

# Distance and Modes of Transportation to Personal Care Doctor or Health Care Provider: Results from the 2005 Montana Behavioral Risk Factor Surveillance System Survey

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# Rationale

- National Survey findings
- ICF Framework
- Healthy People 2010
- National BRFSS: Access to Health Care
- Montana BRFSS: Access to Health Care

# Transportation and Disability

- 1/3 of people with disabilities reported inadequate transportation problems
  - 1/2+ it was a *major* problem
- Severity of disability positively related to seriousness of transportation problems  
(NOD- Harris Interactive, 2004, as cited in Rosenbloom (2007), p. 519, *The Future of Disability in America*)

# Transportation and Disability

- International Classification of Functioning, Disability and Health (WHO, 2001)
  - Environmental Factor
    - Products and Technology
      - Personal indoor and outdoor mobility and transportation, e120
    - Support and Relationships
      - e.g., Personal care providers and person assistants (transport assistants), e340
    - Services, Systems and Policies
      - Transportation, e540

# Transportation, Disability and Health

Healthy People 2010 (U.S. DHHS, 2001)

- Transportation is related to:
  - Goal 1: Increase Quality and Years of Healthy Life  
e.g., Whiteneck et al., 2004, 2006; Devitt et al., 2006
  - Goal 2: Eliminate Health Disparities  
e.g., Drainoni et al., 2006

# Transportation, Disability and Health

National 2002 BRFSS findings (Okoro et al., 2005)

- Access to Health Care, >64 years
  - 9% of those unable to access healthcare because of cost cited transportation as a barrier
  - Authors suggest rurality as an additional consideration for those with transportation problems.

# Transportation, Disability and Health

## Montana 2003 BRFSS findings

- Access to Health Care
  - “Was there a time in the past 12 months when you needed to see a doctor but could not because of the cost?”
    - Adults ages 18-64 years : with disability (27%) and without disability (13%)

# MTDH Advisory Boards

## Questions

- Could state-added BRFSS items collect more information about transportation behavior of Montanans with disabilities?
- Are transportation issues (distance and modes) barriers for accessing needed health care?
- Are transportation issues (distance and modes) related to health-related quality of life?



# 2005 Montana BRFSS

- Random-digit-dialed on-going annual telephone survey of non-institutionalized Montanans aged 18 and older
- Conducted in each state and territory as part of cooperative agreements with the Centers for Disease Control and Prevention (CDC)
- N=4,938
- Stratified among three geographic regions to ensure adequate representation of rural Montanans and American Indians
- [www.brfss.mt.gov](http://www.brfss.mt.gov)

# 2005 Montana BRFSS: State-Added Travel to Regular Health Care Provider Items

**“Do you have one person you think of as your personal care doctor or health care provider?”**

- 1 Yes, only one**
- 2 More than one**

**⇒ Ask state-added questions”**

**“Earlier you said that you had as least one person you think of as your personal doctor or health care provider. About how many miles is their nearest office from your**

