

6 Things You Need to Know About Analyzing Patient Experience Scores by Race and Ethnicity

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Introduction

Press Ganey launched the Equity Partnership in July 2020 to infuse an equity lens into all elements of data, data quality, and quality improvement. Pursuing equity must be a priority across all elements of performance outcomes (safety, quality, experience), acknowledging that there is no such thing as high-quality, safe care that is inequitable.¹ Health equity is achieved when outcomes cannot be predicted by group membership.² Segmenting outcomes, such as patient experience, by race and ethnic group membership, is a critical first step to identify whether outcomes are currently inequitable for your patients.

These national findings represent the responses of patients who received care in 2020 (see Table 1 for *n* sizes). For the inpatient and emergency department setting, both CAHPS-only surveys and integrated surveys (including both CAHPS and Press Ganey measures) were included. For the medical practice setting, CGCAHPS survey responses were used. Patient identity was derived based on the CAHPS self-report questions, which allow patients to select multiple options so that patients may be grouped into more than one category. And though the racial group membership is asked about in a separate question from the Hispanic/Latino identity, we display these results all together to allow for visual comparisons across each of the identified communities.

Table 1: Summary of Responses for National Analysis

Inpatient Survey	Asian	Black or African American	Hawaiian or Pacific Islander	Hispanic, or Latino	Native American/ Alaska Native	White
Surgical Patients	11,353	27,390	2,150	36,217	7,003	414,624
Medical Patients	16,531	47,121	3,246	53,747	10,531	492,747
Maternity Patients	12,347	10,343	1,308	25,358	2,127	125,453
All Inpatient Responses	48,880	108,320	8,264	138,433	24,825	1,301,476
ED Survey Instrument	Asian	Black or African American	Hawaiian or Pacific Islander	Hispanic, or Latino	Native American/ Alaska Native	White
ED CAHPS Survey	13,602	58,670	3,076	50,587	11,017	435,611
Press Ganey ED Survey	11,332	85,415	1,440	20,470	3,978	536,653
Medical Practice Survey Instrument	Asian	Black or African American	Hawaiian or Pacific Islander	Hispanic, or Latino	Native American/ Alaska Native	White
CG CAHPS Survey	145,466	458,780	15,722	306,273	15,722	5,272,702

Consider the following insights as you explore patient experience data with an equity lens:

1. You need more than global measures to understand inequity.
2. The style of measurement can impact equity findings.
3. Disparities differ by clinical care needs.
4. Disparities differ by care setting.
5. Intersectionality of patient characteristics matters.
6. The next question is why.

¹ Sivashanker, K., & Gandhi, T. K. (2020). [Advancing Safety and Equity Together](#). *New England Journal of Medicine*, 382(4), 301–303.

² <https://www.gensler.com/blog/inclusion-by-design-insights-from-design-week-portland>

1. You Need More Than Global Measures to Understand Inequity

You might begin equity work by looking at differences between patient communities in global outcomes, such as overall rating or likelihood to recommend, but you will need a fuller context of measures to truly describe the experience of patient groups.

For example, suppose you were to look only at differences in HCAHPS top box scores on global measures (see Figure 1). In that case, you might conclude that the experiences of Black or African American patients and those of Native American or Alaska Native patients are similar.

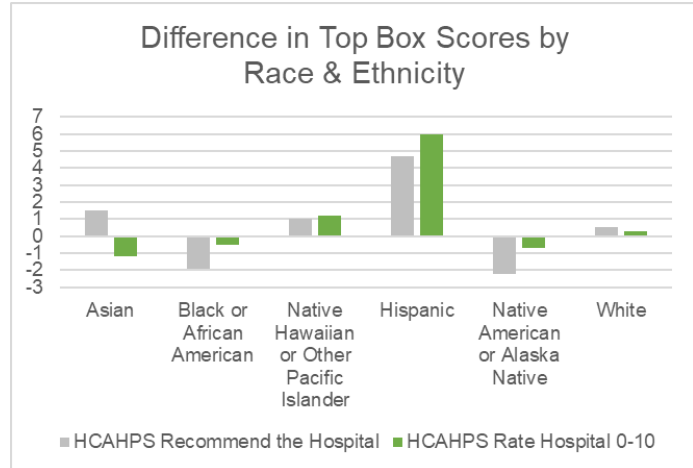


Figure 1: HCAHPS Global Outcomes by Race & Ethnicity

However, when viewing the total profile of differences across measures (Figure 2), it quickly becomes apparent that patients who are Native American or Alaska Natives report worse experiences for nearly all measures (31 out of 36 measures or 86%). In contrast, patients identifying as Black or African American report worse experiences for 24 out of 36 measures, or 67%. However, the negative gaps seen tend to be larger than when looking at the Native American or Alaska Native experience. Segmenting just one or even a small handful of measures will not provide a robust understanding of equity.

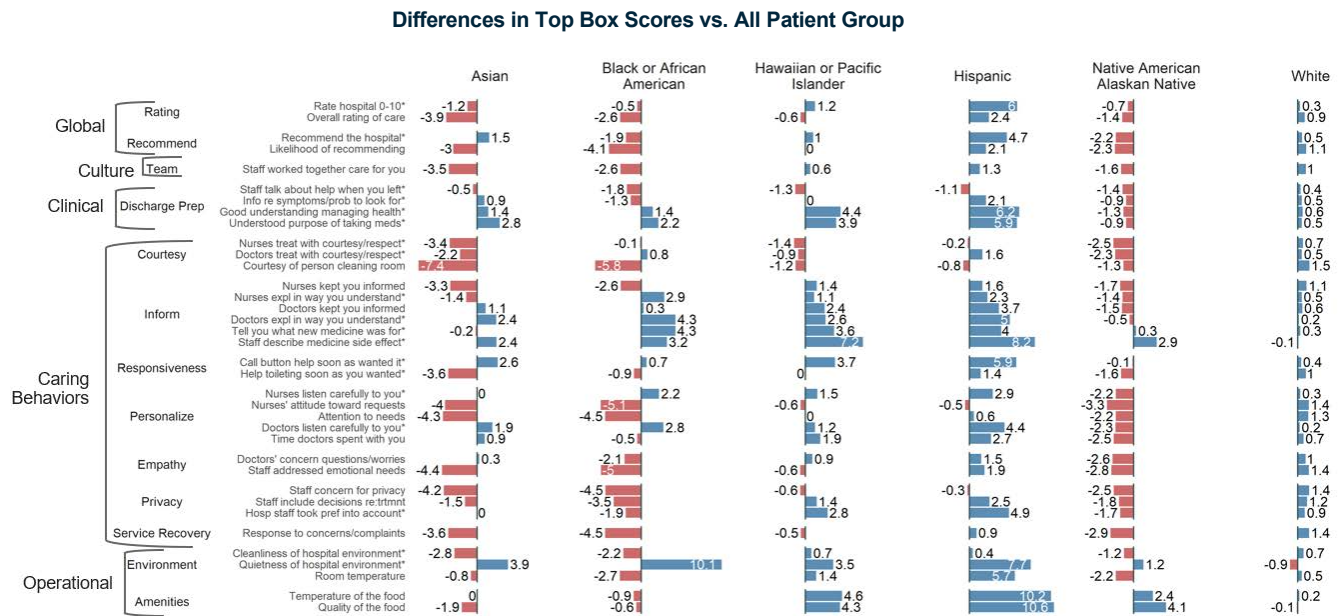


Figure 2: Comparison of Full Inpatient Experience Across Groups

2. The Style of Measurement Can Impact Equity Findings

CAHPS tools ask patients to report whether something occurred (Yes vs. No) or how *often* something occurred (Never, Sometimes, Usually, Always). This style of measurement asks patients to state their recall of what happened during care. Press Ganey measures measure how *well* an attribute of care met patient needs by asking respondents to give their evaluation of care on a Likert-type scale ranging from Very Poor to Very Good. These different styles of measurement (frequency vs. evaluative) appear to influence the magnitude of differences found when segmenting patient experience outcomes by race and ethnicity.

As we look for inequity in patient experience, we can start by assessing the proportion of measures with lower scores for a particular group of patients. If more than 50% of the measures are rated lower by a specific group, we should be concerned and dig deeper. When looking across the 19 HCAHPS frequency-based measures, that 50 % threshold is exceeded only for Native Americans or Alaska Natives (see Table 2). This group's top box scores are lower than the total all-patient group for 84% of the 19 HCAHPS measures. However, looking instead at top box score patterns for the evaluative Press Ganey measures, we find different results. Across the 17 inpatient Press Ganey measures, Native American or Alaska Native patients have lower top box scores for 88% of measures, but Asian patients have lower top box scores for 16% of measures, and Black or African American patients have lower top box scores for 94% of measures. If only HCAHPS measures are used, inequity may not be detected or overlooked.

