

Unintentional Fatal Injuries

Fatal Injury in West Virginia

A report by

The West Virginia Injury Prevention Coalition

In association with

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West Virginia University
Morgantown, West Virginia**

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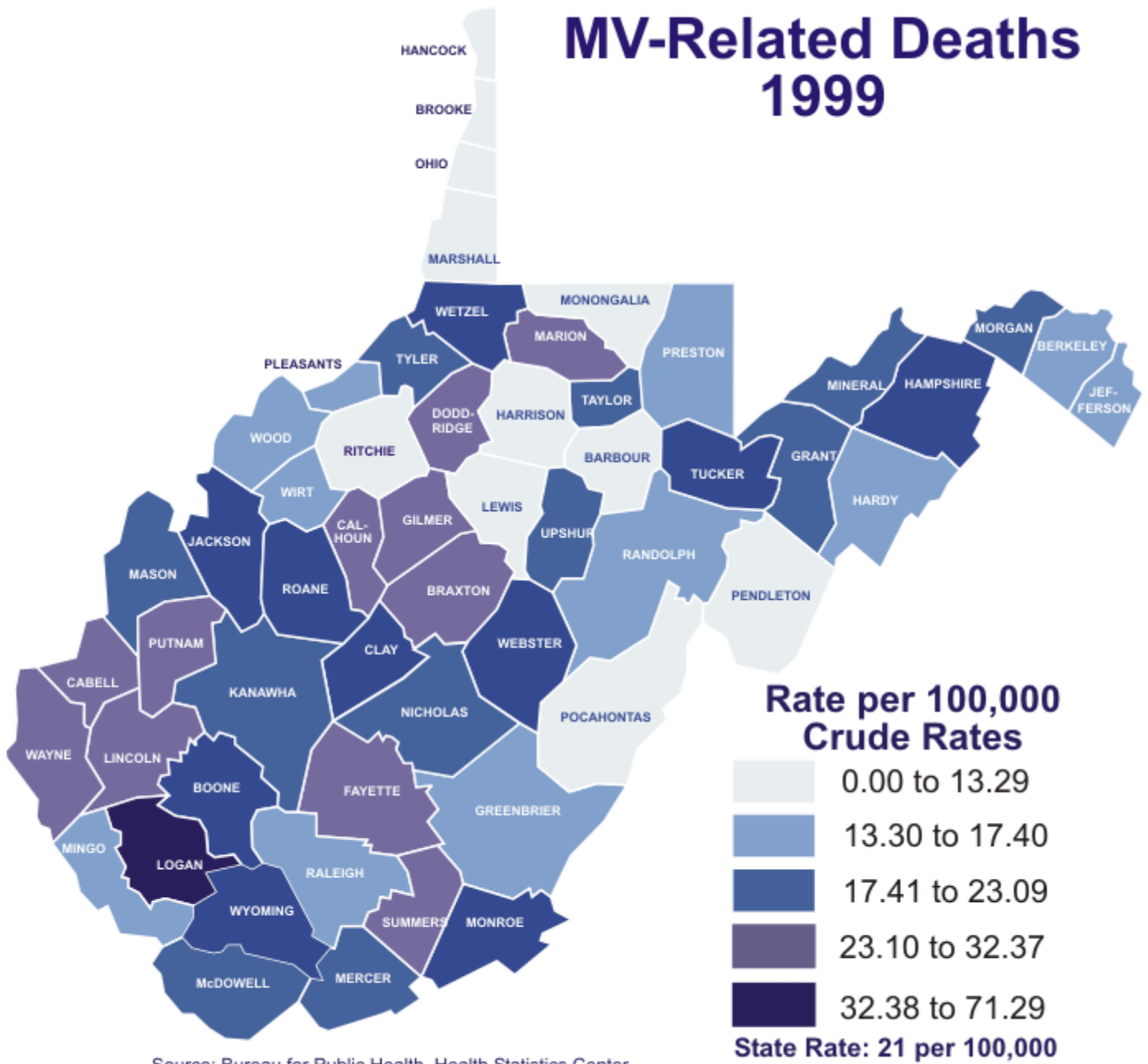
January 2002

Motor Vehicle-related Deaths

Seat belt usage rate in West Virginia was 50% in 1999 compared to 71% nationally.

