Understanding Consent for Physical Measurements, Biomarker Collection, and Administrative Data Linkage in the Health and Retirement Study

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Enhancing self-reports with...

• Anthropometrics
• Physical functions
• Biomarkers
  • Saliva
  • Blood
• Administrative data
  • Social Security No.
  • Medical Records No.
Pros and Cons

+ Objective data
+ Readily available

- How objective?
- How readily?
- How accurate?

- Consents required; an added layer of nonresponse
  → Same issues as nonresponse
Health and Retirement Study

• Data from 2006, 2008, and 2010
  - Streamlined consent processes
  - Enhanced face-to-face mode
  - Sequence:
    Physical measures → Saliva → Blood → Social Sec. No.

• Analysis
  - Those who were asked on 4 consents in the same year
  - Ages 50+ (Some 65+)
  - Excludes proxy responses
  - n=11,467
Results – Consent rates and status

<table>
<thead>
<tr>
<th></th>
<th>Consent Rate</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>93.0%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Saliva</td>
<td>83.5%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Blood</td>
<td>84.9%</td>
<td>0.3%</td>
</tr>
<tr>
<td>SSN</td>
<td>63.8%</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

**Detailed Combined Consent Status**

- Yes all: 56.9%
- Yes all but SSN: 23.6%
- No all: 4.4%
- Yes Phy only: 4.4%
- Other: 10.8%
Results – Physical measure consent rates

Physical Measure Consent Rates by Respondent Characteristics

- 93% 94% 93% 91%
- 93% 93% 94% 92%
- 92% 91% 93% 94%
- 91% 93% 93% 93%
- 93% 93% 93% 93%
- 93% 93% 93% 93%
- 89% 94%
Results – Saliva consent rates
Results – Blood consent rates
Results – SSN consent rates
## Results – Multivariate consent

<table>
<thead>
<tr>
<th></th>
<th>Yes to Physical</th>
<th>Yes to Saliva</th>
<th>Yes to Blood</th>
<th>Yes to SSN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (yrs)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Female vs. Male</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Hisp_E vs. White</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hisp_S vs. White</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Black vs. White</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other vs. White</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Educ (yrs)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Married vs. Not</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td># Chronic conditions</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Cognition score</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

*Significant at p<0.05*
Implications

• Consent rates not 100%
• Consent to the first request matters (perhaps)
• Consent rates vary by respondent characteristics
• Consistently lower consent rates by
  • Blacks compared to Whites
  • Not married compared to married
  • Those with lower than higher cognitive capabilities
    → Less likely to be in the data requiring consents
Future Plans

• More correlates of nonconsent
• Detailed consent status as dependent variable
• Why do cognitive capabilities matter?
  - Digital recording
• Consent vs. Actual completion
  - Acquiescence bias?