Comments on: How well can Medicare Records Identify Seniors with Cognitive Impairment Needing Assistance with Financial Management by Weir and Langa

Irena Dushi
Social Security Administration

Presented at the 20th Annual RRC Meeting, Washington DC
August 1-3, 2018

The opinions expressed here are my own and do not represent the view of SSA
Key Questions

- How accurate are Medicare records at identifying elderly with Cognitive Impairment (CI)?

- To what extent do seniors with CI need assistance with money matters?
Key Takeaways

**Medicare records vs. HRS reports**
- The overall rate of CI (~11.8%) is nearly the same in the HRS and Medicare records.
- Both data sources correctly identify ~ 83% of respondents as not CI and 7% as CI.
- The remaining 10% (equally divided) are misidentified as either CI or not CI. Similar findings in previous work (Østbye et al., 2008; Taylor et al., 2009).

**Need for Assistance**
- Majority of the elderly with CI live in the community and many have family support (consistent with findings from Belbase & Sanzenbacher, 2016, 2017).
- About 20% and 11% of those, respectively, with mild and severe CI have no assistance.
- Those with CI are more likely to report difficulty with managing money and are more reliant on Social Security benefits.
The Main Issue and Importance to SSA

- Longer life expectancy and aging of the baby boomers will lead to an increase in the number and proportion of population aged 65+, particularly of the oldest old (85+).
- Population with Alzheimer disease is projected to almost triple by 2050, especially among the 85+ (Alzheimer Association, 2018).

<table>
<thead>
<tr>
<th>Population with Alzheimer disease (in Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
</tr>
<tr>
<td>65+</td>
</tr>
<tr>
<td>85+</td>
</tr>
</tbody>
</table>

- => An increasing % of elderly will need help with managing money
- Social Security Representative Payee (RP) Program provides support for beneficiaries who are unable to manage their benefits.
  - Belbase & Sanzenbacher (2017) - majority of CI elderly don’t have a RP, only 9% and 2% of those with dementia and with mild CI, respectively, have a RP.
  - Anguelov, Ravida, and Weathers (2015) - in 2013, ~½ million beneficiaries (or 1.5% of retirees) aged 65+ had a RP (43% were non-family member); that number is projected to double by 2050.
These projections suggest that SSA may need to increase the pool of RP for older adults. However, it is not clear how SSA will determine if and when such need arises.

Under the current process of RP Program, SSA determines financial capacity based on:
- Legal evidence, Medical evidence from health care professionals, and Lay evidence from third parties who know the beneficiary.

Unlike DI beneficiaries, the OASI beneficiaries do not undergo periodic disability reviews, and medical information about their CI is not routinely available to SSA.

Congress and others stakeholders have asked SSA to:
- improve the program in identifying elderly beneficiaries with CI who are at high risk of financial incapability, and
- develop a mechanism for periodic re-evaluation of changes in beneficiaries’ financial capabilities over time.
Medicare records as potential source for CI status

- HRS data – allow CI determination based on survey reports
  - HRS collects information about respondents’ need for assistance with financial matters, availability of family or institutional care, and cognitive functions
  - HRS cognitive tests are based on clinical tests adapted for survey interviews
  - Respondents’ cognitive status is assessed through:
    - Respondent interview - measures of episodic and working memory, mental processing speed, orientation, and self-reported difficulties with IADLs,
    - Proxy interview - proxy’s assessment of the subject’s memory and IADLs
    - Interviewer’s - assessment of whether cognition was a reason for proxy
  - The scores from these tests are then validated to the conventional neuropsychological diagnoses in the HRS ADAMS – a national population-based study of dementia

- Medicare claim data - allow CI determination based on the diagnostic codes and Part D prescription drug records.
# Medicare vs. HRS identification of CI

<table>
<thead>
<tr>
<th>CMS (Part A, B &amp; D)</th>
<th>HRS No Dementia</th>
<th>HRS Dementia</th>
<th>HRS All</th>
</tr>
</thead>
<tbody>
<tr>
<td>No dementia</td>
<td>83.3%</td>
<td>5.0%</td>
<td>88.3%</td>
</tr>
<tr>
<td>Dementia</td>
<td>5.2%</td>
<td>6.6%</td>
<td>11.8%</td>
</tr>
<tr>
<td>All</td>
<td>88.4%</td>
<td>11.6%</td>
<td>100%</td>
</tr>
</tbody>
</table>

(N=6,676)

**False Positive**

**Correctly identified**

**False Negative**
Previous research indicates that utilization varies extensively among healthcare regions (Wennberg et al., 2014):

- Moving from a region with low healthcare spending to one with high spending led to more visits to physicians, referrals, diagnostic tests, and imaging exams.
- Moving to regions with lower intensity of care led to fewer diagnoses.

False Negative cases:
- Variation in physician practices – Is it possible that this group includes those that are untreated or undiagnosed due to non-recommended care? Maybe these are people with mild CI who have not been medically evaluated.
- Is it possible that these are borderline cases in the HRS classification of CI?

False Positive cases – How valid is the CI diagnosis from Medicare records?
- Variation in physicians practices – Is it possible that this group includes those served by high-utilization providers or over-treated patients? Do they have more claims?
- Do these elderly have other chronic conditions and thus interact more often with the medical system, so they are more likely to be identified?
Recommendations

• Further examination of the three groups: False Positive, False Negative and correctly identified as CI:
  o What are the characteristics of people in these groups (e.g. education),
  o In which of the separate HRS cognitive tests do they do better or worse,
  o Can we use other information in the HRS to validate their CI status - difficulties with ADLs (eating, dressing, bathing) and if doctor diagnosed dementia,
  o How do these groups differ in terms of the number and type of claims, and whether the diagnosis was from inpatient, outpatient, or physician office setting.

• Future work:
  o Use the longitudinal aspect of the HRS to examine the timing of self-reported memory problems and of Medicare claims indicating dementia (lead vs. lag indicator).
  o Use SSA benefit records matched to HRS (when available) to examine the prevalence of RP among respondents classified with/without CI and how the timing of assignment of a RP relates with self-reported memory problems.

• Can genetic information in the HRS be used to validate identification of dementia (APOE -e4 gene)?
Conclusion

- Overall, Medicare claim and prescription drug records do a good job in identifying elderly without CI (~83%) and with CI (~7%).

- This suggests that Medicare records may be an additional source (if data sharing is legally possible) to identify the pool of SSA beneficiaries with CI who are at high risk of needing a RP.

- However, we need to be cautious of the fact that ~5% of the elderly will be misidentified as CI from the Medicare records whereas another ~5%, likely with CI, will not be identified.
Thank you