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State House Room 335  
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Dear Mr. Clerk,

Pursuant to Section 224 of Chapter 111 of the Massachusetts General Laws, please find enclosed a report from the Department of Public Health titled *Massachusetts Commission on Falls Prevention Phase 5 Report: Towards a Comprehensive Plan for Addressing Older Adult Falls in Massachusetts*.

Sincerely,

  
Robert Goldstein, MD, PhD  
Commissioner  
Department of Public Health

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**MAURA T. HEALEY**  
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COMMISSIONER

# Massachusetts Commission on Falls Prevention

## Phase 5 Report: Towards a Comprehensive Plan for Addressing Older Adult Falls in Massachusetts

**2025**

Massachusetts Department of Public Health





## Legislative Mandate

Pursuant to Massachusetts General Law Chapter 111, Section 224:

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 statute further requires that the Commission submit:

biennially, 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;
- 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;
- (2) 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;
- (3) programs that encourage partnerships to prevent falls among older adults and prevent or reduce injuries when falls occur; and
- (4) 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.

The Commission respectfully submits the below report in compliance with these requirements.

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## **Acknowledgments**

This report was prepared by Max Rasbold-Gabbard, Sam Riley, Beth Hume, Julia Lane, Alexandria Papadimoulis, and Holly Hackman. Thanks to all Commission members for their thoughtful insights.

## Executive Summary

The 2024 report of the Massachusetts Commission on Falls Prevention presents the impact of falls among older adults in Massachusetts and recommends that the Commonwealth develop a statewide strategic plan for falls prevention that integrates the Commission's previous recommendations.

The most recent available data indicate that the Commonwealth faces:

- **Rising Fall-Related Deaths:** From 2010 to 2022, the age-adjusted rate of fall-related deaths among older adults in Massachusetts increased by 119%, from 43.2 to 94.7 per 100,000 persons. This rate surpasses the national average, highlighting a critical public health concern.
- **Demographic Disparities:** Fall death rates have risen across all racial and ethnic groups, with the most significant increases among (1) White, non-Hispanic/Latinx (from 50.5 in 2010 to 97.7 in 2022), (2) Asian and Pacific Islander (from 40.4 in 2010 to 53.1 in 2022) populations. The five-year (2018-2022) average annual fall death rate was highest among American Indian/Alaska Native Non-Hispanic/Latinx and White Non-Hispanic/Latinx populations (86.2 and 85.8, respectively), which was 3.1 times the rate of Black Non-Hispanic/Latinx older adults, who experienced the lowest rate (27.6). The rates are notably higher among those aged 85 years and older.
- **Economic Impact:** The projected lifetime costs associated with fatal fall injuries in 2022 are estimated at \$3.29 billion, with hospital charges for fall-related injuries reaching \$1.1 billion in the same year.

The Commission recommends that the Commonwealth develop a comprehensive statewide plan to reduce older adult falls that integrates the Commission's previous findings.

As a framework for these efforts, the Commission endorses the use of a recently developed tool in a report from the Association of State and Territorial Health Officers—*Expanding Falls Prevention Through Surveillance, Community-Clinical Linkages, and Strategic Planning and Evaluation*. Released in September 2023, the ASTHO report identifies community-clinical linkages as a key component in effective falls prevention efforts and offers recommendations on how to support and expand such linkages through existing state health department activities.

In its previous reports, the Commission highlighted opportunities for building and evaluating such linkages—from increasing clinical falls risk screening and assessment, to expanding community evidence-based falls prevention programs, to improving data collection and analysis on falls to better target prevention efforts. The Commission recommends that the Commonwealth develop a statewide strategic plan for falls prevention that can guide the implementation of these recommendations.



