



# Associations between oral health and general health among Medicare beneficiaries

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## Background

Oral health is an important component of a Medicare beneficiary's wellbeing. Oral health issues commonly co-occur with other physical health issues, but the causality may not be consistent. This analysis looks at specific relationships between co-occurring oral and general health issues.

## Methods

The Centers for Medicare and Medicaid Services (CMS), with NORC at the University of Chicago, conducts the Medicare Current Beneficiary Survey (MCBS) annually. The MCBS employs a stratified random sampling design that produces a nationally representative sample of Medicare beneficiaries.

Respondents enroll in rotating panels, and they or their proxies are interviewed three times per year for up to four years. Data collection for the 2021 MCBS Survey File was completed mostly via telephone interview.

## Data

The analysis here used data from the 2021 MCBS Survey File. The sample included 12,760 beneficiaries, whose responses were weighted to reflect a target population of 60.8 million community-dwelling Medicare beneficiaries. Beneficiaries who resided in a facility were not included in this analysis.

**The analysis examined three oral health outcomes:**

1. Loss/removal of all natural teeth
2. Difficulty eating due to mouth/teeth issues\*
3. Chronic toothache or jaw pain\*

\*among beneficiaries with at least some natural teeth

Data was collected in September-December 2021.

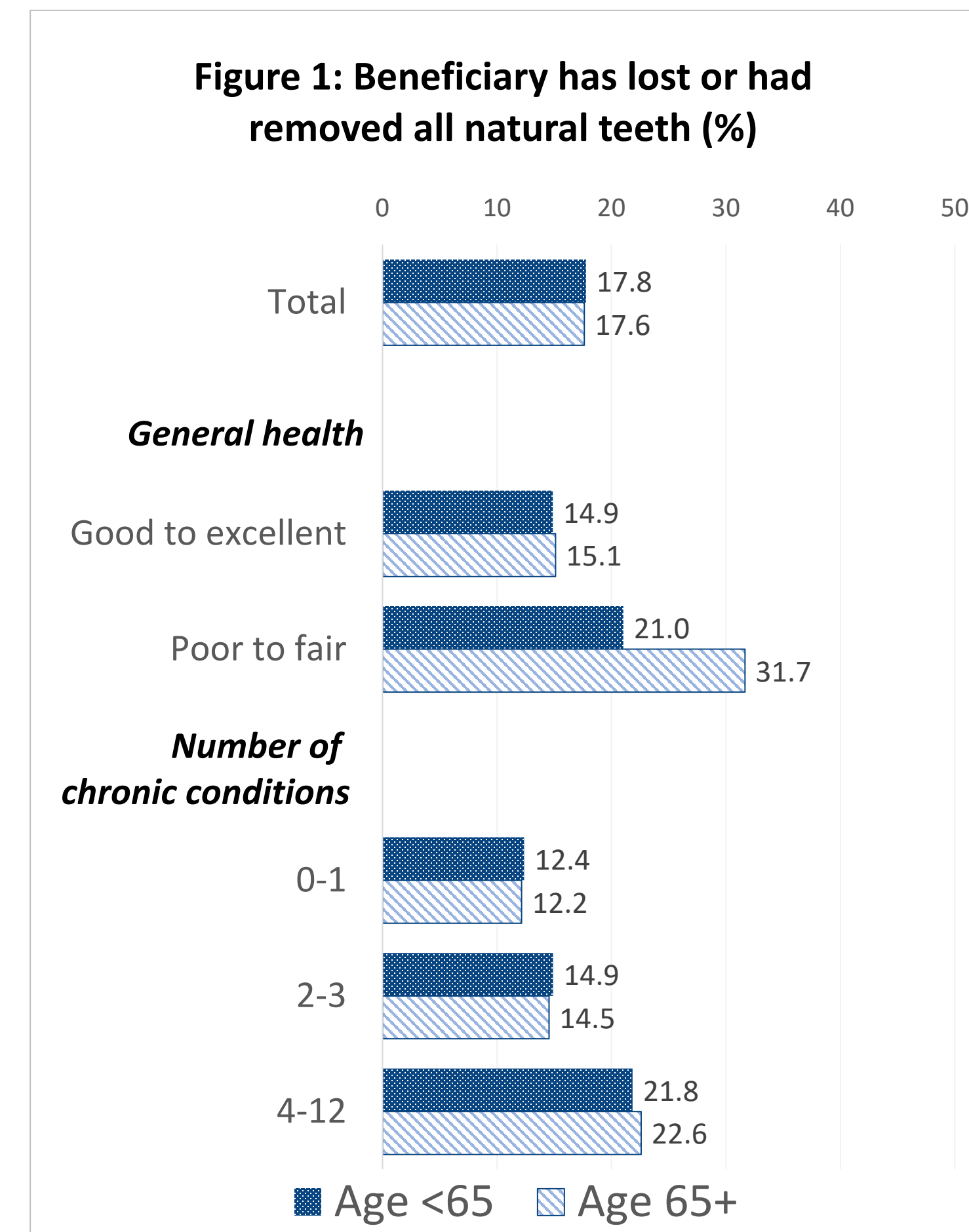
All data was reported by the beneficiary or a proxy.

