



***Maricopa Association of Governments  
Regional Action Plan  
on Aging & Mobility***



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March 1, 2002

The Honorable Skip Rimsza  
Chairman, MAG Regional Council  
Mayor of Phoenix  
200 W. Washington  
Phoenix, Arizona 85003

Dear Mayor Rimsza:

The Maricopa Association of Governments Elderly Mobility Working Group is pleased to submit the Regional Action Plan on Aging and Mobility that was approved by the Regional Council on October 3, 2001. The Plan provides a comprehensive overview of senior mobility issues. There are 25 recommendations that will provide the framework for communities and agencies to make substantive changes to address the transportation needs of seniors in the future.

By creating the Elderly Mobility Working Group and supporting its efforts, the Regional Council has acknowledged the significance of the transportation needs of the ever-expanding aging population. More than 75 stakeholders participated from cities, state government, transit agencies, senior agencies, health care providers, retirement communities, faith-based groups and educational institutions.

Each work group studied the issues and listened to national and local experts on model programs and policies, as well as obtaining input from seniors about their transportation problems and ideas for solutions. This information was used to make recommendations in four key areas:

- Infrastructure and Land Use
- Alternative Transportation Modes
- Older Driver Competency
- Education and Training

We have developed a good plan—a good start. The next critical step is to work collaboratively with all members of the community to successfully implement these best practice solutions across the region.

Sincerely,



Claudia Walters, Chair  
Elderly Mobility Stakeholders Group  
City of Mesa, Councilmember

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# Executive Summary

The number of elderly people has increased dramatically throughout the nation in recent years, and is expected to increase at a record pace. This phenomenon is due, in part, to the fact that people are living longer as a result of various medical breakthroughs and healthier lifestyles. The tremendous age wave will continue to occur over the next 30 years as people born during the country's baby boom (1946-1964) reach retirement.

Arizona and the Maricopa region will experience the same effects of the age wave as the rest of the country. Such rapid increases in the elderly population will have significant impacts on transportation, as well as the economy, social services, housing, health services, and long-term care. As the percentage of elderly residents in our country and region increases, local governments, transit service operators, medical and social service providers will be faced with the challenge of providing services to an aging population. With so many challenges ahead, a proactive approach is needed.

The Maricopa Association of Governments (MAG) Regional Action Plan on Aging & Mobility focuses on the impacts of aging on mobility, and provides proactive strategies that will enhance the safety and mobility options available for current and future senior residents. This report also reviews the location and scope of the region's current elderly population, discusses the changing needs of the elderly and considers the implications of aging on mobility. For the purposes of this report a "senior" or "elderly" person is defined as anyone over the age of 60.

Chapter 1 presents a profile of the nation's elderly. Chapter 2 addresses the demographics and needs of seniors in Arizona. Chapter 3 discusses the implications of aging on personal mobility, overall quality of life and general travel characteristics.

Chapter 4 details the MAG Elderly Mobility planning and public input process, and identifies the 25 recommendations for creating safe and enhanced mobility options for our region's senior population. The 25 strategies are organized in four key areas:

- Infrastructure and Land Use
- Alternative Transportation Modes
- Older Driver Competency
- Education and Training

Dealing with the impacts of aging on mobility will take a comprehensive and interdisciplinary approach. No one agency or program will solve all of the transportation needs of the elderly. There is no silver bullet, as there is no one type of older person. What is called for in this plan is a coordinated community response that is multi-faceted and multi-disciplinary, requiring many different organizations to participate in the solution. Municipalities, transit agencies, social service providers, and health care organizations will need to work together to ensure that senior residents remain active and valuable members of our community. The 25 recommendations in the MAG Regional Action Plan on Aging & Mobility are the first steps in this process.



## Key Concepts

Over 75 community stakeholders helped develop the plan with input from seniors and boomers who participated in the public input process. The following are some of the key concepts and underlying themes of the 25 recommendations:

- *The transportation needs of the region's elderly vary greatly, given their diversity in characteristics such as location, income and physical health. Therefore, there is no one single solution; strategies will need to be as diverse as the population and offer as much flexibility as possible to meet the demands of the baby boomer generation.*
- *Tomorrow's senior citizens will be accustomed to an even higher level of mobility than today's elderly, with most having been car owners much of their lives. Therefore, most older adults will continue to rely heavily on their private automobiles for mobility as they age. Many, however, will eventually be unable to drive themselves, and will need to find an alternative mode of travel. Faced with limitations on mobility, the ability of the region's elderly to access necessary services and facilities may be compromised.*
- *As older drivers lose their ability to drive, the need and demand for elderly transportation services will increase exponentially. Although local jurisdictions, the area agencies on aging, and other service providers have utilized available federal funding to provide transportation services to specific destinations, the ability of these agencies to meet the escalating needs of seniors in the future is uncertain. New, more flexible transportation choices will be needed.*
- *Given the multi-faceted nature of the problem, the solutions will need to be multi-dimensional and focus on:*
  - *Making streets and highways safer.*
  - *Changing development patterns to create communities where the need for driving is reduced and services are in closer proximity to where seniors live.*
  - *Creating more alternatives to driving.*
  - *Enhancing driver capabilities.*
  - *Providing education and training to increase the public's awareness of mobility alternatives.*

## Next Step: Implementation

To take this plan and move it into action, an Elderly Mobility Stakeholder Group will convene on a quarterly basis. This group will oversee implementation of the strategies and act as a forum for discussion on aging and mobility issues among key community institutions in the region.

# RECOMMENDATIONS AT A GLANCE

Infrastructure/land Use	
<b>Streets &amp; Highways</b>	<p>1. Review the MAG Uniform Standard Specification &amp; Details for Public Works Construction and ADOT's Design Standards to:</p> <ul style="list-style-type: none"> <li>• Determine how and which guidelines from the FHWA Older Driver Highway Design Guidelines can be incorporated and;</li> <li>• Determine if certain traffic calming measures could be included as a new section in the MAG Uniform Standard Specification &amp; Details for Public Works Construction.</li> </ul> <p>After the analysis, have the FHWA Design Guidelines incorporated into both MAG and ADOT Design Standards as appropriate.</p>
<b>FHWA Older Driver Guidelines</b>	<p>2. Require the consideration of the FHWA Older Driver Highway Design Guidelines in the ADOT/MAG application and review of federally funded projects.</p>
<b>Maintenance of Current Infrastructure</b>	<p>3. Encourage dedicated funding for the maintenance of current infrastructure and increase funding to expand programs like Adopt-A-Road. In addition, utilize trained volunteers, school districts, and neighborhood groups to report maintenance problems with the transportation system.</p>
<b>Airport Accessibility</b>	<p>4. Improve the accessibility of transportation facilities and intermodal connections. Start with an analysis of Sky Harbor Airport and then broaden the scope to include Park &amp; Ride lots, major bus transfer points, pedestrian facilities, light rail stops, and possibly local airports. <u>Actions at Sky Harbor Include:</u> (1) Conduct an audit on accessibility and safety issues; (2) Determine specific strategies to minimize the walking demands on seniors; and (3) Ensure that a process exists for the consideration of seniors and other special needs populations in any new airport facilities designs.</p>
<b>Pedestrian Improvements</b>	<p>5. Review and update the MAG Pedestrian Area Policies and Design Guidelines to address and promote senior mobility. At a minimum, the review should include:</p> <ul style="list-style-type: none"> <li>• Elderly/pedestrian-friendly signage.</li> <li>• More open space pedestrian refuge areas in downtown and suburban settings.</li> <li>• Turn/Refuge Islands.</li> <li>• In-pavement lighting on crosswalks.</li> <li>• Audible signals at crosswalks.</li> <li>• Improved parking lot design.</li> <li>• Narrow street design.</li> <li>• Implementation strategies to encourage incorporation of the Guidelines into the planning and design of transportation infrastructure.</li> </ul>
<b>Land Use Improvements</b>	<p>6. Build upon the land use principles included in the MAG Pedestrian Area Policies and Design Guidelines and other adopted MAG plans and policies to develop land use guidelines (neighborhood and subdivision based) to meet the needs of an aging population. The guidelines must include the development of a regional strategy that consistently locates services (retail, medical, social service and recreation) in proximity to where seniors live.</p> <ul style="list-style-type: none"> <li>• Incorporate guidelines into the city-based Sub-Division Design Guidelines and subdivision design review process, and widely distribute these guidelines to developers, city planners, zoning commissions, and school districts to use during in their site plan reviews.</li> </ul>

<b>Education and Awareness</b>	<p>7. Educate city planners, developers, students, and community groups on how to prepare and manage senior mobility issues in their communities through the following methods:</p> <ul style="list-style-type: none"> <li>• Publish a Senior Mobility Guidebook.</li> <li>• Organize a series of elderly/pedestrian urban/suburban design forums targeting the real estate and land development industries, and city planners.</li> <li>• Develop a Senior Transportation/Land Use Design Awards Program for cities that implement senior mobility improvements.</li> </ul>
<b>Public Involvement</b>	<p>8. Develop and train city-based senior audit teams to go on-site to review the current infrastructure/land use and take part in the transportation project review process. Partner with AARP to provide training to the team for what to look for in the audit, and assist city planning groups in the design of land use and transportation plans.</p>
<b>Intelligent Transportation Systems</b>	<p>9. Request that the MAG Intelligent Transportation Systems Committee consider the development and implementation of intelligent transit stop-type technologies.</p>
<b>Implementation</b>	<p>10. Dedicate MAG staff to the ongoing tracking and implementation of the Regional Action Plan recommendations. MAG staff should focus efforts in following areas:</p> <ul style="list-style-type: none"> <li>• Integrating the Aging &amp; Mobility Recommendations into the work of the MAG Modal Committees.</li> <li>• Serving as a resource to community stakeholder groups who take the lead on some of the recommendations.</li> <li>• Convening a quarterly stakeholder meeting to assess the implementation process.</li> </ul>
<b>Alternative Transportation Modes</b>	
<b>Coordination</b>	<p>11. Establish a Transportation Consortium to design and oversee a Transportation Coordinated System for older adults and other transportation limited-populations.</p>
<b>Data and Access to Information</b>	<p>12. Develop a Transportation Data System and promote one place or phone number for people to contact to receive assistance with transportation.</p>
<b>Expand Services</b>	<p>13. Build the Family of Transportation Services available to older adults and transportation-limited populations by expanding the following programs across the county:</p> <ul style="list-style-type: none"> <li>• Mileage Reimbursement (currently in Mesa and Scottsdale).</li> <li>• Taxi Voucher Program (Cab Connections in Scottsdale).</li> <li>• Peer/Group Travel Training (Community Forum and Valley Metro/Regional Public Transportation Authority).</li> <li>• Neighborhood Circulators/Community Buses (Tempe and Ahwatukee).</li> <li>• Flex Route Bus Routes (currently operating in Avondale, Tolleson, Litchfield Park, Goodyear, Phoenix and Fountain Hills).</li> </ul>
<b>New Options</b>	<p>14. Develop new transportation options:</p> <ul style="list-style-type: none"> <li>• Pilot an Independent Transportation Network (ITN) program in a community that is interested in being a demonstration site. Explore Sun City West as the initial pilot site, and after an evaluation possibly roll-out in other areas.</li> <li>• Pilot a senior van pool program.</li> </ul>

<i>Alternative Transportation Modes (cont.)</i>	
<b>Private Sector Involvement</b>	15. Promote private sector involvement in providing alternative transportation options to seniors and other special need populations.
<b>Transit Amenities</b>	16. Increase transit use through improved amenities at transportation facilities to include, but not limited to: <ul style="list-style-type: none"> <li>• Shade.</li> <li>• Restrooms at transfer points.</li> <li>• Bike lockers/storage facilities.</li> <li>• Park &amp; Rides.</li> <li>• Water fountains.</li> <li>• Benches.</li> <li>• Increased security.</li> <li>• Optimized stop locations.</li> </ul>
<b>Expand Peer Travel Training</b>	17. Expand or replicate the Peer Travel Training Program utilizing volunteers from the religious community and civic groups, and providing community service incentives.
<b>Funding</b>	18. Encourage legislation which supports funding for transportation coordination efforts.
<i>Older Driver Competency</i>	
<b>Driver Screening &amp; Retraining</b>	19. Develop a Pilot Driver Screening Battery Study. Upon completion and evaluation of the pilot, develop and implement Cognitive/Physical Testing Centers across the Valley utilizing geriatric physicians and certified driving specialists.
<b>Date Collection &amp; Dissemination</b>	20. Improve data collection, analysis and dissemination of aging driver information.
<i>Education &amp; Training</i>	
<b>Driver Intervention &amp; Education</b>	21. Create a Comprehensive Driver Intervention Program (modeled off of “Getting in Gear” in Tampa, Florida) that is centrally located and also available in satellite branch offices in the East/West Valley cities. The program should have the following components: <ul style="list-style-type: none"> <li>• Assessment</li> <li>• Education (Older Driver/AARP 55-Alive and general public education)</li> <li>• Retraining (Behind the Wheel, Useful Field of View)</li> <li>• Mobility Management</li> <li>• Linkage to other case management services if needed</li> </ul>
<b>Public Awareness</b>	22. Develop a Regional Public Awareness/Education Campaign which adopts a fitness to drive or wellness approach and includes the following: <ul style="list-style-type: none"> <li>• Transportation Web site</li> <li>• A “family of publications” for use by multiple groups and target groups, i.e., drivers, concerned family members, health care and law enforcement professionals</li> </ul>

## Education & Training (cont.)

	<ul style="list-style-type: none"> <li>• “Red Flag” Assessment Cards for professionals</li> <li>• Speakers Bureau</li> <li>• Public Service Announcements</li> <li>• Print media feature articles</li> <li>• Ads at bus stops</li> <li>• Involves retirement communities and local businesses</li> <li>• Media involvement/ PR firm</li> </ul>
<p><b>Professional Training</b></p>	<p>23. Develop and implement Education/Sensitivity Training on senior mobility issues to the following professional communities in:</p> <ul style="list-style-type: none"> <li>• Health care</li> <li>• Insurance companies</li> <li>• City traffic engineers</li> <li>• Law enforcement</li> <li>• Court personnel</li> <li>• Transit drivers/personnel</li> <li>• Motor vehicle department personnel</li> <li>• Aging services personnel</li> </ul>
<p><b>Access to Transportation Information</b></p>	<p>24. Publicize and utilize the Senior Help Line as the resource for aging and mobility information covering:</p> <ul style="list-style-type: none"> <li>• Remediation training and educational opportunities for drivers.</li> <li>• Alternative transportation options available.</li> <li>• Linking transportation Web site with a MAP Blast feature to help the user get from point A to point B.</li> </ul>
<p><b>Advocacy</b></p>	<p>25. Advocate for a mandatory insurance discount for seniors who complete the AARP 55-Alive Course.</p>

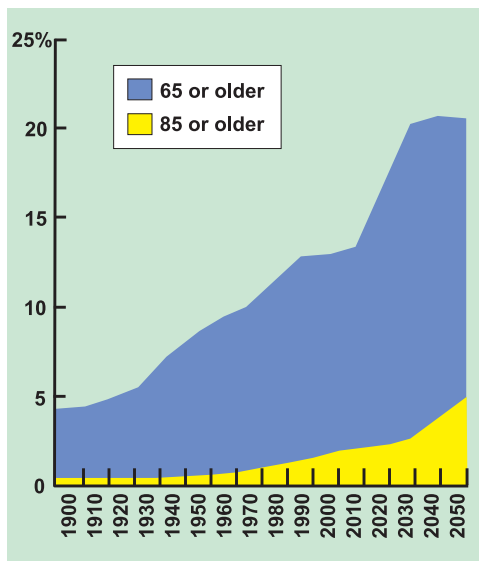
# Chapter 1: The Aging of a Nation

Due to the aging of the baby boomer generation and increases in life expectancy, the United States along with all the other modernized countries of the world, will be experiencing a tremendous “age wave” over the next 50 years. Since 1990, the percentage of Americans age 65 and older has more than tripled. In 1998, older citizens numbered 34.4 million and accounted for 12.7 percent of the nation’s population or about one in every eight Americans. While population projections are not expected to change dramatically between now and 2010, the population explosion will occur between 2010 and 2030. By 2030, there will be about 70 million older persons, more than twice their number in 1998.<sup>1</sup> The number of people 65 and older is expected to jump from representing 13 percent of the population in 2000 to 20 percent in 2030.