## Introduction

The Commission has long observed that falls and fall-related injuries are a major and growing public health problem that affect Massachusetts' older residents and the systems of care that support them. From 2010-2022 the age-adjusted rate of fall-related deaths among older adults increased by 119%, from 43.2 per 100,000 in 2010 to 94.7 in 2022 (See Figure 1).<sup>1</sup> For older adults—those age 65 and over—falls happen in the home, in public, or in care facilities, and can have serious consequences, like broken bones, traumatic brain injuries, and death.<sup>2,3</sup> After a fall, older adults can become afraid of falling again, leading to a decrease in everyday activities, which can lead to declines in physical strength and mental health; those outcomes can even further increase the risk for a fall.<sup>4</sup>

Despite the imposing threat they present, falls and fall-related injuries are largely preventable and are not an inevitable part of aging. A broad range of interventions can protect against a wide array of risk factors linked to falls. For example:

- Clinical fall risk screening, risk factor assessment, and referrals to intervention using the CDC Stopping Elderly Accidents, Deaths & Injuries (STEADI) framework. Unfortunately, evidence suggest that screening rates are low and STEADI tools are underused.<sup>5</sup>
- Evidence-based classes can help older adults build and maintain strength. Most of these interventions are months-long programs. Some, like the Tai Chi for Fall Prevention or Otago Exercise program, focus solely on improving strength, balance, and range of motion. Others, like PreFalls and Stepping On integrate combine exercise with education on how to address other fall risk factors.
- Proper vision care can help people see their environment and better maintain their balance.
- Medication management can help adults safely use or avoid drugs that may cause dizziness, blood pressure issues, and cognition issues that can increase fall risk.
- Home modifications, like installing grab bars in bathrooms or removing tripping hazards, can making it safer for people to move around where they live.
- Age-friendly local and regional planning and development can make it easier and safer for people to get around in their communities.<sup>6</sup>

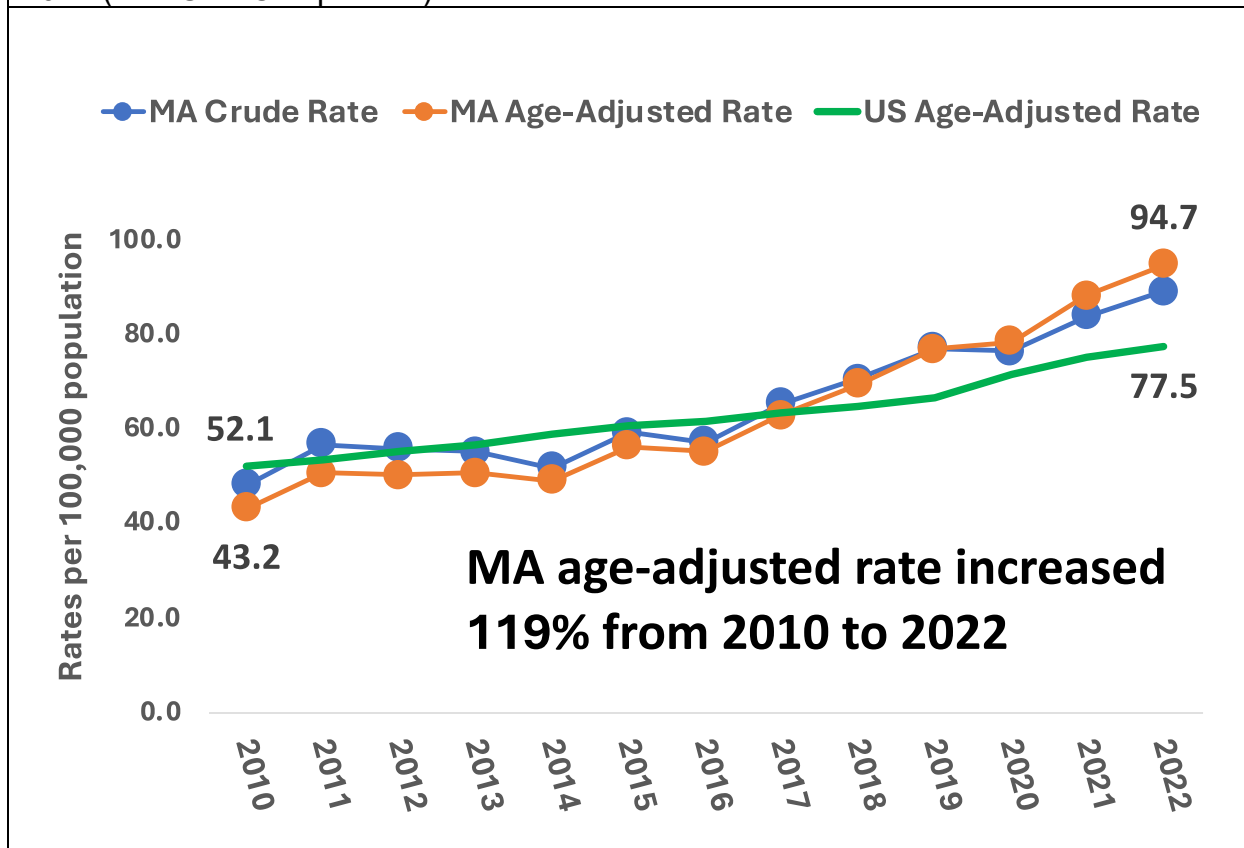
### **About the Massachusetts Commission on Falls Prevention**