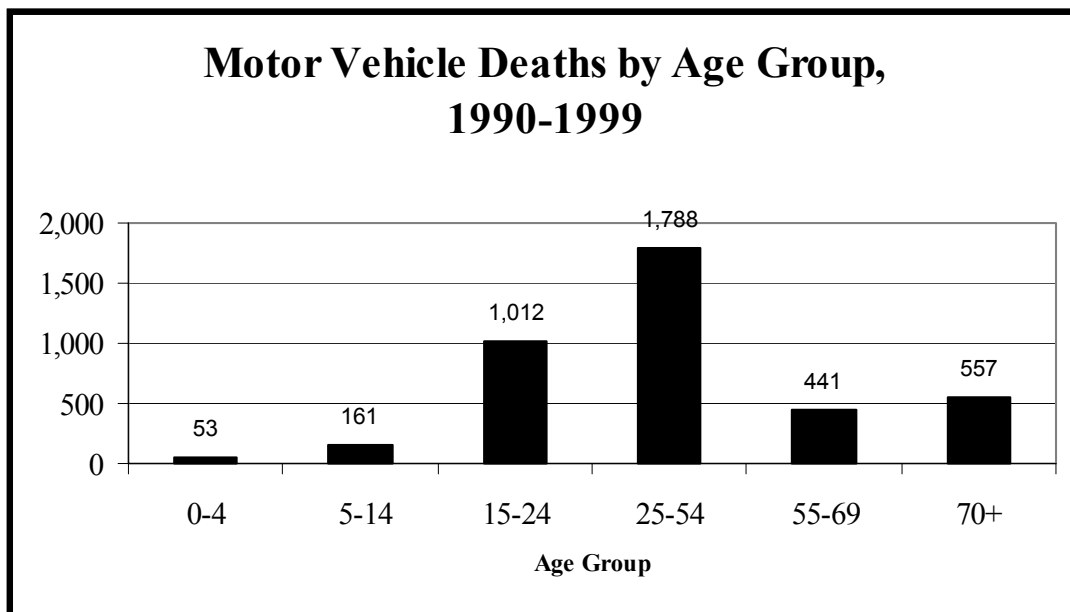
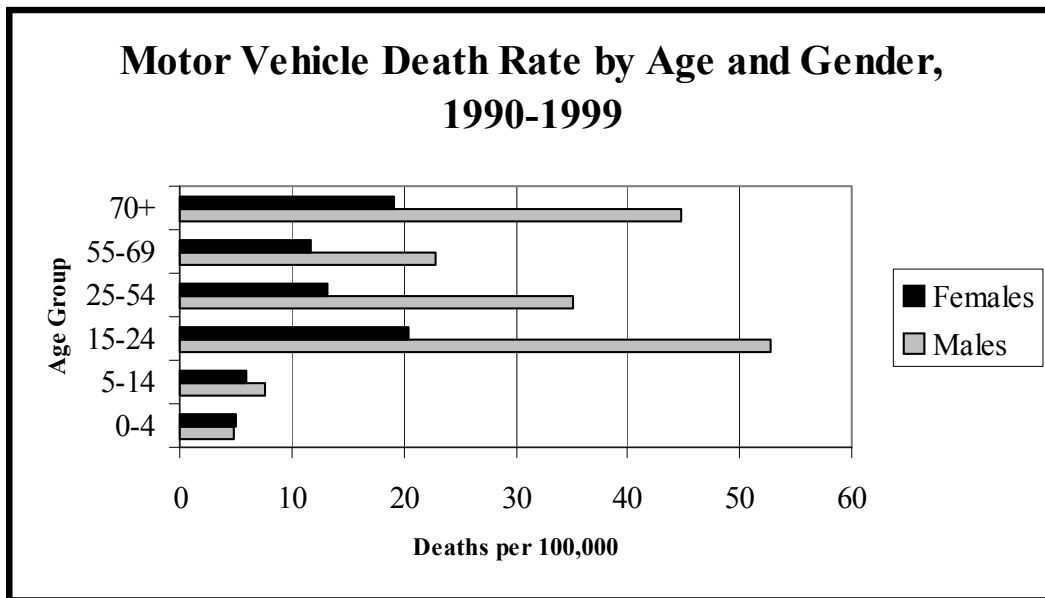


