

# From Telephone Interview Only to Web First Multimode

What Usability and Field Testing In the Redesign of the National Survey of Children's Health (NSCH) Has Taught Us

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## NSCH Redesign Study

- Study sponsored and directed by the Maternal and Child Health Bureau (MCHB) in the Health Resources and Services Administration (HRSA) an agency of the U.S. Department of Health and Human Services (HHS)
  - National Survey of Children's Health (NSCH) previously fielded by NORC as part of the State and Local Area Integrated Telephone Survey (SLAITS)

## National Survey of Children's Health Redesign Overview

- The NSCH Redesign effort has been initiated to address falling response rates in Computer Assisted Telephone (CATI) surveys
- The NSCH Usability and Field Test objectives include:
  - The combination of two previously existing surveys into one questionnaire
  - Use of Qualitative and Usability testing techniques to evaluate the impact of the change in questionnaire administration mode
  - Testing for Mode Effects within the revised questionnaire

## NSCH Redesign Background

- Work to redesign survey was an extensive, iterative process, which included the combined efforts of:
  - **Maternal and Child Health Bureau (MCHB)** in the Health Resources and Services Administration (HRSA) an agency of the U.S. Department of Health and Human Services (HHS)
  - **NSCH Technical Expert Panel**
    - Including subject matter experts from MCHB, Centers for Disease Control and Prevention, Universities, and other related organizations
  - **NORC**

# NSCH Questionnaire Redesign Challenges

- Re-design from aural mode to visual mode
- Screener + Topical Questionnaires
- Topical Survey administered to parents of children with and without special needs age 0-17 years
- Merge two comprehensive surveys into one instrument
- Limited period of performance to pilot survey
- Developing a survey that could be administered across three modes

# Transitioning a Phone Survey to Mail and Web

- Issues addressed when developing NSCH Questionnaires:
  - Response Options/Order of Responses
  - Instructions
  - Section Headers
  - Text Emphasis
  - Skip Patterns
  - Wording
  - Question Order

# NSCH Questionnaire Sections

- Format of Survey administered across modes
  - Screener
    - Conducted with a household member 18 or older
    - Identify households with children 0-17 years of age and those with CSHCN
  - Topical Sections
    - Health status, insurance, demographics
    - Section G age specific:
      - [0-5] School Readiness
      - [6-17] Your Child's Schooling and Activities

## First Phase of NSCH Redesign: Qualitative Assessments and Usability Testing

- First phase of NSCH Redesign project:
  - 64 qualitative assessments completed Fall 2014





# Qualitative Approach to Evaluate NSCH Questionnaire

- Performed Cognitive and Usability testing
- Cognitive testing performed via paper, computer, and mobile platforms
- \$30 incentive offered to participants.



# Qualitative Approach to Evaluate Questionnaire (Cont.)

HomePage Respondent ID During Screener

## Cognitives Protocol Screener

Respondent ID: Demo

Complete this form while the respondent completes the screener.

Use the buttons below to mark when the respondent starts and finishes the screener.

Start End Screener Probing

Question: CH1

Is Child 1 of Hispanic, Latino, or Spanish origin? (One or more categories may be selected).

Interviewer Observed

Yes, there are problems with this question.

- Comprehension
- Memory
- Decision Making
- Response Options
- Visual Design

Comments: The child's mom is Hispanic and dad is not, so she didn't know what to select.

## Validation: Test-Retest

- Test-Retest follow-up phone interview to determine quality of data
- Income Question and Mode
  - *The following question is about your income and is very important for our research. Think about your total combined family income during last year for all members of the family. Can you please tell us that amount before taxes?*

# Validation: Test-Retest

| Strict Match v. Nonmatch |         |             |
|--------------------------|---------|-------------|
|                          | Matches | Non-Matches |
| 0-5                      | 8       | 4           |
| 6-11                     | 3       | 4           |
| 12-17                    | 2       | 8           |
| Total                    | 13      | 16          |

| Match v. Nonmatch<br>(When exact income answers are converted to the range income question) |         |             |
|---|---------|-------------|
|   | Matches | Non-Matches |
| 0-5   | 8       | 4           |
| 6-11  | 4       | 3           |
| 12-17   | 7       | 3           |
| Total   | 19      | 10          |

## Validation: Criterion

- Criterion validation performed to verify CSHCN status reported by respondents
- 8 respondents signed the provider consent form
  - Results were mixed