Formed in 2011, the Massachusetts Commission on Falls Prevention is a [statutory body](#) charged with investigating the serious public health issue of older adult falls in Massachusetts and recommending best strategies to reduce falls, fall-related injuries, and the health care costs associated with them. The Commission meets regularly to study issues related to its charge, develop recommendations, and draft reports, which are issued every two years.

The risks of falls and how to prevent them is well-worn territory in the landscape of public health literature. Yet fully confronting the issue of older adult falls in Massachusetts requires overcoming significant barriers, which the Commission has addressed in its previous reports.

### The Devastating Impact of Older Adult Falls

Figure 1: Trends in Unintentional Fall Death Rates, MA Residents 65+ Years, 2010-2022 (with U.S. Comparison)



Unintentional falls among older adults are a leading cause of fatal and nonfatal injury in the U.S. and Massachusetts (MA).<sup>1</sup> In Massachusetts, unintentional fall deaths are the second leading type of injury death among all MA residents, after unintentional drug poisonings (See Table 1). The trend in the age-adjusted fall death rate among MA older adults is rising at a troubling pace, increasing 119% from 2010 to 2022 (from 43.2 to 94.7 per 100,000 persons, respectively).<sup>1</sup> The comparable U.S. age adjusted rate was 52.1 per 100,000 persons in 2010 and 77.5 per 100,000 persons in 2022—an increase of 48.7%. Of the MA fall deaths, 81% occur in the home. .<sup>7</sup>

Rank	Category	Count	% of all injury deaths**
1	Unintentional Drug Poisonings	2,472	43%
2	Unintentional Fall Deaths*	1,260	22%
3	Suicide (all mechanisms)	624	11%
4	MV Traffic (all person types)	467	8%
5	Unintentional Suffocation (e.g. choking/aspiration)	200	4%
6	Homicide (all mechanisms)	172	3%

Data Source: Registry of Vital Records and Statistics, Massachusetts Department of Public Health. 2022 Death Files. 2022 death data are preliminary.<sup>a</sup>

From 2010 to 2022, the rates of fall deaths in older adults have increased across most of the race/ethnic, sex, age subgroups, and urban and rural populations examined,

