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Emergency Department Patient Experience of Care Survey

Development and Field Test

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Preface

In 2012, the Centers for Medicare & Medicaid Services (CMS) entered into a contract with RAND to develop an Emergency Department Patient Experience of Care (EDPEC) Survey. We designed and tested three survey instruments for use with adult patients who have visited the emergency department. In this report, we briefly summarize the work that we conducted, including survey development activities, field test procedures, and results of the data analysis. We also present the three English-language survey instruments that resulted from the field test.

Questions regarding the use of this survey by CMS may be directed to ED_Survey@cms.hhs.gov.

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The Centers for Medicare & Medicaid Services (CMS) have implemented Consumer Assessment of Healthcare Providers and Systems (CAHPS®) surveys to assess patient experience in a number of settings. However, none of these surveys address patients' experiences with emergency department (ED) services. As a result, CMS entered into a contract with RAND to design and field test an Emergency Department Patient Experience of Care (EDPEC) Survey.

Following CAHPS principles, we designed and tested three survey instruments for use with adult patients who have visited the ED. One instrument is for use with those patients who are discharged to the community following their ED visit; the other two instruments are for use with those patients who are admitted to the hospital from the ED (one for use on its own and one to supplement an existing inpatient survey). The surveys were developed using a call for topic areas published in the Federal Register, a literature review, focus groups, a technical expert panel, and cognitive testing with patients.

We conducted a field test of these instruments in 12 hospitals in late 2013 and early 2014 and analyzed the resulting data from 4,101 ED patients. We developed a case-mix adjustment model to enable fair comparisons among EDs and assessed modes of survey administration (telephone, mail, and mixed telephone/mail mode), hospital-level reliability, and missing data.

Based on the results of these analyses, we present the three English-language draft instruments resulting from the field test:

- Discharged to Community: 35 questions regarding ED experience, plus 18 questions regarding the respondent's characteristics, for those patients who were discharged directly from the ED to a community-based setting
- Admitted Stand Alone: 29 questions regarding ED experience, plus 18 questions regarding the respondent's characteristics, for those patients who were admitted to the hospital from the ED
- Admitted HCAHPS Add-on: 10 questions regarding ED experience that should be inserted into a full Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) instrument (using the most recently available version of the instrument) immediately preceding the "About You" section that includes questions regarding the respondent's characteristics. This instrument is also for use with those patients who were admitted to the hospital from the ED.

The 18 questions regarding the respondent's characteristics in the Discharged to Community and Admitted Stand Alone instruments include

- eight demographic and general health status questions that are typically included in CAHPS surveys
- seven additional questions focused primarily on disabilities and functional status that are legally mandated by Section 4302 of the Affordable Care Act
- three questions related to proxy assistance with completing the survey.

These instruments yielded four composite measures, which are measures composed of responses to multiple survey questions:

- Getting Timely Care
- Communication with Patients About Their Medicines
- How Well Emergency Room Doctors and Nurses Communicate with Patients
- Communication with Patients Prior to Their Release.

In addition, they yielded ten measures that are each comprised of a single survey question:

- "Using any number from 0 to 10, where 0 is not at all important and 10 is extremely important, when you first arrived at the emergency room, how important was it for you to get care right away?"
- "During this emergency room visit, did the doctors and nurses do everything they could to help you with your pain?"
- "During this emergency room visit, when you needed an interpreter did you get one?
- "Using any number from 0 to 10, where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate your care during this emergency room visit?"
- "Would you recommend this emergency room to your friends and family?"
- "During this emergency room visit, did doctors and nurses give you as much information as you wanted about the results of these tests?" (discharged patients only)
- "Before you left the emergency room, did a doctor or nurse tell you what the new medicines were for?" (discharged patients only)
- "Before you left the emergency room, did someone ask you if you would be able to get this follow-up care?" (discharged patients only)
- "Once you found out you would have to stay in the hospital, were you kept informed about how long it would be before you went to another part of the hospital?" (admitted patients only)

- "Before you left the emergency room, did you understand why you needed to stay in the hospital?" (admitted patients only)

These instruments are based on the results of our field test, should not be considered final instruments that are endorsed by CMS, and were not ready for use at the time this report was released. As of September 2014, CMS plans to conduct additional testing on these instruments.

Acknowledgments

Abbreviations

AHRQ	Agency for Healthcare Research and Quality
AHA	American Hospital Association
HCAHPS	Hospital Consumer Assessment of Healthcare Providers and Systems
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CMS	Centers for Medicare & Medicaid Services
ED	emergency department
EDPEC Survey	Emergency Department Patient Experience of Care Survey
EMTALA	Emergency Medical Treatment and Active Labor Act of 1986
ICC	intraclass correlation coefficient
MEPS	Medical Expenditure Panel Survey
MSE	mean squared error
NHAMCS	National Hospital Ambulatory Medical Care Survey
N/A	not applicable
SD	standard deviation
SE	standard error
TEP	technical expert panel

1. Introduction

The Centers for Medicare & Medicaid Services (CMS) have implemented patient experience surveys in a number of settings, including traditional Medicare, Medicare Advantage, Part D Prescription Drug Plans, hospitals, in-center hemodialysis facilities, and home health agencies. While CMS and the Agency for Healthcare Research and Quality (AHRQ) have developed additional Consumer Assessment of Healthcare Providers and Systems (CAHPS®) surveys for nursing homes and for clinician and group practices, none of these surveys address patients' experiences with emergency department (ED) services.

The ED is the site for 28 percent of all acute care visits in the United States[1] and is a unique environment within the health care system. EDs often bridge the world of outpatient and inpatient care, provide patients with a critical means of accessing health care when other options are not available, and are a setting in which the majority of patients are treated by providers who they have not previously met. This makes existing CAHPS instruments only partially relevant for capturing patient experience in the ED. As a result, CMS entered into a contract with RAND to design and field test an Emergency Department Patient Experience of Care Survey (EDPEC Survey). We designed and tested three survey instruments for use with adult patients who have visited the ED. One instrument is for use with those patients who are discharged to the community following their ED visit; the other two instruments are for use with those patients who are admitted to the hospital from the ED (one for use on its own and one to supplement an existing inpatient survey).

The survey instruments were developed and tested in accordance with CAHPS design principles, which specify that survey questions should

- focus on topics for which patients are the best or only source of information
- emphasize aspects of care that consumers and patients identify as being important
- ask patients to report about their experiences with health care services rather than focusing solely on overall ratings or satisfaction measures.[2]

The EDPEC Survey comprises a key contribution that CMS makes to one of the six priorities included in the Department of Health and Human Services' National Quality Strategy[3]—ensuring patient and family engagement in care—and thus to the implementation of the Affordable Care Act. In this report, we briefly summarize survey development activities, field test procedures, and results of the data analysis. In the last chapter, we present the three English-language survey instruments that resulted from the field test.

2. Developing Survey Instruments for the Field Test

The content and design of the EDPEC Survey were informed by

- a call for topic areas published in the Federal Register
- a review of the literature, including publications in peer-reviewed journals and the gray literature
- focus groups with ED patients and caregivers of ED patients
- a technical expert panel (TEP)
- cognitive testing with ED patients.

Federal Register Call for Topic Areas

In response to a call for topic areas that was published in the Federal Register in December 2012,[4] stakeholders suggested a number of substantive content areas for the survey, including

- overall quality of care provided in the ED and willingness of patients to recommend the ED to friends and family
- wait times and the extent to which individuals are kept informed about delays and wait times
- the registration and admitting process, including helpfulness of the registration staff and timely completion of the process
- the extent to which doctors, nurses, and staff communicated with patients and caregivers about their condition, treatment options, medications, and test results
- the degree to which patients felt that doctors, nurses, and staff appropriately understood their medical history, listened to their needs, and incorporated patient concerns and preferences into treatment decisions
- doctor, nurse, and staff concern and courteousness toward patients and caregivers
- pain control and management
- lab and test experience, courteousness of staff, and timeliness of results
- conditions of the facility, including cleanliness, privacy, and comfort of waiting and treatment areas
- discharge information provided to patients.

Literature Review

We conducted a systematic review that identified 159 peer-reviewed journal articles and 59 surveys, measures, or reports in the gray literature relating to patient experience in the ED. These

documents included 1,176 survey items with many overlapping items or topics, the most common of which were related to

- interpersonal characteristics of health care providers, such as "caring and courtesy" (number of questions identified = 220)
- communication, such as explaining things using terms that the patient could understand (178)
- overall assessment of the ED, visit, or care received (104)
- waiting times (89)
- skill of providers (70)
- characteristics of the facility, such as cleanliness (66)
- pain management (51)
- information provided to the patient, such as being told how to take any medications that were prescribed (67)
- privacy (35).

Focus Groups

To identify content areas of importance to patients, we conducted six focus groups with a diverse group of adults ages 18 and over. Four of the six groups included patients who had recently had an ED visit; the patients were diverse with respect to income, education, language, and whether the patient was admitted to the hospital or discharged to the community following his or her ED visit. The remaining two focus groups included parents of child patients and caregivers of adult patients, all of whom had recently attended an ED visit for their child or adult patient. Based on transcripts of the focus groups and a review of themes identified, RAND recommended exploring question development for the following topics:

- mode of arrival at the ED
- level of urgency as perceived by the patient
- the patient's prior experience with ED care
- waiting time to register
- patient privacy in ED treatment areas
- whether the patient had a friend or family member with him or her in the ED
- waiting time from completion of treatment to discharge (for those discharged to the community)
- ED discharge process, such as the need to seek follow-up care (for those discharged to the community).

Technical Expert Panel

Our TEP, conducted in October 2012, was comprised of 12 participants and included physicians and nurses from the emergency medicine community, representatives of medical specialties, representatives of hospital associations, experts in survey methodology and patient experience surveys, and a consumer advocate. CMS staff also attended the meeting. The TEP members agreed with the general focus of the survey content.

The TEP recommended collecting information on patients' follow-up care after an ED visit. They also recommended focusing the survey on care processes (including transition to inpatient care), staff (including doctors and nurses) in the ED, and the ED environment, rather than asking about specific locations or sequences of events within the ED. In addition, TEP members suggested excluding from the survey sample those patients who visited the ED as part of a scheduled follow-up visit, although they acknowledged the challenges associated with identifying such patients. The TEP considered the question of whether proxy respondents should be allowed in place of responses obtained directly from patients. This discussion focused on the tension between the desirability of obtaining self-reported information from the patient and the fact that proxies may have a better sense of what happened during an ED visit if the patient was unconscious, cognitively impaired, or in significant pain during the visit. The TEP discussed recommendations for adapting the survey for pediatric populations and critiqued a draft EDPEC Survey instrument.

Cognitive Testing

Cognitive testing of the draft instruments was conducted in English and Spanish with 23 participants who had an ED visit within the six months preceding the interview. The cognitive testing indicated that the general flow of topics within the instrument worked well and that the placement of survey questions was appropriate within topic areas. Prior to the field test, some questions were restructured or deleted from the instruments based on the cognitive testing.

Three main changes were made to the instruments as a result of the cognitive testing. First, we determined that the TEP's recommended inclusion of a question related to scheduled ED visits was not feasible, as most patients were not aware that scheduled follow-up visits might happen in the ED. Second, while the focus groups identified waiting time from treatment completion until discharge as a relevant concern, cognitive testing indicated that treatment completion was an ambiguous concept for many patients, regardless of question wording. Finally, we noted that patients who were admitted to the hospital tended to include experiences as an inpatient when answering questions about their ED experience. This was resolved by including a reminder in the survey instructions that instructs respondents to focus solely on their ED visit when answering survey questions.

Field Test Instruments

Our survey development work identified the need for three separate survey instruments, which were included in the field test:

- The first instrument ("Discharged to Community") is designed to be administered to those ED patients who are discharged to the community at the end of their ED visit. These are individuals who are not admitted to the hospital and are returning home or to another community-based setting. By definition, the health conditions that brought these patients to the emergency department are less severe than those of patients who are admitted to the hospital following their ED visit.
- The second instrument ("Admitted Stand Alone") is a full-length survey focusing only on experience in the ED for those patients who were admitted to the hospital at the end of their ED visit.
- The third instrument ("Admitted HCAHPS Add-on") was composed of 11 questions focused on experience in the ED and was inserted into a current Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) instrument that included all HCAHPS core questions regarding inpatient experience.

The protocol for the field test was reviewed and approved by RAND's Human Subjects Protection Committee and subsequently by the federal Office of Management and Budget under the Paperwork Reduction Act of 1980 (amended 1995).[i]

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[i] The full package of materials submitted for review by the federal Office of Management and Budget is available at http://www.cms.gov/Research-Statistics-Data-and-Systems/Research/CAHPS/ed.html (see reference 27).

3. Field Test

Hospital Recruiting

We used the American Hospital Association (AHA) database to identify a sample frame of all hospitals with EDs in the United States, excluding specialty-care hospitals and children's hospitals. To ensure that the field test would be adequately powered and could be completed in the needed three-month time frame, we required that each of the 12 participating hospital EDs treat (1) at least 160 patients per month who are admitted to the hospital through the ED and (2) at least 240 patients per month who are discharged to the community. As a result, we also excluded those EDs with fewer than 14,000 visits annually.

To ensure field test participation by a diverse group of hospitals, we assigned the hospitals identified in the AHA database to 12 queues based on size and region of the country and sorted them randomly within each queue. Recruitment proceeded in order within each queue until the number of successfully recruited hospitals reached our target, with the goal of ensuring a sample of hospitals that was diverse with regard to geography and size. In addition, within our set of 12 hospitals we sought to include

- no more than three academic hospitals, defined as a hospital with a designation of "major teaching" status in the AHA database
- at least two safety-net hospitals, defined as hospitals that satisfy at least two of the following criteria: high proportion of Medicaid patients, high proportion of uncompensated care, or high county-level poverty rate.

These targets were achieved using end-of-the-day reconciliation during the recruitment process. Recruitment of hospitals with 14,000 to 24,999 ED visits annually proved to be challenging. Most of these hospitals had fewer than 160 patients who were admitted to the hospital through the ED and were available for ED sampling after the hospital conducted sampling for its HCAHPS administration. The number of participating hospitals in each size category and region is shown in Table 3.1.