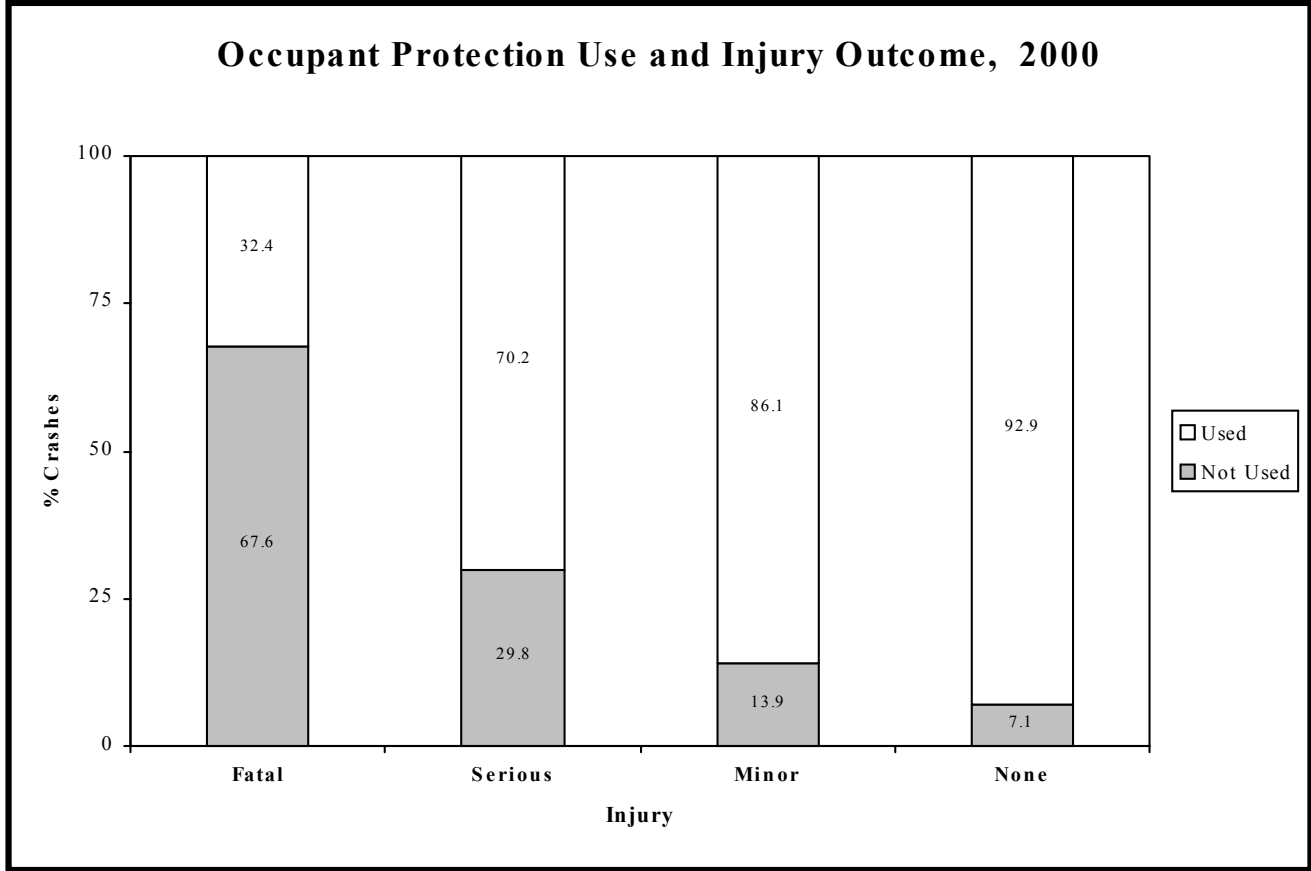
Motor vehicle crashes can also be seen as potential fatal injury events. Like many other fatal injuries, those resulting from MV crashes are not distributed equally across the state, as shown below.



