

Occupant Experience Facility Evaluation Benchmarking Results

Sutter Health

MOB Clinics

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CONTENTS

Executive Summary	3
Overview.....	3
Key Findings.....	3
Background	5
Project Objective/Value Proposition.....	5
Project Goals & Condition Of Satisfaction	5
Occupant Experience Evaluation Development Milestones.....	5
Methods	6
Measurement Framework.....	6
Scale Development.....	7
Scoring Methodology	7
Benchmarking Locations	7
Recruitment For Initial Benchmarking.....	7
Data Collection	8
Results.....	9
Survey Response	9
Zone Scores	10
Zone: Overall Clinic	11
Zone: Waiting, Check-In, And Check-Out Areas.....	12
Zone: Patient-Clinician Interaction Areas.....	13
Zone: Staff Work Areas	14
Workplace Outcomes	15

EXECUTIVE SUMMARY

OVERVIEW

Along with Sutter Health, HDR and HGA have engaged in development of standardized processes and tools to evaluate the designs and functionality of Sutter Health ambulatory care clinics. This is part of a larger effort to facilitate continuous learning to inform the most effective designs for patient care facilities. A key component of the initial facility performance benchmarking effort is an occupant experience survey intended to gather feedback about aspects of the built environment from the perspective of the employees who work in the clinics.

This effort is important so that, as a health system, Sutter Health will learn more about how the designs of clinics impact staff experience. This will help address the current and future design needs of Sutter Health clinics with the goal of increasing occupants' satisfaction with and wellbeing in their work environments.

Clinic facilities received scores on a -10 to +10 scale based on responses to an online employee survey. The scores for each clinic follow a hierarchical structure, first by clinic zone, then facility performance categories (safety, comfort, and efficiency), and finally constructs of interest. Results at the item (or survey question) level were investigated to identify specific areas of impact within a clinic. A more detailed summary of the scoring method and measurement areas can be found starting on page 6 of the report.

A total of 134 responses from four clinics, Clinic A, Clinic B, Clinic C, and Clinic D, were collected in the benchmarking effort and are included in the results. See page 7 for more details about the clinics and page 9 to learn about the employees who completed the survey.

KEY FINDINGS

For the most part, scores across all clinics, zones, categories, and constructs were in the positive range, which reflects a thoughtful level of design at each of the clinics. However, there were some notable differences in scores that potentially highlight design strategies that are more effective than others and can lead to continued learning and help inform future clinic designs. A majority of respondents at every site, although lower at Clinic C than the other locations, were satisfied with the overall design of their clinic.

Zone-Level Results

- The zone-level clinic scores were positively correlated and tended to change together across locations.
- Scores for the waiting, check-in, and check-out areas were the lowest scores in each of the benchmarking clinics, and in most cases, the patient-clinician interaction areas had the highest scores.

Category-Level Results

- Within the overall clinic zone, in all three categories, scores for Clinic C were significantly lower than scores for Clinic A and Clinic D.
- For most clinics, safety scores in the overall clinic zone were the highest, followed by those for efficiency and then comfort.
- The safety scores were lower than the comfort scores in the patient waiting, check-in, and check-out areas across all clinics.
- In the patient-clinician interaction areas, safety was the lowest of the three category scores, on average, but scores were still in the positive range.
- Clinic A had the highest scores across all three categories for the staff work area zone.

Construct-level results

- All clinics scored well on the convenience of the clinic locations and the amenities in the surrounding area for both staff and patients.
- Wayfinding and signage is an area of challenge across all clinics. Staff members are frequently interrupted by patients and visitors needing to find their way, and there is a lack of appropriate signage for non-English speaking patients and visitors.
- Thermal comfort is one of the biggest challenges for all the clinics. Most scores for this construct are in the neutral to slightly negative range, with staff particularly noting a lack of ability to control the temperature.
- All clinics scored very well in the acoustical environment of the patient areas.
- A negative score for privacy at the Clinic B clinic showed that there is a great concern that staff work spaces do not provide adequate privacy.

Outcome results

- All construct scores were positively correlated with the effectiveness of collaboration in the clinics. Adequacy of lighting in staff work areas, the number of hand washing sinks and hand sanitizer dispensers throughout the clinic, and the amount of space allocated to staff break areas, meeting areas, and storage accounted for the most difference in collaboration scores.
- Overall satisfaction with the workplace environment was most related to the feeling of safety and security in the clinic, physical comfort in staff work areas, and adequacy of space in staff areas for job functions and storage.

BACKGROUND

PROJECT OBJECTIVE/VALUE PROPOSITION

The main objective of the clinic project delivery program is to validate and deliver clinics faster, at less cost, with a reduction in the post-project non-clinical operational costs, and an increase in staff satisfaction with the space. This will allow us to be agile and fast-moving in response to an ever changing healthcare market.

PROJECT GOALS & CONDITION OF SATISFACTION

This benchmarking study was developed in support of the followings goals:

Project Goal: Occupant Experience Survey Tool

Metric: Create and develop an effective pre- and post- survey tool that is meaningful, useful, and is driving to improved bases of design.

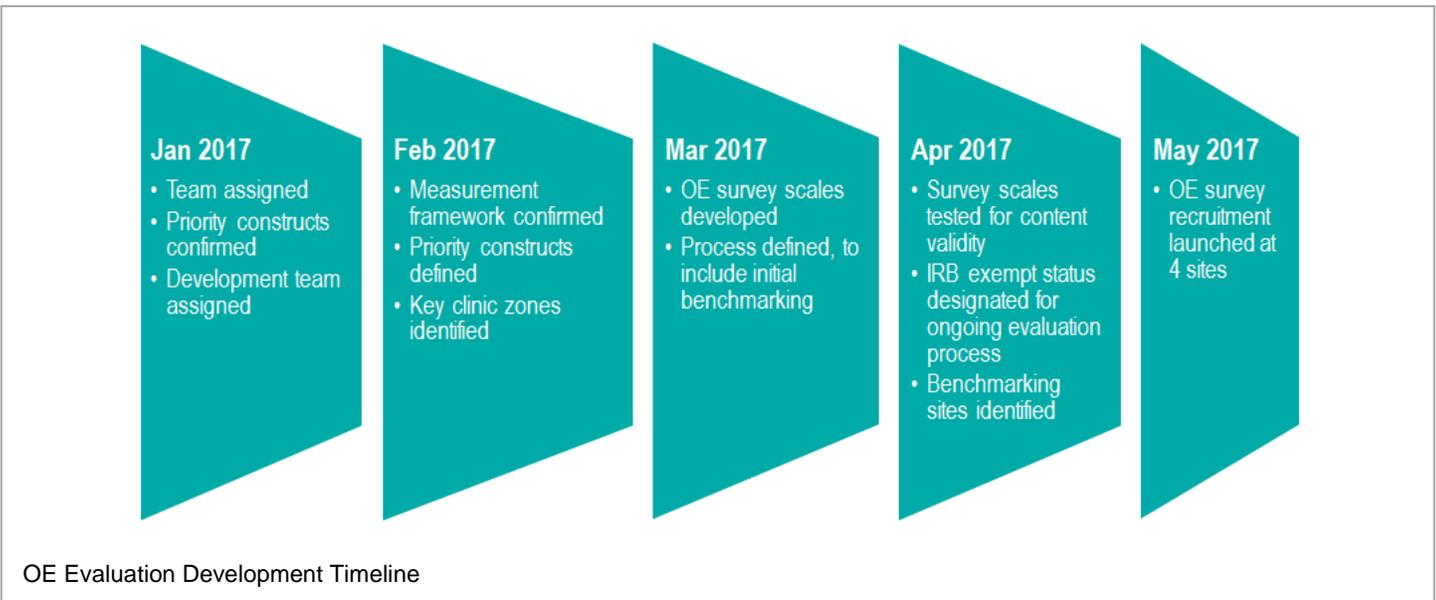
Project Goal & Condition of Satisfaction: Occupant Experience