Table 3.1. Number of Hospitals Participating in Field Test by Hospital Size and Region

Hospital Size	Region			
	Northeast	South	Midwest	West
< 14,000 ED visits annually	Not eligible for participation			
14,000–24,999	1	0	0	0
25,000–49,999	1	2	1	1
50,000 or more	2	1	2	1

Patient Eligibility

Hospitals authorized their vendors to provide administrative data to RAND. All adult patients were eligible for inclusion in the sampling frame for each hospital with the exception of the following ineligible groups:

- patients under the age of 18
- patients with a primary mental health or substance use diagnosis
- patients who were discharged to hospice care, nursing homes, and skilled nursing facilities
- patients who were transferred to another hospital
- patients who died in the ED or who were admitted to the hospital from the ED and died during the inpatient stay
- patients who requested that they not be contacted (those who sign "no publicity" requests while hospitalized or otherwise directly request not to be contacted)
- court/law-enforcement patients (i.e., prisoners)
- patients with a foreign (non-U.S. or U.S. territory) home address
- patients excluded because of state regulations that place further restrictions on which patients may be contacted after discharge
- homeless patients
- patients who left without being seen and did not receive a billing code
- patients who were sampled by the hospital/vendor for HCAHPS survey administration
- patients who were sampled by the hospital/vendor for their hospital's own ED patient experience survey.

Identification of patients for exclusion was based on the hospital administrative data that RAND received from vendors.

Sampling

Within each hospital, our goal was to sample 1,200 ED encounters over a three-month period. Patients who were sampled for one of their ED visits were not eligible for sampling

during any additional ED visits occurring within the same one-to-two-week batch of ED encounters, but they were eligible for sampling based on visits occurring during the remainder of the field test. Some hospitals had insufficient leftover samples remaining after HCAHPS sampling had been performed among admitted patients and after sampling for any hospital-sponsored ED surveys; as a result, they could not achieve the weekly sampling targets of 40 admitted patients and 60 patients who were discharged to the community or could only achieve targets for some weeks during the field period. For those hospitals that could not achieve the targets, we sampled all available patients and redistributed the remaining needed sample among the other hospitals that had adequate leftover sample size. This approach ensured that we achieved our total target sample per one-to-two-week sampling batch over the course of the entire field test.

Because experience from our early batches of ED encounters showed lower-than-expected response rates, we increased the field period by one week and increased the weekly sample per hospital of patients who were discharged to the community from 60 to 132 per week in the last four weeks of the field test. This was done to ensure that we would meet our overall target number of completed surveys for all three instruments.

Field Work Procedures

From December 4, 2013, through April 8, 2014, we conducted a field test of the three instruments using ED and hospital discharges that occurred between November 1, 2013, and January 31, 2014. The survey was administered between two and 42 days after discharge from the ED or from the inpatient stay that resulted from the ED visit. The field test was designed to assess the feasibility of survey administration procedures, examine survey question performance, and aid in the development of composite measures of ED performance while enabling comparisons of response rates and response patterns across survey version and mode.

All patients who were discharged to the community received the EDPEC Survey Discharged to Community instrument. Because the field test included two survey instruments for those patients who were admitted to the hospital following their ED visit, sampled admitted patients were randomized to receive either (1) the Admitted HCAHPS Add-on version of the EDPEC Survey or (2) the Admitted Stand Alone version. Within each hospital/instrument combination, all sampled patients were randomized to one of three survey modes: (1) mail only, (2) telephone only, and (3) mixed mode (mail/telephone). Separate English- and Spanish-language surveys were available for all three instruments.

Patients randomized to the mail-only survey mode received up to two survey mailings—an initial mailing and a follow-up mailing to nonresponders 21 days later. Telephone-only cases received up to five call attempts on varied days of the week and times of day between 9 a.m. and

9 p.m. The five attempts were made over at least a two-week period. Mixed-mode cases received a single survey mailing; 21 days after the mailing, nonresponders were routed to the telephone mode for up to five calling attempts. In keeping with HCAHPS guidelines,[5] the entirety of the field period from initial survey mailing to cessation of efforts was no longer than 42 days (six weeks).

4. Response Rates, Respondent Characteristics, and Proxies

Response Rates and Sample Size

For each instrument and mode, Table 4.1 displays the total number of individuals sampled, confirmed ineligible, and eligible for the survey; the number with complete and partial responses; and our response rates. Our response rates were calculated using response rate #2 from the American Association for Public Opinion Research, which counts partially completed questionnaires as respondents.[6]

Table 4.1. Eligibility and Response Rates by Instrument and Survey Mode

	Instrument (All Modes)			Survey Mode (All Instruments)			
	Discharged to Community	**Admitted Stand Alone**	**Admitted HCAHPS Add-on**	**Mail**	**Telephone**	**Mixed Mode**	**All**
Sampled	12,586	3,012	3,069	6,202	6,366	6,099	18,667
Confirmed ineligible	(437)	(276)	(292)	(25)	(530)	(450)	(1,005)
Eligible	12,149	2,736	2,777	6,177	5,836	5,649	17,662
Completed and partially completed surveys	2,400	829	872	1,087	1,346	1,668	4,101
Response rate	19.75%	30.30%	31.40%	17.60%	23.06%	29.53%	23.22%

Confirmed ineligibles comprised 5.38 percent of the total sample and were more prevalent among patients admitted to the hospital and in the telephone mode; this group includes cases where a family member confirmed by mail or telephone that the selected individual was deceased, residing in an institution, did not speak English or Spanish, or was too ill or otherwise incapable of completing a survey.

As in other patient experience surveys, we marked as complete those surveys for which the respondent answered 50 percent or more of the eligible questions and marked as partially complete those surveys for which the respondent answered fewer than 50 percent of the eligible questions in the survey. We note that 98.85 percent of all surveys containing data had 50 percent or more of eligible questions completed by respondents and were thus marked as complete.

The overall response rate among all eligible cases was 23.22 percent, including both completed and partially completed surveys. This rate is lower than typically observed in HCAHPS and is most likely due to the inclusion of patients who were discharged to the community (response rate 19.75 percent), as our response rates for those admitted to the hospital at the end of their ED visit (30.30 to 31.40 percent) are comparable to typical HCAHPS inpatient response rates.[7] Lower response rates among patients who are discharged to the community may be caused by a lower level of salience of the ED visit, since these patients spend less time in the hospital overall and have less severe health concerns related to their ED visit than those who were admitted to the hospital.

In addition, lower response rates for this group may be due to the lower-quality contact information provided by hospitals and vendors and available via public records. Among patients who were discharged to the community, 11.37 percent of cases had inaccurate or unusable telephone and/or address information provided by the hospital or vendor, compared to 6.28 percent among those admitted to the hospital at the end of their ED visit. After further telephone and address lookups were performed using public records, new contact information was identified for only 4.26 percent of those sampled patients who were discharged to the community, compared to 13.87 percent of those admitted to the hospital (data not shown).

Gender, age, length of stay, and survey mode were all significantly associated with the likelihood of responding to the survey (data not shown). Among discharged to community patients (who were in general less likely to respond than those admitted to the hospital), those who were male, those who were under 35 years of age, and those assigned to the mail survey mode were less likely to respond. Among admitted patients, those with longer inpatient lengths of stay, those who were under 35 years of age, and those assigned to the mail survey mode were less likely to respond. These observations are consistent with other patient experience surveys,

which typically find that older patients and those patients who received the survey by telephone or mixed mode are more likely to respond.[8,9]

Table 4.1 shows that the response rate among patients surveyed by mail was lower (17.60 percent) than for the other two survey modes (23.06 percent for telephone and 29.53 percent for mixed mode).

Our final sample size for all analyses was 4,101 completed surveys, with 2,400 completed surveys using the Discharged to Community instrument, 829 using the Admitted Stand Alone instrument, and 872 using the Admitted HCAHPS Add-on instrument

Respondent Characteristics

Table 4.2 shows the distribution of respondent characteristics overall and by discharge status. Compared to respondents who were admitted to the hospital after their ED visit, those who were discharged to the community were more likely to be younger, be from racial/ethnic minority groups, be female, not speak English at home, and have better self-reported overall health. They were also less likely to have been transported to the ED by ambulance, to have visited the ED because of a new health problem or ongoing health condition, and to have a usual source of care. Respondents who were discharged to the community tended to have had more visits to any ED in the last six months. These observed differences may be due either to underlying differences between discharged and admitted patients or to differential tendencies among these two groups to respond to the survey.

Table 4.2. Field Test Respondent Characteristics

Characteristic	Total (%)	Discharged to Community (%)	Admitted (%)
Age			***
18–44	30.29	33.93	10.67
45–64	33.27	33.24	33.45
65+	33.59	29.86	53.69
Unknown	2.85	2.97	2.19
Race			***
White	63.34	61.18	74.94
Black	15.37	16.62	8.63
Hispanic	10.37	11.12	6.30
Other	6.87	7.03	6.01
Unknown	4.06	4.05	4.12
Gender			***
Female	60.33	61.82	52.33
Male	37.16	35.67	45.20
Unknown	2.50	2.51	2.48
Education			
8th grade or less	6.90	6.90	6.87
Some high school	13.12	13.22	12.56
High school or GED	32.62	32.50	33.27
Some college or 2-year degree	28.41	28.81	26.24
4-year college graduate	8.25	8.28	8.09
More than 4-year college degree	7.28	6.84	9.62
Unknown	3.43	3.44	3.36
Primary language spoken at home is English			**
No	6.84	7.27	4.54
Yes	90.33	89.85	92.89
Unknown	2.83	2.88	2.57
Self-reported overall health			***
Poor	9.83	9.38	12.24
Fair	26.21	25.95	27.65
Good	31.34	31.28	31.67
Very good	19.96	20.25	18.35
Excellent	10.10	10.55	7.73
Unknown	2.56	2.60	2.36
Transported to the ED by ambulance			***
No	74.07	77.50	55.62
Yes	24.78	21.43	42.81
Unknown	1.15	1.07	1.57
Reason for ED visit			***
Accident or injury	23.18	25.44	11.00
A new health problem	40.38	38.93	48.18
An ongoing health condition or concern	33.95	33.36	37.10
Unknown	2.49	2.27	3.72

Characteristic	Total (%)	Discharged to Community (%)	Admitted (%)
Has a usual source of care			***
No	11.67	12.14	6.58
Yes	84.20	83.67	89.96
Unknown	4.13	4.19	3.47
Number of times visited any ED in the prior 6 months, including current visit			***
1 time	45.22	44.66	51.24
2 times	21.09	21.02	21.81
3 or more times	26.86	27.48	20.18
Unknown	6.83	6.84	6.77

NOTES: * p < 0.05; ** p < 0.01; *** p < 0.001 for comparisons between respondents who were discharged to the community and those who were admitted to the hospital, based on weighted chi-square tests and excluding respondents with unknown values. All numbers have been weighted to account for sampling design and nonresponse within each instrument and mode.

Because admitted patients were randomly assigned to either the Admitted Stand Alone or the Admitted HCAHPS Add-on instrument, we generally would not expect to observe differences in respondent characteristics or the probability of response to the survey between these two groups of respondents. However, we found that respondents who received the Admitted HCAHPS Add-on instrument tended to report being in better health and being less likely to take prescription medications, including those for a condition that has lasted at least three months (data not shown). These differences could be due to

- differential probabilities of the two groups responding to the survey (e.g., if sampled patients with certain health conditions are more likely to respond to one instrument than to another)
- randomization that may not have succeeded in creating two groups that are similar on all observable characteristics
- different sequencing of questions in the two instruments or differences in the salience of health-related questions on one survey instrument that primarily asks about inpatient care and another that focuses primarily on ED care.

We compared our field test population to two nationally representative data sources: the 2010 National Hospital Ambulatory Medical Care Survey (NHAMCS), which is nationally representative of all ED patients, and the 2011 Medical Expenditure Panel Survey (MEPS), from which we constructed nationally representative estimates of all noninstitutionalized patients who had at least one ED visit. When compared to the weighted NHAMCS data, we found that the field test respondents tended to be older, were more likely to be female, and tended to have a smaller proportion of racial/ethnic minority respondents. When compared to the weighted MEPS data, our sample was older, more female, slightly less educated, and in somewhat poorer overall and mental health. Our field test population was quite similar to MEPS in terms of race/ethnicity and language spoken at home. Since there were only 12 hospitals in the field test and our sample

was not designed to be nationally representative, differences between our respondent population and these nationally representative populations are to be expected.

Proxies

Proxy responses occur when a respondent receives assistance from another individual (a proxy) in completing a survey. Consistent with patient experience data collection for beneficiaries in Medicare fee-for-service, Medicare Advantage and Prescription Drug Plans, and Medicare Shared Savings accountable care organizations, all three EDPEC Survey instruments asked whether a proxy helped the respondent complete the survey and what type of help was given. In contrast, HCAHPS does not ask whether the respondent received proxy assistance in completing the survey, and instead provides the following instructions: "You should only fill out this survey if you were the patient during the hospital stay named in the cover letter. Do not fill out this survey if you were not the patient." In this section, we address the prevalence of proxies in the EDPEC Survey field test and the types of help these proxies provide.

Overall, 8.19 percent of respondents had a proxy help them complete the survey (Table 4.3). Admitted respondents were more likely to have proxy assistance than those discharged to the community. This could be due to admitted respondents being older or having more severe health concerns than are present among those who were discharged to the community. Regardless of instrument, proxy assistance was more common for those randomized to mail mode data collection than for those randomized to telephone or mixed mode, as telephone interviewers were trained to interview only sampled respondents. Nearly all mixed-mode respondents who received proxy assistance returned the survey by mail.

Table 4.3. Proxy Assistance by Instrument and Mode

	Instrument			Mode			
	Discharged to Community	Admitted Stand Alone	Admitted HCAHPS Add-on	Mail	Telephone	Mixed	All
Total number of responses	2,399	829	873	1,088	1,345	1,668	4,101
Total number of proxies	142	92	102	190	6	140	336
Percentage of completed surveys that involved a proxy	5.92	11.10	11.68	17.46	0.45	8.39	8.19

Nearly all proxies (91.37 percent) were at the ED with the respondent during his or her visit (Table 4.4). This proportion did not differ between respondents who were discharged to the community and those who were admitted to the hospital.

Table 4.4 shows the ways in which proxies provided assistance to survey respondents. 37.24 percent of all proxies helped a respondent answer survey questions, while the remaining 62.76 percent helped in ways that provide less influence over the survey results, such as writing down the respondent's answers or translating questions into another language. There are no significant differences in how proxies provided assistance by instrument or mode. Nearly all proxies (94.49 percent) who answered questions on behalf of a respondent were at the ED with the respondent (data not shown).

