The Impact of Question Order on Familiarity with the Affordable Care Act (ACA): Part-whole Order Effects and Health Policy Knowledge in Minnesota

Alisha Baines Simon, Minnesota Department of Health
Kathleen Thiede Call, SHADAC
Stefan Gildemeister, Minnesota Department of Health
Susan A. Sherr, SSRS
Giovann Alarcón, SHADAC
Jessie Kemrick Pintor, SHADAC

69th AAPOR Annual Conference
May 17, 2014

Overview

• Question Order Effects
• The Minnesota Health Access Survey
• Methods
• Results
• Conclusions

Question Order Effects

• Question order effects occur when the order in which questions are asked on a survey impact the response(s) to those questions.
• Part-whole order effects occur when a set of questions about the same topic include 1 question that is general in nature, and other that are more specific
  • Assimilation: responses to the “parts” are assimilated into the answer about the “whole.”
  • Contrast: responses to the “whole” contrast with the answer about the “parts.”

Question Order Effects and Policy

• Limited research on order effects and policy
• Overall knowledge about a policy does not necessarily indicate understanding of that policy

The Minnesota Health Access Survey (MNHA)

- Biennial survey of health insurance coverage and access
- Estimates of health insurance coverage in Minnesota by age, region, race/ethnicity, income and other socioeconomic categories
- Access to coverage
- Utilization of health care and access to health care
- Random Digit Dial (RDD) dual-frame telephone survey
- Area probability sample (by phone numbers)
- Stratified by region in the state
- Oversample areas with high concentrations of races/ethnicities, children within households
- 2013 Numbers:
  - 11,778 completed interviews
  - 48% Response Rate (40.4% cell phone, 50.4% landline)

Affordable Care Act (ACA) Questions on the MNHA

- One question on understanding personal impact of the ACA (general impact question), “whole”
- Five questions about familiarity with provisions of the ACA going into effect January 2014, “parts”
  - Medicaid Expansion
  - Insurance marketplaces (MNsure in Minnesota)
  - Premium subsidies for plans purchased in the marketplaces
  - Guaranteed issue (insurance companies must cover everyone regardless of pre-existing conditions)
  - Individual mandate (everyone must have health insurance)
- Introduction was the same for both questions.

Methods: Randomized Order Effects Experiment

- To assess order effects related to the ACA questions:
  - Order of general impact question was randomly assigned (before or after provisions questions)
  - Order of provisions was also randomly assigned, although premium subsidies question always followed the marketplace question
- Analysis includes 10,745 adults (aged 18+) who answered all 6 health reform questions
- Survey was in the field from August 9, 2013 – November 10, 2013

Text of Minnesota’s ACA Questions

Intro: The national health care reform law—known as the Affordable Care Act, has several parts that will go into effect starting January 2014.

General Impact Question: Do you feel you have enough information about the health reform law to understand how it will impact you? (yes/no)

Provisions Questions: How familiar are you with the part of the law that…

a. allows more people to get Medical Assistance or Medicaid.

b. sets up a new “marketplace” or “exchange” in the state where people can shop for health insurance. Minnesota’s exchange is called MNsure.

c. allows some people who buy their coverage in the marketplace or exchange to get tax credits or subsidies to help pay the premium.

d. requires insurance companies to offer coverage even if someone has a health problem they already know about, called a pre-existing condition.

e. requires everyone to have health insurance coverage, called the individual mandate.)
Methods: Research Questions

Main hypothesis:
• Those who are asked about familiarity with provisions first ("parts") will be more likely to say they understand how the ACA will impact them.
• The "parts" provide information which the respondent can use to assess their understanding of the law (assimilation).

Secondary research questions:
• Will understanding of specific provisions be impacted by the order of the general impact question?
• Will knowledge of provisions change if more familiar provisions are asked about first?