# 2005 Montana BRFSS: State-Added Travel to Regular Health Care Provider Items

**“Which of the following best describes how you usually get to that office:**

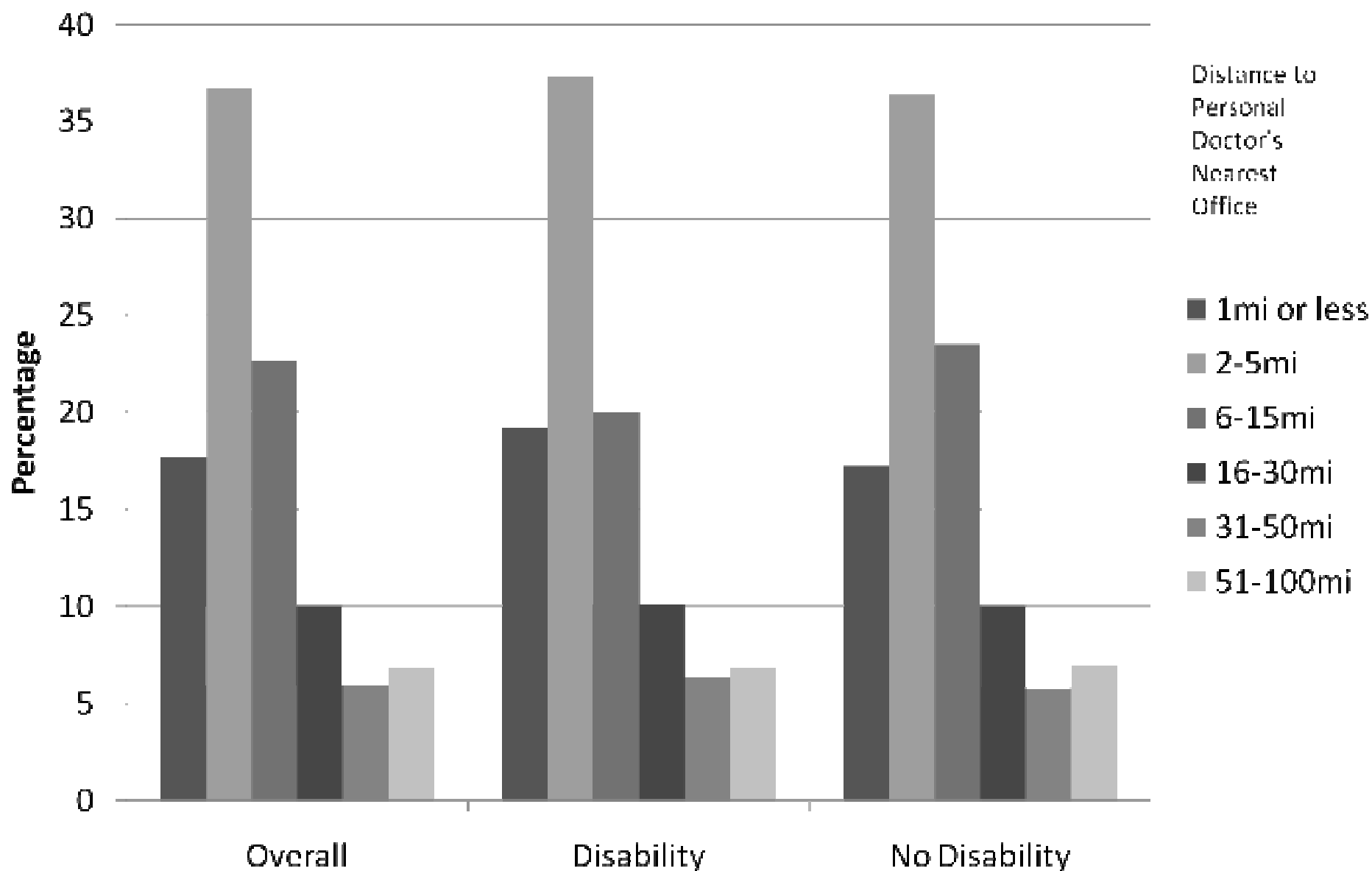
- 1. I drive myself**
- 2. I take Medicab, Ride Share or community agency vans**
- 3. I take public transportation like a bus or para-transit**
- 4. I take a taxi**
- 5. I get a ride from someone like a friend or family member**
- 6. I walk, bicycle, or use my wheelchair or power**