Table 2: Summary of Differences in Scores HCAHPS & PG Integrated Survey vs. HCAHPS Only

		Proportion of Top Box Scores That Were Lower than All Patient Group					
		Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Hispanic	Native American or Alaska Native	White
Frequency Never/Sometimes/ Usually/Always	HCAHPS Only (19 items)	42%	42%	16%	11%	84%	5%
Evaluative Very Poor – Very Good	PG Measures (17 Items)	76%	94%	35%	18%	88%	6%

		Proportion of Top Box Scores That Were Lower Than All Patient Group					
		Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Hispanic	Native American or Alaska Native	White
HCAHPS & PG Measures (36 Items)		58%	67%	25%	14%	86%	6%
HCAHPS Only (19 items)		42%	42%	16%	11%	84%	5%

Another way to visualize the differences in patterns found using frequency-based CAHPS measures vs. evaluative Press Ganey measures is to look again at the profiles of differences in top box scores across all items on an integrated survey. In Figure 3, we use gray shading to identify the measures from the HCAHPS survey. When looking across those gray-shaded rows, we see far more blue bars, which indicate positive differences or higher top box scores as compared to the all-patient group scores. In contrast, with no gray shading, the Press Ganey measures show many more red bars indicating racial and ethnic groups reporting worse experiences than the all-patient group scores. Press Ganey evaluative measures are more likely to show differences demonstrating opportunities to improve care for non-White patient groups.

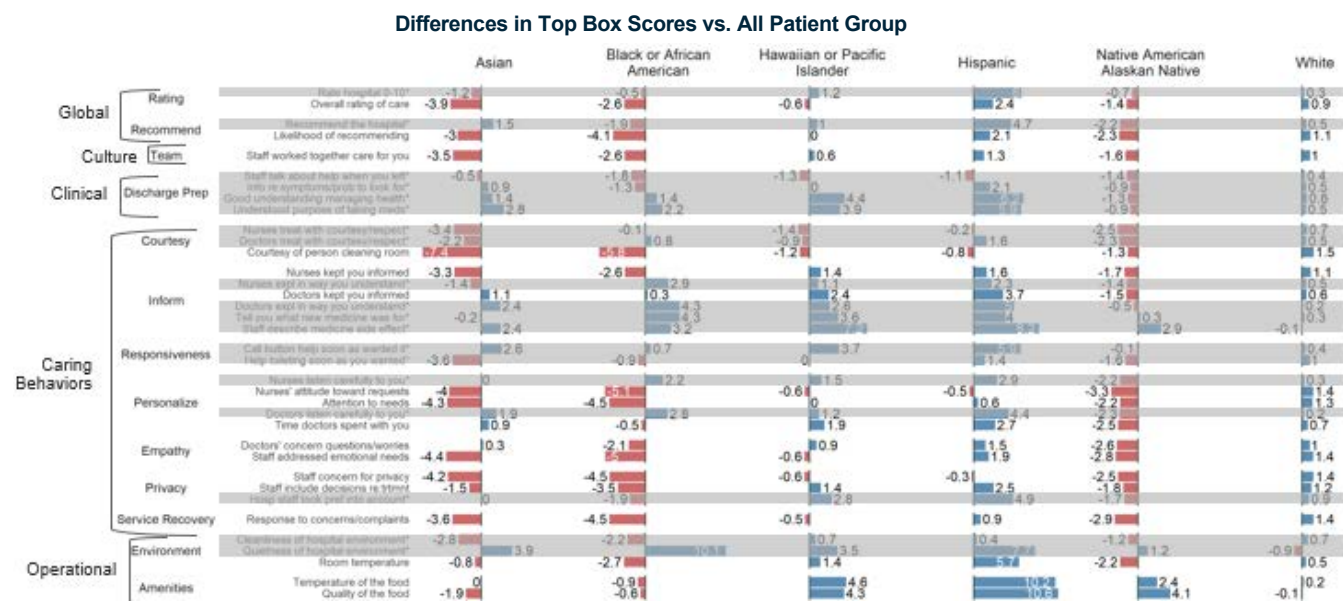


Figure 3: Comparison of Inpatient Experience by Race and Ethnic Group (Shaded Bars Denote HCAHPS Items)

3. Disparities Differ by Clinical Care Needs

Though segmentation work may begin by looking at race and ethnic differences across an entire population of patients—such as all inpatient discharges—patterns of disparities may play out differently for different types of clinical care. Prior published work has reported racial and ethnic differences in scores on the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey measures^{3,4,5} but has not looked within clinical service lines to explore how patterns may differ.

Differences emerge in opportunities to meet patient needs at these more specific clinical levels. For example, Table 3 demonstrates that when looking across all inpatient responses, we see that Asian, Black or African American patients, and Native American or Alaska Native patients report lower top box scores than the all-patient group for more than half of the measures (including both HCAHPS and Press Ganey items). For the Medical service line, those same racial groups report worse experiences though the total proportion of measures underperforming the all-patient group is slightly smaller. For the Surgical service line, however, the disparity for Asian patients is much more pronounced – Asian patients having surgery report top box scores across 94% of measures. And for maternity care, Asian patients, Black and African American patients, and Native American or Alaska patients. all report lower top box scores for most inpatient measures.

Table 3: Summary of Differences in Inpatient Scores (HCAHPS & PG Measures) by Clinical Population

Proportion of 36 Inpatient Top Box Scores That Were Lower Than All Patient Group						
	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Hispanic	Native American or Alaska Native	White
All Patients	58%	67%	25%	14%	86%	6%
Maternity	97%	94%	31%	56%	89%	6%
Medical	58%	56%	31%	8%	67%	14%
Surgical	94%	53%	50%	25%	86%	6%

Based on these findings, we recommend viewing the experience of a cohort of patients holistically across different types of clinical care. A sample segmentation below (Figure 4) shows differences in top box scores for patients who identify as Black or African American within each of the three CMS service lines (Medical, Surgical, Maternity). This provides the ability to visualize how care disparities play out for different clinical groups. For example, patients who identify as Black or African American who receive Medical or Surgical care report higher top box scores for measures related to post-discharge medication and managing self-care. But the same pattern is not seen in maternity care where nearly all measures are evaluated less favorably by Black or African American respondents.

For a complete set of analyses depicting the experiences of each racial and ethnic group, please see the [Appendix](#).

³ Figueroa, J. F., Zheng, J., Orav, E. J., & Jha, A. K. (2016). [Across US Hospitals, Black Patients Report Comparable or Better Experiences Than White Patients](#). *Health Affairs*, 35(8), 1391-1398.

⁴ Figueroa, J. F., Reimold, K. E., Zheng, J., & Orav, E. J. (2018). [Differences in Patient Experience Between Hispanic and Non-Hispanic White Patients Across U.S. Hospitals](#). *Journal for Healthcare Quality* 40(5), 292–300.w

⁵ Goldstein, E., Elliott, M. N., Lehrman, W. G., Hambarsoomian, K., & Giordano, L. A. (2010). [Racial/Ethnic Differences in Patients' Perceptions of Inpatient Care Using the HCAHPS Survey](#). *Medical Care Research and Review*, 67(1), 74–92.

