These strategies can help prevent falls. (Examples: well-lit sidewalks, buildings with stair-free entryways, contrast markings on curbs, bathrooms with grab rails.)
- Massachusetts health professionals, such as occupational and physical therapists, have certification programs for home modification.
- Massachusetts professionals in health care, aging, urban planning, building and academia are actively, but independently, engaged in programs to modify the built environment for greater safety for older adults.
- Massachusetts' professionals in health care, aging, urban planning, building and academia are interested in collaborating to identify strategies and recommendations for environmental modification that would reduce falls risk.

VI. PROVIDERS AND THE CLINICAL ENVIRONMENT TASK GROUP

The medical community serves as the frontline for falls prevention in older adults. In facilities such as hospitals and skilled nursing facilities, in private medical offices, and in the houses of those who are homebound, health care providers are confronted with the physical, emotional and fiscal effects of falls. The daunting task of mapping the breadth of falls activity in this community was assigned to the Providers and Clinical Environment Task Group, a team comprised of leading members of provider groups across the health care spectrum.

Several elements motivate medical provider behavior in relation to falls prevention in older adults.

- Government regulations often drive provider practices. Failure to adhere to the regulations results in penalty.

- Validated tools and clinical guidelines offer providers with a proven process to address falls.

- Professional obligations to patients and institutional protocols can help raise awareness and foster attention to falls.

This section of the report describes each of those factors, and pinpoints strengths and weaknesses.

A. Regulations, Standards and Tools

Federal and state regulations and professional standards drive efforts to reduce falls incidence in skilled nursing facilities, hospitals and in homes visited by home health care agencies. Examples include:

- Home Health Care Agencies: CMS (Centers for Medicare and Medicaid Services) recommends that providers working for home health agencies implement fall risk assessments.

- Skilled Nursing Facilities: the state Department of Public Health, Division of Health Care Quality and Safety requires skilled nursing homes to report fall occurrences to the state department of public health.

- Hospitals: The Joint Commission, the organization that gives hospital accreditation, provides standards for patient safety including falls assessment and reduction. Failure by hospitals to implement these standards could jeopardize accreditation.

Figure 5 summarizes the regulations and standards for falls prevention in Skilled Nursing Facilities, Home Health Agencies, Hospitals, and the Ambulatory Care Environment. The figure shows the absence of regulatory mechanisms or standards In the Ambulatory Care/Outpatient setting.

Figure 5: Regulations, Policies, Tools and Standards

	Skilled Nursing Facilities	Home Health	Hospitals	Ambulatory Care
Risk Assessments	Are included in the MDS (Minimum Data Set) assessment and as part of a comprehensive assessment of each resident.	Best Practice to provide a formal multi-factor Falls Risk Assessment for all patients over 65 years old included in OASIS (Outcome and Assessment Information Set)	Standards by The Joint Commission for hospital to assess patient fall risk, and implement falls reduction intervention.	Voluntary; Existing clinical guidelines from the American Geriatric Society and others.
Falls Documentation / Performance Monitoring	CMS: If resident is assessed as at risk for falls, there must be a care plan that addresses this risk. Skilled nursing homes are required to self-report resident falls to DPH.	CMS recommends Falls Prevention Interventions are implemented as part of the physician-ordered Plan of Care	MA hospitals voluntarily report and publicly report patient falls and falls with injury on the quality and safety website *PatientCareLink*, at www.patientcarelink.org Hospitals are expected to report falls that are Serious Reportable Events (SREs) as defined by the National Quality Forum (NQF) to the MA DPH.	Voluntary
Websites for Consumers	Nursing Home Compare: includes falls incidence	Home Health Compare: quality and performance measures for home health agencies	Hospital Compare: http://www.medicare.gov/hospitalcompare/ Includes Hospital Acquired Conditions of falls and injuries PatientCareLink: www.patientcarelink.org voluntary posting of performance measures	None
Medicare Certification/ Participation	DPH may cite a facility for falls under Accidents/Supervisions during an annual survey or as part of a complaint, and they may assess civil monetary penalties.	CMS recommends a formal multi-factor Falls Risk Assessment for all patients over 65 years old. This data is reported to the state using OASIS tool as a condition for Medicare participation.	For Hospital Acquired Conditions (HAC) of Falls and Trauma (Includes: fracture, dislocation, intracranial injury, crushing injury, burn, electric shock); hospitals cannot receive additional payment from Medicare or charge Medicare patients for treating these conditions.	None
Staff Training	Voluntary	Voluntary	Most hospitals require falls prevention training for new hires	Voluntary

B. Validated Tools and Evidence-based Programs in Practice

Providers are aided in their falls prevention efforts by a variety of "validated" tools. Tools that are deemed "validated" have been confirmed through testing with the target population as reliable resources for achieving an objective such as fall risk or home safety identification. There are validated tools for assessing whether a patient is at high risk for falling and validated tools for conducting a home safety assessment. These tools guide the provider through a process, ensuring that all steps are taken and none overlooked.

