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**WORKING PAPER :**  
**CONSUMER PERCEPTIONS OF THE**  
**HEALTHCARE ENVIRONMENT**  
**AN INVESTIGATION TO DETERMINE**  
**WHAT MATTERS**

by The Picker Institute  
Boston, MA

## Introduction

One perspective on the physical environment of health care is often overlooked and poorly understood -- the patient's. What do patients experience when they go to a doctor's office, a hospital, or a nursing home? What matters to them most? How does the physical environment affect their and their families' experiences? To answer these questions, The Center for Health Design and The Picker Institute went directly to the primary source.

Throughout health care, patients and family members are increasingly recognized as the "experts" about the subjective quality of their experience -- what matters, what makes them feel better, and what they need to help them recover, heal, and adapt to significant changes in their lives. So, too, as we work to create "life-enhancing" environments in healthcare, we must understand how patients and their families experience those environments and what it is about them that matters to them.

What follows is a report about the first phase of a joint project to explore patients' perceptions about the physical environment of health care and a summary of the project's preliminary findings.

## Sponsoring Organizations

*The Center for Health Design* is founded on the knowledge and conviction that design plays a powerful role in promoting the highest level of health, well being, and achievement in our lives. A non-profit corporation serving a network of nearly 30,000 individuals around the globe, the Center has earned a reputation for being the source at the forefront of new trends, research, and technology. As an advocate for design's essential role in healthcare, the Center's mission is to facilitate, integrate, and accelerate the creation of life-enhancing environments.

*The Picker Institute's* mission is to promote health care quality assessment and improvement strategies that address patients' needs and concerns, as patients define them, and to help develop models of care that make the experience of illness and health care more humane. Incorporated in 1994 with support from The Commonwealth Fund and Boston's Beth Israel Hospital, the Institute is a non-profit affiliate of CareGroup, Inc. The Institute's products and services include surveys to assess patients' experience and satisfaction with care; educational programs, publications, and videotapes; and consulting services. Since 1987, over 200,000 patients and their families have been interviewed with Picker Institute tools.

## Technical Advisory Groups

Two technical advisory groups reviewed the progress of this research: 1) an Industry Advisory Board convened specifically for the purposes of this study in the Boston Area, and 2) an Environmental Quality Work Group, representing experts in health care facility design and facilities managers from several health care organizations. Advisory Board members and Work Group participants are listed in Appendices E and F to this report.

## Organization of the Project

The project to investigate consumer perceptions of the health care environment is conceived as a multi-year project in three phases:

- **Phase I**, completed in November 1997, convened focus groups of patients and families to probe their basic perceptions about the health care environment.
- **Phase II**, which began in February, 1998, will expand the focus group research to include groups of health care professionals and more diverse patient populations, to refine and substantiate the first year's work.
- Based on an analysis of the focus group research, the Institute will create surveys and other quantitative tools to assess patients' and families' perceptions of the health care environment in a broader arena, during **Phase III** of the project.

The report that follows summarizes Phase I.

## Phase I: Methods

Focus group research is used to gain insight about the subjective attitudes, opinions and perceptions of consumers about a given topic. During phase I, we conducted nine (9) two-hour focus groups, asking participants to reflect on their experiences with the physical environment of health care, either as patients or as visitors. We convened three focus groups each in ambulatory, acute-care, and long-term care settings. Three (3) of the groups took place in the Boston, Massachusetts metropolitan area, and six (6) in the St. Paul, Minnesota area. Five different health care institutions served as hosts for the focus group research.

A preliminary review of the literature and interviews with local experts in the field – including architects, design professionals, and health care executives – provided background information to plan the content and strategy for the focus groups. Guided by this information, project staff developed a moderator’s guide, to serve as an outline for the focus group discussions, and a series of questions or “probes” to elicit a depth and range of responses. (See Appendix C for sample questions from the moderator’s guide.)

