

# MULTIPLE DIMENSIONS OF HEALTH AMONG FILIPINO OLDER PERSONS: RESULTS FROM THE 2007 PHILIPPINE LONGITUDINAL STUDY ON AGING (PLSOA)

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# Objectives

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1. Examine the prevalence of various dimensions of health among Filipino older persons by age and sex.
2. Examine the association between self-reported health (SRH) and other health dimensions.

# Data and Methods

- 2007 Philippine Longitudinal Study on Aging (PLSOA)
- Nationally representative sample of older people age 60+
- $N = 3105$
- Ordered logistic regression

# Dimensions of Health



## 1. Self reported Health

- Very healthy
- Healthier than average
- Of average health
- Somewhat unhealthy
- Very unhealthy

# Dimensions of Health (Con't)

## 2. Sensory Impairment

Hearing= Can hear well

Vision = Can see well

## 3. Functional Health: Independence in ADLs

- a. Take a bath
- b. Dress
- c. Eat
- d. Stand from a bed or chair; sit down on a chair
- e. Walk
- f. Go outside the house
- g. Use the toilet

# Dimensions of Health (Con't)

## 4. Functional Health : Independence in Instrumental Activities of Daily Living (IADLs)

- a. Prepare own meals
- b. Leave the home to purchase necessary items
- c. Take care of financial matters
- d. Use the telephone
- e. Clean and do other light housework
- f. Take public transportation
- g. Take medications as prescribed

# Dimensions of Health (Con't)

## 5. Mobility (Nagi indicators)

- a. Walk 200 to 300 meters
- b. Climb 10 steps without resting
- c. Stand for 2 hours
- d. Continue to sit for 2 hours
- e. Bend or stoop knees
- f. Raise hands above head
- g. Extend arms
- h. Grasp with fingers
- i. Lift an object approximately 10 kg
- j. Lift an object approximately 5 kg

# Dimensions of Health (Con't)

## 6. Physical Health: Free from Chronic Diseases

- a. Angina, myocardial infarction, etc.
- b. Cancer
- c. High blood pressure
- d. Diabetes
- e. Arthritis, neuralgia or rheumatism
- f. Cataracts
- g. Incontinence



# Dimensions of Health (Con't)

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## 7. Experience of Pain in the last 30 days

- None
- Mild
- Moderate
- Severe to extreme pain

## 8. Sleep Satisfaction

# Dimensions of Health (Con't)

## 9. Social Participation

- a. Engaged in volunteer work in church or community
- b. Member of any other type of non-religious organization
- c. Currently working
- d. Given financial support to children
- e. Given food/meal support to children
- f. Given material support to children
- g. Given companionship support to children
- h. Involved in the care of grandchildren