Criteria: How satisfied occupants are with their project space, per post-occupancy evaluations (e.g., privacy, thermal comfort, cleanliness, wayfinding, parking, access to nature, etc.).

The intention is to create a framework that can grow and adapt across projects over time.

OCCUPANT EXPERIENCE EVALUATION DEVELOPMENT MILESTONES

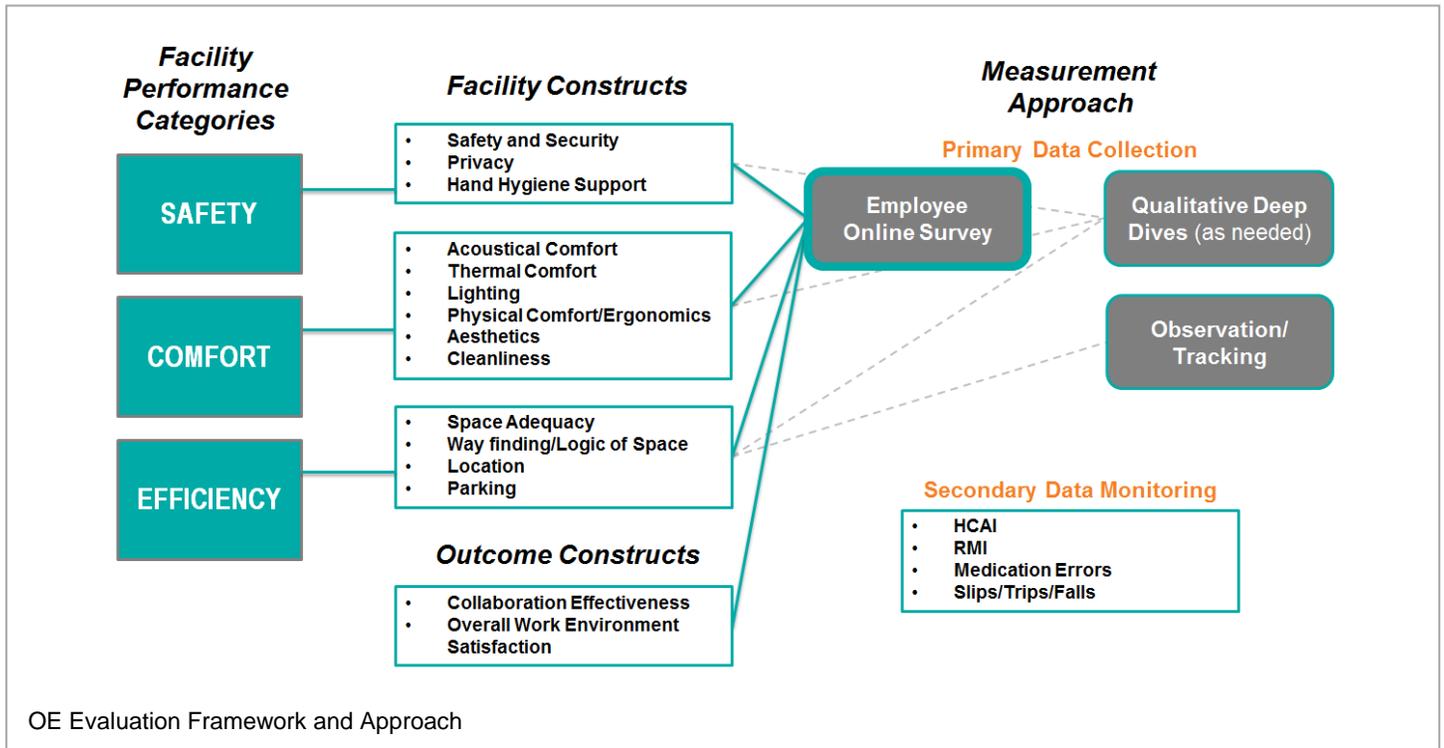
In January 2017, a team from Sutter Health, HDR, and HGA was assigned to develop a framework, measures, and process for ongoing evaluation of occupant experience to inform continual facility improvement in the clinic project delivery program. Over subsequent months, the occupant experience measurement framework was confirmed, survey scales developed and tested for content validity, IRB exemption obtained, and a benchmarking study implemented, the results of which are presented here. These development milestones are shown in the figure below.



