

# HCAHPS Update Training

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# HCAHPS Update Training

March 2017



# HCAHPS Update Training

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## Welcome!

In the Update Training session, we will present:

- HCAHPS Program Updates
- Updates to *HCAHPS Quality Assurance Guidelines V12.0*
- Guidelines for Hospital Studies, Projects and Other Surveys Concurrent with the HCAHPS Survey
- Additional Data Quality Checks
- HCAHPS Response Rates: Trends and Strategies
- New HCAHPS Mode Adjustments



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## Online Question Submission Illustration 1

**HCAHPS Update Training**

March 2017

**CMS**  
CENTERS FOR MEDICARE & MEDICAID SERVICES  
CENTER FOR MEDICARE

Participants (2) X

Q&A X

All (0)

Ask: All Panelists

Select a panelist in the Ask menu first and then type your question here. There is a 256-character limit.

Send

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## Online Question Submission *(cont'd)* Illustration 2



The screenshot shows a Zoom meeting toolbar with the following items from left to right: a blue 'Return' button, a 'Pages' button with a left arrow and '01: H...', an 'Audio' button with a telephone handset icon, a 'Participants' button with a person icon, an 'Annotate' button with a pencil icon, and a 'Q&A' button with a question mark icon and a dropdown arrow. A red arrow points to the 'Q&A' button.

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## Online Question Submission *(cont'd)* Illustration 3

The screenshot displays a web interface for "HCAHPS Update Training" dated "March 2017". The CMS logo is visible in the bottom left. On the right, a navigation menu includes "Participants" and "Q&A". Below the menu, a list shows "Participants (2)" and "Q&A" with expand/collapse arrows and close buttons. The "Q&A" section is expanded to show "All (0)". Below this, a form for asking a question is shown. The "Ask:" dropdown menu is set to "All Panelists". A text input field contains the instruction: "Select a panelist in the Ask menu first and then type your question here. There is a 256-character limit." A "Send" button is located to the right of the input field. Two red arrows point from the left towards the "Ask:" dropdown and the text input field.

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## HCAHPS Program Updates March 2017



## Overview of HCAHPS Updates

- Veterans Administration Hospitals Joining HCAHPS
- <25 Completed Surveys
- Pain Management Dimension Removed from Hospital VBP
- CMS Preparing New Pain Management Questions for HCAHPS
- Reminders: Data Submission
- HCAHPS 2016 Mode Experiment
- New Survey Development at CMS
- HCAHPS Never Rests
- More Information on HCAHPS

## Veterans Administration Hospitals Joining HCAHPS

- In 2017, Veterans Administration (VA) hospitals will begin to participate in the HCAHPS Survey
  - Approximately 150 hospitals will be participating

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## <25 Completed Surveys

- Since December 2016, Hospital Compare no longer displays HCAHPS scores for hospitals with fewer than 25 completed HCAHPS surveys
  - In their stead, “N/A” and Footnote 1 will appear
  - Due to low reliability when <25 surveys
- However, these hospitals will continue to see their HCAHPS scores on their Hospital Compare Preview Reports

## **Pain Management Dimension Removed from Hospital VBP**

- Due to stakeholder concerns, CMS will remove the Pain Management dimension from Hospital VBP in Fiscal Year (FY) 2018
  - Finalized in the Outpatient Prospective Payment System Rule of November 2016
  - Pain Management also removed from Comprehensive Care for Joint Replacement and New Episode Payment Model programs
- Pain Management measure continues to be reported on Hospital Compare

## CMS Preparing New Pain Management Questions for HCAHPS

- CMS is developing new questions about pain management
  - Will eventually replace current pain items
- Emphasis on communication about pain during hospital stay
- Anticipate new items to be proposed in FY 2018 IPPS Rule
- More information provided when available

## Reminders: Data Submission

- High levels of missing administrative data could lead to the assignment of a Footnote on Hospital Compare
- Encourage (and assist) client hospitals to promptly enter survey vendor authorizations in QualityNet Exchange to avoid errors
- Early submission of HCAHPS data provides time to correct errors (if any)

## HCAHPS 2016 Mode Experiment

- Completed in 2016
- Resulted in revised survey mode adjustments
  - Will be applied beginning with April 2017 discharges
- Details provided in a later presentation today
- Monitor the HCAHPS Web site for more information:

<http://www.hcahpsonline.org>

## New Survey Development at CMS

- Outpatient and Ambulatory Surgery (OAS) CAHPS
  - Implemented January 2016
- Emergency Department Patient Experience of Care (EDPEC) Survey
  - Development continues
- Information on CMS Patient Experience Surveys:  
<https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/CAHPS/index.html>

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## HCAHPS Never Rests

- April 2017 publicly reported scores are based on more than 3.1 million completed surveys from patients at 4,306 hospitals
- Every day more than 8,500 patients complete the HCAHPS Survey
- HCAHPS is a component of Hospital Compare Overall Star Ratings
- HCAHPS scores are now reported for PPS-Exempt Cancer Hospitals
- HCAHPS scores are used in the Comprehensive Care for Joint Replacement Program



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## More Information on HCAHPS

- Registration, applications, background information, reports, and HCAHPS *Executive Insight*:

<http://www.hcahpsonline.org>

- Submitting HCAHPS data:

<https://www.qualitynet.org>

- Publicly reported HCAHPS results:

<https://www.medicare.gov/hospitalcompare>

- HCAHPS results Downloadable Database (DDB):

<https://Data.Medicare.gov>

- HCAHPS in Hospital Value-Based Purchasing:

<https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1228772039937>



## Updates to HCAHPS *Quality Assurance Guidelines (QAG) V12.0*



## Introduction and Overview

- **Update: Reporting Results to Clients**
  - Reports created by survey vendors or others that mention anything other than the official HCAHPS scores, such as estimates or predictions, must note that such scores or results are “unofficial.” This is done in two ways:
    - The introduction or executive summary of such reports must include the following statement:
      - “This report has been produced by [Survey Vendor] and does not represent official HCAHPS results, which are published on the Hospital Compare Web site (<http://www.medicare.gov/hospitalcompare>).”
    - Each page of the report where unofficial results are displayed (print or electronic) must contain the following statement:
      - “This report has been produced by [Survey Vendor] and does not represent official HCAHPS results.”

## Participation and Program Requirements

- Clarification: Official HCAHPS Scores
  - The HCAHPS Survey results are not intended to be used for marketing or promotional activities
    - **Only the HCAHPS scores published on the Hospital Compare Web site are the “official” scores**
    - **Scores derived from any other source are “unofficial” and should be labeled as such**

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## Participation and Program Requirements *(cont'd)*

- Reminder: The FY 2017 IPPS Final Rule incorporates the Final Rules from previous years
  - Refer to the following for details on HCAHPS requirements
    - FY 2011 IPPS Final Rule ([75 FR 50220](#))
    - FY 2012 IPPS Final Rule ([76 FR 51641 through 51643](#))
    - FY 2013 IPPS Final Rule ([77 FR 53537 through 53538](#))
    - FY 2014 IPPS Final Rule ([78 FR 50819 through 50820](#))
    - FY 2015 IPPS Final Rule ([79 FR 50319 through 50449](#))
    - FY 2016 IPPS Final Rule ([80 FR 49325 through 49843](#))
    - FY 2017 IPPS Final Rule ([81 FR 56762 through 57345](#))