# Dimensions of Health (Con't)

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## 10. Social Support

- Living with someone else

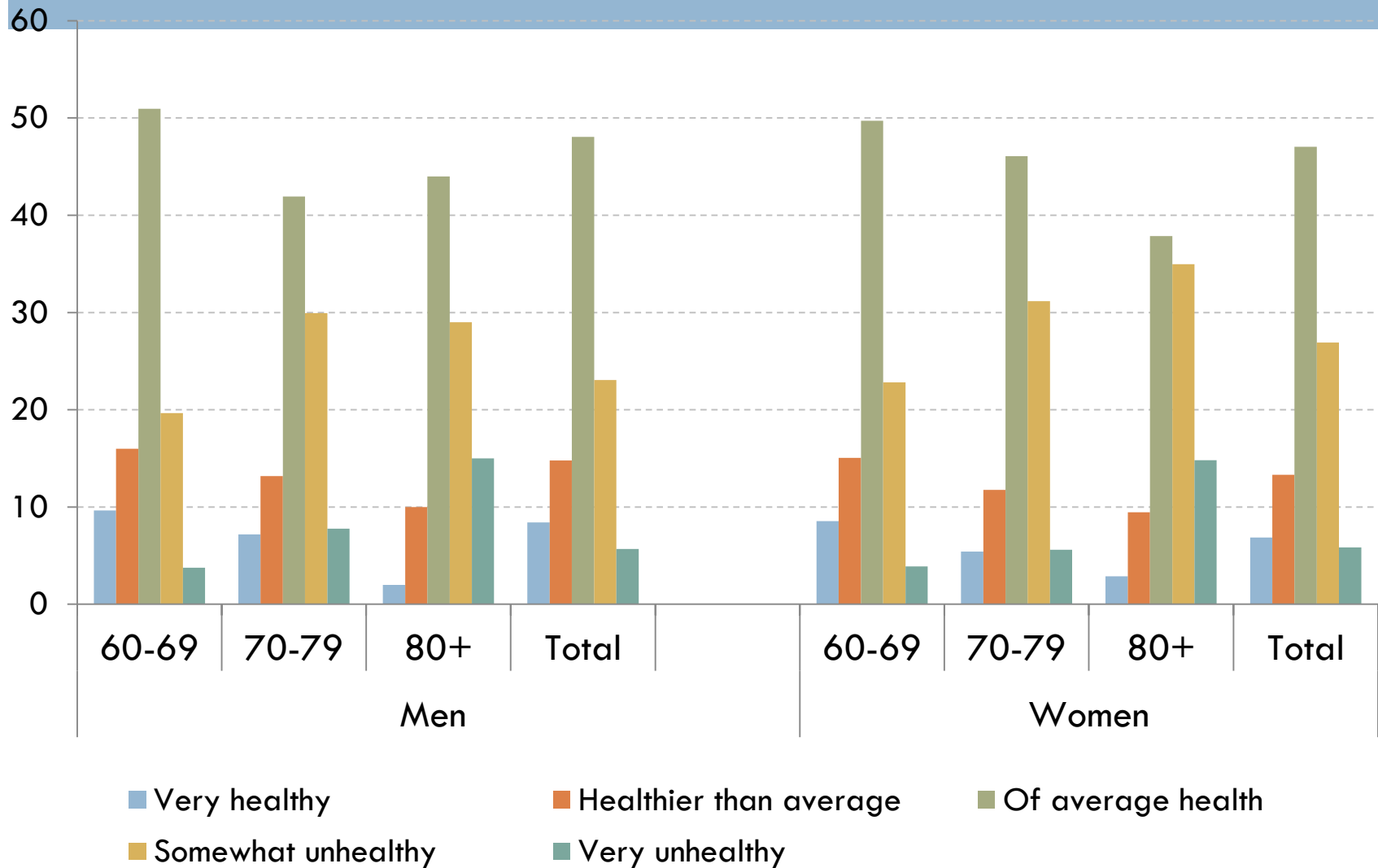
## 11. Financial Health

- Present income enough to meet expenses

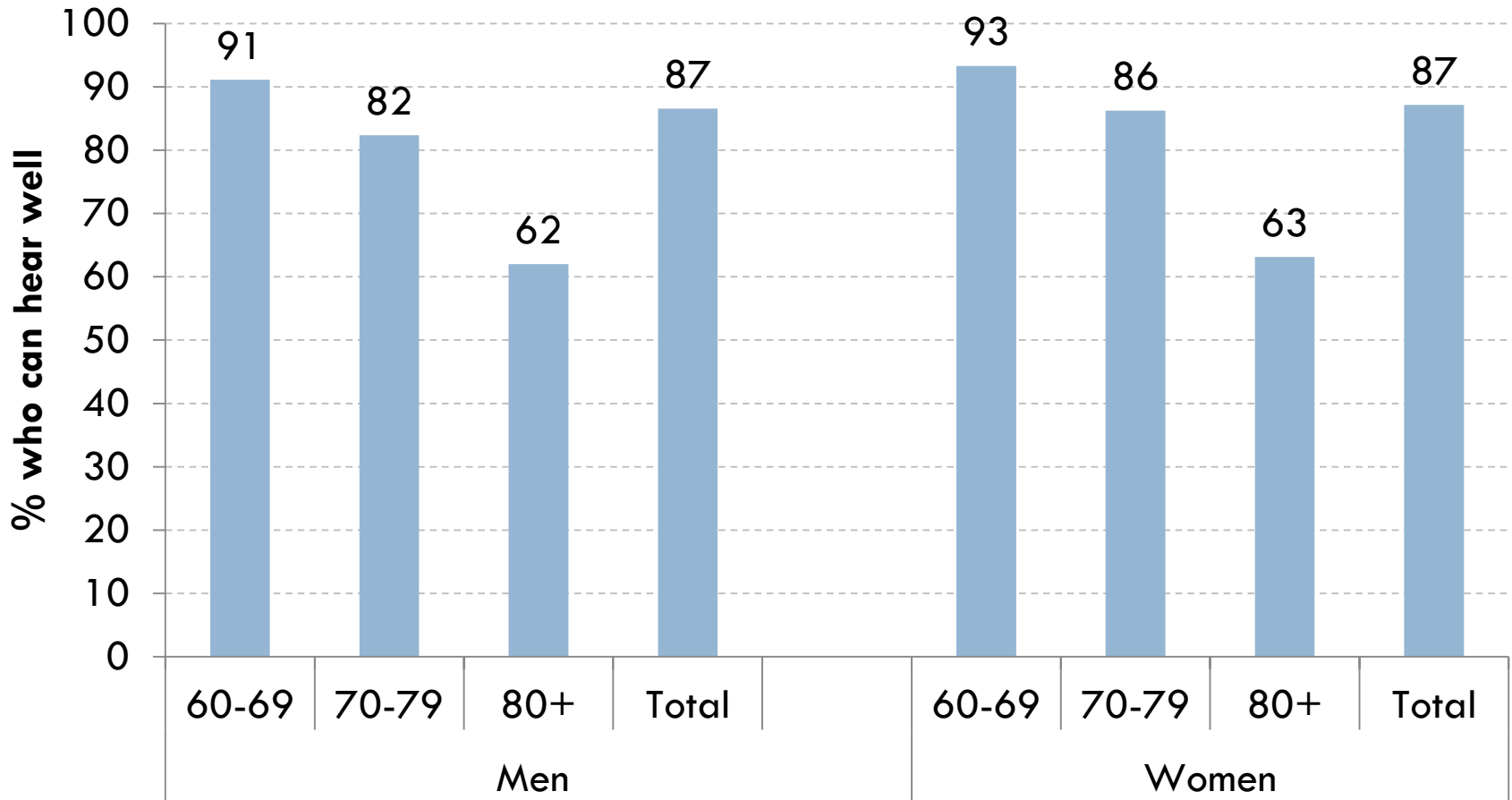


# RESULTS

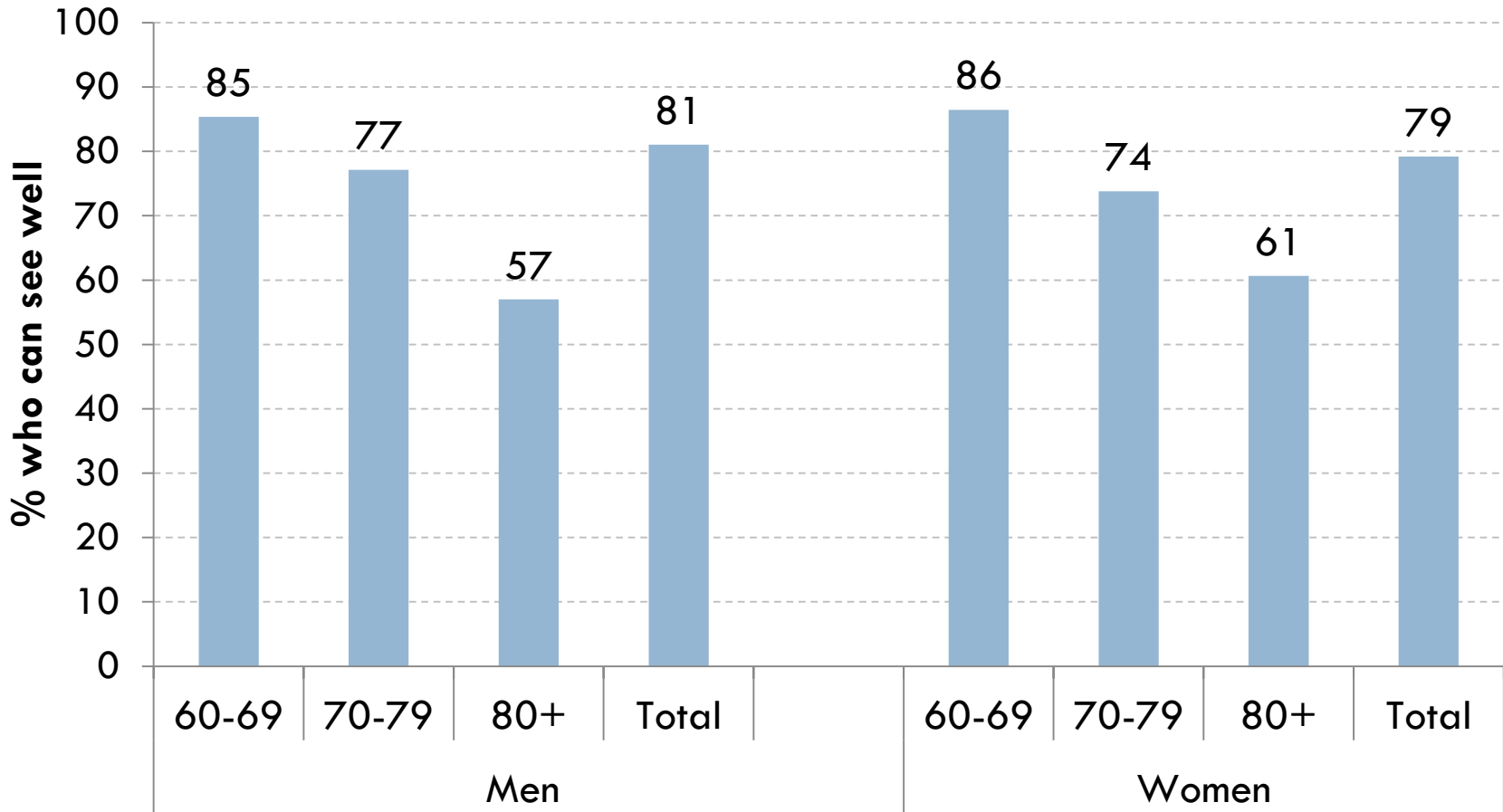
# Self-reported Health by Age and Sex



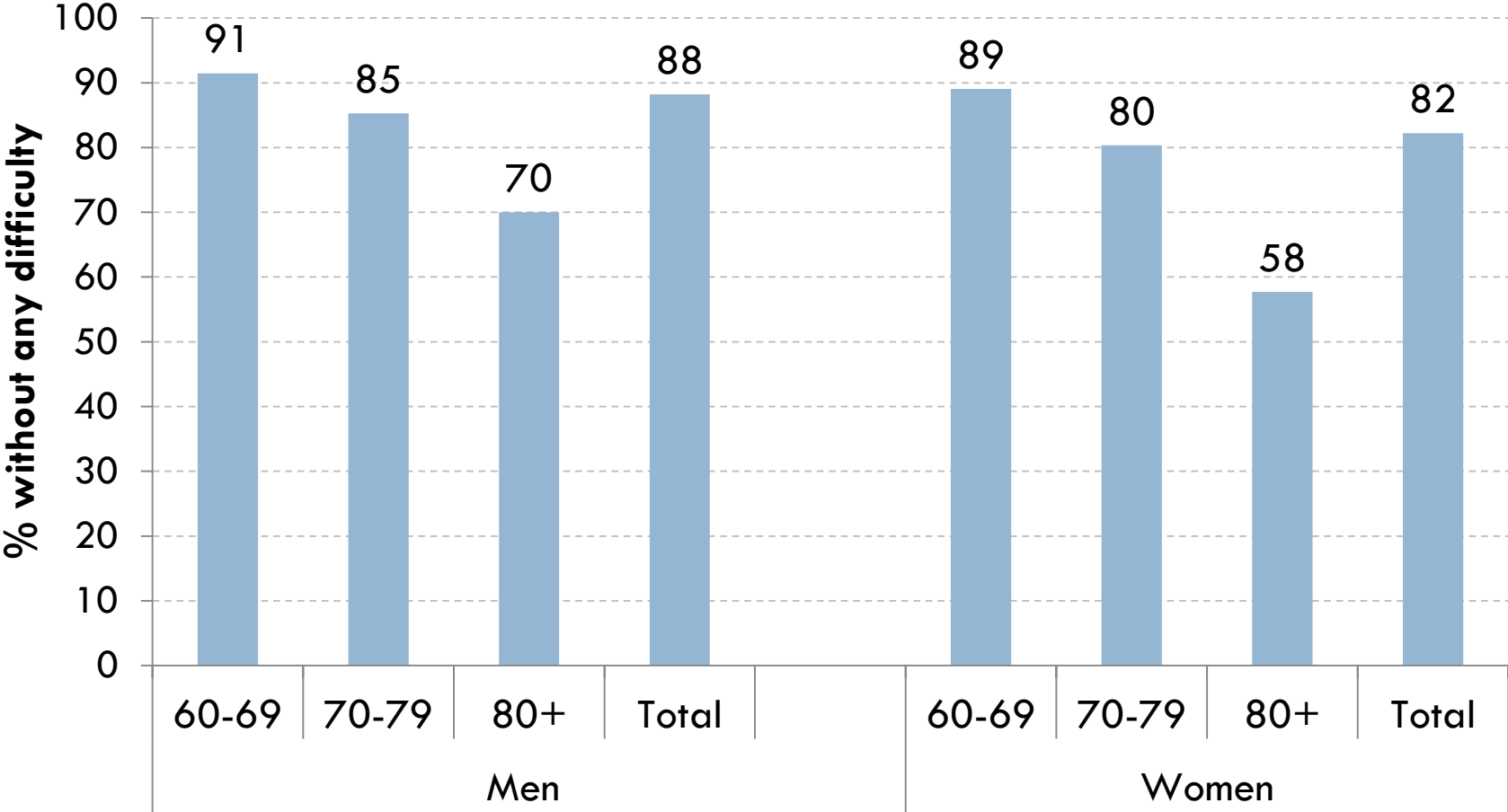
# Hearing Ability by Age and Sex



# Clarity of Vision by Age and Sex

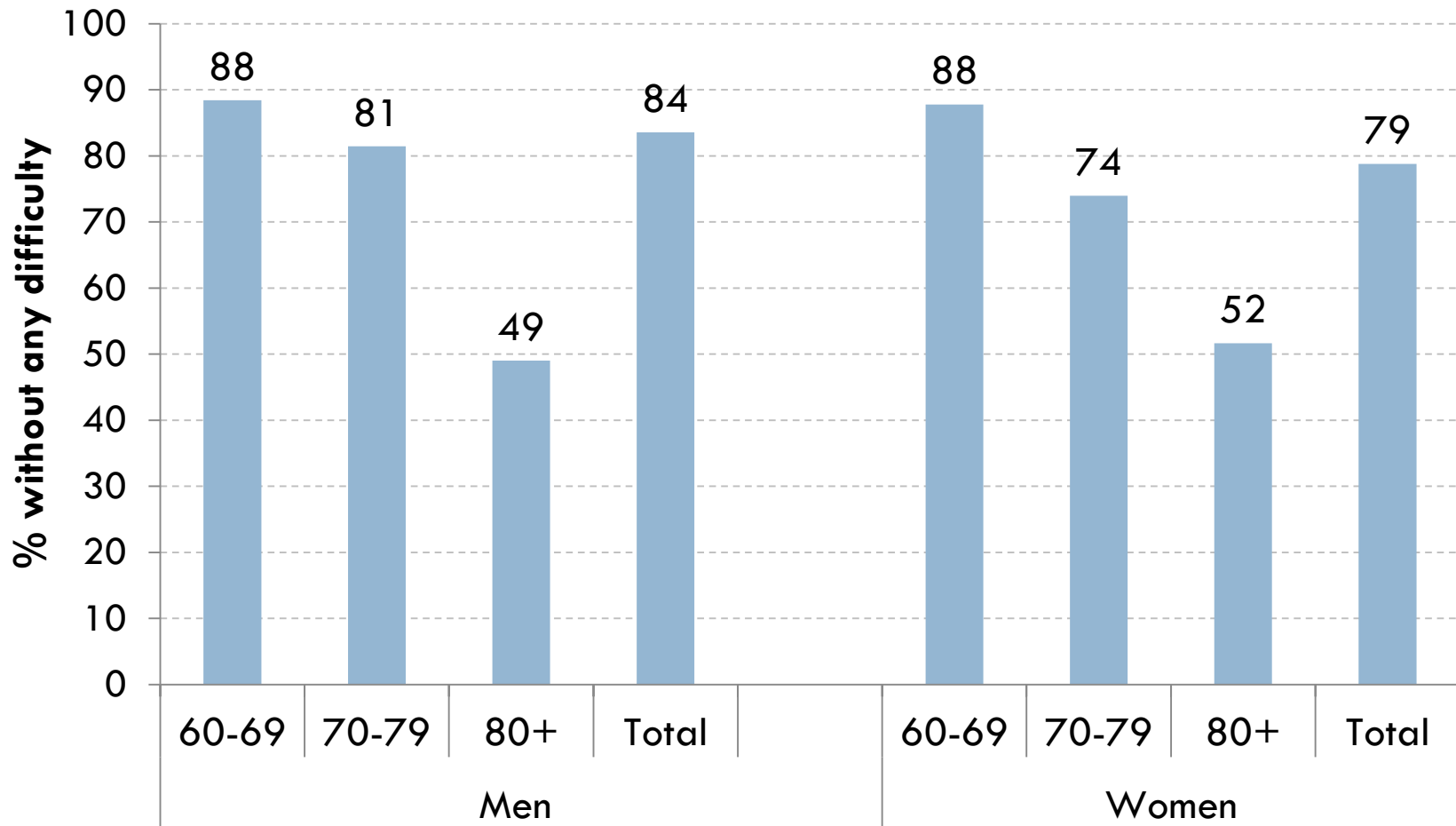


# Independence in ADLs by Age and Sex

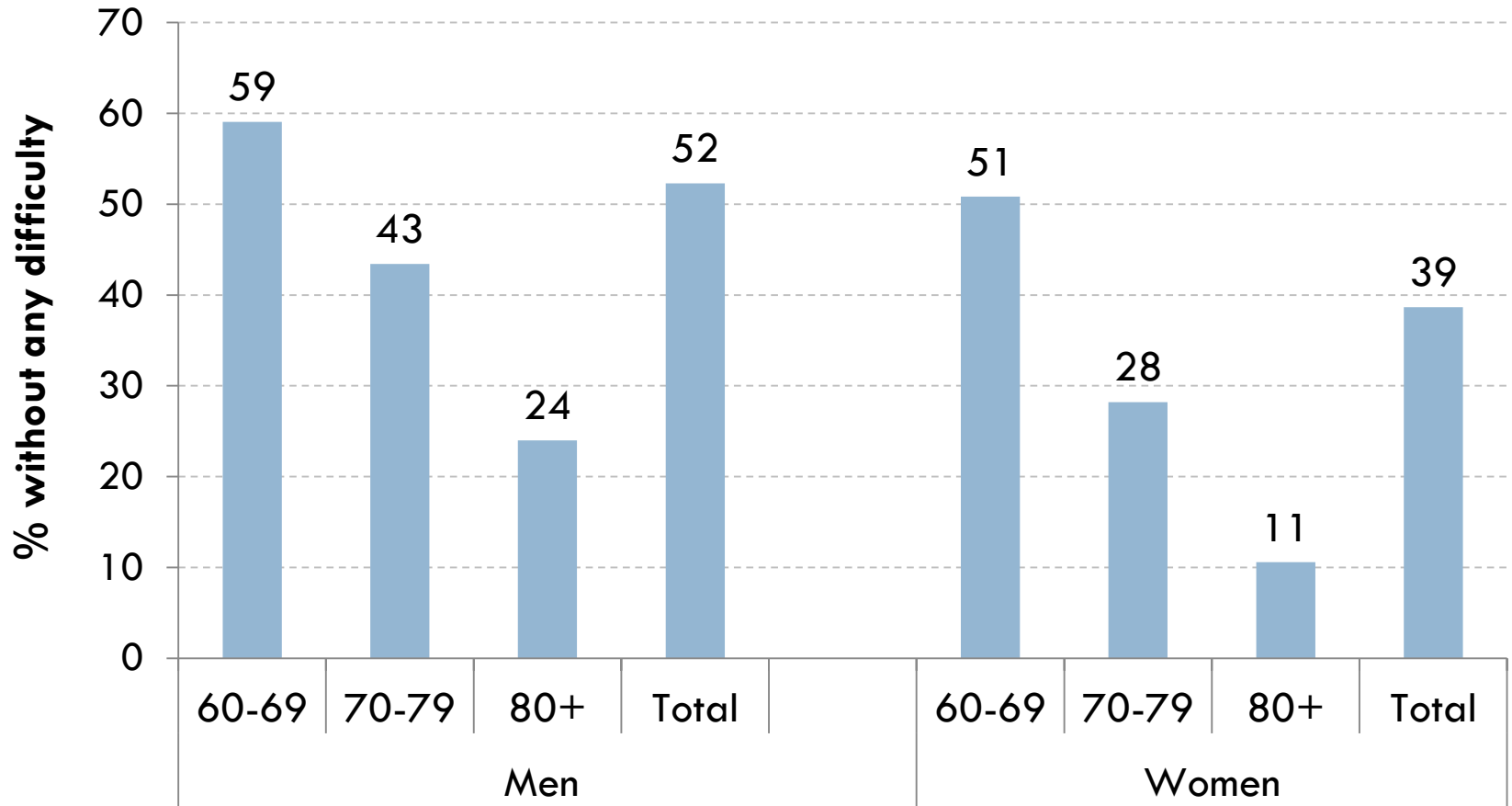




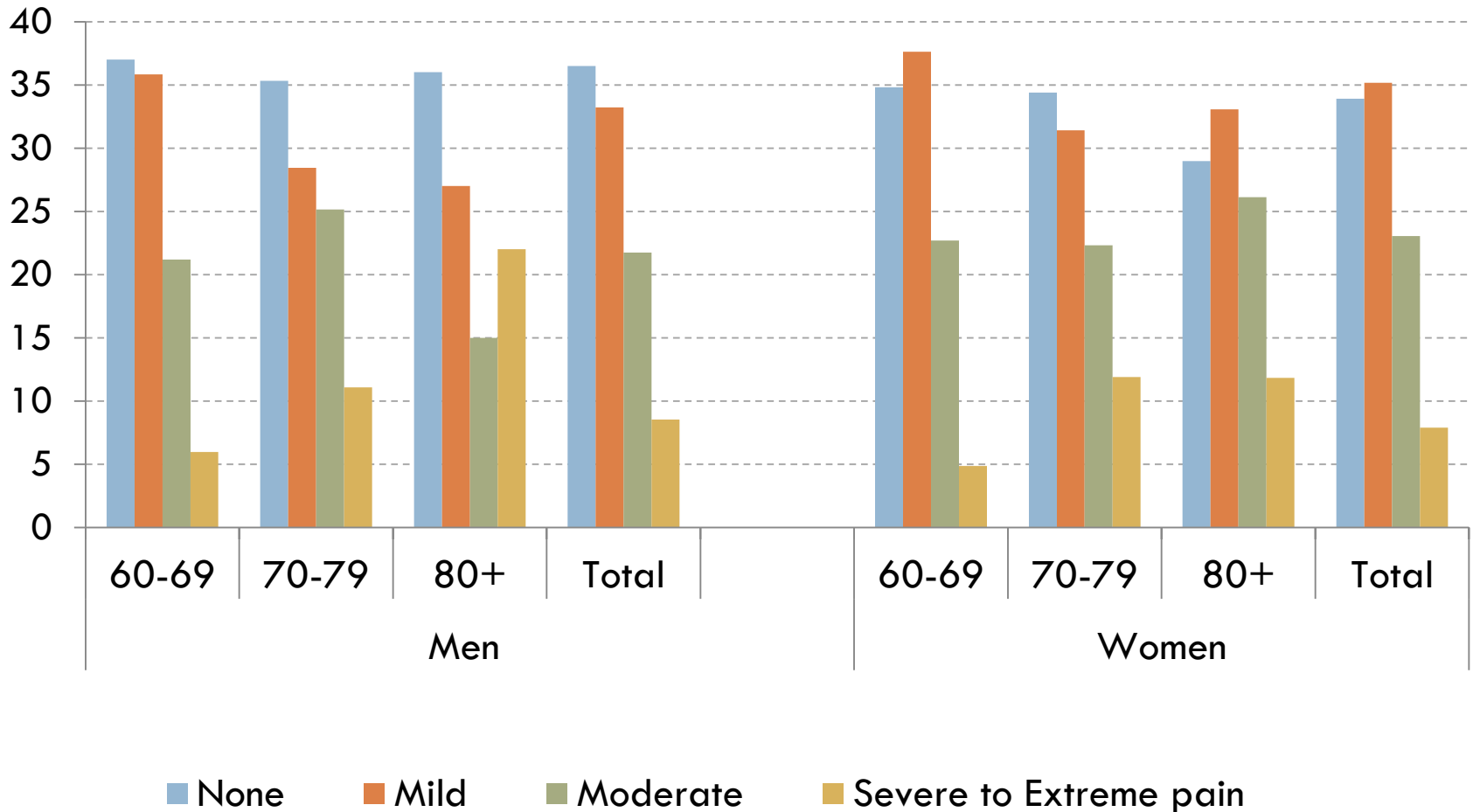
# Independence in IADLs by Age and Sex



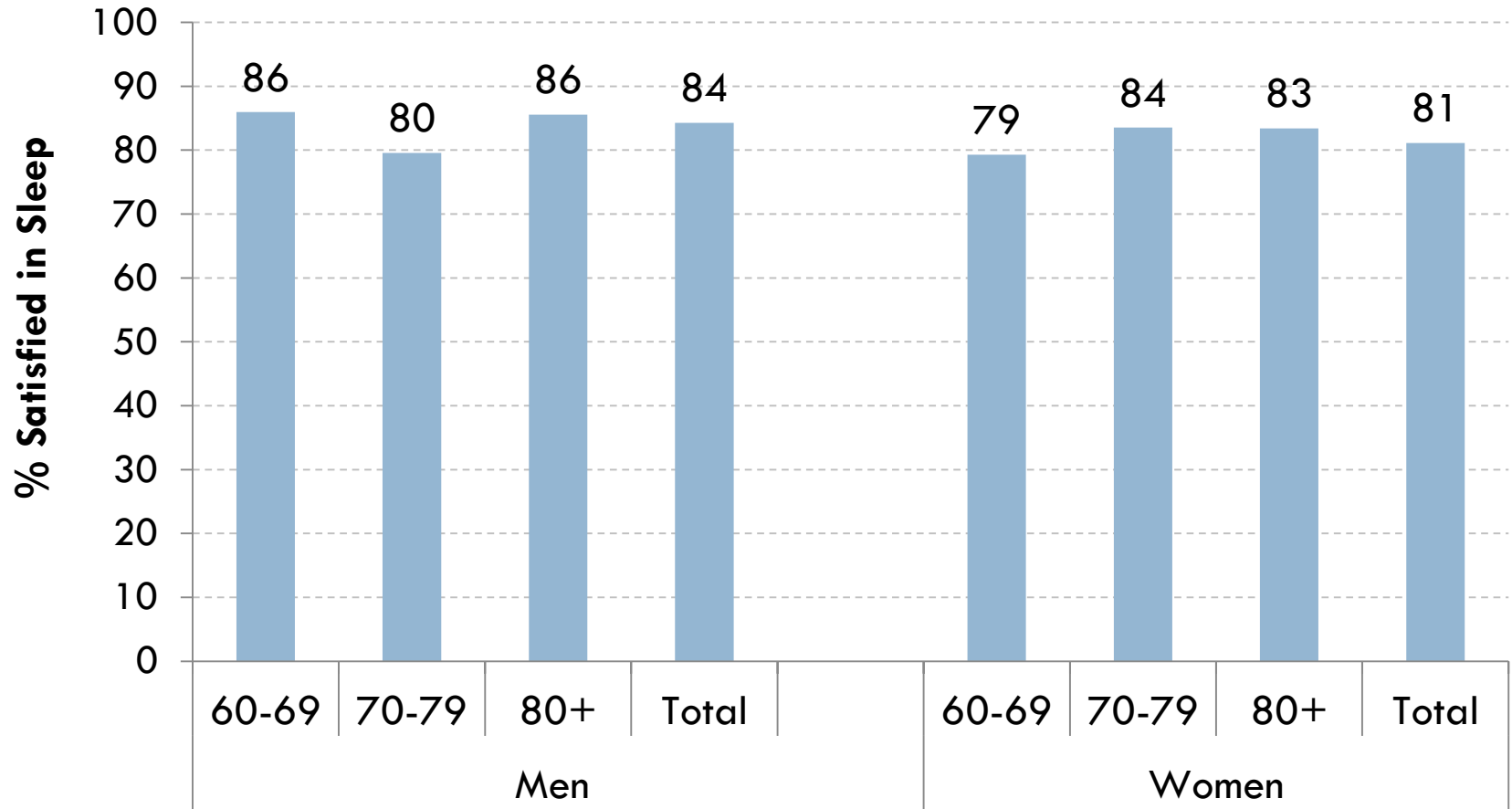
# Independence in Mobility by Age and Sex



# Experience of Pain by Age and Sex



# Sleep Satisfaction by Age and Sex



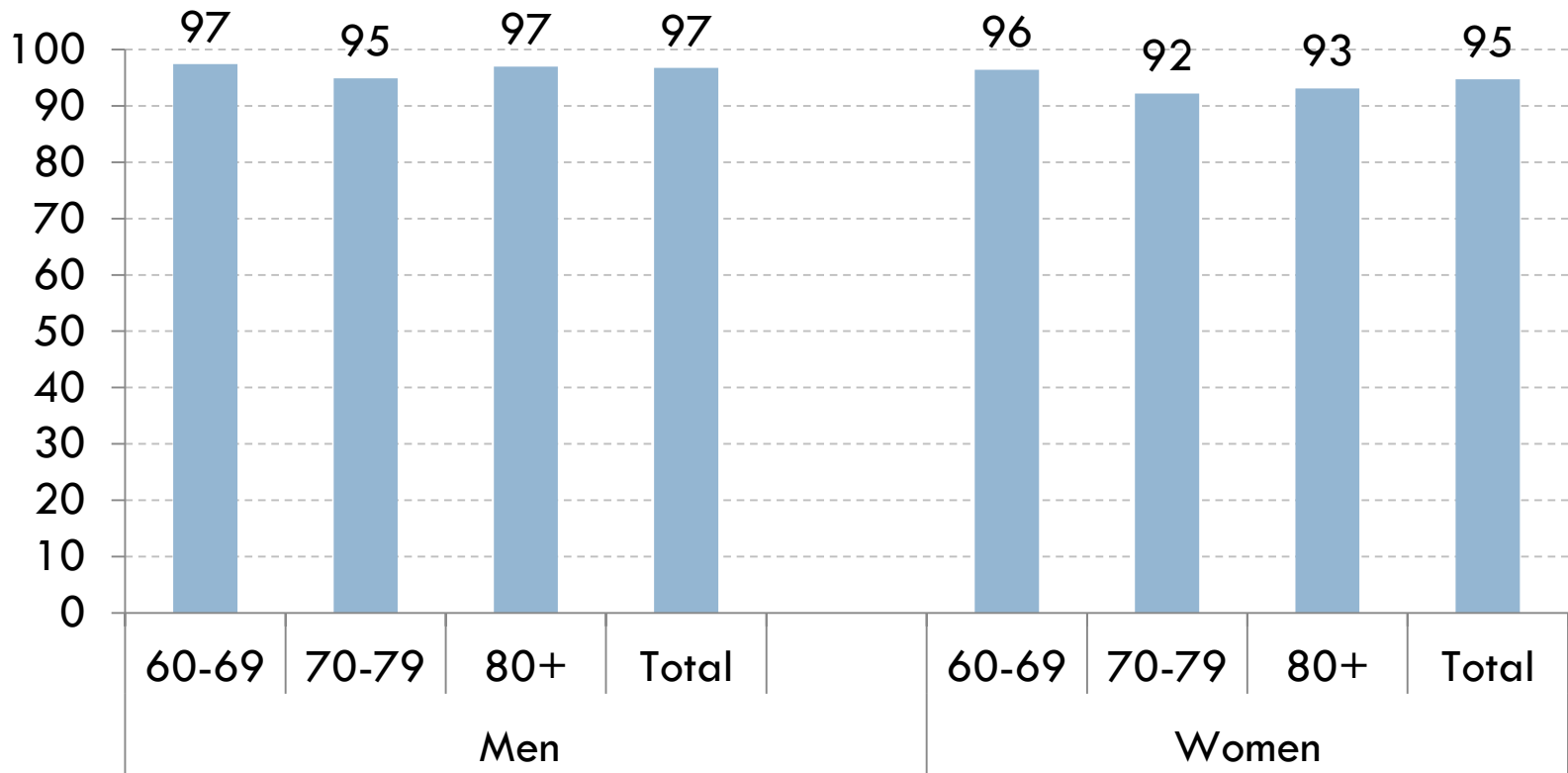
# Chronic Diseases by Age and Sex

| Free from following chronic diseases  | Men       |           |           |           | Women     |           |          |           |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|
|                                       | 60-69     | 70-79     | 80+       | Total     | 60-69     | 70-79     | 80+      | Total     |
| Angina, myocardial infarction, etc    | 81        | 79        | 87        | 81        | 77        | 79        | 82       | 78        |
| Cancer                                | 99        | 98        | 100       | 99        | 99        | 99        | 99       | 99        |
| High blood pressure                   | 70        | 69        | 66        | 70        | 61        | 55        | 64       | 59        |
| Diabetes                              | 91        | 91        | 92        | 91        | 87        | 90        | 94       | 89        |
| Arthritis, neuralgia or rheumatism    | 49        | 48        | 37        | 48        | 49        | 41        | 37       | 45        |
| Cataracts                             | 80        | 75        | 58        | 77        | 81        | 69        | 68       | 76        |
| Incontinence                          | 75        | 75        | 60        | 74        | 74        | 65        | 52       | 68        |
| <b>Free from all chronic diseases</b> | <b>23</b> | <b>25</b> | <b>12</b> | <b>23</b> | <b>16</b> | <b>14</b> | <b>9</b> | <b>14</b> |

