

Subjective Cognitive Decline Indicators and Chronic Diseases

This report was based on the 2019 Iowa Behavioral Risk Factor Surveillance System (BRFSS)¹ data related to subjective cognitive decline (SCD). SCD is the self-reported experience of worsening or more frequent confusion or memory loss during the past 12 months. It is a form of cognitive impairment and one of the earliest signs of Alzheimer’s disease and related dementias². Older people are more likely to experience multiple chronic diseases and greater functional impairment, which refers to limitations in the ability to carry out day-to-day household activities and chores or experiencing interference in engaging in activities outside of the home¹. This report presents the characteristics of older adults, those aged 45 years and older, who reported SCD and one or more chronic diseases (a heart attack, angina or coronary heart disease, stroke, asthma, cancer, COPD, arthritis, kidney disease, or diabetes). These data were examined by age group, sex, race/ethnicity, education, chronic disease status, and SCD status.

Race/ethnicity were grouped into two groups: ‘Non-Hispanic White’ vs. ‘Non-White or Hispanics’ due to small sample numbers when reported by individual racial/ethnic identities. The ‘Non-White or Hispanic’ category includes the following racial/ethnic identities: American Indian or Alaskan Native, Asian, Black, Hispanic, Multiracial, and Native Hawaiian or other Pacific Islander.

Demographic Characteristics of Older Adults by Subjective Cognitive Decline and Functional

Table 1: Demographic characteristics of adults aged 45 and older with subjective cognitive decline

| | With Subjective Cognitive Decline (%) | With Subjective Cognitive Decline | | | | |
|-----------------------------------|---------------------------------------|---|--|---|---|--|
| | | Interference with Day to Day Activities (%) | Need for Assistance with Day to Day Activities (%) | Interference with Social Activities (%) | Functional Difficulties (Household or Social) (%) | Discussion with Health Care Professional (%) |
| Overall (45+) | 10.0 | 27.6 | 21.4 | 28.7 | 39.7 | 35.8 |
| Age Group | | | | | | |
| 45-64 years | 9.8 | 30.7 | 24.5 | 37.6 | 47.8 | 39.3 |
| 65 + years | 11.6 | 24.4 | 18.3 | 19.7 | 31.2 | 32.3 |
| Sex | | | | | | |
| Female | 9.1 | 33.3 | 25.5 | 31.3 | 43.6 | 40.4 |
| Male | 12.3 | 22.5 | 17.8 | 26.5 | 36.1 | 31.7 |
| Race and Ethnicity | | | | | | |
| Non-Hispanic White | 9.9 | 27.2 | 19.3 | 27.6 | 38.1 | 35.7 |
| Non-White or Hispanic | 12.0 | 31.4 | 42.0 | 39.8 | 54.2 | 39.3 |
| Highest Level of Education | | | | | | |
| Did not graduate from high school | 14.2 | 26.2 | 40.0 | 45.9 | 55.0 | 29.7 |
| Graduated high school | 11.0 | 33.7 | 23.4 | 30.3 | 43.7 | 31.7 |
| Some college or College graduate | 8.9 | 23.6 | 16.3 | 24.1 | 33.8 | 39.8 |

One in 10 lowans aged 45 years and older are experiencing subjective cognitive decline. Of them, about 40% of lowans with SCD had to give up day-to-day activities and only 36% of those with SCD discussed their symptoms with a healthcare provider (Table 1).

Adults aged 45-64 years had a lower rate of cognitive decline compared with those aged 65 years and older, however, they were more likely to experience functional impairments due to SCD and to have discussed their symptoms with a health care provider. Females had a lower percentage of cognitive declines than males, but were more likely to experience functional impairments due to SCD and more likely to have discussed their cognitive symptoms with a health care professional. Non-White and Hispanic lowans had a higher rate of cognitive decline than Non-Hispanics White lowans and were more likely to experience functional impairments due to SCD and also more likely to have discussed their cognitive decline symptoms with a health care professional. People who did not graduate from high school had the highest percentage of cognitive decline compared to those who had higher levels of education. Additionally, these lowans reported functional impairments due to SCD at a higher rate and reported discussing their cognitive decline symptoms with a health care provider at a lower rate than those with higher levels of education.