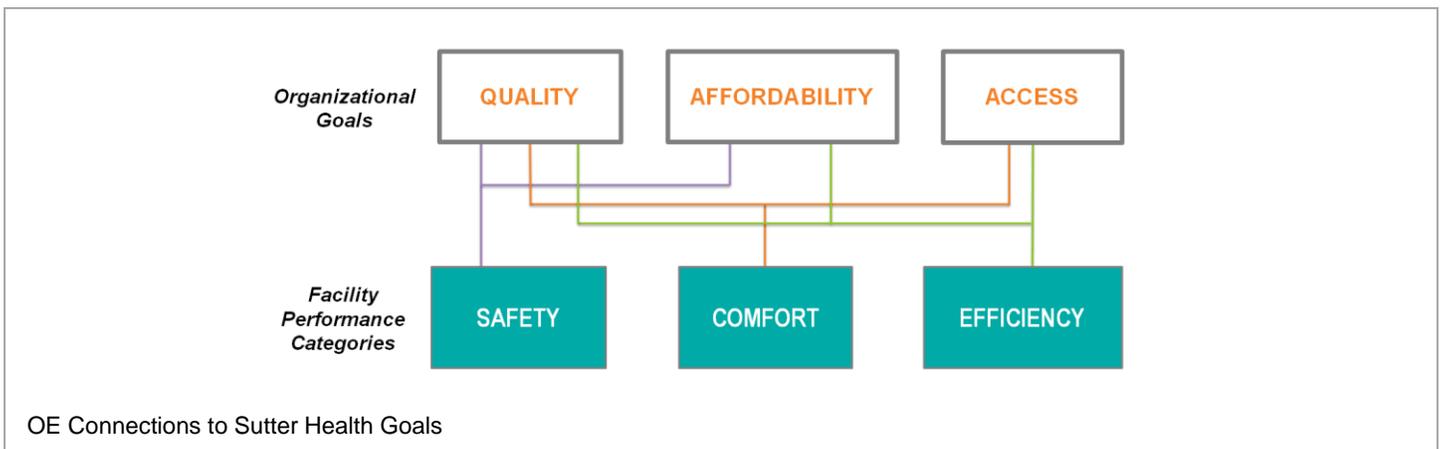
METHODS

MEASUREMENT FRAMEWORK

Within the domain of Occupant Experience, the priority facility constructs were organized into three primary facility performance categories: Safety, Comfort, and Efficiency. In the interest of feasibility, the initial approach includes an online employee survey. As warranted, future evaluations could also include other forms of primary and secondary data collection and analysis, as illustrated below.



The facility performance categories are integral to achievement of Sutter Health’s primary goals of Quality, Affordability, and Access.



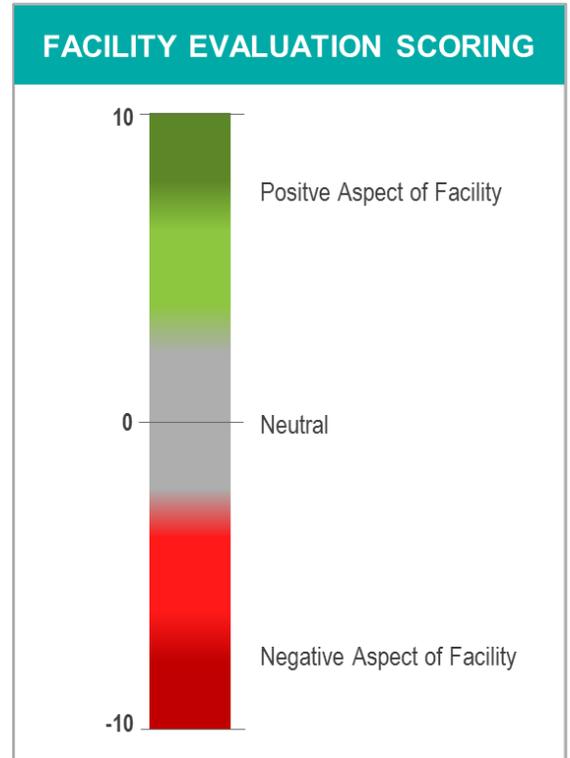
SCALE DEVELOPMENT

Accessing literature, the team developed clear definitions of the priority constructs, and HDR and HGA researchers consolidated scales and items previously developed and tested by each entity. Subsequently, the sets of items in each scale were tested with a group of experts for content validity based on relevance, clarity, and completeness. Some scales were then refined to achieve adequate validity, and the survey tool was finalized.

SCORING METHODOLOGY

The facility evaluation survey produces scores for a variety of measures related to the measurement domains of overall clinic, zone areas, and workplace outcomes. Each measure is assigned a score based on responses from a number of related items. This method allows for comparison between facilities on a single measure or between measures for a single facility or across an entire organization. A facility may achieve a mix of both high and low scores depending on the staff's perception on positive aspects of the facility that are working as they should for their needs and areas that are underperforming or not currently working well. Based on the scores, one can easily identify areas with high scores that can be used as model spaces as well as areas with low scores that have potential for improvement.

The scoring system is numeric, based on a scale from -10 to +10, and is visually displayed with negative scores in red and positive scores in green. Scores near zero are considered neutral and represent areas that are not extreme in either their need for improvement or their positive aspects. For scores within specific zones, the amount of red or green in the displayed scales represents the overall distribution of that measure across the facilities. It is helpful to not only note the placement of individual scores on the entire scale, but their position relative to the overall average.



BENCHMARKING LOCATIONS

The following four clinic sites are included in the benchmarking results:

- **Clinic A:** The 80,000 square foot building was a newly constructed clinic completed in October 2013.
- **Clinic B:** A renovation on the 27,000 square foot facility was completed in January 2015.
- **Clinic C:** The second floor is 24,377 square feet and the new building was occupied in May 2015.
- **Clinic D:** The 18,850 square foot clinic was renovated, with a completion date of August 2015.

RECRUITMENT FOR INITIAL BENCHMARKING

Four Sutter Health Ambulatory sites were contacted to participate in the benchmarking effort. The team coordinated with local leaders, who emailed survey invitation and reminder emails to a census sample of employees at each site. These emails included a live link to the online survey.

DATA COLLECTION

The survey was built and tested on the secured Qualtrics survey platform, and downloaded to a researcher's password-protected computer for cleaning and analysis.

DATA ANALYSIS

Clinic environments were categorized into four zones for the purpose of analysis: the overall clinic, for measures that are applicable to the clinic as a whole; waiting, check-in, and check-out areas, where patients and visitors are primarily waiting or interacting with staff in a non-medical capacity; patient-clinician interaction areas, spaces where patients receive medical care; and staff work areas, in which clinic employees work separately from patients.

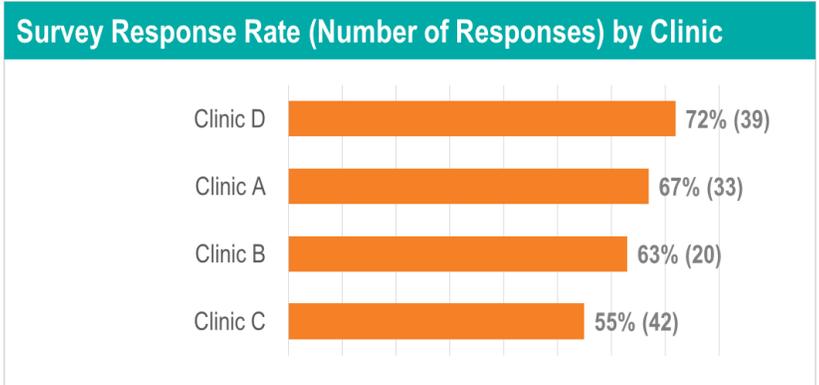
Cross-sectional site comparisons were conducted at the facility performance category, clinic zone, and construct levels. In addition, analyses examined associations between facility perceptions and outcome measures. (Software: SAS v.9.4).