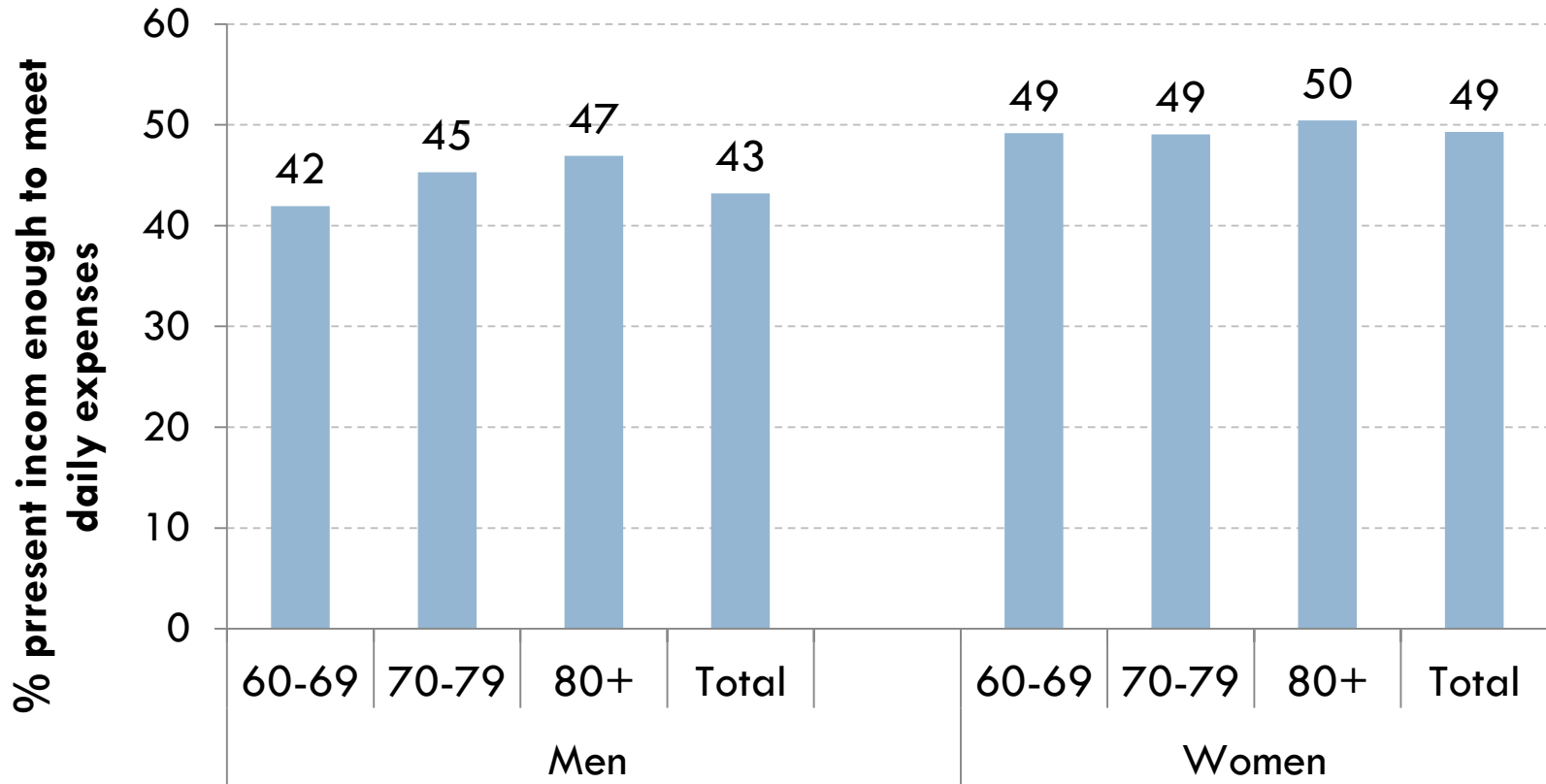
# Social Participation by Age and Sex

| Social Participation Indicators                          | Men   |       |     |       | Women |       |     |       |
|--|-------|-------|-----|-------|-------|-------|-----|-------|
|  | 60-69 | 70-79 | 80+ | Total | 60-69 | 70-79 | 80+ | Total |
| % Engaged in volunteer work in church or community       | 26    | 19    | 13  | 23    | 25    | 16    | 10  | 20    |
| % Member of any other type of non-religious organization | 21    | 24    | 25  | 22    | 24    | 25    | 20  | 24    |
| % Currently working                                      | 54    | 39    | 15  | 47    | 44    | 25    | 7   | 33    |
| % Given financial support to children                    | 58    | 44    | 40  | 53    | 52    | 36    | 29  | 44    |
| % Given food/meal support to children                    | 54    | 43    | 41  | 50    | 47    | 30    | 22  | 39    |
| % Given material goods to children                       | 25    | 13    | 10  | 21    | 18    | 9     | 8   | 14    |
| % Given companionship support to children                | 15    | 13    | 13  | 15    | 18    | 13    | 9   | 15    |
| % Involved in the care of grandchildren                  | 55    | 51    | 29  | 52    | 64    | 53    | 33  | 56    |

# Percentage Living with Someone else by Age and Sex



# Financial Status by Age and Sex







# ORDERED REGRESSION RESULTS

# Dependent Variable

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## Self reported Health

1. Very healthy
2. Healthier than average
3. Of average health
4. Somewhat unhealthy
5. Very unhealthy

# Ordered Logistic Regression Results

| Independent Variables                                  | Odds Ratio | Level of significance |
|--|------------|-----------------------|
| Age  | 1.13       | ns                    |
| Age squared  | 1.00       | ns                    |
| Sex (1 =male)  | 1.14       | ns                    |
| Marital status (1=currently married)                   | 1.08       | ns                    |
| Education (reference = college)                        |            |                       |
| No schooling   | 1.14       | ns                    |
| Elementary   | 1.07       | ns                    |
| High school  | 1.03       | ns                    |
| Can see well   | 0.58       | ***                   |
| No hearing difficulty                                  | 0.63       | ***                   |
| Independent in activities of daily living              | 0.63       | ***                   |
| Independent in Instrumental activities of daily living | 0.82       | ns                    |
| Independent in mobility                                | 0.58       | ***                   |
| Free from :  |            |                       |
| Angina   | 0.82       | *                     |
| Arthritis  | 0.92       | *                     |
| High blood pressure                                    | 0.69       | ***                   |
| Incontinence   | 0.72       | ***                   |
| Present income enough to meet expenses                 | 0.74       | ***                   |

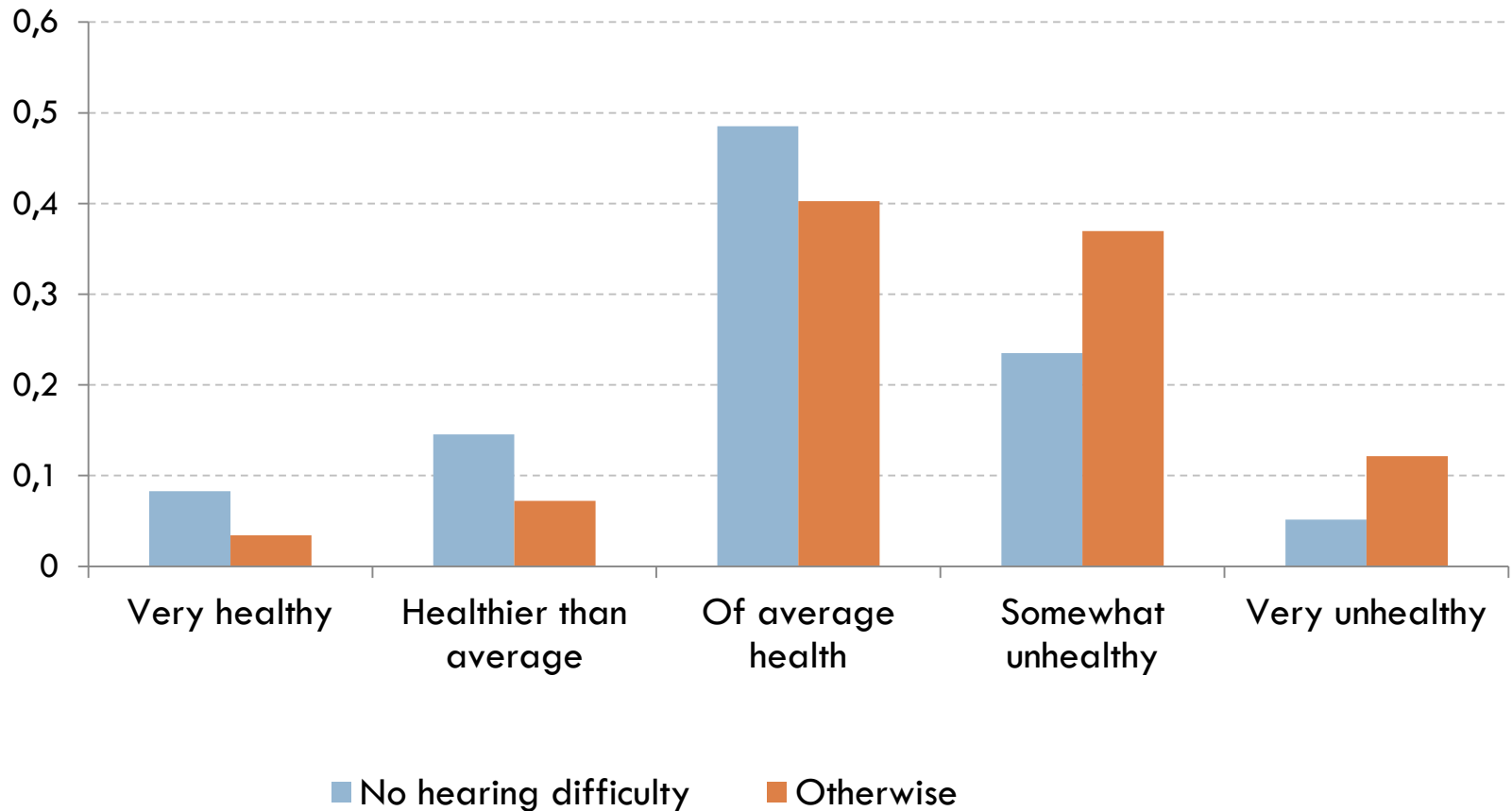
Notes: \*\*\*p value <.001, \* p value <.05, ns= not significant