Focus group participants were recruited from a representative sampling of patients and family members at each of the three target settings. Although project staff and recruiters made a concerted effort to recruit a diverse group of participants, in terms of ethnic background and socioeconomic standing, we did not succeed in achieving the diversity we desired. The focus groups that will be conducted in Phase II of the project will therefore specifically target patient populations that were underrepresented in Phase I.

The groups varied in size from 7 to 12 participants each, with an average of 10. Participants were mixed in age. Each participant was paid an honorarium of \$50. All groups were audio- and videotaped, to facilitate analysis. (See Appendix B for a summary of Phase I focus groups).

## Phase I: Findings

The analysis of the focus group discussions yielded insights into three closely related research questions: 1) how consumers define “physical environment”; 2) how patients’ experience of care in different settings (ambulatory, acute, and long-term care) affect this definition; and 3) what matters most to consumers with respect to the physical environment.

*How do consumers define “physical environment”?* We asked all focus group participants to answer the following open-ended question: “What do the words ‘physical environment’ mean to you?” In every case, their answers were narrative and personal. They discussed the environment as it related to their own experience. Unlike design professionals, consumers found it difficult to discuss elements of the environment *per se*, in either esthetic or functional terms. Instead, they tended to focus on the feelings, activities, or operations against which the physical environment provided a background. The following verbatim answers are illustrative:

- “The parking lot, elevators -- things like that. If they’re accessible and easy to operate.”
- “. . . how comfortable I feel, maybe how it’s decorated, the homeyness to it, just how it makes you feel.”
- “...the soft colors, where I could relax and be comfortable.”
- “I would say, the office in general -- how you’re treated. The physician, the staff, the waiting area, the rooms.”
- “The ‘physical environment’ is the first impression when I go in.”
- “It means being able to walk about, and knowing or being able to see where I’m going, and knowing that it’s safe to walk there.”

*What do patients experience in different health care settings?* Because their perceptions of the physical environment were defined in large part by their personal experience, focus group participants tended to describe their perceptions in terms of the experiences common to each of the three care settings from which they were drawn.

Patients from ***ambulatory care settings*** emphasized the following experiences:

- they view waiting as a “fact of life”
- family members (including children) often accompany them on their visits
- they often feel “sick,” or in pain, or distress during a visit
- they have to get undressed and redressed during the course of a visit
- they usually see a predictable number of clinicians during a visit

- They often have follow-up appointments with other services.

Patients from *acute care settings* emphasized the following:

- they view clinicians as their “lifeline”
- the hospital room is the center of their experience
- they often feel acutely ill, experiencing pain and distress
- they often feel a loss of a sense of “self”, and a sense of passivity
- hospital admission, by itself, is a stressful event
- They often experience sensory changes (e.g., relating to medication effects or disruption of diurnal patterns).

Patients from *long-term care settings* emphasized the following:

- they often sense an irreversible loss of independence or decline in function
- they feel a loss of control and often become passive
- they often have physical limitations
- they value activities and recreation
- They often have special relationships with staff.

*What matters to consumers?* While the concrete details of consumers’ perceptions varied depending on the particular setting of care from which they were drawn, the themes that emerged from the focus groups were nevertheless remarkably consistent across all three settings of care. Our analysis revealed seven consistent themes that consumers looked for from the physical environment of health care. Regardless of the setting, they want an environment that

1. facilitates a *connection to staff* and caregivers
2. is *conducive to a sense of well being*
3. is *convenient and accessible*
4. promotes *confidentiality and privacy*
5. is *caring of the family*
6. is *considerate of physical impairments*
7. is *close to nature* and the outside world.

In the section that follows, we discuss each of these dimensions, as patients defined them in each of the three settings that we investigated.

## Discussion of Phase I Findings: What Matters Most to Consumers

### 1- Connection to Staff

- In *ambulatory care* settings, focus group participants most often expressed the concern that, while waiting to be called for an appointment, they would not be able to see or hear the clinic staff who would call them.