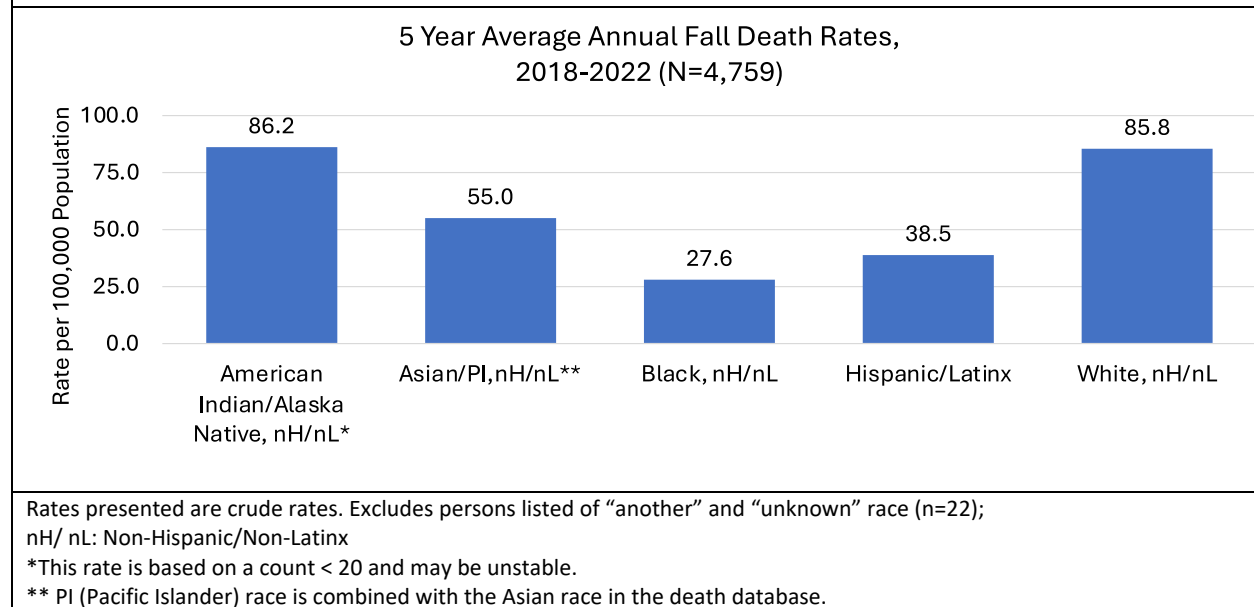
- By Race and ethnicity:** Fall death rates in older adults have increased across all racial and ethnic groups from 2010 through 2022. The largest increases were among the White, non-Hispanic/Latinx population, with a 93% increase (from 50.5 in 2010 to 97.7 in 2022) and the Asian and Pacific Islander, non-Hispanic/Latinx population, a 31% increase (from 40.4 in 2010 to 53.1 in 2022). Disparities in fall death rates exist across racial/ethnic groups: the five-year (2018-2022) average annual fall death rate was highest among American Indian/Alaska Native Non-Hispanic/Latinx and White Non-Hispanic/Latinx populations (86.2 and 85.8 per 100,000 persons, respectively), which was 3.1 times the rate of Black Non-Hispanic/Latinx older adults, who experienced the lowest rate (27.6 per 100,000 persons) (See Figure 2).
- By Age:** Fall death rates in MA increased most dramatically among those ages 85 and older, with rates for that group increasing 163%, from 159.8 to 419.5 per 100,000 persons from 2010 to 2022.<sup>7</sup> In 2022, age-specific fall death rates among persons aged 85 years and older were nearly five times the rate for those aged 75-84 years, and 21 times the rate for those aged 65-74 years.

Following a decline in acute care hospital-treated nonfatal fall injuries during the early phase of the pandemic, emergency department visit and hospital stay rates for these events have increased 19.9% and 4.9%, respectively, from FFY2020 to FFY2022.<sup>8</sup> Nonfatal falls often result in significant injuries, including traumatic brain injuries (TBI), hip fractures, and spinal cord injuries. In FFY2022, 26% of older adult fall-related ED visits had an associated traumatic brain injury and 28% of fall-related injury

<sup>a</sup> Please be advised that 2022 data are preliminary and subject to change. Raw preliminary data may be incomplete or inaccurate and have not been fully verified, and revisions are likely to occur following the production of these data. The Department of Public Health strongly cautions users regarding the accuracy of statistical analyses based on preliminary data and particularly with regard to small numbers of events

hospitalizations had an associated hip fracture.<sup>8</sup> Falls are also the leading cause of spinal cord injuries among older adults. These injuries can lead to spiraling decline in health, quality of life, and a loss of independence.