Demographic Characteristics of Older Adults by Subjective Cognitive Decline and Chronic Disease status

Table 2: Demographic characteristics of adults aged 45 years and older with or without subjective cognitive decline by chronic disease status

| | With Subjective Cognitive Decline | | Without Subjective Cognitive Decline | |
|-----------------------------------|-----------------------------------|----------------------------------|--------------------------------------|----------------------------------|
| | No Chronic Disease (%) | At least one Chronic Disease (%) | No Chronic Disease (%) | At least one Chronic Disease (%) |
| Overall (45+) | 16.0 | 84.0 | 38.9 | 61.1 |
| Age Group | | | | |
| 45-64 years | 16.3 | 83.7 | 49.0 | 51.0 |
| 65 + years | 15.5 | 84.5 | 24.5 | 75.5 |
| Sex | | | | |
| Female | 14.2 | 85.8 | 36.7 | 63.3 |
| Male | 17.5 | 82.5 | 41.3 | 58.7 |
| Race and Ethnicity | | | | |
| Non-Hispanic White | 16.7 | 83.3 | 38.2 | 61.8 |
| Non-White or Hispanic | 7.5 | 92.5 | 47.8 | 52.2 |
| Highest Level of Education | | | | |
| Did not graduate from high school | 18.6 | 81.4 | 32.4 | 67.6 |
| Graduated high school | 15.5 | 84.5 | 34.8 | 65.2 |
| Some college or College graduate | 15.5 | 84.3 | 41.9 | 58.1 |

A higher proportion (84%) of lowans with SCD reported having at least one chronic condition compared to those without SCD (Table 2). This is also the case across all demographic characteristics. Of adults aged 45 years and older with SCD, women had a slightly higher prevalence (85.8%) of having at least one

chronic disease compared to men (82.5%). Non-White and Hispanic lowans had a higher prevalence (92.5%) of having one or more chronic diseases with SCD than Non-Hispanic White lowans.

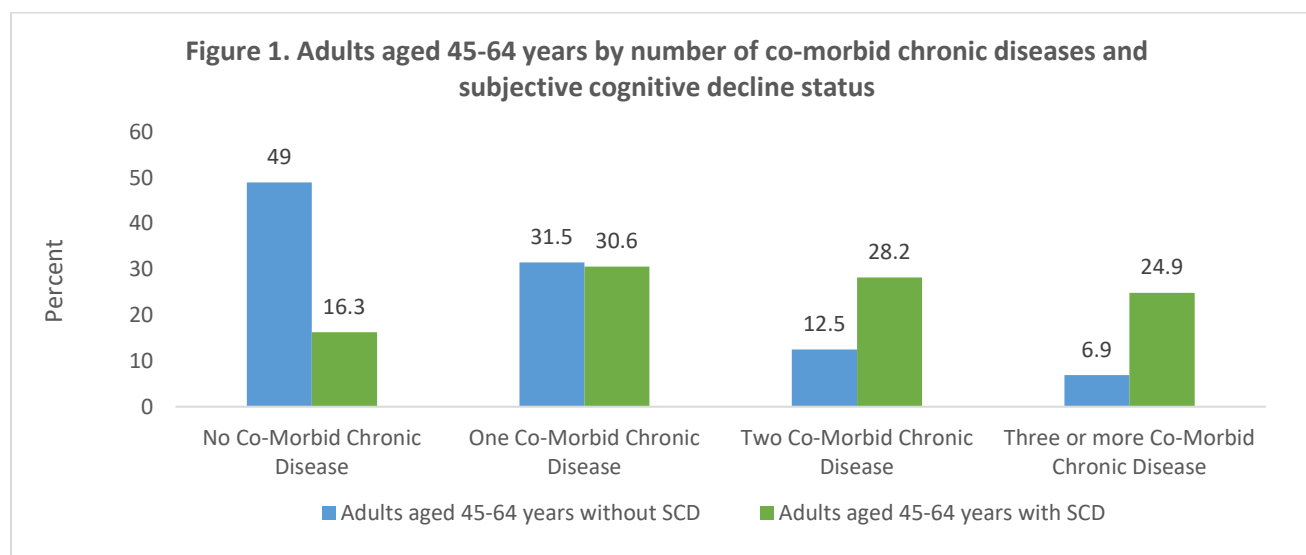
Table 3: Adults aged 45 years and older with chronic diseases by subjective cognitive decline status