Table 4.4. Proxy Presence in the ED and How Proxies Helped Respondents

	Instrument			Mode			
	Discharged to Community	Admitted Stand Alone	Admitted HCAHPS Add-on	Mail	Telephone	Mixed	All
Percentage of proxies who visited the ED with the respondent	88.73	93.48	93.14	92.11	0.00	94.29	91.37
Percentage of proxies who helped[a]							
By answering the survey questions for the respondent	40.28	33.33	36.54	39.18	33.33	34.75	37.24
In some other way (e.g., reading the questions, writing respondent's answers, translating questions into another language, repeating the question, or another way)	59.72	66.67	63.46	60.82	66.67	65.25	62.76

NOTE: This table includes only those respondents who received assistance from a proxy.
[a] Respondents could indicate one or more ways in which they received assistance from proxies. We created the two mutually exclusive categories shown here, prioritizing proxies who answered the survey questions for the respondent.

We note that the percentage of respondents who used proxy assistance varies across hospitals and that use of proxy assistance is significantly associated with response patterns for some survey questions. As a result, we recommend that, consistent with other patient experience surveys that ask about proxy assistance, the EDPEC Survey responses be adjusted for the receipt of proxy assistance when making comparisons across hospitals (see Chapter 5).

5. Methods and Measurement

In this chapter, we present the results of our case-mix adjustment analyses, investigation of survey mode effects, assessment of reliability and missing data, and psychometric analyses.

Throughout the remainder of this report, we refer to "evaluative questions" as those that ask respondents to report on their experience of care. Evaluative questions are asked only of respondents to whom they apply, and many are preceded by screener questions that identify which respondents should answer the question. For example:

- Screener question: "During this emergency room visit, were you given any medicine that you had not taken before?"
- Related evaluative question: "Before giving you any new medicine, did the doctors or nurses tell you what the medicine was for?"
- Related evaluative question: "Before giving you any new medicine, did the doctors or nurses describe possible side effects to you in a way you could understand?"

Those respondents answering "no" to a given screener question were instructed to skip the related evaluative question(s).

We note that due to unforeseen circumstances, one of our 13 one-to-two-week groups of ED encounters used for sampling that was assigned to the mixed-mode arm had a deviation from the standard field work protocol. As a result, we have removed mixed-mode cases from this group of encounters from all analyses, and we included an indicator for that group only (denoted "batch") to account for any potential impact of this change in all analyses. Our final sample size exceeded our target after removing these cases and provides adequate power to support all analyses.

Throughout the remainder of this report, we standardized evaluative questions in our regression models so that they had a mean of zero and a variance of one. Thus, all regression coefficients that we report are standardized and can be interpreted as a given increase in standard deviation of the outcome associated with a one-unit increase in the predictor. For example, a regression coefficient of 0.85 can be interpreted as an increase in 0.85 standard deviations of the outcome for a one-unit increase in the predictor.

Case-Mix Adjustment

Some characteristics of survey respondents tend to be related to the responses they provide and cannot be influenced by the ED. For example, individuals who are older, those with less

education, and those in better overall and mental health generally tend to give more positive scores on various patient experience surveys.[10,11] To ensure that comparisons between EDs reflect actual differences in patient experience rather than differences in the composition of the populations they serve (known as their case mix), survey responses must be adjusted for such characteristics.

Only respondent characteristics that are determined not to be endogenous (i.e., those that do not themselves reflect patient experience), that vary in their distribution across hospitals, and that are significant predictors of survey responses should be considered as potential case-mix adjustors. We compiled a list of all potential characteristics that could be used for adjustment and were available either through hospital administrative records or from the survey. Variables were removed from consideration if they were potentially endogenous,[ii] had a large quantity of missing data, or are not generally considered for case-mix adjustment in other patient experience surveys. All remaining candidate variables were then evaluated for use in case-mix adjustment.

We found moderate variation among hospitals for the following characteristics, as measured by intraclass correlation coefficients (ICCs): English as a primary language, use of a Spanish-language survey, response percentile,[iii] difficulty concentrating/remembering/making decisions, difficulty walking/climbing stairs, and self-reported overall health and mental health. We used four evaluative questions to examine the predictive power of candidate case-mix adjustment variables, and here present results from one representative question: "Using any number from 0 to 10, where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate your care during this emergency room visit?" The multivariate linear regression models shown in Table 5.1 include indicators for hospital, mode, and batch. Missing values were imputed using within-hospital means.

We evaluated the impact of each case-mix adjustment variable by calculating the correlation (R) between the adjusted hospital-level scores from the full multivariate model and from the full multivariate model minus the individual variable of interest. The quantity $1 - R^2$ then represents the proportion of the adjustment that is attributable to that variable, with a smaller estimate indicating a smaller impact on adjustment. Similarly, the overall impact of case-mix adjustment

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[ii] Examples of potentially endogenous variables include the number of doctor visits in the previous year and the number of ED visits in the previous six months.

[iii] Our calculation of response percentile parallels its use in HCAHPS. This measure reflects the number of days between the respondent's discharge date and the date that data collection activities ended for the respondent relative to all eligible patients within hospital, instrument, and mode. For additional information, see pages 68 through 70 in http://www.hcahpsonline.org/Files/March%202013%20HCAHPS%20Update%20Training%20Slides_3-6-13.pdf (see reference 26).

was examined by comparing hospital-level estimates with and without the full complement of case-mix adjustment variables.

The results in Table 5.1 show that only a small number of candidate variables were predictive of the 0-to-10 ED rating, with small-to-medium effect sizes. All variables had small impacts on case-mix adjustment with the exception of age, which had a moderate impact. The full case-mix adjustment model had the largest impact for the Discharged to Community instrument (22.07%) and a relatively small impact for the Admitted Stand Alone and Admitted HCAHPS Add-on instruments.

Table 5.1. Summary of Case-Mix Adjustment Multivariate Linear Regression Models (outcome is 0-to-10 rating of the ED)

Variable	Standardized Regression Coefficients (SE)							Impact Analysis (Single Variable $1 - R^2$)		
	Discharged to Community			Admitted Stand Alone			Admitted HCAHPS Add-on		Discharged to Community	Admitted Stand Alone	Admitted HCAHPS Add-on
	Beta	(SE)		Beta	(SE)		Beta	(SE)	$1 - R^2$	$1 - R^2$	$1 - R^2$
Demographic characteristics											
Age (18–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75 and older)	0.13	(0.01)	***	0.10	(0.03)	***	0.07	(0.02) **	7.61%	1.74%	1.49%
Education (8th grade or less; some high school, but did not graduate; high school or GED; some college or 2-year degree; 4-year college graduate; more than 4-year college degree)	–0.04	(0.02)		–0.09	(0.03)	**	–0.03	(0.03)	0.81%	2.49%	0.23%
Gender: male	0.02	(0.04)		–0.12	(0.07)		0.06	(0.07)	0.01%	0.12%	0.03%
Primary language is English	–0.16	(0.10)		–0.26	(0.20)		–0.08	(0.23)	0.86%	0.67%	0.01%
Health-related characteristics											
Respondent is blind or has poor vision	–0.04	(0.07)		0.06	(0.12)		–0.21	(0.13)	0.01%	0.03%	0.38%
Respondent is deaf or has difficulty hearing	–0.04	(0.07)		0.08	(0.10)		–0.06	(0.09)	0.01%	0.10%	0.02%
Respondent has difficulty concentrating/remembering/making decisions	–0.07	(0.06)		0.02	(0.11)		–0.15	(0.11)	0.07%	0.01%	0.11%
Respondent has difficulty dressing/bathing	–0.21	(0.08)	**	–0.30	(0.12)	*	0.07	(0.12)	0.14%	1.01%	0.02%
Respondent has difficulty running errands alone	–0.05	(0.06)		–0.09	(0.10)		0.02	(0.10)	0.03%	0.22%	0.00%
Respondent has difficulty walking/climbing stairs	0.05	(0.06)		0.001	(0.09)		0.02	(0.09)	0.03%	0.00%	0.00%

Variable	Standardized Regression Coefficients (SE)						Impact Analysis (Single Variable $1 - R^2$)		
	Discharged to Community		Admitted Stand Alone		Admitted HCAHPS Add-on		Discharged to Community	Admitted Stand Alone	Admitted HCAHPS Add-on
	Beta	(SE)	Beta	(SE)	Beta	(SE)	$1 - R^2$	$1 - R^2$	$1 - R^2$
Mental health (poor, fair, good, very good, excellent)	0.05	(0.02) *	0.06	(0.04)	0.06	(0.04)	0.10%	0.46%	0.13%
General health (poor, fair, good, very good, excellent)	0.10	(0.02) ***	0.04	(0.04)	0.10	(0.04) *	0.47%	0.12%	0.23%
Has a usual source of care	0.001	(0.07)	0.11	(0.14)	N/A		0.00%	0.04%	N/A
Visited a doctor 3 or more times for same condition in the last year	0.07	(0.04)	0.07	(0.08)	0.05	(0.07)	0.07%	0.05%	0.02%
Patient takes prescribed medications	−0.12	(0.05) *	0.03	(0.14)	−0.14	(0.12)	0.09%	0.00%	0.06%
Variables related to survey administration									
Proxy answered survey questions on behalf of the patient	−0.10	(0.13)	0.03	(0.20)	−0.19	(0.19)	0.01%	0.00%	0.06%
Proxy helped the patient answer the survey questions (such as reading the question to the patient or translating the question into another language)	0.06	(0.11)	−0.23	(0.14)	−0.10	(0.14)	0.01%	0.16%	0.03%
Response percentile (reflects the number of days between a patient's discharge date and the date that data collection activities ended for the patient)	0.08	(0.31)	−0.20	(0.35)	0.17	(0.33)	0.01%	0.10%	0.04%
Survey administered in Spanish	0.17	(0.23)	0.01	(0.32)	0.22	(0.34)	0.15%	0.00%	0.05%
Sample size	2,360		804		848		2,360	804	848
Model fit (full model $1 - R^2$)	22.07%		3.54%		6.47%		22.07%	3.54%	6.47%

NOTES: SE = standard error. N/A = not applicable. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. All models use standardized regression coefficients and include indicators for hospital, mode, and batch.

Further analyses also examined whether there was evidence of nonlinearity in the ordinal adjustors, the incremental value of the disability and functional status survey questions in addition to general health status, and adjustments needed when data are pooled across the three survey instruments. Based on these analyses, we recommend a case-mix adjustment model that includes the following variables:

- age (indicators for 18–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75+)
- education (ordinal: 8th grade or less; some high school, but did not graduate; high school or GED; some college or 2-year degree; 4-year college graduate; more than 4-year college degree)
- general health status (indicators for each category: poor, fair, good, very good, excellent)
- mental health status (indicators for each category: poor, fair, good, very good, excellent)
- a proxy answered the survey for the respondent
- received other help from a proxy in answering the survey (such as reading the question to the respondent or translating the question into another language)
- primary language is English versus other
- interaction term between age and whether the respondent was discharged to the community or admitted to the hospital at the end of his or her ED visit
- interaction term between general health status and whether the respondent was discharged to the community or admitted to the hospital at the end of his or her ED visit.

This recommended case-mix adjustment model should be reevaluated when additional data are available.

Mode Effects

As described in Chapter 3, our field test employed three modes of data collection to which respondents were randomized: telephone only, mail only, and mixed mode (mail followed by telephone follow-up)[iv,12]. Since data collection mode is known to affect responses to survey questions, patient experience data are typically adjusted to account for systematic differences between modes.

We performed an assessment of the magnitude of mode effects in the field test. For each evaluative question on each instrument, we fit a linear regression model that included indicators for hospital, mode (with mail mode as the reference category), and batch. Next, we added the

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[iv] Throughout, we refer to the survey mode as the mode to which a respondent was randomized, as opposed to the mode in which he or she ultimately responded to the survey. We focus here on analyses of survey mode due to its use in developing mode adjustments, given evidence that mixed-mode adjustments cannot accurately be inferred from telephone-only and mail-only modes (see reference 12).

case-mix adjustors identified above to this regression model to examine mode effects after case-mix adjustment. In addition, we examined adjusted models pooled across the three instruments. Finally, we examined differences in respondent characteristics by mode, pooling across the three instruments.

We observed significant mode effects for several survey questions after case-mix adjustment (Table 5.2). The following questions tended to have more negative responses in the mail mode than in the telephone or mixed modes in at least one instrument, indicating that those responding by mail provided poorer reports of their experience:

- "Using any number from 0 to 10, where 0 is not at all important and 10 is extremely important, when you first arrived at the emergency room, how important was it for you to get care right away?"
- "During this emergency room visit, did you get care within 30 minutes of getting to the emergency room?"
- "Before giving you any new medicine, did the doctors or nurses tell you what the medicine was for?"
- "During this emergency room visit, did the doctors and nurses do everything they could to help you with your pain?"
- "During this emergency room visit, how often did doctors, nurses, or emergency room staff introduce themselves to you the first time they came to take care of you?" (This question was deleted from the final surveys shown in Chapter 8.)
- "During this emergency room visit, did nurses spend enough time with you?"
- "Using any number from 0 to 10, where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate your care during this emergency room visit?"
- "Would you recommend this emergency room to your friends and family?"

Those assigned to the mail mode tended to have more positive responses on the following question than those assigned to the telephone and mixed modes, with telephone mode tending to produce the poorest reports of patient experience:

- "During this emergency room visit, did someone let you know about how long you would wait before you got care for the first time?"