## Population Description

The elderly population is often divided into three segments: the “young old” (65-74), “middle old” (75-84) and the “old old” (85+). With improvements in health status, the oldest age group is growing the most rapidly. The Administration on Aging reports that the 65-74 year-old age group was eight times larger than its 1900 counterpart; the 75-84 year-old group was 16 times larger and the over 85 year-old group was 34 times larger. The growth rate of those over age 85 is expected to increase by 56 percent between 1995 and 2010; and 116 percent between 2030 and 2050, with the expected cumulative growth to be more than 400 percent between 1995 and 2050.<sup>2</sup>

**Fig. 1: The number of Americans aged 65 and older will double in 30 years**  
 Percentage of total population                      Number of persons (in millions)



Year	65 or older	85 or older
1900	3.1	0.1
1910	4.0	0.2
1920	4.9	0.2
1930	6.6	0.3
1940	9.0	0.4
1950	12.3	0.6
1960	16.6	0.9
1970	20.1	1.5
1980	25.5	2.2
1990	31.2	3.1
2000	34.8	4.3
2010	39.7	5.8
2020	53.7	6.8
2030	70.3	8.9
2040	77.2	14.3
2050	82.0	19.4

Source: U.S. Census Bureau, middle-series projections, American Demographics, November 2000, *Retirement Redefined*, Rebecca Gardyn.

# Economic Well-Being

## Employment

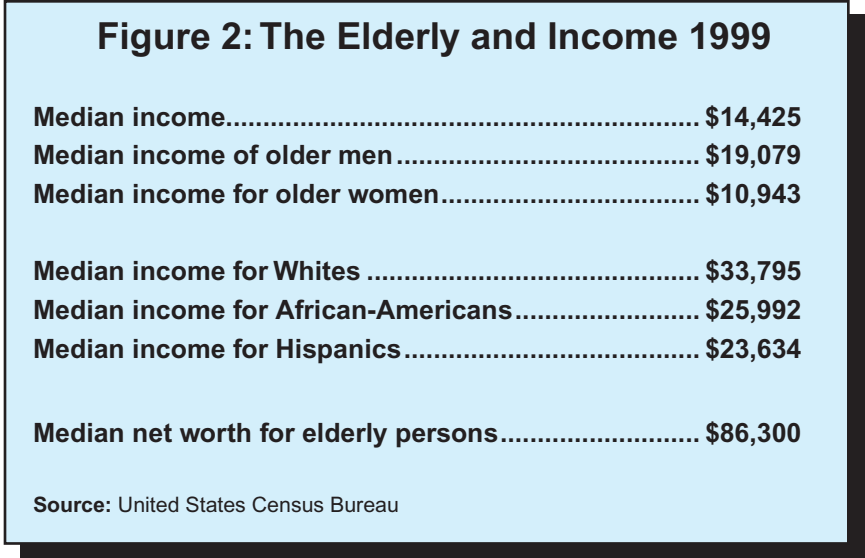
About four million older Americans (12%) were in the labor force or actively seeking work in 1999, constituting three percent of the United States labor force. Many of these individuals were working in part-time jobs without benefits. About 21 percent of older workers in 1999 were self-employed, compared to seven percent of younger workers.

For those men who return to full or part-time employment, reasons given were improved health, longer life expectancies, unplanned or forced retirement, loss of health insurance coverage, and diminished retirement income because of inflation. Most of these part-time jobs offer no benefits. Men who are forced from a job between the ages of 55-64 are less likely to secure another job at a comparable wage level. Older women are increasingly likely to be in the workforce in their late 50s, a newer trend for women. As a result of the increased labor force participation, today's elderly woman is more likely to have her own retirement income from pensions, savings and Social Security.

## Income

For all older persons reporting income in 1999, 34 percent reported less than \$10,000. Only 23 percent reported \$25,000 or more. For 16 percent of the older population, net worth was below \$10,000 and 17 percent above \$250,000. The aggregate net worth of older adults is staggering: Adults 50+ currently earn almost \$2 trillion in annual income, own more than 70 percent of the financial assets in America, and represent 50 percent of all discretionary spending power.

The economic status of elderly persons has improved dramatically in the past 25 years. The implementation of Medicare, Medicaid, and Social Security combined with the accumulation of savings and stock market investments have contributed to driving the official poverty rate for those age 65 and over from 35 percent in the early 1960s to an all-time low of 10.5 percent today.<sup>3</sup>





## Family Status & Living Arrangements

Elderly women are more likely to live alone than are elderly men. This is especially true among women aged 85 and over, where three of every five women live alone. Currently, 7.6 million elderly women live alone, compared to 2.3 million men. Given these differences in living arrangements, it is not surprising that older men were much more likely to be married than older women in 1999 – with 77 percent of men and 43 percent of women being married. Although divorced older persons represented eight percent of all older persons in 1999, their numbers (2.2 million) have increased five times as fast as the older population as a whole since 1990.<sup>4</sup>

## Health Status

In the last century, advances in treating infectious diseases have increased life expectancy by 29 years. Unfortunately, these advances have not contributed to healthy aging. Today, the average adult will spend more than 10 percent of his or her life in a morbid or ill state, compared to one percent one century ago.<sup>5</sup> According to the Health Care Financing Administration, 80 percent of the 65+ population have one or more chronic diseases, 50.2 percent have two or more, and 21 percent have problems so severe as to limit their ability to perform one or more activities of daily living. The most fragile and challenging group to care for is the 85+ population; 62 percent are so disabled that they are no longer able to manage the basic activities of daily living without help. In the coming decades, the 85+ population will continue to grow, quadrupling in size to approximately 16 million – including more than a million centenarians – by the year 2040.<sup>6</sup> Considering that the 85+ population is the fastest growing segment of our population, the implications on medical practice and the financing of treatment are staggering.

Most older persons have at least one chronic condition and many have multiple conditions. The most frequently occurring conditions per 100 elderly in 1995 were:

- arthritis (49%).
- hypertension (40%).
- heart disease (31%).
- hearing impairments (28%).
- orthopedic impairments (18%).
- cataracts (16%).
- sinusitis (15%).
- diabetes (13%).

A prevalent disease among the very old which has stymied medical researchers over the past decade is Alzheimer's disease. Alzheimer's is a degenerative disorder of the brain which steadily robs its victims of memory and judgment and cripples their ability to carry out basic functions on their own. After age 60, the likelihood a person will be diagnosed with Alzheimer's doubles almost every five years. Currently, less than two percent of people aged 60 suffer from Alzheimer's; three to four percent have it by age 65 and six to eight percent by age 70. At age 75, 15 percent have it, and 25-30 percent are afflicted by it by age 80; a staggering 47 percent

of people over 85 have the disease. Today, an estimated 4 million older Americans suffer from Alzheimer's. For 1998, the combined direct and indirect cost of Alzheimer's were estimated to be more than 100 billion dollars.<sup>7</sup> Ken Dychtwald, Ph.D. and author of *Age Power*, estimates that 14 million boomers and generation Xers will be stricken with Alzheimer's by the middle of the century. With improvements in other areas of medicine, the average duration from diagnosis to death could be extended from eight to 10 years to 15-20 years.<sup>8</sup>

The large number of 85+ in nursing homes speaks to the increases in the longevity of the chronically ill among the elderly and the need for long-term care. According to Dr. Dychtwald, a 65-year old has a 43 percent chance of entering a nursing home at some point in his or her life. Recent studies project that nursing home usage in the 21<sup>st</sup> Century will boom by 2040. It is estimated that 5.5 million Americans will live in nursing homes and another 12 million will require ongoing home-care services.<sup>9</sup>

There are options available today because of improvements in health care and technology which enable older adults to remain home rather than entering a nursing home. These options include visiting nurses, home-delivered meals, in-home assistance with bathing, dressing and other daily activities and electronic technology to summon assistance.

# Chapter 2: The Aging of A Region

This chapter addresses the current senior population in Arizona and Maricopa County. It illustrates where senior residents in Maricopa County are currently located and their general needs.

## Population Increase

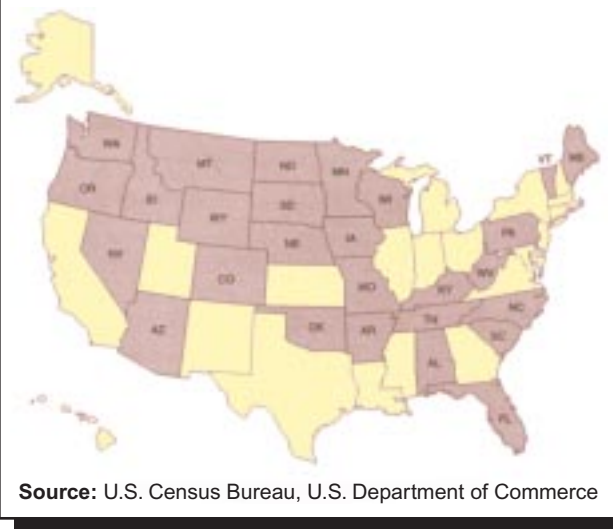
Arizona and the Maricopa County region will experience the same effects of the age wave as the rest of the country. Currently, Arizona has the 7<sup>th</sup> highest number of persons over the

age of 65 in the nation. By 2025, Arizona will be among 27 states who have at least 20 percent of the population aged 60 years or older. In the Maricopa region, the percentage of the population age 60 and over will increase from 15 percent to over 24 percent by the year 2025.<sup>10</sup>

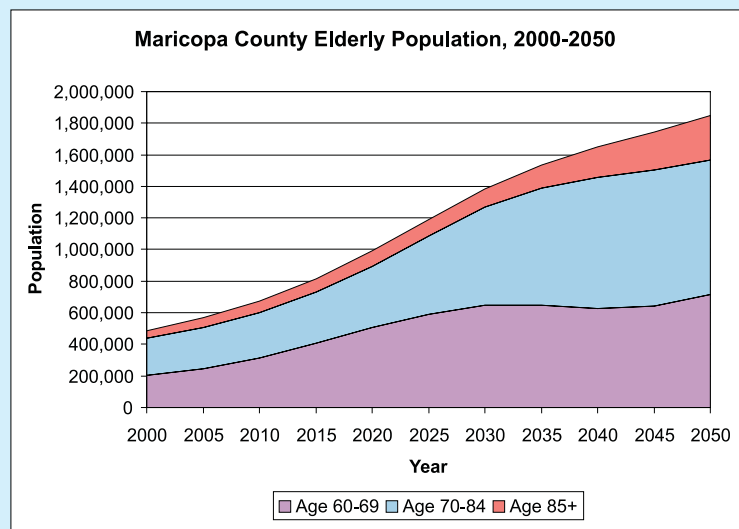
In Maricopa County, there were 466,269 persons age 60 and older in 2000, representing 15.2 percent of the population. Census Bureau projections put that figure at 1.4 million persons in the year 2025. The fastest growing segment of the Maricopa County elderly population are those who are most transportation dependent – those aged 85 and older.<sup>11</sup>

Over the past two decades, the Phoenix/Mesa elderly population has grown by 92 percent, the third largest region behind Las Vegas (258 percent growth rate) and Orlando (94 percent). In Maricopa County, 1 in 5 individuals will be aged 60 or older in 2025.

**Fig. 3: States where at least 20% of the population will be elderly by 2025**



**Fig. 4: Maricopa County Elderly Population 2000-2050**



Source: Maricopa Association of Governments

## Location of the Region’s Elderly Population

Not surprisingly, the areas with high concentration of seniors in Maricopa County are clustered in the older adult residential communities of the Sun Cities in the Northwest; Sun Lakes and Leisure World in the East Valley, and in the Central core of Phoenix.

Almost 370,000 people over the age of 60 live in the 24 cities and towns in Maricopa County, and more than 96,000 reside in the unincorporated areas. The “youngest” of the region’s cities, based upon the percentage of their population which is age 60 and over, are Gilbert, Avondale, Chandler and Queen Creek. Map 1 illustrates the relative density of senior residents by municipality throughout Maricopa County in 2001.



Maps 2, 3 and 4 illustrate the percentage of low-income elderly residing in the county, the percentage of elderly living alone, and the low-income elderly that are living alone. These groups represent the seniors that are often the most transportation dependent and the most likely to be socially isolated from their family and peers.

## Needs of Elderly Persons

In 1995, the Maricopa County Special Census data revealed that approximately 6.49% of households headed by a person age 60 or over were below the federal poverty level. In Maricopa County, a total of 15,664 of 241,233 elderly households had incomes in this level. The Maricopa County Survey Data Center conducted a needs assessment throughout the region in 1997 to identify services received by seniors, those unsuccessfully sought and those still needed:

### Services most utilized were:

• Basic Needs	37%
• <b>TRANSPORTATION</b>	<b>35%</b>
• Self-Functioning	33%
• Education	22%
• Medical	20%
• Housing	11%
• Collective Safety	8%
• Information and Referral	7%
• Employment	6%
• Counseling	6%
• Dental	2%

### Services still needed were:

• Dental	64%
• <b>TRANSPORTATION</b>	<b>31%</b>
• Self-functioning	21%
• Information and Referral	19%
• Housing	17%
• Medical	14%
• Employment	9%
• Counseling	7%
• Collective Safety	4%
• Basic Needs	3%
• Education	0%

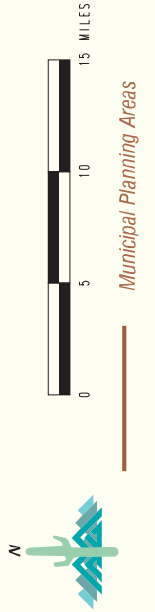
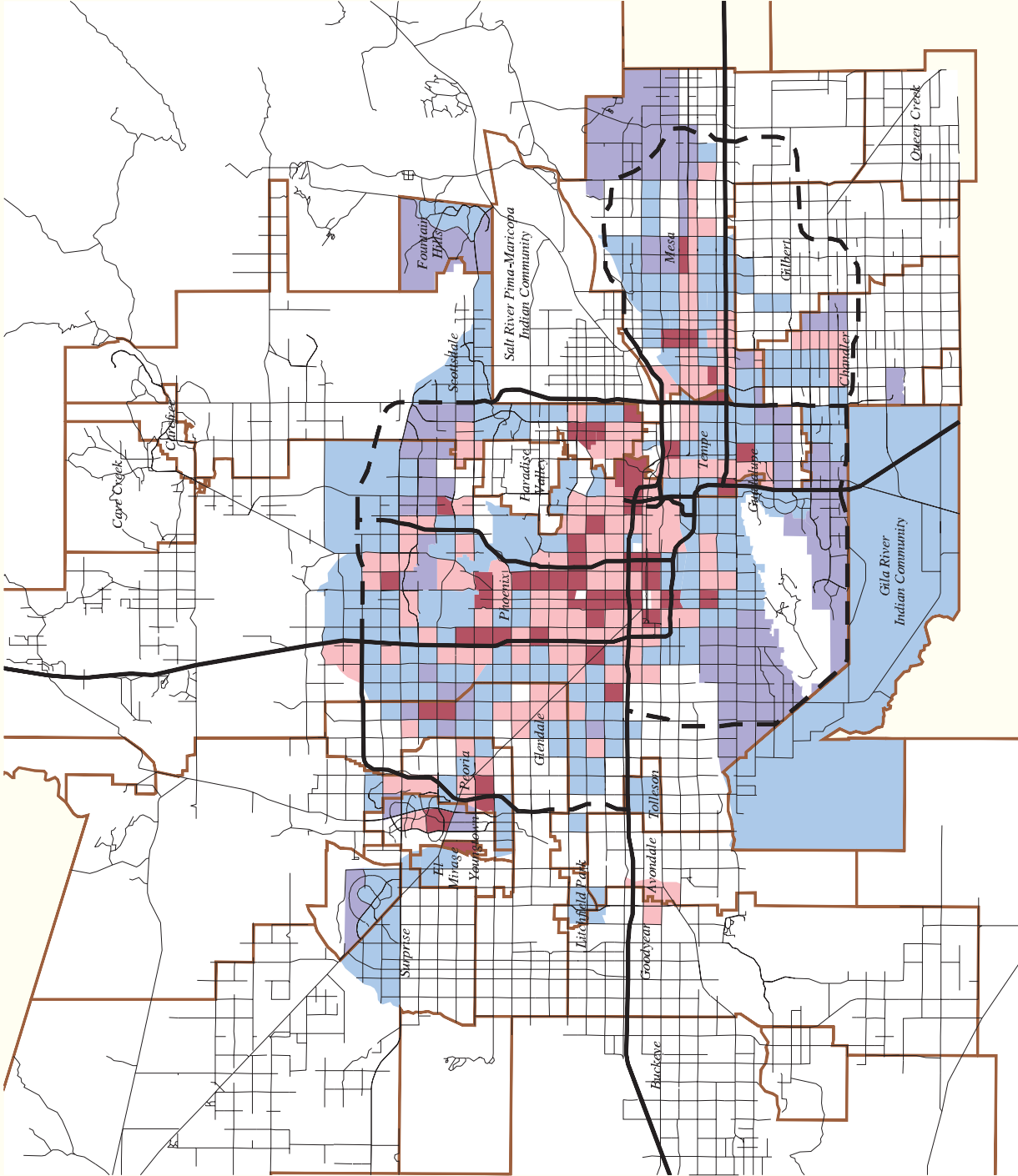
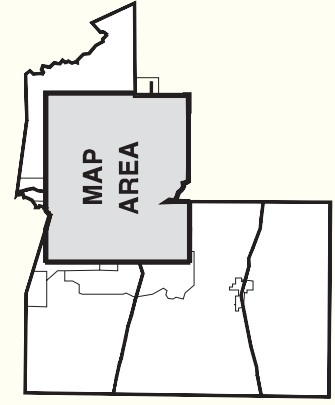
The Area Agency on Aging, Region One, also assesses needs of senior citizens in Maricopa County. Its most recent study identifies these top five needs:

- Transportation
- Home care services
- Increased funding for services
- Health care, education and prevention including dental and optical services
- Respite services and care-giver training

# Elderly Persons Living Alone\* (1995) Maricopa County, Arizona (Urban Area)



\* Single person households as a percent of total households where head of household is age 60 or over.