## Second Phase of NSCH Redesign: Mode Effect Experiment

- Started on 1/7/2015 after all changes applied from Cognitive survey results

### National Survey of Children's Health

*A study by the U.S. Department of Health and Human Services to better understand the health issues being faced by children in the United States today.*

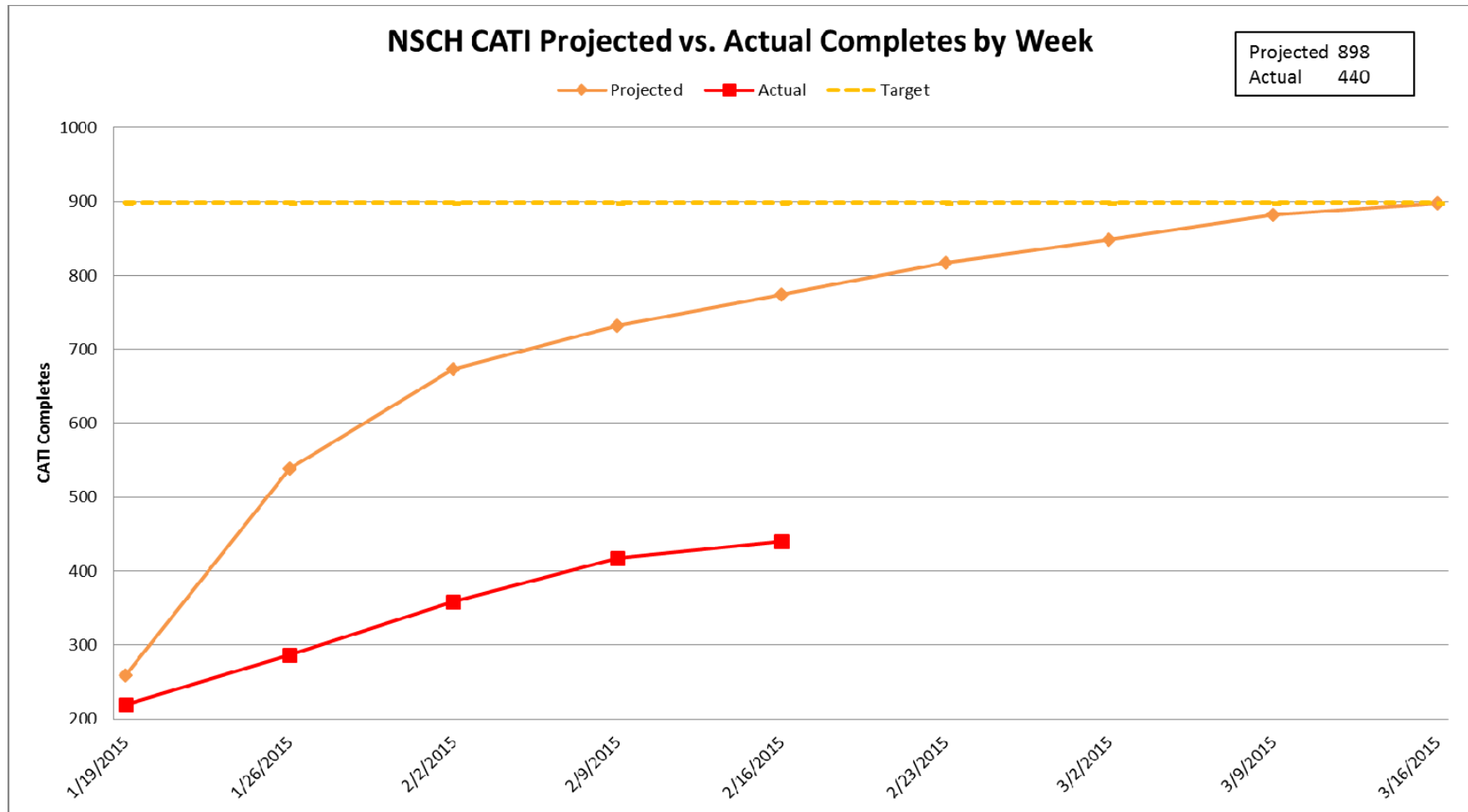


# Testing Survey Across Modes

- Mode Effect Experiment:

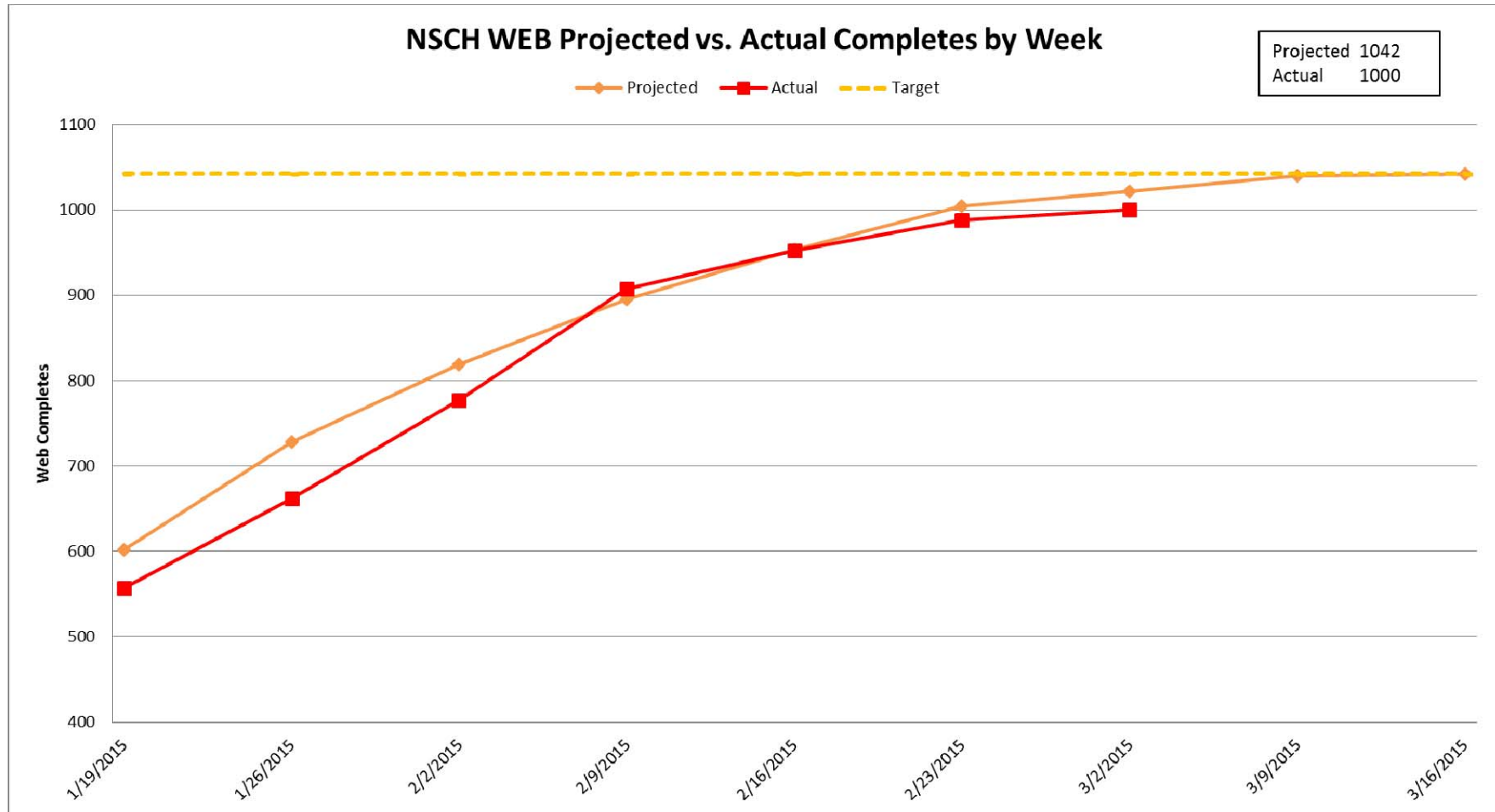
| Computer Assisted Telephone Interview (CATI) | Web                                    | Mail                               |
|--|--|------------------------------------|
| Initial letter mailing                       | Initial letter mailing (\$1 incentive) | Screener Packet 1 (\$1 incentive)  |
| \$10 incentive to those who qualify          | Reminder Postcard                      | Reminder Postcard                  |
|  | Second letter mailing                  | Screener Packet 2                  |
|  |  | Topical Packet 1 (\$2 incentive)   |
|  |  | Reminder Postcard (Not yet Mailed) |
|  |  | Topical Packet 2 (Not yet mailed)  |