Figure 2: Select Demographics: Average Annual Fall Death Rates by Race and Ethnicity, MA Residents, 2018-2022



These physical tolls are also linked to substantial financial costs associated with fall-related injuries sustained by older adults. Projected lifetime costs associated with fatal fall injuries in 2022 among Massachusetts residents ages 65 and older are estimated at \$3.29 billion, which includes medical care, work loss, value of statistical life, and quality of life loss costs.<sup>7</sup> Fall-related injury hospital charges for older adults submitted in FFY2019 were approximately \$864.4 million; in 2022, they were \$1.1 billion.<sup>8</sup>

- The urgency of making systemic changes to address older adult falls is underscored by the rapid growth of the Massachusetts population that is age 65 and older. Population projections suggest that the proportion of Massachusetts residents who are older adults will grow from about 17.4% in 2021 to 23% by 2035.<sup>9,10</sup> Without significant and dedicated focus on falls prevention services, the rate of fall-related fatalities will continue to rise alongside the older adult population.

### Developing a Comprehensive Plan for Addressing Older Adult Falls in Massachusetts

The data on older adult falls paint a sobering picture: a steep trend upwards in fall injuries in a rapidly growing segment of the population, resulting in enormous health

care costs, long-term health challenges, and death at a scale that outpaces those from gun violence, suicide, and car crashes combined.

While we don't understand the reasons for the dramatic increase in older adult fall deaths, we surmise that the causes of falls are multifactorial. Possible contributors to the rise include:

- A growing older adult population combined with societal ageism and shifts in agencies' priorities away from older adult issues has resulted in a lack of attention to older adult falls and older adult health.
- A growing number of older adults are living longer with at least one chronic condition, some of which can result in chronic pain, exercise intolerance, or physical inactivity, which in turn increase the risk of falls.
- Increasingly complex medication regimens that result in dizziness, impaired balance, changes in vision, and decreased proprioception and consequently increase fall risks. Anticoagulants may also be playing a role in the severity of falls.
- An increase in sedentary lifestyles, isolation, and urban design that is not pedestrian-friendly, can lead to less physical activity and reduced strength and balance.
- Old housing stock, high housing prices, high costs for home modifications, and building codes that don't support aging in the right place result in older adults living in residences with many trip hazards, contributing to the 50% of falls deaths that occur at home.
- Both within DPH, across state government, and externally in community-based organizations, there is no single organization that coordinates statewide falls prevention activities across the Commonwealth.

Generating an evidence base that supports a clearer understanding of the factors affecting older adult falls in Massachusetts, mapping the existing prevention activities in the state, identifying opportunities for new interventions, and coordinating prevention work across the Commonwealth is a complex challenge—but one that must be confronted.

To support a renewed effort to address this issue, the Commission recommends:

- Enhanced surveillance and analysis
- Community-Clinical Linkage that the Commonwealth develop a comprehensive statewide plan to reduce older adult falls that integrates the Commission's previous findings.

As a framework for these efforts, the Commission endorses the use of a recently developed tool in a report from the Association of State and Territorial Health Officers—*Expanding Falls Prevention Through Surveillance, Community-Clinical Linkages, and Strategic Planning and Evaluation*. Released in September 2023, the ASTHO report

identifies community-clinical linkages as a key component in effective falls prevention efforts and offers recommendations on how to support and expand such linkages through existing state health department activities.<sup>11</sup>

Community-clinical linkages (CCLs) are connections between health care providers, community organizations, and public health agencies that aim to improve population health and support chronic disease prevention and management. These linkages play a crucial role in enhancing patients' access to preventive and medical care services while promoting healthier communities.<sup>12,13</sup>

CCLs help coordinate health care delivery, public health, and community-based activities to promote healthy behavior.<sup>13</sup> These can include coordinating medical care and other community services at a single location, coordinating services between different locations, and developing effective referral systems to connect patients with resources.<sup>12,13</sup> As a result of these linkages, patients receive more support in changing unhealthy behaviors, clinicians get assistance in offering services they cannot provide themselves, and community programs connect more effectively with their target clients.<sup>13</sup>

To understand and improve these linkages, *Expanding Falls Prevention* outlines a three-step process:

- (1) Surveying current falls prevention activities, including surveillance and evaluation efforts; clinical falls prevention, community falls prevention, and community-clinical linkages; strategic planning; and partner engagement and communications
- (2) Assessing how existing activities can support community-clinical linkages
- (3) Planning and implementing revised and expanded activities that support community-clinical linkages around falls prevention.