# Ordered Logistic Regression Results (Con't)

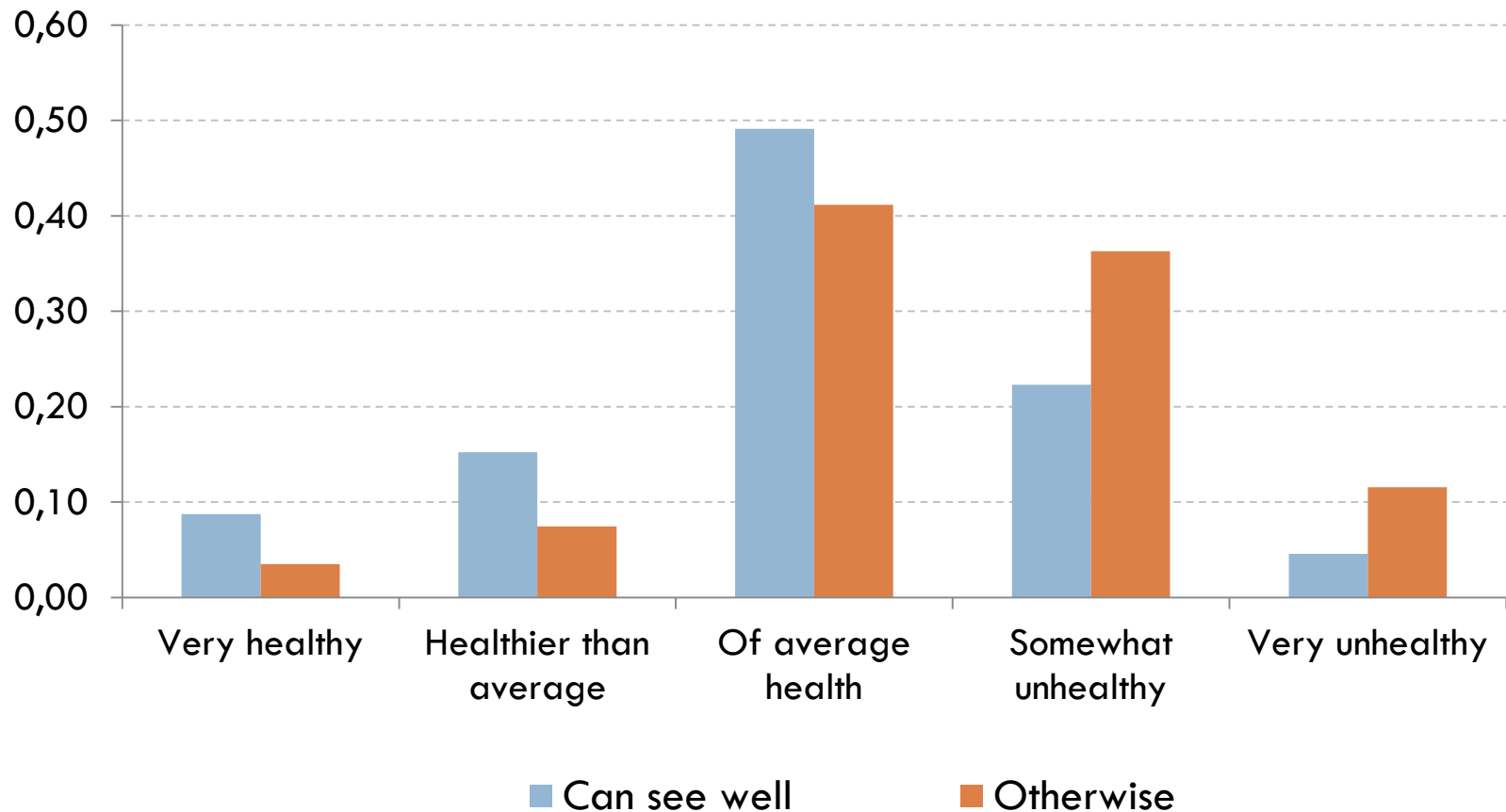
| Independent Variables                                  | Odds Ratio | Level of significance |
|--|------------|-----------------------|
| Experience of pain (reference =severe to extreme pain) |            |                       |
| No pain  | 0.36       | ***                   |
| Mild pain  | 0.44       | ***                   |
| Moderate pain  | 0.78       | ns                    |
| Satisfied in sleep                                     | 0.59       | ***                   |
| Social participation                                   |            |                       |
| Given financial support to children                    | 0.90       | ns                    |
| Given food/meal support to children                    | 0.97       | ns                    |
| Given material goods to children                       | 1.21       | ns                    |
| Given companionship support to children                | 1.06       | ns                    |
| Involved in the care of grandchildren                  | 0.86       | *                     |
| Member of any other type of non-religious organization | 1.03       | ns                    |
| Engaged in volunteer work in church or community       | 0.81       | *                     |
| Currently working                                      | 0.67       | ***                   |
| Social support   |            |                       |
| Living with someone else                               | 0.75       | ns                    |

Notes: \*\*\*p value <.001, \* p value <.05, ns= not significant

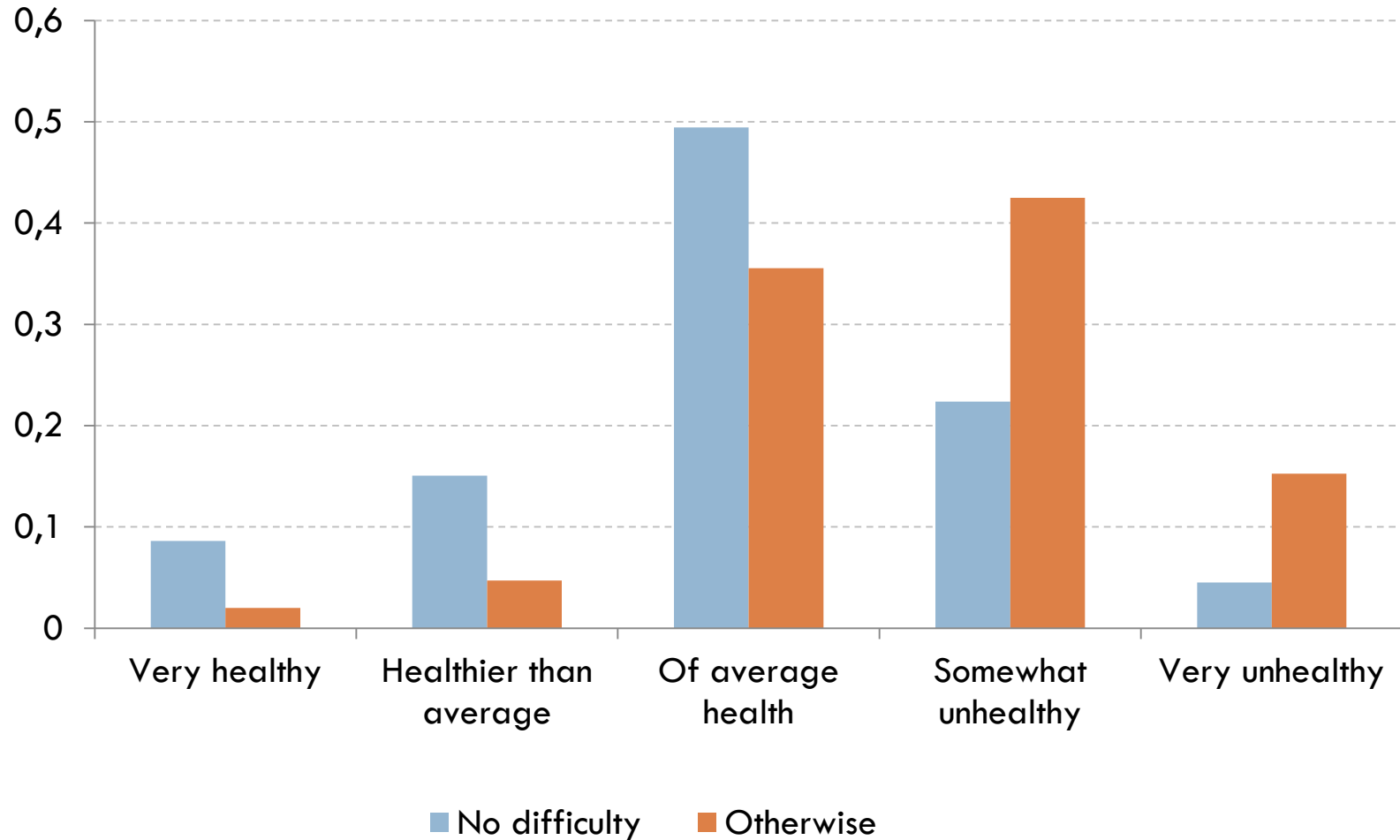
# Adjusted Probability of Self-reported Health by Hearing Ability



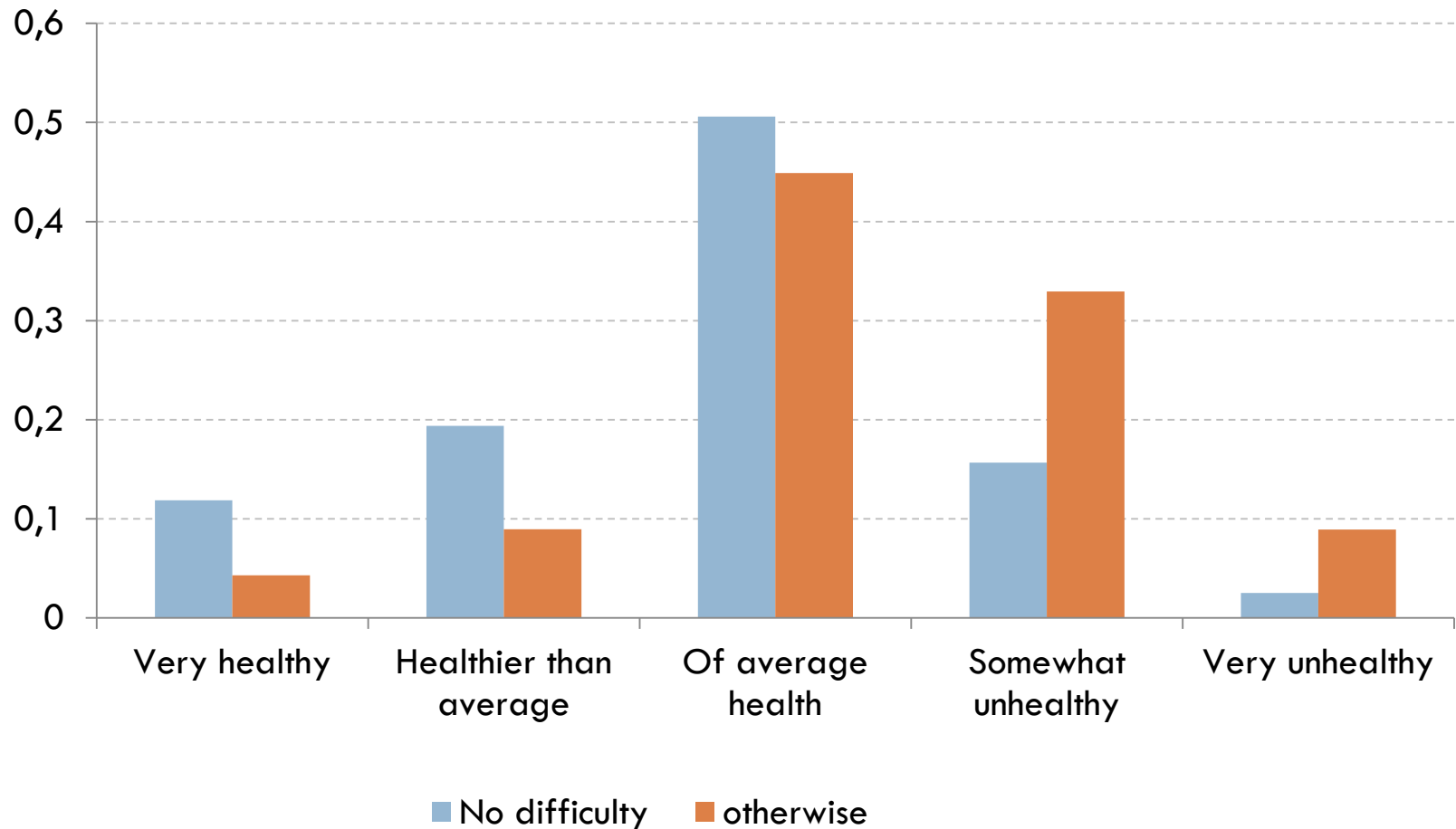
# Adjusted Probability of Self-reported Health by Clarity of Vision