The Provider Task Group conducted two surveys, one in skilled nursing facilities, and the other in home health care agencies, to assess whether validated tools to assess risk of falls are used in these settings. (See Appendix 4 for questionnaire and details.) 15% of surveyed home health agencies and 25% of skilled nursing facilities responded. In brief, we learned the following from the surveys:

- Almost all home health agencies use validated fall risk assessment tools.

- Skilled nursing facilities use risk assessment tools that are either validated or facility-specific.

- Follow-up interventions are conducted by almost all facilities for those identified as at risk for falls:

    o Skilled nursing homes tend to implement programs that are either evidence-based or specific to the institution.

    o Home care agencies tend to refer high-risk patients to physical or occupational therapists.

- Eighty percent of the long-term care respondents noted a reduction in falls after implementation of a fall prevention program.

Additional guidelines offer information and support to providers. For example, the "Beers Criteria for Potentially Inappropriate Medication Use in Older Adults"[xii] has been peer reviewed by members of organizations with special interest and expertise in the appropriate use of medications in older adults. It offers information to pharmacists and other medical providers regarding safe medication use, with warnings about medications that increase falls risk.

Evidence-based programs that have been found to be effective in reducing the rate of falls and/or the fear of falling include Falls Management Exercise (FaME), A Matter of Balance, Strategies and Action for Independent Living (SAIL), Stepping On, Tai Chi: Moving for Better Balance, and Otago.[xiii]

C. Hospital Environment

Recognition of the falls burden on hospitals, has led hospitals and the organizations that represent them to develop a variety of falls prevention policies, systems and programs in and for hospital settings. These include:

- The Massachusetts Hospital Association (MHA) is participating in the CMS-sponsored Hospital Engagement Network (HEN) with the American Hospital Association's Hospital Research & Education Trust to reduce harm in hospitals. Most of the hospitals in Massachusetts are enrolled in the MA HEN or one of several other HENs. Falls reduction is one of HEN's top priorities and the group has produced a change package for those seeking to reduce falls.

- The MHA has also distributed to its members, a list of recommended evidence-based falls prevention interventions.

- Some hospitals have incorporated fall prevention protocols into patient electronic health records. Also, fall prevention resources are posted on the *PatientCareLink* website in "Improving Patient Care".

- Finally, fall prevention is often part of hospital orientation and training for new staff. Many hospitals also offer annual training refreshers or whenever new fall prevention equipment or protocols are introduced into the environment.

- Allied health professionals in hospital settings are also guided by falls prevention tools, policies and professional responsibility.

Although not all falls within hospital settings are preventable, there is room for improvement. Attention to the problem of falls in hospitals has led to the implementation of regulations, standards, policies and systems to reduce falls incidence. These activities can be monitored over time to assess their impact on fall reduction.

D. The Outpatient Environment

Anecdotal evidence indicates that providers in outpatient offices are not consistently addressing falls in at-risk patients. This is confirmed by the literature.[xiv] According to Shinyi Wu et al in California:

> *"Despite strong evidence of the effectiveness of fall prevention interventions, a systematic study found that community physicians sub-optimally detect, evaluate, and manage older patients with falls."*[xv]

Elder service professionals also raise the concern about the extent to which providers address falls, citing the lack of provider referrals to evidence-based falls prevention programs in the community.

The reasons for outpatient providers' limited attention to falls may include insufficient amount of time in a patient visit, inadequate reimbursement incentives, and lack of awareness of falls reduction strategies. The array of obligations in a single office visit can be overwhelming, and falls prevention needs to rise above the din.

