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Recommendations for Using Surveys to Measure Health Coverage Post-Reform: Lessons from Massachusetts

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Summary

This brief summarizes the paper "Preparing to Measure Health Coverage in Federal Surveys Post-Reform: Lessons from Massachusetts," by Pascale, J., Rodean, J., Leeman, J., Cosenza, C., & Schoua-Glusberg, A. 2013. *Inquiry 50*(2): 106-123.

Author's Note:
This report is released to inform interested parties of research and to encourage discussion. The views expressed are those of the authors and not necessarily those of the U.S. Census Bureau.

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Introduction

Soon after the Affordable Care Act (ACA) was signed in 2010, the US Census Bureau began exploring ways of adapting surveys that measure insurance coverage to accommodate the new law, focusing on the Current Population Survey (CPS) and the American Community Survey (ACS). At the time, Massachusetts, with its ACA-like 2006 reforms, was the only place in the country with real-world experience offering coverage through an insurance exchange (or "marketplace"). So in 2011 the Census Bureau collaborated with Research Support Services (RSS) and the University of Massachusetts Center for Survey Research (CSR) to carry out a research project. Methods included expert consultation with individuals involved in the state's implementation of health reform since 2006, focus groups (four in total) and one-on-one cognitive interviews (134 in total) with marketplace enrollees to explore how to adapt questionnaires to capture coverage obtained through the new marketplaces. Test subjects were recruited with the help of the state marketplace ("The Massachusetts Connector") and in most cases the enrollees' coverage and subsidization status were known going in to the testing. The purpose of the focus groups was to flesh out general perceptions of the marketplace, terminology enrollees used for the coverage, and pathways to enrollment. The purpose of the cognitive interviews was to go through the experimental adaptations to the CPS and ACS standardized surveys to explore whether the questions on marketplace participation and subsidization were understood as intended and prompted accurate reporting. Focus groups and cognitive interviews were conducted in English and Spanish. This brief summarizes the results of this research and outlines recommendations for measuring health insurance coverage following the introduction of marketplace plans.

Guiding Principles and Suggested Wording for Adapting Surveys Post-Reform

A. *Use pre-reform question series for establishing whether covered or not, and the source of coverage*

B. *Add follow-up questions*:*

1. Is that coverage through [STATE PORTAL], such as [MARKETPLACE NAMES]?

YES –> Q1a
NO –> Q2

1a. What do you call it – [STATE PORTAL], [MARKETPLACE NAME1, MARKETPLACE NAME2, etc.]

2. Is there a monthly premium for this plan?

READ IF NECESSARY: A monthly premium is a fixed amount of money people pay each month to have health coverage. It does not include copays or other expenses such as prescription costs.

YES –> Q3
NO –> Next Section

3. Is the cost of the premium subsidized based on your/family income?

READ IF NECESSARY: Subsidized health coverage is insurance with a reduced premium. Low and middle income families are eligible to receive tax credits that allow them to pay lower premiums for insurance bought through healthcare exchanges or marketplaces.

**The follow-up questions on marketplace coverage, technically speaking, do not apply if the source of coverage is Medicare, military, or ESI (with the exception of SHOP), since enrollees in these plans do not go through the marketplace for their coverage. If reporting of these sources in the pre-reform series is reasonably accurate, respondents reporting these coverage sources should be skipped out of the marketplace questions, because the questions would only add burden. If, however, respondents report these sources in error (e.g., they have Medicaid but report it as Medicare instead and do not also report the Medicaid), then the follow-up questions on marketplace coverage should be asked so that those data points can be fed into the alogrithm that identifies marketplace coverage.*

Survey-Based Measurement of Post-Reform Coverage Changes: Key Issues

Measuring Changes in Coverage over Time

Under the ACA, conventional sources of coverage—employers, direct purchase, Medicaid, Medicare, etc.—remain largely intact. To assess the impact of the ACA over time, then, questions on coverage through conventional sources should remain the same pre- and post-reform to the extent possible. There are mixed opinions and perceptions of marketplace plans – whether they are public or private, and whether they are a sub-category of one of the conventional types of coverage (e.g., direct purchase) or whether they are really a new type of coverage altogether. So in terms of measurement, inserting a category for marketplace plans within an existing list of coverage types is likely to disrupt measurement of those conventional sources of coverage, and it also risks double-reporting of the same plan across multiple categories. The research in Massachusetts suggested that an effective alternative strategy is to maintain the existing series of questions on conventional coverage, and add a short set of follow-up questions to determine whether the coverage was obtained via the marketplace and whether it was subsidized. This "downstream" adaptation approach allows analysts to monitor how levels of coverage through conventional sources increase or decrease over time and, from within those sources, to separate marketplace plans from non-marketplace plans.