Those assigned to the mail mode had more positive responses than those assigned to mixed mode data collection for the following questions:

- "During this emergency room visit, did you get medicine for pain?"
- "Before you left the emergency room, did you understand why you needed to stay in the hospital?" (admitted patients only)

Finally, those assigned to the mail mode had more positive responses than those assigned to the telephone mode for one question:

- "Once you found out you would have to stay in the hospital, were you kept informed about how long it would be before you went to another part of the hospital?" (admitted patients only)

All questions for which we observed a more negative response for telephone or mixed mode data collection than for mail mode were those for which the last response option presented to the respondent was the most negative option (i.e., "no"). This is consistent with previous research, including research on patient experience surveys that has shown that telephone respondents may be more likely than others to respond by selecting the last response option with which they are presented.[13,14]

Table 5.2. Case-Mix Adjusted Mode Effects

Full Question	Mode	Standardized Regression Coefficient (SE)							
		Discharged to Community		Admitted Stand Alone		Admitted HCAHPS Add-on		All Instruments	
		Beta	(SE)	Beta	(SE)	Beta	(SE)	Beta	(SE)
When you first arrived at the emergency room, how long was it before someone talked to you about the reason why you were there?	mixed	–0.01	(0.07)	–0.09	(0.09)	–0.03	(0.09)	–0.02	(0.06)
	phone	–0.04	(0.07)	–0.05	(0.10)	–0.07	(0.10)	–0.04	(0.06)
Using any number from 0 to 10, where 0 is not at all important and 10 is extremely important, when you first arrived at the emergency room, how important was it for you to get care right away?	mixed	0.21	(0.07)**	0.07	(0.09)	N/A	N/A	0.19	(0.06)**
	phone	0.33	(0.07)***	0.25	(0.09)**	N/A	N/A	0.32	(0.06)***
During this emergency room visit, did someone let you know about how long you would wait before you got care for the first time? ††	mixed	0.03	(0.06)	–018	(0.09)	–0.20	(0.09)*	–0.002	(0.06)
	phone	–0.14	(0.07)*	–0.38	(0.11)***	–0.32	(0.10)**	–0.17	(0.06)**
During this emergency room visit, did you get care within 30 minutes of getting to the emergency room?	mixed	0.20	(0.07)**	–0.08	(0.09)	0.07	(0.08)	0.16	(0.06)**
	phone	0.25	(0.08)**	0.10	(0.09)	0.03	(0.09)	0.22	(0.07)**
During this emergency room visit, was your family member or friend allowed to stay with you when you wanted them with you? † ††	mixed	0.04	(0.09)	–0.06	(0.09)	N/A	N/A	0.03	(0.09)
	phone	0.01	(0.11)	–0.07	(0.09)	N/A	N/A	0.001	(0.10)
During this emergency room visit, did the doctors or nurses ask about all of the medicines you were taking?	mixed	0.03	(0.06)	–0.05	(0.09)	N/A	N/A	0.02	(0.06)
	phone	0.08	(0.07)	–0.09	(0.10)	N/A	N/A	0.07	(0.07)
Before giving you any new medicine, did the doctors or nurses tell you what the medicine was for? †	mixed	0.13	(0.11)	–0.06	(0.17)	N/A	N/A	0.11	(0.10)
	phone	0.27	(0.11)*	–0.19	(0.17)	N/A	N/A	0.22	(0.10)*

| Full Question | Mode | Standardized Regression Coefficient (SE) | | | | | | | |
| | | Discharged to Community | | Admitted Stand Alone | | Admitted HCAHPS Add-on | | All Instruments | |
		Beta	(SE)	Beta	(SE)	Beta	(SE)	Beta	(SE)
Before giving you any new medicine, did the doctors or nurses describe possible side effects to you in a way you could understand? †	mixed	–0.02	(0.10)	0.07	(0.15)	N/A	N/A	–0.01	(0.09)
	phone	0.04	(0.11)	0.03	(0.16)	N/A	N/A	0.05	(0.10)
During this emergency room visit, did you get medicine for pain? †	mixed	0.03	(0.07)	–0.28	(0.11)**	N/A	N/A	–0.01	(0.06)
	phone	0.09	(0.08)	–0.16	(0.12)	N/A	N/A	–0.04	(0.06)
During this emergency room visit, did the doctors and nurses do everything they could to help you with your pain? †	mixed	0.14	(0.07)	–0.05	(0.11)	N/A	N/A	0.12	(0.07)
	phone	0.25	(0.07)**	0.10	(0.12)	N/A	N/A	0.23	(0.07)***
During this emergency room visit, when you needed an interpreter did you get one? †	mixed	–0.07	(0.8)	†††	†††	N/A	N/A	–0.07	(0.64)
	phone	–0.61	(1.04)	†††	†††	N/A	N/A	–0.59	(0.84)
During this emergency room visit, how often did doctors, nurses, or emergency room staff introduce themselves to you the first time they came to take care of you? ††	mixed	0.07	(0.07)	0.08	(0.10)	0.08	(0.09)	0.07	(0.06)
	phone	0.11	(0.07)	0.22	(0.11)*	0.20	(0.09)*	0.12	(0.06)
During this emergency room visit, were you kept informed about who was in charge of your care? ††	mixed	0.02	(0.07)	0.06	(0.10)	N/A	N/A	0.02	(0.06)
	phone	0.12	(0.07)	0.08	(0.11)	N/A	N/A	0.12	(0.07)
During this emergency room visit, how often did nurses treat you with <u>courtesy and respect</u>?	mixed	0.01	(0.07)	0.01	(0.07)	0.06	(0.06)	0.02	(0.06)
	phone	0.13	(0.08)	0.11	(0.08)	0.03	(0.07)	0.13	(0.07)
During this emergency room visit, how often did nurses <u>listen carefully</u> to you?	mixed	0.02	(0.07)	0.01	(0.08)	N/A	N/A	0.02	(0.06)
	phone	0.07	(0.07)	0.06	(0.10)	N/A	N/A	0.07	(0.07)
During this emergency room visit, how often did nurses <u>explain things</u> in a way you could understand?	mixed	–0.03	(0.06)	0.03	(0.08)	N/A	N/A	–0.02	(0.06)
	phone	–0.02	(0.07)	0.02	(0.10)	N/A	N/A	–0.02	(0.07)

Full Question	Mode	Standardized Regression Coefficient (SE)							
		Discharged to Community		Admitted Stand Alone		Admitted HCAHPS Add-on		All Instruments	
		Beta	(SE)	Beta	(SE)	Beta	(SE)	Beta	(SE)
During this emergency room visit, did nurses <u>spend enough time</u> with you?	mixed	0.14	(0.07)*	0.01	(0.08)	N/A	N/A	0.12	(0.06)*
	phone	0.20	(0.07)**	0.12	(0.09)	N/A	N/A	0.19	(0.06)**
During this emergency room visit, how often did doctors treat you with <u>courtesy and respect</u>?	mixed	−0.02	(0.06)	−0.03	(0.08)	0.08	(0.08)	−0.01	(0.05)
	phone	0.02	(0.07)	−0.15	(0.11)	0.06	(0.09)	0.02	(0.06)
During this emergency room visit, how often did doctors <u>listen carefully</u> to you?	mixed	−0.03	(0.06)	0.07	(0.08)	N/A	N/A	−0.02	(0.06)
	phone	−0.03	(0.07)	−0.01	(0.09)	N/A	N/A	−0.02	(0.06)
During this emergency room visit, how often did <u>doctors explain things</u> in a way you could understand?	mixed	−0.04	(0.06)	0.03	(0.09)	N/A	N/A	−0.03	(0.06)
	phone	0.002	(0.07)	−0.04	(0.11)	N/A	N/A	0.004	(0.06)
During this emergency room visit, did <u>doctors spend enough time</u> with you?	mixed	0.09	(0.06)	0.06	(0.09)	N/A	N/A	0.09	(0.06)
	phone	0.12	(0.07)	−0.01	(0.10)	N/A	N/A	0.11	(0.06)
Using any number from 0 to 10, where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate your care during this emergency room visit?	mixed	0.06	(0.07)	−0.08	(0.08)	−0.02	(0.08)	0.04	(0.06)
	phone	0.16	(0.07)*	−0.06	(0.09)	−0.03	(0.08)	0.13	(0.06)*
Would you recommend this emergency room to your friends and family?	mixed	0.04	(0.07)	−0.06	(0.07)	N/A	N/A	0.03	(0.06)
	phone	0.15	(0.07)*	−0.11	(0.09)	N/A	N/A	0.14	(0.07)*
Questions only included in the Discharged to Community instrument									
During this emergency room visit, did doctors and nurses give you as much information as you wanted about the results of these tests? †	mixed	0.12	(0.07)	N/A	N/A	N/A	N/A	0.12	(0.07)
	phone	0.12	(0.08)	N/A	N/A	N/A	N/A	0.12	(0.08)
Before you left the emergency room, did you understand what your main health problem was?	mixed	0.03	(0.06)	N/A	N/A	N/A	N/A	0.03	(0.06)

Full Question	Mode	Standardized Regression Coefficient (SE)							
		Discharged to Community		Admitted Stand Alone		Admitted HCAHPS Add-on		All Instruments	
		Beta	(SE)	Beta	(SE)	Beta	(SE)	Beta	(SE)
	phone	0.01	(0.07)	N/A	N/A	N/A	N/A	0.01	(0.07)
Before you left the emergency room, did you understand what symptoms or health problems to look out for when you left the emergency room?	mixed	0.06	(0.06)	N/A	N/A	N/A	N/A	0.06	(0.06)
	phone	0.04	(0.07)	N/A	N/A	N/A	N/A	0.04	(0.07)
Before you left the emergency room, did a doctor or nurse tell you what the new medicines were for? †	mixed	–0.07	(0.11)	N/A	N/A	N/A	N/A	–0.07	(0.11)
	phone	–0.03	(0.14)	N/A	N/A	N/A	N/A	–0.03	(0.14)
Before you left the emergency room, did someone ask you if you would be able to get this follow-up care? †	mixed	–0.07	(0.07)	N/A	N/A	N/A	N/A	–0.07	(0.07)
	phone	–0.12	(0.08)	N/A	N/A	N/A	N/A	–0.12	(0.08)
Questions only included in the Admitted instruments									
Once you found out you would have to stay in the hospital, were you kept informed about how long it would be before you went to another part of the hospital?	mixed	N/A	N/A	–0.11	(0.09)	–0.02	(0.09)	–0.06	(0.06)
	phone	N/A	N/A	–0.26	(0.11)*	0.06	(0.10)	–0.09	(0.07)
Before you left the emergency room, did you understand why you needed to stay in the hospital?	mixed	N/A	N/A	–0.20	(0.09)*	0.03	(0.10)	–0.08	(0.07)
	phone	N/A	N/A	–0.09	(0.09)	0.003	(0.10)	–0.04	(0.07)

NOTES: SE = standard error. * p < 0.05; ** p < 0.01; *** p < 0.001. All models use standardized regression coefficients and include case-mix adjustors and indicators for hospital, mode, and batch.

† This evaluative question was preceded by a screener question in the survey.

†† This question was deleted from the final surveys shown in Chapter 8.

††† There was inadequate sample size to calculate an adjusted mode effect for this question.

We also observed differences in a number of respondent characteristics by mode, suggesting that telephone and mixed modes are more likely to yield respondents with characteristics that may otherwise be underrepresented in mail-only survey administration, such as respondents with less education, from minority racial/ethnic groups, or in poor health. While case-mix adjustment will account for some of these differences in response propensity by mode, we recommend consideration of mode options in addition to mail-only survey administration to obtain a more representative sample of respondents.

The magnitude of the statistically significant adjusted mode effects estimated in the field test data ranged from 0.12 to 0.38 at the person level; effects at the hospital level would be quite large based on these estimates. Therefore, we recommend that all analyses of EDPEC Survey data adjust for survey mode. When additional data from a larger sample are available, mode adjustments should be developed to enable comparison between hospitals that use different survey modes.

Reliability, Response Patterns, and Missing Data

Here we examine hospital-level reliability of the EDPEC Survey questions—the ability of the questions to distinguish between different hospitals based on respondents' reports and ratings of care. To do so, we calculated ICCs, which summarize the amount of variation between hospitals and can be interpreted as the reliability that we would observe if we had only one respondent per hospital. Very small estimated ICCs imply that there is little variation between hospitals with respect to the question being examined. For ease of interpretation, we converted the ICCs into estimates of the number of respondents needed to achieve hospital-level reliability of 0.70, a commonly accepted minimum for patient experience surveys.[15] The number of respondents needed to achieve 0.70 reliability was not calculated for items with poorly estimated (negative) intraclass correlations. We also discuss recommended sample sizes based on the ICCs presented here.

Table 5.3 shows the results of these analyses. For the Discharged to Community instrument, only two questions had estimated ICCs that were significantly different from zero:

- "When you first arrived at the emergency room, how long was it before someone talked to you about the reason why you were there?" (adjusted ICC = 0.036, unadjusted p-value < 0.001)
- "During this emergency room visit, did you get care within 30 minutes of getting to the emergency room?" (adjusted ICC = 0.056, unadjusted p-value < 0.001)

For both the Admitted Stand Alone and Admitted HCAHPS Add-on instruments, no questions had estimated ICCs that were significantly different from zero, although ICCs tended

to be slightly higher for the Admitted HCAHPS Add-on instrument compared to the Admitted Stand Alone instrument.

Six questions on the Discharged to Community instrument and six questions on the Admitted Stand Alone instrument had case-mix adjusted ICCs indicating that more than 500 respondents would be needed to achieve 0.70 hospital-level reliability. Estimated ICCs were generally very small for most questions, indicating that there is little variability between hospitals. In particular, two questions had exceptionally poor ICCs:

- "During this emergency room visit, how often did doctors, nurses, or emergency room staff introduce themselves to you the first time they came to take care of you?" (Discharged ICC = –0.0005, Admitted ICC = 0.010)
- "During this emergency room visit, were you kept informed about who was in charge of your care?" (Discharged ICC = 0.008, Admitted ICC = –0.0003)

We recommend removing both questions from national implementation data collection (see Chapter 7 for additional suggested changes to the survey instrument).

We suggest using caution when interpreting ED-level reliability estimates reported in Table 5.3; because the field test included only 12 hospitals, our ability to obtain accurate estimates of ED-level reliability was limited. Therefore, we recommend that reliability be reassessed when additional data from a larger group of hospitals are available. We note that even though many of the survey questions have relatively low ED-level reliability, indicating comparatively little ability to distinguish between EDs, the EDPEC Survey will allow individual hospitals to use their data to support quality improvement efforts and to track their performance over time.