Differences in Top Box Scores vs. All Patient Group

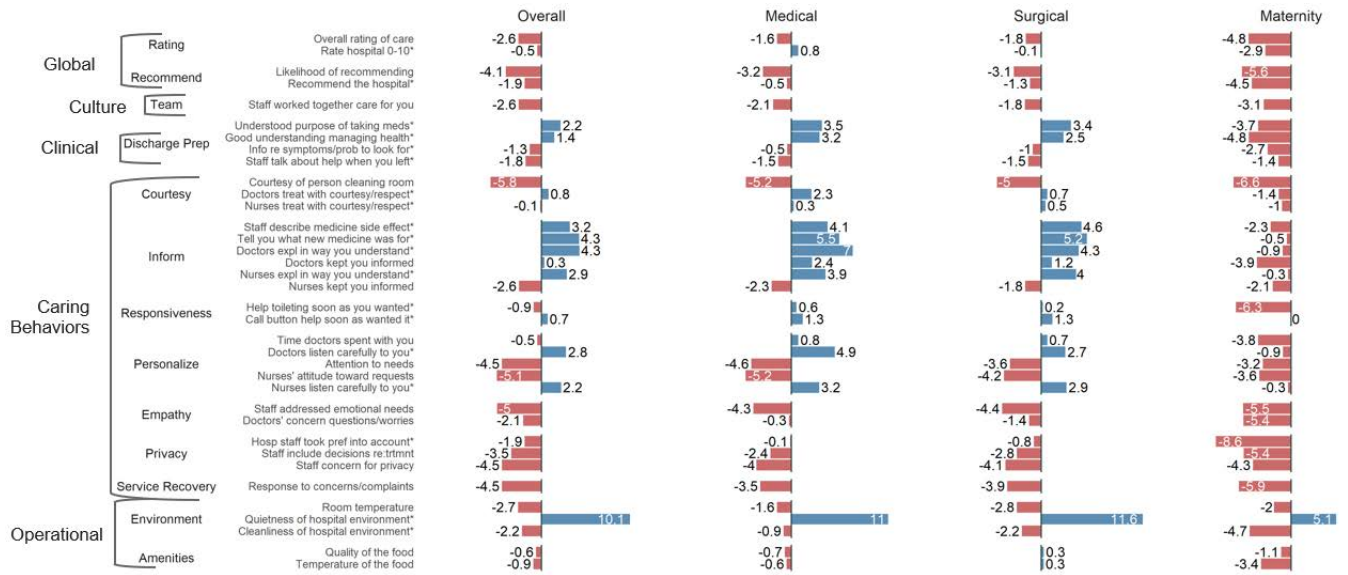


Figure 4: Comparison of Experience of Black or African American Patients by Clinical Group

4. Disparities Differ by Care Setting

Thus far, our analysis has been limited to the inpatient setting, where patterns that show positive and negative differences vary for each racial and ethnic group depending on the type of clinical care provided. When we look beyond the acute setting, we find that patterns tend to be more consistent with the experiences of non-white individuals being more negative than those of white patients. We see this pattern within the Emergency Department for both Press Ganey survey measures (Figure 5) and EDCAHPS measures (Figure 6). This pattern is also seen in the medical practice setting using CGCAHPS measures (Figure 7). In each case, all measures show lower top box scores for non-white patient groups.

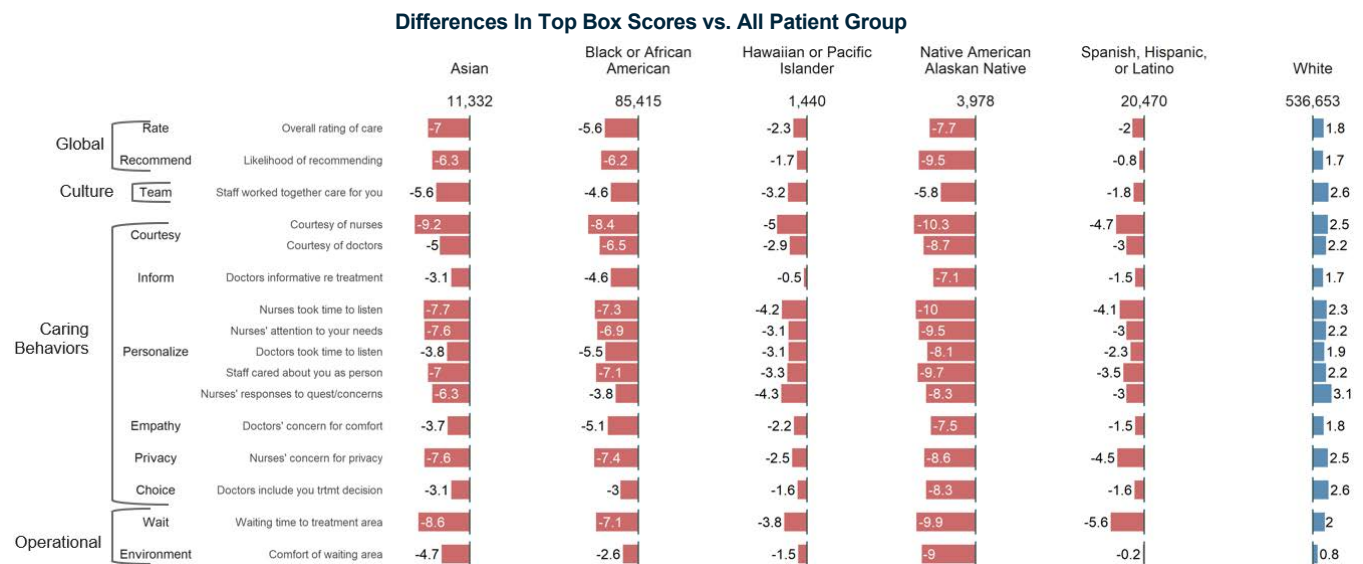


Figure 5: Comparison of Emergency Department Experience by Race and Ethnic Group – Press Ganey Measures

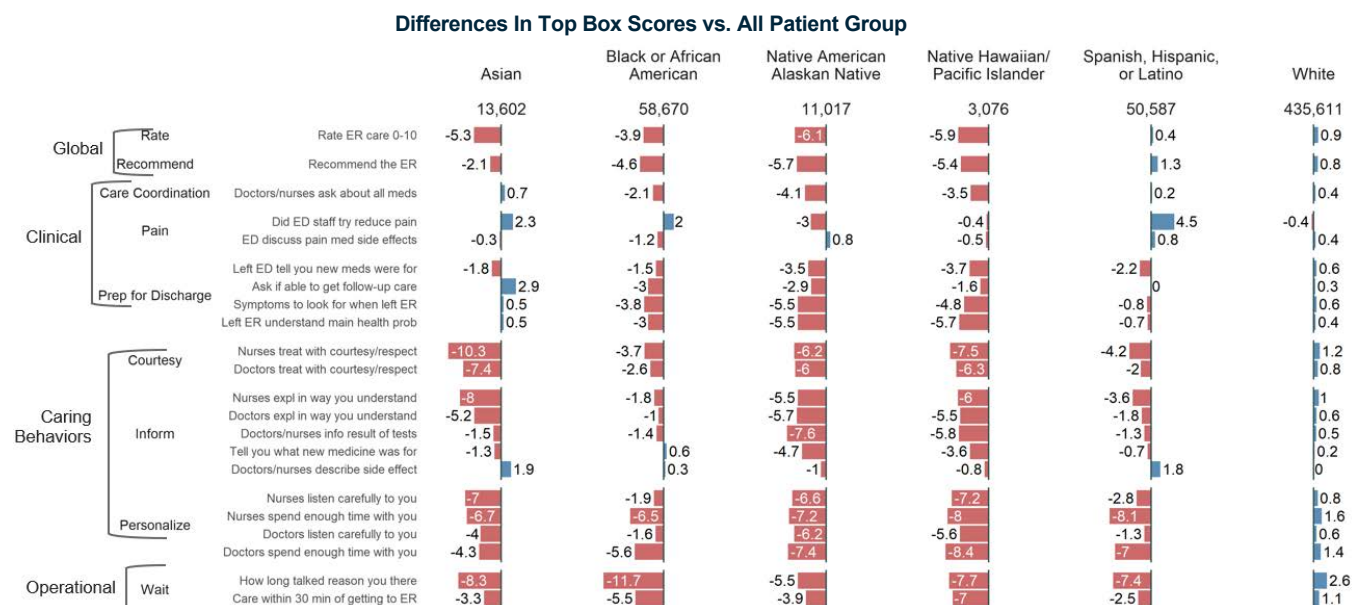
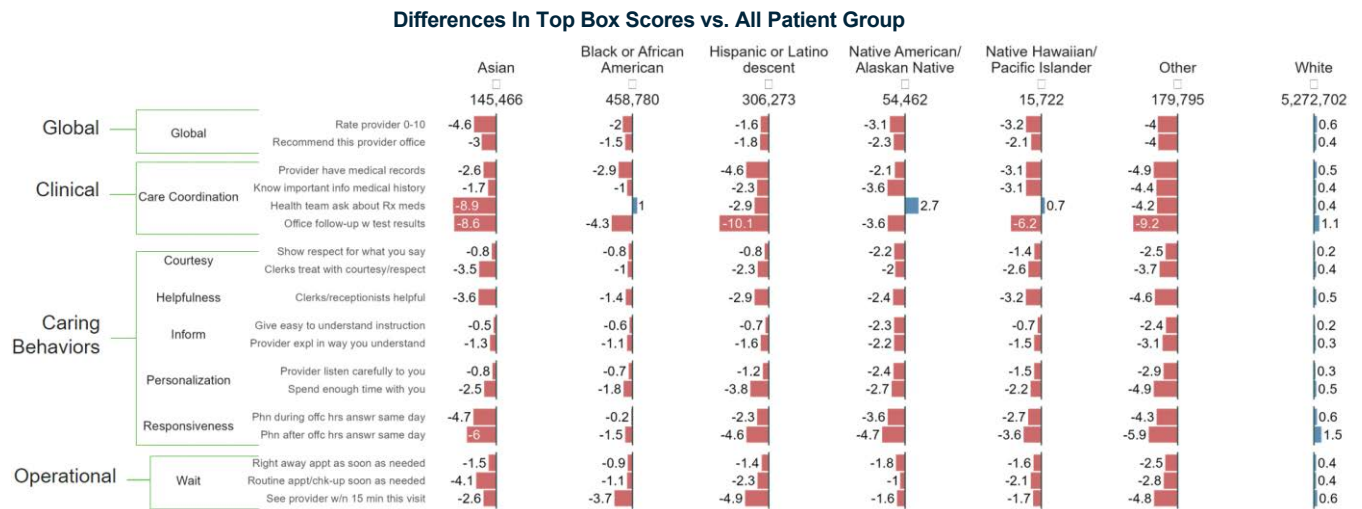