The three most commonly-mentioned features of the environment that affected this were

- The shape of the lobby and the number (and location) of doors to the clinic
- The location of the reception desk
- Seating arrangements

*“The door that leads into the doctor's offices or the waiting room is way off on the left side, near the kids’ area – [who are] making a lot of noise. And you’ve got the receptionist areas. But if you’re sitting way, way on the back side, and she comes out and she whispers, “Mary, John” -- you can’t hear her. And then pretty soon, she’s wandering around [looking]. It’s very poorly laid out. That door should be more centrally located, so that when they come out they see the whole waiting room -- because all she sees is the kids’ area and a very small portion of the waiting room.” (3,3,4)*

- In *acute care* settings, patients and family members were primarily concerned about access to helping staff during their hospital stay, especially from their rooms. They wanted to be able to summon staff immediately, and they wanted to know that staff could see them and/or get to them in an emergency.

The three most commonly mentioned features of the environment, in this connection, were

- The shape of the unit
- Observation strategies and features (e.g., windows to the rooms or nursing station)
- Call systems

*“My sister was in the hospital quite a few times, in the last couple years -- and it was the round design, with the nurses' station in the middle, and the rooms all around. I thought that was an excellent design. They could see you, you could see them. I just thought that was a good design, where you could see what was going on. I think it's more comforting than being alone in a room, and you don't see anything and anyone unless you need something.” (1,3,13)*

- In **long-term care** settings, patients and families are most concerned about staff being able to connect and respond to cognitively impaired residents and about connections in case of emergency.

The three most common environmental themes they mentioned were

- The design of the unit
- Monitoring equipment (e.g., video cameras)
- Emergency call systems

*“If there's anything you need, we have a call button. You press it, and they're there as soon as they can be. It moves wherever we are. If I'm in my chair, they put it here. If I'm in the bed, they put it by the bed, so it's real handy to have. And that, I think, is good. If there's something we need, they'll help you.” (2,2,7)*

## 2- Conducive to Well Being

- In **ambulatory care**, an environment that is conducive to a sense of well being facilitates relaxation, and makes people who are anxious (or bored from waiting) feel more comfortable. Because waiting is common, consumers also look for positive distractions.

The three most common themes stressed in this connection were

- Distressing visual or auditory elements in the environment (e.g., blood, needles, or other medical waste; noise; crowds)
- Positive distractions (e.g., magazines, changing displays of art, music, photographs of patients and/or staff)
- Ambient atmosphere (related to temperature, lighting, color schemes, furniture)

*“They should think: that you are taking your clothes off and you have this very light johnny on you. The temperature should be not that cold, [but] normally, it is very cold. That makes it uncomfortable. Be careful of the temperature, the colors -- and keep the music on. It's not bad to listen to that music, while you're waiting there. If you have to wait, for one or another reason, make it as pleasant as possible. And then you look at the hazardous trash, and you're petrified. You look at the waste, and you say, 'Yuck!' That should be filed away, so that you don't even see it.” (1,2,7)*

- In **acute care**, an environment that promotes well being is, at best, one that facilitates healing. At the very least, it should help make the hospital stay comfortable.

The three most commonly-mentioned themes here were

- Noise
- Control over environment (e.g., lights, temperature, ability to ambulate)
- Comfort and positive distractions (e.g., ambient room temperature, color schemes, comfortable beds, music, art)

*“I don't care if a hospital is new, and it has all the latest state-of-the-art, 'Gee whiz!' things to dissect me, and put me back together, and give me all this super-duper*

*information about myself, if I can't go for a walk at least once a day! If I can't do simple, basic things, like fall asleep without a lot of racket, or go to the bathroom without being embarrassed or humiliated. If I lay awake angry all night long -- you know, I think a lot of the healing has to come from within, inside.” (3,4,3)*

- **Long-term care** environments that are conducive to well being remind residents of home and give them a sense of independence. They also support recreational activities and socialization and offer a sense of security.