## Participation and Program Requirements *(cont'd)*

- **Update: Confidentiality Agreement**

- Requirements have been added to the Hospital/Survey vendor HCAHPS Minimum Survey Requirements to Administer the HCAHPS Survey
  - Develop confidentiality agreements which include language related to HIPAA regulations and the protection of patient information
    - Obtain signatures from all personnel with access to survey information, including staff and all subcontractors involved in survey administration and data collection
    - Agreements must be reviewed and periodically re-signed at a minimum of every three years

## Participation and Program Requirements *(cont'd)*

- **Update: Business Associate Agreement**
  - Execute Business Associate Agreement(s) in accordance with HIPAA regulations

## Participation and Program Requirements *(cont'd)*

- Reminder: Quality Checks
  - Hospitals/Survey vendors must perform and document quality checks of electronic programming code periodically
    - **On an annual basis, at a minimum**

## Participation and Program Requirements *(cont'd)*

- Clarification: Unofficial Use of the HCAHPS Survey
  - The HCAHPS Survey and the questions that comprise it are in the public domain and thus can be used outside of official HCAHPS purposes (e.g., for non-HCAHPS eligible patients, etc.)
    - **However, when used in an unofficial capacity**
      - **The HCAHPS OMB language must not be used**
      - **All references to “HCAHPS” must be removed**
      - **The copyright statement for the Care Transition Measure (CTM) items must be used**

## Participation and Program Requirements *(cont'd)*

- **Update: Disaster Recovery Plan**
  - Hospitals and survey vendors must develop a disaster recovery plan for conducting ongoing business operations in the event of a disaster
  - Plan must be available to the HCAHPS Project Team upon request

## Sampling

- **Update: Codes to Determine Service Line**
  - MS-DRG Codes updated to **V.34**
    - Strongly recommend use of MS-DRG V.34 codes to assign service line
    - Crosswalk table to MS-DRG V.34 updated
  - Added combination MS-DRGs and APR-DRGs as approved method of assignment to the service line
  - Regardless of the methodology used, the hospital/survey vendor must maintain documentation that demonstrates how the codes are crosswalked to the HCAHPS service lines

## Sampling *(cont'd)*

- **Update: Exclusions Made by Hospitals Contracting with Survey Vendors**
  - If a hospital excludes any patients from the discharge list provided to their survey vendor, the hospital must also submit to their survey vendor a count of total ineligible and excluded patients and a count of patients by each exclusion category **at a minimum on a monthly basis**

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## Sampling *(cont'd)*

- Reminder: Sample Frame
  - HCAHPS sample frames (i.e., the entire list of eligible HCAHPS patients from which each hospital's sample is pulled) must be retained for a **minimum of three years**

## Sampling *(cont'd)*

- **Update: Ineligible MS-DRG Codes**
  - MS-DRG codes in the **ineligible** category include patients with MS-DRG codes for:
    - Newborn
    - Psychiatric
    - **Substance abuse**
    - Rehabilitation
    - Deceased
    - MS-DRG codes with no assigned type

## Survey Administration

- **Update: Spanish Survey Revisions**
  - CMS has extensively revised the Spanish version of the HCAHPS Survey for all modes
    - Hospitals or survey vendors that use the Spanish surveys must update their surveys accordingly for administration beginning with July 1, 2017 discharges

## Survey Administration *(cont'd)*

- Reminder: Lag Time
  - Lag Time must be submitted for **all** HCAHPS Final Survey Status codes

## Survey Administration *(cont'd)*

- **Update: Surveys and Outgoing Survey Envelopes**
  - No promotional or marketing text on surveys or outgoing mail envelopes
  - The envelope in which the survey is mailed:
    - Must be printed with the hospital's/survey vendor's address as the return address
    - Must not be printed with any banners such as "Important Information Enclosed," "Please Reply Immediately" or messages such as "Important Information from the Centers for Medicare & Medicaid Services Enclosed"
    - May be printed with the hospital or survey vendor logo or both
    - May be a window envelope

## Survey Administration *(cont'd)*

- **Update: Proxy Guidance**

- In the survey script Introduction (Telephone Only, Mixed Mode and IVR) CMS has:

- Provided guidance for people wishing to act as a proxy for sampled patients

*Note: No proxy respondents are permitted in the administration of the HCAHPS Survey. However, an individual may assist the patient by repeating questions -- but only the patient may provide answers to the survey.*

## Survey Administration *(cont'd)*

- **Update: Changes in the Introduction**
  - In the survey script Introduction (Telephone Only, Mixed Mode and IVR) CMS has:
    - Clarified optional survey language for introducing the survey
    - Updated the Date of Discharge in the script
    - Provided optional identification of the Data Collection Contractor

## Survey Administration *(cont'd)*

- **Update: New Chinese and Russian Telephone Scripts**
  - CMS has added new Chinese and Russian HCAHPS translations of the Telephone script
    - Found in the *QAG V12.0* in Appendices I and J
    - Hospitals with a large number of patients who speak Chinese and/or Russian are strongly encouraged to offer the new language translations

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## Survey Administration *(cont'd)*

- Clarification: Call Monitoring for All Languages
  - Call monitoring must include all languages in which the survey is administered
    - At least 10% of HCAHPS calls are monitored

## Survey Administration *(cont'd)*

- **Update: Telephone Interviewing Systems**
  - Survey administration must be conducted in accordance with the Telephone Consumer Protection Act (TCPA) regulations
    - Cell phone numbers must be identified so that CATI systems with auto dialers do not call cell phone numbers without the permission of the respondent. Survey vendors may identify cell phone numbers through a commercial database and hospitals may identify cell phone numbers upon patient admission.
    - Predictive dialing may be used as long as there is a live interviewer to interact with the patient, and the system is compliant with Federal Trade Commission (FTC) and Federal Communications Commission (FCC) regulations

## Data Specifications & Coding

- **Update: File Specifications Changed to Version 3.9**
  - Appendix P – Data File Structure Version 3.9
  - Appendix Q – XML File Layout Version 3.9
    - Header Record
      - Determination of Service Line: “Methodology used by a facility to determine whether a patient falls into one of the three service line categories eligible for HCAHPS survey.”
        - 3 – Mix of V.34, V.33, V.32, V.31, V.30, V.29, V.28, V.27, V.26, V.25, or V.24 codes based on payer source or a mix of MS-DRG and APR-DRG codes

***Note: Version 3.9 applies to 3Q 2017 patient discharges and forward***

## Data Specifications & Coding *(cont'd)*

- **Reminder: Switching Survey Vendors**
  - Hospitals that choose to switch from one survey vendor to another can only do so at the beginning of a calendar quarter
  - The dates entered into the discharge and data transmission fields must be entered in accordance with HCAHPS protocols
    - Transmission End Date should be the last day for which the current survey vendor will be submitting data on the hospital's behalf
    - Discharge End Date should be the last day of the month the hospital will allow the current survey vendor to sample from eligible discharges. *The Discharge End Dates of the new and expiring survey vendor cannot overlap.*
    - Survey vendors should work closely with their hospital clients, who are unfamiliar with the QualityNet Secure Portal, to complete the authorization at least 90 days prior to the data submission deadline

## Data Specifications & Coding *(cont'd)*

- Reminder: Survey Vendor Authorization Dates
  - It is strongly recommended that the Discharge End Date and the Transmission End Date **be left blank** unless the survey authorization is terminated

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## Oversight Activities

- **Update: Survey Materials Submission**
  - Hospitals/Survey vendors must submit formatted survey materials (including required changes effective with July 2017 discharges) to HCAHPS Technical Assistance by **April 7, 2017**
    - Survey materials for CMS review must include outgoing mail envelopes