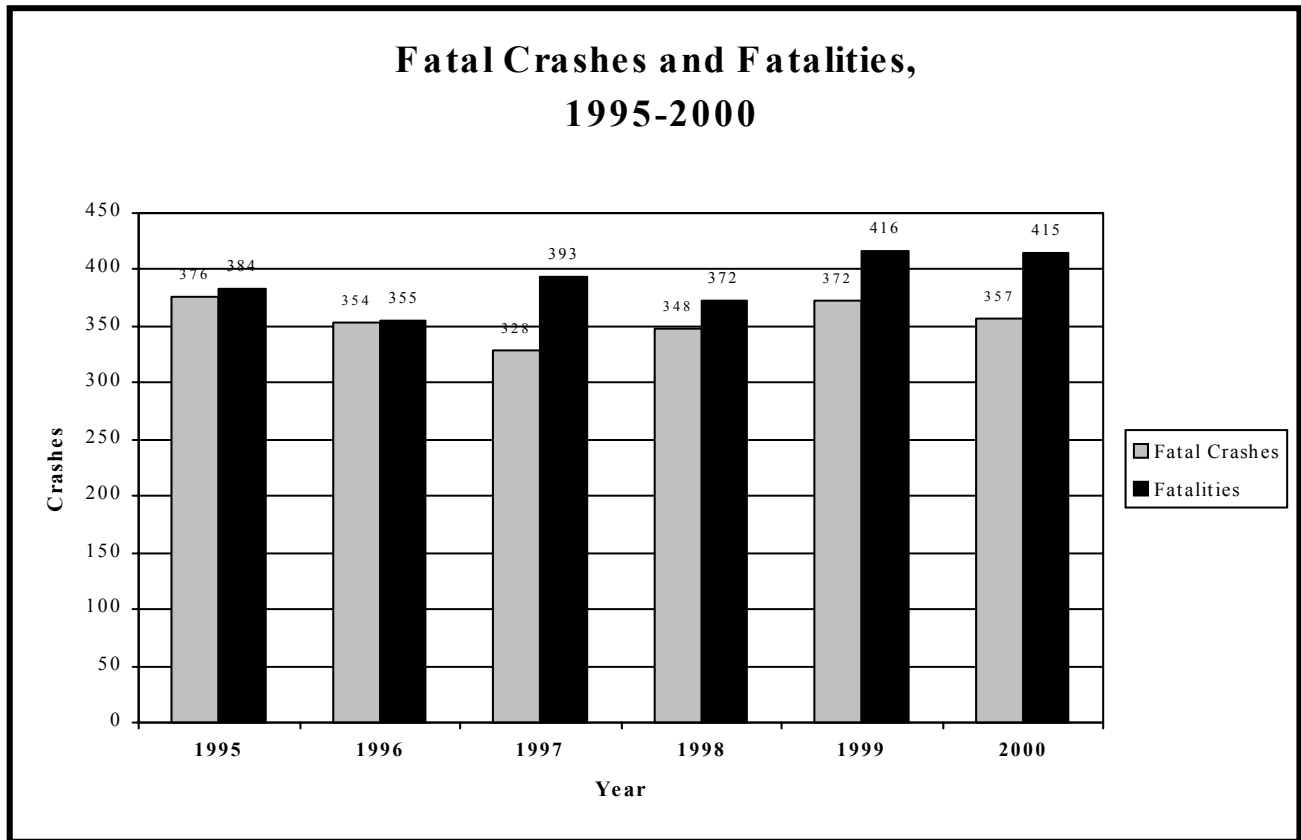


- WV death rates due to injuries received in MV crashes were very high among the 15 to 24 year old age group, accounting for over 50 deaths per 100,000. Rates were nearly as high among the elderly.
- Males had rates significantly exceeding those of females in all age groups 15 to 24 and older.





Source: WV Department of Transportation Division of Highways



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*Crash Report Unavailable for 1994 and 1997



- Estimated economic loss resulting from 415 fatalities in 2000 was \$1.1 billion.
- Two-thirds of the 2000 fatalities were males, 11% were under age 18, 17% were age 60 or older, and 37% involved alcohol.
- WV safety belt usage rate in 1999 was the second lowest in the country. Less than half (49.5%) of WV motorists wear a safety belt.
- West Virginia's 1999 traffic fatality rate was 11th in the country — about 40% above the national average; 21.9 deaths per 100,000 vs. 15.3.
- Lower seat belt usage results in higher fatality rates.