**General health** was self-rated by the beneficiary compared to others their age.

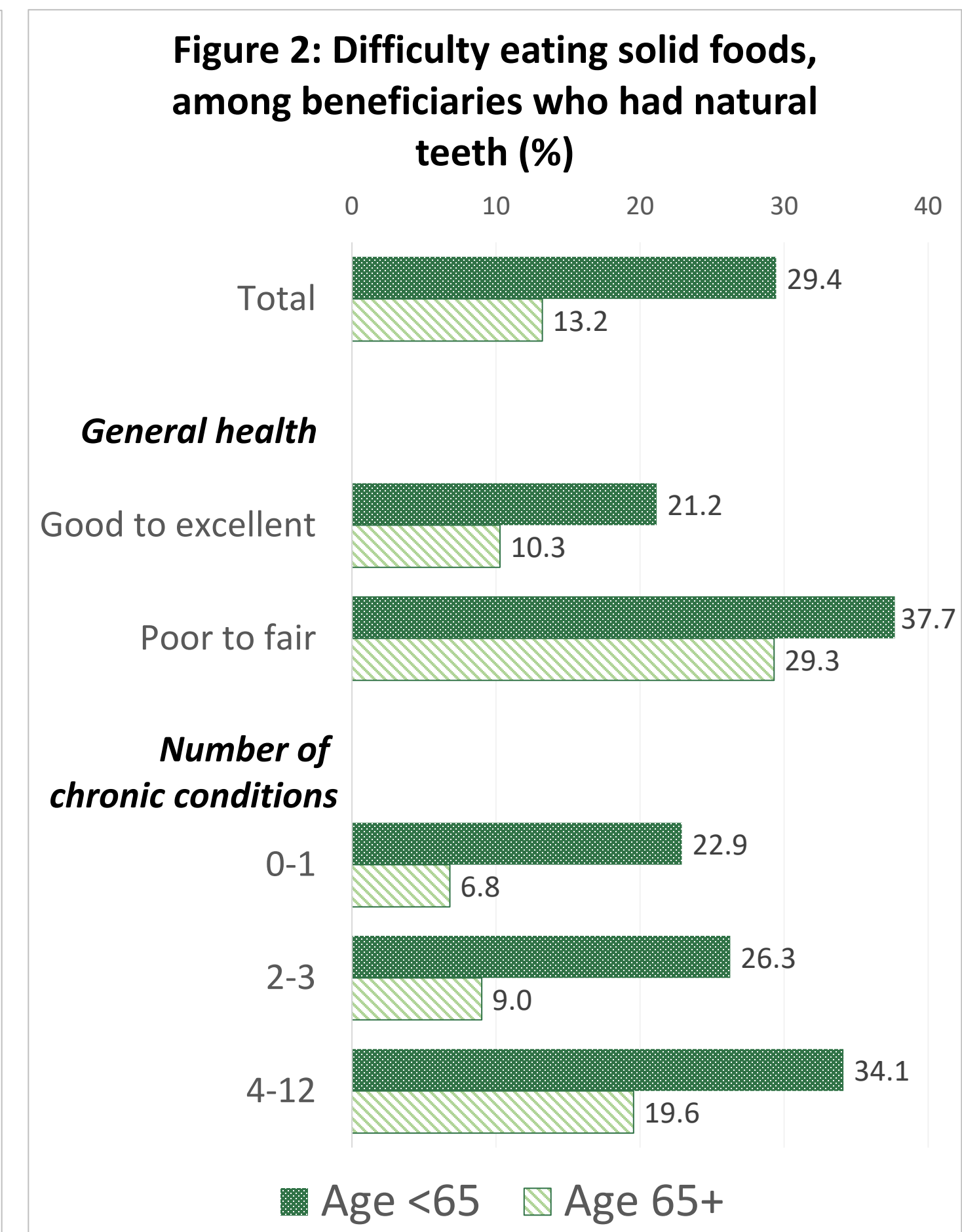
**Number of chronic conditions** included those listed in Figures 4-6, plus Parkinson's disease. Beneficiaries reported whether they had ever been diagnosed with these conditions.