# Preliminary Results/Conclusion CATI

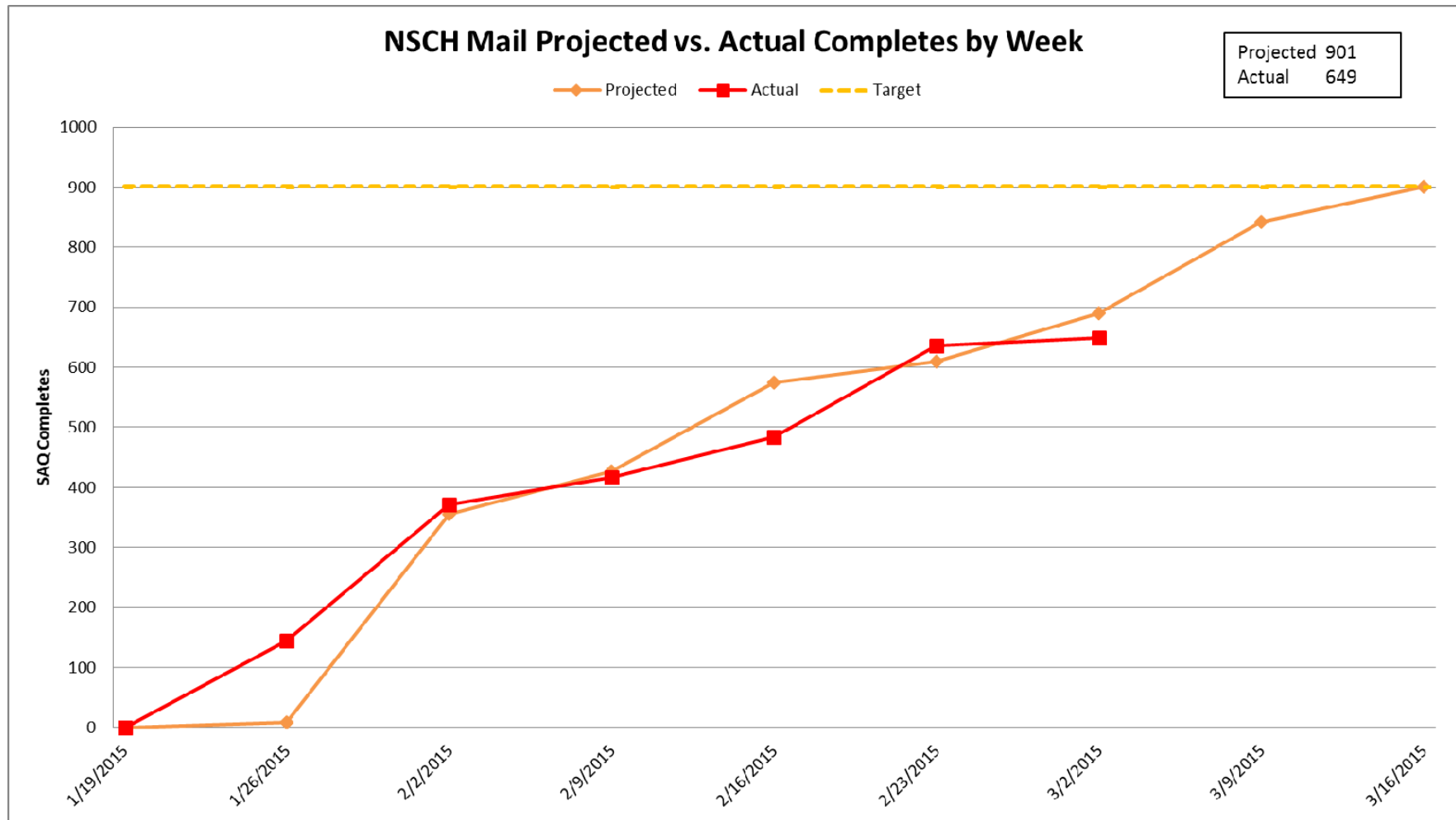




# Preliminary Results: Web



# Preliminary Results: Mail



## Phone Mode Issues

- Lengthy consent statement
- Confidentiality concerns due to language in introduction
- Respondent Breakoffs:
  - Interviewer asked respondent if he/she can ask questions to determine eligibility
  - Requested respondent's name early in survey (Privacy Concerns)
  - Lengthy survey
  - In introduction, noted research study conducted to look at ways to improve survey questions
- Parents are busy

## Future Research

- Ongoing analysis
  - Web and Mail modes
  - Questionnaire length experiment
- Evaluating possibilities for future research
  - Supplementing targeted sample for underperforming modes

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Thank You!

**NORC**  
*at the UNIVERSITY of CHICAGO*

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