The three most common themes mentioned were

- “Homeyness” and independence (i.e., not institution-like)
- Socialization and activity areas
- Comfort and security

*“What sold me on the place was a feeling of home, a home feeling. It was the fact that the walls were covered with beautiful pictures, and that they had a lot of antiques around that were very interesting. And the whole atmosphere of the place was of a homey, caring place.” (1,1,20-21)*

### 3- Convenient and Accessible

- In the **ambulatory care** setting, convenience relates to anything that helps get the patient get in and out of the clinic faster. This includes ready access to the clinic and proximity of needed services. Visual cues that help patients know what to do when they arrive or help them find their way around are also important.

The three most common environmental themes:

- Access to the clinic (e.g., clinic location, proximity of parking)
- Proximity of needed ancillary services (lab, x-ray, pharmacy)
- Admitting cues, signage, and wayfinding aids

*“I always say, ‘Easy in, easy out.’ I like to just get in and out. I’ve been involved with another clinic downtown [that’s] hooked to a parking ramp. So nice! I drive into the parking ramp, they give you a ticket, and you get on the elevator. You end up right in the building, and you can get off on the floor with the doctors. It’s free parking. The other thing I noticed in two of these clinics is that they have four doors, and each one is to a different area of that clinic. And you knew where to sit. The sicker ones seemed to sit on one side, and those just in for a work-up are sitting [on] another.” (3,3,9-10)*

- Focus group participants from **acute care** settings spoke less about convenience and more about the need for access – access to the hospital, in the first place, and ease of movement once they were inside the facility.

The three most common environmental themes:

- Access to facility (e.g., parking, drop-off areas, access to the building)
- Visual cues (e.g., outside signage, admission cues, inside signage and wayfinding aids)
- Barriers to ambulation and mobility (e.g., thresholds, equipment in hallways, IV poles and connections)

*“I think accessibility [is important]. You know, from the parking lot to the building, [and] in the building, to find your way. In the room, getting in and out of the bed, using the bathroom, movement in the hallway. I think if all the accessibility is put together correctly, then all of those things will work well together.” (2,4,9)*

- In **long term care** settings, residents and families are most concerned about getting out of the building in an emergency. They also want an environment that provides day-to-day access to the things they need, ranging from access to the bathroom to general wayfinding throughout the facility.

The three most common environmental themes mentioned were

- Emergency access to exits
- Ease of movement (e.g., signage, wayfinding, availability of elevators)
- Access to bathrooms

*“I think the safety issue really concerns me. Not too long ago, on the news, there was a fire some at some care center, and I think that's always been my worst nightmare.”* (3,3,14)

#### 4- Confidentiality and Privacy

- In the **ambulatory care** setting, patients expressed concerns about confidentiality and privacy in waiting areas, especially during intake interviews, as well as during clinical encounters.

The three most commonly expressed environmental concerns related to:

- Being able to hear “through the walls”
- Quiet areas (e.g., for private conversations)
- The exchange and management of written and verbal information (e.g., between patient and receptionist, handling of medical records)

*“The only thing I don't like is, I feel like I could have a little bit more insulation in the walls, because if your doctor is in the room next to you, you really don't want to hear what's being said -- and you don't want anybody to hear what's being said between you and your doctor.”* (2,2,17)

*“The front desk, where they'll sit and say, ‘Well, how did that urine sample turn out today?’ I think if I was to redesign it, I would have a separate area for people to take appointments over the phone, because you can hear everybody's problem over the phone.”* (2,2,17)

- In **acute care** settings, patients and family members emphasize the need for privacy – especially in patients’ rooms – and for places where they can get away from the noise and bustle of the nursing unit.

