

AGENCY FOR HEALTHCARE RESEARCH AND QUALITY

AHRQ

AHRQ's CAHPS Program: Improving Response Rates and Representativeness—An Overview of Web-First and Other Strategies

A Webinar Presented by the AHRQ CAHPS User Network

Thursday, January 11

1:00 – 2:00 pm ET

Webcast Technical Info

- Audio issues
- Poor Connection
- Use Q&A: For Questions and communication
- **Event Website: https://events.westat.com/cahps/**
  - ► Download presentation slides, view agenda and speaker bios

Today's Agenda

- Welcome from AHRQ
- Overview of AHRQ's CAHPS Program
- Trends in Survey Response Rates
- HCAHPS Survey Mode Experiment
- CAHPS Medicare and CAHPS Hospice Surveys
- CAHPS Surveys at the Centers for Medicare and Medicaid Services (CMS)
- Questions and Answers

Today's Speakers

Joann Sorra, PhD
Vice President
Westat
Moderator

Jonathan Bakdash, PhD
Social Science Analyst, CAHPS and SOPS Program
Agency for Healthcare Research and Quality

Julie Brown
Senior Survey Researcher
RAND Corporation

Marc Elliott, PhD
Senior Principal Researcher
RAND Corporation

Elizabeth Goldstein, PhD
Director, Division of Consumer Assessment and Plan Performance
Centers for Medicare and Medicaid Services (CMS)

AHRQ'S CAHPS® PROGRAM

Jonathan Bakdash, Ph.D.

Social Science Analyst, CAHPS® & SOPS® Programs

Center for Quality Improvement & Patient Safety,

AHRQ

AHRQ's Core Competencies

- AHRQ is a research and development agency in the US Department of Health and Human Services
  - Core competencies: Health System Research, Practice Improvement, and Data & Analytics
- AHRQ is not a regulatory agency:
  - AHRQ does not require use of tools, products, and databases
- Encourage CAHPS database submissions for Quality Improvement
- AHRQ's investment is in patient experience of care survey development, research, and hosting databases for selected CAHPS surveys

Patient Experience

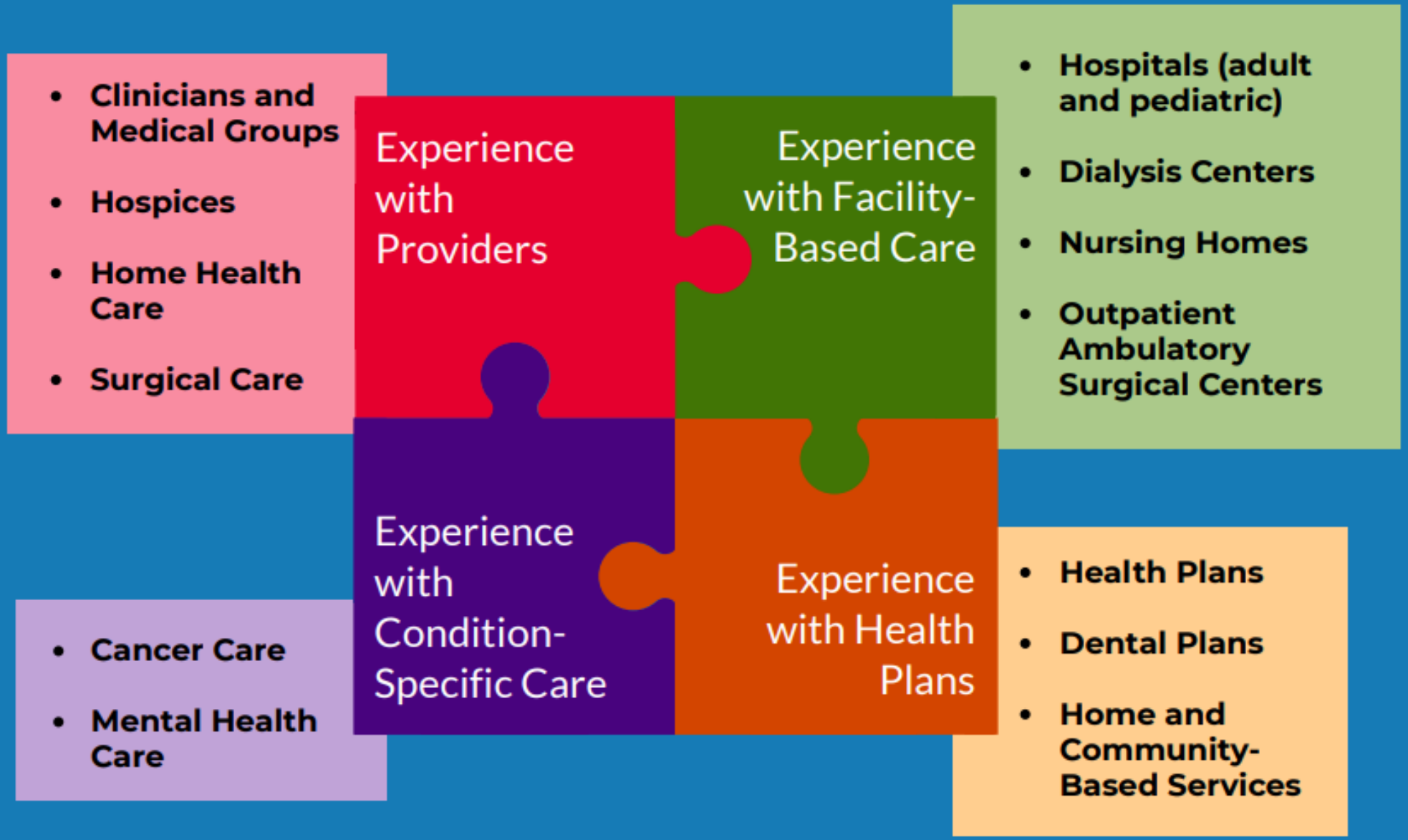
CAHPS Program: Gold Standard for Patient Experience