In its previous reports, the Commission has made its own efforts to explore these issues.

- Phase 1: The Commission's first report on what was, at the time, the current landscape around falls prevention, explored resources and gaps in surveillance, existing work around community-based falls prevention and home modification programs, clinical falls prevention interventions, and falls prevention communications strategies.
- Phase 2: The second report expanded on recommendations grounded in its findings from its work in Phase 1. The report emphasized the importance of multi-faceted approaches involving various stakeholders, including health care providers, community organizations, and government agencies. The Commission emphasized that a coordinated, multi-faceted approach involving health care, public health, aging services, and other sectors is needed to effectively reduce falls and fall-related injuries among older adults in Massachusetts.

- Phase 3: The Commission's Phase 3 report emphasized the critical role of primary care providers (PCPs) in preventing falls among older adults. The report underscored the importance of integrating medical and community-based sectors to effectively reduce falls and related injuries.
- Phase 4: Finally, the Commission 2022 report emphasized the need for systemic changes to strengthen local public health infrastructure, support collaboration among various stakeholders, and integrate age-friendly strategies into statewide planning efforts.

Throughout its reports, the Commission has made an array of recommendations:

- Improve data collection and analysis on falls and fall-related injuries to better target prevention efforts.
  - Developing and implementing strategies that improve the completion of relevant injury codes, where feasible. Specific strategies could include providing guidance to hospitals and medical coders around coding of activity and location of injury; providing hospitals and coders with feedback on the quality and completeness of data coming from their institution; and developing a scheme for reimbursing providers for using such codes.
- Increase falls risk screening and assessment in clinical settings, particularly primary care.
  - Enhancing falls risk screening and interventions within primary care settings by engaging stakeholders such as Accountable Care Organizations (ACOs) and insurers. This includes integrating falls prevention as a quality indicator, modifying Electronic Health Records (EHRs) to support falls screening, and educating primary care providers about falls prevention strategies.
  - As part of standard practice, PCPs (or a member of their medical team) should use the CDC STEADI toolkit to screen for falls and conduct falls risk assessments at least annually with older adult patients.
  - PCPs (or a member of their medical team) who have older adult patients should increase their knowledge and familiarity with the elder service delivery network and community-based interventions that help older adults prevent falls.
  - As a routine best practice, PCPs (or a member of their medical team, including but not limited to OTs, PTs, etc.) should refer older adult patients who are identified as at risk for falls to community-based falls prevention programs and services.
  - Massachusetts health care licensing boards (such as the Board of Registration in Medicine, the Board of Registration in Nursing, the Board of Registration of Physicians Assistants) should explore requiring continuing education on the topic of older adult falls prevention and risk

assessment as a condition for licensure for those serving older adults within their patient caseloads.

- The Massachusetts Medical Society, through its Committee on Geriatric Medicine, should consider developing an ongoing plan to encourage gerontology and PCPs to conduct falls risk assessment with older adult patients, at least annually.
- Expand evidence-based falls prevention programs in community settings.
  - Expanding and promoting community-based falls prevention programs, ensuring these programs are accessible, sustainable, and linked to clinical providers through referral systems.
  - Allocating resources to support regional approaches to implementation of evidence-based falls prevention practices by local boards of health and partner agencies.
- Enhance public education and awareness about falls prevention.
- Improve care transitions and communication between providers to reduce fall risks.
- Address environmental hazards that contribute to falls through home safety assessments and modifications.
  - Fostering collaboration in healthy aging community design to create safer environments that reduce fall risks.
  - Developing a pilot program that pairs home safety assessments—including fall risk assessments supported by occupational therapists—with subsidized home modifications to mitigate injury risk.
- Develop a statewide strategic plan for falls prevention with dedicated funding and infrastructure to support implementation.
  - The Massachusetts Executive Office of Elder Affairs should add falls prevention programming to its statewide needs assessment to improve our understanding of the landscape of services, especially those that cater to culturally diverse and disabled older adult populations.
  - Cataloging local, regional, and statewide planning processes that affect older adult falls hazards; embed falls prevention considerations and age-friendly strategies into those efforts; and collaborate with stakeholders to assure falls are specifically and explicitly addressed through state-promoted assessments and planning processes.