Some strategies are being implemented to improve provider attention to falls. For example, clinical practice guidelines by the American Geriatrics Society are available for providers. A more concerted effort by the Centers for Disease Control and Prevention (CDC) resulted in the creation of the STEADI (Stopping Elderly Accidents, Deaths and Injuries) toolkit made available in November 2012.[xvi] The toolkit is a compendium of background documents and resources, validated assessments, and case studies to help providers assess and address an older patient's fall risk. The CDC is now offering webinars for primary care physicians, with CME (continuing medical education) credits. The American Board of Internal Medicine is also offering continuing education credits for its members who take the STEADI course. The webinar was modeled after an educational webinar for physicians designed by the MA Department of Public Health, in partnership with Blue Cross Blue Shield of MA, the Massachusetts Medical Society, Boston Medical Center's Injury Research Center and experts from the CDC's National Center for Injury Prevention and Control.

E. Between Institutions: Care Transitions

Care transitions are when "patients are transferred from one care provider to another or from one care setting to another." Care transitions have been associated with high rates of adverse events, including falls.[xvii-xviii] Inadequate communication between providers (such as nurses, physicians and others) about medication changes, fall risks, and changes in health and cognitive status are some of the problems that occur during care transitions. Morbidity, hospital readmission, and even death can be the results. The Massachusetts health care community is engaged in a number of programs to improve care transitions. They include the following

- Care Transitions Education Project[xix] is a three-year project (2011-2014) to prepare and empower nurses to lead more effective care transitions.

- INTERACT (Interventions to Reduce Acute Care Transfers)[xx] is a quality improvement program designed to improve the early identification, assessment, documentation, and communication about changes in the status of residents in skilled nursing facilities.

- STAAR (State Action on Avoidable Rehospitalizations)[xxi] is a collaboration of organizations led by the Massachusetts Hospital Association (MHA), the Massachusetts Coalition for the Prevention of Medical Errors (the Coalition), the Massachusetts Department of Public Health and the Massachusetts Medical Society that seeks to reduce avoidable hospital readmissions within Massachusetts and improve care transitions for patients and families.

- IMPACT (Improving Massachusetts Post-Acute Care Transfers)[xxii] is an Office of the National Coordinator grant-funded project designed to improve care transitions using an

enhanced electronic Universal Transfer Form (UTF) and electronic health information exchange. IMPACT is focusing its attention on Worcester County.

F. All Medical Environments: Provider Patient Communication

Patient education should be an integral part of many health care professionals' work. This is true for physical and occupational therapists that are often the first referrals by providers for patients at risk of falling. Occupational therapists, for example, conduct an evaluation of the patient's risk for falls including in the home environment, and they then provide education that includes recommendations that can help reduce risk.

In the primary care office, however, provider communication with patients about falls is often lacking. According to a study conducted by Rubenstein, et al, only a quarter of vulnerable elderly patients were asked at least annually about recent falls by their doctors.[xxiii] Falls communication training is imperative for providers. There is a need to raise awareness of the importance of falls communication, and how to do so effectively and sensitively. Computerized reminders, assessment and tracking tools in electronic health records can be helpful in improving communication about fall risks and prevention.

Directions for Phase 2

As it prepares recommendations for inclusion in the Commission's Phase 2 Report, the Providers and the Clinical Environment Task Force will explore the following:

- Identification of strategies for increasing use of validated tools in clinical practice

- Development of recommendations for improved provider reimbursement for falls risk assessments

- Inclusion of fall risk assessments in patient electronic medical records across care settings (hospitals, skilled nursing facilities, home health agencies, outpatient physician office practices).

- Inclusion of falls prevention in the efforts of state organizations involved in improving care transitions practices and

- Ways to promote enhanced provider-patient communication by all health care providers

Summary Findings

Providers and the Clinical Environment Task Group

A. Regulations, Standards and Tools
- Skilled Nursing Facilities must comply by state and federal regulations for screening and reporting for fall prevention.
- Home Health Care agencies are provided with recommendations by federal government. (Centers for Medicare & Medicaid Services).
- Hospitals must also adhere to falls reduction standards provided by The Joint Commission. Failure to do so can jeopardize accreditation.
- Outpatient or Ambulatory Care: Clinical guidelines on falls reduction are available from the American Geriatric Society and others, but there is no screening requirement. Providers do not consistently assess for fall risk.
- Standards and tools implemented by facilities are variable, and not 100% effective.

B. Validated Tools in Practice
- Validated tools for falls risk assessment are used by almost all Home Health Care agencies and Skilled Nursing Facilities.
- Allied health professions: Use validated and evidence-based tools in their practice.