## Oversight Activities *(cont'd)*

- **Update: HCAHPS Attestation Statement**
  - Includes notice that the Quality Assurance Plan (QAP) has been updated
    - Due by **April 7, 2017**
  - Attestation Form is now in Appendix X
  - The QAP should not be submitted at this time

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## Data Submission Timeline

<b>Month of Patient Discharges</b>	<b>Data Submission Deadline</b>	<b>Review and Correct Period</b>	<b>File Specifications Version</b>
October, November and December 2016 (4Q16)	April 5, 2017	April 6–12, 2017	Version 3.8
January, February and March 2017 (1Q17)	July 5, 2017	July 6–12, 2017	Version 3.8
April, May and June 2017 (2Q17)	October 4, 2017	October 5–11, 2017	Version 3.8
July, August and September 2017 (3Q17)	January 3, 2018	January 4–10, 2018	Version 3.9

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## **Guidelines for Hospital Studies, Projects and Other Surveys Concurrent with the HCAHPS Survey**

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## Overview

- Hospital Inpatient Studies
- Accommodation of Hospital Projects
- Potential Conflicts with HCAHPS
- Permitted Activities
- Permissible Hospital Questions
- Exceptions Request Required
- CMS Does Not Endorse
- CMS Does Not Review



## Hospital Inpatient Studies

- Some hospitals use surveys or survey-like questions with inpatients prior to, at time of, or shortly after discharge
- This may create real or potential conflict/interference with administration of the HCAHPS Survey

## Accommodation of Hospital Projects

- To the extent possible, CMS accommodates hospital studies and quality improvement projects
  - Provided these do not disrupt, bias or undermine the HCAHPS Survey
- This is accomplished through adherence to guidelines and submission of an Exceptions Request
  - See Appendix Y in HCAHPS *QAG V12.0* for more detail

## Potential Conflicts for HCAHPS

- HCAHPS should be the first survey patients receive about their hospital experience
- Patients should not be given any survey **during** their hospital stay or at discharge
  - “Survey”
    - Formal, HCAHPS-like patient experience or satisfaction survey
    - Asks standardized questions of a significant portion of a hospital’s patient population

## Permitted Activities

- However, some hospital activities are permissible, such as:
  - Clinical rounding questions
  - Discharge related questions about clinical status
  - Post-discharge questions about patient's clinical status or treatment
  - Surveys required by accrediting agencies regarding specific clinical conditions or medical education

## Permissible Hospital Questions

- The questions used in hospital inpatient studies or quality improvement projects must:
  - Be worded in a neutral tone
  - NOT resemble HCAHPS items or their response categories
  - Avoid biasing who responds to the HCAHPS Survey or how they may respond

## Exceptions Request Required

- An Exceptions Request is required for hospital studies that:
  - Are administered to patients while they are still in the hospital
  - Are administered after discharge but prior to the administration of the HCAHPS Survey
  - Focus on a particular unit, ward, patient population, diagnosis, procedure, or surgery
  - Utilize a set of standardized questions
- An Exceptions Request must be submitted at least eight weeks before implementation of a study
  - HCAHPS Project Team reviews and responds on a case-by-case basis

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## CMS Does Not Endorse

- Note:
  - The HCAHPS Project Team’s review or acceptance of an Exceptions Request does not constitute an endorsement of those items
  - Neither the Team’s review nor its acceptance may be used for marketing or promotional purposes

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## CMS Does Not Review

- The HCAHPS Project Team does not review materials for the development of marketable products or services

## Additional Data Quality Checks

## Overview

- Quality check (QC) dataset
  - QC dataset creation and environment
  - Sampling process
  - Patient mix and administrative variables
  - Patient experience questions
- Possible QCs when estimating patient-mix adjustment
- Verify changes in processing

## Quality Check (QC) Dataset

- Create and maintain a hospital-level QC dataset for each quarter
  - # of eligible patients, sample size, ineligible counts, non-response counts, and # of completed surveys
  - Frequencies and percentages for all survey and administrative variables
- Easily compare counts or percentages for data elements across quarters

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## QC Dataset Creation

HSP ID	Eligibles (sample frame)	Sample Size	Non-Respondents	Ineligibles	Completes	...
1						
2						
...						
40						

- Each row represents one hospital
- **Many** possible key HCAHPS data elements for a given quarter (or month/year)

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## QC Dataset Creation *(cont'd)*

HSP ID	Nurse Q1 Always	Nurse Q2 Always	Nurse Q3 Always	...	Health Excellent	Health Very Good
1						
2						
...						
40						

- Columns may include counts or percentages for each survey question response
- HCAHPS composites can also be calculated and included

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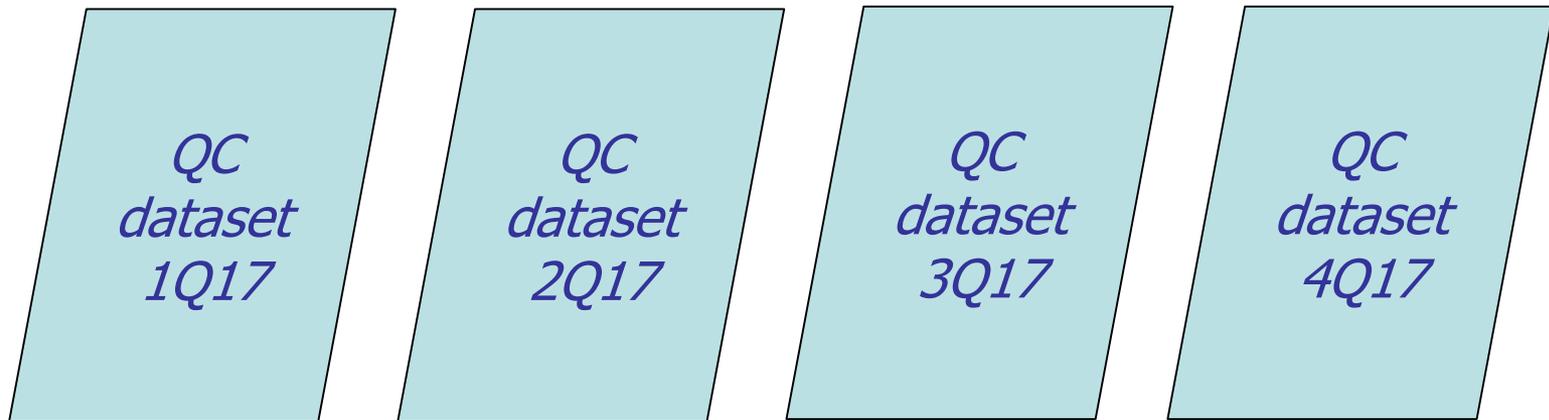
## QC Dataset Creation *(cont'd)*

HSP ID	Maternity	Surgical	Age 18-24	Age 25-34	...	Female
1						
2						
...						
40						

- Track administrative variables – especially those used in patient-mix adjustment
- Averages of hospital variables can also be useful to monitor

## QC Dataset Environment

- Create the master QC dataset on a quarterly basis
  - Yearly and monthly versions may be useful too



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## Using QC Datasets: Sampling Process

Example: compare eligible discharge size between two consecutive quarters

- Average fluctuation is okay
- Look for potential errors

1Q17 QC Dataset	
HSP ID	Eligible Discharge Size
1	1230
2	545
...	...
40	433

2Q17 QC Dataset	
HSP ID	Eligible Discharge Size
1	1401
2	84
...	...
40	566

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## Using QC Datasets: Sampling Process *(cont'd)*