Conceptualizing the Exchange: Public, Private or Both?

Massachusetts residents enrolled in marketplace coverage interpreted this coverage as coming from a range of sources, including the government or state, direct purchase, Medicaid, other/non-specified source, and some thought of it as coming from multiple sources simultaneously. As a result, in surveys like the ACS that use the "laundry list" approach to coverage--listing several different types of conventional sources of coverage—there is no natural "home" for marketplace coverage from a respondent's perspective.

Two Massachusetts surveys—the Massachusetts Health Interview Survey and the Massachusetts Behavior Risk Factor Surveillance System Survey—opted to add marketplace coverage as a separate category to their laundry list of coverage types. This adaptation performed well for measuring the overall insurance rate (i.e., respondents on the exchange did correctly report having coverage). However, the series did not perform well in accurately capturing plan types: respondents reported concurrent coverage through the subsidized and unsubsidized exchange and Medicaid, there was often little correlation between reported plan type and income, and researchers estimated that marketplace enrollment was underreported.

Findings suggested that asking about source of coverage alone would be inadequate for capturing marketplace coverage and possibly problematic for monitoring shifts in levels of conventional coverage.

Distinguishing between Medicaid and the Marketplace

When health reform was rolled out in 2006, Massachusetts required all marketplace applicants to first apply for Medicaid. If they did not qualify for Medicaid, then the path was clear for them to apply for marketplace coverage. These mechanics created confusion about the distinction between Medicaid and the marketplace. Some individuals who set out to apply for the marketplace but in the end qualified for Medicaid still thought they were enrolled in the marketplace. Similarly, some who initially applied for Medicaid but did not qualify and were enrolled in the marketplace thought they were actually enrolled in Medicaid. Even when respondents could distinguish between the two programs, some thought that one of the two programs was an umbrella organization over the other. Some respondents also blurred the programs because of their past experience with public programs. The perception was, generally speaking: they always just called it Medicaid so, in the end, even if it had a different name now, it was still just Medicaid. A survey workaround was identified to distinguish between Medicaid and marketplace coverage in the form of a question on premiums. At the time the Massachusetts research was carried out, all exchange programs (even those heavily subsidized) were expected to carry at least a modest premium, and most Medicaid plans did not carry a premium, so a yes/no question on whether the plan carried a premium could serve as a data point to help distinguish Medicaid from the marketplace

Implications for State Surveys: A General Approach to Adapting Surveys Post-Reform

The findings on the three issues identified above led to the development of a general strategy for survey adaptation, shown in the text box on page 1. Once the necessary data points are collected, researchers can examine respondent misreporting and inconsistencies in order to develop an algorithm to categorize plan type, taking all relevant evidence into consideration. The National Center for Health Statistics has developed editing rules for such an algorithm, and these rules are available online at www.cdc.gov/nchs/data/nhis/health_insurance/2014%20exchange_coding_%20rules.pdf.

Findings from Testing of New Questions in the ACS and CPS

A. Baseline Questionnaires and Adaptations for Health Reform

A fundamental CPS redesign was in its final testing stages and headed for full implementation in March 2014, so the CPS redesign was used as the baseline questionnaire for adaptation of exchange questions. To establish plan type, respondents were first asked a yes/no question on coverage, and then they were asked about the general source of the coverage —job, government, or some other source—and follow-up questions tailored to each of these three general sources captured the necessary detail, such as type of government plan and policyholder. For the ACS, the standard battery of questions was used as a baseline.

In keeping with the recommendations discussed above, only minor changes were made to the core set of pre-reform ACS and CPS questions that established conventional source of coverage. Figure 1 displays these questions (1-6) for the redesigned CPS, and Figure 2 displays the ACS pre-reform questions (1-9), and in