Healthy People 2010 Objectives:

- 15.5 Reduce overall motor vehicle crash deaths to no more than 17.7 per 100,000 population.
- 15.5a Reduce motor vehicle crash deaths of children aged 10-14 to no more than 4.8 per 100,000 population.
- 15.5b Reduce the motor vehicle crash deaths of young adults aged 15-24 to no more than 27.7 per 100,000 population.
- 15.5c Reduce the motor vehicle crash deaths of adults aged 25-44 to no more than 20.0 per 100,000 population.
- 15.5d Reduce the motor vehicle crash deaths of adults aged 45 or older to no more than 18.0 per 100,000 population.
- 15.6 Reduce the number of overall motor vehicle crashes to no more than 2.0 per 1,000,000 vehicle miles traveled.
- 15.11 Increase the use of safety belts among adults and children older than 8 to at least 74% of motor vehicle occupants.
- 15.12 Increase the use of child restraints in motor vehicles to at least 98%.

Prevention Strategies

A number of viable strategies have been developed over the past two decades addressing various aspects of preventing motor vehicle-related injuries. These generally fall into four broad categories; occupant protection, use of alcohol, licensing, and environmental and technical concerns.

Occupant Protection

- ▲ Ensure infants ride in a rear-facing child restraint/safety seat until they weigh 20 pounds and are approximately 1 year old.
- ▲ Ensure infants riding in rear-facing child safety seats are never placed in the front seat of a car or truck with a passenger-side air bag.
- ▲ Children older than 1 year and between 20 and 40 pounds should ride in a forward-facing child safety seat as long as the child fits (i.e., ears should be below the top of the back of the seat and shoulders below



the seat strap slots).

- ▲ Provide low-income child safety seat programs.
- ▲ Conduct training programs for proper safety seat installation.
- ▲ Encourage children to ride in the vehicle's rear seat. If the vehicle does not have a rear seat, children riding in the front seat should be positioned as far back as possible from the dashboard.
- ▲ Older children and adults should be properly restrained in lap and shoulder belts.
- ▲ Enforce seat belt laws and promote primary laws that allow police to stop vehicles solely for an observed seat belt law violation.
- ▲ Ensure that laws requiring motorcycle operators and passengers wear helmets are maintained.

Use of Alcohol

- ▲ Enact laws making the consumption of alcohol illegal under age 18.
- ▲ Strictly enforce the zero-alcohol tolerance laws for drivers under age 21.
- ▲ Reduce allowable blood alcohol levels in adult drivers .08 percent and a lower blood alcohol content for younger or inexperienced drivers.
- ▲ Promote administrative license revocation that authorizes police to confiscate licenses of drivers who either fail or refuse to take a chemical test for alcohol.
- ▲ Enact laws making servers of alcohol share liability.
- ▲ Increase sobriety checkpoints particularly on weekends, holidays and on special occasions such as school proms.
- ▲ Evaluate strategies to limit access by teenagers.
- ▲ Encourage the use of designated drivers.

Licensing

- ▲ Evaluate the separate components (e.g., learner's permit, intermediate, unrestricted) of graduated licensing systems to determine which are most effective.

Environmental and Technical Concerns

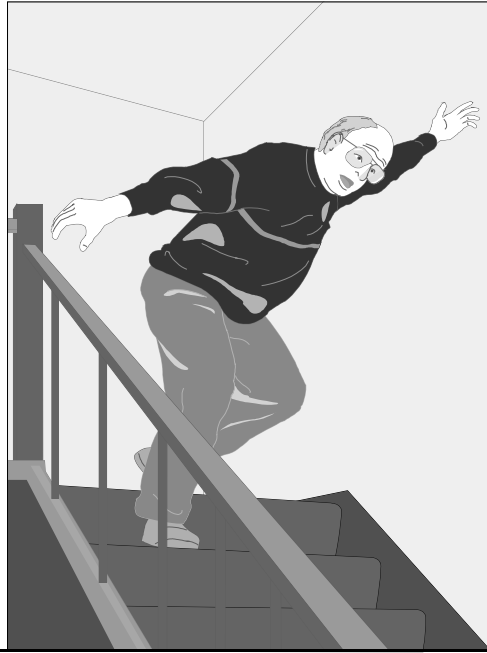
- ▲ Continue to employ technology in all aspects of motor vehicle design.
- ▲ Identify and mark or eliminate hazardous road conditions.
- ▲ Properly mark all paved roads (particularly those in unlit or poorly lit rural areas) with appropriate symbols and painted lines.
- ▲ Provide trained and available EMS coverage in rural areas.
- ▲ Promote public awareness campaigns that emphasize that when you are sleepy, get off the road and nap or let someone else drive.