Figure 6: Comparison of Emergency Department Experience by Race and Ethnic Group – ED CAHPS Measures

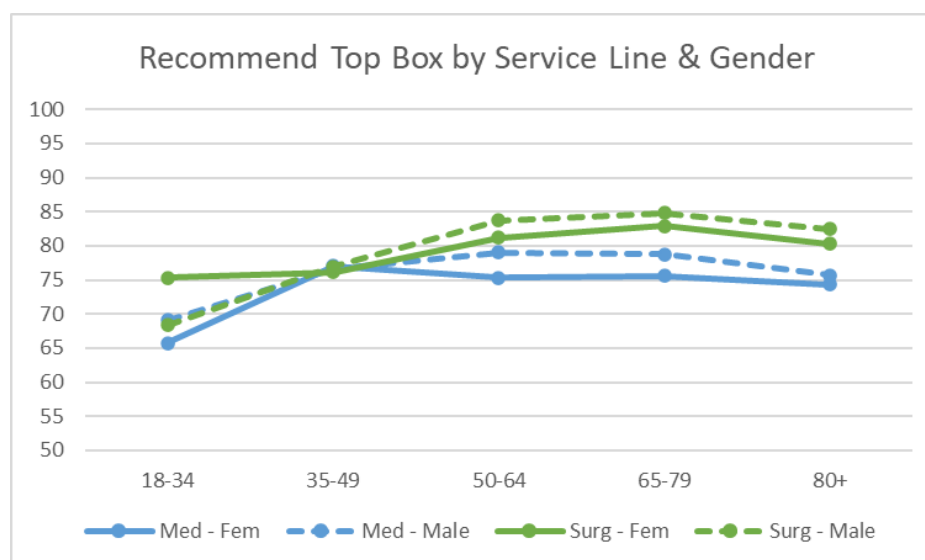


**Figure 7: Comparison of Medical Practice Experience
by Race and Ethnic Group – CG CAHPS Measures**

5. Intersectionality of Patient Characteristics Matters

Race and ethnicity are not the only patient identity characteristics associated with differences in patient experience scores. For example, the HCAHPS Patient Mix Adjustment⁶ is specifically designed to account for findings that patient and care characteristics are associated with patient evaluations of care. For instance, CAHPS researchers have reported that younger patients are less likely to report top box scores, as are patients who are medically treated, those who report their health as less favorable, or those who speak Chinese or Russian in their homes.

Below (Figure 8) is a hospital-specific example showing patterns similar to what is typically seen across national data. This view allows us to see how patients respond to the HCAHPS Likelihood to Recommend question, taking into account the age of the patient, their expressed gender, as well as the type of clinical care they received. The graph shows that surgical experiences (green) are generally evaluated more favorably than medical experiences (blue). Younger patients (on the left) evaluate care less favorably, with ratings climbing across older age groups until they decline again for the 80+ age group. And male patients (in the dashed lines) report better experiences than female patients (solid line).

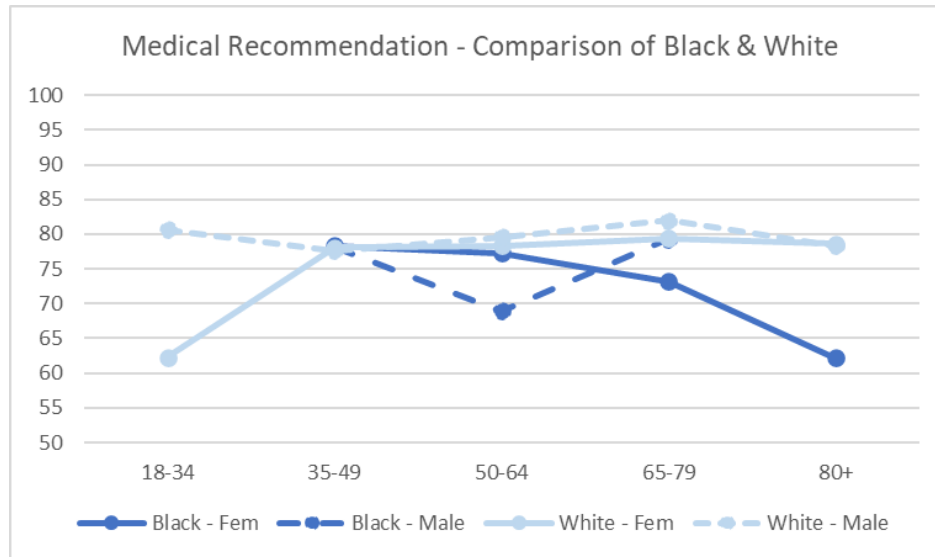


*Data reflect findings from a system partner within the Press Ganey database reflecting care across 2020 and 2021.

Figure 8: Example of Impact of Patient Demographics (Age, Gender, Care Type) on Inpatient Recommendations

With these general patterns in mind, we can now investigate how a patient's race or ethnic group might impact their experience over and above these characteristics. In the below chart (Figure 9), we see patterns for patients who experienced medical care and who identified as either Black/African American (dark blue line) or White (pale blue line). Having taken the clinical service line, age, and gender into account, we can now see that whereas White men report the best experiences across all age groups, Black men report worse experiences in the 50-64 and 65-79 age groups. We can also see that though Black women and White women report similar experiences in the 35-49-year age group, recommendation scores for Black women decline noticeably as age increases, producing larger and larger disparities of experience by age.

⁶ https://www.hcahpsonline.org/globalassets/hcahps/mode-patient-mix-adjustment/october_2020_pma_web_document.pdf



* Data reflect findings from a system partner within the Press Ganey database reflecting care across 2020 and 2021

Figure 9: Example of Impact of Race Over and Above Age and Gender for Medical Patients

The above views help to disentangle the impact of multiple different patient or care characteristics that may influence experience independently or in combination. Another way that data visualization can assist in equity work is to shed light on the potential for social determinants of health (SDOH) to influence care experiences. The aforementioned work on HCAHPS Patient Mix Adjustment has demonstrated that patients who report their health as being worse also report worse experiences during care, whereas patients who report positive health are more likely to report positive patient experiences. Returning to the Emergency Department setting, we can investigate the impact of self-reported health and race/ethnicity on patients' likelihood to recommend care.

Below left (Figure 10), we see how Emergency Department patients report their health broken out by race and ethnicity. Patients who identify as Asian are most likely to report their health as Very Good or Excellent, followed by patients who identify as White. Patients identifying as Native American/Alaska Natives or Native Hawaiian/Other Pacific Islanders report the least favorable health. These data demonstrate that health status varies by race and ethnic group. However, that does not necessarily mean that health status is causing the differences observed in experiences across race and ethnic groups. Indeed, when we further segment likelihood to recommend top box scores by health status and race/ethnicity, we find evidence for disparity over and above the impact of health status. Across all racial and ethnic groups, patients' likelihood of recommending the ED is lower than the all-patient comparison when they categorize their health as Fair or Poor. However, the magnitude of these differences is not equivalent across racial and ethnic groups. Patients identifying as White or Hispanic have a smaller reduction in likelihood to recommend when their health status is Fair or Poor.