These recommendations and their underlying findings from the Commission's previous reports address the first two prongs of the ASTHO framework: (1) surveying falls prevention activities and (2) assessing how those activities can support community-clinical linkages. Over the coming two years, the Commonwealth should harness the Commission's previous findings to address the third prong: planning and implementing revised and expanded activities to address the gaps explicitly identified in the survey.

## Phase 5 Recommendations

Several statewide falls prevention coalitions in other jurisdictions have drafted multiyear action plans based on the review of state-level data, stakeholder engagement, and logic modeling. Key initial steps for Massachusetts should include:

- 1. Developing and implementing a research agenda and surveillance strategy to fill gaps in the evidence base around older adult falls.* Building a robust evidence base to understand the causes of falls among older adults in Massachusetts is crucial for developing effective prevention strategies. By comprehensively assessing the gaps in existing literature, researchers and public health practitioners can advance a research agenda that better identifies contributing factors and guides the development of tailored prevention programs
- 2. Centering intersectional equity in falls prevention.* To effectively address the growing impact of older adult falls in Massachusetts, the planning and implementation of prevention activities must be fully integrated with statewide efforts to advance intersectional health equity. Such efforts should involve partnering with communities to dismantle existing inequities in access to and uptake of fall prevention programming and outcomes in populations most impacted by racial inequities, particularly Black, Indigenous, Hispanic/Latino, and Asian/Pacific Islander older adults. The planning process should involve meaningful engagement with these communities to co-create culturally responsive interventions and solutions to transform the root causes that perpetuate these health inequities. Data collection and analysis should be disaggregated by race and ethnicity to identify and address specific disparities in fall risks and outcomes.
- 3. Allocating and reallocating resources throughout the planning, implementation, and evaluation processes.* Effectively developing revised and expanded activities, putting those activities into place, and assessing their impact requires dedicated resources from the state to support staff and contractors leading such work. Critically, Massachusetts should ensure that there is sufficient funding allocated to evaluation to determine the impact of the activities.
- 4. Systems and stakeholder mapping.* Stakeholder engagement and mapping are crucial components in developing effective falls prevention programs for older adults. By involving diverse stakeholders such as healthcare providers, community organizations, older adults themselves, and their caregivers, programs can better address the complex factors that contribute to falls risk. Stakeholder mapping helps identify key players at different levels—from individual older adults to policymakers—ensuring comprehensive representation of perspectives.
- 5. Program and evaluation planning.* Program planning and evaluation are crucial components in the development and implementation of effective older adult falls prevention initiatives. Careful planning ensures that interventions are tailored to the specific needs of the target population, utilize evidence-based strategies, and

allocate resources efficiently. Evaluation, on the other hand, allows organizations to assess the impact of their programs, identify areas for improvement, and demonstrate the value of their interventions to stakeholders. By systematically collecting and analyzing data on program outcomes, such as reduced fall rates or improved balance among participants, evaluations provide valuable insights that can guide program refinement and expansion. Furthermore, evaluation results can be used to secure funding, justify resource allocation, and contribute to the broader knowledge base on falls prevention strategies. Ultimately, robust program planning and evaluation processes help ensure that falls prevention initiatives are not only implemented effectively but also continuously improved to maximize their impact on older adults' health and well-being.