Example: **calculate difference** in ineligible rates (IRs) between two consecutive quarters

1Q17 QC Dataset	
HSP ID	IR
1	5%
2	7%
...	...
40	40%

2Q17 QC Dataset	
HSP ID	IR
1	75%
2	6%
...	...
40	42%

Differences	
HSP ID	2Q17 IR – 1Q17 IR
1	+70%
2	-1%
...	...
40	+2%

- Large changes or consistently high rates should be investigated

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## Using QC Datasets: PMA Variables

Example: self-rated overall health breakout (Question 27)

**1Q17 QC Dataset**

HSP ID	Health Excellent	Health Very Good	Health Good	Health Fair	Health Poor	Health Missing
1	24%	28%	22%	10%	10%	6%

**2Q17 QC Dataset**

HSP ID	Health Excellent	Health Very Good	Health Good	Health Fair	Health Poor	Health Missing
1	21%	30%	23%	12%	8%	4%

- There do not appear to be any errors with the variable

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## Using QC Datasets: PMA Variables *(cont'd)*

Example: maternity rates across **4 quarters**

1Q17 QC Dataset	
HSP ID	Maternity
1	18%
2	87%
...	...
40	0%

2Q17 QC Dataset	
HSP ID	Maternity
1	11%
2	83%
...	...
40	0%

3Q17 QC Dataset	
HSP ID	Maternity
1	14%
2	84%
...	...
40	0%

4Q17 QC Dataset	
HSP ID	Maternity
1	43%
2	89%
...	...
40	0%

- Hospital 1 may have added additional maternity (verify)
- Hospital 2 may specialize in maternity (verify)
- Hospital 40 could be a surgical specialty hospital (verify)

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## Using QC Datasets: Patient Experience

Example: breakout of Cleanliness (Question 8)

1Q17 QC Dataset					
HSP ID	Question 8 Always	Question 8 Usually	Question 8 Sometimes	Question 8 Never	Question 8 Missing
1	60%	20%	8%	6%	6%

2Q17 QC Dataset					
HSP ID	Question 8 Always	Question 8 Usually	Question 8 Sometimes	Question 8 Never	Question 8 Missing
1	85%	5%	3%	2%	5%

- Did Hospital 1 employ a quality improvement program?

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## Using QC Datasets: Missingness Rates

HSP ID	Service Line Missing	Age Missing	Overall Health Missing	Education Missing	...	Discharge Status Missing
1	2%	0%	11%	12%	...	1%
2	50%	1%	2%	4%	...	2%
...	...	...	...	...	...	...
40	4%	1%	6%	5%	...	0%

- Make every attempt to obtain all data elements for each patient
- Hospital 1 may have had survey “break-off” problems for this quarter (verify)
- Hospital 2 should investigate missing service line

## Possible QCs When Estimating Patient-Mix Adjustment (PMA)

- Reminder: PMA resources
  - PMA Web Document discusses rationale for PMA and offers example interpretations along with adjustment tables needed for estimation  
<http://hcahpsonline.org/modeadjustment.aspx>
  - 2011 HCAHPS Update Training slides contain a step-by-step example of PMA calculation for Communication With Nurses  
<http://hcahpsonline.org/Files/Calculation%20of%20HCAHPS%20Scores.pdf>

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## Possible QCs When Estimating PMA *(cont'd)*

- Verify hospital means for PMA variables are calculated correctly
- Check correct reporting period adjustments and national means from CMS are being used
- Double-check that adjustments and national means from the PMA Web Document have been entered correctly into spreadsheet or other software being used for PMA

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## Possible QCs When Estimating PMA (*cont'd*)

- Verify that the **same scale** is being used for all 3 components of PMA
- Recall, for a given measure and patient-mix variable:

$$\text{PMA} = \text{US adjustment} * (\text{hospital mean} - \text{US mean})$$

**Correct:**  $2.12\% * (14.1\% - 12.5\%)$  or  $0.0212 * (0.141 - 0.125)$

**Incorrect:**  $2.12 * (0.141 - 0.125)$

## Verify Changes in Processing

- Goal: when software code is changed or processing steps are updated, verify whether the changes had unintended consequences or introduced errors

## Verify Changes in Processing *(cont'd)*

- Suggested steps for minimizing errors:
  - 1) Prior to making code change, **save** current code and current data
  - 2) Install code change
  - 3) Have at least one other **different team member** check new code
  - 4) Execute new code
  - 5) Conduct **exhaustive comparison** of old data and new data, **even for data elements** the code change was not intended or expected to affect

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## Summary

- Create master QC dataset for each quarter
  - Allows for numerous QCs on any data element using quarterly comparison
- Some suggested QCs when calculating hospital PMA
  - Verify correct reporting period is used, values are entered correctly, hospital means are correct, and same scale is used for all components
- Checks on processing changes
  - Install a standard quality control process utilizing the suggested steps

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*Questions?*



## HCAHPS Response Rates: Trends and Strategies

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## Overview

- A. The Challenge of Surveying Young Adults: HCAHPS Survey Mode, Age and Response Rates, 2009-2013
- B. How Much Does Mixed Mode Increase Response Rates? Evidence from an HCAHPS Mode Experiment
- C. The Impact of Supplemental Items on HCAHPS Response Rates

## Low Response Rates (RRs) Have Important Implications for Hospitals

- Jeopardize hospitals' eligibility for Value-Based Purchasing (VBP)
  - Requires 100 survey completes annually
- Reduce HCAHPS measure reliability
  - Best reliability requires 300 completes
- May increase data collection cost to achieve needed survey completes

## **We Describe HCAHPS RR Trends and Experimental Evidence on 3 Potential Strategies for Improving RRs**

- First, we describe 5-year RR trends overall, by mode and patient subgroups and identify young adults as the group that is most challenging to reach, especially by Mail
- Then, we evaluate different strategies for improving RRs based on experimental data
  - Modes: we identify the modes that yield the lowest RR overall and the highest RR
  - Supplemental items (SIs): we estimate the effect of SIs on RRs
- We use patient-level RR throughout this presentation

## **A. The Challenge of Surveying Young Adults: HCAHPS Survey Mode, Age and Response Rates, 2009-2013**

## Response Rate Trends: Background

- In general, survey RRs falling  $\sim 0.5$  percentage points annually (Brick and Johnson 2013)
  - Trend seen in Face-to-Face and Telephone modes
  - Limited evidence for other modes (e.g., Mail)
  - Trends best documented among older adults
- Achieving higher RRs may be more difficult for younger adults
  - May reflect cohort differences in response tendencies

*We ask whether RR trends are more pronounced for particular HCAHPS modes or patient groups and which patient groups have especially low RRs*