Table 5.3. Case-Mix Adjusted Intra-Class Correlations and Respondents Needed to Achieve 0.70 Hospital-Level Reliability

Survey Question	Discharged to Community		Admitted Stand Alone		Admitted HCAHPS Add-on	
	Case-Mix Adjusted ICC	Respondents Needed to Achieve 0.70 Reliability	Case-Mix Adjusted ICC	Respondents Needed to Achieve 0.70 Reliability	Case-Mix Adjusted ICC	Respondents Needed to Achieve 0.70 Reliability
When you first arrived at the emergency room, how long was it before someone talked to you about the reason why you were there?	0.036	62	0.016	144	0.012	187
Using any number from 0 to 10, where 0 is not at all important and 10 is extremely important, when you first arrived at the emergency room, how important was it for you to get care right away?	0.015	153	0.008	297	N/A	N/A
During this emergency room visit, did someone let you know about how long you would wait before you got care for the first time? ††	0.004	540	−0.004	--	0.009	257
During this emergency room visit, did you get care within 30 minutes of getting to the emergency room?	0.056	40	0.010	243	0.006	393
During this emergency room visit, was your family member or friend allowed to stay with you when you wanted them with you? † ††	0.011	201	0.010	231	N/A	N/A
During this emergency room visit, did the doctors or nurses ask about <u>all</u> of the medicines you were taking?	0.023	100	−0.011	--	N/A	N/A
Before giving you any new medicine, did the doctors or nurses tell you what the medicine was for? †	−0.002	--	0.004	540	N/A	N/A
Before giving you any new medicine, did the doctors or nurses describe possible side effects to you in a way you could understand? †	0.014	159	−0.008	--	N/A	N/A
During this emergency room visit, did you get medicine for pain? †	0.010	224	0.030	74	N/A	N/A
During this emergency room visit, did the doctors and nurses do everything they could to help you with your pain? †	0.010	224	0.010	236	N/A	N/A
During this emergency room visit, when you needed an interpreter, did you get one? †	0.058	38	−1.028	--	N/A	N/A
During this emergency room visit, how often did doctors, nurses, or emergency room staff introduce themselves to you the first time they came to take care of you? ††	−0.001	--	0.010	224	−0.003	--

Survey Question	Discharged to Community		Admitted Stand Alone		Admitted HCAHPS Add-on	
	Case-Mix Adjusted ICC	Respondents Needed to Achieve 0.70 Reliability	Case-Mix Adjusted ICC	Respondents Needed to Achieve 0.70 Reliability	Case-Mix Adjusted ICC	Respondents Needed to Achieve 0.70 Reliability
During this emergency room visit, were you kept informed who was in charge of your care? ††	0.008	272	–0.0003	--	N/A	N/A
During this emergency room visit, how often did nurses treat you with <u>courtesy and respect</u>?	0.005	474	0.001	3,887	0.025	90
During this emergency room visit, how often did nurses <u>listen carefully</u> to you?	0.018	129	0.003	705	N/A	N/A
During this emergency room visit, how often did nurses <u>explain things</u> in a way you could understand?	0.010	243	–0.002	--	N/A	N/A
During this emergency room visit, did nurses <u>spend enough time</u> with you?	0.006	357	0.005	505	N/A	N/A
During this emergency room visit, how often did doctors treat you with <u>courtesy and respect</u>?	0.003	831	0.000	--	0.011	214
During this emergency room visit, how often did doctors <u>listen carefully</u> to you?	0.001	1,942	–0.001	--	N/A	N/A
During this emergency room visit, how often did doctors <u>explain things</u> in a way you could understand?	0.005	430	0.0001	23,331	N/A	N/A
During this emergency room visit, did doctors <u>spend enough time</u> with you?	0.002	931	–0.002	--	N/A	N/A
Using any number from 0 to 10, where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate your care during this emergency room visit?	0.018	131	–0.001	--	0.030	76
Would you recommend this emergency room to your friends and family?	0.029	78	0.023	101	N/A	N/A
Questions only included in the Discharged to Community instrument						
During this emergency room visit, did doctors and nurses give you as much information as you wanted about the results of these tests? †	0.007	326	N/A	N/A	N/A	N/A
Before you left the emergency room, did you understand what your main health problem was?	0.001	2,590	N/A	N/A	N/A	N/A

Survey Question	Discharged to Community		Admitted Stand Alone		Admitted HCAHPS Add-on	
	Case-Mix Adjusted ICC	Respondents Needed to Achieve 0.70 Reliability	Case-Mix Adjusted ICC	Respondents Needed to Achieve 0.70 Reliability	Case-Mix Adjusted ICC	Respondents Needed to Achieve 0.70 Reliability
Before you left the emergency room, did you understand what symptoms or health problems to look out for when you left the emergency room?	0.001	2,119	N/A	N/A	N/A	N/A
Before you left the emergency room, did a doctor or nurse tell you what the new medicines were for? †	0.008	305	N/A	N/A	N/A	N/A
Before you left the emergency room, did someone ask you if you would be able to get this follow-up care? †	0.015	152	N/A	N/A	N/A	N/A
Questions only included in the Admitted instruments						
Once you found out you would have to stay in the hospital, were you kept informed about how long it would be before you went to another part of the hospital?	N/A	N/A	0.003	775	0.032	72
Before you left the emergency room, did you understand why you needed to stay in the hospital?	N/A	N/A	–0.003	--	0.005	422

NOTES: The number of respondents needed to achieve 0.70 reliability was not calculated for items with poorly estimated (negative) intraclass correlations. These items are indicated by "--". N/A = not applicable.

† This evaluative question was preceded by a screener question in the survey.

†† This question was deleted from the final surveys shown in Chapter 8.

Recommended Sample Size

Based on ICC estimates shown above, Table 5.4 indicates estimated sample sizes needed to obtain adequate reliability for (1) the survey questions assessing 0-to-10 rating of care in the ED and willingness to recommend the ED and (2) the average of *all* survey questions.

Table 5.4. Sample-Size Recommendations to Ensure Adequate Reliability

Survey Questions	Number of Completed Surveys per Hospital for 0.70 Reliability Based on Field Test Results		
	Discharged to Community	Admitted	Total per Hospital
Based on two survey questions: 0-to-10 rating of ED and willingness to recommend ED	125	185	310
Based on all survey questions	377	550	927

Note that the questions assessing the 0-to-10 rating and willingness to recommend the ED more reliably differentiated among the 12 field test hospitals than did other survey questions, as was the case for the 0-to-10 rating and willingness to recommend questions in HCAHPS.[16] Given that the targets shown in Table 5.4 based on all survey questions are unlikely to be feasible for a sufficient proportion of hospitals in national implementation, and that estimates of ICCs from only 12 hospitals are necessarily imprecise, our recommendations are based on these two global evaluative questions. Therefore, we initially recommend targeting 310 *completed questionnaires* per hospital for a given reporting period (e.g., four calendar quarters), consisting of 125 patients who were discharged to the community and 185 patients who were admitted to the hospital at the end of their ED visit. We recommend reestimating ICCs and needed sample sizes when additional data from a larger number of hospitals are available.

Response Patterns and Missing Data

We also investigated questions for which more than 90 percent of respondents selected the highest or lowest response category. For questions with such extreme response patterns, the information obtained is generally not helpful in terms of distinguishing between hospitals or for quality improvement purposes, especially if the selected response option is the most positive response option provided. For the question "During this emergency room visit, was your family member or friend allowed to stay with you when you wanted them with you?" at least 95 percent of respondents who had a family member or friend with them in the ED responded "yes, definitely" in both the Discharged to Community and Admitted Stand Alone instruments.[v] As a

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[v] This item was not included in the Admitted HCAHPS Add-on instrument.

result, we removed this question and the accompanying question that was used to identify those respondents who had a family member or friend accompany them in the ED.

Finally, we assessed the proportion of missing data for each question to identify questions or skip patterns in the survey that respondents may have found difficult to understand or answer. This led us to remove one question from the survey that had missing data for 7.70 percent of respondents (pooled across all instruments): "Thinking about the 30 days before this visit, how many times did you go to this emergency room to get care for yourself for any reason? Please include the emergency room visit you have been answering questions about in this survey." We also note that this is a question for which patients may not be the best or only source of information, since information on visits to the ED in question can also be obtained from hospital medical or administrative records. We retained a related question for which a smaller proportion, 6.38 percent, of respondents had missing data, and for which patients are the only consistent source of information: "In the last 6 months, how many times have you visited any emergency room to get care for yourself? Please include the emergency room visit you have been answering questions about in this survey."

Psychometric Analyses

We conducted several psychometric analyses to identify the multi-question composites and single survey questions that best measure patient experience in the ED using our survey instruments. Composites are collections of survey questions that assess similar content domains. When multiple questions measure a given content domain, combining those questions into a composite allows for a more precise estimate of patient experience than would be possible from a single question.

Methods

We evaluated factor analytic models to establish the composites and single questions that assess unique aspects of patient experience not captured by the composites. We next calculated question-total correlations (i.e., the correlation between the question and the composite after removing the given question), indices of respondent-level internal consistency (i.e., Cronbach's alpha, a 0-to-1 index where higher values indicate more precise measurement of the underlying content domain), and hospital-level reliability of the composites (as measured by intraclass correlations and the average number of completed surveys that would be needed to achieve a reliability of 0.70). Finally, we assessed convergent and divergent validity of the composites and single questions to understand the extent to which the concepts they measure correspond accurately to what they purport to measure.

Psychometric Properties of the Composites and Single-Question Measures

Our analyses identified four multi-question composites and ten standalone questions, which are shown in Table 5.5.

- We found that each composite measured a distinct aspect of patients' experiences in the ED, with modest intercorrelations between the composites ranging from 0.23 to 0.53. Correlations between the single-question measures and the composites ranged from 0.13 to 0.62. These results suggest that neither including the single-question measures in the composites nor combining composites was warranted.
- Respondent-level reliability was high for the eight-question composite related to doctor and nurse communication (alpha = 0.91). Reliability was lower for the remaining composites (alpha range = 0.48 to 0.73), as we expected due to the smaller number of survey questions they contained.
- ED-level reliability for the composites was relatively low. This was consistent with our expectations because the field test included only 12 hospitals, which limited our ability to obtain accurate estimates of reliability. The four recommended composites in Table 5.5 had the following ED-level reliability:
  - Getting Timely Care (two items; alpha = 0.48; ICC = 0.032; required sample size to achieve 0.70 reliability = 70)
  - Communication with Patients About Their Medicines (three items; alpha = 0.55; ICC = 0.005; required sample size to achieve 0.70 reliability = 456)
  - How Well Emergency Room Doctors and Nurses Communicate with Patients (eight items; alpha = 0.91; ICC = 0.006; required sample size to achieve 0.70 reliability = 380)
  - Communication with Patients Prior to Their Release (two items; alpha = 0.73; ICC = 0.002; required sample size to achieve 0.70 reliability = 939; questions asked only of discharged patients).

Validation of Composites

We assessed the convergent validity of the composites—the extent to which the composites correspond to other variables in expected ways—using two variables: 0-to-10 rating of the ED and willingness to recommend the ED. The correlations between the composites and these two variables ranged from 0.38 to 0.75 (0-to-10 rating) and 0.33 to 0.70 (willingness to recommend). These results are consistent with other patient experience surveys, which typically find that provider communication and getting timely care are most highly related to these validation variables.[17,18]

In addition, we assessed divergent validity—the extent to which the composites differ from other variables in expected ways—using a single-question measure of respondents' perception of the importance of receiving timely care. We observed only weak correlations between this question and the composites ($r = -0.02$ to 0.10). This finding indicates, as expected, that our measures of patient experience in the ED are not related to respondents' perceived need for timely care.

To ensure that the labels used for the composites could be clearly understood by patients, we conducted individual interviews with nine patients who had visited an ED in the six months prior to the interview. The interviews probed on participants' understanding of the proposed labels and whether the questions included in each composite matched the expectations created by reading the labels. The composite names shown in Table 5.5 reflect the results of this testing.

Table 5.5. Correlations Between Questions and Composites (Combined Sample from All Three Instruments)

Composites and Items	Instrument(s)			Correlation Between the Item and the Composite After Removing the Item
	Discharged to Community	Admitted Stand Alone	Admitted HCAHPS Add-on	
Getting Timely Care				
When you first arrived at the emergency room, how long was it before someone talked to you about the reason why you were there?	X	X	X	0.32
During this emergency room visit, did you get care within 30 minutes of getting to the emergency room?	X	X	X	0.32
Communication with Patients About Their Medicines				
During this emergency room visit, did the doctors or nurses ask about <u>all</u> of the medicines you were taking?	X	X		0.32
Before giving you any new medicine, did the doctors or nurses tell you what the medicine was for? †	X	X		0.44
Before giving you any new medicine, did the doctors or nurses describe possible side effects to you in a way you could understand? †	X	X		0.43
How Well Emergency Room Doctors and Nurses Communicate with Patients				
During this emergency room visit, how often did nurses treat you with <u>courtesy and respect</u>?	X	X	X	0.71
During this emergency room visit, how often did nurses <u>listen carefully</u> to you?	X	X		0.72
During this emergency room visit, how often did nurses <u>explain things</u> in a way you could understand?	X	X		0.67
During this emergency room visit, did nurses <u>spend enough time</u> with you?	X	X		0.69
During this emergency room visit, how often did doctors treat you with <u>courtesy and respect</u>?	X	X	X	0.73
During this emergency room visit, how often did doctors <u>listen carefully</u> to you?	X	X		0.77
During this emergency room visit, how often did doctors <u>explain things</u> in a way you could understand?	X	X		0.73
During this emergency room visit, did doctors <u>spend enough time</u> with you?	X	X		0.72
Communication with Patients Prior to Their Release				
Before you left the emergency room, did you understand what your main health problem was?	X			0.58
Before you left the emergency room, did you understand what symptoms or health problems to look out for when you left the emergency room?	X			0.58

Single-Item Measures				
Using any number from 0 to 10, where 0 is not at all important and 10 is extremely important, when you first arrived at the emergency room, how important was it for you to get care right away?	X	X		N/A
During this emergency room visit, did the doctors and nurses do everything they could to help you with your pain? †	X	X		N/A
During this emergency room visit, when you needed an interpreter did you get one? †	X	X		N/A
Using any number from 0 to 10, where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate your care during this emergency room visit?	X	X	X	N/A
Would you recommend this emergency room to your friends and family?	X	X		N/A
Questions only included in the Discharged to Community instrument				
During this emergency room visit, did doctors and nurses give you as much information as you wanted about the results of these tests? †	X			N/A
Before you left the emergency room, did a doctor or nurse tell you what the new medicines were for? †	X			N/A
Before you left the emergency room, did someone ask you if you would be able to get this follow-up care? †	X			N/A
Questions only included in the Admitted instruments				
Once you found out you would have to stay in the hospital, were you kept informed about how long it would be before you went to another part of the hospital?		X	X	N/A
Before you left the emergency room, did you understand why you needed to stay in the hospital?		X	X	N/A

NOTE: N/A = not applicable.

† This evaluative question was preceded by a screener question in the survey.

6. Patient Experience in the Emergency Department

Comparing Survey Instruments

Here we compare patient experience between those respondents who were discharged to the community and those who were admitted to the hospital following their ED visit. For each evaluative question included in the instruments for both groups, we compared weighted means on a 0-to-100 linear scale. For questions that were included on the Admitted HCAHPS Add-on instrument, we compared the Discharged to Community responses to those from both Admitted instruments combined. For all other questions, we compared responses to the Discharged to Community instrument to those from the Admitted Stand Alone instrument.

For each evaluative question in common between the two groups, we fit a linear regression model with the standardized question as the outcome and include indicators for hospital, batch, and mode; all of the case-mix adjustors recommended in Chapter 5; and an indicator for discharged versus admitted.