RESULTS

SURVEY RESPONSE

Response Rate

The survey invitation was distributed to an estimated 211 Sutter Health employees at the four participating locations, of which, 134 complete or usable partial responses were returned, for an overall response rate of 64%. At the individual clinic level, the number of responses ranged from 32 to 76 and response rates from 55% to 72%.



Demographics

At least 90% of respondents at each clinic location were female, which is, in general, representative of the gender mix at the clinics. Ninety-two percent of respondents were between the ages of 25 and 64, and 40% were in the 35-54 range. The representation by age across the clinics was consistent.

Employment Statistics

A total of 15 departments or units were represented in the survey, of which the highest proportion of responses was from Family Medicine (29%) and Obstetrics/Gynecology (18%). However, this varied widely by clinic, and was at least somewhat dependent on the services offered at that location. Eighty-two percent of the responses from Clinic D came from Family Medicine, and at the Clinic C location, which offers specialty services, one-third of responses were from OBGYN and another 29% from Gastroenterology.

The job roles that represented the highest number of responses across all clinics were Medical Assistants, Patient Service Representatives, and Physicians. Just more than half of survey responses were from Medical Assistants (51%), followed by Patient Service Representatives (16%) and Physicians (11%). While the specific percentages varied between clinic locations, those in these job roles represented the largest proportion of respondents at all clinics. One exception is at Clinic A, where there were no responses received from physicians.

Survey respondents have worked for Sutter Health for an average of nearly six years. While mean length of employment was not significantly different by clinic, Clinic B had significantly more respondents (65%) who have worked for Sutter Health for less than five years, and Clinic A and Clinic C had significantly more respondents with at least ten years at the organization, 30% and 26%, respectively.

Time Spent in Work Activities

The percentage of time respondents reported spending in various types of work activities did not differ significantly by clinic, but did depend on job role. On average, clinic staff spend nearly half (46%) of their time providing patient care and 18% of time interacting with patients in a non-care capacity. As expected, respondents that spend the most time providing patient care had the following job roles: Physicians, Nurse Practitioners or Certified Nursing Specialists, Nurses, and Medical Assistants. Those who spend the most time interacting with patients in a non-care capacity were Coordinators or Schedulers, Receptionists, and Patient Services Representatives.

Primary Work Areas

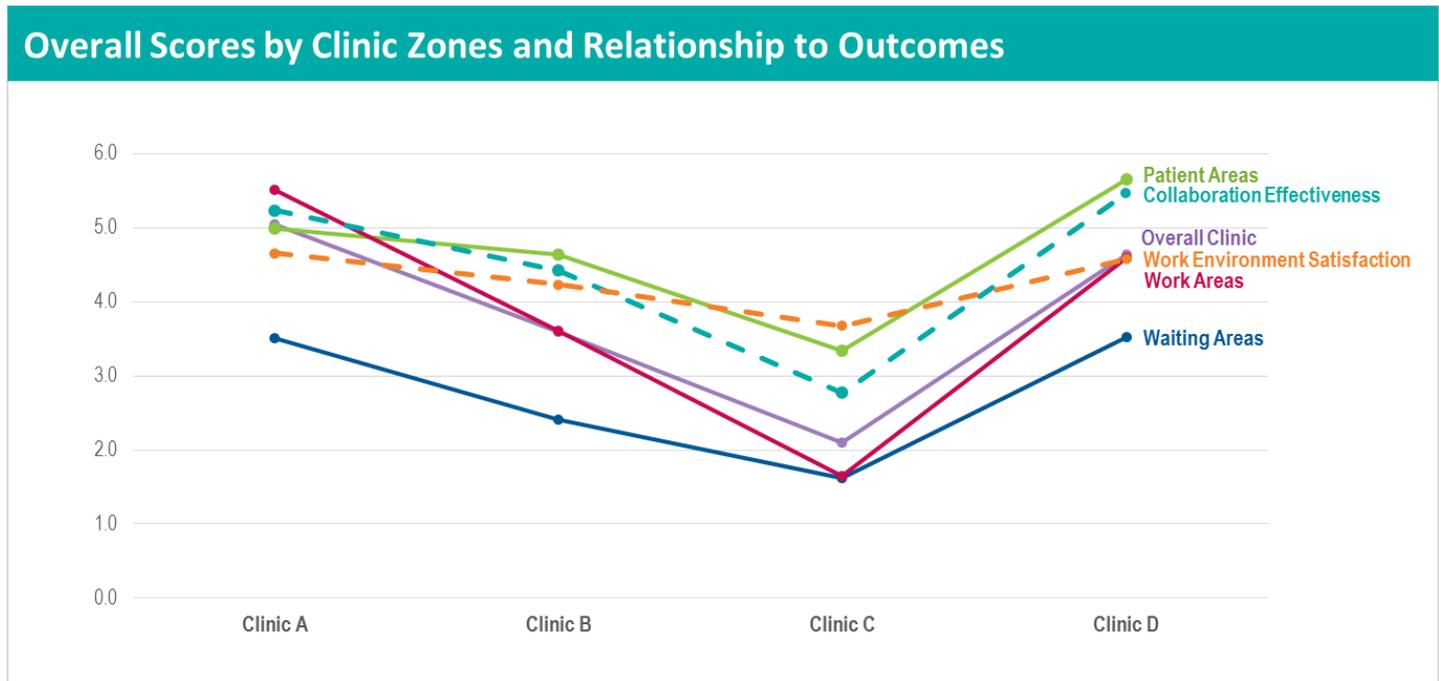
Of those who interact with patients, 80% spend the most time with patients in exam rooms. Those who provide patient care were most likely to do so in exam rooms, while those who interact with patients in a non-care capacity were more likely to do so in patient and visitor waiting, check-in, or check-out areas.