## Prevalence of oral health issues

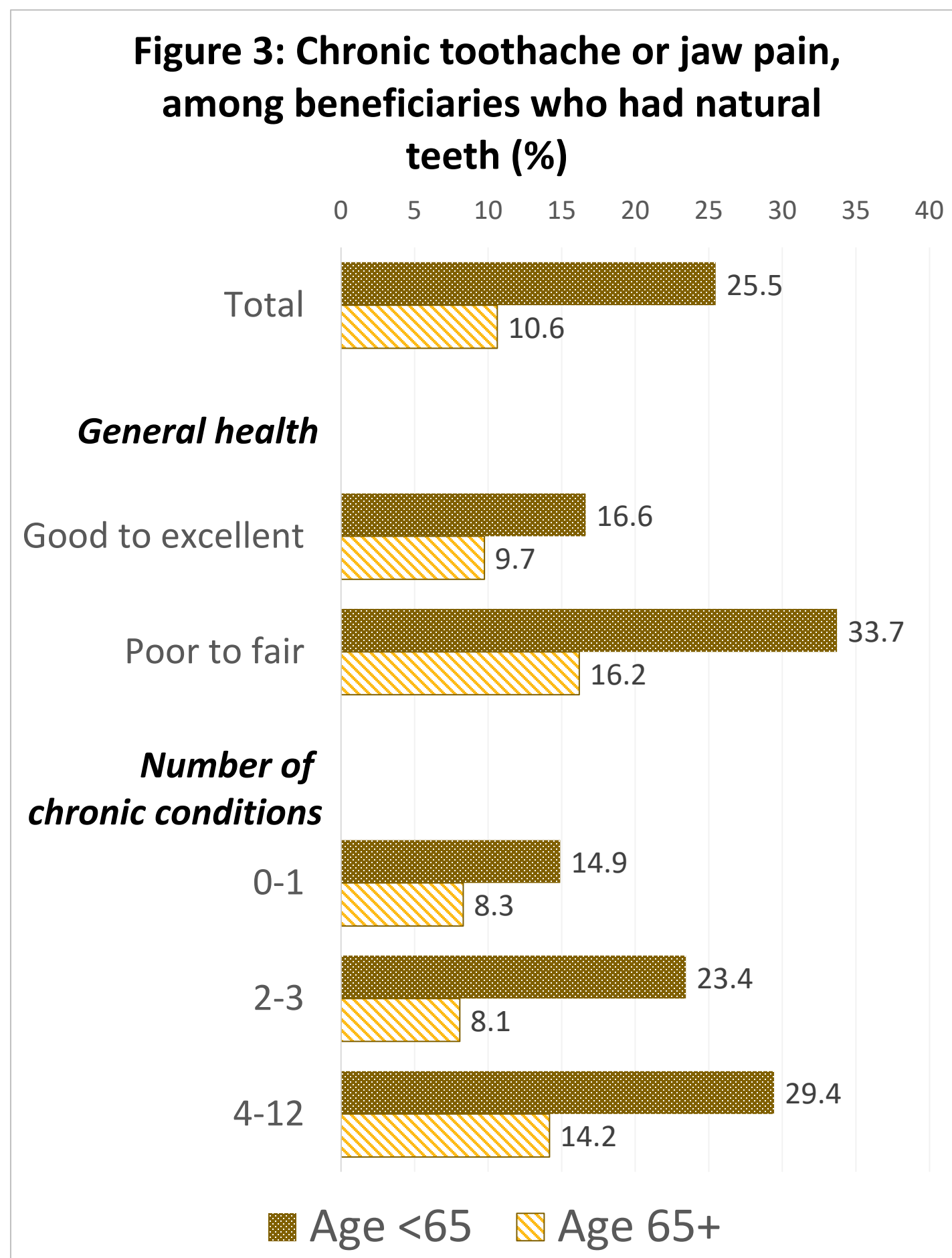
### Loss/removal of all natural teeth



### Difficulty eating due to mouth/teeth issues