Table 6.1 summarizes our results for each evaluative question and shows the discharged versus admitted coefficients (the reference category is admitted) estimated from the linear regression models with corresponding standard error estimates. For almost all questions, Discharged to Community respondents tended to respond more negatively than admitted respondents when means were compared, and this pattern persisted in the regression models that included the case-mix adjustors. For the following questions, respondents who were discharged to the community after their ED visit had significantly lower responses, indicating worse experiences, than respondents who were admitted:

- "Using any number from 0 to 10, where 0 is not at all important and 10 is extremely important, when you first arrived at the emergency room, how important was it for you to get care right away?"
- "During this emergency room visit, did you get care within 30 minutes of getting to the emergency room?"
- "During this emergency room visit, were you kept informed about who was in charge of your care?" (This question was deleted from the final surveys shown in Chapter 8.)
- "During this emergency room visit, how often did nurses treat you with <u>courtesy and respect</u>?"
- "During this emergency room visit, how often did nurses <u>listen carefully</u> to you?"
- "During this emergency room visit, how often did nurses <u>explain things</u> in a way you could understand?"

- "During this emergency room visit, did nurses <u>spend enough time</u> with you?"
- "During this emergency room visit, how often did doctors <u>listen carefully</u> to you?"
- "During this emergency room visit, how often did doctors <u>explain things</u> in a way you could understand?"
- "During this emergency room visit, did doctors <u>spend enough time</u> with you?"
- "Using any number from 0 to 10, where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate your care during this emergency room visit?"
- "Would you recommend this emergency room to your friends and family?"

Table 6.1. Descriptive Statistics and Regression Results Comparing Patient Experience of Those Discharged to the Community and Those Admitted to the Hospital

Survey Question	Discharged		Admitted		Discharged Coefficient Estimate (SE)			Number of Respondents
	Mean	(SD)	Mean	(SD)	Beta	(SE)		
When you first arrived at the emergency room, how long was it before someone talked to you about the reason why you were there?	69.26	(0.95)	76.71	(0.86)	−0.002	(0.17)		3,572
Using any number from 0 to 10, where 0 is not at all important and 10 is extremely important, when you first arrived at the emergency room, how important was it for you to get care right away?	77.40	(0.61)	84.50	(0.86)	−0.38	(0.19)	*	2,850
During your emergency room visit, did someone let you know about how long you would wait before you got care for the first time? ††	47.32	(1.13)	58.16	(1.19)	−0.19	(0.16)		3,438
During this emergency room visit, did you get care within 30 minutes of getting to the emergency room?	80.04	(1.04)	90.02	(0.80)	−0.59	(0.17)	***	3,609
During this emergency room visit, was your family member or friend allowed to stay with you when you wanted them with you? † ††	96.44	(0.52)	97.33	(0.56)	−0.49	(0.29)		2,181
During this emergency room visit, did the doctors or nurses ask about <u>all</u> of the medicines you were taking?	89.84	(0.69)	93.53	(0.82)	−0.34	(0.19)		2,841
Before giving you any new medicine, did the doctors or nurses tell you what the medicine was for? †	87.94	(1.17)	88.26	(1.65)	0.38	(0.41)		1,035
Before giving you any new medicine, did the doctors or nurses describe possible side effects to you in a way you could understand? †	58.25	(1.86)	63.18	(2.62)	−0.08	(0.35)		1,021
During this emergency room visit, did you get medicine for pain? †	61.02	(1.29)	69.56	(1.95)	−0.01	(0.23)		2,154
During this emergency room visit, did the doctors and nurses do everything they could to help you with your pain? †	76.93	(0.99)	85.60	(1.38)	−0.38	(0.22)		2,182
During this emergency room visit, when you needed an interpreter did you get one? †	80.46	(6.16)	88.58	(6.46)	−1.99	(1.84)		45

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Survey Question	Discharged		Admitted		Discharged Coefficient Estimate (SE)			Number of Respondents
	Mean	(SD)	Mean	(SD)	Beta	(SE)		
During this emergency room visit, how often did doctors, nurses, or emergency room staff introduce themselves to you the first time they came to take care of you? ††	83.83	(0.70)	87.67	(0.62)	–0.30	(0.17)		3,591
During this emergency room visit, were you kept informed about who was in charge of your care? ††	72.70	(0.97)	75.43	(1.37)	–0.44	(0.21)	*	2,827
During this emergency room visit, how often did nurses treat you with <u>courtesy and respect</u>?	89.90	(0.61)	95.09	(0.40)	–0.59	(0.18)	***	3,640
During this emergency room visit, how often did nurses <u>listen carefully</u> to you?	85.52	(0.67)	90.08	(0.82)	–0.55	(0.21)	**	2,861
During this emergency room visit, how often did nurses <u>explain things</u> in a way you could understand?	85.32	(0.71)	87.96	(0.88)	–0.46	(0.22)	*	2,861
During this emergency room visit, did nurses <u>spend enough time</u> with you?	75.60	(0.86)	84.50	(1.00)	–0.77	(0.20)	***	2,857
During this emergency room visit, how often did doctors treat you with <u>courtesy and respect</u>?	89.10	(0.61)	92.21	(0.53)	–0.30	(0.18)		3,598
During this emergency room visit, how often did doctors <u>listen carefully</u> to you?	84.85	(0.69)	88.95	(0.87)	–0.47	(0.19)	*	2,830
During this emergency room visit, how often did doctors <u>explain things</u> in a way you could understand?	85.05	(0.67)	86.50	(0.91)	–0.49	(0.21)	*	2,832
During this emergency room visit, did doctors <u>spend enough time</u> with you?	73.45	(0.87)	79.75	(1.15)	–0.40	(0.20)	*	2,840
Using any number from 0 to 10, where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate your care during this emergency room visit?	81.87	(0.60)	88.52	(0.50)	–0.72	(0.16)	***	3,641
Would you recommend this emergency room to your friends and family?	81.41	(0.73)	89.33	(0.80)	–0.75	(0.20)	***	2,875

NOTES: SD = standard deviation. SE = standard error. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. All models use standardized regression coefficients and include case-mix adjustors and indicators for hospital, mode, and batch.

† This evaluative question was preceded by a screener question in the survey.

†† This question was deleted from the final surveys shown in Chapter 8.

In Chapter 4, we described significant differences in respondent characteristics that we observed between these two populations. Combined with the results that we present here, these differences highlight the importance of carefully considering methods for combining responses across these populations, including the development of appropriate adjustment factors. Possible approaches that could be developed based on analyses of additional data would include weighting or adjustment for admitted versus discharged status. Such analyses should be conducted when additional data are available.

We found no significant differences in response patterns when comparing the Admitted Stand Alone and Admitted HCAHPS Add-on instruments. We recommend that future analyses based on additional data reexamine comparisons between these two instruments.

Respondent Differentiation Between ED and Inpatient Settings

The EDPEC Survey Admitted HCAHPS Add-on instrument includes ED-related questions along with the full HCAHPS instrument. One concern with implementing both ED and inpatient experience questions in the same instrument is that respondents may not be able to differentiate between their experience of care in the two settings, particularly with regard to interactions with doctors and nurses. To address this issue, we examined the association between responses to doctor and nurse communication questions and respondents' 0-to-10 rating of each setting (the ED and the hospital).

Within the eight-question EDPEC Survey doctor and nurse communication composite, there are two "courtesy and respect" questions that parallel existing HCAHPS questions:

EDPEC Survey questions:

- "During this emergency room visit, how often did nurses treat you with <u>courtesy and respect</u>?"
- "During this emergency room visit, how often did doctors treat you with <u>courtesy and respect</u>?"

HCAHPS questions:

- "During this hospital stay, how often did nurses treat you with <u>courtesy and respect</u>?"
- "During this hospital stay, how often did doctors treat you with <u>courtesy and respect</u>?"

We created one communication measure for each setting by converting each question to a 0-to-100 linear scale and taking the average of non-missing values from the two survey questions for that setting. We evaluated separate multivariate linear regression models that included both ED and inpatient communication measures as predictors of the 0-to-10 ED rating (Model 1) and

the 0-to-10 hospital rating (Model 2). We included indicators in the model for hospital, batch, and mode, as well as the case-mix adjustors recommended in Chapter 5. We would expect that if respondents are able to differentiate between settings with regard to their experiences, then both of the following would be true:

- The coefficient for ED doctor and nurse communication would be statistically significant in the model assessing the 0-to-10 rating of the ED, but not in the model assessing the 0-to-10 rating of the hospital.
- The coefficient for hospital doctor and nurse communication would be statistically significant in the model assessing the 0-to-10 rating of the hospital, but not in the model assessing the 0-to-10 rating of the ED.

Table 6.2 provides weak evidence that respondents were able to differentiate doctor and nurse communication between settings, with all observed effect sizes being very small. Only respondents' experiences of doctor and nurse communication that occurs in the ED is related to their 0-to-10 rating of the ED. Respondents' experiences communicating with doctors and nurses in the hospital was more predictive of 0-to-10 hospital ratings, although there were significant associations with doctor and nurse communication in both the ED and inpatient settings. Having both ED and inpatient experiences associated with the 0-to-10 hospital rating is not surprising, since respondents may have considered their entire episode of care from arrival at the ED to discharge from the hospital when answering this question.

Table 6.2. Multivariate Regression Model Summaries for Admitted HCAHPS Add-on Respondents

	Model 1: Overall Rating of ED Root MSE = 0.63; R^2 = 0.42		Model 2: Overall Rating of Hospital Root MSE = 0.73; R^2 = 0.43	
Two-Item Communication Measure (courtesy and respect)	**Coefficient**	**(SE)**	**Coefficient**	**(SE)**
ED doctor and nurse communication	0.030	(0.004)***	0.014	(0.004)***
Hospital doctor and nurse communication	0.004	(0.003)	0.026	(0.004)***

NOTES: MSE = mean squared error. SE = standard error. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. All models use standardized regression coefficients and include case-mix adjustors and indicators for hospital, mode, and batch.

ED- and Health-Related Characteristics

We assessed the relationship between patient experience and a wide variety of characteristics related to

- the ED visit (e.g., whether the visit was for an accident or injury, a new health problem, or an ongoing health condition or concern)
- the respondent's health (e.g., taking a medication prescribed by a doctor or having a chronic condition)

- health care utilization (e.g., number of visits to a usual source of care in the last six months).

While we observed a number of statistically significant differences when examining unadjusted responses, most were eliminated after adjusting for case-mix variables. After case-mix adjustment, the following relationships remained statistically significant (data not shown):

- Among respondents who were discharged to the community, those who arrived by ambulance responded more negatively to the composite measure assessing How Well Emergency Room Doctors and Nurses Communicate with Patients and responded more positively to the composite measure assessing Getting Timely Care. Among patients who were admitted to the hospital at the end of their ED visit, those who arrived by ambulance responded more negatively to the composite measure assessing Communication with Patients about Their Medicines.
- Among patients who were discharged to the community, those who visited the ED for a new health problem responded more negatively to the composite measure assessing Communication with Patients Prior to Their Release compared to those visiting the ED due to an accident or injury or due to an ongoing health condition or concern. Among patients who were admitted, those who visited the ED due to an ongoing health condition or concern responded more negatively to the composite measure assessing Getting Timely Care compared to those who visited the ED due to an accident or injury or due to a new health problem.
- Among those patients who were discharged to the community, those who had pain during their ED visit responded more negatively to the composite measure assessing Getting Timely Care compared to those without pain. Among both discharged and admitted patients, those who had pain during the ED visit gave poorer 0-to-10 ratings compared to those without pain.
- Among patients who were discharged to the community, those with more visits to any ED in the last six months responded more negatively to the composite measures assessing How Well Emergency Room Doctors and Nurses Communicate with Patients and Getting Timely Care, gave poorer 0-to-10 ratings of the ED, and were less willing to recommend the ED compared to those with fewer ED visits. These differences by ED utilization were not observed among admitted patients.

7. Changes Made to the Survey Instrument Following the Field Test

The following questions were removed from the Discharged to Community and Admitted Stand Alone survey instruments after the field test:

- "During this emergency room visit, was your family member or friend allowed to stay with you when you wanted them with you?"

    This question had a high ceiling effect, as a large proportion (95.09%) of respondents who had a family member or friend with them in the ED reported that this person was allowed to stay with them when wanted.

- "During this emergency room visit, did you have a family member or friend with you?"

    This question served only to identify respondents who should be asked whether their friend or family member was allowed to stay with them. Since that question was removed due to a high ceiling effect, this question was removed from the survey.

- "During this emergency room visit, how often did doctors, nurses, or emergency room staff introduce themselves to you the first time they came to take care of you?"

    This question had very poor hospital-level reliability, indicating that responses to the question did not reliably distinguish between EDs.

- "During this emergency room visit, were you kept informed about who was in charge of your care?"

    This question had very poor hospital-level reliability, indicating that responses to the question did not reliably distinguish between EDs.

- "Thinking about the 30 days before this visit, how many times did you go to this emergency room to get care for yourself for any reason? Please include the emergency room visit you have been answering questions about in this survey."

    An unusually high proportion of respondents (7.70%) did not answer this question. In addition, this information is available from hospital administrative data.

- "During this emergency room visit, did someone let you know about how long you would wait before you got care for the first time?"

    Following the field test, CMS identified concerns regarding the inclusion of this question in the EDPEC Survey instruments. The Emergency Medical Treatment and Active Labor Act of 1986 (EMTALA) requires that all individuals who present at a hospital that offers emergency services must be provided with a

medical screening exam and stabilizing treatment for emergency medical conditions.[19] This law has been interpreted in federal rulemaking to mean that hospitals should not engage in activities that discourage patients from remaining in the ED.[20] Including this question in the EDPEC Survey is likely to set an expectation that hospitals would communicate wait time information to their ED patients. As a result, CMS was concerned that this question could put hospitals at risk of violating EMTALA because telling patients that they may need to wait for an extended period to receive care could potentially encourage them to leave the ED.

While ambulatory patient experience surveys such as the CAHPS Clinician & Group surveys include questions on waiting times, facility surveys such as HCAHPS do not. Thus, excluding this question from the EDPEC Survey is consistent with other patient experience surveys designed for use in health care facilities. In addition, we noted a slight improvement in hospital-level reliability for the Getting Timely Care composite when this question was removed.

We recommend that CMS further explore alternative survey questions that may avoid these EMTALA concerns, such as questions focused on whether patients were kept informed about delays in the ED.

- We removed four questions related to identifying individuals with chronic conditions, as these questions were intended for use in the field test only. After adjusting for self-reported general health status and other case-mix adjustors, we observed no significant differences in patient experience between those respondents with and without chronic conditions.