# Characteristics of Montanans Who Said YES to BRFSS Screening Item:

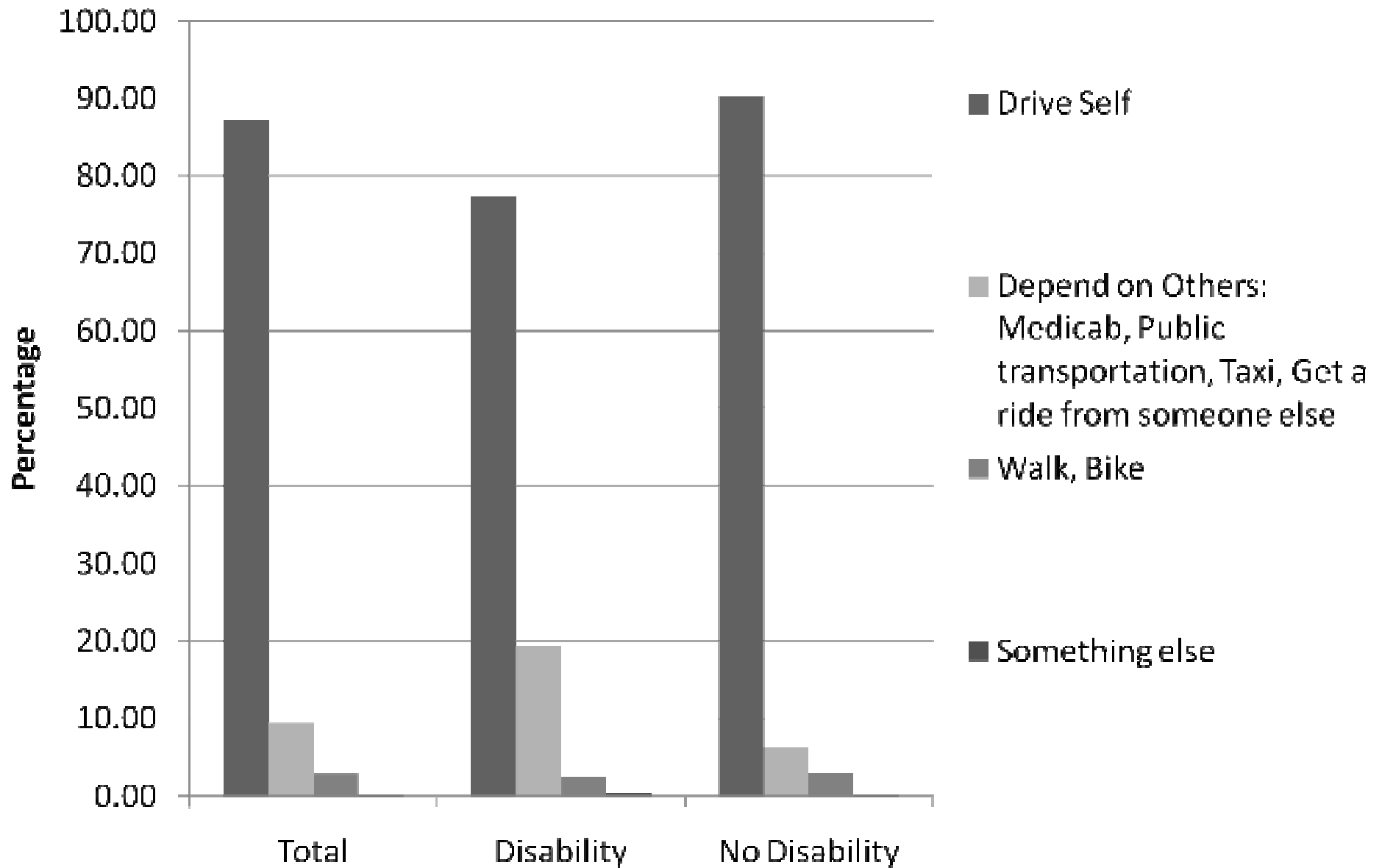
**“Do you have one person you think of as  
your personal doctor or health care**

- **n= 3,851            provider?”**
- **4.2% American Indian, Alaska Native,  
non-Hispanic, All Others (including multi-  
racial and Hispanic)**
- **24.0% Disability**
- **55% Female**
- **22.5% 65 years and older**