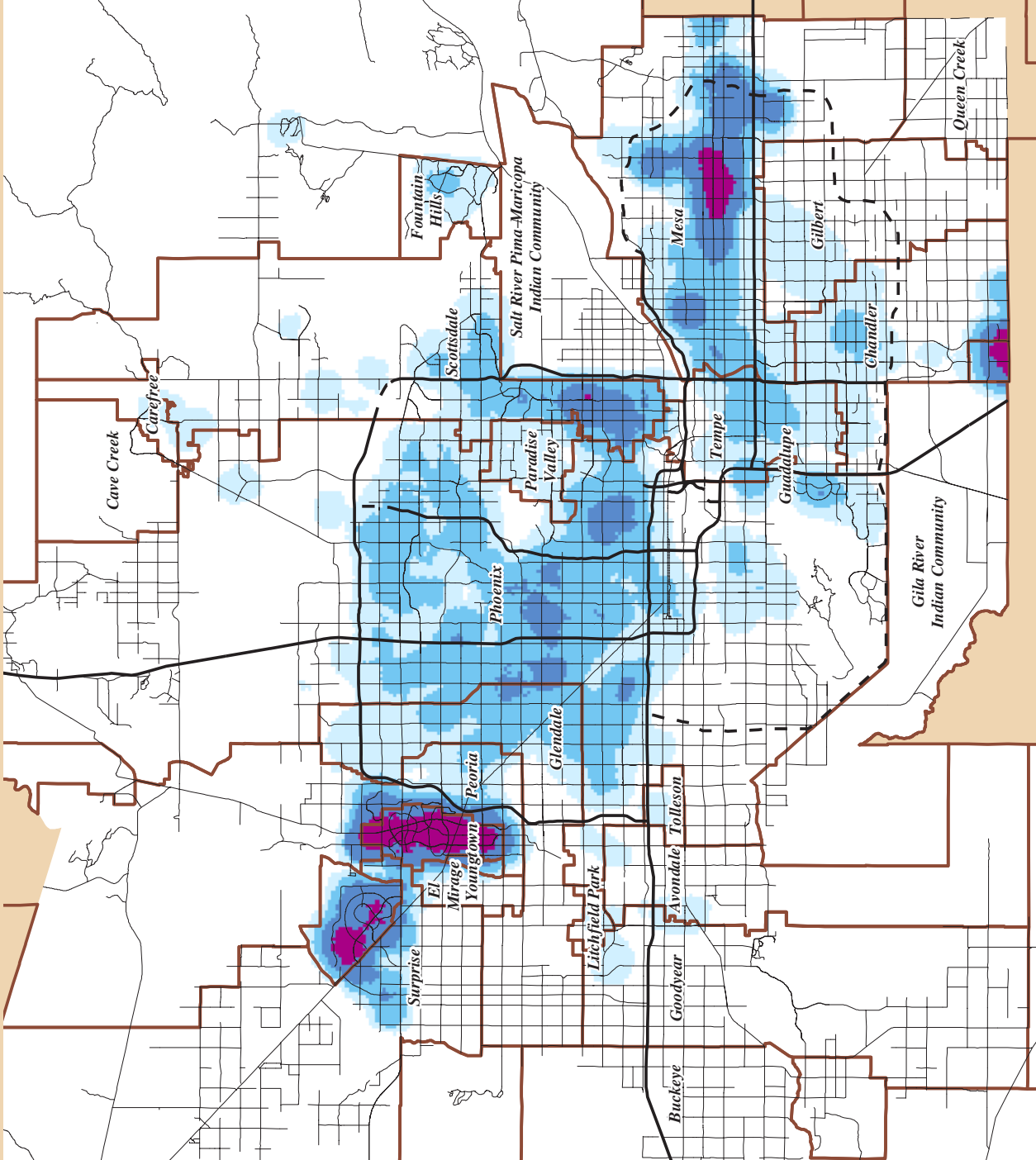
While every effort has been made to ensure the accuracy of this information, the Maricopa Association of Governments makes no warranty, expressed or implied, as to its accuracy and expressly disclaims liability for the accuracy thereof.

Source: 1995 Special Census (Census Tract data)

Legend

- Average density\*
  - Less than 10
  - 10 to 50
  - 50 to 100
  - 100 to 200
  - More than 200
- Vincal Parray Area
- Maricopa
- Freebies
- Existing
- Planned

\*Number of persons aged 65 or over per square mile of geographic area



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Source: 2000 Census

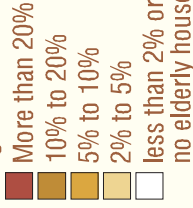
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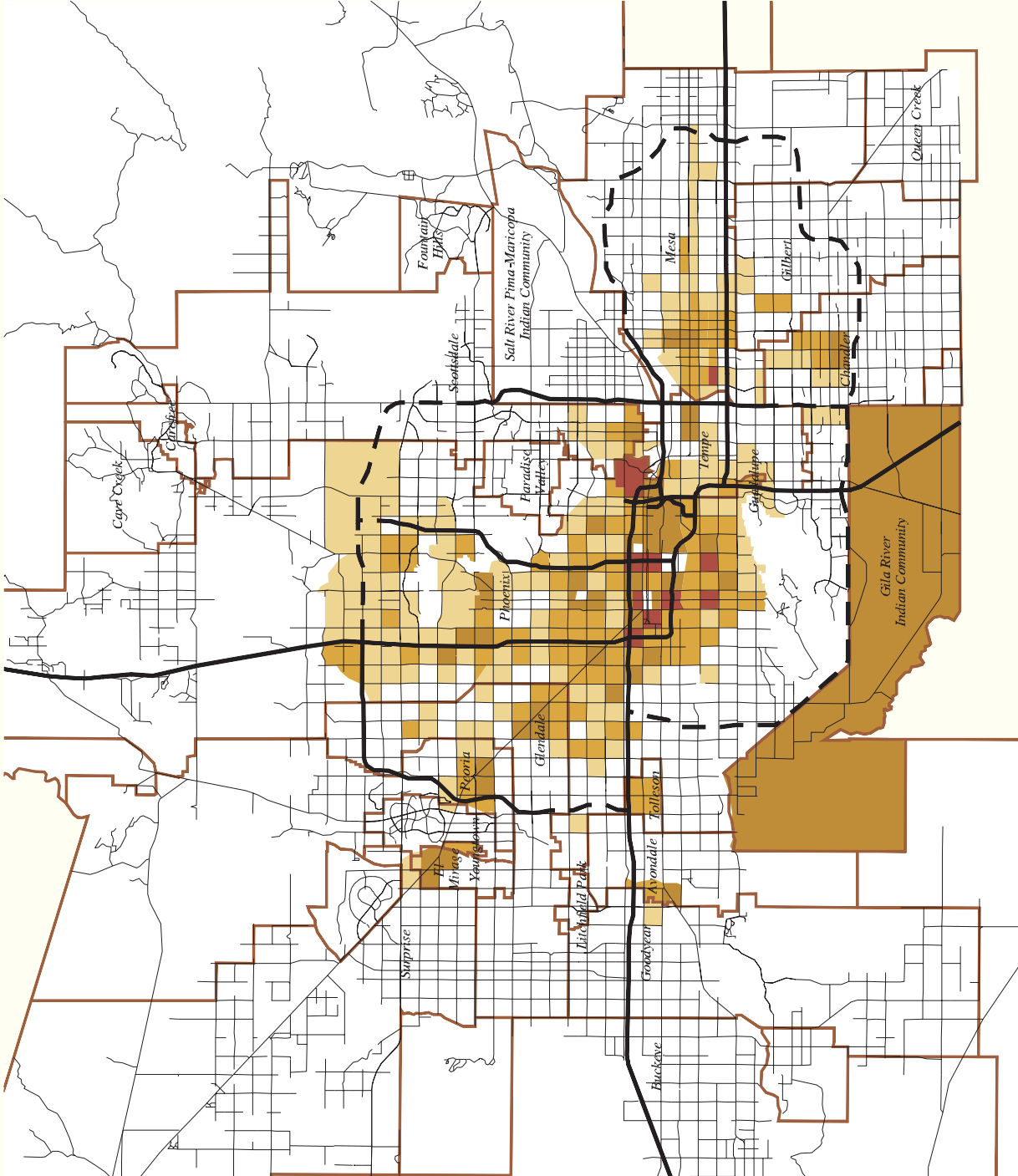
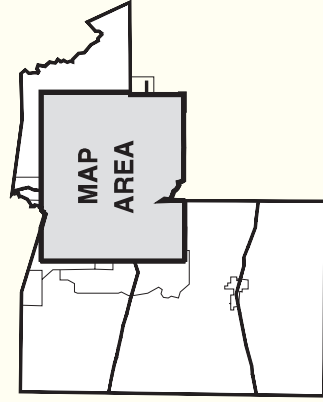
# Low Income Elderly Living Alone\* (1995) Maricopa County, Arizona (Urban Area)

Percent low income elderly living alone:



\* Persons age 60 or over living alone with income less than \$7,500 as a percent of total households where head of household is age 60 or over.

Note: Income was not reported in 38 percent of elderly households.



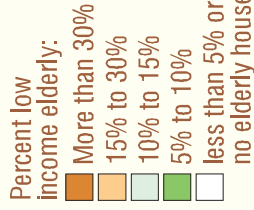
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Source: 1995 Special Census (Census Tract data)

Municipal Planning Areas



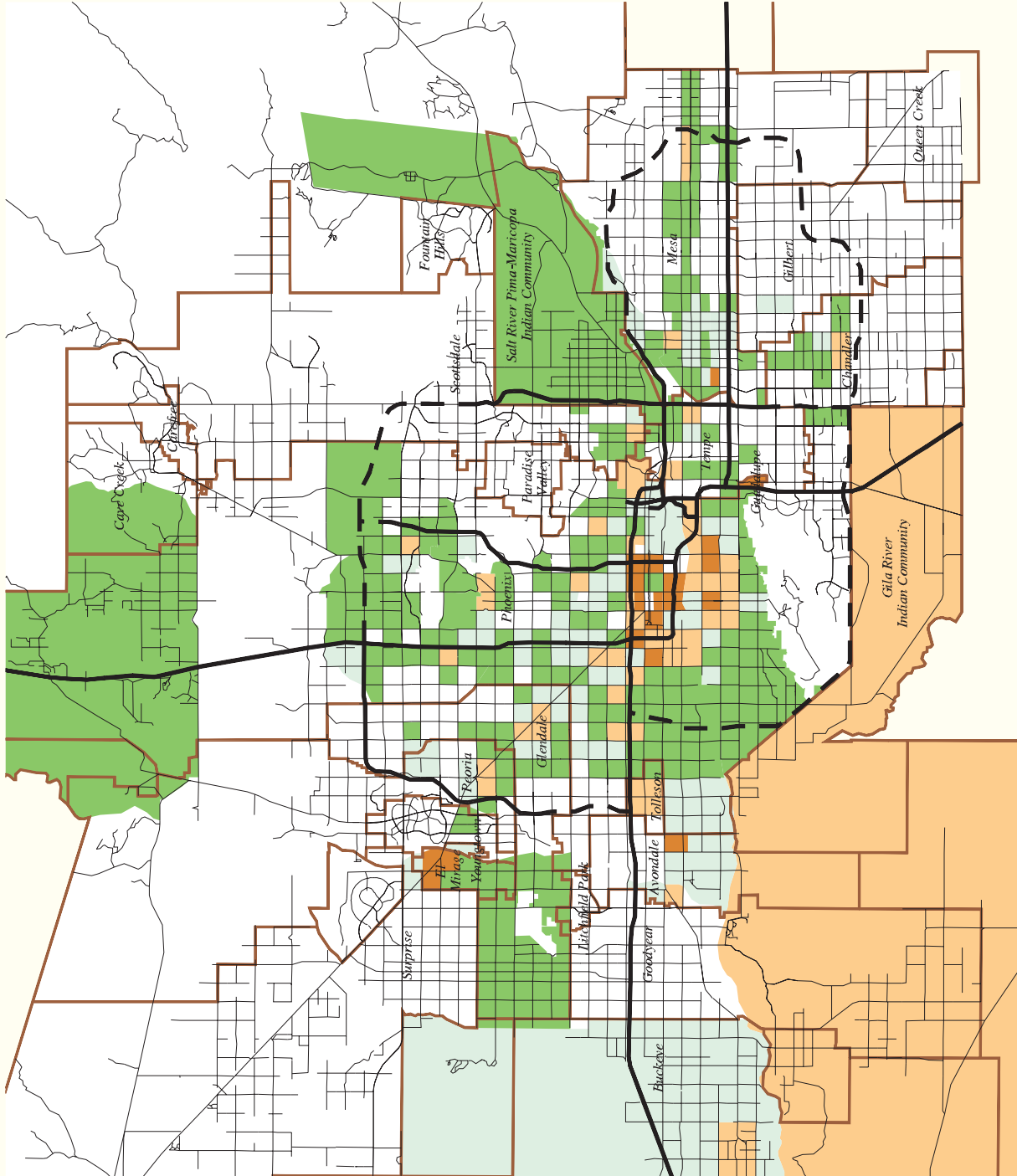
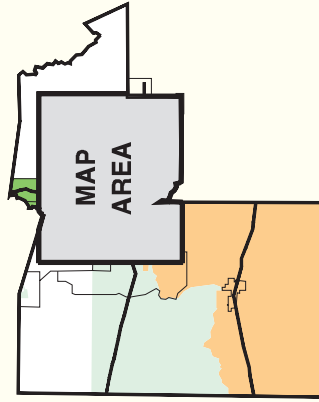
# Low Income Elderly\* (1995) Maricopa County, Arizona (Urban Area)



\* Low income households as a percent of total households where head of household is age 60 or over.

Low income criteria is based on income and household size:  
 One person earning less than \$7,500  
 Two people earning less than \$10,000  
 Three people earning less than \$12,500  
 Four or more earning less than \$15,000

Note: Income was not reported in 38 percent of elderly households.