In addition, we added one question to the Admitted HCAHPS Add-on instrument following the field test:

- "In the last 6 months, how many times have you visited any emergency room to get care for yourself? Please include the emergency room visit you have been answering questions about in this survey."

This question performed well in the Discharged to Community and the Admitted Stand Alone versions of the survey and is a question for which patients are the best and most reliable source of information.

8. Draft Survey Instruments Following Field Test

In this section, we present the three English-language draft instruments resulting from the field test:

- Discharged to Community: 35 questions regarding ED experience, plus 18 questions regarding the respondent's characteristics
- Admitted Stand Alone: 29 questions regarding ED experience, plus 18 questions regarding the respondent's characteristics
- Admitted HCAHPS Add-on: 10 questions regarding ED experience that should be inserted into a full HCAHPS instrument (using the most recently available version of the instrument) immediately preceding the "About You" section that includes questions regarding the respondent's characteristics.

The 18 questions regarding the respondent's characteristics in the Discharged to Community and Admitted Stand Alone instruments include

- eight demographic and general health status questions that are typically included in CAHPS surveys
- seven additional questions focused primarily on disabilities and functional status that are legally mandated by Section 4302 of the Affordable Care Act[21]
- three questions related to proxy assistance with completing the survey.

Recommendations for Future Testing

These instruments are based on the results of our field test, should not be considered final instruments that are endorsed by CMS, and were not ready for use at the time this report was released. As of September 2014, CMS plans to conduct additional testing on these instruments.

We recommend that CMS consider testing alternative questions related to pain management, such as whether providers explained the side effects of pain medications; the use or availability of non-opioid treatments; and whether providers safely managed patients' pain. The pain questions in the current instrument were adapted from the HCAHPS instrument,[22] which asks how often the patient's pain was well controlled and how often hospital staff did everything they could to help the patient with his or her pain. However, the ED is a different environment than an inpatient setting. For example, ED staff may be concerned about patients who may fabricate reasons to obtain pain medications in the ED.[23,24,25] As a result, alternative questions may be more appropriate for use in the ED.

In keeping with the EMTALA concerns discussed in Chapter 7, we recommend that CMS explore alternative language for questions regarding ED waiting time and patients being kept informed of delays.

EDPEC Survey 2.0—Discharged to Community Instrument

Please answer the questions about the care you got from the hospital emergency room on or around the date named below.

[NAME OF EMERGENCY ROOM/DATE OF VISIT LABEL]

ALL OF THE QUESTIONS IN THIS SURVEY WILL ASK ABOUT THIS EMERGENCY ROOM VISIT ONLY.

If you want to know more about this survey, please call [TOLL FREE NUMBER]. All calls to that number are free.

SURVEY INSTRUCTIONS

- Use a dark colored pen to fill out the survey.
- Please print your answers to write in questions.
- Place an X directly inside the inside the square indicating a response, like in the sample below.

  ☒ Yes

  ☐ No

- To indicate an answer selected in error clearly draw a line through the square and select another square with an X like this:

  ☒ Yes

  ~~☒ No~~

- You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:

  ☒ Yes ➔ *If Yes, go to Question 1*

  ☐ No

GOING TO THE EMERGENCY ROOM

1. Thinking about this visit, what was the <u>main</u> reason why you went to the emergency room?

   ¹ ☐ An accident or injury
   ² ☐ A new health problem
   ³ ☐ An ongoing health condition or concern

2. For this visit, did you go to the emergency room in an ambulance?

   ¹ ☐ Yes
   ² ☐ No

3. When you first arrived at the emergency room, how long was it before someone talked to you about the reason why you were there?

   ¹ ☐ Less than 5 minutes
   ² ☐ 5 to 15 minutes
   ³ ☐ More than 15 minutes

4. Using any number from 0 to 10, where 0 is not at all important and 10 is extremely important, when you first arrived at the emergency room, how important was it for you to get care right away?

   ☐ 0 Not at all important
   ☐ 1
   ☐ 2
   ☐ 3
   ☐ 4
   ☐ 5
   ☐ 6
   ☐ 7
   ☐ 8
   ☐ 9
   ☐ 10 Extremely important

DURING YOUR EMERGENCY ROOM VISIT

5. During this emergency room visit, did you get care within 30 minutes of getting to the emergency room?

   ¹ ☐ Yes
   ² ☐ No

6. During this emergency room visit, did the doctors or nurses ask about <u>all</u> of the medicines you were taking?

   ¹ ☐ Yes, definitely
   ² ☐ Yes, somewhat
   ³ ☐ No

7. During this emergency room visit, were you given any medicine that you had not taken before?

   ¹ ☐ Yes
   ² ☐ Don't Know
   ³ ☐ No → ***If No, go to Question 10***

8. Before giving you any new medicine, did the doctors or nurses tell you what the medicine was for?

   ¹ ☐ Yes, definitely
   ² ☐ Yes, somewhat
   ³ ☐ No

9. Before giving you any new medicine, did the doctors or nurses describe possible side effects to you in a way you could understand?

   ¹ ☐ Yes, definitely
   ² ☐ Yes, somewhat
   ³ ☐ No

10. During this emergency room visit, did you have any pain?[1]

   1 ☐ Yes, definitely
   2 ☐ Yes, somewhat
   3 ☐ No → *If No, go to Question 13*

11. During this emergency room visit, did you get medicine for pain?[1]

   1 ☐ Yes, definitely
   2 ☐ Yes, somewhat
   3 ☐ No

12. During this emergency room visit, did the doctors and nurses do everything they could to help you with your pain?[1]

   1 ☐ Yes, definitely
   2 ☐ Yes, somewhat
   3 ☐ No

13. During this emergency room visit, did you have a blood test, x-ray, or any other test?

   1 ☐ Yes
   2 ☐ No → *If No, go to Question 15*

14. During this emergency room visit, did doctors and nurses give you as much information as you wanted about the results of these tests?

   1 ☐ Yes, definitely
   2 ☐ Yes, somewhat
   3 ☐ No

15. An interpreter is someone who helps you talk with others who do not speak your language. During this emergency room visit, did you need an interpreter?

   1 ☐ Yes
   2 ☐ No → *If No, go to Question 17*

16. During this emergency room visit, when you needed an interpreter did you get one?

   1 ☐ Yes
   2 ☐ No

PEOPLE WHO TOOK CARE OF YOU

Please answer the following questions about the people who took care of you during your emergency room visit.

17. During this emergency room visit, how often did nurses treat you with courtesy and respect?

   1 ☐ Never
   2 ☐ Sometimes
   3 ☐ Usually
   4 ☐ Always

18. During this emergency room visit, how often did nurses listen carefully to you?

   1 ☐ Never
   2 ☐ Sometimes
   3 ☐ Usually
   4 ☐ Always

---

[1] CMS is conducting additional testing and analysis of these items and alternative wording for future versions of the EDPEC Survey.

19. During this emergency room visit, how often did nurses <u>explain things</u> in a way you could understand?

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always

20. During this emergency room visit, did nurses <u>spend enough time</u> with you?

1 ☐ Yes, definitely
2 ☐ Yes, somewhat
3 ☐ No

21. During this emergency room visit, how often did doctors treat you with <u>courtesy and respect</u>?

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always

22. During this emergency room visit, how often did doctors <u>listen carefully to you</u>?

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always

23. During this emergency room visit, how often did doctors <u>explain things</u> in a way you could understand?

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always

24. During this emergency room visit, did doctors <u>spend enough time</u> with you?

1 ☐ Yes, definitely
2 ☐ Yes, somewhat
3 ☐ No

LEAVING THE EMERGENCY ROOM

25. Before you left the emergency room, did you understand what your main health problem was?

1 ☐ Yes
2 ☐ No

26. Before you left the emergency room, did you understand what symptoms or health problems to look out for when you left the emergency room?

1 ☐ Yes
2 ☐ No

27. Before you left the emergency room, did a doctor or nurse tell you that you should take any new medicines that you had not taken before?

1 ☐ Yes
2 ☐ No → *If No, go to Question 29*

28. Before you left the emergency room, did a doctor or nurse tell you what the new medicines were for?

1 ☐ Yes, definitely
2 ☐ Yes, somewhat
3 ☐ No

29. Before you left the emergency room, did someone tell you to make an appointment with a doctor to follow-up about your problem?

   1 ☐ Yes
   2 ☐ No → *If No, go to Question 31*

30. Before you left the emergency room, did someone ask if you would be able to get this follow-up care?

   1 ☐ Yes
   2 ☐ No

OVERALL EXPERIENCE

Please answer the following questions about your visit to the emergency room named on the front of the survey. Do not include any other emergency room visits in your answers.

31. Using any number from 0 to 10, where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate your care during this emergency room visit?

   ☐ 0 Worst care possible
   ☐ 1
   ☐ 2
   ☐ 3
   ☐ 4
   ☐ 5
   ☐ 6
   ☐ 7
   ☐ 8
   ☐ 9
   ☐ 10 Best care possible

32. Would you recommend this emergency room to your friends and family?

   1 ☐ Definitely no
   2 ☐ Probably no
   3 ☐ Probably yes
   4 ☐ Definitely yes

YOUR HEALTH CARE

33. In the last 6 months, how many times have you visited any emergency room to get care for yourself? Please include the emergency room visit you have been answering questions about in this survey.

   1 ☐ 1 time
   2 ☐ 2 times
   3 ☐ 3 times
   4 ☐ 4 times
   5 ☐ 5 to 9 times
   6 ☐ 10 or more times

34. Not counting the emergency room, is there a doctor's office, clinic, or other place you usually go if you need a check-up, want advice about a health problem, or get sick or hurt?

   1 ☐ Yes
   2 ☐ No → *If No, go to Question 36*

35. How many times in the last 6 months did you visit that doctor's office, clinic, health center, or other place to get care or advice about your health?

¹ ☐ None
² ☐ 1 time
³ ☐ 2 times
⁴ ☐ 3 times
⁵ ☐ 4 times
⁶ ☐ 5 to 9 times
⁷ ☐ 10 or more times

ABOUT YOU

There are only a few questions left.

36. In general, how would you rate your overall health?

¹ ☐ Excellent
² ☐ Very good
³ ☐ Good
⁴ ☐ Fair
⁵ ☐ Poor

37. In general, how would you rate your overall mental or emotional health?

¹ ☐ Excellent
² ☐ Very good
³ ☐ Good
⁴ ☐ Fair
⁵ ☐ Poor

38. What is your age?

¹ ☐ 18 to 24
² ☐ 25 to 34
³ ☐ 35 to 44
⁴ ☐ 45 to 54
⁵ ☐ 55 to 64
⁶ ☐ 65 to 74
⁷ ☐ 75 or older

39. Are you male or female?

¹ ☐ Male
² ☐ Female

40. What is the highest grade or level of school that you have completed?

¹ ☐ 8ᵗʰ grade or less
² ☐ Some high school but did not graduate
³ ☐ High school graduate or GED
⁴ ☐ Some college or 2-year degree
⁵ ☐ 4-year college graduate
⁶ ☐ More than 4-year college degree

41. Are you of Hispanic, Latino/a, or Spanish origin?

¹ ☐ Yes, Hispanic, Latino/a, or Spanish
² ☐ No, not Hispanic, Latino/a, or Spanish → *If No, go to Question 43*

42. Which group best describes you?

¹ ☐ Mexican, Mexican American, Chicano/a
² ☐ Puerto Rican
³ ☐ Cuban
⁴ ☐ Other Spanish/Hispanic/Latino

43. What is your race? Mark one or more.

1 ☐ White
2 ☐ Black or African American
3 ☐ American Indian or Alaska Native
4 ☐ Asian Indian
5 ☐ Chinese
6 ☐ Filipino
7 ☐ Japanese
8 ☐ Korean
9 ☐ Vietnamese
10 ☐ Other Asian
11 ☐ Native Hawaiian
12 ☐ Guamanian or Chamorro
13 ☐ Samoan
14 ☐ Other Pacific Islander

44. What language do you <u>mainly</u> speak at home?

1 ☐ English
2 ☐ Spanish
3 ☐ Chinese
4 ☐ Russian
5 ☐ Vietnamese
6 ☐ Portuguese
7 ☐ Some other language (please print)

_____

45. Are you deaf or do you have serious difficulty hearing?

1 ☐ Yes
2 ☐ No

46. Are you blind or do you have serious difficulty seeing, even when wearing glasses?

1 ☐ Yes
2 ☐ No

47. Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?

1 ☐ Yes
2 ☐ No

48. Do you have serious difficulty walking or climbing stairs?

1 ☐ Yes
2 ☐ No

49. Do you have difficulty dressing or bathing?

1 ☐ Yes
2 ☐ No

50. Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping?

1 ☐ Yes
2 ☐ No

51. Did someone help you complete this survey?

1 ☐ Yes
2 ☐ No →***Thank you. Please return the completed survey in the postage-paid envelope.***

52. How did that person help you? Mark one or more.

    1 ☐ Read the questions to me
    2 ☐ Wrote down the answers I gave
    3 ☐ Answered the questions for me
    4 ☐ Translated the questions into my language
    5 ☐ Helped in some other way (please print)

_____

53. Was the person who helped you with you at any time during this emergency room visit?

    1 ☐ Yes
    2 ☐ No

Thank you.
Please return the completed survey in the postage-paid envelope.

EDPEC Survey 2.0—Admitted Stand Alone Instrument

Please answer the questions about the care you got from the hospital emergency room on or around the date named below.

[NAME OF EMERGENCY ROOM/DATE OF VISIT LABEL]

ALL OF THE QUESTIONS IN THIS SURVEY WILL ASK ABOUT YOUR EMERGENCY ROOM VISIT ONLY. PLEASE DO NOT THINK ABOUT CARE YOU RECEIVED AFTER YOU WERE ADMITTED TO THE HOSPITAL.

If you want to know more about this survey, please call [TOLL FREE NUMBER]. All calls to that number are free.

SURVEY INSTRUCTIONS

- Use a dark colored pen to fill out the survey.
- Please print your answers to write in questions.
- Place an X directly inside the inside the square indicating a response, like in the sample below.

      ☒   Yes

      ☐   No

- To indicate an answer selected in error clearly draw a line through the square and select another square with an X like this:

      ☒   Yes

      ~~☒   No~~

- You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:

      ☒   Yes ➜ *If Yes, go to Question 1*

      ☐   No

GOING TO THE EMERGENCY ROOM

1. Thinking about this visit, what was the <u>main</u> reason why you went to the emergency room?

   1 ☐ An accident or injury
   2 ☐ A new health problem
   3 ☐ An ongoing health condition or concern

2. For this visit, did you go to the emergency room in an ambulance?

   1 ☐ Yes
   2 ☐ No

3. When you first arrived at the emergency room, how long was it before someone talked to you about the reason why you were there?