Methods: Variables

• Order effects
  - Order of general impact question (first or second) (N=5355 (first), N=5390 (second))
  - Most familiar provisions (guaranteed issue or individual mandate) asked about first (N=5345 (first), N=5400 (second))

• Responses to questions
  - General Impact Question: Percent reporting they had enough information about health reform to understand how it will impact them
  - Provisions: Percent Very or Somewhat familiar with provisions
  - Familiarity Score: Average score on 5 provisions questions, where 1=very unfamiliar and 4=very familiar

• Other variables
  - Current Health Insurance Coverage
  - Income (% Federal Poverty Guidelines (FPG))
  - Demographics (age, race/ethnicity, education, employment, geography measured by county)

Methods: Analyses

• Order effects of general impact question
  - T-test on % responding yes and question order
  - T-test on familiarity score for provisions and question order
  - T-test on % familiar for each provision and question order

• Order effects of provisions
  - T-test on familiarity score and whether most familiar provisions were asked first
  - T-test on % familiar with each provision and whether most familiar provisions were asked first

Results
Overall Order Effects

Percent responding “yes” to general impact question by question order

<table>
<thead>
<tr>
<th>Question Order</th>
<th>Yes Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>49.7%*</td>
</tr>
<tr>
<td>Second</td>
<td>45.0%</td>
</tr>
</tbody>
</table>

Familiarity score\(^1\) by question order

<table>
<thead>
<tr>
<th>Question Order</th>
<th>Familiarity Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>2.58</td>
</tr>
<tr>
<td>Second</td>
<td>2.57</td>
</tr>
</tbody>
</table>

* Statistically significant difference between question orders at \(p<0.05\) level

1 Familiarity score is the average for the 5 provision questions. Values are from 1-4, with 1 being very unfamiliar and 4 being very familiar

Source: 2013 Minnesota Health Access Survey

Familiar with Provisions Based on Order of General Impact Question

<table>
<thead>
<tr>
<th>Provision</th>
<th>Yes Response Rate</th>
<th>Question Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid Expansion</td>
<td>54.2%</td>
<td>General Impact Question Second</td>
</tr>
<tr>
<td>MNsure (marketplace)</td>
<td>55.3%</td>
<td>General Impact Question First</td>
</tr>
<tr>
<td>Subsidies/tax credits</td>
<td>41.2%</td>
<td>General Impact Question Second</td>
</tr>
<tr>
<td>Pre-existing conditions</td>
<td>71.6%</td>
<td>General Impact Question First</td>
</tr>
<tr>
<td>Individual Mandate</td>
<td>73.3%</td>
<td>General Impact Question Second</td>
</tr>
<tr>
<td>Familiar with Medicaid Expansion</td>
<td>73.0%</td>
<td>General Impact Question First</td>
</tr>
</tbody>
</table>

* Statistically significant difference between question orders at \(p<0.05\) level

1 Familiarity score is the average for the 5 provision questions. Values are from 1-4, with 1 being very unfamiliar and 4 being very familiar

Source: 2013 Minnesota Health Access Survey

Familiarity Score\(^1\) if Most Familiar Provisions are Asked About First

<table>
<thead>
<tr>
<th>Provision</th>
<th>Familiarity Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-existing conditions or Individual Mandate</td>
<td>2.63*</td>
</tr>
<tr>
<td>Pre-existing conditions or Individual Mandate not the first provision asked about</td>
<td>2.53</td>
</tr>
</tbody>
</table>

* Statistically significant difference between question orders at \(p<0.05\) level

Source: 2013 Minnesota Health Access Survey

Differences in Familiarity if Most Familiar Provisions are Asked About First

<table>
<thead>
<tr>
<th>Provision</th>
<th>Yes Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid Expansion</td>
<td>53.5%</td>
</tr>
<tr>
<td>MNsure (marketplace)</td>
<td>57.4%*</td>
</tr>
<tr>
<td>Subsidies/tax credits</td>
<td>42.3%</td>
</tr>
<tr>
<td>Pre-existing conditions</td>
<td>74.2%*</td>
</tr>
<tr>
<td>Individual Mandate</td>
<td>74.8%*</td>
</tr>
</tbody>
</table>