While every effort has been made to ensure the accuracy of this information, the Maricopa Association of Governments makes no warranty, expressed or implied, as to its accuracy and expressly disclaims liability for the accuracy thereof.

Source: 1995 Special Census (Census Tract data)

# Chapter 3: The Effects of Aging on Mobility

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In our society, personal mobility is often tied to the ability to drive a car, and, to a certain extent, to walking. Driving, as well as walking, bicycling, and public transit allow the freedom to choose where to live, work, and socialize.

## Health Effects

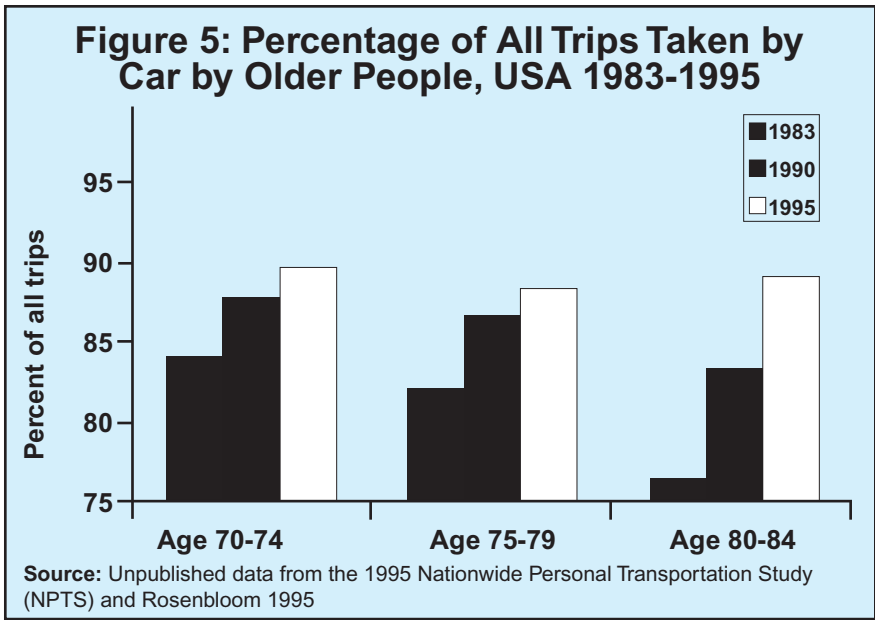
The natural process of aging, however, leads to health problems that often impair personal mobility because of general deterioration of physical, cognitive and sensory abilities. These changes intensify over time and are most pronounced for individuals over 75 years of age. Characteristics of many older adults that most impact mobility include:

- Vision problems, such as degraded acuity, poor central vision, and reduced ability to scan the environment.
- Reduced range of joint motion.
- Reduced ability to detect, localize and differentiate sounds.
- Reduced endurance.
- Reduced tolerance for extreme temperature and environments.
- Decreased agility, balance, and stability.
- Inability to avoid dangerous situations quickly because of slower reflexes.
- Impaired judgement, confidence, and decision-making abilities in driving situations.<sup>12</sup>

Another health concern that affects transportation issues is the increased incidence of Alzheimer's and dementia. In 2000, there were approximately 85,000 cases of Alzheimer's in Arizona, 46,608 in the combined counties of Maricopa, Pinal and Gila.<sup>13</sup> The most at risk of this disease are those 85+, who researchers say have a 47-percent chance of contracting the disease. The transportation implications for providing paratransit services for this population are alarming.

## Travel Characteristics

The primary mode of transportation for seniors is and will most likely continue to be the automobile. The vast majority of people in this country (elderly and non-elderly) have grown up using their private automobiles as their primary means of getting around. Linked to greater access to a car is a far more active lifestyle. Older people today take more trips, a greater variety of trips and longer trips than those who were 65+ a few decades ago.<sup>14</sup> Since many older adults have relied on their cars, they are unfamiliar with other modes of transportation and are often hesitant or unable to learn new modes at an advanced age. Given current land-use trends and lifestyles, tomorrow's senior citizens, especially those aging in the suburbs, are likely to be even more reliant on their automobiles. Not surprisingly, travel forecasts indicate a dramatic increase in the annual miles driven by the elderly. By the year 2030, almost 20 percent of all driver mileage is projected to be attributable to older drivers.<sup>15</sup>



We also know from current studies that seniors prefer to “age-in-place” – to remain in the communities where they raised their family, preferably in the same home. The Administration on Aging estimates that 29 percent of the nation’s senior citizens live in central cities, 48 percent live in the suburbs, and 23 percent live outside of metropolitan areas. Public transit is often not a viable option given the current land use-trends in most suburban and rural areas.

However, elderly residents in urban locations are slightly less likely to utilize private vehicles and more likely to use public transit, probably because of the lack of accessible public transit in many

rural communities. Even in urban locations, however, 90 percent of the elderly men and 87 percent of the elderly women rely on a private vehicle for transportation; less than three percent choose public transit as an alternative mode of travel. Not surprisingly, urban elderly residents are more likely to walk than their suburban or rural peers because of the proximity of services, facilities, friends, and neighbors. Less than one percent of the elderly residents in either type of location utilize taxi services as their primary mode of travel, probably because of the high cost of this service.<sup>16</sup>

The average miles traveled by seniors is expected to increase dramatically through the year 2030. While this increase is partly attributable to an increased number of trips, it also reflects that the average length of trips taken by seniors has increased by 19 percent during the last decade. This increase is due to changing lifestyles and lower-density residential development patterns. The 1995 Nationwide Personal Transportation Study (NPTS) indicated that the average number of miles per day traveled by seniors is approaching that of the general population. Men

**Table 1: Mode Choice for All Trips by Age and Sex, U.S., 1995**

	Car			Public Transit	Taxi	Walk	Bike	All Others Modes
	Total	Driver	Passenger					
65-69	90.1	71.5	18.6	1.7	0.2	4.5	0.2	3.4
70-74	89.4	67.6	21.8	1.5	0.2	5.5	0.2	3.2
75-79	88.4	63.3	25.1	2.1	0.3	5.9	*	3.4
80-84	89.0	57.6	31.4	1.6	0.2	5.3	0.3	3.6
85+	81.5	49.3	32.2	2.3	0.9	11.0	0.0	4.4

\* = Less than 1%

Source: 1995 Nationwide Personal Transportation Study (NPTS)

**Table 2: Average Annual Miles Traveled, Elderly vs. Non-elderly, 1983-2030<sup>17</sup>**

Year	Men age 65+	Women age 65+	Men under 65	Women under 65
1983	7,198	3,308	15,357	6,721
1990	9,162	4,750	17,551	10,149
1995	9,680	3,956	16,324	9,957
2000	10,359	6,318	16,727	10,202
2010	11,875	7,242	17,534	10,694
2020	13,391	8,167	18,340	11,185
2030	14,907	9,092	19,146	11,677
<b>% increase 1983-2030</b>	<b>107%</b>	<b>175%</b>	<b>25%</b>	<b>74%</b>

Source: 1995 National Personal Transportation Survey (NPTS)

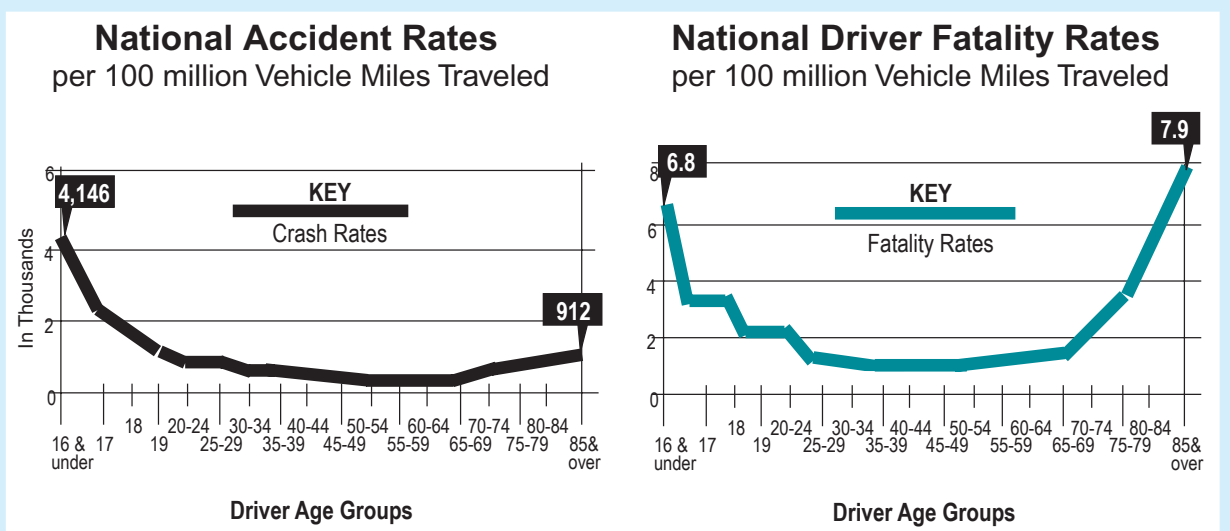
of all ages traveled an average of 35.2 miles per day, while men between the ages of 65-74 traveled 26.3 miles. Women of all ages averaged 27.8 miles, while older women averaged 19.4 miles. Decreases in miles driven occurred after the age of 75, when men traveled an average of 19 miles and women traveled only 10.9 miles per day.

Women are expected to significantly increase their miles traveled per day by 2030. This is in part because women generally outlive men, and the proportion of elderly women is expected to increase in the future. Additionally, unlike older women of today, many of the aging female baby boomers have worked outside the home and had a driver's license for most of their adult life.

## Safety Implications

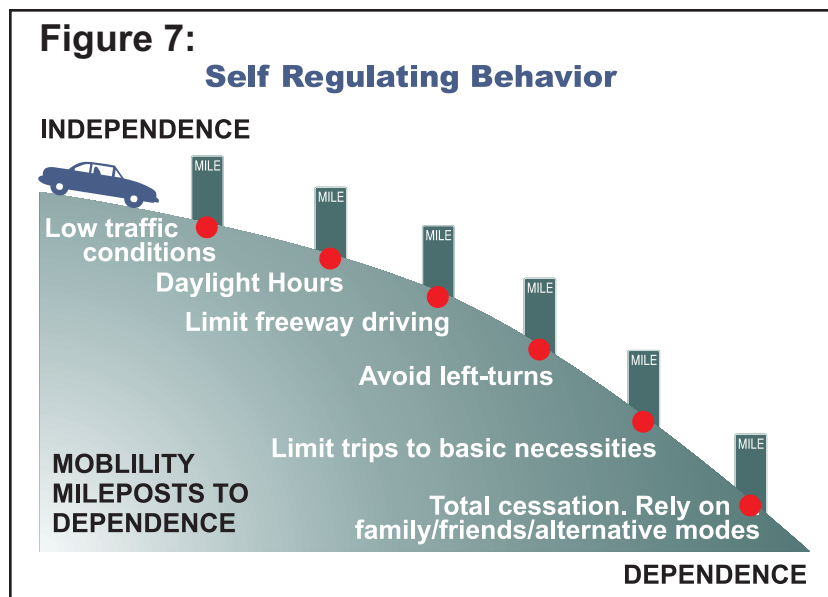
In stark contrast to the overall public perception, current research shows that older drivers are among the safest drivers on the road. They have fewer accidents than any age group of licensed drivers (persons between the ages of 16-20 have the highest accident rates). However, older drivers tend to drive fewer total miles than other age groups, and therefore, when adjusted, have the highest accident rates per miles driven.<sup>17</sup> Additionally, older drivers suffer substantially more injuries, greater disability, greater nursing home placement, and higher fatality rates when involved in an accident.<sup>18</sup>

**Figure 6: National Accident and Driver Fatality Rates per 100 million Vehicle Miles Traveled**



Source: 1996 National Highway Traffic Safety Administration

The types of accidents older drivers have are much different than those of younger drivers. Whereas younger drivers have more accidents related to excessive speed and poor judgement, older drivers have more accidents at intersections (judgement gap and observational errors); making right turns from the left lane (positional errors); inappropriately following a car ahead (orientation errors); and have greater failure-to-yield accidents and more at-fault accidents. The AARP estimates that left-turns and right of ways account for a combined total of 60 percent of all older driver accidents. Since older adults are more frail than other drivers, they are twice as likely to be seriously injured or killed in accidents than their middle-aged counterparts. It is estimated that the number of elderly traffic fatalities will more than triple by the year 2030, making older driver deaths 35 percent greater in number than the total number of alcohol-related fatalities that occurred in 1995.<sup>19</sup>



## Quality of Life Implications

One of the reasons that older drivers are among the safest drivers on the road is because they employ adaptive or self-regulating behaviors to ensure their safety. As physical and cognitive decline occurs, older drivers begin to make the following choices: driving in off-peak hours and in the daylight; limiting freeway driving; avoiding left-turns; and limiting trips to basic necessities. These choices are a double-edged sword: they heighten senior safety on the road, but they begin a process of limiting where seniors go and when they can get there. This process finally ends often after an accident or near accident,

when the older driver willingly or unwillingly gives up the keys and ceases to drive. With cessation, there is increased pressure on family and friends to provide rides. The second-most preferred alternative to the automobile is usually relying on others for rides.

What does this self-regulating process mean for quality of life? For those seniors who live alone, far from family, and/or have limited income, their ability to access services, participate in social, cultural and religious activities is compromised. The social isolation that results from the loss of personal mobility can lead to depression and sharp declines in physical health. Social and economic capital is lost too, since many that might have worked or volunteered are unable to do so without a reliable source of transportation. The overall decline in quality of life associated with limited to no-mobility options produces an increase in the demand for in-home elder care services and costly assisted living facilities.

## Automobile Costs

In addition to physical and cognitive impairments that may limit the continued use of their automobile, many older adults find the cost of operating a car prohibitive. Owning and maintaining a vehicle is very expensive. This is especially true for older adults, who drive

less often and fewer miles than most drivers. Many people are not aware of the true cost of driving their car, which includes gasoline, maintenance, insurance, payments, depreciation, and other fixed costs. Likewise, few people understand how the same amount of money could be used for other transportation services.

The Automobile Association of America in 2001 estimates that the national average cost per mile to drive a car 10,000 miles is 64.5 cents/mile. The cost per day to own and operate a car ranges between \$13.24/day for the 4-cylinder to \$17.98/day for the 8 cylinder. Most seniors own older cars and drive fewer miles per year than do younger people, somewhat reducing the cost. However, the cost of driving a private vehicle can cost an older adult over \$5,510 a year.<sup>20</sup> Given this, seniors should be educated to budget an equal amount for alternative modes when they no longer drive.

### The Necessity of Alternatives to Driving

Like other age groups, transportation for older adults is defined as driving. The private automobile is their first choice, especially with themselves as the driver. As their ability to drive safely diminishes, many seniors adapt their driving habits to meet their individual circumstances. For example, they might reduce night-time driving, drive only on off-peak hours, and avoid bad weather. Reluctantly, many will reach the point where they will have to rely on other modes of travel.

Other modes include:

- Rides from family and friends (most preferable choice).
- Walking.
- Bicycling.
- Public Transit.
- Specialized, demand-responsive paratransit services. The Americans with Disabilities Act (ADA) requires that operators of fixed-route public transit offer both accessible services and specialized paratransit for disabled individuals living within 3/4 mile of any transit route including the qualified disabled elderly.
- Taxis. Taxi service is very demand responsive and a useful alternative for occasional trips. However, it is the most expensive alternative.
- Agency transportation services. Some public and private agencies and organizations provide transportation services for the elderly including the Red Cross, the Area Agency on Aging, private nursing homes, and assisted living facilities. These services typically provide rides to and from medical facilities, shopping opportunities and recreational activities using vans and mini-buses.