# Adjusted Probability of Self-reported Health by ADLs

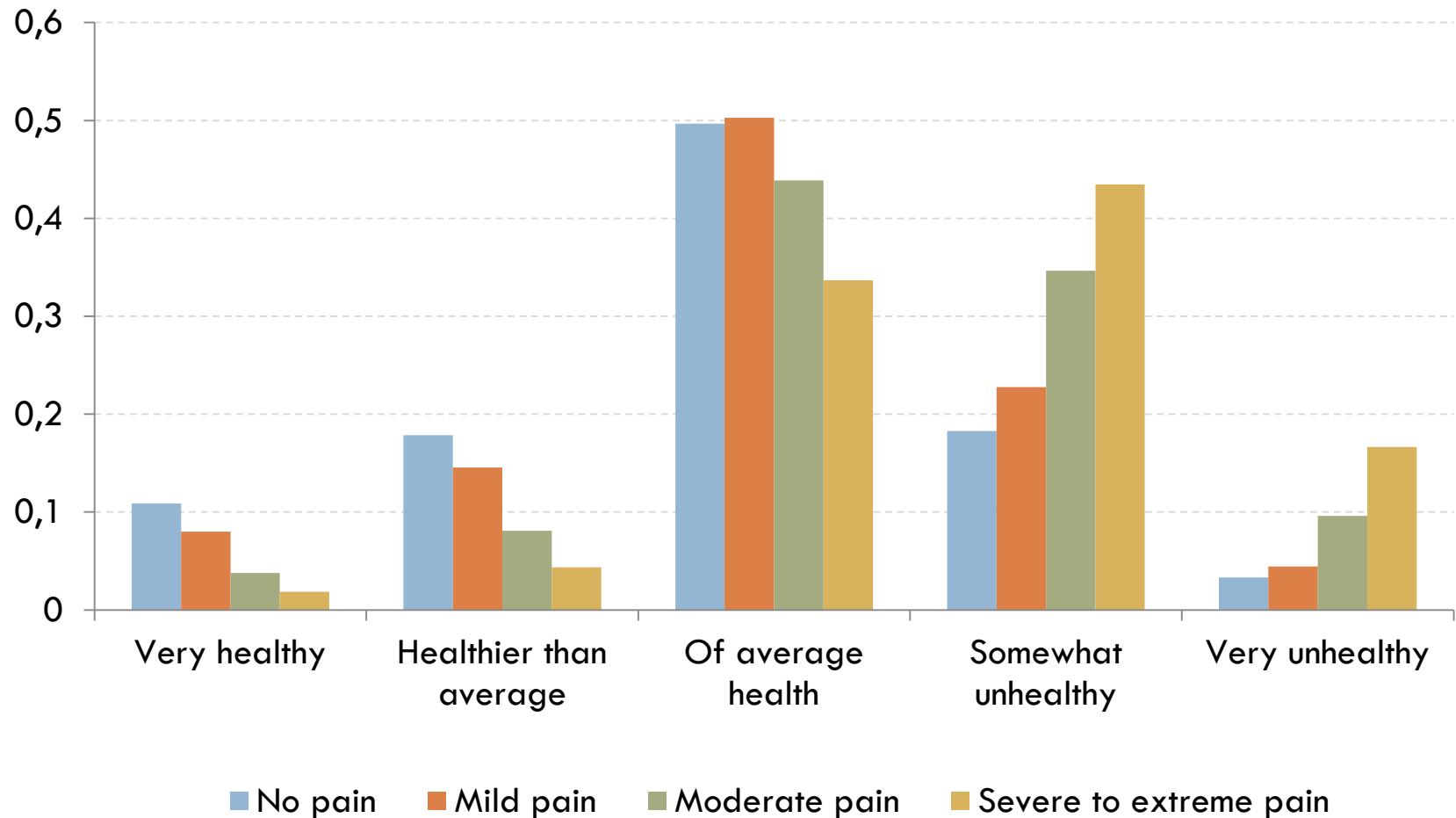


# Adjusted Probability of Self-reported Health by Nagi Indicators

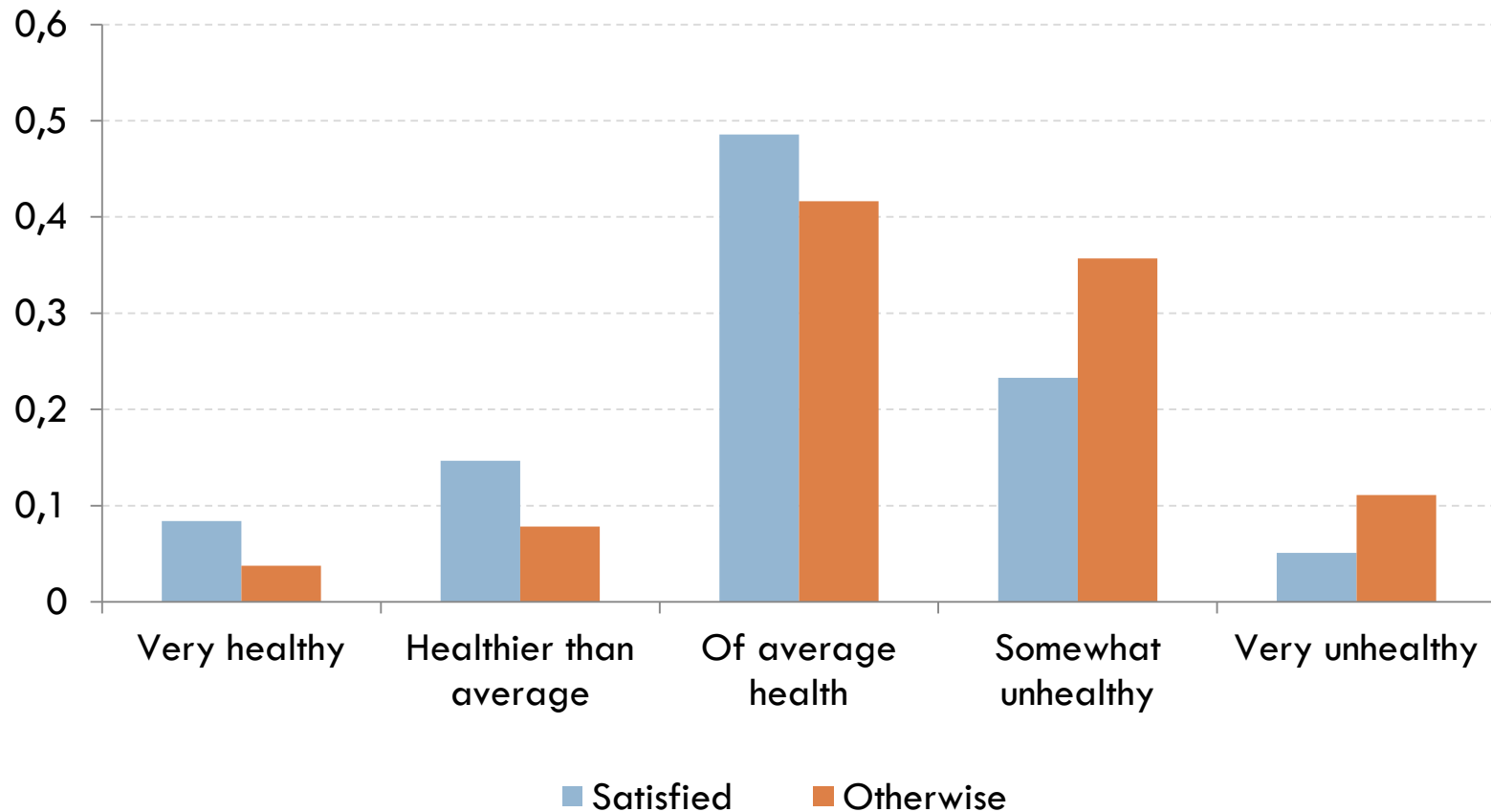




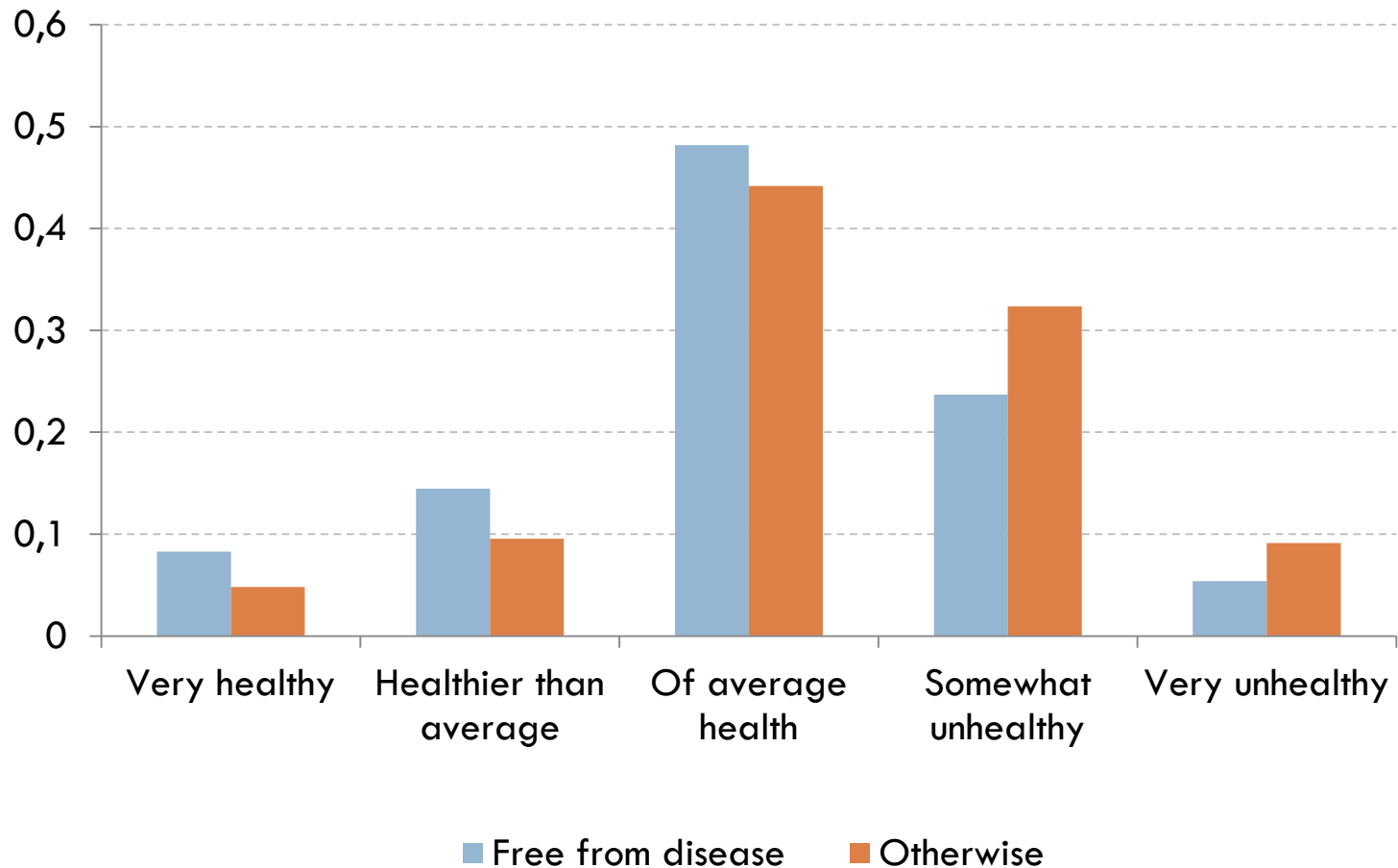
# Adjusted Probability of Self-reported Health by Experience of Pain in the last 30 Days