   1 ☐ Less than 5 minutes
   2 ☐ 5 to 15 minutes
   3 ☐ More than 15 minutes

4. Using any number from 0 to 10, where 0 is not at all important and 10 is extremely important, when you first arrived at the emergency room, how important was it for you to get care right away?

   ☐ 0   Not at all important
   ☐ 1
   ☐ 2
   ☐ 3
   ☐ 4
   ☐ 5
   ☐ 6
   ☐ 7
   ☐ 8
   ☐ 9
   ☐ 10 Extremely important

DURING YOUR EMERGENCY ROOM VISIT

5. During this emergency room visit, did you get care within 30 minutes of getting to the emergency room?

   1 ☐ Yes
   2 ☐ No

6. During this emergency room visit, did the doctors or nurses ask about <u>all</u> of the medicines you were taking?

   1 ☐ Yes, definitely
   2 ☐ Yes, somewhat
   3 ☐ No

7. During this emergency room visit, were you given any medicine that you had not taken before?

   1 ☐ Yes
   2 ☐ Don't Know
   3 ☐ No → ***If No, go to Question 10***

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8. Before giving you any new medicine, did the doctors or nurses tell you what the medicine was for?

   [1] ☐ Yes, definitely
   [2] ☐ Yes, somewhat
   [3] ☐ No

9. Before giving you any new medicine, did the doctors or nurses describe possible side effects to you in a way you could understand?

   [1] ☐ Yes, definitely
   [2] ☐ Yes, somewhat
   [3] ☐ No

10. During this emergency room visit, did you have any pain?[1]

    [1] ☐ Yes, definitely
    [2] ☐ Yes, somewhat
    [3] ☐ No → *If No, go to Question 13*

11. During this emergency room visit, did you get medicine for pain?[1]

    [1] ☐ Yes, definitely
    [2] ☐ Yes, somewhat
    [3] ☐ No

12. During this emergency room visit, did the doctors and nurses do everything they could to help you with your pain?[1]

    [1] ☐ Yes, definitely
    [2] ☐ Yes, somewhat
    [3] ☐ No

---

[1] CMS is conducting additional testing and analysis of these items and alternative wording for future versions of the EDPEC Survey.

13. An interpreter is someone who helps you talk with others who do not speak your language. During this emergency room visit, did you need an interpreter?

    [1] ☐ Yes
    [2] ☐ No → *If No, go to Question 15*

14. During this emergency room visit, when you needed an interpreter did you get one?

    [1] ☐ Yes
    [2] ☐ No

PEOPLE WHO TOOK CARE OF YOU IN THE EMERGENCY ROOM

Please answer the following questions about the people who took care of you while you were in the emergency room. Do not include doctors, nurses, or hospital staff who took care of you after you were admitted to the hospital and moved to another part of the hospital for more care.

15. During this emergency room visit, how often did nurses treat you with courtesy and respect?

    [1] ☐ Never
    [2] ☐ Sometimes
    [3] ☐ Usually
    [4] ☐ Always

16. During this emergency room visit, how often did nurses listen carefully to you?

    [1] ☐ Never
    [2] ☐ Sometimes
    [3] ☐ Usually
    [4] ☐ Always

17. During this emergency room visit, how often did nurses explain things in a way you could understand?

   1 ☐ Never
   2 ☐ Sometimes
   3 ☐ Usually
   4 ☐ Always

18. During this emergency room visit, did nurses spend enough time with you?

   1 ☐ Yes, definitely
   2 ☐ Yes, somewhat
   3 ☐ No

19. During this emergency room visit, how often did doctors treat you with courtesy and respect?

   1 ☐ Never
   2 ☐ Sometimes
   3 ☐ Usually
   4 ☐ Always

20. During this emergency room visit, how often did doctors listen carefully to you?

   1 ☐ Never
   2 ☐ Sometimes
   3 ☐ Usually
   4 ☐ Always

21. During this emergency room visit, how often did doctors explain things in a way you could understand?
   1 ☐ Never
   2 ☐ Sometimes
   3 ☐ Usually
   4 ☐ Always

22. During this emergency room visit, did doctors spend enough time with you?

   1 ☐ Yes, definitely
   2 ☐ Yes, somewhat
   3 ☐ No

LEAVING THE EMERGENCY ROOM

23. Once you found out you would have to stay in the hospital, were you kept informed about how long it would be before you went to another part of the hospital?

   1 ☐ Yes, definitely
   2 ☐ Yes, somewhat
   3 ☐ No

24. Before you left the emergency room, did you understand why you needed to stay in the hospital?

   1 ☐ Yes, definitely
   2 ☐ Yes, somewhat
   3 ☐ No
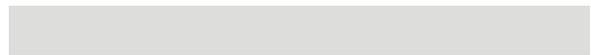
OVERALL EXPERIENCE

Please answer the following questions about your visit to the emergency room named on the front of the survey. Do not include any other emergency room visits or care you got after you were admitted to the hospital and moved to another part of the hospital for more care.

25. Using any number from 0 to 10, where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate your care during this emergency room visit?

- [ ] 0 Worst care possible
- [ ] 1
- [ ] 2
- [ ] 3
- [ ] 4
- [ ] 5
- [ ] 6
- [ ] 7
- [ ] 8
- [ ] 9
- [ ] 10 Best care possible

26. Would you recommend this emergency room to your friends and family?

- [ ] 1 Definitely no
- [ ] 2 Probably no
- [ ] 3 Probably yes
- [ ] 4 Definitely yes

YOUR HEALTH CARE

27. In the last 6 months, how many times have you visited any emergency room to get care for yourself? Please include the emergency room visit you have been answering questions about in this survey.

- [ ] 1 1 time
- [ ] 2 2 times
- [ ] 3 3 times
- [ ] 4 4 times
- [ ] 5 5 to 9 times
- [ ] 6 10 or more times

28. Not counting the emergency room, is there a doctor's office, clinic, or other place you usually go if you need a check-up, want advice about a health problem, or get sick or hurt?

- [ ] 1 Yes
- [ ] 2 No → *If No, go to Question 30*

29. How many times in the last 6 months did you visit that doctor's office, clinic, health center, or other place to get care or advice about your health?

- [ ] 1 None
- [ ] 2 1 time
- [ ] 3 2 times
- [ ] 4 3 times
- [ ] 5 4 times
- [ ] 6 5 to 9 times
- [ ] 7 10 or more times

ABOUT YOU

There are only a few questions left.

30. In general, how would you rate your overall health?

  1 ☐ Excellent
  2 ☐ Very good
  3 ☐ Good
  4 ☐ Fair
  5 ☐ Poor

31. In general, how would you rate your overall <u>mental or emotional health</u>?

  1 ☐ Excellent
  2 ☐ Very good
  3 ☐ Good
  4 ☐ Fair
  5 ☐ Poor

32. What is your age?

  1 ☐ 18 to 24
  2 ☐ 25 to 34
  3 ☐ 35 to 44
  4 ☐ 45 to 54
  5 ☐ 55 to 64
  6 ☐ 65 to 74
  7 ☐ 75 or older

33. Are you male or female?

  1 ☐ Male
  2 ☐ Female

34. What is the highest grade or level of school that you have completed?

  1 ☐ 8th grade or less
  2 ☐ Some high school but did not graduate
  3 ☐ High school graduate or GED
  4 ☐ Some college or 2-year degree
  5 ☐ 4-year college graduate
  6 ☐ More than 4-year college degree

35. Are you of Hispanic, Latino/a, or Spanish origin?

  1 ☐ Yes, Hispanic, Latino/a, or Spanish
  2 ☐ No, not Hispanic, Latino/a, or Spanish → *If No, go to Question 37*

36. Which group best describes you?

  1 ☐ Mexican, Mexican American, Chicano/a
  2 ☐ Puerto Rican
  3 ☐ Cuban
  4 ☐ Other Spanish/Hispanic/Latino

37. What is your race? Mark one or more.

1 ☐ White
2 ☐ Black or African American
3 ☐ American Indian or Alaska Native
4 ☐ Asian Indian
5 ☐ Chinese
6 ☐ Filipino
7 ☐ Japanese
8 ☐ Korean
9 ☐ Vietnamese
10 ☐ Other Asian
11 ☐ Native Hawaiian
12 ☐ Guamanian or Chamorro
13 ☐ Samoan
14 ☐ Other Pacific Islander

38. What language do you <u>mainly</u> speak at home?

1 ☐ English
2 ☐ Spanish
3 ☐ Chinese
4 ☐ Russian
5 ☐ Vietnamese
6 ☐ Portuguese
7 ☐ Some other language (please print)

_____

39. Are you deaf or do you have serious difficulty hearing?

1 ☐ Yes
2 ☐ No

40. Are you blind or do you have serious difficulty seeing, even when wearing glasses?

1 ☐ Yes
2 ☐ No

41. Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?

1 ☐ Yes
2 ☐ No

42. Do you have serious difficulty walking or climbing stairs?

1 ☐ Yes
2 ☐ No

43. Do you have difficulty dressing or bathing?

1 ☐ Yes
2 ☐ No

44. Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping?

1 ☐ Yes
2 ☐ No

45. Did someone help you complete this survey?

1 ☐ Yes
2 ☐ No → *Thank you. Please return the completed survey in the postage-paid envelope.*

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46. How did that person help you? Mark one or more.

   1 ☐ Read the questions to me
   2 ☐ Wrote down the answers I gave
   3 ☐ Answered the questions for me
   4 ☐ Translated the questions into my language
   5 ☐ Helped in some other way (please print)

   _____

47. Was the person who helped you with you at any time during this emergency room visit?

   1 ☐ Yes
   2 ☐ No

Thank you.
Please return the completed survey in the postage-paid envelope.

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EDPEC Survey 2.0—Admitted HCAHPS Add-on Instrument

Please answer the questions about the care you got from the hospital emergency room and hospital on or around the date named below.

<div style="border:1px solid black">

[NAME OF EMERGENCY ROOM/DATE OF VISIT LABEL]

</div>

THE FIRST QUESTIONS IN THE SURVEY WILL ASK ABOUT YOUR HOSPITAL STAY. LATER IN THE SURVEY, YOU WILL BE ASKED ABOUT THE EMERGENCY ROOM VISIT IMMEDIATELY PRIOR TO YOUR HOSPITAL STAY.

If you want to know more about this survey, please call [TOLL FREE NUMBER]. All calls to that number are free.

SURVEY INSTRUCTIONS

- Use a dark colored pen to fill out the survey.
- Please print your answers to write in questions.
- Place an X directly inside the inside the square indicating a response, like in the sample below.

  ☒ Yes

  ☐ No

- To indicate an answer selected in error clearly draw a line through the square and select another square with an X like this:

  ☒ Yes

  ☒ No

- You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:

  ☒ Yes ➔ *If Yes, go to Question 1*

  ☐ No

FOR THE HCAHPS ADD-ON VERSION OF THE EDPEC SURVEY, WE RECOMMEND INSERTING THE FOLLOWING ED-SPECIFIC ITEMS INTO THE EXISTING HCAHPS SURVEY. THE 10 ED ITEMS SHOULD BE PLACED FOLLOWING HCAHPS CONTENT ITEMS AND IMMEDIATELY PRECEDING "**ABOUT YOU**" ITEMS.

INSERT HCAHPS CONTENT ITEMS THROUGH SECTION "**UNDERSTANDING YOUR CARE WHEN YOU LEFT THE HOSPITAL**"

GOING TO THE EMERGENCY ROOM

For these next questions, please think about the <u>emergency room</u> visit immediately prior to this hospital admission. Please do not include your experiences after you were admitted to the hospital.

1. Thinking about this visit, what was the <u>main</u> reason why you went to the emergency room?

   1 ☐ An accident or injury
   2 ☐ A new health problem
   3 ☐ An ongoing health condition or concern

2. For this visit, did you go to the emergency room in an ambulance?

   1 ☐ Yes
   2 ☐ No

3. When you first arrived at the emergency room, how long was it before someone talked to you about the reason why you were there?

   1 ☐ Less than 5 minutes
   2 ☐ 5 to 15 minutes
   3 ☐ More than 15 minutes

DURING YOUR EMERGENCY ROOM VISIT

4. During this emergency room visit, did you get care within 30 minutes of getting to the emergency room?

   1 ☐ Yes
   2 ☐ No

PEOPLE WHO TOOK CARE OF YOU IN THE EMERGENCY ROOM

Please answer the following questions about the people who took care of you while you were in the emergency room.

5. During this emergency room visit, how often did nurses treat you with <u>courtesy and respect</u>?

   1 ☐ Never
   2 ☐ Sometimes
   3 ☐ Usually
   4 ☐ Always

6. During this emergency room visit, how often did doctors treat you with <u>courtesy and respect</u>?

   1 ☐ Never
   2 ☐ Sometimes
   3 ☐ Usually
   4 ☐ Always
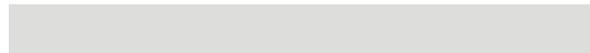
LEAVING THE EMERGENCY ROOM

7. Once you found out you would have to stay in the hospital, were you kept informed about how long it would be before you went to another part of the hospital?

   1 ☐ Yes, definitely
   2 ☐ Yes, somewhat
   3 ☐ No

8. Before you left the emergency room, did you understand why you needed to stay in the hospital?

   1 ☐ Yes, definitely
   2 ☐ Yes, somewhat
   3 ☐ No

OVERALL EMERGENCY ROOM EXPERIENCE

9. Using any number from 0 to 10, where 0 is the worst care possible and 10 is the best care possible, what number would you use to rate your care during this emergency room visit?

   ☐ 0 – worst care possible
   ☐ 1
   ☐ 2
   ☐ 3
   ☐ 4
   ☐ 5
   ☐ 6
   ☐ 7
   ☐ 8
   ☐ 9
   ☐ 10 – best care possible

10. In the last 6 months, how many times have you visited any emergency room to get care for yourself? Please include the emergency room visit you have been answering questions about in this survey.

   1 ☐ 1 time
   2 ☐ 2 times
   3 ☐ 3 times
   4 ☐ 4 times
   5 ☐ 5 to 9 times
   6 ☐ 10 or more times

ABOUT YOU

[INSERT HCAHPS **ABOUT YOU** SECTION HERE]

Thank you.
Please return the completed survey in the postage-paid envelope.

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