In contrast, patients who identify as Native Hawaiian/Other Pacific Islander or Black/African American have a larger reduction in intent to recommend when their health status is Fair or Poor. Conversely, when patients report their health as Very Good or Excellent, the positive impact on recommendation is not equitable across racial and ethnic groups. White and Hispanic patients reporting Very Good or Excellent health have higher top box scores for recommendation than the all-patient group. In contrast, patients who are Native American or Alaska Native have lower top box scores for recommendation even when they report Very Good or Excellent health.

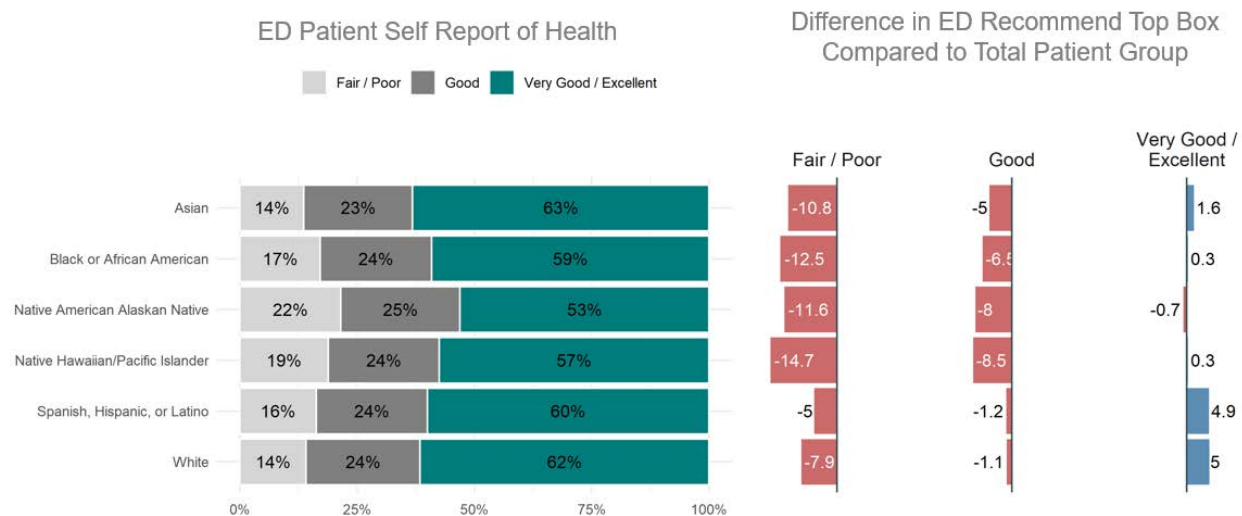


Figure 10: Self-Report of Health in the ED Setting and Impact on Patient Likelihood to Recommend by Race & Ethnicity

6. The Next Question Is Why

With national patterns of differences in experiences no evident, the line of inquiry turns to understanding the causes of differences and determining the actions to take to remedy inequity. It's critical to acknowledge that quantitative analysis showing differences in experience outcomes does not explain where those differences are coming from; instead, it creates the basis of discussion to understand experiences and delve further to find causes. The answer is likely to be complex and multifaceted. It involves how care is delivered to patients, patients' prior history with medical care, and their broader life experiences, as well as the sociopolitical context of our society. It is important to acknowledge that racial inequality in healthcare outcomes may stem from conscious and intentional acts based in prejudice, but it can also arise from:

- Individual behavior that is unintentional or unconscious
- Lack of awareness of confidence in ways to support diverse populations
- Differences in lived experiences
- Social determinants of health
- Power and wealth gaps driving social determinants
- Policies and history that have created power and wealth gaps

Identifying inequity in patient experience scores between groups is the first step of discovery. But finding differences does not mean you will know what exactly needs to happen to address those gaps. Additional steps should be taken to understand the source of these experiences, including:

- Instituting unconscious bias training to support staff awareness of bias and their ability to provide culturally sensitive care.
- Assessing whether best practices are being used consistently across all patients.
- Exploring narrative data and comments from patients representing different groups to see what is being discussed and what issues are being described.
- Exploring social determinants of health for patients to understand where groups may have greater vulnerabilities and, therefore, different health needs.
- Working with your DEI leader on a comprehensive strategy to infuse equity into all aspects of quality improvement activities.

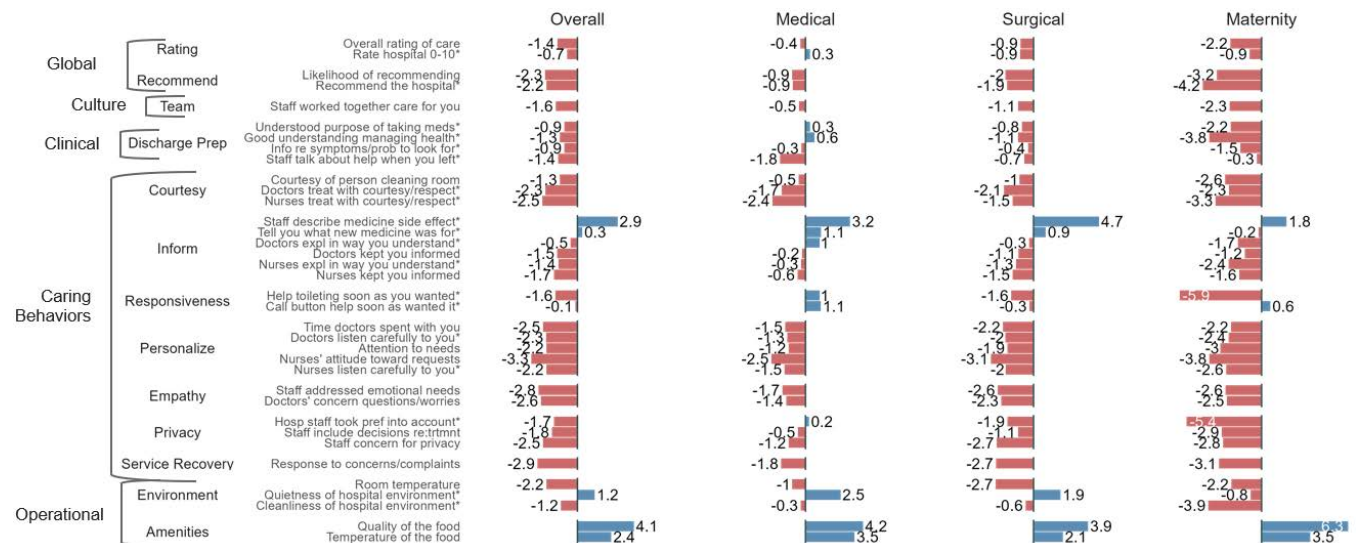
Summary

Addressing equity work requires the segmentation of patient experience data to understand patterns of outcomes. In addition to the quantitative findings presented here, qualitative feedback from patient comments and from patient and family advisory councils will be critical to understanding more of the *why* behind the differences in reported experiences. Though this field is growing and new findings will continue to emerge, we can now make changes to reduce disparities and improve the quality of care received by all patients.

If your organization is beginning its equity journey, consider joining Press Ganey's [Equity Partnership](#).