C. The Hospital Environment
- Recognition of the falls burden on hospitals, has led hospitals and the organizations that represent them to develop a variety of falls prevention policies, systems and programs in and for hospital settings. These include the Hospital Engagement Network (HEN), a harm reduction program in which the MHA participates; incorporation of falls assessment and prevention reminders in electronic health records; and falls training and orientation programs.

D. The Outpatient Environment
- Primary Care Providers not addressing falls adequately.
- Reasons include lack of time during patient visit, no reimbursement incentive, and lack of awareness in primary care arena.

E. Between Institutions: The Care Transition
- Care transitions provide significant challenges, especially around medication use, and provider communication. Falls incidence increases during care transitions.

F. All Medical Environments: Provider-Patient Communication
- Pharmacists, Physical and Occupational therapists: education is integral to their work.
- Primary care providers are not adequately communicating with patients about falls and falls risk.
- Primary Care Provider communication training is needed.

VII. PUBLIC EDUCATION AND COMMUNICATION TASK GROUP

Public education and communication are essential strategies to increasing awareness, breaking through barriers and changing behaviors that will lead to reduced incidence of falls in older adults. The Public Education and Communication Task Group was recruited to scan the public health environment for falls prevention education and/or communication efforts, and to identify those strategies that are most effective in changing falls awareness or preventive behaviors of older adults.

The challenge proved difficult, as very few falls communication or education initiatives are evaluated for outcome. What task members were able to find however, was a fair amount of qualitative research on older adult knowledge, attitudes and beliefs about falls, and guidance on how to frame messages that resonate with older adults on this topic.

A. The Big Picture: Communication that Works

Changing behavior, social norms, or mindsets is tricky business. No one strategy delivered in isolation can be effective. A brochure sent to a mailbox (electronic or otherwise) or left on a waiting room table cannot be counted on to effect change. According to JL Nichols: *"Examples drawn from campaigns to reduce drunk driving and to increase the use of child safety seats, seat belts, and motorcycle helmets illustrate how education--both public information and more formalized education--can help catalyze other actions. However, by itself, education has not generally resulted in significant changes in the behaviors targeted."[xxiv]*

This analysis is echoed by S. Ciciriello, et al: *"Currently, education about medications (that is, information that is designed to achieve health or illness related learning) is provided predominantly via spoken communication between the health provider and consumer, sometimes supplemented with written materials. There is evidence, however, that current educational methods are not meeting consumer needs. Multimedia educational programs offer many potential advantages over traditional forms of education delivery."[xxv]*

The most effective communication efforts require careful planning that includes formative research with the target audience, product development and testing, evaluation and partnership formation to increase dissemination and funding potential.

In our research the Public Education Task group found only one campaign related to falls prevention that met these criteria. A campaign in Australia was implemented to promote physical activity for seniors. The campaign took place over an 18-month period, and used local newspapers, televisions, bus-back ads and posters. Formative research, a detailed strategic

plan, and evaluation were essential components. Funding and distribution were achieved through community, corporate and media partnerships. The campaign demonstrated effectiveness in three areas: motivating information seeking, intention to be more active, and increased physical activity.[xxvi]

B. Audience

Most communication efforts found online or in the literature targeted the older adult. Research from the National Council on Aging[xxvii]and the World Health Organization[xxviii] suggests that the target audience need not be restricted to older adults. Family members and health professionals are also appropriate audiences because of their influence on the older person's behavior.

C. Print and Web-based Informational Materials

While most education or communication for falls prevention took the form of websites, print brochures and collateral products there is a dearth of information on their use or effectiveness. The Falls Free initiative from the National Council on Aging[xxix] and the CDC's Older Adult Falls Publications[xxx] and many other national programs provide accurate information for public health practitioners and consumers. They offer printable brochures, fact sheets and other products. Many other agencies and organizations offer their own materials. Some materials come with users guides; others are intended as stand-alone products for dissemination. Some of these products were informed by extensive qualitative research with target audiences; others designed without vetting by experts or target audiences. Few are accompanied by outcome evaluations. We don't know how they are used, with what other media, and whether they have had any effect.

D. Knowledge, Attitudes and Behavior

The Task Group's most extensive findings were in the formative research category. This information, accessible via the World Health Organization,[xxxi] Centers for Disease Control and Prevention,[xxxii] and National Councils on Aging,[xxxiii] culled from and confirmed by the literature, is critical for communication planning.