### Chronic tooth and jaw pain



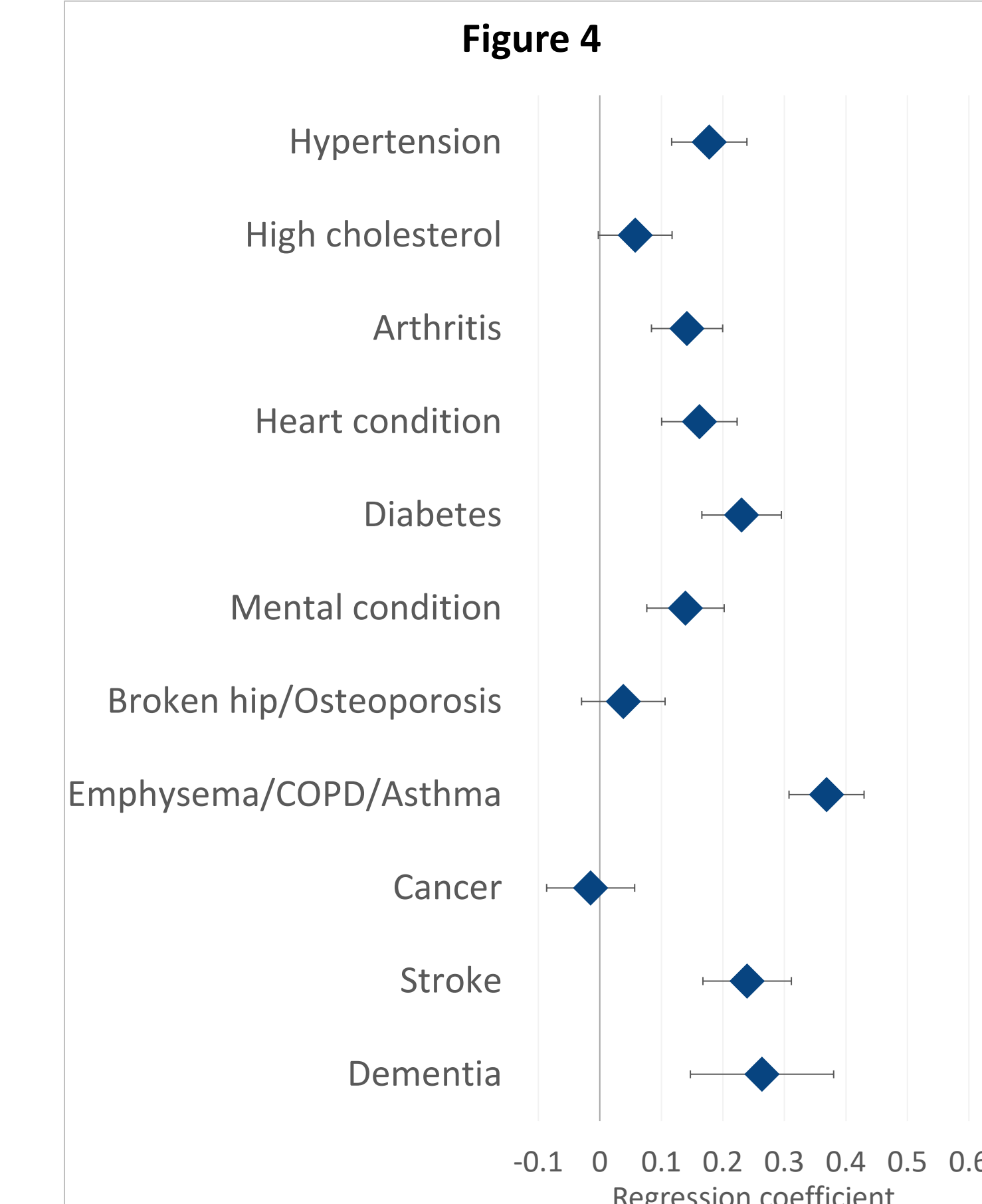
Source data: 2021 MCBS Survey File

## Individual chronic conditions

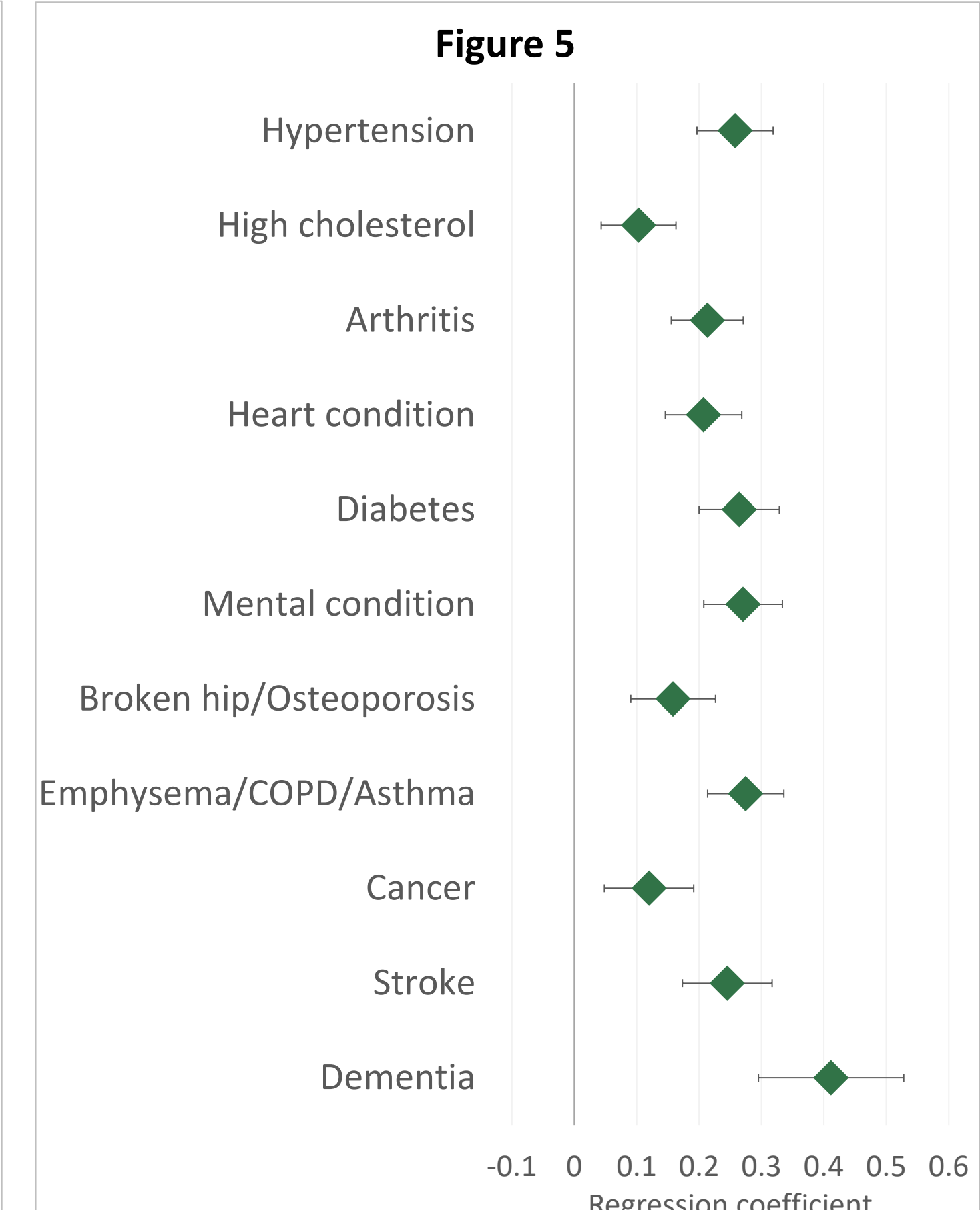
Relationships between individual chronic conditions and oral health outcomes, adjusted for age group. Shown are weighted regression coefficients.