The three most common themes mentioned were:

- Private rooms, or privacy within the room
- Private bathrooms
- Quiet places where patients and families can get “away” (e.g., lounges)

*“Irrespective of [whether] it's gonna cost me extra, I want a private room. It sure makes a difference to be on my own -- not to have to worry about who was the next character that they were going to bring I, and what were they gonna do. What were their friends gonna do and how much noise were they gonna make? How often is the nurse going to have to come in and treat that particular person, when I may have been a little bit better and wanted to sleep during the night?”* (1, 2,6)

- Residents of **long-term care** facilities and their families express even stronger concerns about privacy in the residents’ rooms. Respect for privacy and confidentiality when doctors visit is also important to them.

The three most common themes mentioned related to:

- Private rooms, or privacy within the room
- Private treatment areas
- Quiet places, for private conversations.

*“One of the most difficult transitions for my mom, when she initially came here [was that] all of a sudden, they have to share a room -- and a small room at that. It really takes away from their privacy -- their self-respect, esteem, family things. Part of our ideal would have to be private rooms -- to respect the residents, and as a sign of respect for the family. Keeping it as home-like as possible.”* (3,4,12)

## 5- Caring for the Family

- In the **ambulatory care** setting, family members (including children) often accompany patients throughout a visit – waiting with them in waiting rooms, and sometimes accompanying them into the examining room or treatment areas.

The three most commonly expressed environmental themes were:

- designing with the needs of children in mind (e.g., play areas, child-proofing)
- extra seating for family (e.g., in triage or reception areas, waiting rooms, and exam rooms)
- more space, to make room for family members

*“This has to do with small kids: In the examining room, there are drawers right there with everything in them. And my kids like to look in those drawers. Plus, they have the one wastebasket that was there with hazardous waste that was right there, too. So, [I’d recommend] bigger examining rooms. Also, maybe [putting] things up a little bit higher, for kids.” (3,4,1)*

- In **acute care** settings, family members sometimes stay with patients for extended periods of time, but most concerns relate to how they are accommodated during shorter, more sporadic, visits.

The three most common concerns related to the environment were:

- The need for quiet areas (e.g., designated visitors’ rooms, chapels)
- Availability of amenities for visitors (e.g., phones, bathrooms, food, coffee)
- Space in patient’s room to accommodate family (e.g., extra chairs, sleeping chairs or couches for overnight stays)

*“One [institution] was very nicely equipped -- cocoa and coffee and access to a rest room, instead of going down to the other end of the hospital. And that was very nice for the family. There was a private room where you could meet with hospital staff -- or if you just wanted to be alone, you didn’t have to share it with everybody else in the ICU. So, for a family, that environment -- the waiting room -- was more important than the ICU room.” (3,2,7)*

- At **long-term care** facilities, families are often involved in the resident’s day-to-day activities. A caring environment in this setting is therefore one that facilitates daily interactions between family members and residents.

The three most common environmental themes that residents and family members mentioned were:

- family rooms (for visiting and for special occasions)
- accommodations for visitors in resident’s room (e.g., enough chairs, space)
- drive-up areas where residents transferred to and from vehicles (e.g., to accommodate wheelchairs)

*“Make it very inviting to families and visitors -- a place for visitors to go. It’s very difficult, when my mother has visitors, to know exactly where to take them. Do we all sit in the room, and there’s not enough chairs, or do you go in the cafeteria? And there’s a little lobby area by the main door. We spend a lot of time there, and it would be nice to have something a little more inviting.” (3,3,9)*

## 6- Considerate of Physical Impairments

- Even in **ambulatory care** settings, many patients do not feel well when they come to the clinic or doctor’s office. They want an environment that takes the physical symptoms of illness into account. They also want equipment and signage that is sensitive to the needs of people who are sick, old, or physically impaired.