1. Do you NOW have any type of health plan or health coverage?
   - Yes —>2
   - No —>Questions on Medicare, Medicaid, state programs, exchange programs
2. Do you get that coverage through a job, the government or state, or some other way?
   - Job —>Questions on relationship to military, policyholder, SHOP, start date
   - Government or state —>4
   - Other, don't know, refused —>3
3. How do you get that coverage? Is it through a parent or spouse, do you buy it yourself, or do you get it some other way?
   - Parent/spouse —>Who is policyholder? Does parent/spouse get it thru job, buy, other? —>7
   - Buy it —>Who is policyholder? 7
   - Other —> Questions on misc plans (e.g., school, Indian Health Service)
4. Is that coverage related to a JOB with the government or state?
   - Yes —> Back to job path
   - No —> 5
5. What type of coverage is it – Medicaid, CHIP, Medicare, military or VA care, or some other type of coverage?
   - Medicaid, other, dk, ref —> 6
   - Medicare —> Questions on start date
   - Military —> Questions on type of military plan, start date
6. What do you call the program?
   PROBE: OK so that would be the plan name. What do you call the program? Some examples of programs in Massachusetts are MassHealth, Commonwealth Care, Commonwealth Choice and other programs through the Health Connector.
   [response categories = All known Medicaid and state government programs and all exchange program names, including portal]
   - Medicaid, CHIP, MassHealth, other, dk, ref —> 7
   - CommCare, CommChoice —> 9
7. Is that coverage through the Health Connector, such as Commonwealth Care or Commonwealth Choice?
   - Yes —> 8
   - No —> 9
8. Which plan is it – Commonwealth Care or Commonwealth Choice? —> 9
9. Who is the policyholder? —> 10
10. Is there a monthly premium for this plan?
    PROBE: A monthly premium is a fixed amount of money people pay each month to have health coverage.
    - Yes —> 11
    - No —> Questions on start date
11. Is the cost of the premium reduced based on your/family income? —> Questions on start date

Figure 1. Final Round of Questions in Current Population Survey (CPS) Redesign Testing
Underlined text denotes exchange-related questions.

Figure 2. Final Round of Questions in American Community Survey Testing

Underlined text denotes exchange-related adaptations.

1. **I am now going to ask you some questions about your health insurance and health coverage. Are you currently covered by health insurance through a current or former employer or union of [yours/yours or another family member]?**
2. **Are you currently covered by health insurance purchased directly from an insurance company by [you/you or another family member]?**
3. **Are you currently covered by Medicare, for people age 65 or older or people with certain disabilities?**
4. **Are you currently covered by Medicaid, Medical Assistance, or any kind of government-assistance plans for those with low incomes or a disability?**
5. **Are you currently covered by TRICARE or other military health care?**
6. **Are you currently covered through the Veteran's Administration or have you ever used or enrolled for VA health care?**
7. **Are you currently covered through the Indian Health Service?**
8. **Are you currently covered by any other health insurance or health coverage plan?**
9. **What is the name of the health care plan? Answer Question 10 if this person is covered by health insurance. Otherwise SKIP to question 12.**
10. **Is there a monthly premium for this plan? PROBE: A monthly premium is a fixed amount of money people pay each month to have health coverage. It does not include copays or other expenses such as prescription costs.**
    - **Yes —> 11a or 11b**
    - **No —> question 12**
11. **Is the cost of the premium subsidized based on family income?***

both figures the marketplace-related adaptations are underlined.

B. Exchange Participation

Current Population Survey

In the CPS, after Questions 1 through 6 asked about conventional sources of coverage, a set of questions on exchange participation were asked (Questions 7 and 8) for all sources except ESI, Medicare, and military. Questions 7 and 8 take full advantage of the capacity of the CPS to incorporate state-specific program names, integrating the name of the portal (the Health Connector) and both programs (CommCare and CommChoice). An answer of "yes" to Q7 was followed by a question to capture the specific program name. The purpose of this two-question strategy was to accommodate states that might have, or might at some point introduce, multiple names for the portal and/or for the subsidized and unsubsidized programs (as is the case in Massachusetts). Often these programs have similar-sounding names, and/or the names change over time, both of which could induce respondent misreporting (as has been observed with Medicaid in many states). This two-question strategy allows the maximum amount of stimuli to be presented in the first question in order to trigger recognition of the program names and accommodate respondents who cannot distinguish among program names. The second question then asks the respondent to name the specific program, if they do know this level of detail, in order to provide more precision. The ultimate goal is that even if respondents are confused about the specific name of their coverage (i.e., they cannot answer Question 8), the coverage is at least captured as related to the marketplace.

One other note on the CPS testing is that early versions asked if the coverage was through "a job, the government or some other source." In that context, the term "government" connoted only federal government for some respondents. So to adequately capture marketplace plans, the phrase was changed to "government or state" so that those who thought of marketplace plans as strictly state government, and who thought the word "government" was limited to the federal government, would find a response category that met their conception of the coverage.

American Community Survey

Due to the ACS mail-out/mail-back mode for some of its respondents, it was not possible to include state-specific program names within the ACS questionnaire. Therefore, one strategy for determining whether a reported plan was obtained on the marketplace was to use more generic, non-state-specific terms and phrases (e.g., "Marketplace," "Exchange," "a type of marketplace where people can compare health plans and then apply or purchase coverage," etc.). However, these terms and phrases were not recognized when tested (note testing was conducted in 2011/2012 before the national ACA roll-out, so popular conceptions of the marketplace could, of course, change with more publicity and lived experience). Given results at the time, rather than attempting to determine whether the coverage was from the marketplace per se, the ACS incorporated follow-up questions about premiums and subsidization. This would at least render data that could be used to distinguish subsidized marketplace coverage from Medicaid. For example, respondents who reported no premium could be categorized as Medicaid enrollees, and among those who reported a premium, the ones who said the premium was subsidized could be categorized was subsidized exchange enrollees. Among respondents who reported a premium with no subsidy, it would not be possible to distinguish unsubsidized exchange coverage from non-exchange direct-purchase coverage.