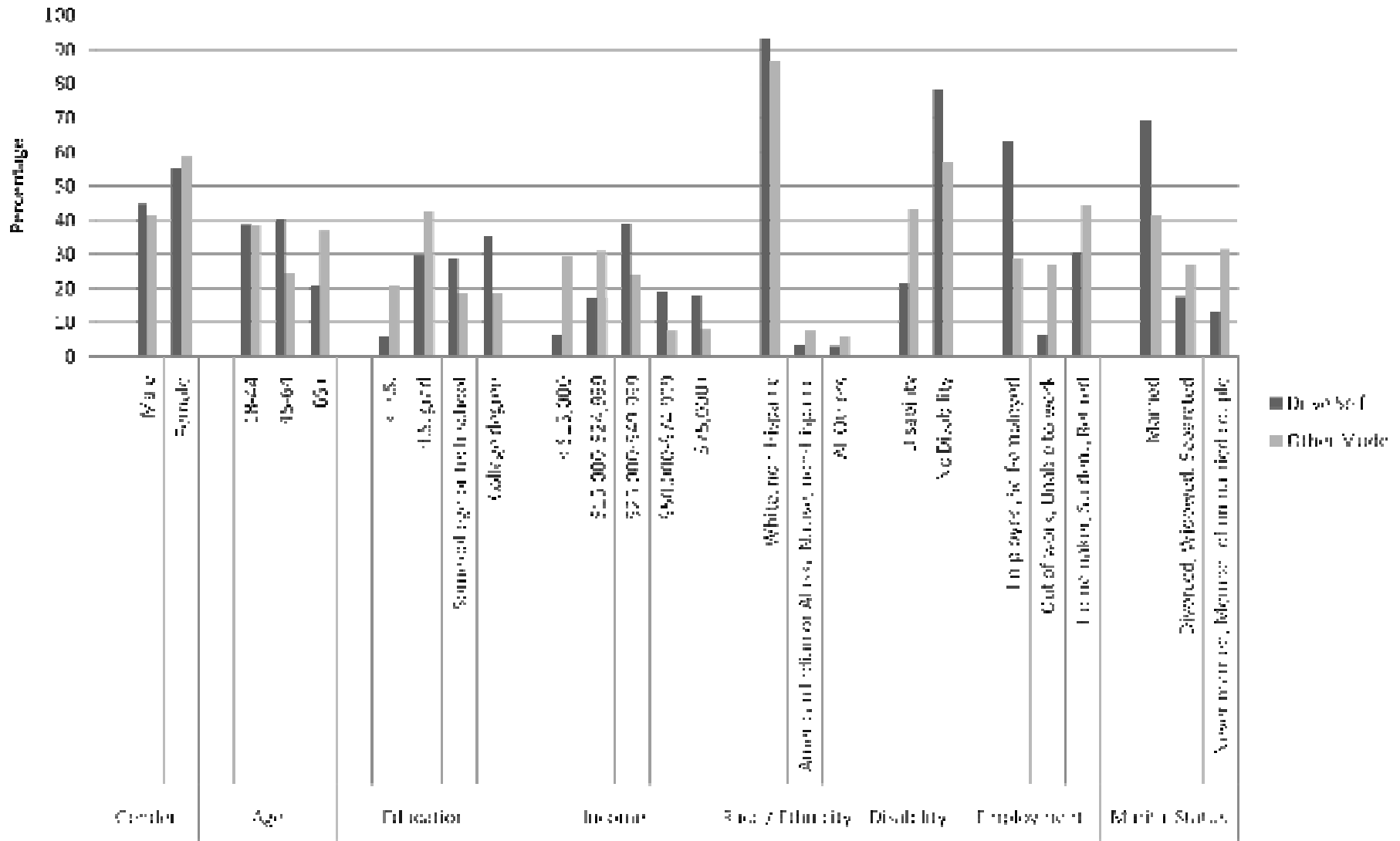
**Figure 1. 2005 Montana BRFSS State-Added Transportation Items:  
Estimated Travel Distance (Miles) to Regular Health Care Provider  
Overall / Disability**