CAHPS surveys are considered the gold standard for patient experience measurement because they:

- Capture the patient's voice during the development process
- Use a standardized methodology for development, validation, and revision
- Extensively tested with patients

CAHPS Surveys

Measuring patient experience



Uses for CAHPS Surveys

CAHPS Survey Administration: Improving Response Rates and Representativeness

Example of a Search Query from CAHPS Bibliography

CAHPS Bibliography

Browse or search for publications about the development and use of CAHPS surveys and other topics related to assessing patients' experiences with care.

Results

1-46 of 46 Bibliography Items Found

Selections: Survey Administration

Anhang Price R, Quigley DD, Hargraves JL, et al. A systematic review of strategies to enhance response rates and representativeness of patient experience surveys. Medical Care. 2022 Dec, 60(12): 910-918. https://pubmed.ncbi.nlm.nih.gov/36260705/

Brenner PS, Hargraves JL, Cosenza C. Testing a Planned Missing Design to Reduce Respondent Burden in Web and SMS Administrations of the CAHPS Clinician & Group Survey (CG-CAHPS). Journal of Official Statistics. 2021

Deyoreo M, Price RA, Bradley MA, et al. Adding Telephone Follow-up Can Improve Representativeness of Surveys of Seriously Ill People. J Am Geriatrics Soc. 2022 Jun, 70(6): 1870-1873. https://pubmed.ncbi.nlm.nih.gov/35224725

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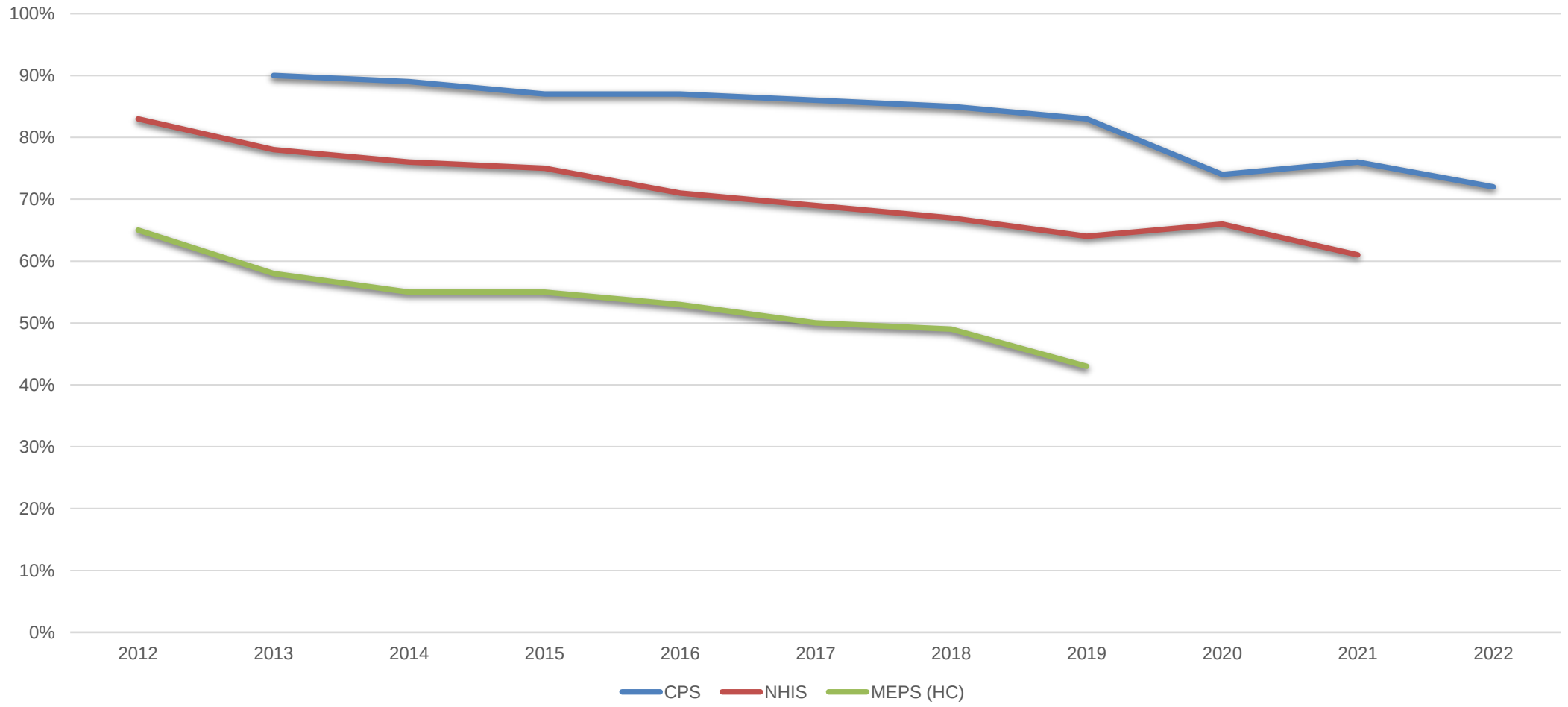
Trends in Survey Response Rates