The following common themes emerged from Task Group research:

- *"It's normal":* Many older adults believe that falling is a normal part of aging.

- *"Not me":* Many older adults did not think that falls prevention messages were personally relevant.

- *Fear of falling*: Many older adults are afraid of falling.

- *Fear of loss of independence*: Older adults may not discuss falls or participate in falls prevention for fear it will lead to loss of their independence.

- *Fear of stigma and embarrassment.*

E. Message Framing

Messages that are effective in achieving their objectives incorporate audience attitudes, beliefs and barriers. While many of the falls prevention taglines and materials task group members found took into consideration the audience's attitudes and beliefs, it is not clear which, if any, were tested for audience feedback or were evaluated for impact.

The World Health Organization[xxxiv] and National Council on Aging[xxxv] and others conducted or gathered research on how target audiences responded to different message frames.

In brief, this research concluded:

- Do not emphasize falls risk reduction. A message focused on "staying healthy and independent" may generate more positive response than one focused on "preventing hip fractures and other injuries."

- The message should be positive. Fear-based messaging can be alienating.

- Emphasize independence. Messaging should be crafted to help remove the stigma and embarrassment of falling.

- Avoid using the term "exercise" in messaging. Older adults respond more positively to "moving" or "physical activity."

- Consider characterizing falls prevention as a life span issue, not an aging issue.

- Make falls prevention tips easy, fun, doable, and inexpensive.

- One size does not fit all:

  o Tailor to cultural and gender preferences.

  o Tailor according to age (for example, messages for 65 – 70 year-olds should be different than messages for those over 80).

  o Tailor to literacy level. Remember, nearly 2 out of 5 older Americans (65 and older) and minorities read at or below the 5th grade reading level.[xxxvi]

Directions for Phase 2

As it prepares recommendations for inclusion in the Commission's Phase 2 Report, the Public Education and Communication Task Force will explore the following:

- Opportunities to incorporate falls prevention messages into other healthy aging and chronic disease prevention communication efforts

- Formation of partnerships for implementation of pilot communication campaign with select audience(s)

- Engaging the California Center for Excellence as advisor and partner in communication efforts

Summary Findings

Public Education/Communication Task Group

A. The Big Picture
- Isolated education efforts do not work.
- The most effective communication efforts require careful planning that includes formative research with the target audience, product development and testing, evaluation and partnership formation to increase dissemination and funding potential.
- Evaluated Public Education or Communication campaigns for older adult falls prevention is rare.

B. Audience
- Consider audiences, in addition to older adults, who may be influential to the older person.

C. Print and Web-based Informational Materials
- There's a preponderance of print and web-based information, but it's hard to know which have been evaluated, which have resulted from feedback with the target audience, and what the context for their distribution was.

D. Knowledge, Attitudes and Behavior
- Formative research offers information regarding the knowledge, attitudes and behavior of our target audience. This is useful information for communication planning.

E. Message Framing
- Useful information, based on formative research, on how to "frame" messages for most effective results.

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APPENDIX 1

Members of the Massachusetts Commission on Falls Prevention

Name (Alphabetical Order)	Representing
Colleen Bayard PT, MPA	Home Care Alliance of MA
Almas Dossa, PhD, MPH, MS PT	AARP
Mary E. Grant, MS, RN	MassHealth
Ish Gupta, DO	MA Medical Society
Melissa Jones, PT, DPT	American Physical Therapy Association of MA
Jennifer Kaldenberg, MSA, OTR/L, SCLV, FAOTA	MA Association for Occupational Therapy
Helen Magliozzi, RN, BSN	MA Senior Care Association
Emily Meyer, Ph.D.	MA Assisted Living Facilities Association (MassALFA)
Joanne Moore, M.Ed.	MA Association of Councils on Aging (MCOA)
Carlene Pavlos, MTS (Commission Chair)	MA Department of Public Health (DPH)
Annette Peele, MSW, CIRS-A	MA Executive Office of Elder Affairs (EOEA)
Emily Shea, MSW, MPH	Mass Home Care
Mary Sullivan, Pharm D	MA Pharmacists Association Foundation

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L = Task Group (TG) Leader
* Non-Commission Member/Content Expert
Task Groups' Facilitator: Kim Kronenberg (MDPH Consultant-JSI Research and Training Institute, Inc.)