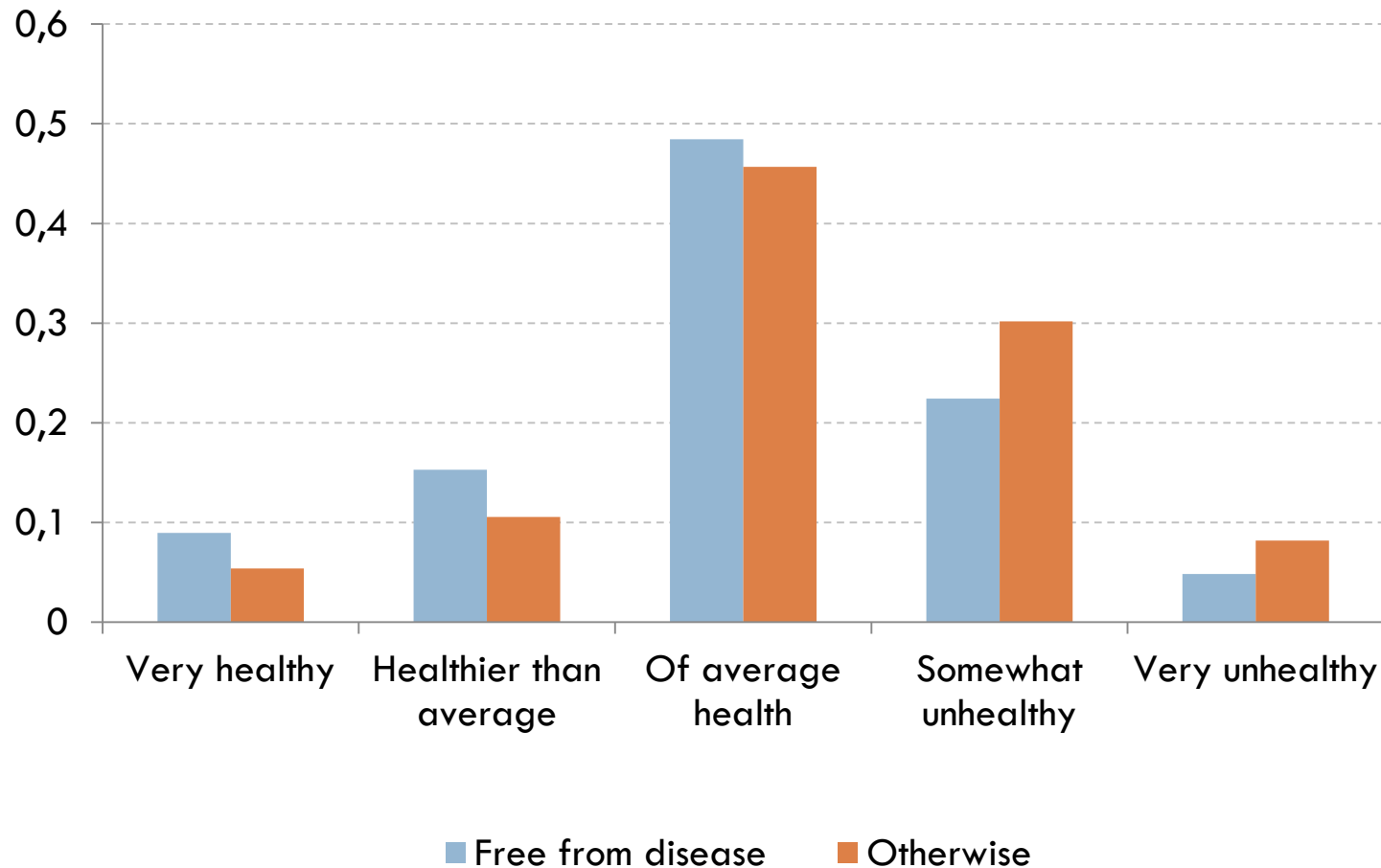
# Adjusted Probability of Self-reported Health by Sleep Satisfaction



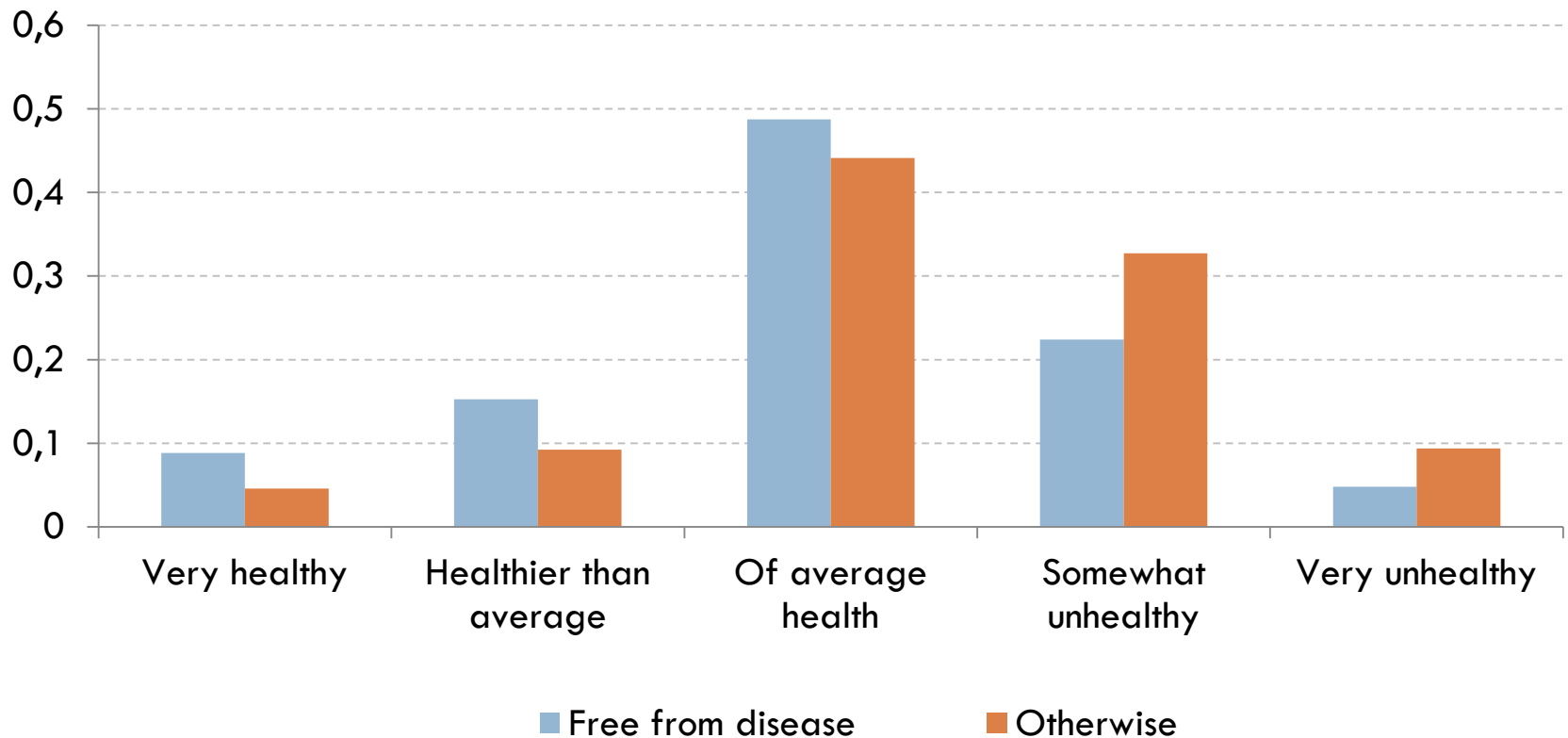
# Adjusted Probability of Self-reported Health by Presence of Angina, Myocardial Infarction, etc.



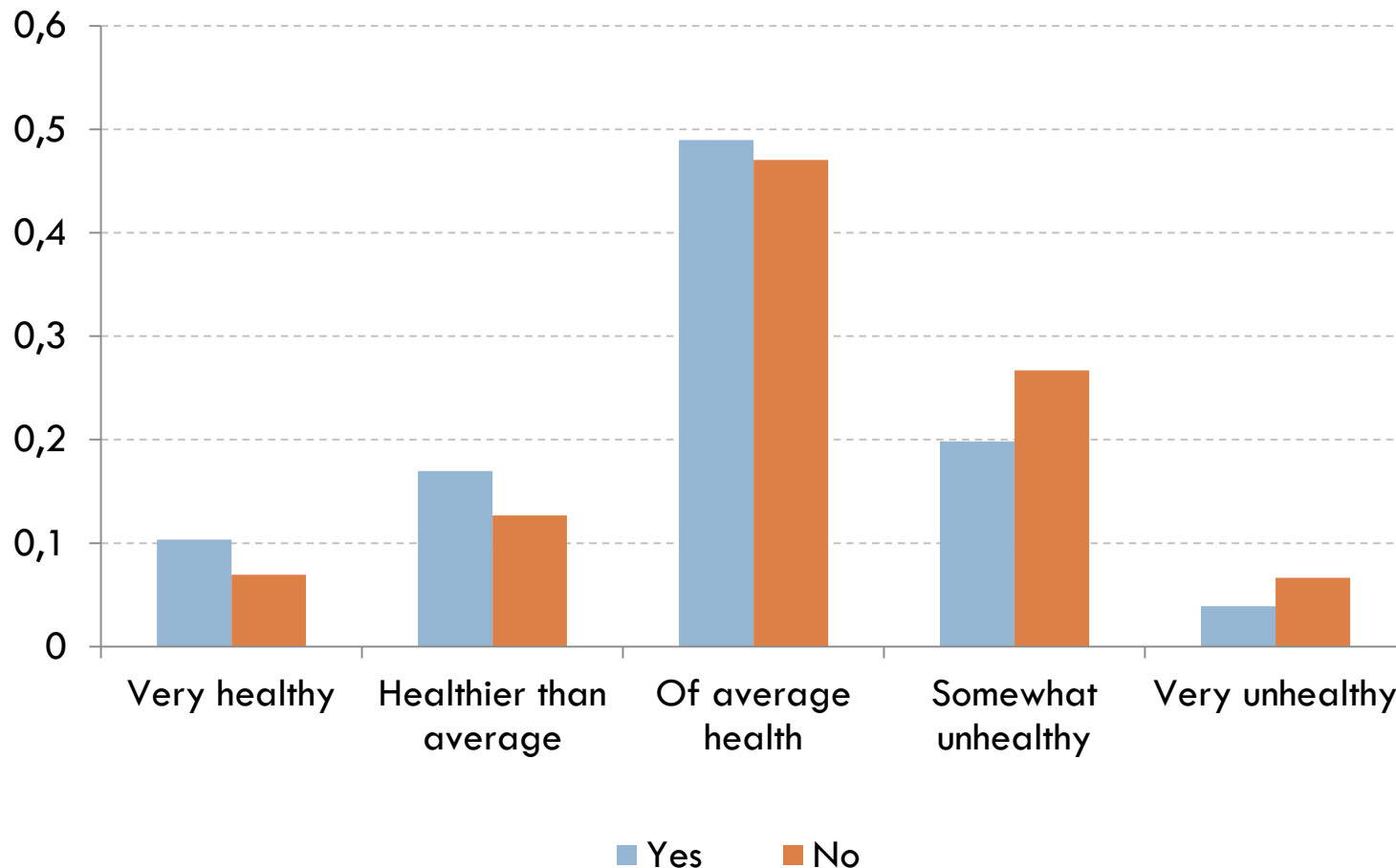
# Adjusted Probability of Self-reported Health by Presence of High blood Pressure