Julie Brown
Senior Survey Researcher
RAND Corporation, Santa Monica, CA

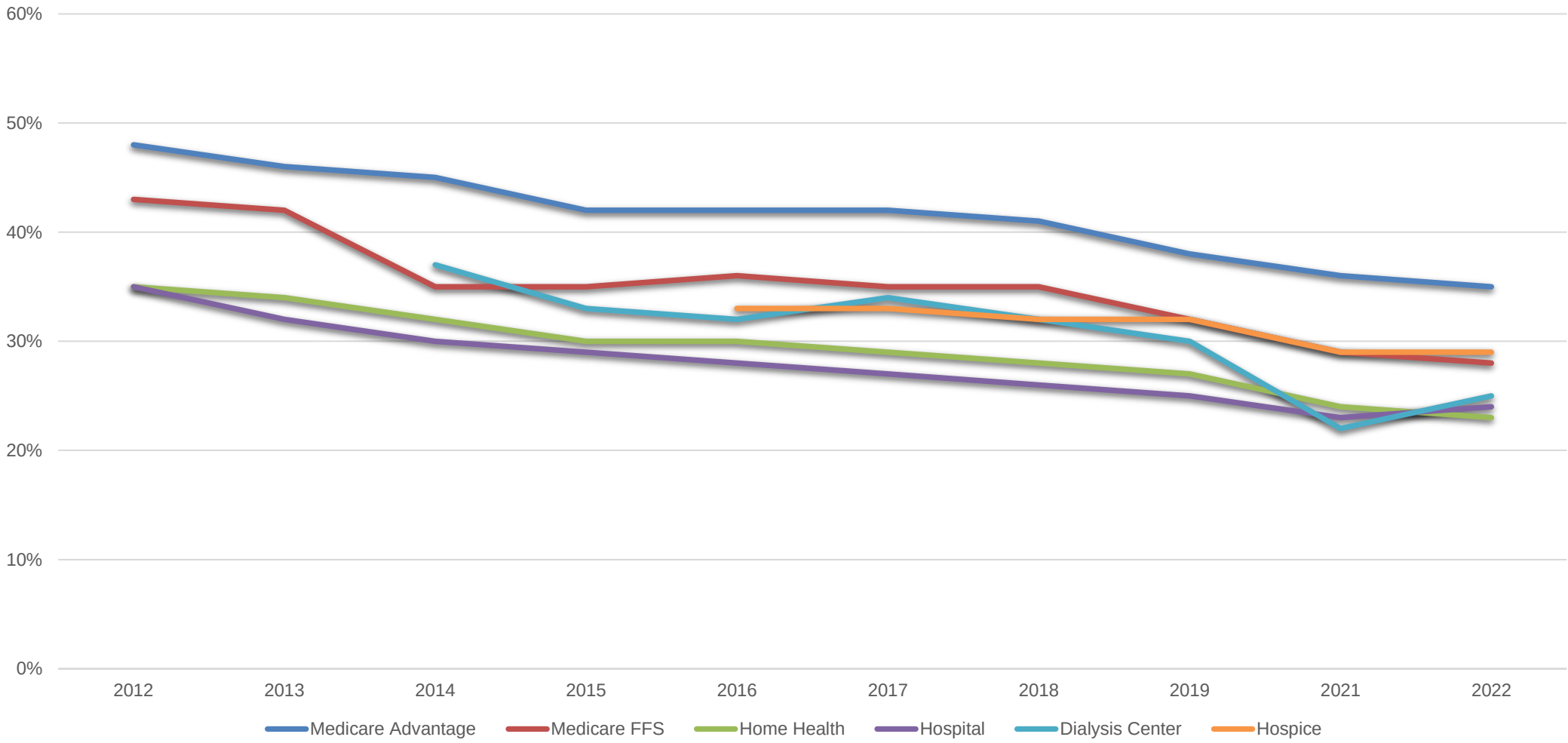
Response Rates Are Declining

- Since 2000, survey response rates in the published literature have decreased by more than 30 points
  - Trend occurs across all modes of survey administration
- Greatest effect on public opinion surveys and national household surveys
- Surveys related to health care (including patient surveys) are also affected

Historic Response Rates: National Surveys



Historic Response Rates: CAHPS Surveys



Challenges to Obtaining High Response Rates

- Contact rates
- Trust in organizations conducting surveys
- Privacy concerns
- Frequency of survey
- Timing of survey
- Survey length
- Clarity of survey questions