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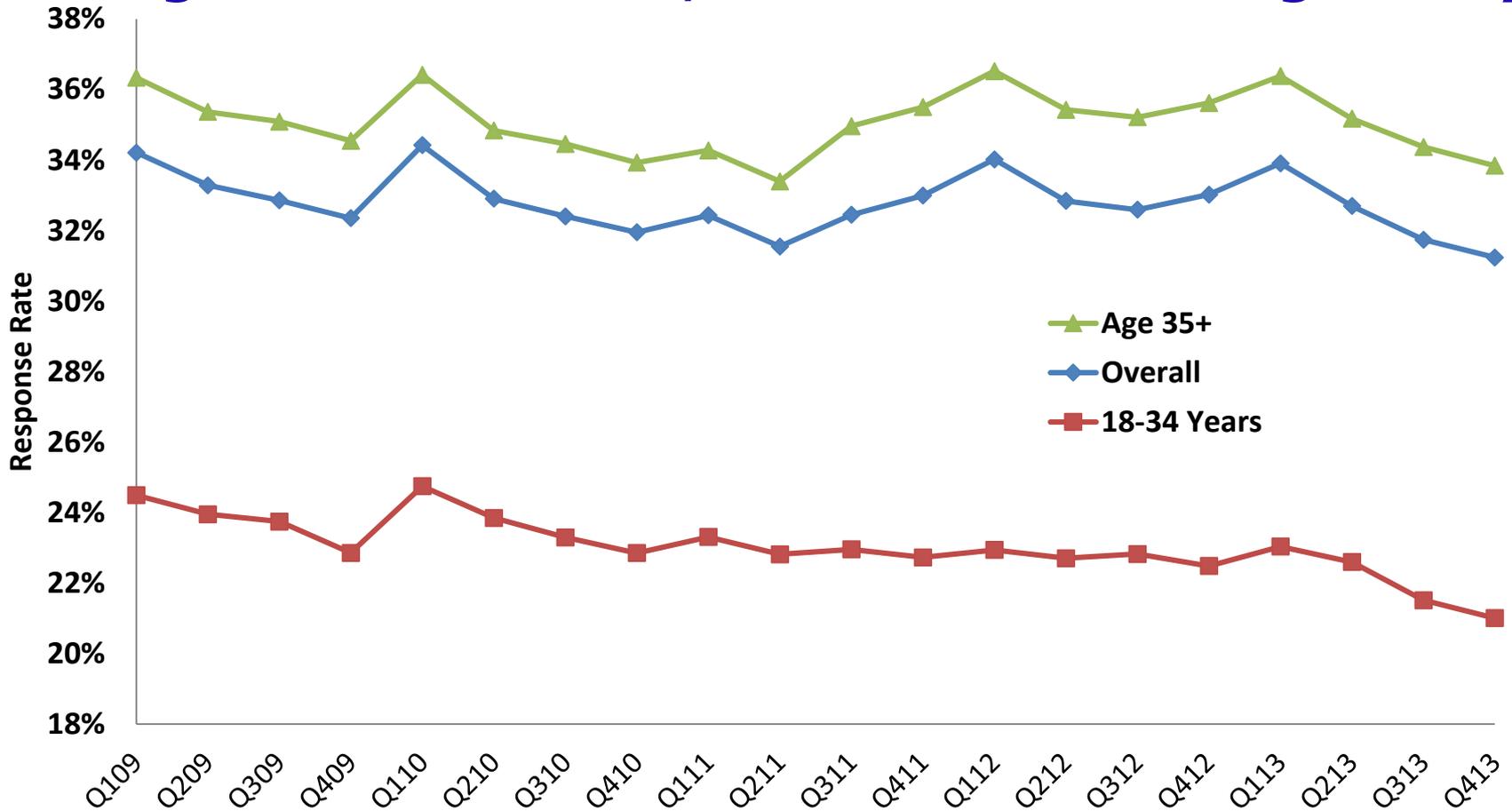
## HCAHPS Survey Mode Trends 2009-2013 More Phone, Less Mail

	2009	2013
Telephone Only	<b>28%</b>	<b>40%</b>
Mail Only	<b>71%</b>	<b>60%</b>
IVR	~1%	~1%
Mixed Mode	~1%	~1%

# HCAHPS Update Training

## HCAHPS RR Trends:

Younger Adults Decline, Older Adults Holding Steady



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## HCAHPS RR Trends:

Among Young Adults, Mail RRs Initially Lower and Declining Faster than Phone RRs

Year	Age 18-34			Age 35 and Older		
	Telephone Only	Mail Only	Difference Telephone Only – Mail Only	Telephone Only	Mail Only	Difference: Telephone Only – Mail Only
2009	26.1%	23.6%	2.5%	34.7%	35.6%	-1.0%
2010	25.8%	23.6%	2.2%	33.5%	35.6%	-2.1%
2011	25.5%	22.1%	3.4%	33.8%	35.0%	-1.2%
2012	25.9%	21.0%	4.9%	35.8%	35.7%	0.1%
2013	25.5%	19.2%	6.3%	35.4%	34.8%	0.6%

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## Mail RRs <25% for All Young Adult Subgroups except Maternity

	Overall	Mail Only	Telephone Only	Difference: Telephone - Mail
<b>Maternity + Age 18-34</b>	28%	23%	36%	13%
<b>Maternity + Age 35+</b>	33%	30%	39%	9%
<b>Female Surgical + Age 18-34</b>	24%	17%	33%	16%
Female Surgical + Age 35+	45%	43%	48%	5%
Male Surgical + Age 18-34	21%	14%	32%	18%
Male Surgical + Age 35+	43%	42%	45%	3%
<b>Female Medical + Age 18-34</b>	12%	12%	27%	15%
<b>Female Medical + Age &gt;35</b>	35%	31%	42%	11%
<b>Male Medical + Age 18-34</b>	15%	9%	25%	16%
<b>Male Medical + Age &gt;35</b>	29%	28%	30%	2%

## Multivariate RR Patterns Similar to Bivariate Patterns

Odds Ratios of Non-Response w/i age group	Age 18-34	Age 35+
Telephone Only	0.62	0.81
Mixed Mode	0.36	0.38
IVR	2.05	2.63
Mail Only (ref)	1.00	1.00

- Mixed Mode Higher RR
- Telephone Only RR higher than Mail Only, esp. for age 18-34
- IVR lowest RR, esp. for age 35+

## Response Rate Trends: Conclusions

- Patient-level RR declined slightly, from 35% (2009) to 34% (2013)
  - Decline modest for older adults (77% of the sample)
  - Decline greater for already challenging patients 18-34 years
- Telephone Only RR much higher than by Mail Only
  - For older adults, Telephone Only exceeds mail by 3-11 percentage points
  - For younger adults, Telephone Only advantage is 13-18 percentage points
- When higher RR needed for young adults, **the Telephone Only mode, alone or in combination with other modes (e.g., Mixed Mode)**, may be more successful than Mail Only Mode
- These results might be influenced by which hospitals choose which mode

## **B. How Much Does Mixed Mode Increase Response Rates? Evidence from an HCAHPS Mode Experiment**

## Mixed Mode (MM): Background

- Some research indicates that mode preferences might differ between older and younger adults, although it is unclear how this might play out:
  - Younger adults prefer mobile phone and other newer technologies
  - But they may also be savvier users of technology that screens unknown callers
- Initially offering to survey people in one mode and switching to a different mode at follow-up increases RRs by allowing more people the opportunity to respond in their preferred mode

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## MM RR Consistently Highest Mail Only May Be Declining

	Mode Experiment (ME)		
	2006	2012	2016
<b>Mail Only</b>	33%	31%	22%
<b>Telephone Only</b>	27%	34%	32%
<b>Mixed</b> (Mail with Telephone follow-up)	<b>41%</b>	<b>40%</b>	<b>42%</b>
<b>IVR</b>	21%	22%	28%