<b>Table 3: Percentage of Older Adult Trips by Mode and Region</b>			
<b>Transportation Mode</b>	<b>Urban</b>	<b>Suburban</b>	<b>Rural</b>
<b>Automobile</b>	<b>77.3%</b>	<b>93.7%</b>	<b>94.8%</b>
<b>As Driver</b>	<b>54.9%</b>	<b>71.7%</b>	<b>68.1%</b>
<b>As Passenger</b>	<b>22.4%</b>	<b>22%</b>	<b>26.7%</b>
<b>Public Transportation</b>	<b>8.5%</b>	<b>.9%</b>	<b>.3%</b>
<b>Walking/Bicycling</b>	<b>13.3%</b>	<b>4.6%</b>	<b>4.6%</b>
<b>Other</b>	<b>.9%</b>	<b>.9%</b>	<b>.3%</b>

**Source:** 1995 National Personal Transportation Survey (NPTS) as presented in S. Rosenbloom, 1999. *The Mobility of the Elderly: There's Good News and Bad News*, presented at the *Transportation in an Aging Society: A Decade of Experience Conference*, NIH Bethesda, MD, November 1999.



Regardless of age, all people need to fulfill two types of needs: basic maintenance needs (food and health care) and enriching needs (socialization, recreation, community, worship). Most seniors usually can and will find a way to fulfill their basic needs, regardless of whether or not they drive. Once older people stop driving, however, life-enriching needs are often compromised and the quality of life may be diminished. As their mobility decreases, the seniors suffer financially, socially, psychologically and emotionally, and society as a whole suffers from the loss of active older adults as workers and volunteers.

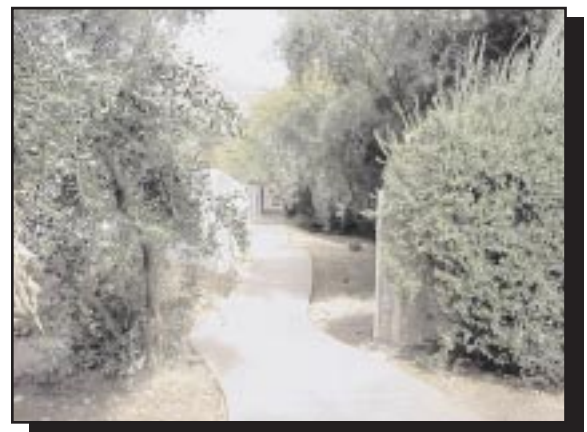
## Walking and Bicycling

Walking and bicycling are the second most preferred choice for the elderly, therefore, more attention needs to be paid to these two modes. Land use and public transit are directly impacted by people's ability to walk and bike. Health and climate limitations can be mitigated by design elements that encourage increased physical activity. For example, older people generally need frequent resting places and prefer more sheltered environments. Older people thus benefit from accessible pathways, effective lighting, smooth surfaces and improved intersections.

The ambulation of older adults is affected by their reduced strength, causing them to move more slowly than other pedestrians and thus requiring more time to cross streets than other sidewalk users. They tend to need more time to make decisions and often start moving later than other pedestrians. Taking into account the slower gait and shorter stride of older people as well as longer traveling times for people with disabilities, the Federal Highway Administration and the U.S. Department of Transportation recommended in the Older Driver Highway Design Handbook (Publication No. FHWA-RD-97-135, January 1998) that pedestrian control signal timing be based on an assumed walking speed of 1.4 ft/s (0.43 m/s). This can make a difference when it comes to walking safely and confidently across streets.

Contrast resolution loss causes older adults to have difficulty seeing small changes in levels, such as high curbs and irregular surfaces that can be hard to maneuver or result in falls. Their reduced manual dexterity and grip force can affect their ability to operate common mechanisms such as doors and door handles, phones, drinking fountains, pedestrian-actuated traffic signals, and parking meters. Visual changes, such as reduction in pupil size, makes it difficult to read small street signs. *Traffic engineering solutions such as smooth pavement; wide flat curb cuts; large, high-contrast non-glare street signs, and bright lighting can effectively compensate for these limitations.*<sup>21</sup>

To develop effective transportation networks, people responsible for designing public sidewalks, trails, streets and intersections must understand the full range of route users. Providing facilities for people to walk and bike increases a senior's opportunity to stay mobile and both physically and mentally active. According to the Centers for Disease Control (CDC), regular moderate activity such





as walking and biking allows seniors to stay healthier longer, by delaying the onset of disabilities, building strength and flexibility to reduce the risk of falls, relieving depression and increasing mental acuity.

Seniors want activities that are simple, achievable and fun. They don't want to have to plan every activity and they want to be confident that they can do the activity. Thus, it is essential that the environments for walking and biking are close to home. By creating quality pedestrian and bicycle pathways, it becomes socially acceptable and environmentally accessible for everyone to walk or bike to destinations of interest. This maximizes opportunities for people to use transportation options other than an automobile, preserves natural settings, and creates a sense of community and ownership.



# Chapter 4: The Planning Process

In August of 2000, MAG sponsored a stakeholder dialogue called *Aging & Mobility: Implications for the Maricopa Region*. This forum was held with a leading researcher in the field, Dr. Sandra Rosenbloom, Director of the Drachman Institute at the University of Arizona. The purpose of the forum was to discuss the coming age wave and the proactive responses the region should consider.

## MAG Elderly Mobility Working Group

As a result of this meeting, the MAG Elderly Mobility Working Group was formed comprising representatives from transportation and social services agencies; retirement communities; elderly advocacy groups; faith-based organizations; health care; and city, county, and state government. The Working Group identified four key objectives of the planning process:

- 1) Develop a Regional Action Plan reflecting the values of safety, accessibility, affordability, and independence.
- 2) Utilize input from seniors and middle-aged residents on transportation needs and solutions in the creation of the Plan.
- 3) Integrate the Plan's recommendations (when possible) into the MAG Regional Transportation Planning Process, and the MAG Transportation Improvement Plan (TIP).
- 4) Convene a national conference on aging and mobility in the Spring of 2002.



The Working Group determined that a comprehensive regional plan must address the following key areas:

- Infrastructure & Land Use
- Alternative Transportation Modes
- Older Driver Competency
- Education & Training

More than 75 stakeholders then participated in ad hoc planning groups that focused on the four key areas from November 2000 to April 2001. More than 15 national and local experts consulted with the planning groups via video/audio-conference and in person. Over these six months, the participants looked at the current issues, assessed the gaps, researched how national and local best practices could apply, and then developed recommendations according to the “5R” format.

# The Five “R’s”



## Recommended Best Practice

*What is the best practice recommendation? This practice may already be occurring in some or all areas. It may not be currently be the standard but needs to happen.*

## Rationale for Implementation

*Why is this a best practice? What will this recommendation achieve?*

## Roadblocks to Implementation

*What issues, if any, will need to be addressed if this recommendation is to go forward? These roadblocks could be legislative, policy/protocol, financial, educational, or other.*

## Resources Available

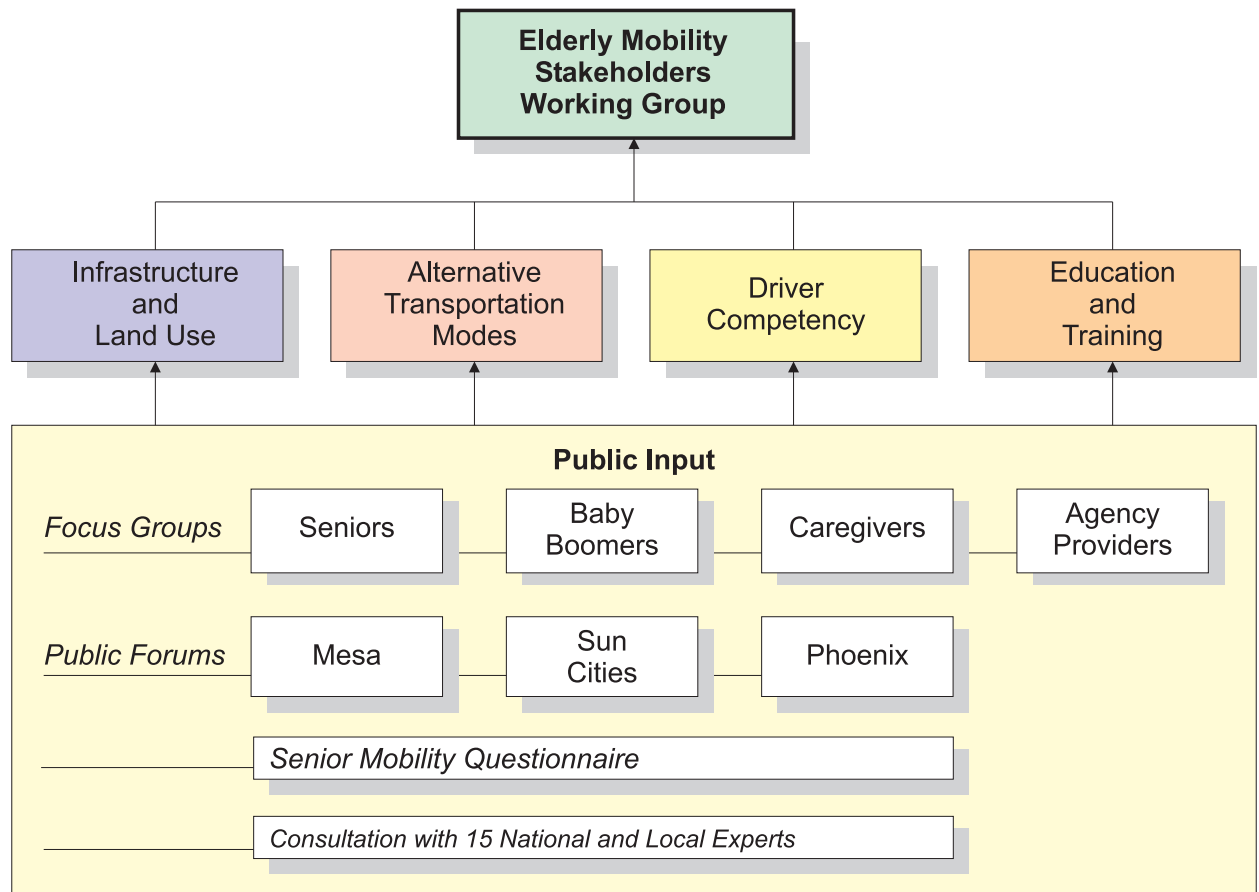
*What are the resources available and needed to implement the recommendation?*

## Responsibility

*Who are the responsible parties/jurisdictions or entities who are best suited to implement the recommendation? Who should take the lead?*

**Figure 8:**

## Regional Action Plan on Aging and Mobility



## Public Input from Seniors and Boomers

A key objective of the plan development process was to involve seniors and middle-aged residents in identifying major transportation challenges and potential solutions. To assist in this effort, WestGroup Research was contracted to conduct a Senior Mobility Study utilizing the following input methods:

- Small Focus Groups
- Regional Public Forums
- Senior Mobility Questionnaire

Four focus groups were held for this study, each recruited to represent a different point of view, including care givers, boomers, seniors and senior service agency representatives. Public forums entitled *Getting Around Safe & Sound* were also held in Sun City West, Mesa, and downtown Phoenix with approximately 250 seniors discussing their own transportation challenges and providing their ideas on solutions. Additional input was gathered from a transportation questionnaire. This information was then transmitted to the 75 members of the ad hoc planning groups to assist them in forming their “best practice” recommendations.



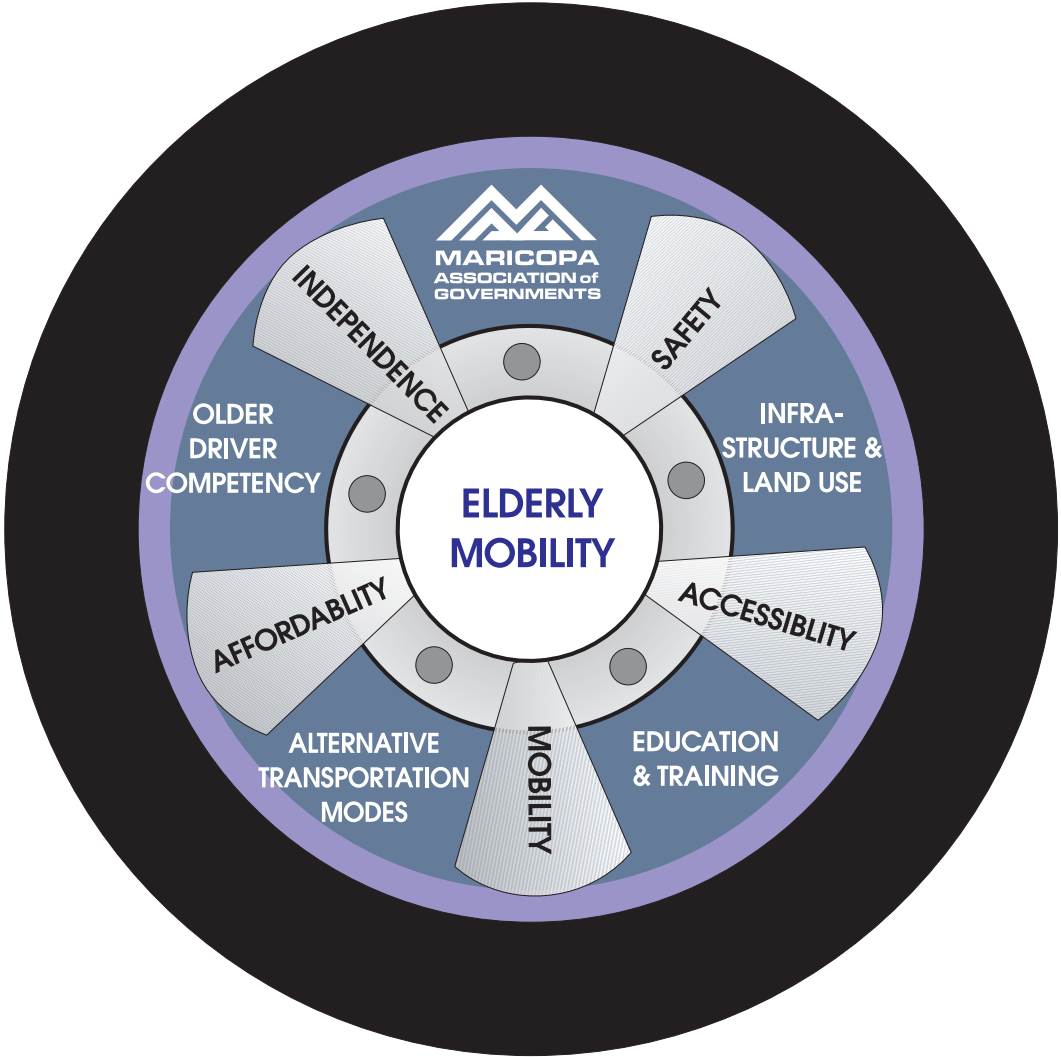
A summary of the key findings from the Senior Mobility Study is listed below. An expanded report can be found in Appendix I.