Role of Technology In Promoting Survey Response

- Promoting awareness of survey
  - Web pages
  - QR codes
  - Social media
- New methods to contact patients
  - Short message service (SMS)
  - Email
  - QR codes
- New modes of survey administration
  - Web
  - SMS

The CAHPS Hospital, CAHPS Hospice, and MA/PDP CAHPS Surveys: Lessons Learned from Recent Mode Experiments

Marc Elliott
Senior Principal Researcher
RAND Corporation, Santa Monica, CA

CAHPS Hospital, CAHPS Hospice, and MA/PDP CAHPS Randomized Experiments

- The CAHPS Hospital (HCAHPS), CAHPS Hospice, and MA/PDP (Medicare Advantage and Prescription Drug Plan) CAHPS projects all recently conducted randomized experiments evaluating Web-first protocols with the hope of increasing response rates (RRs) and representativeness
- HCAHPS and CAHPS Hospice also examined extending 42-day field periods to 49 days
- CAHPS Hospice tested use of a prenotification letter

HCAHPS Background: Many Patient Groups Have Lower Survey Response Rates

- HCAHPS is the first national, standardized, publicly reported survey of patient experience with hospital care
- Surveys in general, including HCAHPS, often have lower response rates (RRs) for adults who are Asian American and Native Hawaiian/Pacific Islander (AA & NHPI), Black, Hispanic, and younger
- Methods that improve RRs for these groups are important to ensure that patient experiences surveys:
  - Fully capture the experiences of all patients
  - Adequately measure health equity and equity-targeted quality improvement efforts
- Because these groups tend to have lower RRs, any effort that improves their RR is likely to improve overall representativeness

We Investigated Two Approaches to Increasing Representation of Groups with Lower Response Rates

- Sequential multimode approaches increase RRs and representativeness
  - Different patients have different preferred modes of response
  - Providing 2 or more modes sequentially allows patients to respond in their preferred mode
  - Here we evaluate one 3-mode protocol, three 2-mode protocols, and two single-mode protocols
- Longer data collection periods have several potential benefits
  - They facilitate multimode protocols
  - They may increase RR
  - They may increase representativeness
  - Here we test a 49-day data collection period and compare respondents in the last week to those in the first 42 days

2021 HCAHPS Mode Experiment Design

- 46 participating hospitals
  - Sampled 36,001 patient discharges from April 1 to September 30, 2021
  - Patients Age 18+, overnight stay, surgical/maternity/medical service lines, etc.
  - 63% of patients provided email addresses
  - Patients randomized within each hospital to 1 of 6 modes
  - As in previous HCAHPS mode experiments, survey administration was in English
- Used a 49-day, rather than 42-day field period
- Randomized experiments help compare the representativeness of survey modes
  - HCAHPS collects self-reported race/ethnicity, but only from respondents
  - A randomized experiment can show relative differences in RRs by race/ethnicity de-identified data such as HCAHPS

Mode Experiment Schedule of Contacts

Mode Day	Mail Only	Phone Only	Mixed Mode	Web-Mail	Web-Phone	Web-Mail-Phone
1	Mail 1st survey	Begin phone calls	Mail survey	Email 1st invitation	Email 1st invitation	Email 1st invitation
3				Email 2nd invitation		
4					Email 2nd invitation	Email 2nd invitation
6				Email 3rd invitation		Mail survey
7					Email 3rd invitation	
8				Mail 1st survey		
10					Begin phone calls	
21	Mail 2nd survey					
28			Begin phone calls			Begin phone calls
30				Mail 2nd survey		
49	End data collection	End data collection	End data collection	End data collection	End data collection	End data collection

2021 HCAHPS Mode Experiment Response Rates

Survey Administration Protocol	Response Rate
Current HCAHPS Modes	
Mail Only	22%
Phone Only	23%
Mail-Phone	31%
Web-first Modes	
Web-Mail	29%
Web-Phone	30%
Web-Mail-Phone	36%

- Adding web increased RRs
- Single mode-protocols had the lowest RRs

2021 HCAHPS Mode Experiment Response Rates by Email Availability

Survey Administration Protocol	RR, no available email address	RR, email address available
HCAHPS Legacy Modes		
Mail Only	21%	24%
Phone Only	20%	23%
Mail-Phone	26%	34%
Web-first Modes		
Web-Mail	20%	34%
Web-Phone	19%	37%
Web-Mail-Phone	29%	40%

- Email availability is associated with higher RRs, even for non-web survey modes
- Email availability increases RRs especially for web-first survey modes

Multimode Protocols Improve RR and Representativeness: Race and Ethnicity

- Web-Mail-Phone had the highest yield for 3 of 5 racial and ethnic groups (and the second highest for another) because of its high representativeness and overall RR
- Otherwise, the highest or second-highest yield was almost always a 2-mode protocol
- Mail Only was the lowest-yield mode for Black, Hispanic, and Multiracial patients; Phone Only was lowest-yield for White patients, and these modes tie as lowest-yield for AA&NHPI patients
- The gains from multimode approaches are often 2-3x as large for AA&NHPI, Black, Hispanic, and Multiracial patients as for White patients