While not interacting with patients, respondents were most likely to work in a single work space in an open environment (e.g., a cubicle or decentralized work station) (38%), an enclosed office that contains multiple single work spaces (28%), or an open area with multiple spaces to work (e.g., a central station or huddle space) (23%). Physicians, Nurse Practitioners or Certified Nursing Specialists, Nurses, and those in management roles tend to do their non-patient care work in enclosed offices, either private or shared, while Medical Assistants, Care Center Coordinators, and Patient Service Representatives are more likely to work in open areas.

ZONE SCORES

The clinic scores were positively correlated across zones and tended to change together. There was especially high correlation between overall clinic, patient-clinician interaction areas, and staff work areas. Scores for the waiting, check-in, and check-out areas were the lowest scores in each of the benchmarking clinics, and in most cases, the patient-clinician interaction areas had the highest scores.

The workplace outcome scores of collaboration effectiveness and satisfaction with the physical work environment also tended to change relative to the clinic zone scores. While there was a positively correlated association between these outcomes and the clinic design scores, no inference can be made as to whether the clinic design has a causal effect on the outcome scores. Other factors, such as organizational, medical foundation, or clinic management and culture could have an effect on the satisfaction with the work environment and how well employees function in a space. There is also a possibility that response bias plays a role in the way respondents answered the survey questions.



Collaboration Effectiveness

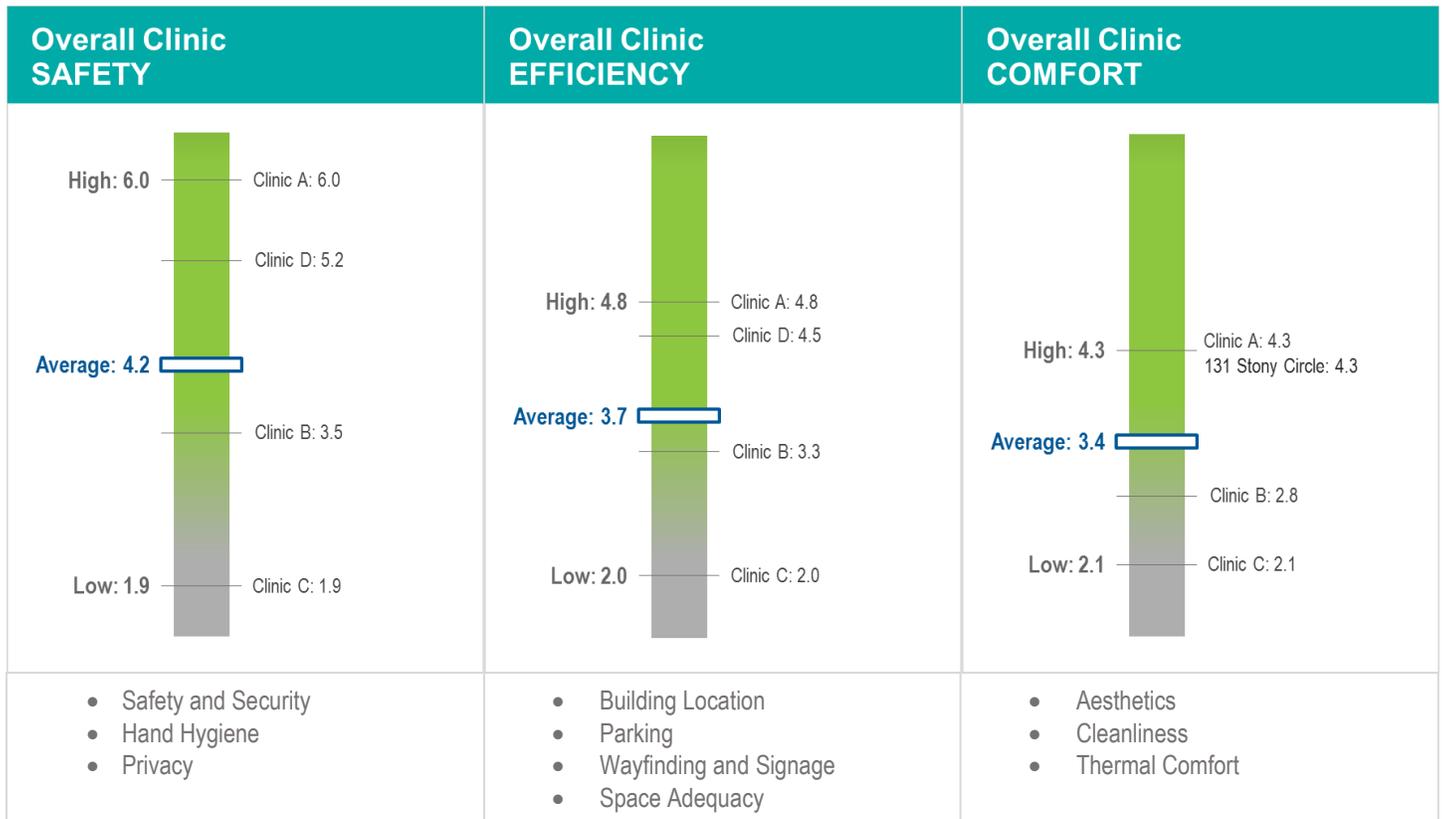
While all construct scores were positively correlated with the outcome score of collaboration effectiveness, those with the highest level correlation were space adequacy in all zones: the overall clinic, the patient-clinician interaction areas and staff work areas; lighting in staff work areas; and access to hand hygiene in the clinic. All other scores held constant, the adequacy of lighting in staff work areas, the number of hand washing sinks and hand sanitizer dispensers throughout the clinic, and the amount of space allocated to staff break areas, meeting areas, and storage accounted for the most difference in the responses on the effectiveness of collaboration within the clinics.

Work Environment Satisfaction

The construct scores most significantly related to the overall satisfaction with the workplace environment were the feeling of safety and security in the clinic; physical comfort in staff work areas, which includes the comfort and ergonomic features of the furniture; and adequacy of space in staff work areas to perform job functions and store supplies and equipment, as well as personal belongings.

ZONE: OVERALL CLINIC

Overall clinic scores in the three facility performance categories of safety, efficiency, and comfort were generally positive across the clinics. In all three categories, scores for Clinic C were significantly lower than scores for Clinic A and Clinic D. For most of the clinics, safety scores in the overall clinic zone were the highest, followed by those for efficiency and then comfort.