1. TG: Data and Surveillance

Members:
- Carlene Pavlos (L)
- Holly Hackman
- Beth Hume

2. TG: Community-Based Falls Prevention

Members:
- Joanne Moore (L)
- Annette Peele
- Emily Shea

3. TG: Providers and the Clinical Environment

Members:
- Ish Gupta (L)
- Colleen Bayard
- Mary Grant
- Jennifer Kaldenberg
- Helen Magliozzi
- Emily Meyer
- Patricia Noga *

4. TG: Public Education and Communication

Members:
- Almas Dossa (L)
- Mary Sullivan
- Melissa Jones
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Beth Hume, MPH
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Patricia Noga, PhD, RN, MBA, NEA-BC
Vice-President Clinical Affairs
MA Hospital Association

Commission Staff

Carla Cicerchia
Falls Prevention Coordinator
Division of Violence and Injury Prevention
MA Department of Public Health

APPENDIX 2

Massachusetts Commission on Falls Prevention
STATUTE

SECTION 9. Said chapter 111 is hereby further amended by adding the following section: -

Section 224. There shall be a commission on falls preventions within the department. The commission shall consist of the commissioner of public health or the commissioner's designee, who shall chair the commission; the secretary of elder affairs or the secretary's designee; the director of MassHealth or the director's designee; and 8 members to be appointed by the governor, 1 of whom shall be a member of the Home Care Alliance of Massachusetts, Inc., 1 of whom shall be a member of the AARP, 1 of whom shall be a member of the Massachusetts Senior Care Association, Inc., 1 of whom shall be a member of the Massachusetts Association of Councils on Aging, Inc. 1 of whom shall be a member of the Massachusetts Medical Society Alliance, Inc., 1 of whom shall be a member of the Massachusetts Assisted Living Facilities Association, 1 of whom shall be a member of Mass Home Care and 1 of whom shall be a member of the Massachusetts Pharmacists Association Foundation, Inc.

The commission on falls prevention shall make an investigation and comprehensive study of the effects of falls on older adults and the potential for reducing the number of falls by older adults. The commission shall monitor the effects of falls by older adults on health care costs, the potential for reducing the number of falls by older adults and the most effective strategies for reducing falls and health care costs associated with falls. The commission shall:

(1) consider strategies to improve data collection and analysis to identify fall risk, health care cost data and protective factors;

(2) consider strategies to improve the identification of older adults who have a high risk of falling;

(3) consider strategies to maximize the dissemination of proven, effective fall prevention interventions and identify barriers to those interventions;

(4) assess the risk and measure the incidence of falls occurring in various settings;

(5) identify evidence-based strategies used by long-term care providers to reduce the rate of falls among older adults and reduce the rate of hospitalizations related to such falls;

(6) identify evidence-based community programs designed to prevent falls among older adults;

(7) review falls prevention initiatives for community-based settings; and

(8) examine the components and key elements of the above falls prevention initiatives, consider their applicability in the commonwealth and develop strategies for pilot testing, implementation and evaluation.

The commission on falls prevention shall submit to the secretary of health and human services and the joint committee on health care financing, not later than September 22, annually, a report that includes findings from the commission's review along with recommendations and any suggested legislation to implement those recommendations. The report shall include recommendations for:

(1) intervention approaches, including physical activity, medication assessment and reduction of medication when possible, vision enhancement and home-modification strategies;

(2) strategies that promote collaboration between the medical community, including physicians, long-term care providers and pharmacists to reduce the rate of falls among their patients;

(3) programs that are targeted to fall victims who are at a high risk for second falls and that are designed to maximize independence and quality of life for older adults, particularly those older adults with functional limitations;

(4) programs that encourage partnerships to prevent falls among older adults and prevent or reduce injuries when falls occur; and

(5) programs to encourage long-term care providers to implement falls- prevention strategies which use specific interventions to help all patients avoid the risks for falling in an effort to reduce hospitalizations and prolong a high quality of life.