Multimode Protocols Improve RR and Representativeness: Age

- Web-Mail-Phone had the highest yield for 6 of 8 age groups and the second highest yield for the other two age groups
- Otherwise, the highest or second-highest yield was almost always a 2-mode protocol
  - Web-Phone was especially successful for ages 18-64
  - Web-Mail was especially successful for ages 65-84
- Mail Only had the lowest yield for ages 18-54
- Phone Only had the lowest yield for ages 55+

Multimode Protocols Improve RR and Representativeness: Service Line and Sex

- Web-Mail-Phone had the highest yield for 4 of 5 combinations of service line and sex and the second highest yield for the other group
- Otherwise, the highest or second-highest yield was always a 2-mode protocol
  - Web-Mail did especially well for surgical patients
  - Web-Phone did especially well for maternity patients
  - Mail-Phone did especially well for medical patients
- Mail Only had the lowest yield for maternity patients
- Phone Only had the lowest yield for medical and surgical patients

Best and Worst RRs by Patient Characteristics

Characteristic	Lowest RR/Yield	Highest RR/Yield
Age		
18 - 24	Mail Only	Web-Phone
25 - 54	Mail Only	Web-Mail-Phone
55 - 84	Phone Only	Web-Mail-Phone
85+	Phone Only	Web-Mail
Race and Ethnicity		
AA&NHPI	Mail Only & Phone Only	Mail-Phone & Web-Mail
Black, Hispanic	Mail Only	Web-Mail-Phone
White	Phone Only	Web-Mail-Phone
Service Line x Sex		
Maternity	Mail Only	Web-Mail-Phone
Medical, Surgical (Both Female & Male)	Phone Only	Web-Mail-Phone

Extending HCAHPS Data Collection Period from 42 to 49 Days Improves Representation of Underrepresented Groups

- HCAHPS currently allows patients 42 days after first contact to respond
- We tested a 49-day data collection period and compared the final week (days 43-49) to the first 42 days
  - All modes showed meaningful gains in RR in the last week (average +3 pp)
  - Largest gains were for underrepresented groups
    - Racial and ethnic minority respondents were 51% of last-week respondents vs. 40% of earlier respondents
    - Those preferring another language to English were 13% of last-week respondents vs. 10% of earlier respondents.
    - Later responses to patient experience surveys are also known to capture poorer care experiences than earlier responses

HCAHPS Summary

- For HCAHPS, the gains from multimode approaches were often 2-3x as large for AA&NHPI, Black, Hispanic, and Multiracial people as for White people
- Mail Only mode had the lowest yield for Black, Hispanic, Multiracial, age 18-54, and maternity patients
- Phone Only mode had the lowest yield for White, age 55+, medical, and surgical patients
- Web-Mail-Phone had the highest yield for most groups
- Among two-mode protocols:
  - Web-Phone was especially successful for maternity and age 18-64 patients
  - Web-Mail was especially successful for surgical and age 65-84 patients
  - Mail-Phone was especially successful for medical patients
- While multimode approaches consistently outperform single mode approaches, the most effective survey modes for a given hospital will depend upon its patient population

MA/PDP CAHPS Field Test Schedule of Contacts

Field Day	Arm 1 (Web+Mail+Phone) (Experimental Arm)	Arm 2 (Mail+Phone) (Standard Arm)
1	Pre-notification letter (includes URL and PIN code)	Pre-notification letter
5	Web invitation letter (email & paper)	W1 Survey Packet
9	Web reminder letter (email only)	N/A
14	W1 Survey Packet	N/A
34	W2 Survey Packet	W2 Survey Packet
57	Begin Outbound CATI	Begin Outbound CATI
95	End Data Collection	End Data Collection