Safety

Within the safety category, Clinic C scored significantly lower on the construct of safety and security (2.1) than the other three clinics. This construct consists of access into the building, a feeling of safety and security both inside the clinic itself and in and around the building where the clinic is located, and the access to safe patient handling equipment (e.g., lift devices, wheelchairs) within the clinic. The construct of privacy at the overall clinic level refers to the visual separation between staff areas and those areas where patients and visitors are present, the availability of space for private staff conversations, and appropriate space for staff to store personal belongings. Clinic B and Clinic C scored significantly lower (-0.4 and -0.1) than the other two clinics for this construct, and both locations have a particular lack of secure storage space for staff. While there were slight differences between the clinics, all four scored well on hand hygiene, which evaluated the number and location of hand washing sinks and hand sanitizer dispensers throughout the clinics.

Efficiency

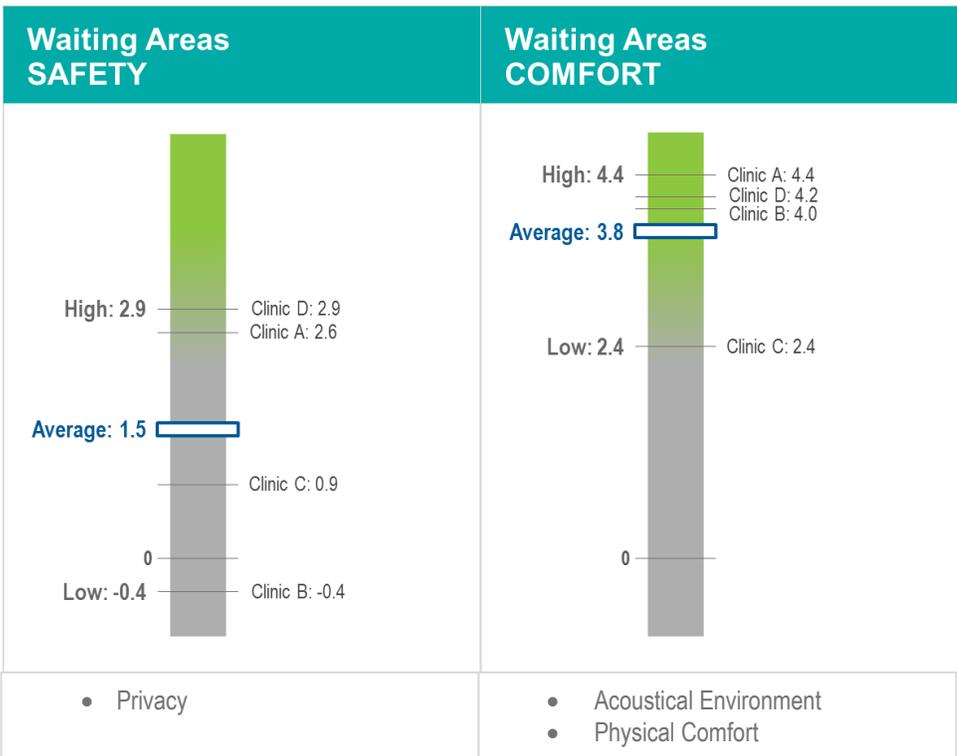
While all clinics scored well on the convenience of the clinic locations and the amenities in the surrounding area for both staff and patients, there is a lack of convenient and sufficient parking for staff and patients at Clinic C and Clinic B. Wayfinding and signage is an area of challenge across all clinics. At Clinic D, many respondents said that the entrance to the clinic is not easily identifiable and signage and visual clues from the exterior of the building are not easy to follow. At all clinics, while the layout of areas within the clinic seem logical, staff are frequently interrupted by patients and visitors needing to find their way, and there is a lack of appropriate signage for non-English speaking patients and visitors. Clinic C scored significantly lower than the other clinics on space adequacy (2.0), which, in terms of the overall clinic, refers to space allocated to staff amenities such as break rooms, meeting rooms, and places for rest or respite. In particular, staff at Clinic C note a lack of storage space for supplies and equipment throughout the clinic.

Comfort

Thermal comfort, including temperature and air movement, is one of the biggest challenges for all the clinics. Most scores for this construct are in the neutral to slightly negative range, with staff particularly noting a lack of ability to control the temperature. Those who were not satisfied with the temperature were asked to specify whether it tends to be too cold or too hot in both warm weather months and cold weather months. In most clinics, a majority of respondents stated that the temperature is too hot when the weather is warm and too cold during cold weather. However, at Clinic A, which had the lowest scores for thermal comfort (-1.8) and the most dissatisfaction with the temperature of the clinic, a majority of respondents think the clinic temperature is too cold during all seasons. While the scores for aesthetics and cleanliness varied somewhat between clinics, all scores are in the positive range, and there were no notable discrepancies in scores that highlight specific issues.

ZONE: WAITING, CHECK-IN, AND CHECK-OUT AREAS

As noted above, the scores for the waiting, check-in, and check-out areas were the lowest among the zone scores in all clinics. The scores for this zone tended to be in the neutral to low positive range, and there was not much significant variation in scores between the clinics. The safety scores, which consist of privacy measures, were lower than the comfort scores in all clinics, and an especially large difference between these two categories was seen in the Clinic B clinic.



