

# Techniques Tested to Improve Representation of Racial and Ethnic Minority, Younger, and Maternity Patients in a National Hospital Experience of Care Survey

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# Background: Many Patient Groups Have Lower Survey Response Rates

- HCAHPS is the first national, standardized, publicly reported survey of patient experience with hospital care
  - Hospitals choose their survey mode (Mail Only, Phone Only mode, Mail-Phone, Active IVR)
- 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 multi-mode** 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 7 days 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 the usual 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 in de-identified data such as HCAHPS



# 2021 HCAHPS Mode Experiment Response Rates

Survey Administration Protocol	Response Rate
<b>Current HCAHPS Modes</b>	
Mail Only	22%
Phone Only	23%
Mail-Phone	31%
<b>Web-first Modes</b>	
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
<b>HCAHPS Legacy Modes</b>		
Mail Only	21%	24%
Phone Only	20%	23%
Mail-Phone	26%	34%
<b>Web-first Modes</b>		
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

# Multi-mode 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; these modes tie as lowest-yield for AA&NHPI patients
- The gains from multi-mode approaches are often 2-3x as large for AA&NHPI, Black, Hispanic, and Multiracial patients as for White patients



# Multi-mode 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+

# Multi-mode 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
<b>Age</b>		
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
<b>Race and Ethnicity</b>		
AA&NHPI	Mail Only & Phone Only	Mail-Phone & Web-Mail
Black, Hispanic	Mail Only	Web-Mail-Phone
White	Phone Only	Web-Mail-Phone
<b>Service Line x Sex</b>		
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 to survey
- 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)
  - Biggest gains for underrepresented groups
    - Racial and ethnic minority respondents were 51% of last-week respondents vs. 40% of earlier respondents
    - Those preferring a language other than 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

# Conclusions

- For HCAHPS, the gains from multi-mode approaches were often 2-3x as large for AA&NHPI, Black, Hispanic, and Multiracial people as for White patients
- 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 patient 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 multi-mode approaches consistently outperform single mode approaches, the most effective survey modes for a given hospital will depend upon its patient population

# Questions or comments?

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