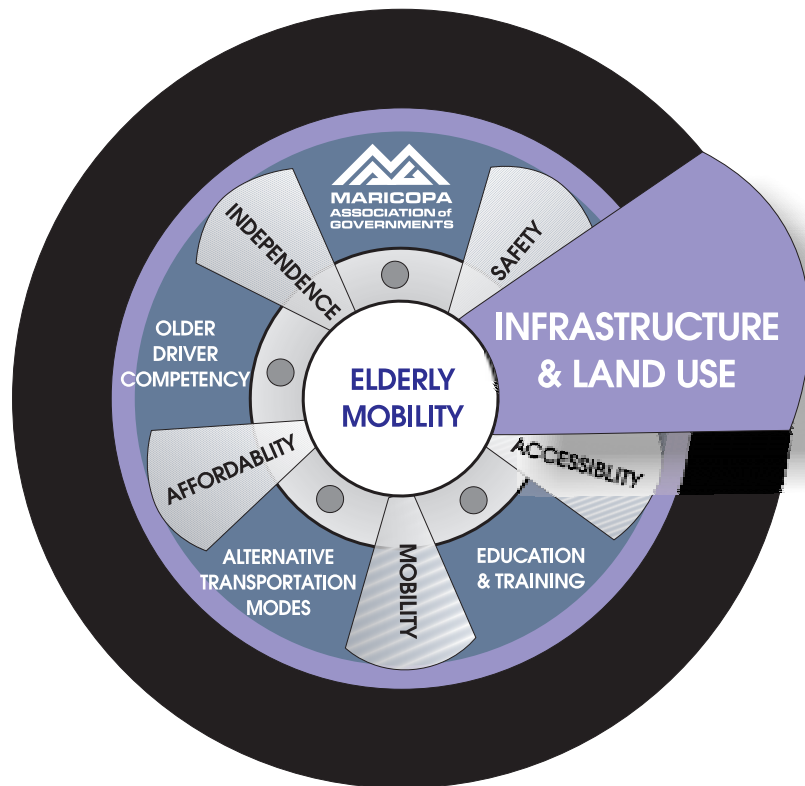
- Nearly one-third (31%) of respondents say transportation or getting around is a problem for them. This is particularly true for seniors who do not drive at all (67%), those who live alone (42%), and those who have an annual income of less than \$50,000 (44%).
- Respondents are most likely to say they do or would rely on public transit (44%) and/or senior transportation services (42%) to get around when they no longer drive. Friends and family members are the next most relied upon sources of transportation (36% and 30%, respectively). Two in seven (28%) say they walk or plan to walk.
- Nearly seven in eight (87%) survey respondents feel new transportation services are needed for their community. This is particularly true among seniors who still drive (90%). Two in five (41%) respondents think additional and/or better bus services are needed.
- Nearly one-half (49%) of respondents indicate they would seek information or education from a senior center and/or the AARP.
- Three in five (62%) respondents feel training seniors on how to compensate for limitations such as decreasing eyesight and increased reaction time is the most helpful way to ensure safe driving by older adults.
- Respondents are most likely to select larger and better-illuminated traffic signs as being the most beneficial action for seniors (61%).
- The three actions perceived most often as beneficial for seniors who walk or ride bikes are highly visible crosswalks and safer intersections (53%), changing the timing of traffic signals to allow more time for the “WALK” cycle (47%), and adding sensors to extend the “WALK” cycle when pedestrians are present (40%).
- At least one-half of survey respondents say they live within walking distance of a grocery store (57%) and/or a recreation or activity area (50%).
- Nearly three in five (58%) respondents think neighborhood shuttle buses are one of the top two alternatives that would be most beneficial to seniors. Personalized subscription transportation services using vans (32%) and transportation specialists that provide “one-call-does-it-all” information (29%) round out the top three transportation options.



# 25 RECOMMENDATIONS

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### Recommendations #1-10

The key theme of the Infrastructure recommendations involves the implementation of the Federal Highway Administration's Highway (FHWA) Design Handbook for Older Drivers and Pedestrians. This includes improvements in the following design elements:

- Intersections
- Interchanges
- Roadway Curvature and Passing Zones
- Construction and Work Zones
- Highway-Rail Grade Crossings

It includes recommendations on such things as signage, lighting, signal timing, roadway markings, and median refuge islands. Most importantly, the guidelines and recommendations in the Handbook link senior driver characteristics to practical and cost effective highway design, operational, and traffic engineering measures.

The land use recommendations focus on new developments or retrofitting older developments with strategies that decrease the need for driving by locating services in closer proximity to where seniors live.



# 1

## Streets and Highways

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<b>Recommendation</b>	<p>Review the Maricopa Association of Governments (MAG) Uniform Standard Specification &amp; Details for Public Works Construction and Arizona Department of Transportation (ADOT) Design Standards to:</p> <ul style="list-style-type: none"><li>• Determine how and which guidelines from the Federal Highway Administration (FHWA) Older Driver Highway Design Guidelines can be incorporated.</li><li>• Determine if certain traffic calming measures could be included as a new section in the MAG Uniform Standard Specification &amp; Details for Public Works Construction.</li></ul> <p>After the analysis, have the FHWA Design Guidelines incorporated into both MAG and ADOT Design Standards as appropriate.</p>
<b>Rationale</b>	<ul style="list-style-type: none"><li>• Promote consistency/uniformity in signage, lighting, markings, and traffic calming measures across jurisdictions.</li><li>• Minimize liability exposure by implementing regional guidelines.</li><li>• Improve safety for all populations.</li><li>• Make the infrastructure more usable and available to all.</li></ul>
<b>Roadblocks</b>	<ul style="list-style-type: none"><li>• The resources needed to implement guidelines may be substantial and will need top-level commitment.</li><li>• Different policies among the various jurisdictions may make it difficult to gain buy-in from the jurisdictions.</li><li>• Some residents may not want some of the traffic calming measures in their neighborhood.</li><li>• Implementation of guidelines will needs to be determined by community.</li></ul>
<b>Resources</b>	<p><b>Needed:</b> Fees for consultant project to develop the review of the FHWA Older Driver Guidelines and recommend a first round of regional guidelines to include staff time from jurisdictions for the review process, and investments from each community for the infrastructure improvements.</p> <p><b>Available:</b> Possible national/local grants, MAG Enhancement Funds, technical assistance from FHWA.</p>
<b>Responsibility</b>	<p>ADOT, Maricopa County Department of Transportation (MCDOT) and MAG.</p> <ul style="list-style-type: none"><li>• A Street Design Group would need to be developed of traffic engineers and road/highway designers, planners and landscape architects from the three stakeholder groups mentioned above. The Group will determine which of the guidelines to include through a phased-in process, and utilize the input from the MAG Senior Transportation Forums and other citizen discussions to help determine which guidelines from the FHWA Older Driver Guidelines to incorporate.</li><li>• Technical assistance could also be provided by FHWA and TransAnalytics, Inc. which helped develop the 2001 Update to the FHWA Guidelines.</li></ul>

# 2

## FHWA Older Driver Guidelines

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### Recommendations

Require the consideration of the Federal Highway Administration (FHWA) Older Driver Highway Design Guidelines in the Arizona Department of Transportation (ADOT)/Maricopa Association of Governments (MAG) application and review of federally funded projects.

Develop a *checklist* for planners and designers of transportation projects to use in the preparation of their proposals and for the application review team to utilize.

### Rationale

- More attention will be paid to elderly mobility concerns as a result.
- More enhancements which increase safety for seniors will be integrated into current infrastructure.

### Roadblocks

- Staff time to amend the review process.

### Resources

**Needed:** Staff time to create checklist, amend proposal and review process, and to go through an internal approval process.

**Available:** Staff expertise, possible technical assistance from FHWA.

### Responsibility

MAG, ADOT, FHWA

# 3

## Maintenance of Current Infrastructure

---

### Recommendations

Encourage dedicated funding for the maintenance of current infrastructure and increase funding to expand programs like Adopt-a-Road. In addition, utilize trained volunteers, school districts, and neighborhood groups to report maintenance problems with the transportation system.

### Rationale

- Increases the ability to identify maintenance needs on an ongoing basis.
- Increases safety for all road users.
- Engages roadway users in a more proactive way.

### Roadblocks

- Staff and resources to make repairs as needed.
- Potential liability issues.
- May be difficult in receiving funding because of a very competitive budget process.

### Resources

**Needed:** Volunteer recruitment and management, as well as manpower and commodities to conduct repairs.

**Available:** Model programs in Seattle, and the Arizona Bridge to Independent Living in Phoenix.

### Responsibility

Local jurisdictions and Maricopa Association of Governments (MAG) to develop.

# 4

## Airport Accessibility

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### Recommendations

Improve the accessibility of transportation facilities and intermodal connections. Start with an analysis and potential changes to Sky Harbor Airport and then broaden the scope to include Park & Rides, major bus transfer points, pedestrian facilities, light rail stops, and possible local airports.

#### Actions at Sky Harbor include:

- Conduct an audit on accessibility and safety issues.
- Potentially utilize City of Phoenix Web site to identify the most convenient place to drop a passenger off to his/her gate.
- Determine specific strategies to minimize the walking demands on seniors.
- Ensure that a process exists for the consideration of seniors and other special needs populations in any new airport facilities designs.

### Rationale

- Simplify multi-modal connections for users to make it easier for the less mobile to use airports and other transportation facilities.

### Roadblocks

- Balancing certain federal security rules with accessibility considerations (i.e., where carts can be, etc.).
- Limited funding.

### Resources

**Needed:** Will need to find staff/consultant to develop and conduct the audit.

**Available:** Potential federal funding.

### Responsibility

Phoenix Aviation Department, Maricopa Association of Governments (MAG), facility operators, and other local jurisdictions.

# 5

## Pedestrian Improvements

---

<b>Recommendation</b>	<p>Review and Update the Maricopa Association of Governments (MAG) Pedestrian Area Policies and Design Guidelines so that they address and promote senior mobility. At a minimum, the review should include:</p> <ul style="list-style-type: none"><li>• Elderly/pedestrian-friendly signage.</li><li>• More open space pedestrian refuge areas in downtown and suburban settings.</li><li>• Turn/refuge islands.</li><li>• In-pavement lighting on crosswalks.</li><li>• Audible signals at crosswalks.</li><li>• Improved parking lot design.</li><li>• Narrow street design.</li><li>• Implementation strategies to encourage incorporation of the Guidelines into the planning and design of transportation infrastructure.</li></ul>
<b>Rationale</b>	<ul style="list-style-type: none"><li>• Increase pedestrian safety and comfort.</li><li>• Provide a readily available source of information for local jurisdictions interested in measures to enhance senior mobility.</li></ul>
<b>Roadblocks</b>	<ul style="list-style-type: none"><li>• Funding to conduct the review and to put in place the improvements.</li><li>• Buy-in from communities to adopt the guidelines.</li><li>• Need a champion or messenger to ensure guidelines are implemented.</li></ul>
<b>Resources</b>	<p><b>Needed:</b> Funding, staff and volunteer time, and possible consultant fees.</p> <p><b>Available:</b> Pedestrian Design Assistance and existing MAG Pedestrian Working Group.</p>
<b>Responsibility</b>	MAG Pedestrian Working Group and local jurisdictions.

# 6

## Land Use Improvements

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### Recommendations

**Build upon the land use principles included in the Maricopa Association of Governments (MAG) Pedestrian Area Policies and Design Guidelines and other adopted MAG plans and policies to develop land use guidelines (neighborhood and subdivision-based) to meet the needs of an aging population.**

Incorporate guidelines into the city-based Sub-Division Design Guidelines and subdivision design review process, and widely distribute these guidelines to developers, city planners, zoning commissions, and school districts to use during their site plan reviews. At a minimum, these new guidelines should include the following activities:

- Conduct a study and analysis to identify zones with concentrations of seniors. Survey the seniors in these areas to determine their issues and concerns.
- Conduct a Liveable Cities audit as it relates to the land use considerations (developed by the AARP or equivalent) and involve seniors in the process of developing the guidelines.
- Identify pilot pedestrian-friendly areas and incentives to make these areas more friendly to the elderly, such as transit at reduced rates, incentives for developers, and treatments for Elderly Pedestrian Zones.
- Develop implementation strategies, such as mixed land use, a wider range of housing types, higher density along transit corridors, crime prevention through environmental design techniques, and multi-modal strategies (including low-speed personal motorized vehicles).
- Create by-ways and multi-purpose trails.
- Encourage multiple use of public facilities (e.g., schools, libraries, community centers) as neighborhood anchors.

### Rationale

- Creates more liveable neighborhoods, promotes walking, and enhances mobility.
- Increases connectivity between neighborhoods with use of by-ways and multi-use trails.
- Creates a greater level of sustained mobility over the life cycle.

### Roadblocks

- Funding to conduct the review and to put in place the improvements.
- Buy-in from communities to adopt and implement the guidelines.
- Need a champion or messenger to ensure guidelines are implemented.

### Resources

**Needed:** Staff or consultant time, work group of planners.

**Available:** 1998 National Traffic Safety Administration (NTSA) Project conducted by Dutton and Associates, which successfully implemented Elderly Pedestrian Zones in Phoenix; Existing AARP Liveable Cities Audit; possible technical assistance by AARP; the Regional Off-Street System (ROSS) Plan developed by the Bicycle/Pedestrian Working Group.

### Responsibility

MAG Planners Stakeholders Group and MAG Pedestrian Working Group.

# 7

## Education and Awareness

---

<b>Recommendation</b>	<p>Educate city planners, developers, students, and community groups on how to manage senior mobility issues in their communities through the following methods:</p> <ul style="list-style-type: none"><li>• Publish a comprehensive, user-friendly Senior Mobility Guidebook for cities, developers, community groups, and educational institutions.</li><li>• Organize a series of elderly/pedestrian urban/suburban design forums targeting the real estate and land development industries and city planners.</li><li>• Develop a Senior Transportation/Land Use Design Awards Program for cities that implement elderly mobility improvements. Utilize the Senior Mobility Checklist and AARP Liveable Cities Audit to measure performance and make award decisions.</li></ul>
<b>Rationale</b>	<ul style="list-style-type: none"><li>• Increased awareness about ways to improve senior mobility.</li></ul>
<b>Roadblocks</b>	<ul style="list-style-type: none"><li>• Organization of all activities—champions needed.</li></ul>
<b>Resources</b>	<p><b>Needed:</b> Staff time and funding to develop the guidebook, organize the forums and develop the awards program.</p> <p><b>Available:</b> Valley Metro/Regional Public Transportation Authority staff who currently provide training, and organize forums/conferences.</p>
<b>Responsibility</b>	<p>A consortium of groups and institutions is needed, including Valley Metro/Regional Public Transportation Authority, the Maricopa Association of Governments (MAG) Bicycle/Pedestrian Task Force, the MAG Planners Stakeholders Group, Arizona Department of Transportation (ADOT), Arizona State University (ASU) and other educational institutions.</p>

# 8

## Public Involvement

---

### Recommendations

Develop and train city-based Senior Audit Teams to go on-site to review the current infrastructure/land use and take part in the transportation project review process.

- Partner with AARP to provide training to the team for what to look for in the audit, and assist city planning groups in the design of both land use and transportation plans.

### Rationale

- Trained and experienced consumers become part of the transportation/development review process.
- One way to make sure cities are prepared for the changes associated with the aging population.

### Roadblocks

- Recruiting and maintaining volunteers.
- Gaining full participation from the cities.
- Providing an incentive for cities to integrate Senior Audit Teams into the existing review process.

### Resources

**Needed:** Volunteers, city staff, trainers.

**Available:** Possible technical assistance from AARP.

### Responsibility

Maricopa Association of Governments (MAG) and local jurisdictions.



# 9

## Intelligent Transportation Systems

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### Recommendations

Request the Maricopa Association of Governments (MAG) Intelligent Transportation System (ITS) Committee to consider the development and implementation of Intelligent Transit Stop technologies. Intelligent Transit Stops, or “Smart Stops” will enable transit management to be informed about how many and what kinds of customers are waiting for service. Management will be able to calculate in real-time terms whether these customers are likely to be picked up on schedule and, if not, to select alternative means for aiding such customers in completing their trip.

### Rationale

- More transit trips will be completed in a timelier manner than is possible with today’s practices.
- Transit will become more reliable, and user-friendly.

### Roadblocks

- Lack of necessary vision.
- Research and development of software and hardware.
- Will need to generate considerable public/private support.

### Resources

**Needed:** Research and development funding; funding for a demonstration project.

**Available:** Possible national/local grants.

### Responsibility

MAG ITS Committee, Arizona Public Transit Association, Valley Metro/Regional Public Transportation Authority, and local jurisdictions.

# 10

## Implementation

---

### Recommendations

Dedicate Maricopa Association of Governments (MAG) staff to the ongoing tracking and implementation of the Regional Action Plan recommendations. MAG staff should focus efforts in the following areas:

- Integrating the Aging and Mobility recommendations into the work of the MAG modal committees.
- Serving as a resource to community stakeholder groups who take the lead on some of the recommendations.
- Convening a quarterly stakeholder meeting to assess the implementation process.

### Roadblocks

Finding elected officials, community leaders, and city staff to champion the issue and move forward on implementation.

Keeping the major stakeholders and institutions involved over the long term.

Finding funding to help implement programs that will address the issues identified in the recommendations.