Many of these strategies might involve collaborative efforts on many levels including: building public and private **partnerships**; enacting strong **legislation**; maintaining active and highly visible law **enforcement**; and conducting active public **education**.

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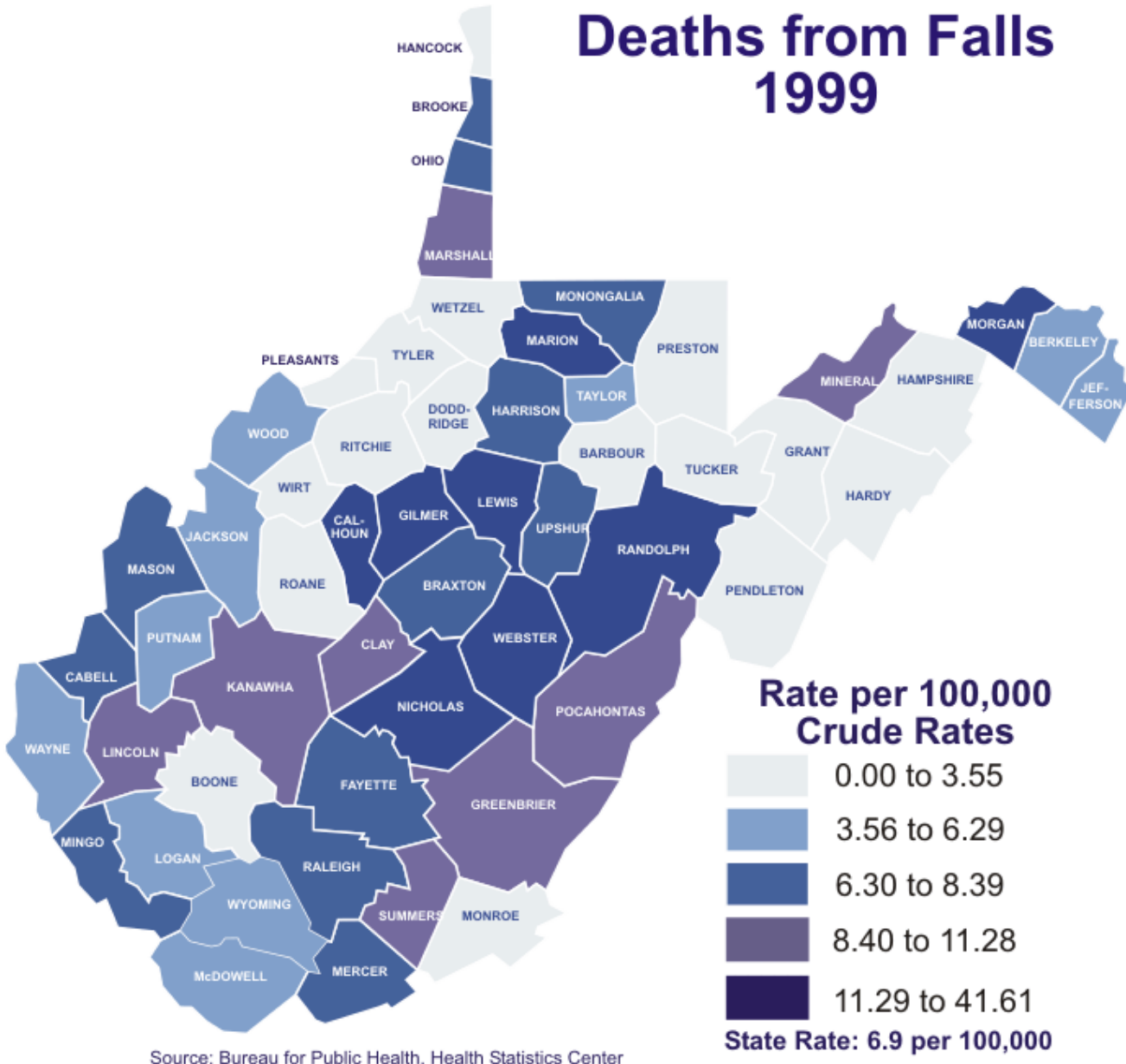
Fall-related Deaths



From 1995 through 1999 an average of 136 men and women experienced fatal falls; 33% were aged 75 to 84 and 37% were 85 or older.