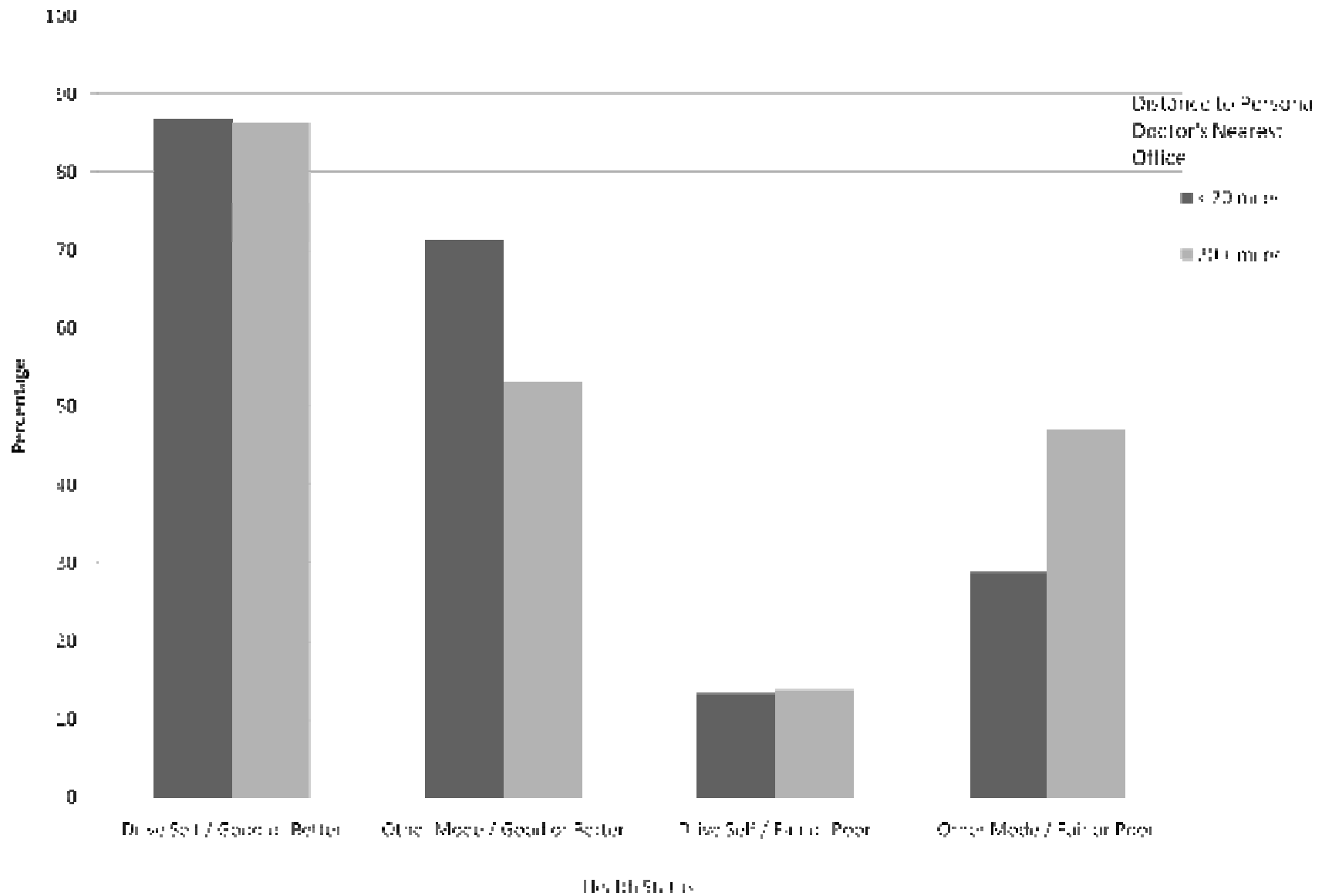
**Figure 2. 2005 Montana State-Added Transportation Items:  
Usual Mode of Transportation to Travel to Regular Health Care Provider  
Total / Disability**



**Figure 3. Characteristics of Montanans Who Usually Drive Themselves and Who Usually Use Other Transportation Modes to Travel to Regular Health Care Provider**