## Appendix A: Commission on Falls Prevention Membership

- **Julia Lane, Chair**  
Director, Injury Prevention and Control Program  
*Massachusetts Department of Public Health*
- **Almas Dossa**  
Assistant Director, Fee-For-Service programs, Home Health, Hospice and Therapy Services, MassHealth Office of Long Term Care Services & Supports  
*MassHealth*
- **Brian Doherty**  
President and CEO  
Massachusetts Assisted Living Association
- **Ish Gupta**  
Medical Director, Team Health Hospitalist, Saint Vincent Hospital  
*Massachusetts Medical Society*
- **Melissa Jones**  
Quality Coordinator, Beth Israel Lahey Health at Home  
*American Physical Therapy Association of Massachusetts*
- **Jennifer Kaldenberg**  
Clinical Assistant Professor, BU, College of Health and Rehab. Sciences: Sargent College  
*Massachusetts Association for Occupational Therapy*
- **Helen Magliozzi**  
Director of Regulatory Affairs  
*Massachusetts Senior Care Association*
- **Joanne Moore**  
Director, Duxbury Senior Center  
Massachusetts Association of Councils on Aging
- **Annette Peele**  
Director of Community Programs  
Massachusetts Executive Office of Elder Affairs
- **Colleen Pierro**  
Director of Regulatory and Clinical Affairs  
*Home Care Alliance of Massachusetts*
- **Emily Shea**  
Commissioner, Commission on Affairs of the Elderly, City of Boston  
*Massachusetts Home Care*
- **Mary Sullivan**  
Pharmacy Manager, Senior Whole Health  
*Massachusetts Pharmacists Association Foundation*
- **Deborah Washington**  
Director of Diversity, Patient Care Services, MA General Hospital  
*American Association of Retired Persons*

## References

1. Registry of Vital Records and Statistics, Massachusetts Department of Public Health. 2010-2022 Death Files.
2. Sterling DA, O'Connor JA, Bonadies J. Geriatric falls: injury severity is high and disproportionate to mechanism. *J Trauma*. 2001;50(1):116-119. doi:10.1097/00005373-200101000-00021
3. Choi NG, Choi BY, DiNitto DM, Marti CN, Kunik ME. Fall-related emergency department visits and hospitalizations among community-dwelling older adults: examination of health problems and injury characteristics. *BMC Geriatr*. 2019;19(1):303. doi:10.1186/s12877-019-1329-2
4. Vellas BJ, Wayne SJ, Romero LJ, Baumgartner RN, Garry PJ. Fear of falling and restriction of mobility in elderly fallers. *Age Ageing*. 1997;26(3):189-193. doi:10.1093/ageing/26.3.189
5. Falls Prevention in Adults 65 Years and Over: A Call for Increased Use of an Evidenced-Based Falls Prevention Algorithm. Accessed August 5, 2024. <https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2024/01/16/falls-prevention>
6. Stevens JA, Burns E. *A CDC Compendium of Effective Fall Interventions: What Works for Community-Dwelling Older Adults*. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2015:216.
7. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS). 2024. Accessed July 2, 2024. <https://www.cdc.gov/injury/wisqars/index.html>
8. Center for Health Information and Analysis. MA Inpatient Hospital Discharge and Observation Stays (Hospital Stays) and MA Emergency Department Discharges Databases; Federal Fiscal year (Oct 1, 2021 – Sep 30, 2022). Accessed February 16, 2022. <https://www.chiamass.gov/case-mix-data/>
9. Massachusetts Population Projections. UMass Donahue Institute. Accessed March 7, 2022. <http://www.pep.donahue-institute.org/#>
10. U.S. Census Bureau. 2019: American Community Survey 1-Year Estimates Detailed Tables, Table S0101: Age and Sex. Accessed December 3, 2021. <https://data.census.gov/cedsci/table?g=0400000US25&tid=ACSST1Y2019.S0101>
11. Pendergast C, Sands T, Shah P, Bethume T. *Expanding Falls Prevention Through Surveillance, Community-Clinical Linkages, and Strategic Planning and Evaluation*. Association of State and Territorial Health Officials; 2023. Accessed July 31, 2024.

<https://www.astho.org/topic/report/expanding-falls-prevention-through-surveillance-community-clinical-linkages-strategic-planning-evaluation/>

12. Slone L. Clinical-Community Linkages. Let's Get Healthy California. August 19, 2016. Accessed July 31, 2024. <https://letsgethealthy.ca.gov/clinical-community-linkages/>
13. Clinical-Community Linkages. Accessed July 31, 2024. <https://admin.ahrq.gov/ncepcr/tools/community/index.html>