| Disease | Age 45–64 years | | Age 65+ years | |
|-----------------------|-----------------|--------------|-----------------|--------------|
| | Without SCD (%) | With SCD (%) | Without SCD (%) | With SCD (%) |
| Arthritis | 30.5 | 60.6 | 47.2 | 58.0 |
| Asthma | 9.6 | 20.7 | 8.3 | 10.3 |
| Cancer | 13.1 | 20.9 | 28.9 | 35.2 |
| COPD | 6.9 | 21.6 | 10.2 | 16.0 |
| Heart Disease | 3.3 | 14.3 | 9.5 | 17.3 |
| Diabetes | 12.4 | 25.8 | 19.5 | 27.8 |
| Kidney Disease | 2.0 | 6.4 | 4.6 | 10.7 |
| Stroke | 2.3 | 11.1 | 7.2 | 12.4 |

Compared with those without SCD, adults aged 45 years and older with SCD were more likely to have arthritics, diabetes, asthma, COPD, cancer, coronary heart disease (CHD or MI), stroke, or kidney disease.

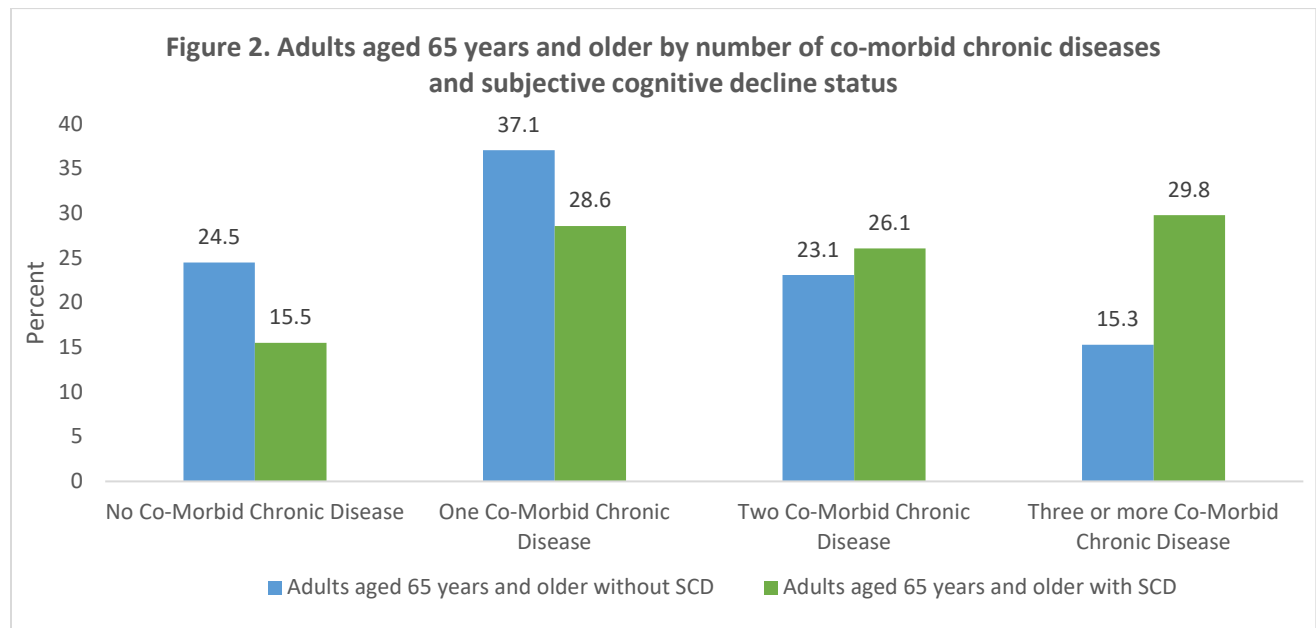
Number of Co-morbid Chronic Diseases and Subjective Cognitive Decline Status

Figure 1: Adults aged 45–64 years by number of co-morbid chronic diseases and subjective cognitive decline status