* Statistically significant difference between question orders at \(p<0.05\) level

Source: 2013 Minnesota Health Access Survey
Conclusions

• Part-whole, assimilation order effects exist in policy questions about the ACA
  • While familiarity with specific provisions of the ACA were the same regardless of the when the general impact question was asked, those who were asked about the provision first were more likely to say they understood how the ACA would impact them.
  • Familiarity with the provisions (parts) questions was not impacted by the order of the general impact question.
  • When more familiar provisions were asked first (pre-existing conditions and individual mandate) this increased familiarity overall, and specifically, familiarity with pre-existing conditions, the individual mandate and the marketplace.

References

Acknowledgements

- MDH
  - Cortney Jones
  - Ahna Minge
- SHADAC
  - Karen Turner
- Everywhere else
  - Joanne Pascale, Census
  - SSRS Team
  - David Dutein
  - Luis Tipan
  - Interviewers

Contact & Additional Resources

- Contact:
  - Alisha Simon, alisha.simon@state.mn.us, 651-201-3557
- Interactive Health Insurance Statistics
  - https://pqc.health.state.mn.us/mnha/Welcome.action
- Health Economics Program Home Page
  - www.health.state.mn.us/divs/hpsc/hep/index.html
- SHADAC Home Page
  - www.shadac.org

Sociodemographic predictors of Order Effects for General Impact Question

- Which demographic groups had significant order effects for the general impact question? (univariate)

<table>
<thead>
<tr>
<th>Health Insurance Coverage</th>
<th>Age</th>
<th>Sex</th>
<th>Education</th>
<th>Race/Ethnicity</th>
<th>Income</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>18-25</td>
<td>Male</td>
<td>High school or less</td>
<td>White</td>
<td>0-100% FPG</td>
<td>Not Employed</td>
</tr>
<tr>
<td>Group</td>
<td>26-34</td>
<td>Female</td>
<td>Some College</td>
<td>Black</td>
<td>101-200% FPG</td>
<td>Employed</td>
</tr>
<tr>
<td>Individual</td>
<td>35-54</td>
<td></td>
<td>College or Post graduate</td>
<td>American Indian</td>
<td>201-300% FPG</td>
<td></td>
</tr>
<tr>
<td>Uninsured</td>
<td>55-64</td>
<td></td>
<td></td>
<td>Hispanic/Latinx (any)</td>
<td>301-400% FPG</td>
<td></td>
</tr>
<tr>
<td>65+</td>
<td>65+</td>
<td>Multiple</td>
<td>401+% FPG</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Insurance Coverage</th>
<th>Age</th>
<th>Sex</th>
<th>Education</th>
<th>Race/Ethnicity</th>
<th>Income</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Impact First</td>
<td>Public</td>
<td>18-25</td>
<td>Male</td>
<td>High school or less</td>
<td>White</td>
<td>0-100% FPG</td>
</tr>
<tr>
<td>General Impact Second</td>
<td>1.22 (1.05-1.41)</td>
<td>Group</td>
<td>26-34</td>
<td>Female</td>
<td>Some College</td>
<td>1.39 (1.05-1.82)</td>
</tr>
<tr>
<td>Individual</td>
<td>35-54</td>
<td></td>
<td>College or Post graduate</td>
<td>American Indian</td>
<td>0.46 (0.34-0.61)</td>
<td></td>
</tr>
<tr>
<td>Uninsured</td>
<td>55-64</td>
<td></td>
<td></td>
<td>Hispanic/Latinx (any)</td>
<td>0.44 (0.32-0.59)</td>
<td></td>
</tr>
<tr>
<td>65+</td>
<td>65+</td>
<td>Multiple</td>
<td>0.56 (0.38-0.81)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sociodemographic predictors of Order Effects for General Impact Question

- Which demographic groups had significant order effects for the general impact question? (multivariate)