

Special Report

A HOSPITAL RECONCEIVED

Starting in April, managers say, The Valley Hospital's new high-tech home in Paramus will build on the lessons of experience to offer unparalleled care. BY LESLIE GARISTO PFAFF

On the Monday before Thanksgiving, at The Valley Hospital's shiny new Paramus facility, no babies were born, no diseases vanquished, no broken bones set or MRIs taken or joints replaced. Still, there were signs of life: In the expansive, sun-washed lobby, a hard-hatted construction worker surveyed the garden through a towering wall of windows. In Maternity, the lights—which would look completely at home above a design-forward dining table—were on over the nurses' station. And in the Serenity Oasis, the illuminated waterfall was up and running and giving off soothing vibes, though no patients or visitors or hard-working staffers were there to take advantage of them.

All that will change on April 14, when the nearly \$900 million facility, comprising 900,000 square feet, three wings and seven stories, will open to the public, and every patient will be moved from the old hospital to the new. In the planning since 2017, the building had its groundbreaking on Nov. 1, 2019. It will replace Valley's Ridgewood facility, which will be repurposed to offer urgent care and other outpatient services.

Initially, Valley had hoped to expand the Ridgewood facility but decided against the plan in the face of opposition, over the course of a decade, from a group of

Ridgewood residents and the village's planning board, which rejected two separate hospital expansion applications citing potential problems involving construction noise and danger, property values, tax revenues and more. Both the move and the new facility appear to represent a win-win for Ridgewood and the hospital, as well as patients throughout the county. "Valley is critical to the health and safety of New Jersey," says U.S. Rep. Josh Gottheimer. "The new hospital will transform healthcare for our families, bolster our economy and bring jobs to our community."

The new hospital will be part of a 40-acre health and wellness campus consisting of the Robert & Audrey Luckow Pavilion (housing Valley-Mount Sinai Comprehensive Cancer Care), the George R. Jaqua Same Day Services Center, a retail pharmacy and other buildings. "The campus offers our patients the opportunity to receive virtually every healthcare service they may need in one location, including inpatient care, outpatient procedures, cancer care and the ability to see many of Valley's doctors," says Audrey Meyers, president and CEO of Valley Health System. The new facility is part of a wave of healthcare construction in the U.S., which reached a record \$56 billion in January 2023, spurred largely by the aging of baby boomers and their

increasing need for healthcare services.

Meyers has said the new hospital will "raise the bar" for care, and she cites numbers to bear that out: Where the Ridgewood facility had eight public elevators, the new hospital will have 27. Patient rooms in Ridgewood were a relatively small 140 to 200 square feet; new rooms, all of them private, are a spacious 300 square feet. Where the old facility had 40 exam rooms, the new one will have 80. And the new operating rooms will all be 200 square feet larger than the old. The expansion is critical, given how many Bergen residents depend on the hospital. In 2022, for example, Valley admitted 52,081 patients, treated 69,751 in its Emergency Department and welcomed 4,049 babies to the world.

The new hospital will be bigger, but it will also be smarter, designed not just to accommodate the latest technology—including smart beds, wireless tracking systems to quickly locate staff and equipment and sensors that prevent patient falls—but to incorporate new features as technology advances. Cathy Bennett, president and CEO of the New Jersey Hospital Association, notes that "a hospital's physical structure can have tangible impact on patient care and outcomes. Investing in the healthcare infrastructure, including opportunities like this one, is a commitment to providing safe, efficient patient care."



Nearly one-third of The Valley Hospital's new Paramus facility, set to open in April, will consist of open green space, with many of its roofs topped with growing plants. Gardens will be graced with monoliths created from the mural that once decorated the exterior wall of the former Alexander's store.



PRIVACY'S IN FASHION

Although the hospital's staff—from orderlies and cafeteria cooks to nurse practitioners and surgeons—will benefit from the new facility, it's patients who will reap the greatest boon. "Patient-centered technology," says Joseph Lorino, Valley Health System's vice president of facilities management, "is by far the new hospital's most forward-looking feature." Most important, all of the 370 patient rooms will be private, as opposed to the semi-private model—two beds to a room, separated by a curtain—that's been the standard in most hospitals,

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including the old Ridgewood facility, until very recently. Even the smallest patients—specifically, infants in the neonatal intensive care unit—will be in private rooms, as opposed to traditional open bays.

The new rooms, each with its own bathroom, won't just afford greater patient privacy; they'll also reduce the spread of infection by limiting exposure to other patients. Each room will have its own hand sink; technology, in the form of automated ID badges connected to a tracking device, will ensure that staff members wash their hands before entering and leaving a patient's room. Rooms will also be quieter, leading to better sleep, thanks to nurse servers—cabinets that open both inside and outside the room so nurses don't have to enter a room to stock them with supplies. And a small pin light will allow nurses to check on patients at night without overhead lights blazing.

Some of the most significant improvements in these new, more spacious rooms will be increased square footage, and maximized comfort, for visiting family members. In addition to a table and a large glider chair, each room will have a sofa that opens up into a bed, so that a family member can spend the night—"something we believe contributes to a positive healing environment," says Lorino. In addition, notes Charles Vannoy, R.N., vice president of patient care services and chief nursing officer, "the designated space will allow loved ones better opportunities to collaborate with our clinical teams to ensure better outcomes for our patients."

Technology will also enable more effective collaboration with family members. Each patient, for instance, will be provided with a so-called companion tablet, similar to an iPad, to communicate with family off site via video conferencing. If a patient prefers, remote family members can "sit

in" using the tablet when a provider is present, to get medical information firsthand and, if necessary, help the patient interact with the provider. "Sometimes, elderly patients will say, 'I don't know what to ask the doctor,'" explains Trish Clark, R.N., Valley Health System's director of facilities development. "The tablet will allow family members to make sure the right questions are being asked." The device can also be used to access entertainment and check email.