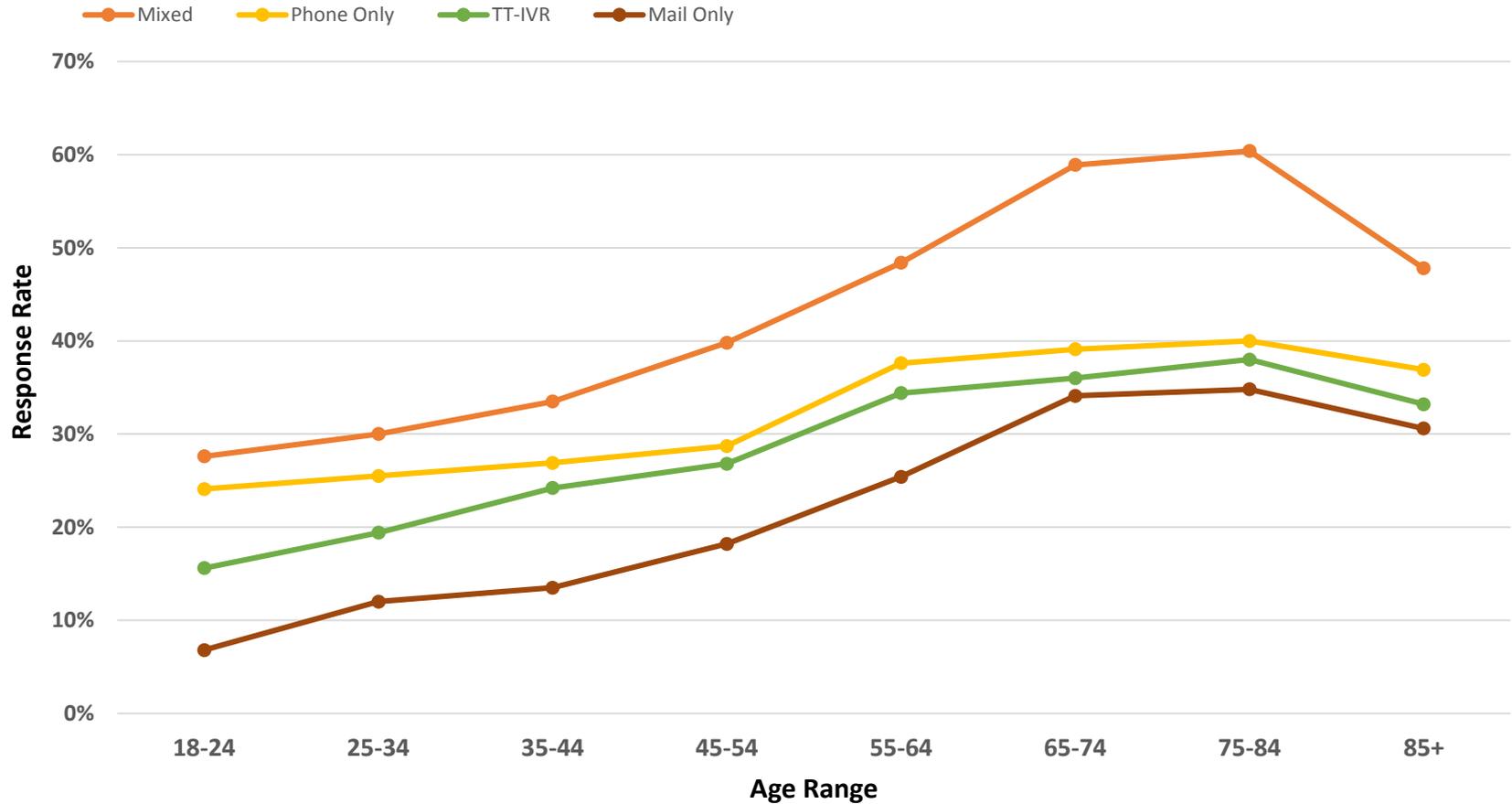
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## Telephone Accounts for Large Percentage of MM and IVR Survey Completes in 2016

	Frequency	Percent	Percent Completes
<b>Mixed Mode</b>			
Mail	1256	22.4%	54.1%
Telephone	1064	19.0%	<b>45.9%</b>
Non-respondents	3294	58.7%	-
<i>Total</i>	<i>5614</i>	<i>100%</i>	<i>100%</i>
<b>IVR Mode</b>			
IVR	690	9.9%	38.4%
Telephone	1105	16.0%	<b>61.6%</b>
Non-respondents	5120	74.0%	-
<i>Total</i>	<i>6915</i>	<i>100%</i>	<i>100%</i>

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## RR by Mode and Age



## Mixed Mode: Key Points on Age-Patterning of Mode Differences

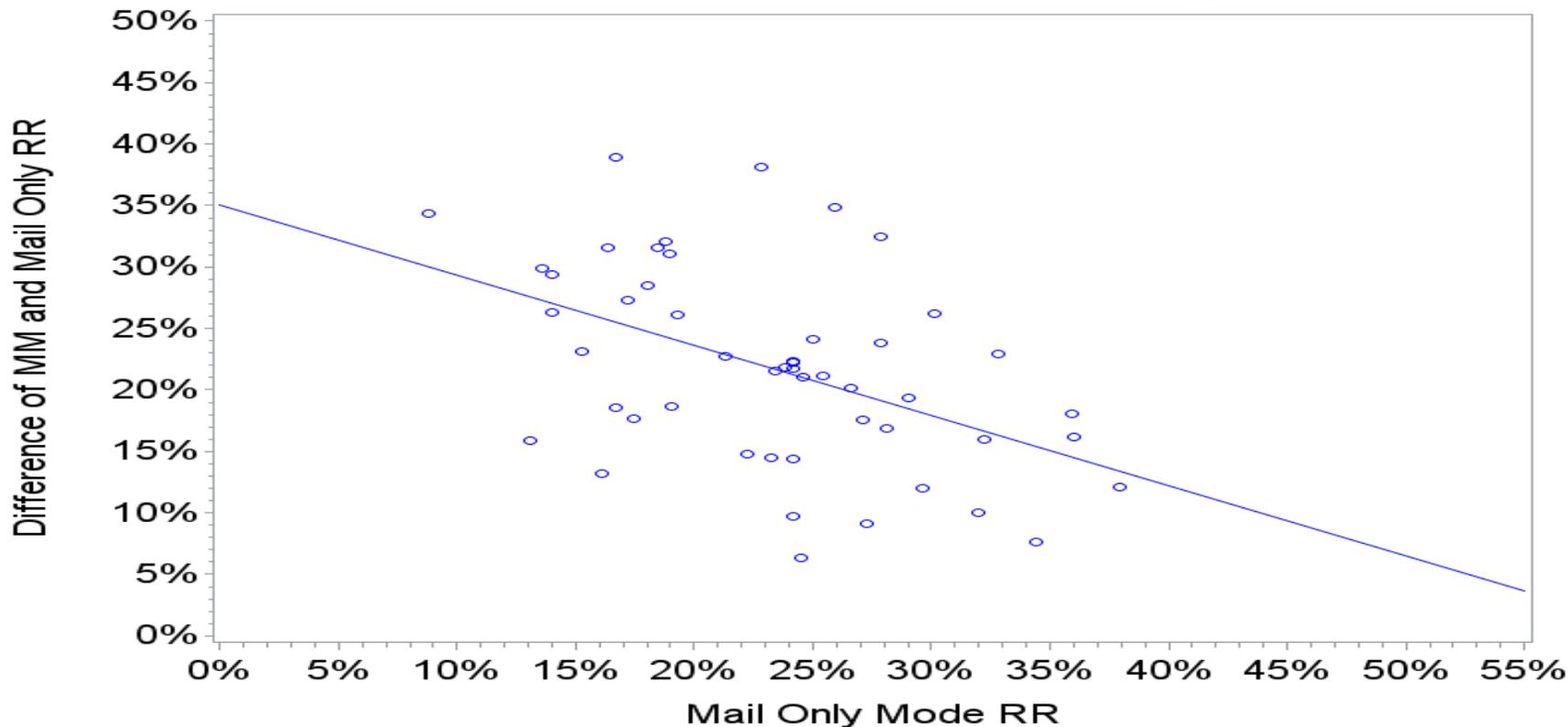
- Mail response rates very low for young adults, better for older adults
- Telephone response rates also increase with age
  - But start higher than for Mail
  - Increase with age is less steep than for Mail
- MM advantage is limited for adults <45 years
  - Although MM has a higher RR than Telephone for young adults, its benefit is limited because few young adults prefer Mail
  - Starting around age 45, more people willing to respond by Mail and by Telephone