Appendix: National Profiles of Inpatient Differences in Top Box Scores

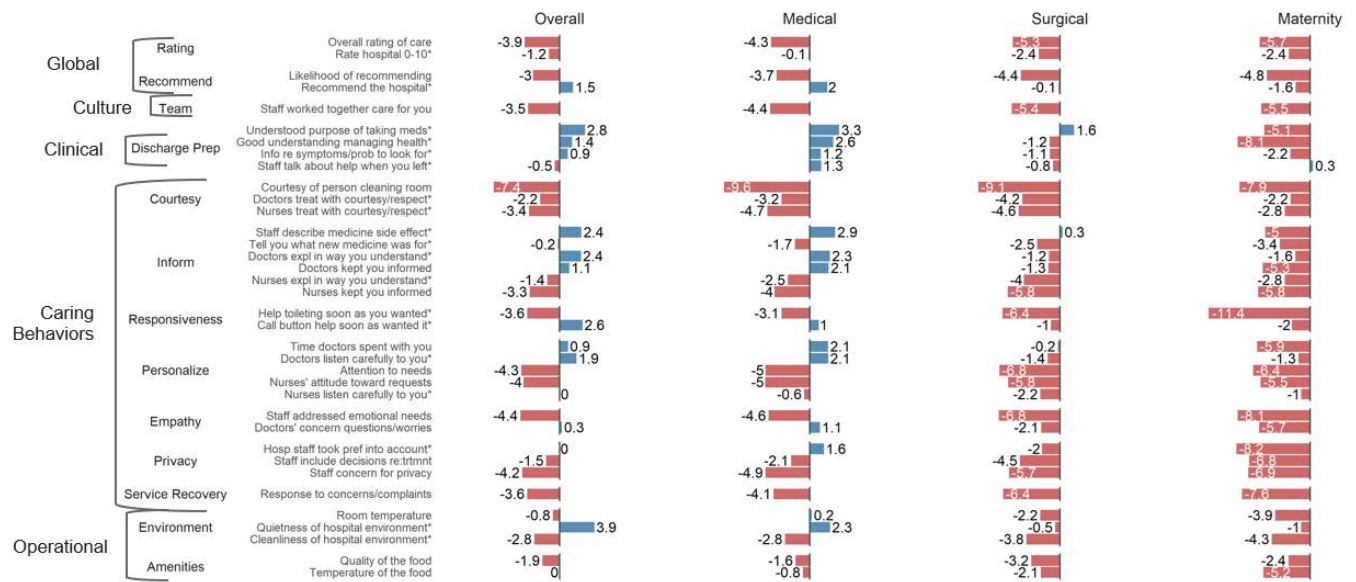
Exploring Inpatient Experience for Patients Who Identify as American Indian or Alaska Native



Summary Insights

- When considering the needs of patients who identify as American Indian or Alaska Native (above), we see that most measures score lower than the all-patient comparisons regardless of the clinical service line.
- A handful of measures show a positive difference, including explanations about new medications and their side effects, as well as the temperature and quality of the food.

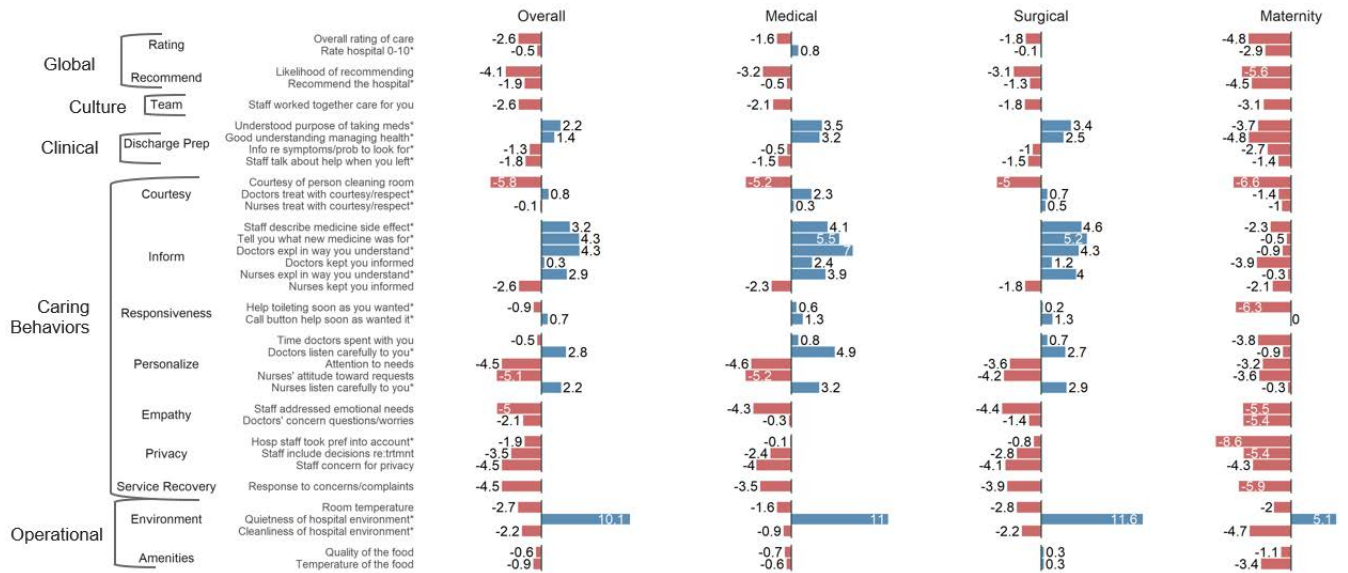
Exploring Inpatient Experience for Patients Who Identify as Asian



Summary Insights

- When considering the needs of patients who identify as Asian, we see that most measures for Surgical or Maternity are lower than the all-patient comparisons.
- For Medically treated Asian patients, measures related to areas such as discharge planning, information about side effects of new medication, and items pertaining to physician interaction outperform the score for the all-patient group.
- Patterns of disparities between the Surgical and Maternity service lines look relatively similar in direction and magnitude, though greater disparities are noted for Maternity patients.

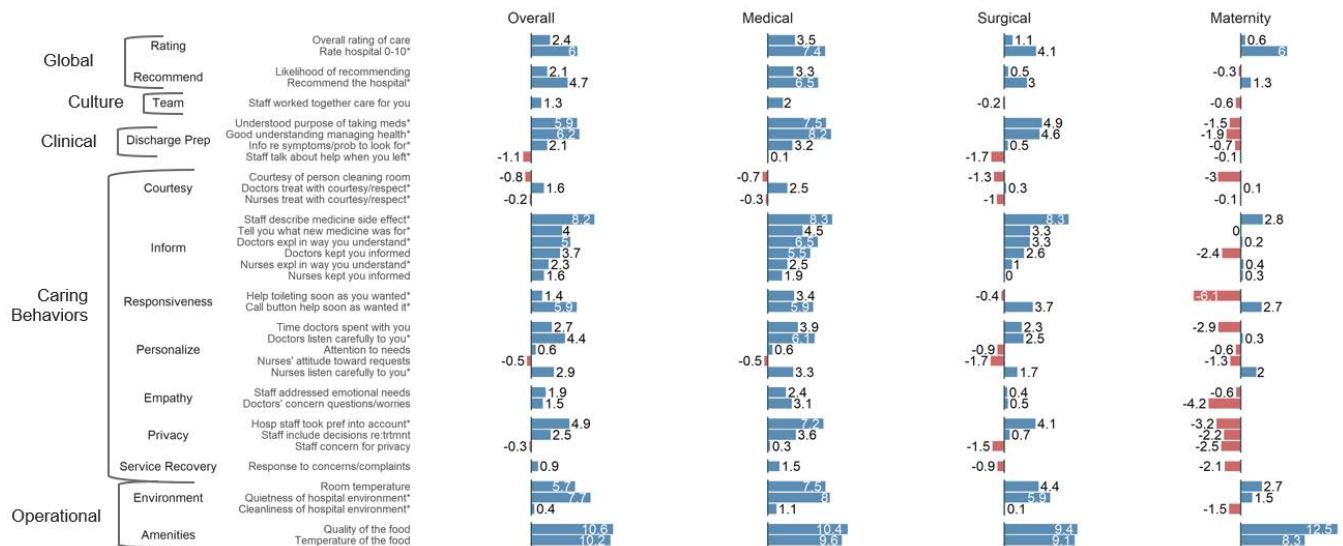
Exploring Inpatient Experience for Patients Who Identify as Black or African American



Summary Insights

- When considering the needs of patients who identify as Black or African American (above), we see patterns of experiences differ depending on the clinical service line. Patients in the Medical and Surgical service line show similar patterns, with patients reporting better experiences related to providing information, interactions with their doctors, responsiveness, and the quietness of the hospital environment. However, Medical and Surgical patients report worse evaluations related to recommending the hospital, teamwork, courtesy of non-clinical staff, communication with nurses, service recovery, empathy, privacy, and shared decision making.
- In contrast, Maternity patients who identify as Black or African American report worse experiences on nearly every measure (other than the quietness of the hospital environment) and show larger negative differences than the other service lines.