APPENDIX 3

Evidence-Based Programs

CDC Approved Evidence Based Programs: for details visit:
http://www.cdc.gov/homeandrecreationalsafety/pdf/cdc_falls_compendium_lowres.pdf

1) Stay Safe, Stay Active (developed by Barnett et al, at Bankstown Hospital)
2) The Otago Exercise Experience (developed by Robertson et al, Dunedin School of Medicine)
3) Erlangen Fitness Intervention (developed by Freiberger et al, Friedrich-Alexander University, Erlangen-Nurnberg
4) Tai Chi: Moving for Better Balance (developed by Li et al, Oregon Research Institute)
5) Australian Group Exercise Program (developed by Lord et al, Neuroscience Research Australia)
6) Veterans Affairs Group Exercise Program (developed by Rubenstein et al, VA Medical Center, CA)
7) Falls Management Exercise Intervention (FaME) (developed by Skelton et al, Glasgow Caledonian University)
8) Central Sydney Tai Chi (developed by Voukelatos et al, Sydney Southwest Area Health Promotion Service
9) Simplified Tai Chi (developed by Wolf et al, Emory University School of Medicine)
10) The VIP Trial (developed by Campbell et al, Dunedin School of Medicine)
11) Home Visits by an Occupational Therapist (developed by Cumming et al, University of Sydney)
12) Falls-HIT (Home Intervention Team) (developed by Nikolaus et al, University of Ulm)
13) Stepping On (developed by Clemson et al, University of Sydney)
14) PROFET (Prevention of Falls in the Elderly Trial) (developed by Close et al, Neuroscience Research Australia)
15) Accident & Emergency Fallers (developed by Davison et al, Royal Victoria Infirmary)
16) The NoFalls Intervention (developed by Day et al, Accident Research Centre)
17) The SAFE Health Behavior and Exercise Intervention (developed by Hornbrook et al, Kaiser Permanente Northwest)
18) Multifactorial Fall Prevention Program (developed by Salminen et al, University of Turku)
19) The Winchester Falls Project (developed by Spice et al, Queen Alexandra Hospital)

20) Yale FICSIT (Frailty and Injuries: Cooperative Studies of Intervention Techniques) (developed by Tinetti et al, Yale University School of Medicine)

21) A Multifactorial Program (developed by Wagner et al, Group Health Research Institute)

AOA Approved Evidence Based Programs: for details visit:

http://www.ncoa.org/improve-health/center-for-healthy-aging/content-library/Title-IIID-Highest-Tier-Evidence-FINAL.pdf

22) A Matter of Balance (developed by Roybal Center, Boston University)

23) Healthy Moves for Aging Well (developed by Partners in Care Foundation)

24) Stay Active and Independent (SAIL) (developed by Washington State Department of Health)

25) Enhance Fitness (developed by Belza et al, University of Washington, Seattle)

26) Peer Exercise Program Promotes Independence (PEPPI) (developed by the Arkansas Department of Health)

27) Tai Chi 4 Health and Balance (developed by Movement Arts Institute)

28) Bingocize (developed by Crandall et al, Kentucky Wesleyan College)

APPENDIX 4

Survey Questions to Home Health Care Agencies and Skilled Nursing Facilities

1.   Do you conduct a (multi-factor) falls risk assessment of all patients? Yes___ No ___

2.   Do you use a "validated" assessment tool? Here are some examples.
        Check all that apply:
        ___ A: Timed Up and Go,
        ___ B: Tinetti Balance and Gait Assessment,
        ___ C: MAHC 10 - Fall Risk Assessment Tool
        ___ D: Other_____
        ___ If none of the above, which assessment used:_____

3a.   Do you have formal falls prevention program in place for those at risk?
                Yes___ No ___

3b.   If yes: Is the falls prevention program "evidence-based"? Here are some examples.
                Check all that Apply:
                ___A: "Stepping On"
                ___B: Tai Chi: Moving for Better Balance
                ___C: FallProof™ Balance and Mobility
                ___D: Other such as Matter of Balance, or Think Safe-Be Safe

3c.   If you don't use a formal falls prevention program, what interventions do you use for
        those at risk for falls? Please list: _____

4.   If fall prevention interventions/program are in place how effective do you think it is:
                (1 poor; 5 excellent) 1   2   3   4   5

5.   If you do not conduct a falls prevention intervention/program, please list barriers to
        implementation:
        _____

6.   a. Do you collect data on falls? Yes___ No___
        b. Do you have data pre and post implementation of fall prevention
        interventions/program? Yes____ No___
         c. Has there been reduction in falls post intervention/program implementation?
                Yes___ No___
        d.   If so by what percent? _____

7. Comments: _____