25 contracts, 5712 enrollees,
33% email address availability

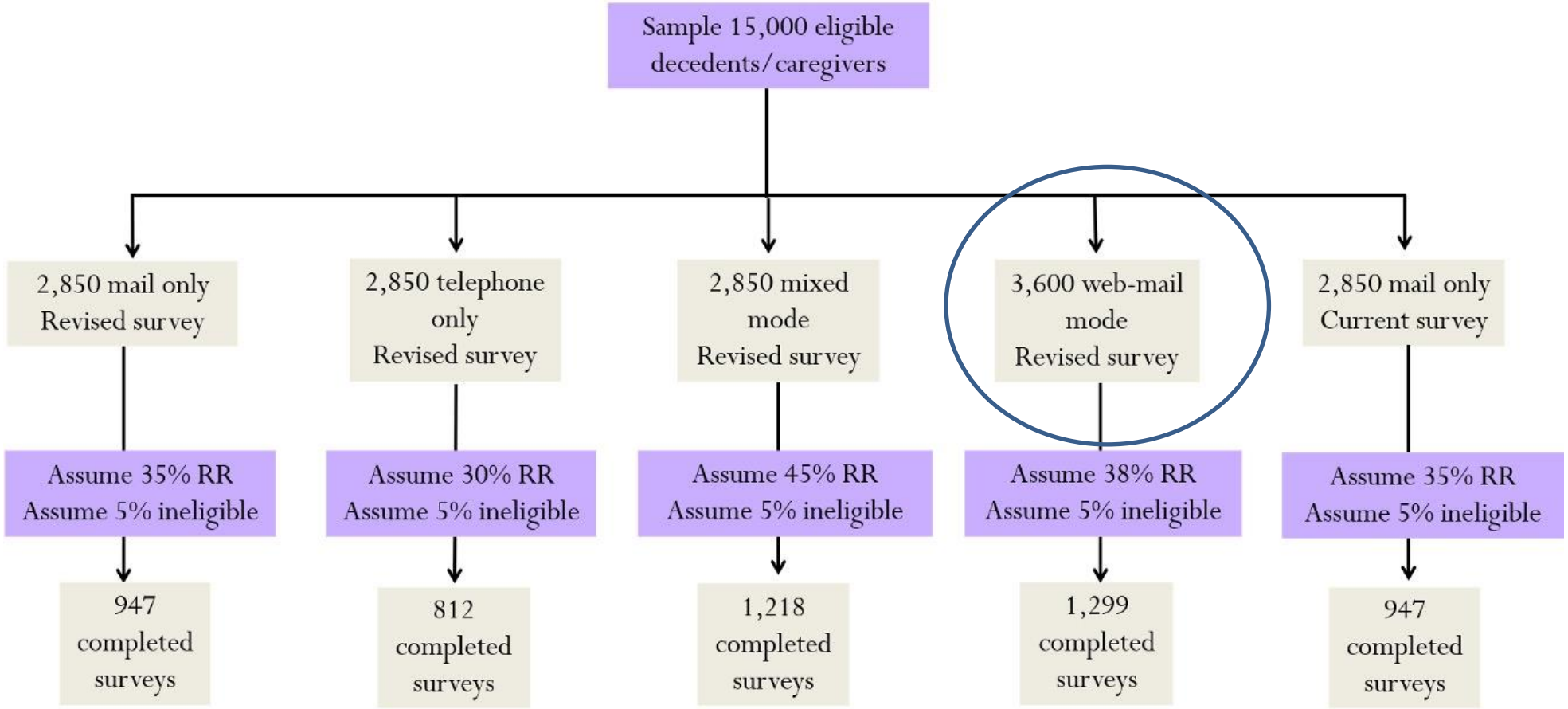
Web-First Protocol Improved RR Only Among Those for Whom an Email Address Was Available

- Web-Mail-Phone provided similar overall RR
  - MA Mail-Phone 39.4%; MA Web-Mail-Phone 40.5%, p=0.434;
  - PDP Mail-Phone 41.5%, PDP Web-Mail-Phone 42.0%, p=0.73.
- **However, RRs increased significantly (p<0.05), by 4.3 percentage points, among those for whom email addresses were available**
- There was a 5% reduction in the Wave 1 survey mailing volume in the Web-Mail-Phone arm due to completes received via web.
  - Subsequent web completes removed 1% of the sample from the Wave 2 mailing.
- The proportion of the sample requiring phone follow up was similar for both arms (72% for Web-Mail-Phone, 73% for Mail-Phone).

Web Responses Replace Responses from More Expensive Modes

- In Web-first approach, some enrollees who would have completed the survey by mail instead completed the survey by web
  - No evidence that web responses came from those who would have responded by phone
  - No statistically significant differences in the characteristics of Web-Mail-Phone vs. Mail-Phone respondents.
- In Arm 1, 4.9% of respondents responded by Web via the paper invitation (all without an email address)
  - Of those with an email address, 9.6% responded via one of the email invitations; none responded via the URL printed in the pre-notification letter.
  - Of those without an email address, phone RRs stayed the same, but mail RRs fell by an amount that compensated for the Web responses to the paper invitation, suggesting a substitution of web for mail.
  - Potential for more impact with more email address availability

CAHPS Hospice design was composed of five arms



Half of the cases within each hospice and arm were randomly selected to receive a prenotification letter one week before initiation of survey administration.

Survey eligibility and administration followed national implementation protocols for existing modes

- 56 large participating hospices were diverse with regard to census region, profit status, and past performance on the CAHPS Hospice Survey
- Prenotification letters were sent 7 days before data collection for a randomized half of the sample in each hospice/arm
- Web-mail mode consisted of:
  - Initial email inviting respondents to complete survey by web
  - After initial email:
    - Email reminder to non-respondents two days later
    - Mail survey to non-respondents four days later
    - Second mail survey to non-respondents 21 days later

With 31.4% email availability, web-mail is +4.6 pp vs. mail only

Table S.2. Estimated Response Rates by Arm, 42-Day Field Period

	Arm 1: Mail only; revised survey	Arm 2: Telephone only; revised survey	Arm 3: Mail-telephone; revised survey	Arm 4: Web-mail; revised survey
Estimated Response Rate	35.1%	31.5%	45.3%	39.7%

Among those with email, Web-Mail adds 13pp to Mail Only

Table 2.1. Adjusted Response Rates by Arm and by Email Address Availability, 42-Day Field Period

	Arm 1: Mail only; revised survey	Arm 2: Telephone only; revised survey	Arm 3: Mail-telephone; revised survey	Arm 4: Web-mail; revised survey
No Available Email Address	34.3%	31.1%	45.4%	35.2%
Available Email Address	36.7%	32.3%	44.9%	49.6%