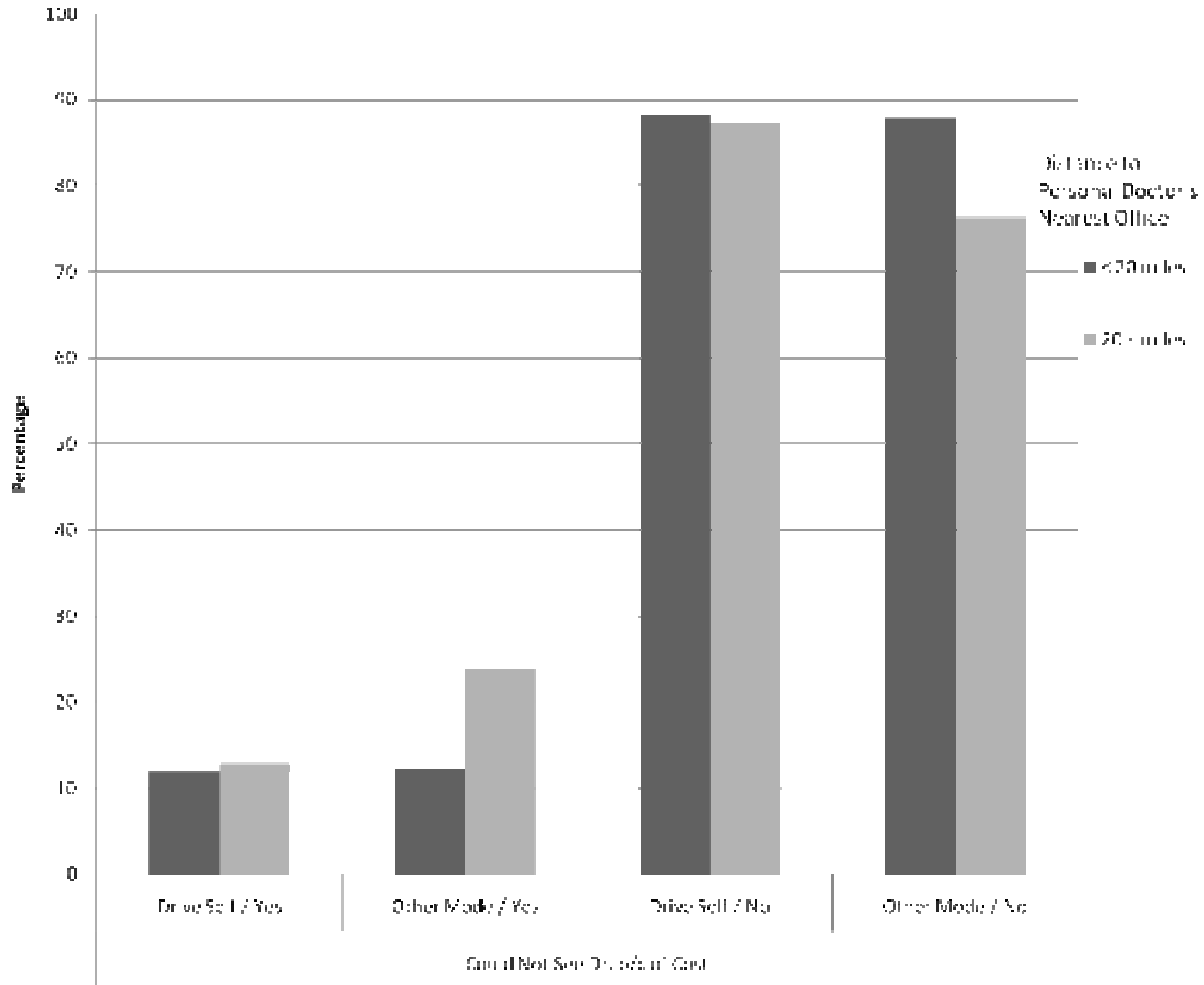


**Figure 4a. Health Status By Travel Modes and Distances to Regular Health Care Provider**

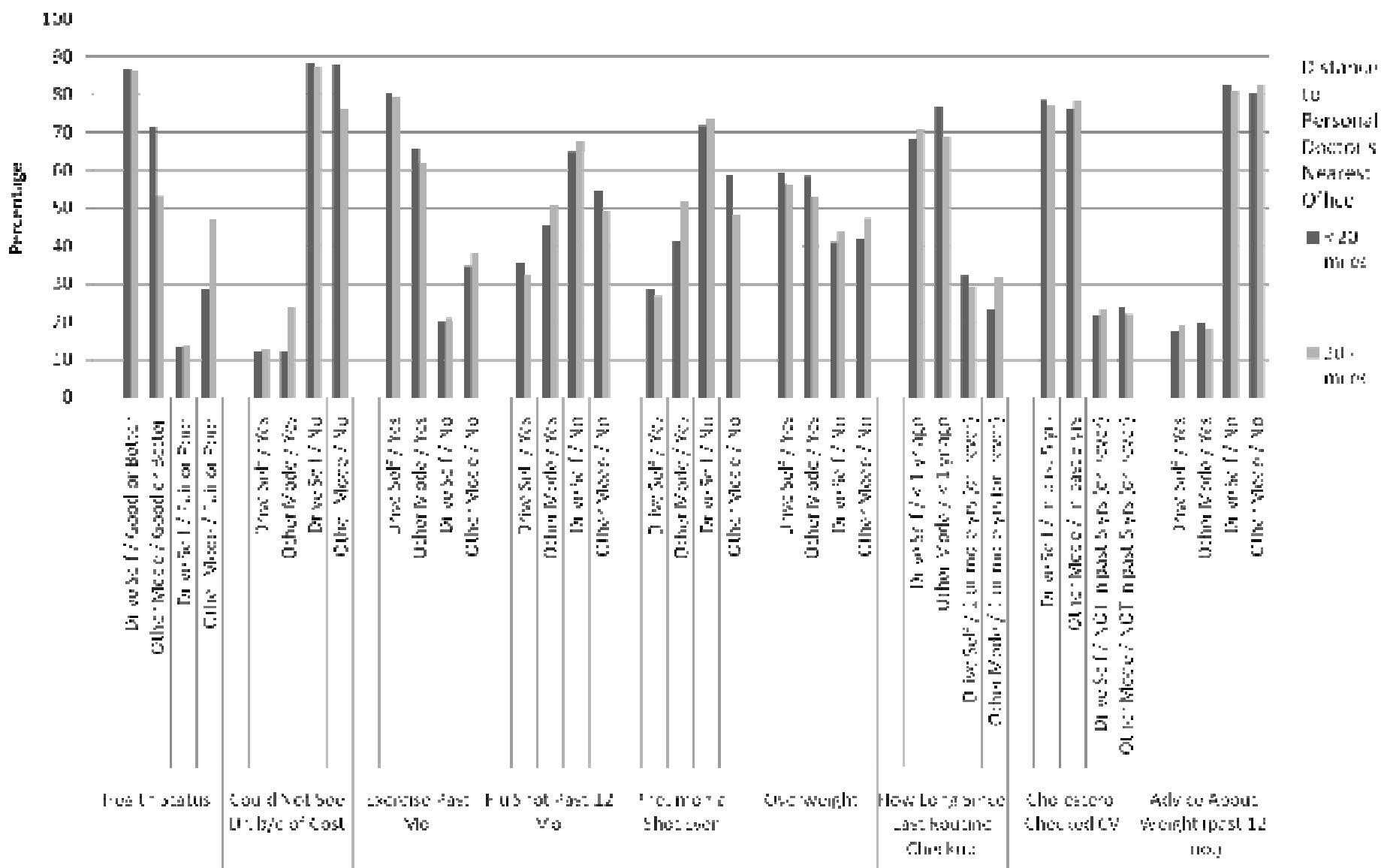




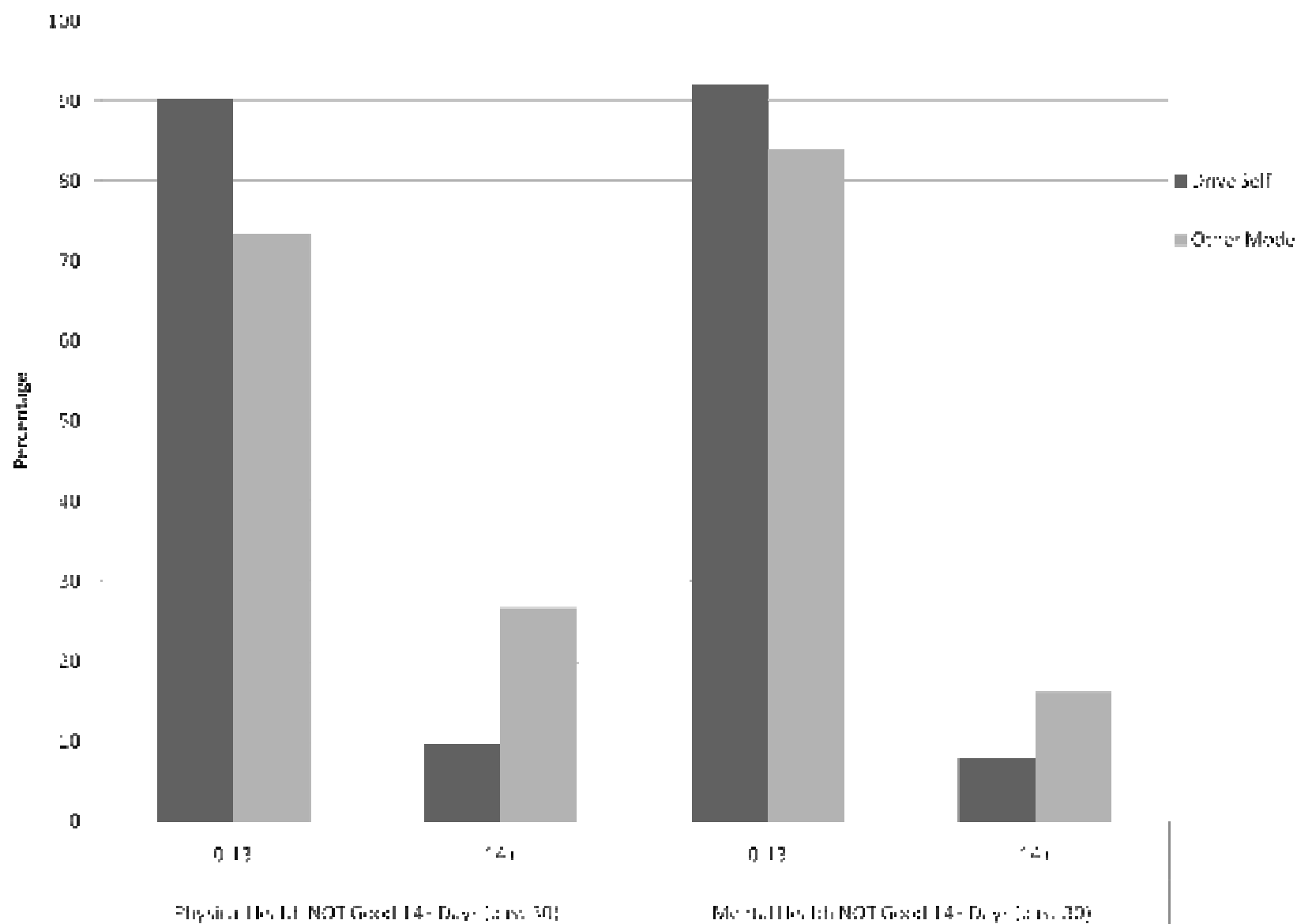
**Figure 4b. Unable to Access Health Care Because of Cost  
By Travel Modes and Distances**



**Figure 4c. Health Status and Health Behaviors By Travel Modes and Distances to Regular Health Care Provider**



**Figure 5. Healthy Days by Mode of Transportation and Distance to Regular Health Care Provider (ALL Distances)**



# Limitations

- Excludes households without land-line telephones.
- Self-report data.
- Cross-sectional data.
- Small subsamples:
  - Asked only of those with usual health care provider
  - Relatively few Montanans do not drive themselves to regular health care provider
- Further analysis controlling potential confounds is warranted

# Limitations

- 2005 BRFSS included limited number of items on preventive services
- Asked Transportation Items with limited focus on those with a usual health care provider.
- Notable findings on health status and access to health care had chi-square test statistics significant at the .05 level; half widths of confidence intervals were greater than ten.

# Conclusions

- Evidence of transportation as a public health issue in Montana.
- Importance of examining interaction of mode and distance and when defining transportation as a barrier to health care.
- Usual mode of transportation may be sole predictor of health-related quality of life facilitators.
- Reliance on personal vehicles among people with disabilities similar to national survey findings.
- BRFSS is a promising method for evaluating transportation initiatives.
  - In the future:
    - Ask of all BRFSS respondents;
    - Ask in year with larger set of preventive care items; and/or
    - Coordinate with other states.