The three most commonly-mentioned environmental concerns were:



- restful waiting areas (e.g., quiet areas, couches where patients can lie down, separate areas for children, separate areas for the sick and the well)
- appropriate and well-placed signage in large print
- adequate and comfortable seating

*“[The clinic] was crowded. You couldn’t find a place to sit down, sometimes. Years ago, when my daughter was real, real sick, and she needed to lay down, there was no place for her to even lay down. She actually laid down on the floor. She was so sick.” (2,4,3)*

- Patients in **acute care** settings are almost always either ill or infirm, or recovering from illness. Some patients are on medication that distorts their sensory experience, while others are learning to adapt to new physical limitations. Patients and families want an environment that takes these experiences into account.

The three most common environmental issues they mention are:

- Being able to maneuver through space with equipment (e.g., with wheelchair, IV poles) or when cognitively impaired (e.g., while on narcotic pain killers)
- Comfort of beds
- Traversing distances (e.g., from entrance to admitting area) with impaired mobility

*“[In this] particular institution, the admission was through the emergency room. He has respiratory problems, and it was a long 70- to 100-yard walk to pre-op. [He] asked for a wheelchair and they said, ‘Well, just walk slow.’ He had to go down those long three halls, and he just felt that nobody cared that he was having a hard time. It didn’t seem like a long distance, but for him, it was just endless.” (3,1,9)*

- Residents of **long-term care** facilities need environments that accommodate their impairments, disabilities, and special needs in order to carry out the activities of everyday living.

The three most common environmental issues they mention relate to:

- Facilities for hygiene (e.g., height and location of toilet, location and access to shower rooms, barriers to assistance)
- Barriers to mobility (e.g., movability of equipment over floor surfaces, thresholds and door frames, movability of furniture, availability of elevators and automatic doors)
- Accommodating special-needs patients (e.g., residents with Alzheimer’s disease, hospice patients, comatose residents) to avoid multiple uses of residents’ rooms.

*“When they design the bathrooms, invariably they set the toilet flush to the wall on one side. Well, did you ever try to help lift somebody off a toilet, where you can’t get in? You pull at them; you pull their arm up. So, when they design toilets, put the toilet over away from the wall, so there’s room for wheelchair access. Put the bars for the people who are handicapped to get up and out, but leave room for personnel to work around the toilet.” (3,3,9)*

## **7- Close to Nature**

- Patients in **ambulatory care** settings find natural scenes and settings pleasant and relaxing, especially while they are waiting.

The three most commonly-mentioned environmental themes in this regard were:

- Windows to the outside
- Indoor nature (e.g., plants or fishtanks) or pictures of natural scenes
- Fresh air

*“You can sit in the waiting room, look out the window. The windows can be cranked open. Fresh air. It’s just so much nicer than going up to a small office on an upper floor with no windows, and you’re sitting in there confined.” (3,1,16)*

- In *acute care* settings, both patients and families want direct access to the outdoors, as well as an indoor environment that allows sights and scenes of nature.

The three most common such themes they mentioned were:

- Access to outside areas (e.g., balconies, outside sitting areas, or walking paths)
- Indoor nature (plants, indoor gardens) or pictures of natural scenes
- Windows in patients' rooms with outside views

*"It's that freedom, that liberty to open up a door and go outside -- even if you have to be in a wheelchair. It's the liberty to just be able to do what you're accustomed to doing, if you were home. Even as a visitor, just knowing you can get out of that sterile environment brightens your spirits a little bit."* (3,1,15)

- Residents of *long-term care* settings relish the sights and sounds of nature and a visual connection to life outside the institutional setting.

The three environmental themes most commonly mentioned were:

- Outdoor activity areas (e.g., gardens, patios with planters, grassy areas, sitting areas, family areas)
- Views from residents' rooms
- Indoor gardens or atria

*"My mother's room faces the parking lot, but she does have a bird feeder outside of her room. She enjoys watching the birds, and of course the squirrel that comes in to eat the bird food. And she does get a kick out of watching the different staff come to work. 'Now that car belongs to so-and-so, and that one belongs to so-and-so.' And that gives her a thrill that she's got a window to see life go on, you know. She enjoys it."* (3,3,4)