CAHPS Hospice Summary

- A prenotification letter increased RR by 2.4pp
- Extending the field period from 42 to 49 days added 2.5pp to RR in the mail-only mode
- Web-Mail adds 13pp to those with email addresses relative to mail-only

Summary

- Multimode approaches outperform single-mode approaches
- Across HCAHPS, CAHPS Hospice, MA CAHPS, Web-first modes add 4-14 pp to RR among those with email addresses
  - These modes disproportionately benefit groups with lower response rates, improving representativeness and supporting health equity goals
  - Greater collection of email addresses maximizes the benefit of these modes
  - Web-first modes have potential for cost savings
- An extra week of field time adds 2.4-3.0pp to RRs
  - Prenotification letters have similar benefits
- Greater gains expected as more email addresses become available
- **Taken together, these improvements have the potential to substantially counter RR declines, saving money and increasing representativeness as well**

CAHPS Surveys at the Centers for Medicare & Medicaid Services (CMS)

Elizabeth Goldstein, PhD
Director, Division of Consumer Assessment and Plan Performance
CMS, Baltimore, MD

CMS Efforts to Increase Response Rates

- CMS publicly reports the results of CAHPS surveys on medicare.gov to inform decisions around choosing providers and plans.
- Many of the CAHPS surveys impact payments to CMS providers
  - Annual payment update
  - Value-based purchasing

CMS Efforts to Increase Response Rates

- CMS is considering multiple ways to help increase response rates across the CAHPS surveys.
  - Shortening the length of surveys
  - Adding web mode to survey administration protocols
  - Encouraging providers to choose survey administration mode based on population served
  - Creating cover letters, CATI scripts, and promotional materials to engage and inform potential respondents about the survey
  - Conducting the survey in the preferred language

Shortening Surveys

- Where we can, we are testing shorter versions on select CAHPS surveys.
  - Home Health CAHPS
  - In-Center Hemodialysis CAHPS
  - Hospice CAHPS

Adding Web Mode of Survey Administration

- Implementing web as an addition to mail, phone, or mail-phone across multiple CAHPS Surveys.
  - Outpatient and Ambulatory Surgery (OAS) CAHPS
  - Medicare Advantage (MA) and Prescription Drug Plan (PDP) CAHPS
  - Hospital CAHPS
- Additional settings where web testing is complete.
  - CAHPS Hospice Survey
  - In-Center Hemodialysis CAHPS
  - Home Health CAHPS

Encouraging Providers to Select Mode of Survey Administration Based on their Population

- There are differences in response rates by mode and race/ethnicity.
- Example of ICH CAHPS response rates by race/ethnicity.

Race/Ethnicity	2023 Spring Response Rate		
	Mail-only	Phone-only	Mixed Mode
American Indian/Native Alaskan	**12.1%**	**26.7%**	20.3%
Asian	18.9%	**16.5%**	**22.1%**
Black	**16.9%**	**25.8%**	23.5%
Hispanic	**11.3%**	23.8%	**24.9%**
Native Hawaiian/Other Pacific Islander	9.3%	**7.7%**	**23.6%**
White	27.9%	**22.4%**	**28.3%**

- CMS encourages providers to choose the mode taking into consideration their population served.

Prenotification and Cover Letters

- Research was conducted in 2019 and focused on ways to improve survey response rates by improving survey cover letters and envelopes.

More Engaging Prenotification and Cover Letters

What worked	What didn't work
• **Use of bold text, white space, and call-out boxes.** • **Use friendlier language and less text.** • **Personalize letters.** • **Note participation is voluntary.** • **Include language regarding information will be kept private by law.** • **Explain results are publicly reported.** • **Say participation is "greatly appreciated."** • **Highlight "your voice is important."**	• Use of font size smaller than Times New Roman 12 pt. • Use of large blocks of text with no special formatting. • Focus on things that matter primarily to survey researchers. • Use of language such as "Your Medicare benefits will not be affected." • No link about how survey results can help others choose a facility or plan. • Use of language that says this is your "last chance" [to participate]. • Not clearly specifying what organization is being contacted for the toll-free number listed in the letter.

Qualitative Testing to Support Telephone Interviewing

- Qualitative testing was conducted in 2023 to explore ways to modify CATI scripts to help increase survey participation.
- CMS is reviewing the findings to update, as needed, recommendations around Caller IDs and CATI script introductions.

Caller ID Recommendations

- Use Caller ID display to quickly establish legitimacy and relevancy.
- Avoid references to “surveys” in the Caller ID.
- Always display a phone number.
- Use a local number if possible.
- Avoid phone numbers that are likely to be perceived as spam.
- Provide a number that can be called back or validated online.