Safety

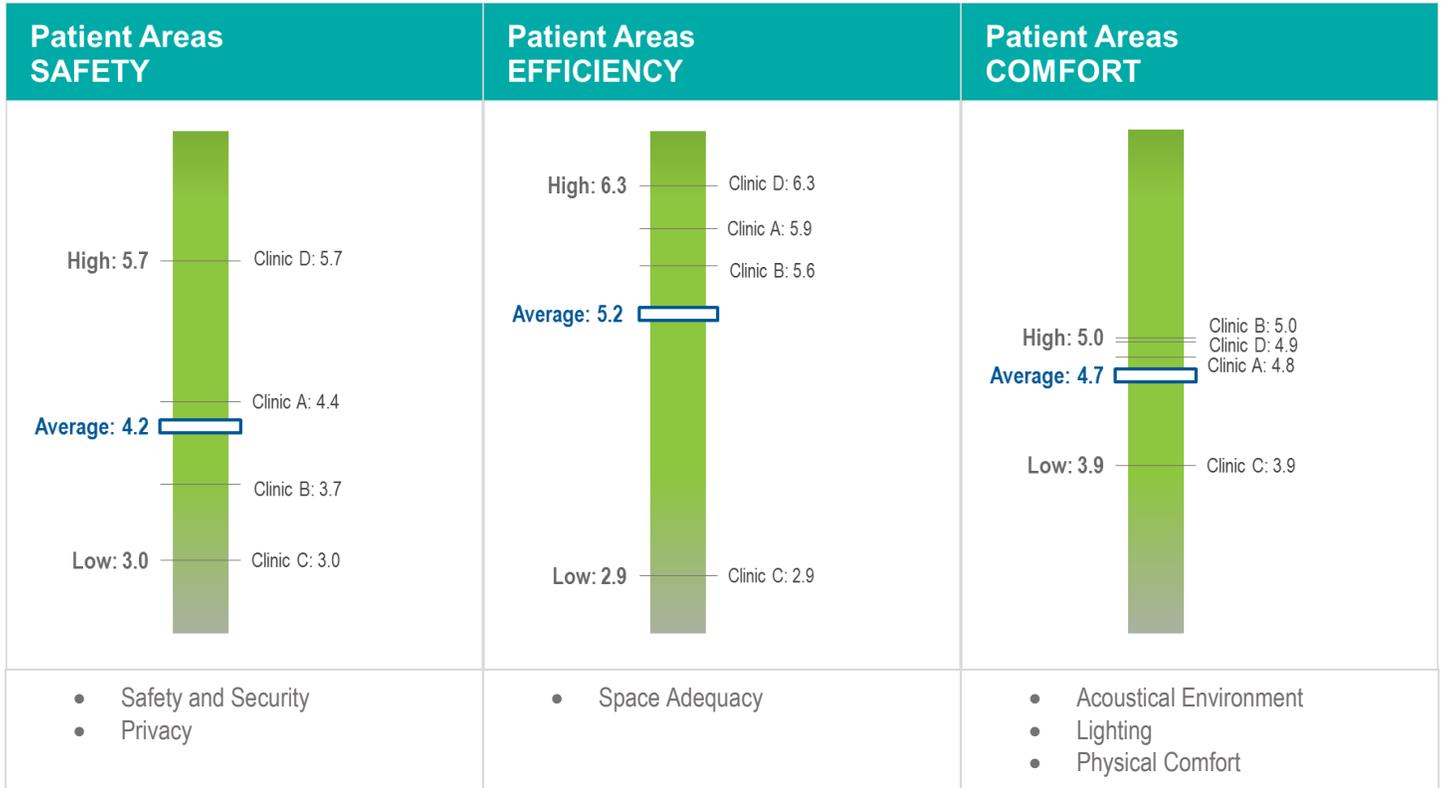
The privacy scores in the waiting areas tended to be low across all the clinics, but especially at the Clinic B location. While confidential patient information cannot be seen by others, there are not sufficient areas to have private conversations with patients or other staff members.

Comfort

There was not a significant difference between the overall comfort scores or the acoustical environment and physical comfort scores of the clinics. While these scores were not outstanding, staff were satisfied with the level of comfort in terms of the noise level and furnishings and other physical features in the patient and visitor waiting, check-in, and check-out areas.

ZONE: PATIENT-CLINICIAN INTERACTION AREAS

The category scores for the patient-clinician interaction areas, or the spaces in which staff primarily spend time with patients, were the highest for any clinic zone, and generally, were very good. Again, safety was the lowest of the three category scores, on average, but scores were still in the positive range. Clinic C scored significantly lower than Clinic D in the category of safety and significantly lower than both Clinic D and Clinic A in efficiency in the patient areas.



Safety

Clinic D scored very well (6.1) in the area of privacy, and staff felt that patients and staff have an appropriate level of confidentiality in the patient areas, such as exam rooms. Staff at the other clinics were also mostly satisfied with the amount of privacy the patient areas provide. In the Clinic C clinic, the score for safety and security (1.8) was closer to the neutral level due to concerns that access into the patient areas is not always secure and the design is not conducive to safety.

Efficiency

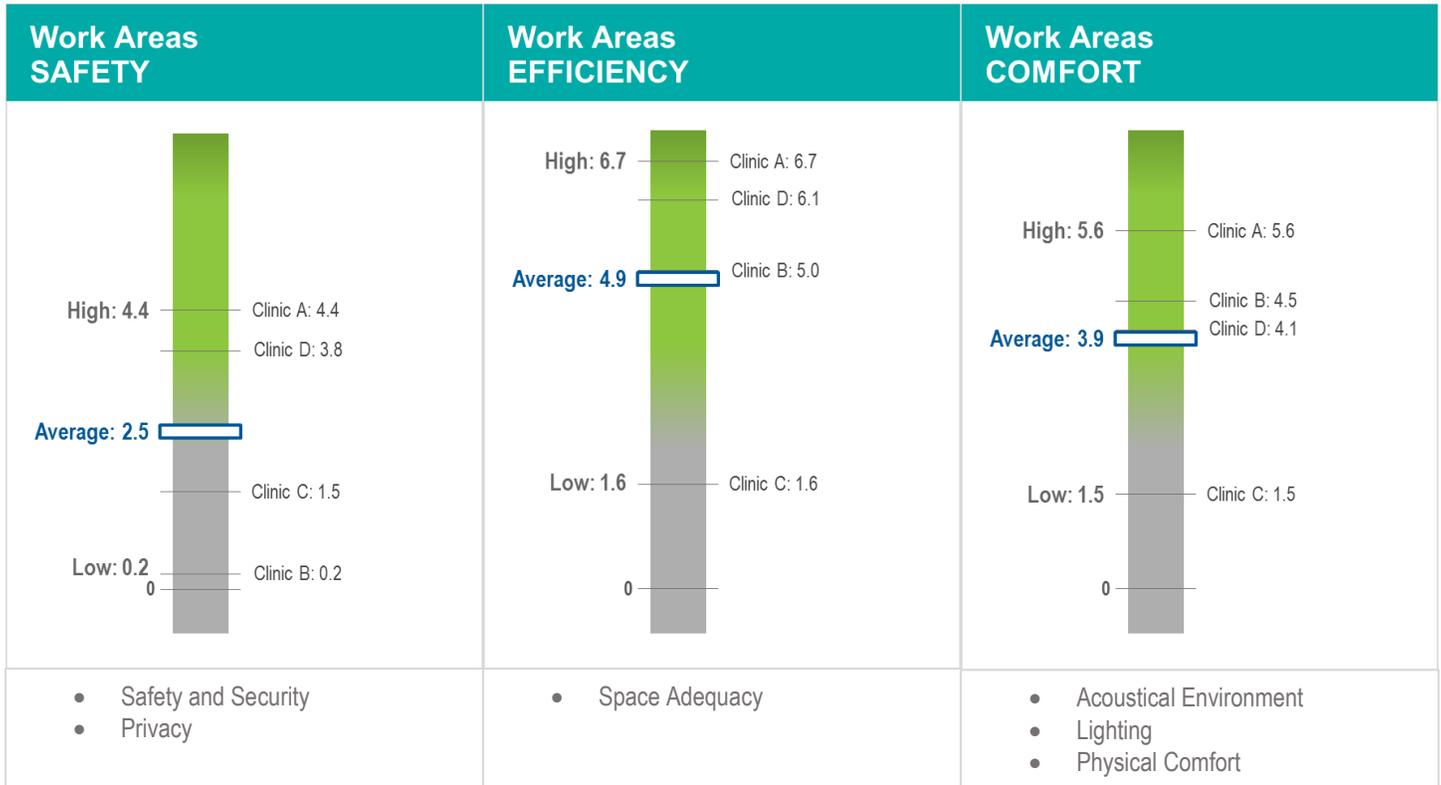
Clinic C's score for space adequacy (2.9) was significantly lower than those for Clinic D (6.3) and Clinic A (5.9), but staff at Clinic C were only slightly less satisfied on the items related to space in the patient areas, such as space for patients, families, and their belongings; storage for supplies and equipment; and an adequate amount of space to perform their jobs in these areas.