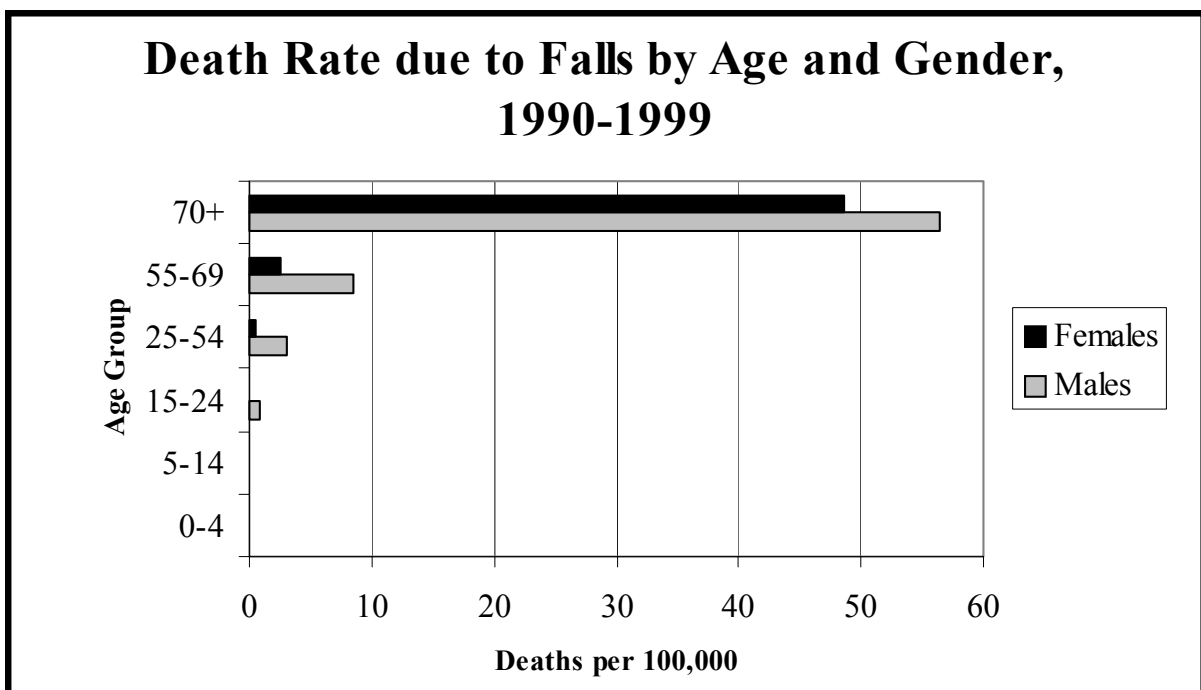
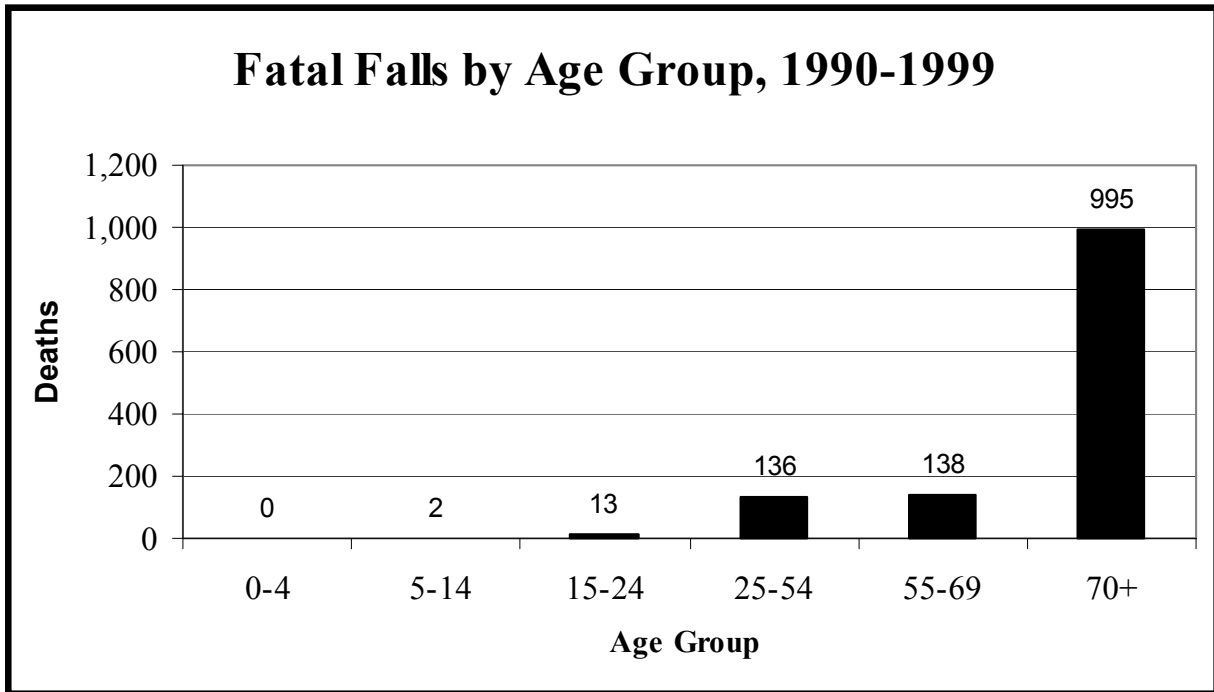
- 126 men and women died from fatal falls in 1999.
- Rate of death due to falls varied across the state, as shown in the map below.



