ing appointments, viewing mammography results, pre-registering for maternity services, and accessing education materials and Alegent news.

More functions are in the works, such as secure physician messaging, currently available only to the 180 doctors at the Alegent Health Clinic. (The system has more than 1,300 physicians practicing in 100 locations.) McCahill explains that sensitive information is not sent via e-mail, but patients receive an e-mail from the physician's office telling them they have a message available through the portal.

He says the portal was tested for a year and a half with 12,000 patients participating, and that an additional 1,000 people signed up for MyHealth-Care in January as soon as it became more generally available.

Along with the Find a Doctor, Locations/Maps and Jobs pages, whose links are found on the top navigation bar, other frequently visited areas of the website can be found in the Quick Links drop-down menu on the top bar including Baby Photos, Financial Assistance, Pay My Bill and Volunteer. Links to those pages and others, such as to Alegent hospital Gift Shops pages, are also listed in the "footer" at the bottom of the page.

These links are prominently displayed and easily accessible because key words associated with them were among the items that website visitors were most frequently searching for. "We know where patients are going," McCahill says, and that knowledge is used to channel the content.

For functions that include highly sensitive financial or medical information, a third-party vendor is used to make sure all the data are secure. A vendor is also used for the Baby Photos page because the high volume was becoming difficult for the staff to process.

"It was almost becoming a full-time job," McCahill says.

The Alegent website also offers RSS instant news feeds, patient and physician blogs, links to Twitter and Facebook social media sites, and a YouTube channel offering hundreds of videos telling patient stories or offering information on specific medical conditions or health topics in the news.

The most-viewed videos cover heavy menstrual bleeding (more than 31,000 views), "Gina's Story" telling of a patient's recovery after a traffic accident (more than 24,000), and others on such varied topics as irregular heart beats, ankle surgery and the birth of quintuplets. One of the physician blogs—available under the Quick Links section—by cardiologist Eric Van De Graaff, is also posted on the *Omaha World-Herald* newspaper's "Live Well Nebraska" health and wellness website.

Meet your doctor

More than 100 Alegent physicians have also recorded "video introductions" in which they are given a few minutes to tell the community about themselves. McCahill says Alegent decided not to post physician reviews because they didn't think a review posted on a physician's own website would have much credibility and also because it was thought the videos could say more about a doctor than commentary from an anonymous poster.

While Alegent's site offers all sorts of medical information along with eight tabs on the top navigation bar, Chomko's company left out the health information material and put only five tabs on the top bar in its upgrade of the website for NorthShore University HealthSystem, a two-hospital, four-campus organization based in Evanston, Ill.

"What we gravitated away from was including clinical information where you type 'I have this symptom and I need help,' because people are going to WebMD and others in that space for that," Chomko says, adding that the goal was to make searching for a doctor by specialty and loca-tion—along with gender and language preferences—as easy as possible.

"It's almost akin to searching for a product—which is essentially what you're doing," he says.

The top tabs on the NorthShore website are Find a Doctor, Find a Location, View Services, Pay Your Bill and the NorthShoreConnect patient portal.

Chomko says consideration also was given to the "secondary audience" of most hospital websites: doctors and other healthcare professionals who are looking for specialists for patient referrals or who are seeking to relocate and checking out what a hospital has to offer them.

Chomko, Rice and McCahill all agree that not including telephone numbers on a hospital website is a bad practice.

"You should allow people to interact with the hospital in the format that's easiest for them," Rice says, adding that not including a number reflects on a hospital's staffing. "When you don't put a phone number, you're essentially saying 'We don't think we'll have someone to answer the phone when you call.' "

McCahill predicts future website developments will probably center on the patient portal and determining what patients want it to provide.