### Resources

**Needed:** Interested elected officials and other committed stakeholder representatives.

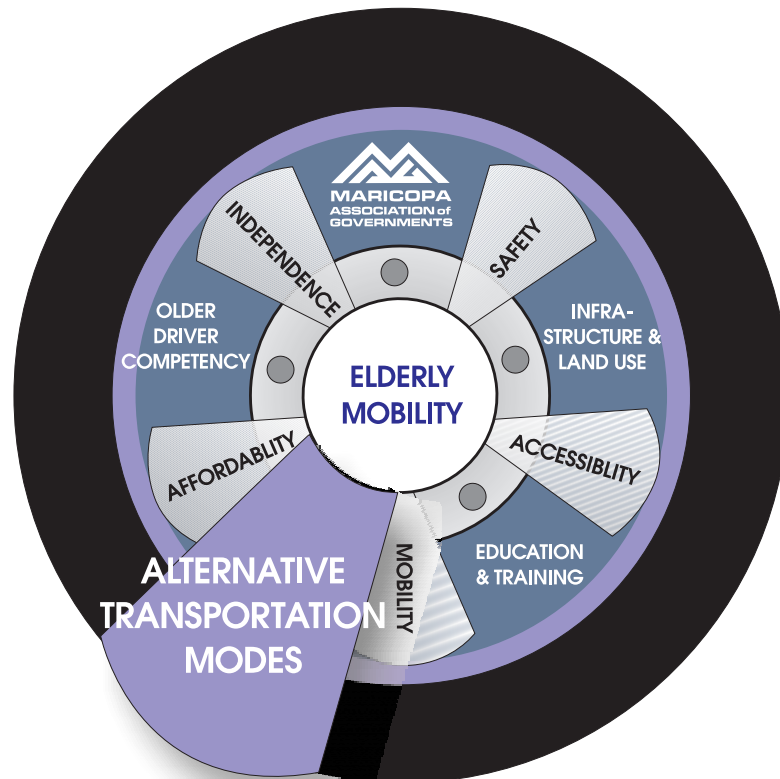
**Available:** Existing MAG committees that address multi-modal options.

An existing model of a coordinated community response to a regional issue in the form of the MAG Regional Domestic Violence Council.

### Responsibility

Community groups interested in aging and mobility issues, members of the senior community, the Area Agency on Aging, the Governor's Council on Aging, MAG modal committees and other groups as identified.

## ALTERNATIVE TRANSPORTATION MODES



### Recommendations #11-18

Since many older adults will eventually cease driving, alternative transportation options are the safety net resources to ensure that seniors get to doctor's appointments, grocery stores, and other critical social, medical, and recreational activities. The key theme underlying all of the Alternative Transportation Mode recommendations is creating a *family of services* approach to alternative modes. The *family of services* should build upon existing services throughout the Valley, as well as offer a continuum of transportation services that are customized to meet the diverse characteristics, needs and demands of older users.

Other key concepts of these recommendations include:

- The development and funding of a coordinated transportation system for all transportation dependent populations.
- Transportation data system which includes one phone number for users.
- The promotion of private sector involvement in creating and supporting new options.
- Improved amenities at public transit facilities.
- Expanding Peer Travel Training programs.

# 11

## Coordination

---

### Recommendations

**Establish a Transportation Consortium to design and oversee a Transportation Coordinated System for older adults and other transportation-limited populations.**

The consortium should include funders, policy-makers, and operational staff. The roles of the Consortium should include, but not be limited to the following: resource identification and development, designing the operational structure and information system, contracting, policy development and oversight, defining the geographic area served by the system, conducting a region-wide needs assessment, and establishing service and eligibility criteria. Possible elements of a “Coordinated System” that should be considered by the Consortium are:

- A Brokerage service operated from a central call center with satellite operations in different parts of the Valley.
- To leverage resources/funding and ensure maximum utilization—target system to older adults, and other “special need” populations, i.e., welfare to work, persons with disabilities, low-income families.
- Development of a “family of services” matrix which compares certain programs against demographics and the varying needs of certain groups.

### Rationale

The Maricopa County region has numerous resources (funding, vehicles, technology and people) that would be more fully utilized and provide significantly more opportunities for riders if the resources were organized into a coordinated system that allowed brokers to purchase services from the existing modes and link those services with those who need it. The primary benefits of this recommendation are:

- Regionalizes transportation services.
- Combines multiple fund sources into one revenue “bank.”
- Creates a centralized call center for transportation.
- Relies on technology to create and maximize ridesharing whether on a van, bus, taxi, or private automobile.
- Reduces trip costs.
- Provides an organizational structure that has decision-makers in transportation needs and funding.

In addition, the development of a Coordinated Transportation System will be critical to the successful implementation of the other alternative mode strategies.



## **Roadblocks**

Gaining commitments from agencies that:

- Serve transit-dependent populations.
- Provide funding (Arizona Department of Economic Security (DES), Arizona Department of Transportation (ADOT), American Automobile Association (AAA), Arizona Health Care Cost Containment System (AHCCCS), Cities/Towns, Maricopa County).
- Provide some type of transportation service.

## **Resources**

**Needed:** Funding for staff time to develop and assist the Consortium; a combination of transit/transportation funding and other grant dollars available for special needs services. Potential funding sources include DES departments such as, Temporary Assistance to Needy Families (TANF), Refugee Assistance, Arizona Division of Developmental Disabilities (DDD), and Welfare to Work; AAA, local cities and towns, and AHCCCS.

## **Responsibility**

Maricopa Association of Governments (MAG) to staff the Consortium, which should include representatives from local jurisdictions, Valley Metro/Regional Public Transportation Authority, ADOT, Maricopa County Human Services Division, DES, the Area Agency on Aging, AHCCCS, Human Service Agencies who provide transportation, employers, Chambers of Commerce, consumers, and others as identified.

# 12

## Data and Access to Information

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### Recommendations

#### Improve transportation information gathering and dissemination through a coordinated Transportation Information System.

- Develop a Transportation Information System.
  - The database would help to link or match older adults to programs and services according to their individual needs.
  - One call would provide the traveler with one or more travel alternatives.
  - Utilize software packages that are already developed.
  - Have an oversight body monitor the system and keep building in information about the new services that are created that make up the Family of Transportation Alternatives.
- Promote “one” place for consumers to go specifically for transportation information and linkage to services.
  - Not just a phone number, but an actual person with whom consumers can talk.
  - Possibly utilize the Area Agency on Aging senior help line or have Maricopa County or Valley Metro/Regional Public Transportation Authority provide the service.

### Rationale

- Enhance Valley Metro/Regional Public Transportation Authority and Community Information & Referral’s ability to provide older adults with transit information, as well as other alternative mode options.
- For the most part, the Family of Transportation Services in Maricopa County already exists. The problem is that few older adults are knowledgeable about all of the services available.

### Roadblocks

- Gaining support for the idea and the funding to develop and implement it.
- Designing the system, the data forms, etc.

### Resources

**Needed:** Funding to develop and maintain the system; finding staff knowledgeable about the Family of Transportation Services available.

**Available:** Potential local government, county support, and national grant possibilities.

### Responsibility

The Transportation Consortium (if developed) should be responsible for develop, review utilization, and make any necessary changes to the system. Critical entities include Maricopa County, Valley Metro/Regional Public Transportation Authority, the Community Forum, the Area Agency on Aging, Arizona Department of Transportation (ADOT), Maricopa Association of Governments (MAG), and the Arizona Department of Economic Security (DES).

# 13

## Expand Existing Services

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### Recommendations

Build the Family of Transportation Services available to older adults and transportation-limited populations by expanding the following programs across the county:

- Mileage Reimbursement (currently in Mesa and Scottsdale).
- Taxi Voucher Program (Cab Connections in Scottsdale).
- Peer/Group Travel Training (Community Forum and Valley Metro/Regional Public Transportation Authority).
- Neighborhood Circulators/Community Buses (Tempe, Ahwatukee).
- Flex Route Bus Routes currently operating in Avondale, Tolleson, Litchfield Park, Goodyear, Phoenix and Fountain Hills.

### Rationale

Expansion of all of these programs will increase the alternative transportation options available to older adults. The programs exist and have been tested in terms of efficiency and effectiveness in other communities.

#### Expansion of mileage reimbursement:

- Automobiles are a preferred mode of transportation and Dial-A-Ride is limited because of cross jurisdictional boundary issues—a Maricopa County region-wide reimbursement program will open up more opportunities for older adults to remain mobile, as well as open up more economical support for some Maricopa-based businesses.

#### Expansion for Neighborhood Circulators/Community Bus:

- Research conducted by the Community Forum and others indicates that older adults are reluctant to use transit systems because of walking distances to bus stops and safety/security issues (both perceived and real). These concerns are addressed by small bus systems that go close to where people live and link with transit routes. Systems of this type have been tested in Europe and in the United States. The cost falls between that of Dial-A-Ride and regular fixed route transit which constitutes a savings if people switch from door-to-door Dial-A-Ride. Ultimately, these systems allow independent travel for older adults and others in the neighborhood.

### Roadblocks

Finding the funding sources to support the expansion of the programs.

- For the Reimbursement program there can be difficulty finding and maintaining volunteer drivers (a driver databank may need to be created similar to the one for the Riverside TRIP program).
- Educating older adults about the availability of the programs and how to access them.
- Raising the level of requirements for cab drivers—background checks, drug testing, etc.



**Resources**

**Needed:** Funding, a network of staff members from each city or region who are sensitive to the needs of older adults and disabled adults, and equipment and infrastructure.

**Available:** Potential funding from interested cities and towns to subsidize for the reimbursement/cab vouchers, special transportation grants, and possibly lottery funds.

**Responsibility**

Local jurisdictions, Maricopa County, and Maricopa Association of Governments (MAG).

# 14

## New Options

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### Recommendations

Develop new transportation options by piloting an Independent Transportation Network (ITN) program in a community that is interested in being a demonstration site, and piloting a Senior Van Pool Program.

### Rationale

Both programs will provide another option available in the Family of Transportation Services outside of the traditional public transit models.

ITN is a model program that has been working effectively in another region for over six years. Key features include:

- A 24/7 door-to-door service.
- Use of an innovative funding mechanism.
- Utilizes an established software technology for billing and GIS-based system for dispatching.
- Economic sustainability through user fees and public/private support, the ability to bank trips over the long term, customer choice in trip type and payment methods, local merchant participation, and providing service which replicates the comfort and convenience of the private automobile.
- Involves local businesses in supporting the service.

### Roadblocks

- Finding a pilot site with the right characteristics to successfully implement the program.
- Not confusing ITN with a traditional social service program or a “silver bullet solution” for all older adults. The program is based on a public/private partnership—the very infirm or very low-income are not the primary target audience for this type of service. ITN should be one option of the Family of Transportation Services available to the wide array of older adults living in any community.

### Resources

**Needed:** For ITN, the total amount and type of resources needed will need to be defined after a site assessment is conducted and a program implementation plan is developed.

**Available:** Potential Maricopa Association of Governments (MAG) federal transportation funds and technical assistance from ITN in Portland, Maine.

### Responsibility

For ITN: Property Owners and Residents Association of Sun City West (PORA) and/or another interested community.

Senior Van Pools: Valley Metro/Regional Public Transportation Authority and the Coordinated Transportation Consortium (if developed: see Recommendation 11).

# 15

## Private Sector Involvement

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### Recommendations

Promote private sector involvement in providing alternative transportation options to older adults and other special needs populations. Tax incentives could help subsidize trips to stores, help provide vehicles to augment a specialized transportation service, or provide employer-run van pools and other projects.

### Rationale

Decrease the reliance on public funding for special transportation services.

- Create marketing opportunities for the private sector.
- Ultimately, contribute to building the Family of Transportation Services available to older adults and other transportation-dependent groups.

### Roadblocks

- Economic downturns often prevent the private sector from participating in these types of community projects.
- Gaining buy-in from businesses on how they can play a part and benefit from providing some assistance.
- Difficulty in passing legislation related to tax breaks.

### Resources

**Needed:** Staff and a lead organization to work with the private sector and draft legislation if needed.

### Responsibility

The Transportation Consortium (see recommendation 11).

# 16

## Transit Amenities

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<b>Recommendations</b>	<p>Increase transit use through improved amenities at transportation facilities to include, but are not limited to:</p> <ul style="list-style-type: none"><li>• shade.</li><li>• restrooms at transfer points.</li><li>• bike lockers/storage facilities.</li><li>• Park &amp; Rides.</li><li>• water fountains.</li><li>• benches.</li><li>• increased security.</li><li>• optimal stop locations.</li></ul>
<b>Rationale</b>	<ul style="list-style-type: none"><li>• Make transit more attractive, user-friendly and functional.</li><li>• Increase safety.</li><li>• More older adults and special need populations will use transit.</li></ul>
<b>Roadblocks</b>	<ul style="list-style-type: none"><li>• Funding for the improvements, continuing operating costs, and staff time.</li><li>• Reluctance on the part of the providers.</li><li>• May increase transient population at transportation facilities.</li></ul>
<b>Resources</b>	<p><b>Needed:</b> Funding, space, equipment, etc.</p> <p><b>Available:</b> Potential funding from local jurisdictions, transit agencies, and Maricopa County.</p>
<b>Responsibility</b>	<p>The Transportation Consortium (see recommendation 11); key entities including local jurisdictions, Valley Metro/Regional Public Transportation Authority, Maricopa County, and Maricopa Association of Governments (MAG).</p>

# 17

## Expand Peer Travel Training

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### Recommendations

Expand or replicate the existing Peer Travel Training Program. This should include increasing the volunteer core/mentors by utilizing the religious community and civic groups like Neighbors Who Care in Sun Lakes, Rotary and Lions Clubs, etc., and community service incentives.

### Rationale

- Make alternatives to driving more accessible and user-friendly to seniors.
- Educate more people about the complex issues around aging and mobility.
- Make transit more user-friendly to those who may never have utilized it before.

### Roadblocks

- Funding and training the volunteer mentors, and staffing needs.
- Publicizing the program.

### Resources

**Needed:** Funding, possibly additional staff to recruit and train volunteer mentors.

**Available:** A successful program exists at the Community Forum, a potential large pool of volunteers to tap from religious institutions.

### Responsibility

The Community Forum, Valley Metro/Regional Public Transportation Authority, Care Giver Support Groups, Maricopa Department of Transportation, Arizona Ecumenical Council, VIP, Beatitudes DOAR Program, and other religious organizations, Neighbors Who Care, Inc., and civic groups.

# 18

## Funding

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### Recommendations

Encourage legislation which supports funding for transportation coordination efforts.

### Rationale

- Older adults and other special need populations' transportation needs are not getting met—and will only get worse in the coming years.
- Lack of mobility leads to other very costly problems—could save long-term health care costs.

### Roadblocks

- Legislative support.
- Determining eligibility qualifications.
- Lack of awareness about the importance of this issue.

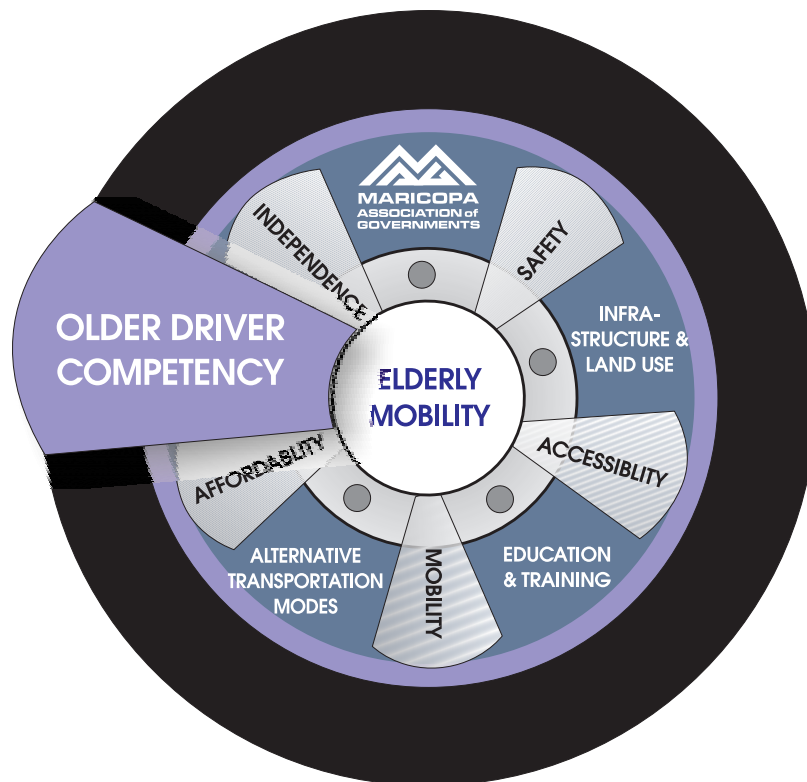
### Resources

**Needed:** A team to draft the bill and find a sponsor.

**Available:** The aging/transportation provider network who can help garner support for the bill.

### Responsibility

The Transportation Consortium; key entities including the Arizona Transit Association, AARP, the Area Agency on Aging, and transit agencies.