Comfort

All clinics scored very well in the acoustical environment of the patient areas. While in the patient areas, noise does not frequently disrupt their work, and patients do not often complain about the noise while in these spaces. Lighting scores in the patient areas were lower, but still positive. Staff at Clinic D and Clinic A identified a lack of ability to control the level of daylight or sunlight in the patient areas, but a high majority of the staff at all clinics agreed that they have sufficient lighting to perform their job duties in these areas. Almost all staff felt physically comfortable in the patient areas of the clinic. However, nearly half of respondents at the Clinic B clinic said patients complain about the comfort of the furnishings in these areas, and some staff at Clinic B and Clinic C did not feel that there are adequate ergonomic features to support their physical comfort in the spaces they work with patients.

ZONE: STAFF WORK AREAS

Scores for staff work areas, where staff work without patients, were somewhat lower than the scores for the same constructs in the patient areas, especially in terms of privacy and the acoustical environment. Both of these could be affected by the fact that many of the work spaces are shared or in open areas compared to enclosed patient exam rooms. Clinic A had the highest scores across all three categories in the work area zone. Clinic C's score for comfort was significantly lower than all three other clinics.



Safety

Some staff at Clinic B and Clinic C indicated a concern that access into the spaces where they work outside of patient care is not adequately secure and the design of the work areas does not promote safety. A negative score for privacy

(-2.0) at the Clinic B clinic showed that there is a great concern that staff work spaces do not provide adequate privacy, especially for confidential conversations regarding patient information and among staff members and providers.

Efficiency

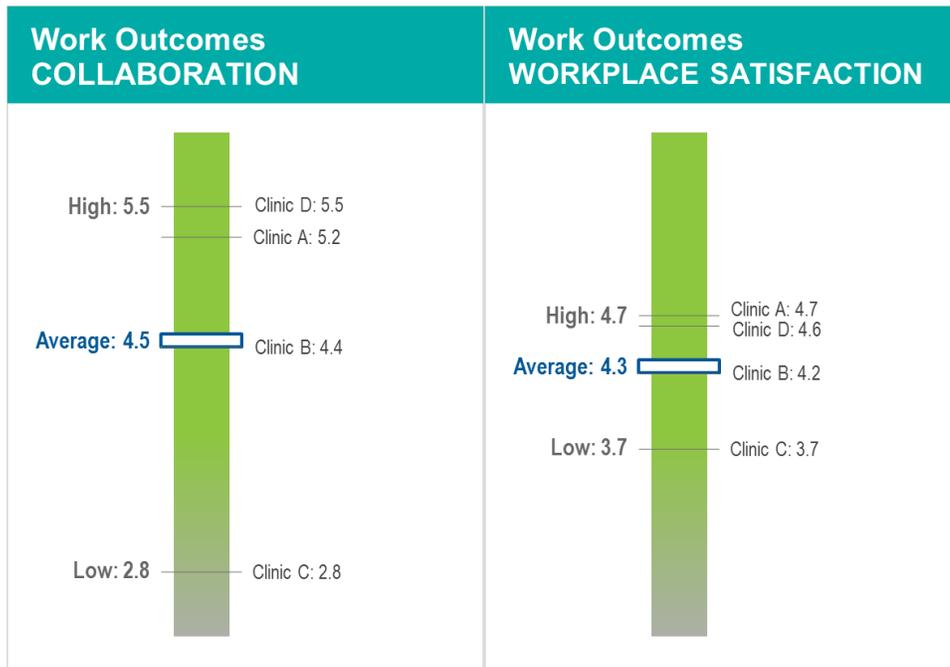
As also seen in the overall clinic and patient zones, Clinic C scored significantly lower than Clinic D and Clinic A on space adequacy in staff work areas. While many staff at Clinic C did feel that they have enough space in their work areas, there were others, especially those who work in open areas, who do not have adequate space for storage of supplies and equipment or their personal belongings.

Comfort

Most staff at all clinics again stated that there is sufficient lighting to perform their job duties in their work areas, but had some concerns about the ability to control the lighting. In particular, many employees at Clinic D felt they are not able to easily control the level of daylight or sunlight in their work areas, and at Clinic C, some cannot control the level of artificial lighting. Scores for the acoustical environment were slightly lower, in general, than in the patient areas, but very good, overall. In terms of the physical comfort of the work areas, many staff at Clinic C did not feel the furnishings are comfortable or do not have adequate ergonomic features to support their physical comfort. The Clinic C score for physical comfort (0.0) was significantly lower than the other clinics.

WORKPLACE OUTCOMES

The workplace outcomes of collaboration effectiveness and overall satisfaction with the workplace environment were evaluated as measures of the functionality of a clinic design as it relates to the staff who occupy it. For both outcomes, Clinic C scored significantly lower than both Clinic D and Clinic A.



Collaboration Effectiveness

Clinic C had only slightly more negative responses to each factor of collaboration, but a significantly lower score for the entire scale.

Workplace Environment Satisfaction

A majority of respondents at every site were satisfied with the overall design of the clinic. In fact, 72% of staff at Clinic A and 71% at Clinic D said they were “very satisfied” with their physical workplace environment and 94% and 95%,



respectively, were at least satisfied. At the Clinic B clinic, 46% of staff were “very satisfied” and 85% were at least satisfied with the environment of that clinic. Results were significantly lower at Clinic C, although, a majority of staff were still satisfied. Thirty-two percent of staff at the Clinic C clinic stated that they were “very satisfied” with the design, and a total of 65% were at least satisfied.