



PORTLAND VA MEDICAL CENTER, Portland, Oreg.



Photo courtesy: JSR Associates

## Shouldering the Burden

Similarly, the challenge of specifying more environmentally friendly products has fallen on the shoulders of designers. "It takes time to research products and to talk with manufacturers, which is a challenge given the fast pace of construction," says Anne Garrity, LEED AP, associate, Shepley Bulfinch, Boston.

To help navigate this much uncharted process, Shepley Bulfinch actively taps into its firm's collective knowledge, product research and collaboration with colleagues in the design community.

For example, seven Boston-based healthcare architectural firms, which are part of the non-profit Partners HealthCare, get together bi-monthly to develop a "well-patient" room design. "Together, we have explored concepts, details and products, with the goal of eliminating hospital-acquired infections," relates Garrity.

The longer-term plan is to build mock-up patient rooms to test out hypotheses about healthy/sustainable materials.

Garrity notes the group is made up of competitors, but these firms have come together to help solve an important issue in healthcare, recognizing that their collective knowledge is greater than what any one firm could achieve individually.

That said, Gensler is working on its own initiative to stream a process for a one-stop shop location for material comparisons. "It is an integrated technology platform that will work with several of the various platforms out there, and will help designers remove layers of complexity to better navigate this process," explains Alyssa Scholz, regional director of health and wellness, Gensler, Los Angeles.

Meanwhile, Jane M. Rohde, AIA, LEED AP BD+C, FIIDA, ASID, ACHA, CHID, GGA-CIEB, JSR Assocs., Ellicott City, Md., says her firm typically seeks out multi-attribute certifications and Environmental Product Declarations (EPDs) to help reduce time spent researching products.

She adds that the Green Building Initiative has been focusing on creating a process for completing a risk assessment based upon intended use and exposure, as opposed to a deselection "hazard only" approach. "This comprehensive approach is the direction of the future in regard to product selection," she says.

As for manufacturers, Rohde encourages tapping into GreenSuite, which is a risk assessment tool and comprehensive way of evaluating the health and environmental impact of a particular product.

Sharing Kaiser's product selection process, Gerwig relates that at the beginning of a new vendor relationship, potential suppliers are provided with a Letter of Understanding and an Environmental Scorecard. "They then submit all their products to a database that helps us to evaluate them alongside other options."

### GREEN CERTIFIED

With healthy products and materials contributing to the design of the Portland VA Medical Center, the facility scored 838.5 points (83.85%), the equivalent of three Green Globes for Continual Improvement of Existing Buildings certification.



### BACTERIA REDUCTION

As part of a Healthcare Associated Infection Organization competition, Shepley Bulfinch participated in the redesign of the "new generation inpatient room" to develop methods to measurably reduce the amount of bacteria in a patient room.

"Once Kaiser Permanente contracts with a vendor," she continues, "we set up Key Performance Indicators to monitor progress on mutually-agreed outcomes. This method has been very successful in helping to excise chemicals of concern from a given product."

KP also leverages the resources and benchmarking data of a number of third-party organizations including Cradle to Cradle, Green Guard, Pharos, Healthcare Without Harm, Practice Greenhealth, Chemsec, Green Science Policy Institute, Green Screen for Safer Chemicals, and the WELL Building Standard, LEED, Living Building Challenge and the Healthier Hospitals Initiative (HHI).

HHI is comprised of 11 influential U.S. health systems who have created sustainability guidelines for healthcare as part of a national campaign to implement new methods to improve environmental health in healthcare.

Shepley Bulfinch also takes advantage of the Greenhealth Exchange, in particular their Chemical Footprint project, which provides data and guidance in the selection of sustainable materials.

"We have also looked to other industries to see what they use as preventative methods for contamination and the spread of harmful bacteria," relates Garrity.

For example, the lettuce industry utilizes a special automated hand hygiene sink for its workers handling lettuce. Although the system is not a fit for hospitals, a number of features could be beneficial for healthcare facilities if appropriately adapted.