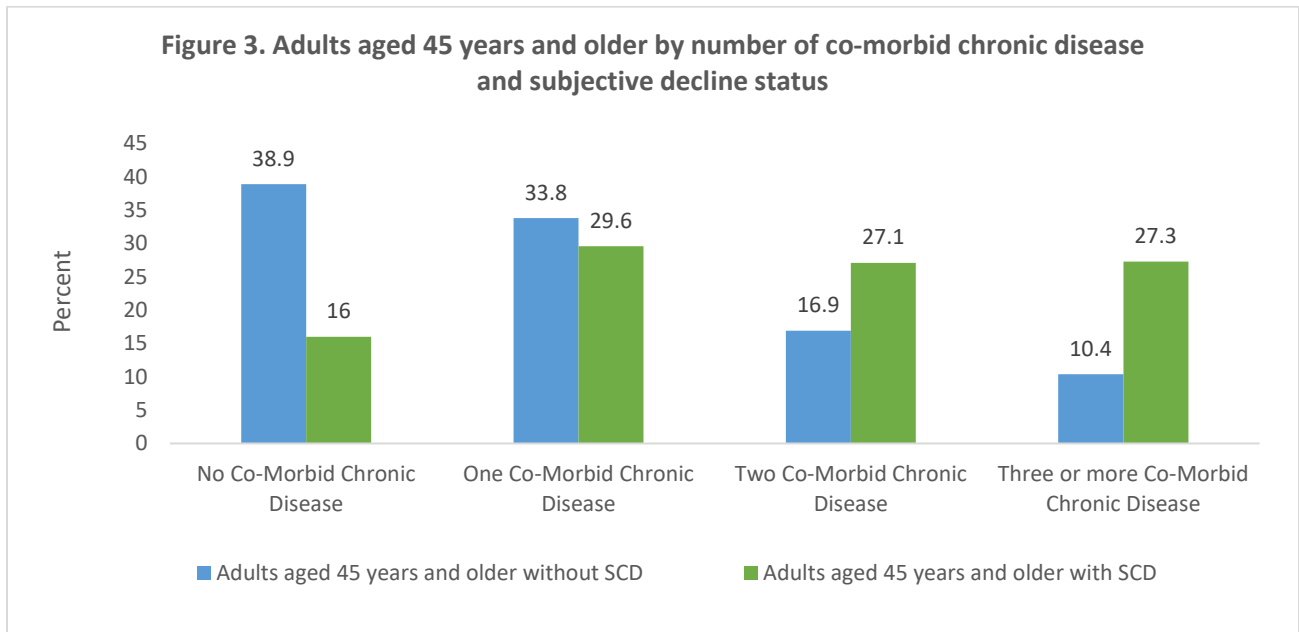
Among those with or without SCD, the number of chronic diseases reported varied. A chronic disease was reported by respondents to ever having been told by a provider that they had a previous diagnosis of one of the following eight chronic diseases: asthma, COPD, coronary heart disease, arthritis, stroke, kidney disease, cancer, and diabetes. The prevalence of co-morbid chronic diseases was higher in those with SCD compared to those without. For persons aged 45–64 years, the prevalence of those who reported two or more chronic diseases was higher among those who reported SCD than those without SCD. About 1 in 4 (24.9%) adults aged 45-64 years with SCD reported having three or more chronic diseases, three times as many as those without SCD (6.9%).

Figure 2: Adults aged 65 years and older by number of co-morbid chronic diseases and subjective cognitive decline status



Among adults aged 65 years and older, the prevalence of those who reported having two or more chronic diseases was higher among those with SCD compared to those without SCD. One in 3 (29.8%) adults aged 65 years and older with SCD reported having three or more chronic diseases, about twice as many as those without SCD (15.3%; Figure 2).

Figure 3: Adults aged 45 years and older by number of co-morbid chronic diseases and subjective cognitive decline status



Among adults aged 45 years and older, about twice as many adults without SCD had no chronic diseases compared with those reporting SCD. Those with SCD were more likely to have two or more chronic diseases compared with those without SCD. Among adults aged 45 years and older with SCD, 27.3% reported having three or more chronic diseases, which is nearly three times as many as those without SCD (10.4%; Figure 3).

Reference

1. BRFSS is an ongoing telephone health survey designed by the Centers for Disease Control and Prevention (CDC) and implemented by the Iowa Department of Public Health (IDPH). CDC BRFSS website: www.cdc.gov/brfss/
2. Chronic Diseases and Cognitive Decline – A Public Health Issue. <https://www.cdc.gov/aging/publications/chronic-diseases-brief.html>

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