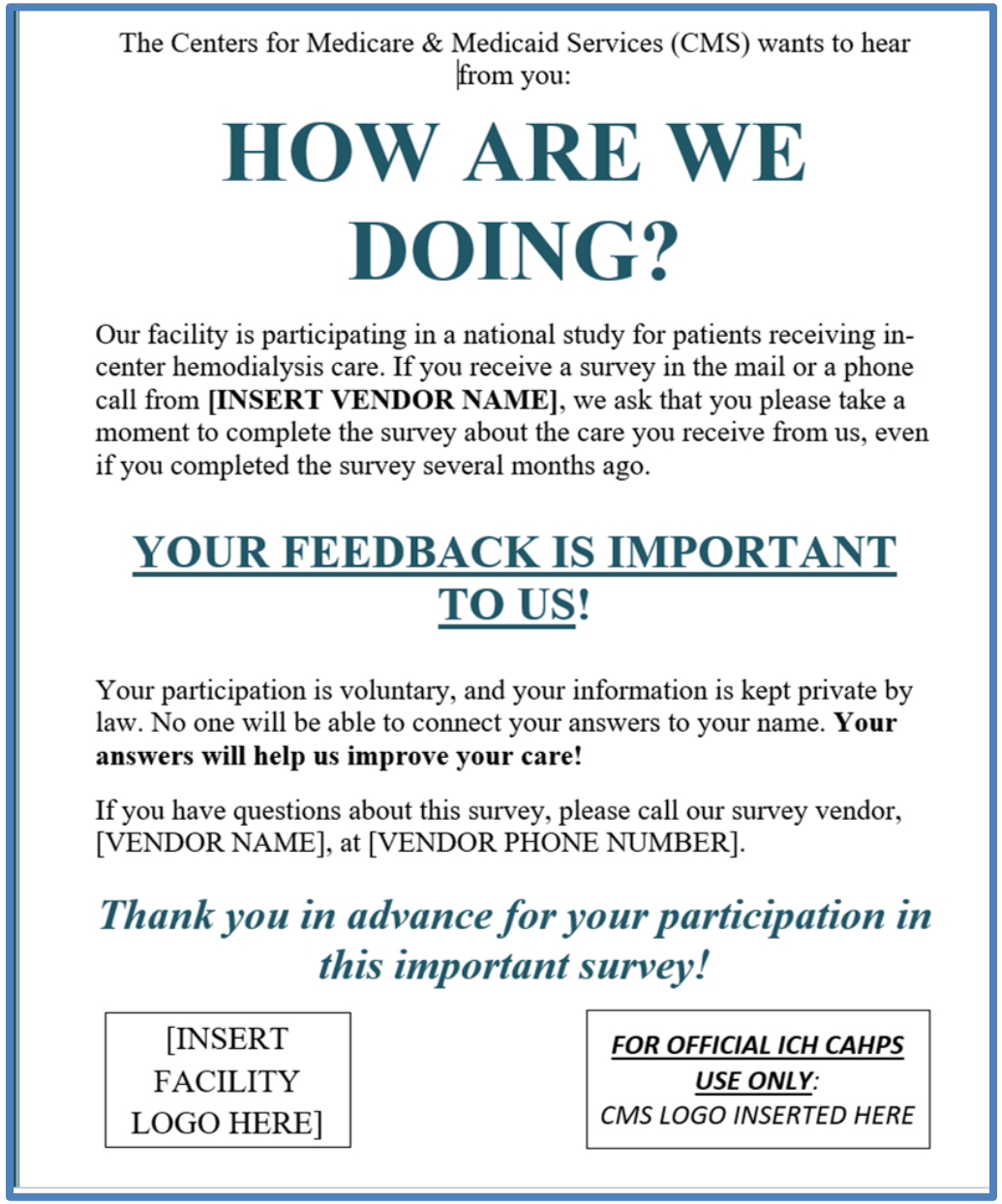
CATI Script Recommendations

- Shorten CATI scripts as much as possible.
- Include a purpose statement for each survey.
- Personalize the introduction.
- Ensure interviewers are trained to promote a positive interview experience.
- Express appreciation.
- Directly ask participants for help.

Promotional Material

- Encourage providers and plans to let their patients or members know that they may receive a survey.
- Facilities can hang posters containing information about the survey.

Example of a Poster to Encourage Participation



The Centers for Medicare & Medicaid Services (CMS) wants to hear from you:

HOW ARE WE DOING?

Our facility is participating in a national study for patients receiving in-center hemodialysis care. If you receive a survey in the mail or a phone call from **[INSERT VENDOR NAME]**, we ask that you please take a moment to complete the survey about the care you receive from us, even if you completed the survey several months ago.

YOUR FEEDBACK IS IMPORTANT TO US!

Your participation is voluntary, and your information is kept private by law. No one will be able to connect your answers to your name. **Your answers will help us improve your care!**

If you have questions about this survey, please call our survey vendor, [VENDOR NAME], at [VENDOR PHONE NUMBER].

Thank you in advance for your participation in this important survey!

[INSERT FACILITY LOGO HERE]

FOR OFFICIAL ICH CAHPS USE ONLY:
CMS LOGO INSERTED HERE

Language Preference

- CMS is committed to making translations of the CAHPS surveys available for use in CMS programs.
- There are a variety of translations that are currently available and optional for plans and providers to use.
- For some CMS CAHPS Surveys, we currently require the administration of the survey in Spanish.
- We encourage all providers and plans to collect language preference information and administer the survey in the preferred language when available.

Q&A

CAHPS Updates

- Sign up for email updates

Questions or Comments?

- E-mail: cahps1@westat.com
- Phone: 1-800-492-9261
- Web site: www.ahrq.gov/cahps/

THANK YOU!

PLEASE COMPLETE THE WEBCAST EVALUATION