One of the most striking innovations in the realm

of patient care is the new "footwall." Traditionally a whiteboard attached to the foot of the hospital bed, the footwall is used to keep track of the patient's changing condition. Valley's new footwall has been moved to the wall across from the bed and now takes the form of a 75-inch flat-screen TV that's designed to do far more than entertain patients. In essence, it will serve as a communication tool among patient, care team and family members, displaying clinical information and patient schedules; it will provide patient education and offer the capability for telemedicine video meetings with family and clinicians. When staff members enter the room, their names, titles and ID photos will appear on the footwall, so patients never have to wonder, "Who is that, and why is she here?"

"The footwall provides patients with an unprecedented amount of information and interactive content," says Kathleen McDonough, R.N., Valley Health System's director of operations and logistics. "Patients will be able to access details about their care team and their contact information, as well as view educational materials and entertainment. They'll even be able to use it to order their meals."

RECOGNIZING FAMILIES' NEEDS

In addition to more space and greater comfort in patient rooms, family members will find other welcome innovations in the new facility. No longer will they have to share elevator space with a cart full of dirty dishes: Seven elevators dedicated solely to visitors will whisk them up to patient floors. Family counsel areas will offer space for private consultations with physicians. And there will be a consult room on every unit for those instances when family members don't want to speak in front of the patient. Spacious waiting rooms will be filled with art and light and comfortable furniture, and the garden—with its picnic tables, benches and winding pathways—offers additional space and a literal breath of fresh air.

"Thirty percent of the hospital's grounds are dedicated to open green space, including gardens, walking paths and green roofs, which involve growing plants on the facility rooftops," says Meyers. The garden will be graced with monoliths created from the mural that once decorated the exterior wall of Alexander's department store in Paramus. The colorful constructions are visible from inside the hospital as well, and the panel bearing the signature of Polish-born artist Stefan Knapp hangs in an interior passthrough.

Operating rooms in the new facility aren't just larger but also safer. "Each one of our operating rooms has a modular ceiling that creates an airflow curtain around the patient, which reduces surgical-site infections," notes Lorino. Supplies are stored in sterile cores between groupings of ORs and can be sent to and from the rooms through pneumatic tubes. A designated elevator takes soiled instruments to the hospital's central supply area; another transports sterile instruments to the OR.

In addition, the new facility was designed so that related services are grouped together, in order to ensure that patients are treated quickly and efficiently. "Specifically," says Juan B. Grau, M.D., director of cardiothoracic surgery, "the Emergency Department and diagnostic imaging are located one

SEEKING WELLNESS FOR THE PLANET TOO

The Earth isn't officially a patient, but it's reliably reported to be on the critical list, so new structures these days aspire to be Earth-friendly in their design—and that includes the new Paramus facility for Valley Hospital.

Audrey Meyers, president and CEO of Valley Health System, notes that "sustainability was a guiding principle of design for our new hospital, which was designed, built and will operate using environmentally friendly principles and processes." Valley plans to seek gold-level Leadership in Energy and Environmental Design (LEED) certification, a globally recognized symbol of leadership and achievement in sustainability.

Nearly one-third of the property will consist of open, green space, and many of its roofs, topped with growing plants, will be green as well. "The hospital will also feature a cogeneration plant," Meyers says, "which will produce 30 to 40 percent of its power, depending on the season. The plant will allow the hospital to produce its own steam, hot water and air conditioning, all while reducing the plant's carbon footprint."

floor below the interventional platform”—the departments where patients are treated both surgically and nonsurgically—“with a designated elevator to transport patients in the event of a medical emergency.” A similar innovation is the location of an MRI [magnetic resonance imaging] machine between two operating suites. “This will allow surgeons, particularly neurosurgeons, to pause during an operation, wheel the patient just steps away to obtain an MRI, and then return the patient to the operating room,” Meyers explains. “The findings from the scan will help surgeons determine if additional surgery is needed before the procedure is completed.”

COVID'S LESSONS APPLIED

“If the pandemic had a silver lining for us, it’s that we were still in the design process through much of it and were able to change the design based on the lessons we were learning,” Lorino says. For instance, every patient room can quickly be transformed into a negative isolation space in the event of a future pandemic. In addition, because it became clear during COVID that the many intubated patients were quickly using up medical gases such as oxygen, the new patient rooms were designed with increased medical gas services. And new oxygen tanks were tripled in size, “which enables us to have a larger reserve of oxygen in future pandemics,” says Lorino.

To protect hospital personnel, caregivers can now place IV pumps in the corridor and pass an IV through the wall into the patient’s arm, so that they no longer have to enter the room to administer IV fluids. That also cuts down on the need for personal protective equipment like gowns and masks, which were sometimes in drastically short supply during COVID.

Not all of the innovations designed into the new hospital are big and broad and potentially lifesaving, but even the small details are intended to help make the patient experience easier. Aesthetics, for example, was an integral part of the design process. Yes, all the finishes are easy to keep clean, but they also please the eye, from frosted walls bearing botanical designs to backlit decorative panels in patient rooms to stamped subway-tile insets in the patient bathrooms. A hydroponic garden will provide fresh herbs year-round to enhance meals that can be ordered room-service style, using the digital footwall, the companion tablet or the phone.

Both the design’s small details and its big picture were created with input from the hospital’s Patient and Family Advisory Council, an organization of current and former patients, family members and caregivers whose goal is to enhance patient health, safety and comfort. “Every aspect of the design,” says Meyers, “was considered from a patient’s point of view.”



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