## Mixed Mode: Two Possible Reasons for Some Hospitals Having Low RRs

- Inherent difficulties surveying their patient populations
- Mismatch between the patient population's survey mode preferences and the hospital's selected mode
  - These hospitals may particularly benefit from substituting MM for their current survey mode

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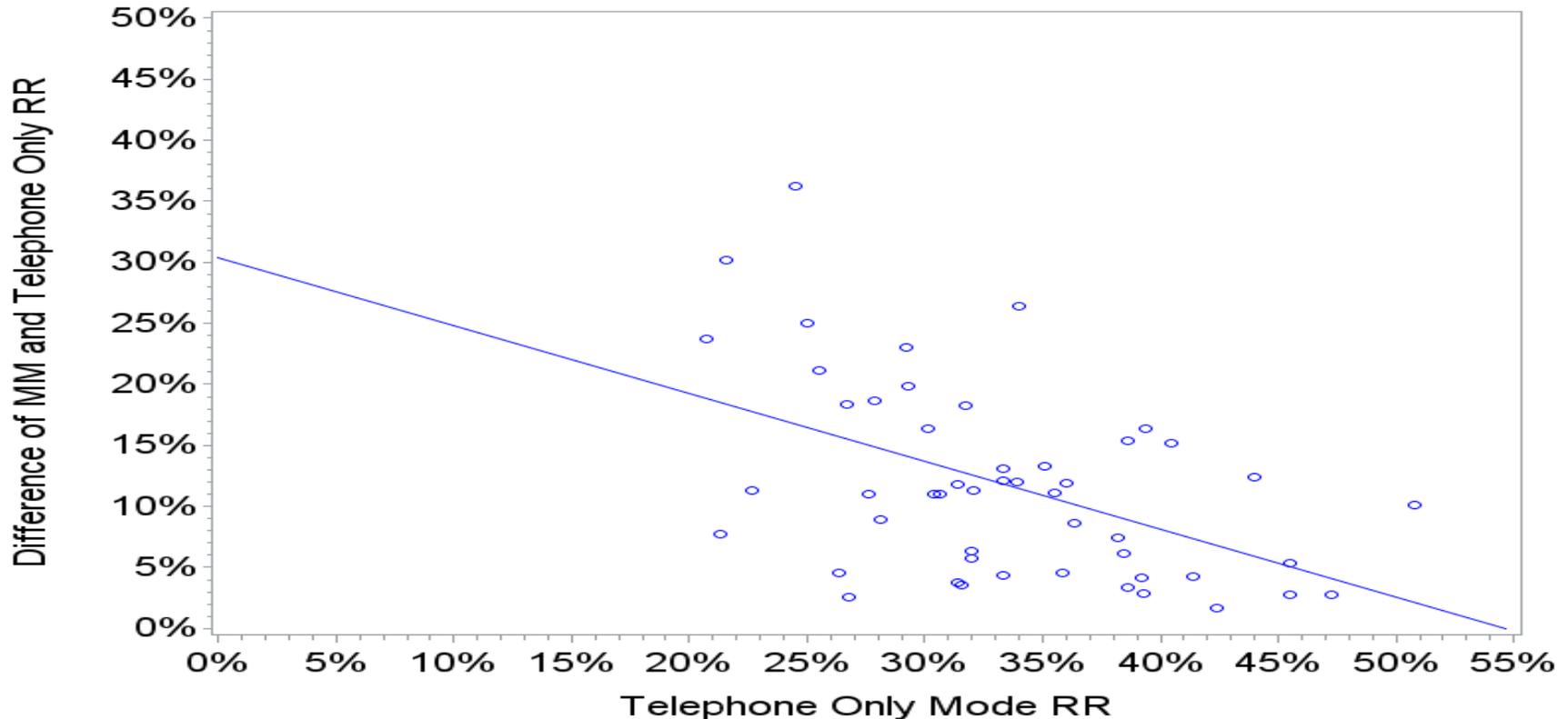
## Hospitals with Lowest Mail Only RR Benefit Most from Switching to MM



*Hospital-level regression model predicting MM RR from Mail Only Mode RR*

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## There is Similar but Weaker Relationship for Telephone Only and MM RRs



*Hospital-level regression model predicting MM RR from Telephone Only Mode RR*

## Mixed Mode: Conclusion

- Mixed Mode consistently produces the highest RRs
- Low Mail Only RRs strongly predict greatest gains from Mixed Mode
  - Hospitals with low Mail Only RRs may have patients with lower literacy and/or frequent address changes
  - Mixed Mode may achieve 300 completes at a lower cost than Mail Only for some hospitals

## **C. The Impact of Supplemental Items on HCAHPS Response Rates**

## Supplemental Item Concerns

- Longer surveys may burden respondents
  - Evidence on survey length and non-response is inconsistent
  - Many studies confound survey length and content
- An observational analysis of MA CAHPS found that 12 supplemental items are associated with a 2.5 percentage point reduction in RR
  - CMS established limit of 12 supplemental items based on these results starting in 2014
- Here we use the 2016 ME to test whether supplemental items reduce HCAHPS RRs

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## Supplemental Items: Study Design

Survey Version	Number of patients sampled			
	Telephone Only	Mail Only	Mixed	IVR
A. HCAHPS Standard form (32 items)	<b>2796</b>	<b>3060</b>	<b>2816</b>	<b>3066</b>
B. HCAHPS + 9 SIs (41 items)	<b>1424</b>	-	-	<b>1424</b>
C. HCAHPS + 16 SIs (48 items)	<b>1416</b>	-	-	<b>1414</b>
D. HCAHPS + 27 SIs (59 items)	-	<b>1567</b>	<b>2798</b>	-
E. HCAHPS + 44 SIs (76 items)	-	<b>1539</b>	-	-

CMS used its own standardized set of 44 supplemental items, with subsets used for different survey versions

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## More Supplemental Items Associated with Lower RR

Survey Version	Telephone Only	Mail Only	Mixed	IVR
A. HCAHPS Standard form (32 items)	0.0%	0.0%	0.0%	0.0%
B. HCAHPS + 9 SIs (41 items)	-0.1%	-	-	-1.3%
C. HCAHPS + 16 SIs (48 items)	-1.3%	-	-	-4.2%***
D. HCAHPS + 27 SIs (59 items)	-	-3.0%*	-5.6%***	-
E. HCAHPS + 44 SIs (76 items)	-	-3.9%**	-	-

*All models adjusted for patient-mix (gender, age, service line)*

*\*p<.05; \*\*p<.01; \*\*\*p<.001 for test of difference from the standard form*

## Supplemental Items: Summary

- First 9 SIs may have little effect on RR ( $\sim 1\%$ )
- Large RR declines ( $4+\%$ ) are likely with:
  - 16 SIs (IVR)
  - 27 SIs (Telephone Only or Mixed Mode)
  - 44 SIs (Mail Only)
- However, even declines of  $2-3\%$  may be important