### Recommendations #19-20

The recommendations in this section promote a *public health approach* to improving older driver competency. There is great hesitancy among drivers to talk about how the aging process is affecting their driving skills for fear of losing their primary means of independence—"their license to drive." There is a need to change the public perception of this problem to one that is focused on fitness and ability as opposed to strictly age-based concerns. Given this, the older driver competency recommendations call for a *fitness to drive campaign*, the development of a driver screening program, and improving the data collection and analysis of aging driver information. The recommendations also promote community-based organizations and local jurisdictions getting involved in developing *voluntary* driver assessment programs utilizing existing seniors centers and intergenerational programs.



# 19

## Driver Screening and Retraining

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### Recommendations

Develop and implement a Pilot Driver Screening Battery Study. After completion of the study, implement Cognitive/Physical Testing Centers across the Valley.

The Study would:

- Utilize the research from the Maryland Motor Vehicle Division model program and other local and national expertise in the creation of the battery.
- Utilize current resources such as the five certified driving specialist programs in the state, existing testing equipment of the Arizona Motor Vehicle Division (MVD).
- Include Arizona MVD as a major partner.
- Identify the pilot sites and who will administer the battery.
- Target any “at-risk” driving population—drivers of all ages.
- Is a voluntary program.

The Testing Center would utilize geriatric physicians to conduct competency and physical testing for older drivers, as well as link them with organizations who provide behind-the-wheel testing.

Other key elements include:

- Providing training for professionals at the centers.
- Certifications for those doing the competency testing.
- Accreditation of the centers to ensure quality and consistency of care.
- A data collection and evaluation component.

### Rationale

- As the baby boomer population in the Valley ages, there will be a greater need for sound driving assessments and interventions.
- The ultimate benefit will be to increase driver and road safety.
- Increase identification of high risk drivers and link them to remediation or an appropriate support service.
- Involve the medical community in a more proactive way.
- Raise the awareness of the general public about the need to begin to check one’s driving fitness throughout the aging process.
- Maryland MVD has already successfully implemented a screening program.

### Roadblocks

- Resistance from drivers—don’t see their driving as a problem and/or fear license could be revoked.
- Possible resistance from advocacy groups and seniors.
- Would be a radical change in what is perceived as a right rather than a privilege.
- Significant costs which will include some payment by the person being evaluated.
- Will need to address how to subsidize the cost for the low-income person.

### Resources

**Needed:** Funding, staff, pilot sites, significant coordination effort among partnering organizations.

**Available:** Certified driving rehabilitation specialists in the Valley, technical assistance from Dr. Robert Raleigh, Maryland MVD and other national and local experts in the field

such as Dr. Jim McKnight and Dr. Pam Willson. Also available is a base of interested physicians through the Arizona Geriatrics Society.

## **Responsibility**

A consortium of provider agencies, including the Arizona Department of Transportation (ADOT) Motor Vehicle Division (MVD), Medical Review Program (would function as lead agency), Arizona Geriatrics Society, Certified Driving Specialists in the Valley, AARP, geriatric physicians, law enforcement, insurance industry, Arizona Department of Aging, Arizona State University (ASU) gerontology program, the Area Agency on Aging, Governor's Council on Aging, health care associations, interested legislators, including Representative Gleason and Senator Cirrillo.

# 20

## Data Collection, Analysis and Dissemination

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### Recommendations

Improve the data collection, analysis, and dissemination of older driver information. Arizona Department of Transportation (ADOT)/Motor Vehicle Division (MVD) needs to improve the statistical information available on senior drivers, such as the number of older driver crashes, type of crashes, violations, injuries, licenses granted and revoked, and also to possibly isolate factors like location, demographics, and persons with repeated incidences.

Other key elements include:

- The data needs to be accessible and available in a user-friendly format.
- Work with insurance companies to share their crash data.
- All the recommendations in the Regional Action Plan that are implemented should have a data/outcome measure component.

### Rationale

Currently there is a lack of statistical information about older driver accidents and violations.

- Fill data gaps.
- Increase accountability of the screening program and any other recommendation in the Regional Plan that is implemented.

### Roadblocks

- Program and data costs.
- Data input inaccuracies and accuracy in the analysis of the data.
- Difficulty to maintain consistency of data collection across areas.
- Reluctance of insurance companies to share data.

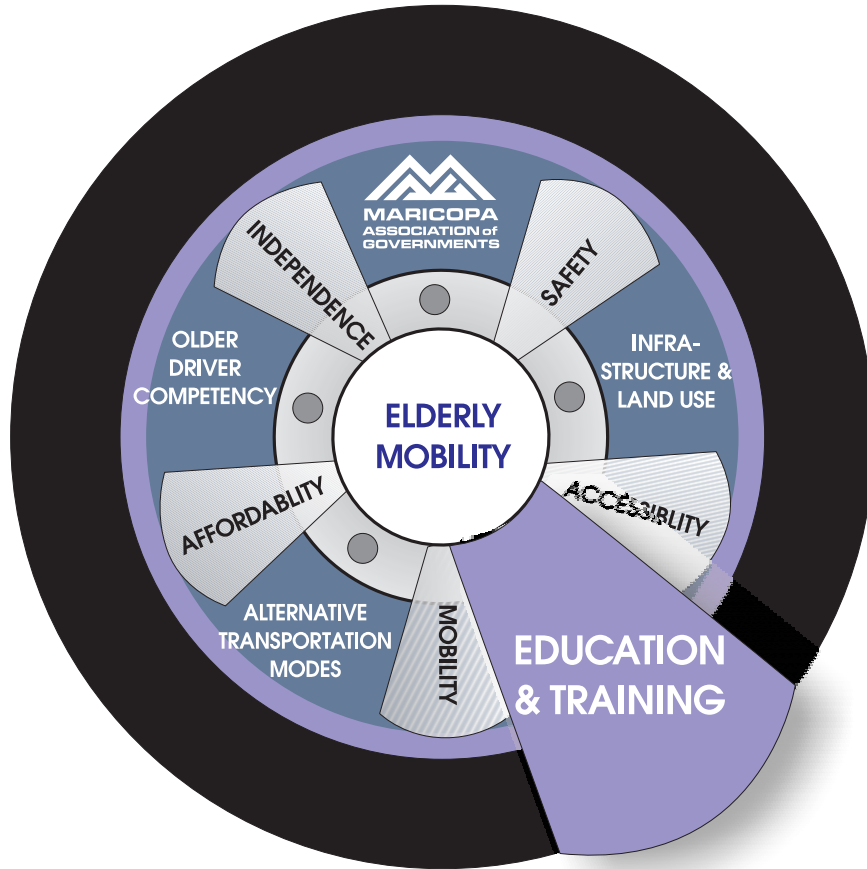
### Resources

**Needed:** Funding, staff, and computer software.

**Available:** Recent ADOT/MVD request to change the manual data collection system to a computer-based system and data from Dr. Betty Gale's longitudinal study.

### Responsibility

ADOT/MVD, Arizona State University (ASU)/local colleges, insurance companies, and any new testing centers that are developed.



### Recommendations #21-25

Raising public awareness and offering new opportunities for driver retraining, education and mobility management are the cornerstones of the Education and Training recommendations. These recommendations include a comprehensive Driver Intervention Program; a regional public awareness campaign; training to professional groups who interact with seniors; centralized information on aging and mobility resources; and advocating for a mandatory insurance discount for completion of the AARP 55-Alive Course.

# 21

## Training

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### Recommendations

**Create a Driver Intervention Program (modeled off of “Getting in Gear” in Tampa, Florida) that is centrally located and also available in satellite branch offices in East/West Valley cities.**

The program will have five major components:

- Assessment.
- Education.
  - Older driver education to partner with AARP.
  - Public education.
- Retraining (behind-the-wheel).
- Mobility Management (counseling and peer travel training).
- Linkage to Case Management Services—already available through the Area Agency on Aging.

### Rationale

- Improve driver capabilities, increase safety on the roads, and ultimately save lives.
- No program this comprehensive exists currently in the Valley.
- Proven model in the Tampa Bay region.
- Effective screening instruments have already been researched and implemented effectively.

### Roadblocks

- Referral process may be difficult.
- Gaining consumer buy-in and acceptance to test their driving skills (may not see it as needed or fear license will be revoked if they participate).
- Cost to develop and operate the program.
- Will require significant linkages with different agencies/systems for it to be effective (i.e., health professionals, social service community, etc.).
- Finding experienced staff.

### Resources

**Needed:** Funding staff. Estimated initial cost to set up a pilot program is approximately \$250,000.

**Available:** Potential local and national grant funding; possible technical assistance from the “Getting in Gear” Program in Tampa Bay.

### Responsibility

A consortium of provider agencies including the Area Agency on Aging (would function as lead agency), AARP, Arizona State University (ASU), the Community Forum, Arizona Motor Vehicle Division (MVD), driver specialist representative, Valley Metro/Regional Public Transportation Authority, and others as identified.

# 22

## Public Awareness

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### Recommendations

Develop a Regional Public Awareness/Education Campaign which adopts a fitness-to-drive or wellness approach. The campaign would include the following:

- Transportation Web site.
- A “family of publications” for use by multiple groups and target groups such as drivers, concerned family members, health care and law enforcement professionals.
- “Red Flag” assessment cards for professionals.
- Speakers Bureau.
- Public Service Announcements (PSAs).
- Print media feature articles.
- Ads at bus stops.
- Involvement of retirement communities and local businesses.
- Media involvement/PR firm.

### Rationale

Need to equip older adults, baby boomers, and concerned family members with the knowledge and skills they need to drive safely and to utilize the alternative transportation options and other supports available in their community. In addition, this recommendation will:

- Clarify misconceptions about the issue.
- Diminish stereotyping of the older driver; place more focus on driving ability rather than age.
- Help link people with resources to help improve driving skills and/or use alternative transportation modes.
- Use of the Internet will help reach a wider audience.
- Foster increased independence of seniors.
- Involve the media and insurance companies in a more positive way.
- The Web site will serve as a comprehensive clearinghouse of aging and transportation related information for both users and practitioners.

### Roadblocks

- Funding and time to develop the materials in a consistent manner.
- Keeping the information current.
- Difficulty getting free PSA time during daytime viewing hours.
- Will require extensive collaboration.
- Avoiding negative spin from press; keeping the message on fitness/wellness consistent in all the materials/publications.
- Will require high level of collaboration and partnership among stakeholder organizations.

### Resources

**Needed:** Funding, staff to keep Web site and publications updated, costs of publications, extensive partnerships, volunteers for Speakers Bureau, donated air time for PSAs (radio and television), etc.

**Available:** Current publications already developed, possible student project, resources of Older Adults Still in Service (OASIS)/Senior University, technical assistance from Arizona State University (ASU) and Maricopa Community Colleges, possible National Traffic Safety Administration (NTSA) funding for local social marketing campaign, possible grants from the U.S. Department of Health, and donated time for PSAs.

## **Responsibility**

A steering committee of a multitude of organizations will be needed, such as AARP, media involvement, PR firm, the Area Agency on Aging, Maricopa Association of Governments (MAG), OASIS, ASU Wellness Program/Gerontology Department, Arizona Motor Vehicle Division, the Community Forum, Valley Metro/Regional Public Transportation Authority, corporate support, American Automobile Association, NTSA, Department of Health, health care associations, and others as identified.



# 23

## Professional Training

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### Recommendations

Develop and implement Education/Sensitivity Training on senior mobility issues to the following professional communities: health care, insurance companies, city traffic engineers, law enforcement (Department of Public Safety and city fire emergency personnel through Arizona Peace Officers Standards Training and ongoing in-service training), court personnel, transit drivers/personnel, Motor Vehicle Department personnel, aging services personnel.

Create an ongoing education mechanism to Health Care Professionals by making mobility education a part of the continuing education programs (for physicians, gerontologists, psychologists, social workers, nurses, and physical/occupational therapists).

### Rationale

Raise the level of awareness and skill of the front line professional who have direct contact with older adults on a daily basis. This recommendation will also:

- Increase overall safety and linkage to services.
- Diminish stereotyping of the older driver and clarify misconceptions about the issue.
- Involve stakeholder groups in a more positive and proactive way.

### Roadblocks

- Physician buy-in—due to time constraints and attitude of “not my responsibility,” fear of losing patients, not knowing how to talk about the issue with patients/family members.
- Finding trainers who are knowledgeable in both the aging and mobility fields.
- Making sure to customize each training for the particular discipline (a training survey is needed).
- May be difficult to coordinate and to gain participation from the targeted professional association. Need to get top-level buy-in.
- Time and resource needs of current training programs required for law enforcement and health care professionals.

### Resources

**Needed:** Development of contacts in each discipline, funding, trainers, curriculum development and approval, costs associated with the development of training materials.

**Available:** Existing disability awareness training for professionals conducted by the Community Forum, existing local and national experts, audio and video conferencing capabilities, on-line instruction.

### Responsibility

Partnership among credentialing organizations for continuing education credits including Arizona State University and other local colleges/universities, Arizona Geriatric Society, Arizona Medical Association, American Physicians Inc., Arizona Peace Officers Standards Training (AZPOST)/Arizona Law Enforcement Officer Advisory Council, Arizona Department of Public Safety, Governor’s Office of Highway Safety, the Community Forum, insurance companies, the Area Agency on Aging, ITE/MAG committees, local jurisdictions, and other professional associations.

# 24

## Access to Transportation Information

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### Recommendations

Publicize and utilize the Senior Help Line as the resource for aging and mobility information covering the following areas:

- Remediation.
- Training and education opportunities for drivers.
- Alternative transportation options available.
- Linkage with transportation Web site with MAP Blast feature to advise the best way to get from Point A to Point B.

### Rationale

Older adults and concerned family members need a single point of contact to discuss their transportation questions and concerns. Other benefits include:

- Cost savings given the hotline exists and is in operation.
- Available 24 hours a day through a known agency.
- Offers a live person with whom to talk.
- Current transportation information is available but dispersed.

### Roadblocks

- More exposure and marketing needed.
- May need additional staffing and operating dollars if demand increased.
- Not that many transportation options available yet.
- Training for staff.

### Resources

**Needed:** 0-1 additional staff for existing helpline.

**Available:** Senior help line already funded and operating; linkage with Community Information and Referral, including their Disability Helpline.

### Responsibility

The Area Agency on Aging would function as lead agency in partnership with an advisory committee to continually assess inventory and effectiveness.

# 25

## Advocacy

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### Recommendations

**Advocate for mandatory insurance discounts for seniors who complete the AARP 55-Alive Course.**

### Rationale

Currently approximately 14 Arizona insurance companies out of 120 offer a 10 percent insurance discount for individuals who complete the AARP Mature Driver Education Program (formally named 55-Alive).<sup>23</sup> Such discounts promote positive incentives for individuals to brush up on their driving and traffic safety skills.

Other benefits will include:

- Increased safety on the roads.
- Already mandated in 36 other states.
- Proven program with beneficial results.
- Similar discount provided to teenagers if they complete a drivers education course.

### Roadblocks

- Lack of buy-in from current insurance lobby.
- Legislative action will be needed.
- Lack of awareness of the insurance companies who provide discounts.
- May cause an increased demand for classes that exceeds current volunteer capacity.

### Resources

**Needed:** Publicize, promote and partner with the 14 insurance companies that currently give the discount; volunteers and advocates would be needed to push the legislation through the political process.

**Available:** Volunteers from AARP's Legislative Committee, Arizona's Silver-Haired Legislature.

### Responsibility

AARP (would function as lead agency), Arizona Silver-Haired Legislature, the Area Agency on Aging, Governor's Advisory Council on Aging, National Association of Retired Federal Employees, American Automobile Association (AAA), Insurance Information Association, aging service providers, Property Owners and Residents Association of Sun City West.

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Appendix  
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