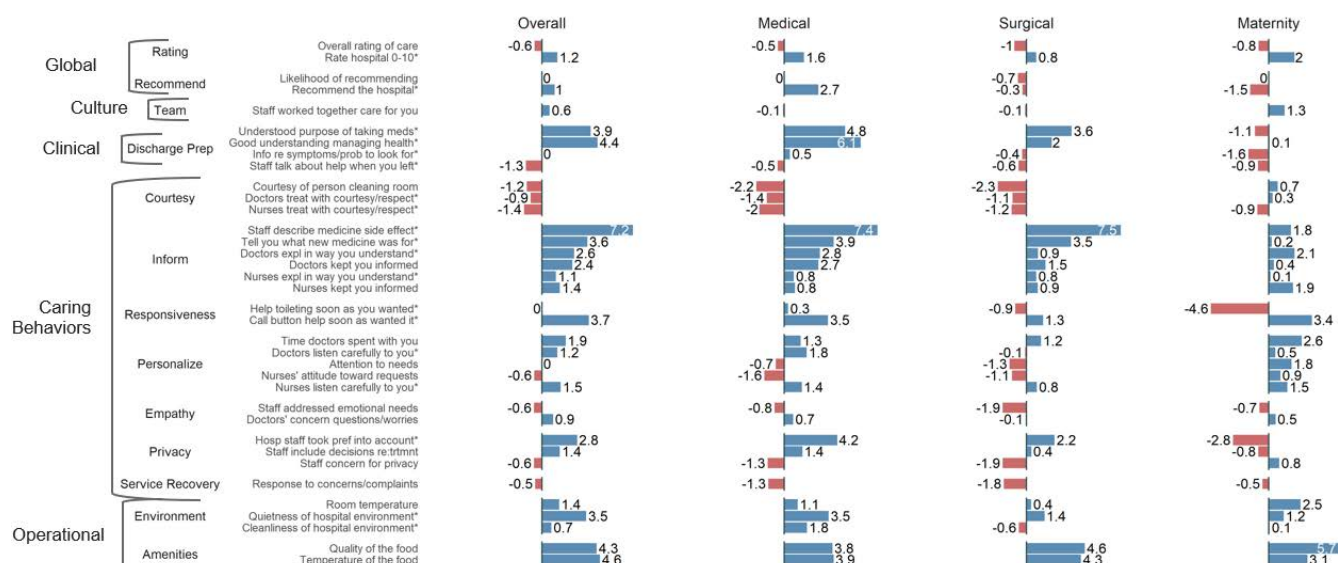
Exploring Inpatient Experience for Patients Who Identify as Spanish, Hispanic, or Latino



Summary Insights

- When considering the needs of patients who identify as Spanish, Hispanic, or Latino (above), we see different patterns across clinical service lines.
- Within the Medical service line, the experience of Hispanic patients is predominately positive, with large positive differences in scores compared to the all-patient comparison. This pattern is contrasted by a few nurse interaction measures and perceptions of the courtesy of the person who cleaned the room.
- For those receiving Surgical care, a few other topics (e.g., elements of discharge preparation, privacy, service recovery, and nurse courtesy) present opportunities, while more than half of the measures still show very favorable experiences for Hispanic patients.
- However, the Maternity service line contrasts with more than half of the measures showing lower scores for Hispanic patients than for the all-patient group. These opportunities represent many items in teamwork, discharge prep, courtesy, responsiveness, personalized care, empathy, privacy, choice, and service recovery.

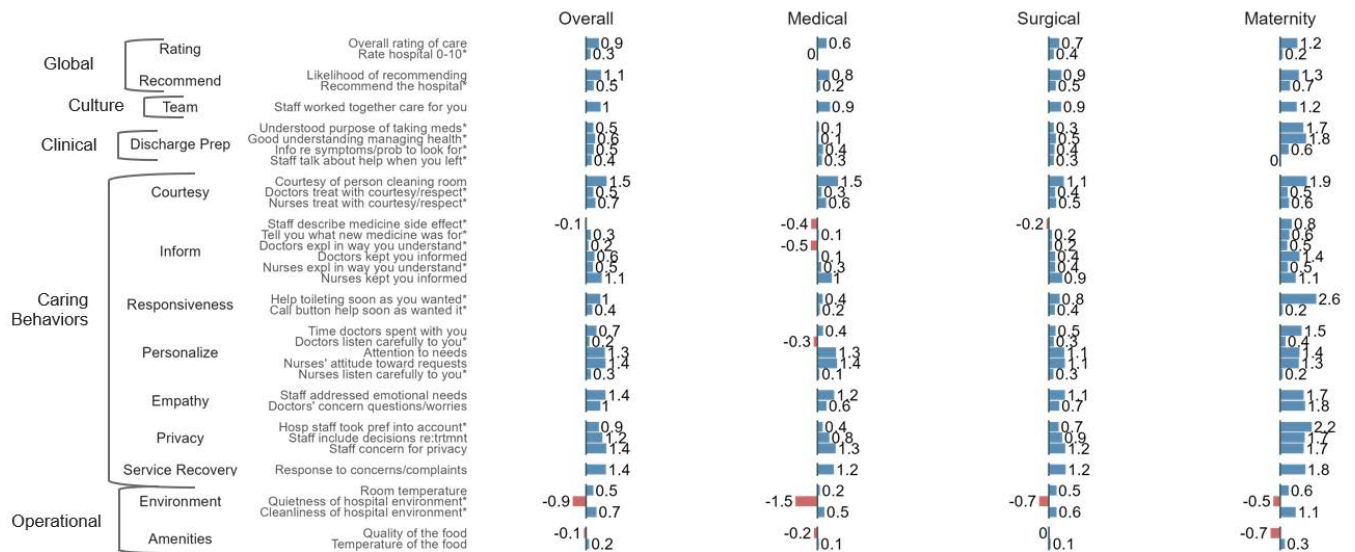
Exploring Inpatient Experience for Patients Who Identify as Native Hawaiian or Other Pacific Islander



Summary Insights

- When considering the needs of patients who identify as Native Hawaiian or Other Pacific Islander, we see that patients in the Medical and Surgical service lines show fairly similar patterns, with more than half of the measures being scored more favorably than the all-patient comparison group. Topic areas that score lower across both Medical and Surgical care for this group include being asked if they would have the help they needed post discharge, courtesy, empathy, privacy, and service recovery.
- The pattern for Maternity patients shows different topics emerging as opportunities for improving care for Native Hawaiians and Other Pacific Islanders. For this group, preparation for discharge, shared decision making, and assistance with toileting score below the all-patient comparison group, whereas elements of personalizing care and courtesy score much higher.

Exploring Inpatient Experience for Patients Who Identify as White

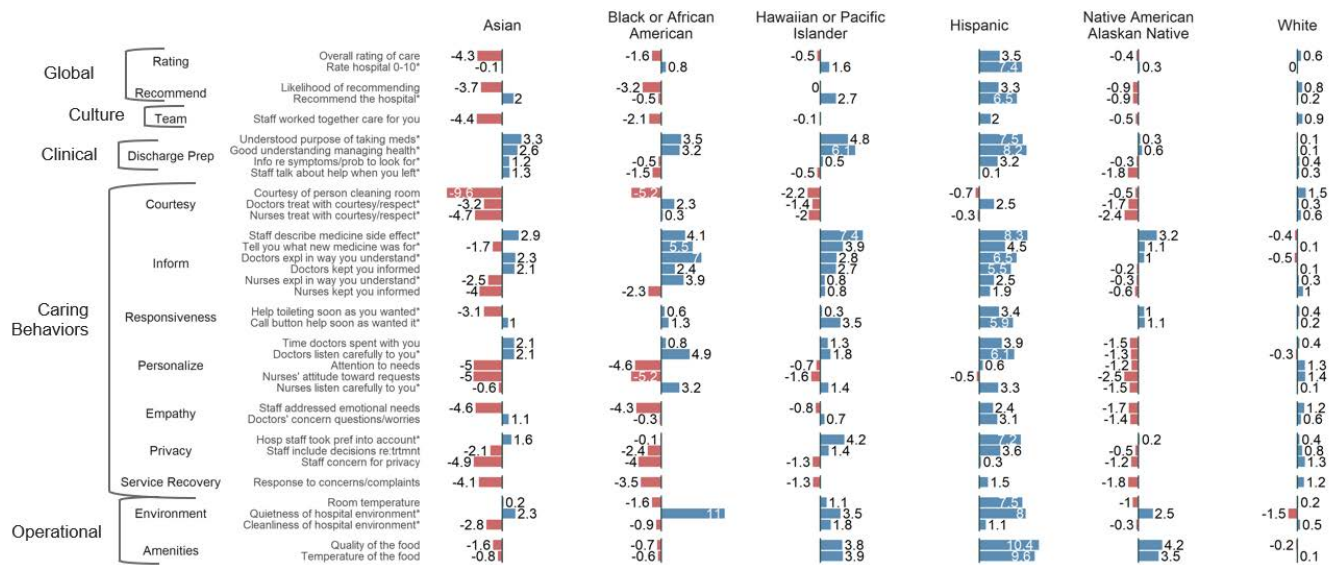


Summary Insights

- Patients who identify as white are more likely to report top-box experiences across most measures for all care services lines.
- Notable exceptions include the issue of room quietness, which is lower than the all-patient group regardless of the service line, and the description of new medication side effects, which is lower for Medical and Surgical patients.