*Findings are consistent with a Medicare Advantage observational study which found  $\sim 2.5\%$  loss in RR for every 12 SIs*

## HCAHPS Response Rates: Summary

- HCAHPS RRs are holding steady for older adults, declining for younger adults
  - Decline among younger adults mostly due to falling Mail Only RRs
  - Telephone Only captures older and younger adults well
  - Mail Only captures only older adults well
- Mixed Mode provides more opportunities to respond in preferred mode
  - Especially advantageous for hospitals with low Mail Only RRs
- Supplemental items reduce RRs
  - First 9 SIs may have little effect on RR (~1 percentage point)
  - RR declines of 4+ percentage points likely with 16 SIs (IVR), 27 SIs (Telephone Only or Mixed Mode), 44 SIs (Mail Only)

## New HCAHPS Mode Adjustments



## Purpose of the HCAHPS Mode Adjustments

- Survey mode is known to affect how patients answer HCAHPS items
- HCAHPS employs mode adjustments for Telephone Only, Mixed and IVR modes
- After mode adjustment, all hospitals' scores are equivalent to what would have been obtained in Mail Only mode, making hospital scores comparable across all four modes
- In combination with PMA, mode adjustments ensure that HCAHPS scores are not influenced by a hospital's patient mix or choice of survey mode

## New Mode Adjustments: Background

- The current HCAHPS mode adjustments are derived from the 2006 ME, except for the Care Transition Measure (CTM) adjustments, which come from the 2012 ME
- The 2016 ME produced new mode adjustments to replace the current mode adjustments
- Significant changes in technology and habits in the last 10 years that affect how people interact with mail, telephone and IVR may have also influenced the effects of these modes on HCAHPS survey responses

## New Mode Adjustments: Methods

- In the 2016 ME, a total of 25,504 patients were randomly assigned in equal numbers to each of the four HCAHPS modes within each of 51 participating hospitals
- Regression models predicted each HCAHPS measure from survey mode indicator (Telephone Only, Mixed or IVR) relative to the reference group (Mail Only)
  - Models include HCAHPS patient-mix adjusters and hospital fixed effects
  - Mode adjustments are the mode coefficients from those models multiplied by -1

Next we present the top-box mode adjustments from the 2016 ME and compare to the previous values

## New Top-Box Mode Adjustments: Telephone Only Summary

- In 2006-2016 MEs, relative to Mail Only, all effects of Telephone Only were positive, so all adjustments were negative
- The magnitude of 2016 ME adjustments is sometimes smaller, sometimes larger than the current adjustments
  - There is little net change in Telephone Only adjustments

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## New Mode Adjustments: Telephone Only

Measure	2006 ME	2012 ME	2016 ME
Nurse	-4.0%	-	-4.2%
Doctor	-1.3%	-	-2.8%
Staff	-4.7%	-	-0.9%
Pain	-4.7%	-	-3.7%
RX Communication	-3.9%	-	-1.7%
Clean	-5.5%	-	-2.8%
Quiet	-6.3%	-	-8.6%
Discharge	-1.3%	-	-1.7%
CTM	-	-3.3%	-0.6%
Rating	-2.8%	-	-2.0%
Recommend	-4.4%	-	-3.5%
<b>Average</b>	<b>-3.8%</b>	-	<b>-3.0%</b>

## New Mode Adjustments: Mixed Mode Summary

- Current differences from Mixed Mode are negative for some measures and positive for others
  - But all differences are generally small
- Since 2006, the proportion of Mixed Mode responses by Telephone has increased
  - Though the Mixed Mode adjustment is not derived from a combination of the Mail Only and Telephone Only adjustments, the proportion of responses by Telephone does influence the Mixed Mode effect and therefore, its adjustment
- In the 2016 ME, Mixed Mode adjustments have become somewhat more negative, generally being intermediate between Telephone Only and Mail Only
  - All Mixed Mode adjustments are now negative

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## New Mode Adjustments: Mixed Mode

Measure	2006 ME	2012 ME	2016 ME
Nurse	-0.3%	-	-3.6%
Doctor	1.0%	-	-1.8%
Staff	0.1%	-	-3.4%
Pain	-2.3%	-	-2.3%
RX Communication	-0.9%	-	-0.9%
Clean	-2.1%	-	-3.8%
Quiet	-3.1%	-	-5.6%
Discharge	0.2%	-	-1.2%
CTM	-	-3.0%	-1.3%
Rating	-1.8%	-	-3.0%
Recommend	-1.4%	-	-2.1%
<b>Average</b>	<b>-1.2%</b>	-	<b>-2.6%</b>

## New Mode Adjustments: IVR Summary

- We previously found all IVR effects were positive relative to Mail Only (so all adjustments negative), except for the more recently estimated mode effects for CTM (2012 ME)
- The 2016 ME effects of IVR relative to Mail Only are both positive and negative
  - Reflects a general shift in the IVR adjustments to become less negative
- May reflect changes in how people respond to IVR due to greater familiarity, technology, etc.

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## New Mode Adjustments: IVR

Measure	2006 ME	2012 ME	2016 ME
Nurse	-1.8%	-	-2.3%
Doctor	-0.3%	-	0.3%
Staff	-1.9%	-	2.0%
Pain	-3.4%	-	0.1%
RX Communication	-1.6%	-	-0.1%
Clean	-1.9%	-	-0.5%
Quiet	-10.2%	-	-6.4%
Discharge	-3.2%	-	-1.6%
CTM	-	1.0%	-0.1%
Rating	-1.6%	-	4.0%
Recommend	-2.2%	-	0.1%
<b>Average</b>	<b>-2.5%</b>	-	<b>-0.4%</b>

## New Mode Adjustments: Summary

- Telephone Only adjustments continue to be negative, with some becoming more so and others less so
- IVR adjustments have gone from all negative to a mixture of positive and negative
- Mixed Mode adjustments have gone from a mixture of positive and negative, to all negative, but still less negative than Telephone Only

## Other Mode Adjustments and Implementation Dates

- New adjustments to bottom-box scores and to the linear means (used in Star Ratings) will also be derived from the 2016 ME
  - All mode adjustments are available now on HCAHPS online
- New top-box, bottom-box and linear mean mode adjustments will go into effect starting with April 2017 discharges

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*Questions?*



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## Next Steps

- Hospitals/Survey vendors:
  - Update QAP
  - Submit HCAHPS Attestation Statement
    - Due by April 7, 2017
    - Monitor the HCAHPS Web site for this document
  - Submit HCAHPS Survey materials
    - Due by April 7, 2017
  - Monitor the HCAHPS Web site:  
<http://www.hcahpsonline.org>

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## More Information and Resources

- Forms, background information, reports, and HCAHPS *Executive Insight*:  
<http://www.hcahpsonline.org>
- Submitting HCAHPS data:  
<https://www.qualitynet.org>
- Publicly reported HCAHPS results:  
<https://www.medicare.gov/hospitalcompare>
- HCAHPS results DDB:  
<https://Data.Medicare.gov>

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## Contact Us

### HCAHPS Information and Technical Support

- Web site: <http://www.hcahpsonline.org>
- Email: [hcahps@hcqis.org](mailto:hcahps@hcqis.org)
- Telephone: 1-888-884-4007



## Complete Evaluation Form