C. Premiums and Subsidization

For the most part the straightforward question: "Is there a premium for this plan" was unproblematic in both the CPS and ACS contexts. And while some respondents had difficulty with terms like "subsidized" in the abstract in focus groups, findings indicated that respondents had a very solid understanding of the fact that their coverage type (Medicaid versus marketplace) and level of subsidy were tied to the income and employment situations of themselves and their household members. Thus the question on premium subsidization centered on the general concept of whether the premium was tied to income. Given the complexities of subsidy eligibilities, a decision was made to avoid using technically precise wording and to simply ask whether the premium was tied to "your income" in single-person households and "family income" in multiple-person households.

Based on those findings, a basic template was developed and different terms for the actual concept of subsidization were explored. The template was: "Is the cost of the premium [subsidized/reduced] based on family income?" The version using "reduced" was somewhat problematic because premiums can also increase based on income, and the cost of premiums generally increase every year. Additionally, enrollees opting for lower cost plans would sometimes construe their premium as being reduced because they chose a cheaper plan, not that it was reduced because of their income. Finally, the question induced some respondents to think about whether the benefits were reduced, not the premium. Though there is and was skepticism about the word "subsidized"—and indeed it was not universally understood in the abstract in focus groups—within the context of the questionnaire it resulted in a correct answer in all cases (subsidization status was known before testing). Accordingly, the term "subsidized" was ultimately adopted.

Harmonization across Surveys

All surveys have unique origins, purposes, methodological constraints and differences. When surveys have overlapping content and their estimates differ, it is often difficult to know the extent to which that difference is due to methodological differences. With health reform in particular, certain aspects of the law itself are still in flux, and the language and terms that respondents use and become familiar with are also changing. With that backdrop, in the interest of reducing arbitrary question wording effects as a confounding factor when comparing reform-related coverage estimates across surveys, the following overall strategy is suggested to inform and encourage a continued dialogue across federal, state and private research agencies.

Overall Strategy

1. Capture as many data points as possible, keeping question wording as consistent as possible across federal, state and private surveys
2. Develop an algorithm to categorize coverage type,

given answers to data points

3. Share (or collectively develop) the algorithm across agencies as much as possible
4. Cross-check plan type categorization against other variables available in the dataset that are associated with coverage and subsidy eligibility (household income, employment status, presence and age of children), and triangulate with outside sources of data to check for face validity
5. Share methodologies (question wordering, skip patterns, algorithms), frequencies and estimates across agencies to assess measurement error in order to properly interpret the final estimates

Decisions for Each Survey to Make

1. Can the survey accommodate the 3-question follow-up series?
2. Existing surveys ask this 3-question series using slightly different wording variations; which one is best for a given survey?
3. If the 3-questions series is added, which sources of coverage should be routed to the series?
    a. If respondents misreport marketplace as Medicare, military or ESI, and they are NOT routed to the marketplace series, the marketplace connection will be missed
    b. BUT if researchers have reasonable confidence that marketplace enrollees would NOT misreport that coverage as Medicare, military or ESI, then routing respondents to those questions would only add burden.
4. What algorithm should the survey use to categorize marketplace plans?
5. Does the survey have other variables that could help distinguish Medicaid from marketplace (e.g., medal level, household income)?
6. IF ALL ELSE FAILS and plan type cannot be categorized but insured/uninsured can be:
    a. Does survey have a yes/no on covered/not covered?
    b. Should it?

Conclusion

Testing showed that the exchange-related adaptations made in the CPS redesign were successful, as were those in the ACS. The CPS redesign with exchange questions has been implemented, while the changes to the ACS production instrument are pending additional testing of its core health insurance series. This summary of results of tests to these new questions is intended to provide guidance to other survey researchers as they prepare to adapt their surveys post-ACA. With the goal of improved measurement of health insurance coverage and type, we invite a continued conversation about decisions around question wording, survey routing, and data coding algorithm and judgments given data provided by respondents that is sometimes inconsistent.

About SHADAC

The State Health Access Data Assistance Center is an independent health policy research center located at the University of Minnesota School of Public Health. SHADAC is a resource for helping states collect and use data for health policy, with a particular focus on monitoring rates of health insurance coverage and understanding factors associated with uninsurance. For more information, please contact us at shadac@umn.edu, or call 612-624-4802.

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