- Death due to a fall is most common among West Virginians aged 70 and over, accounting for about three-quarters of all fatal falls. Death as a consequence of a fall is, in general, less common in the younger age groups.



- The average age at death of a fatal fall victim is 77.





Healthy People 2010 Objectives:

- 15.10 Reduce the number of deaths resulting from falls among the elderly (aged 65 or older) to no more than 34.6 per 100,000 population.

Prevention Strategies

Falls are common among the elderly and represent a leading cause of unintentional injury. Falls in the elderly involve an interaction of several factors – medical conditions (e.g., acute and chronic diseases, medication effects) and environmental hazards (e.g., inadequate lighting, slippery or uneven floor surfaces, etc.). Prevention therefore requires a combination of approaches to be effective. A multifaceted fall prevention program should (1) educate health care professionals and a community's elderly about falls; (2) identify those persons who have suffered falls or who were at risk for falls; and (3) develop community services to make modifications to older person's homes to promote safe functioning. Consideration should be directed at the following elements:

Medical and Personal

- ▲ Maintain a regular exercise and physical activity program which will help improve strength, balance, and coordination.
- ▲ Have doctor review medications in order to facilitate more effective management and reduce side effects and interactions.
- ▲ Have vision and hearing checked each year.
- ▲ Wear correctly sized footwear with firm, thin, nonskid, non-friction soles, and low heels. Avoid walking in stocking feet or loose slippers and use pressure-graded stockings as warranted. Keep nails trimmed. Use walking aids (e.g., cane, walker) as appropriate.
- ▲ Avoid wearing floor length (or longer) coats, dresses, robes.

Home Environment

- ▲ Lighting - absence of glare and shadows. Accessible light switches at room entrances. Night lights in bedroom, hall, and bathroom. Switches at top and bottom of stairways.
- ▲ Floors - nonslip bathroom surfaces. Nonskid backing for throw rugs, carpets with shallow pile, nonskid wax on floors, small objects (e.g., shoes, clothes, magazines, books, blankets, etc.) and other tripping hazards off floor. Lamp and extension cords out of walking path.
- ▲ Stairs - Securely fastened handrails on both sides of stairs, indoors and out. Steps in good repair and stair rises of no more than 6 inches. Reflecting tape at the top and bottom of the stairs. Paint door sills a different color to prevent tripping.
- ▲ Kitchen - items stored so that reaching up and bending over are not necessary. Use secure step stool



if climbing is necessary. Firm, non-movable table.

▲ Bathroom - grab bars/hand grips for tub shower, and toilet. Nonskid decals or rubber mat in tub or shower. Shower chair with handheld nozzle. Raised toilet seat and extender. Door locks removed to ensure access in an emergency.

▲ Yard and entrances - repair cracks in pavement, holes in lawn. Removal of rocks, tools, and other tripping hazards. Walkways free of ice, standing water, branches, wet leaves or other debris.

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