## Ahead of the Curve

In terms of industries within the building sector, architects report that the flooring, furniture and paints/coatings manufacturers appear to be the most ahead of the curve when it comes to transparency and eco-friendly changes to their product lines.

In addition, the Aluminum Extruders Council, the Gypsum Assn. and the Tile Council of North America have all published EPDs, and the Resilient Floor Covering Institute has been very proactive in evaluation of multi-attribute standards.

Within the flooring industry, for example, Garrity has observed Forbo Flooring Systems as being particularly forthcoming about the composition of their product and the environmental impact of manufacturing.

Similarly, Upofloor has been proactive in altering their products' composition. "They were able to come up with a product that met the specification of a traditional sheet vinyl—that is easy to maintain, seamless and durable—while removing the vinyl content," reports Stephenson.

As for furniture manufacturers, Garrity gives a nod to Knoll, Herman Miller, Steelcase, Haworth, Andreu World, Carolina, among others, for eliminating the use of formaldehyde, EDC, flame retardants, antimicrobials and PVC from their products, in addition to achieving GreenGuard certification.

With regard to paints and coatings, she sees BASF as an industry leader in its commitment to energy efficiency, environment health and healthy products, and a guiding principle of creating sustainable product solutions without harmful risks.

**Kaiser Permanente has made a stand, and with that sent ripples in the industry, allowing for more innovative products to come into the market.**

### TRANSPARENCY THIRD PARTIES

GreenSuite  
chemply.com/greensuite

Cradle to Cradle  
c2ccertified.org

GreenGuard Certification  
(UL Environment)  
greenguard.org

Pharos Project  
pharosproject.net

Health Care Without Harm  
noharm.org

Practice Greenhealth  
practicegreenhealth.org

Chemsec  
chemsec.org

Green Science Policy Institute  
greensciencepolicy.org

Green Screen for Safer Chemicals  
greenscreenchemicals.org

WELL Building Standard  
wellcertified.com

LEED (USGBC)  
usgbc.org

Living Building Challenge (LBC)  
living-future.org/lbc

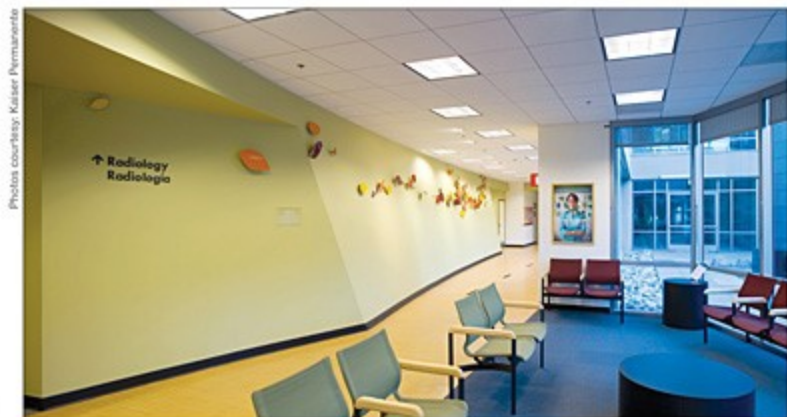
Healthier Hospitals Initiative (HHI)  
healthierhospitals.org

## Down the Line

Ultimately, the healthcare industry is well poised to continue pushing manufacturers to offer healthier product options in line with its commitment to create healthy environments for its patient and staff. Furthermore, the emergence of material buyers' clubs in healthcare and other industries is already driving market demand for healthy product choices. "As people become more aware that greener options are possible, we will continue to see safer alternatives proliferate," anticipates Gerwig.

Similarly, Scholz predicts, "as the world continues to demand more out what they are given and no longer just except the status quo, we will continue to see transparency behind the science. Social justice and equity to the equation is certainly a big game changer. I believe there is a real possibility that we may see some materials actually go away."

TORRANCE MEDICAL OFFICES, Torrance, Calif



Photos courtesy: Kaiser Permanente

Kaiser Permanente has eliminated chemicals of concern in many of the products it purchases, including flooring, paint, fabrics and furnishings.