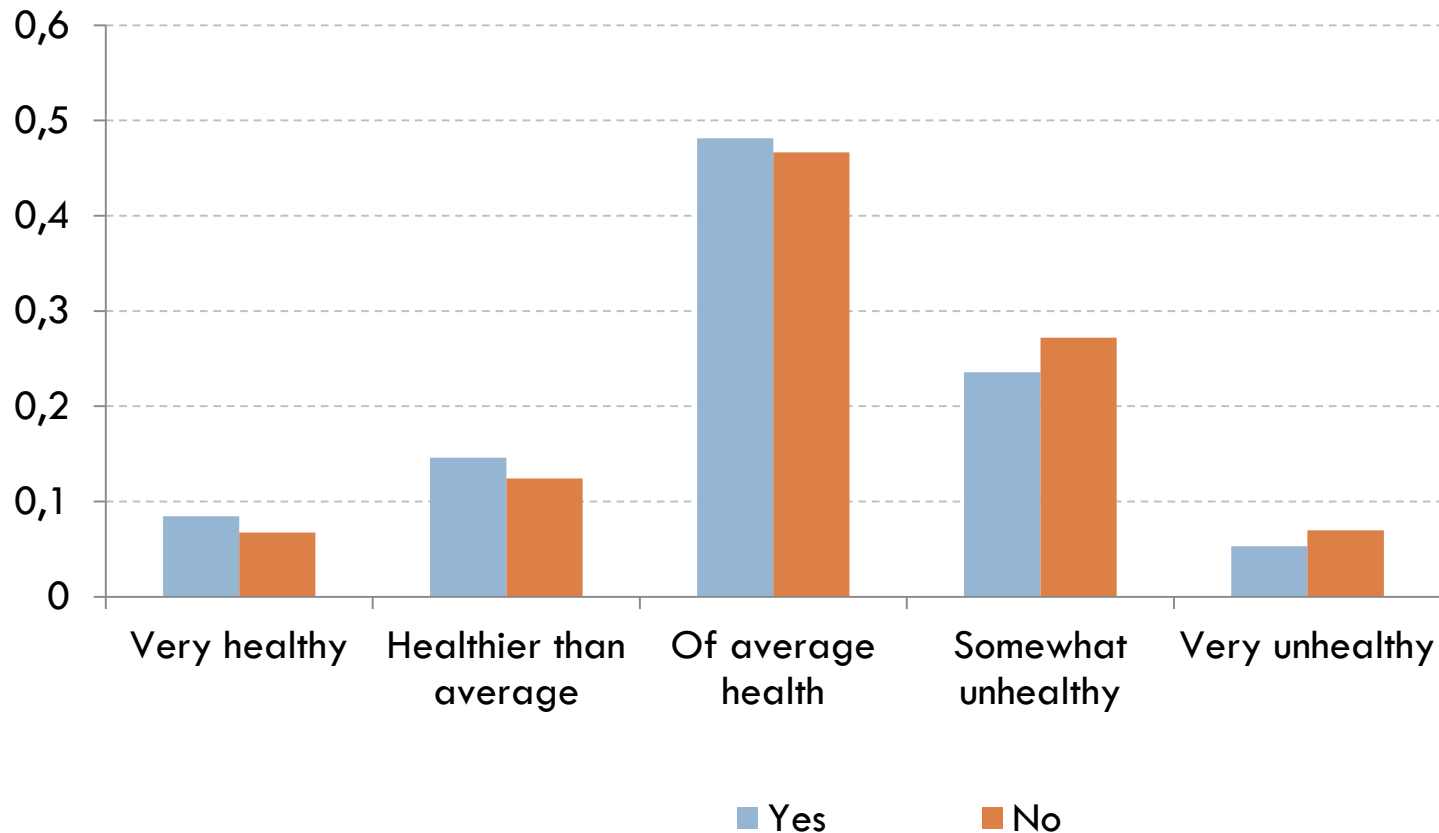
# Adjusted Probability of Self-reported Health by Presence of Incontinence



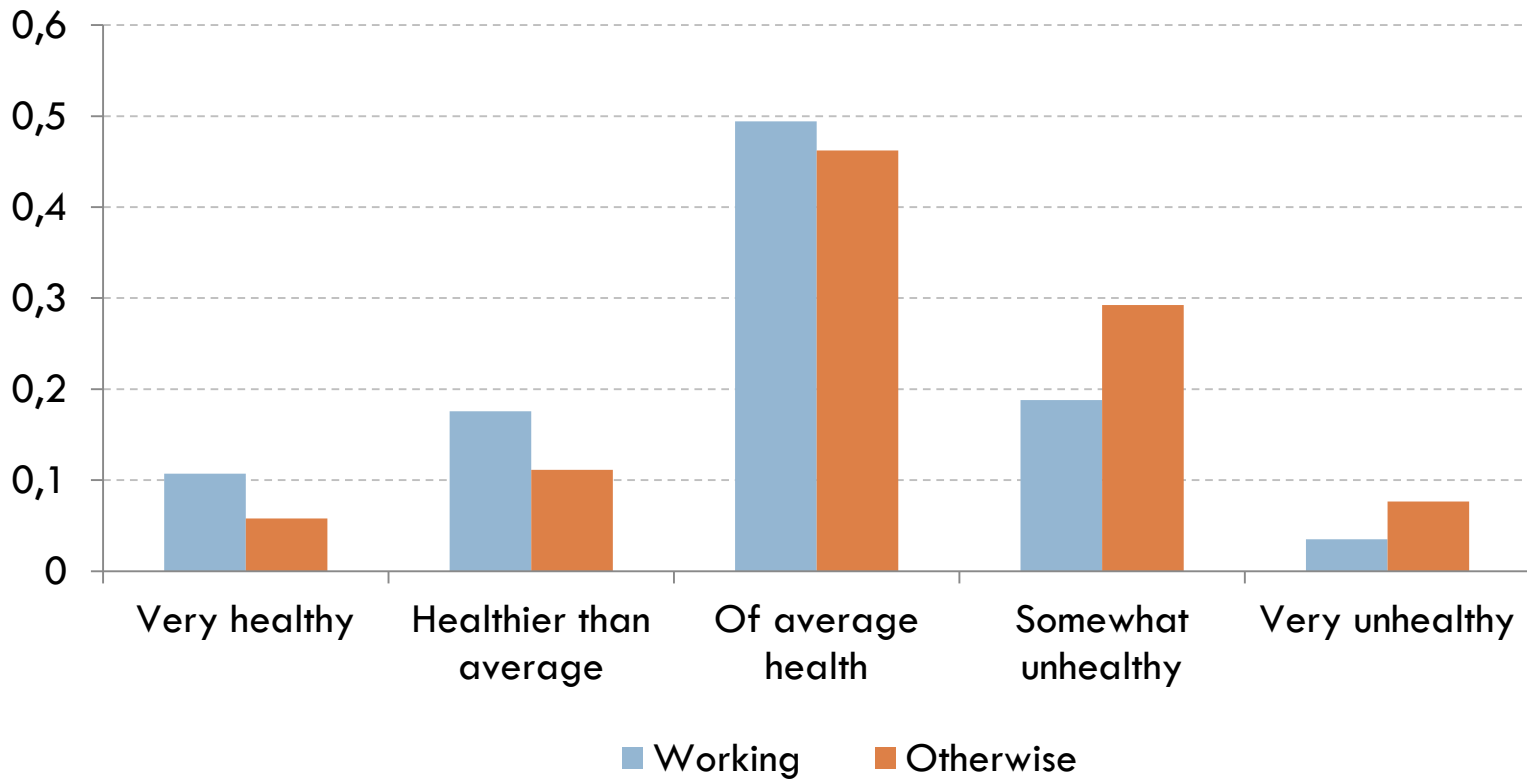
# Adjusted Probability of Self-reported Health by Engagement in Volunteer Work in Church or Community



# Adjusted Probability of Self-reported Health by Involvement in the Care of Grandchildren

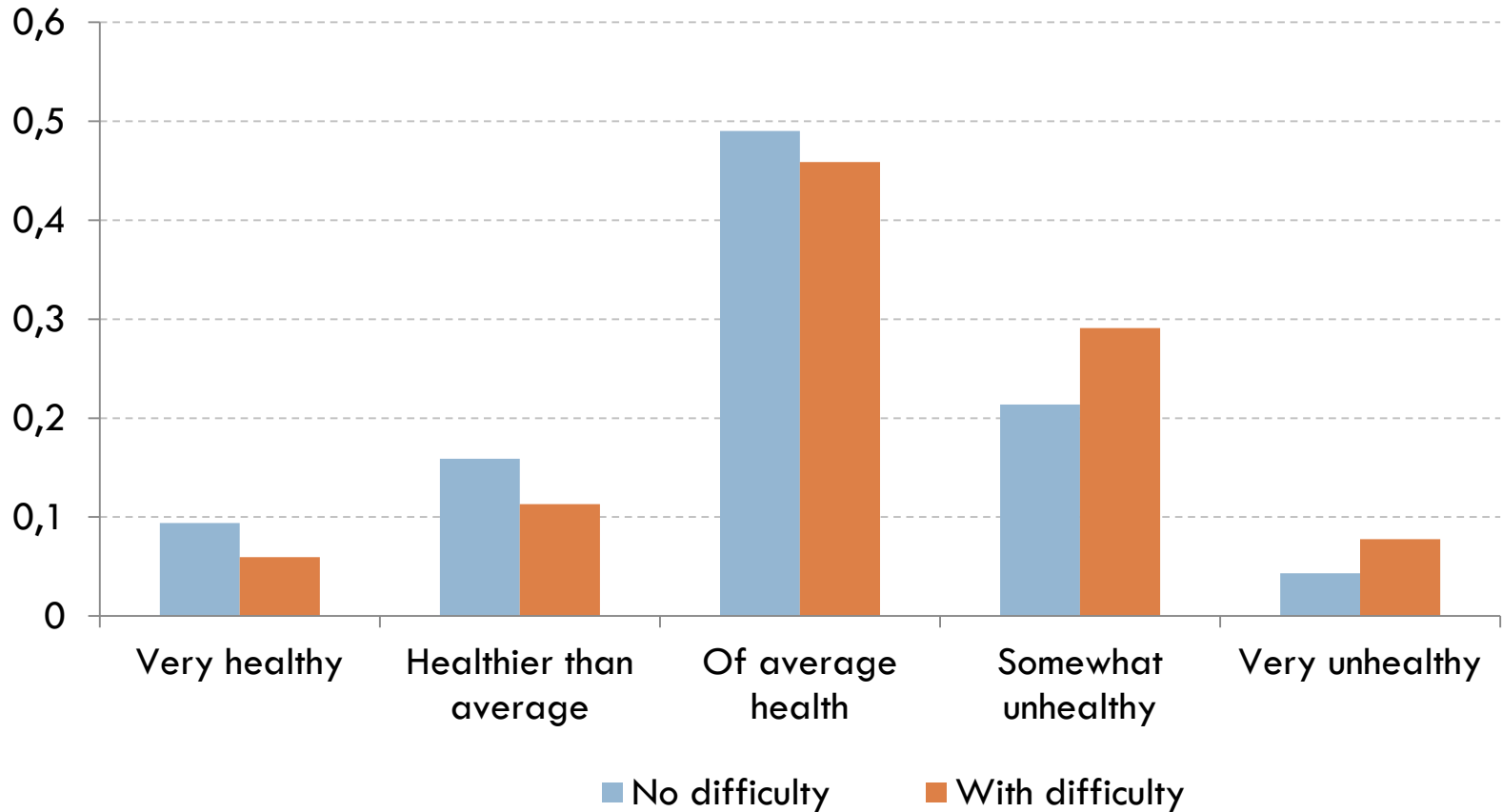


# Adjusted Probability of Self-reported Health by Work Status





# Adjusted Probability of Self-reported Health by Difficulty in Meeting Expenses



# Summary

- Lack of impairment in hearing and vision, independence in ADLs and mobility, freedom from chronic diseases, sleep satisfaction, absence of pain in the last 30 days, involvement in the care of grandchildren, engagement in volunteer work in church or community, being in the workforce and having better financial status are associated with positive self-reported health, controlling for other demographic and health factors.

# Summary

- Controlling for other health indicators, basic demographic and socio-economic variables like age, sex, marital status and education did not emerge as significant predictors of self-reported health.

# Body Mass Index by Age and Sex

|                 | Men       |           |           |           | Women     |           |           |           |
|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                 | 60-69     | 70-79     | 80+       | Total     | 60-69     | 70-79     | 80+       | Total     |
| % Underweight   | 15        | 18        | 17        | 16        | 15        | 24        | 30        | 19        |
| % Normal        | 57        | 59        | 69        | 58        | 54        | 56        | 54        | 55        |
| % Overweight    | 22        | 17        | (10)      | 20        | 21        | 15        | 14        | 19        |
| % Obese         | 6         | (6)       | (5)       | 6         | 10        | 5         | (2)       | 8         |
| <b>Mean BMI</b> | <b>23</b> | <b>28</b> | <b>22</b> | <b>24</b> | <b>24</b> | <b>23</b> | <b>21</b> | <b>23</b> |

Note : Figures in parentheses are based on less than 20 cases

# Blood Pressure by Age and Sex

Unit: mmHg

|                          | Men   |       |       |       | Women |       |       |       |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|                          | 60-69 | 70-79 | 80+   | Total | 60-69 | 70-79 | 80+   | Total |
| Systolic Blood Pressure  | 151.1 | 150.0 | 157.6 | 151.3 | 148.1 | 152.9 | 156.1 | 150.6 |
| Diastolic Blood Pressure | 87.8  | 84.2  | 83.4  | 86.5  | 85.3  | 84.2  | 81.3  | 84.4  |
| Pulse Pressure           | 63.3  | 65.8  | 74.2  | 64.8  | 62.8  | 68.7  | 74.7  | 66.2  |

Q47 Now think about your family when you were growing up, from birth to age 16. Would you say your family during that time was pretty well off financially, about average, or poor?

1 Pretty well off

2 Average

3 Poor

H1 Now, think about your family when you were growing up, from birth to age 16. Would you say your family during that time was pretty well off financially, about average, or poor?

1 \_\_\_\_\_ Pretty well-off 2 \_\_\_\_\_ Average 3 \_\_\_\_\_ Poor



THANK YOU!