"Do they want test results? Do they want e-visits? Do they want the ability to make real-time appointments like when they book a flight?" McCahill says. "I think the answer to all those questions is 'yes.' " «

> ## "The best websites, as with the best hospitals, have everyone working together."
> ### —William Rice, president of the Web Marketing Association

Online and on target

Hospitals add sophistication to their websites, improving value to patients

An important goal of hospital website design is a simple one: Help people find what they're looking for quickly. And thanks to the ability to record every click and every search, arguments over what people are looking for can be settled fairly easily.
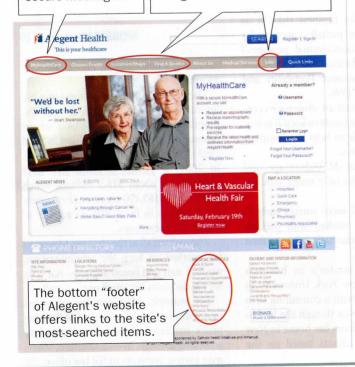
So, for every CEO who feels his or her stirring letter to the community deserves the most prominent space on a website's homepage, there is data to back up the website designer who can show that the "Find a Doctor," "Locations" and "Jobs" pages are what the community is truly interested in and what winds up driving an institution's Internet traffic.

Hospital websites also are starting to reflect innovation and maturity with interactive portals that give patients access to their test results, medical bills and doctors' schedules. Physicians can now introduce themselves via online videos and profiles, and educational materials can be developed based on tracking what visitors key into the site's search engine.

BY POPULAR DEMAND

Patient portals, such as Alegent's MyHealthCare, can offer easy access to test results, billing, scheduling and secure messages.

The most-visited pages on hospital websites tend to be "Find a Doctor," "Locations" and "Jobs." Tabs for these pages are usually prominently displayed on a site's main navigation bar.

The bottom "footer" of Alegent's website offers links to the site's most-searched items.

For a small hospital, creating a basic website can run between $25,000 and $50,000, while a high-end product for a large healthcare system can "easily get into the $1 million to $2 million" range, says Roy Chomko, president of Adage Technologies, a Chicago-based website development, maintenance and hosting company. "The larger the organization, the more complicated it's going to be."

Chomko notes how website "heat maps" can be developed that show exactly how web traffic flows, which pages visitors click on and detailed data on specific pages. He says that information can be used to settle arguments about where the physician bios should go and where the CEO's blog should be placed.

"The way to change their minds," he says, is to say to the CEO, "Here's the number of clicks you're getting, and here's the number for 'Find a Doctor'—and we're giving you prime real estate."

William Rice, president of the Web Marketing Association, says his organization has been evaluating the websites for 96 industries since 1997, and he notes that most early hospital websites could be classified as "brochure-ware" that didn't take advantage of the interactive features the Internet offers. "They were a little late to the game because a lot of hospitals didn't see the immediate value of websites engaging visitors," Rice says. That's in part because "a hospital will always count on its affiliated physicians to really drive its business," he says.

A key function of a hospital website is to highlight an institution's expertise, but it can also help an organization discover its shortcomings by measuring if visitors are spending a lot of time searching for information on particular services their institution doesn't offer, Rice says.

According to Rice, hospital websites also have to avoid looking "institutional" and need to offer user-friendly functions such as posting items in English as well as other languages—especially in highly diverse communities—and allowing visitors to increase the size of the text for easier reading.

"One of the things that can really ruin a hospital website is if it's organized in silos," Rice says, comparing this type of website to a hospital, where the different departments communicate poorly. "The best websites, as with the best hospitals, have everyone working together."

Never a finished product

Rice says that websites are perpetual works in progress, and that hospitals need to keep this in mind.

"Sometimes organizations say, 'We've invested all this money. Let's sit on it for a while until we get our return on investment," he says.

Ten-hospital Alegent Health, based in Omaha, Neb., took the opposite approach. In 2007, 2008 and 2009, its website won several awards for content and design, but Alegent embarked on a redesign that went live this past December.

"Awards are great, but the goal is to create the best consumer-patient experience," says Matthew McCahill, Alegent's eHealth marketing chief.

The redesign also coincided with Alegent's widespread launch of its MyHealthCare patient Web portal, which offers secure access for request-