More positive = Stronger association

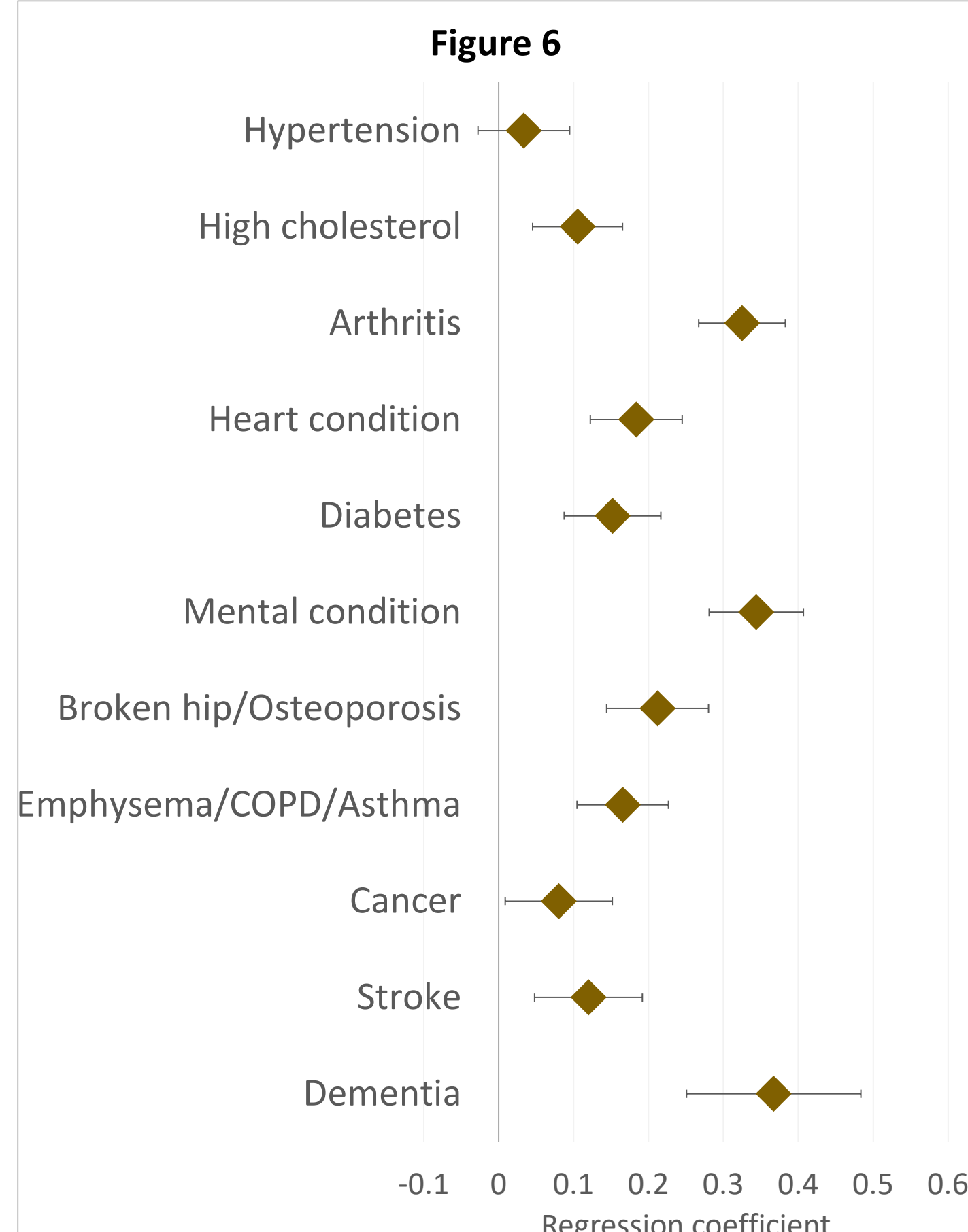
### Loss/removal of all natural teeth



### Difficulty eating due to mouth/teeth issues



### Chronic Tooth and jaw pain



Source data: 2021 MCBS Survey File

Error bars represent 95% confidence intervals. More positive values reflect stronger relationship between the specified chronic condition and oral health outcome.

## Summary of findings

Among community-living Medicare beneficiaries...

- Beneficiaries aged 65 years and younger were more likely than beneficiaries aged 65 and older to have oral health problems.
- Oral health problems were associated with general health problems in both the under-65 and 65+ age groups.
  - Beneficiaries who were in worse general health were also more likely to have lost their natural teeth, have difficulty eating, and have chronic tooth and jaw pain.
- IADL/ADL limitations were also associated with each of these three oral health outcomes, especially difficulty eating.
- People who had these three oral health outcomes tended to also had more chronic conditions.
  - After adjusting age, most of the individual chronic conditions we tested were associated with these three oral health outcomes.

**The analysis here does not imply causation.**

- The relationships between oral health and general health are likely to be complex, without a unidirectional causal pathway that applies across all cases.

## How to access this data

This data is available as part of the 2021 MCBS Survey Files. Access to these files requires a fee and a completed data use agreement. For additional information, see

<https://www.cms.gov/mcbs>

For questions, please contact us at:  
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