In addition to viewing the experience of a particular racial or ethnic group, it can be helpful to look at each service line to see how patients of diverse backgrounds experience care. Note that these results are identical to those presented in the prior section, though they are displayed by service line rather than race or ethnic group.

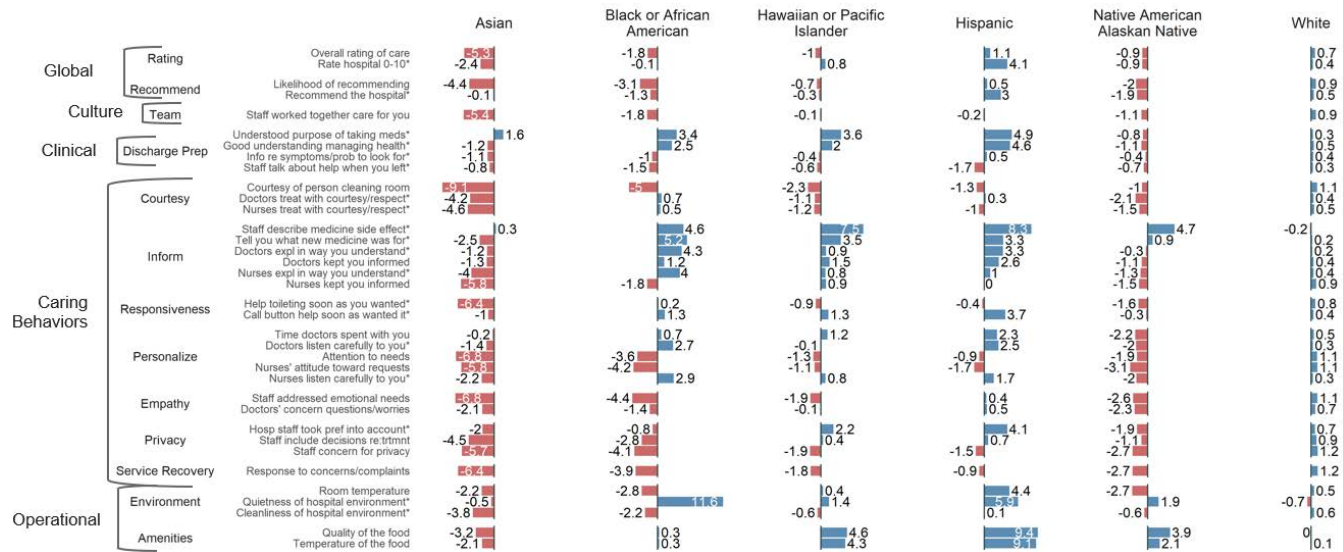
Comparison of Inpatient Experiences for Medical Patients



Summary Insights

- For medically treated patients, Hispanic or Latino patients report the largest positive differences across most measures compared to the all-patient group.
- White patients report slightly better experiences than the all-patient group, though they comprise a large majority of that sample.
- Persons who identify as Hawaiian or Other Pacific Islander also report large positive differences for many measures. However, there are opportunities to improve care for this group related to courtesy, empathy, and responsiveness.
- Patients who identify as Black or African American report less favorable experiences on just over half of the measures, with opportunities to improve care across many survey topics.
- Native American or Alaska Native patients report worse experiences than the all-patient group for most measures.
- Asian patients show the largest negative differences in top box scores compared to the all-patient group. However, medically treated Asian patients report some positive and some negative gaps, whereas maternity and surgical patients who are Asian report worse experiences across all measures.

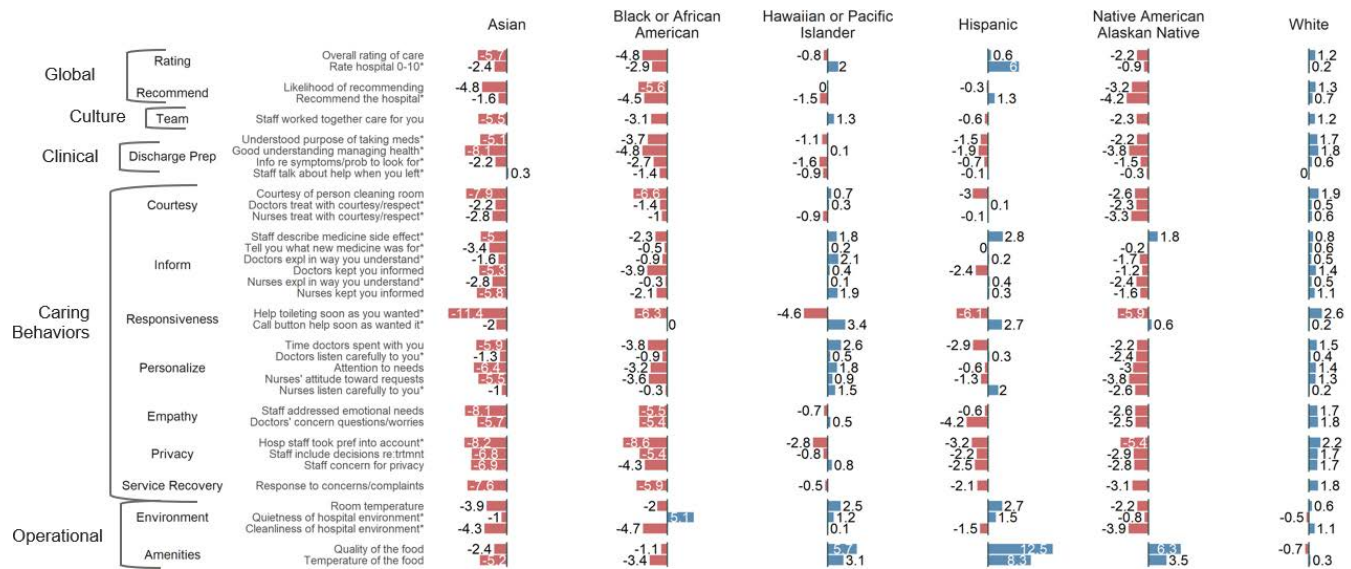
Comparison of Inpatient Experiences for Surgical Patients



Summary Insights

- For surgically treated patients, White patients report slightly better experiences for nearly every measure than the all-patient group, though they make up a large majority of that sample.
- Patients who are Hispanic or Latino report the largest positive differences across more than two-thirds of the measure. However, report opportunities for improvement related to courtesy, privacy, elements of care personalization, and being asked about having the help needed following discharge.
- Persons who identify as Hawaiian or Other Pacific Islander also report large positive differences for some topics (e.g., Information, Amenities) though there are opportunities to improve care for this group for topics such as courtesy, empathy, responsiveness, and privacy.
- Comparisons also show mixed outcomes for patients who identify as being Black or African American, with positive differences reported for topics such as information and the quiet of the environment and opportunities for improvement related to the courtesy of ancillary staff, nurses' attitudes and provision of information, empathy, privacy, choice, and service recovery.
- Native American or Alaska Native patients report worse experiences than the all-patient group for nearly all measures.
- Asian patients show the largest negative differences in top box scores compared to the all-patient group.

Comparison of Inpatient Experiences for Maternity Patients



Summary Insights

- For maternity patients, White patients report better experiences for nearly every measure as compared to the all-patient group, though they make up a large majority of that sample.
- Persons who identify as Hawaiian or Other Pacific Islander report large positive differences for most topics though there are opportunities to improve care for this group for issues such as discharge prep, responsiveness, and choice.
- Patients who are Hispanic or Latino report large positive differences for a few topics such as information about new medication side effects, response to call button, the environment & amenities, as well as global ratings. However, all other topics show worse experiences being reported for this group.
- Native American or Alaska Native patients report worse experiences than the all-patient group for nearly all measures. This pattern is similar to the experiences of Native American or Alaska Native patients receiving medical or surgical care.
- Patients who identify as Black or African American also report worse experiences than the all-patient group for nearly every measure. This pattern is different than what is seen for this patient group receiving either medical or surgical care, where we see a mix of positive and negative outcomes gaps.
- Asian patients show the largest negative differences in top box scores compared to the all-patient group.