

## Position Paper

# Digital Signage in Healthcare

## How Digital Signs Ease Anxieties, Boost Experience And Optimize Patient Care

### Mission-critical Information

If the mission of digital signage technology really is to get the right messages to the right people at the right times and locations, healthcare is the perfect example of why that matters. With few exceptions, from small clinics to giant medical campuses, health care facilities are places punctuated by joy and sadness, anxiety and a need for answers and clarity.

At peak hours, health care facilities can be whirlwinds of activity – confusing and even overwhelming for visitors. And at all times, they are places filled with people needing and wanting more information.

In this paper, we take a look at why digital signage is increasingly essential to how modern health care is delivered and supported – from community clinics to huge, multi-building medical campuses in big cities. The paper explores the day-to-day applications and use cases for service delivery and positive patient and visitor experiences, as well as new ideas on how screens can be fundamental to everything from operations in patient care areas, to fundraising.

### Need-to-know Environments

Emotions attach to almost every visit to a health care facility<sup>1</sup>. There may be excitement about a pregnancy; frustration about an injury that persists.; or suspicions of something wrong.

Effective use of networked digital signage screens makes a big difference in driving better efficiencies and boosting patient and visitor experiences – something that has a positive spillover effect for caregivers and other staff.

Common questions get answered on screens. Directions and directories make visits less confusing. Time passes calmly because there are screens to watch in wait areas. Staff, at a glance, know what's going on.

Digital signage in healthcare settings is not new, but their use has expanded though the years – extending beyond the obvious solutions of waiting rooms into many aspects of daily operations.



### Broad Spectrum Of Use Cases

Businesses segment thinking in two ways: What the customer sees, as in nursing stations, lobbies, and other featured spaces; and back of the house, or what goes on behind the scenes and is largely out of view. That applies very much to signage in healthcare settings. Use cases can be segmented by patient or guest experience, and by operations.

### Patient/Guest Experience

Here are some of the main ways healthcare providers are using digital signage to improve experiences for patients and loved ones.

**Wayfinding and navigation** – In large medical centers, patients and visitors can be overwhelmed from the moment they come on campus. Where do they park? Which is the right building and entrance? Where is the clinic? How do they check in?

To help, providers are using screens to direct visitors to parking garages and, in some cases, using the data from sensors to indicate where parking stalls are open, floor by floor, on signs.

Interactive directories in common areas, both outside and in, list clinics and physicians and provide directions. In some cases, that information is available in multiple languages, reflecting the demographics of the region the facility serves. When new

physicians are added, or clinic locations shift, directories are easily changed, without any need to print new versions.

Busy individual clinics may have patient intake screens that list their appointment, and confirm their arrival for staff.

That may then map to a waiting room or queue management system<sup>2</sup>, coupled with digital signage displays, that can dramatically improve experience. Simple screens give people a sense of how long their wait may be, easing anxiety and freeing them to go to the cafeteria or restroom, without fear of missing their appointment. For reception staff, the steady questions of where people stand are lessened or removed.

**Waiting Areas** – Smart healthcare service providers see waiting rooms as a time-rich opportunity to inform and educate patients who are waiting for appointments or procedures, and their friends and family. In a condition-specific clinic, the wait area is an ideal setting to begin the awareness and education process around conditions like diabetes and heart diseases. Informed patients and families can ask better questions, and make better decisions.

1) Digital screens can reduce perceived wait times by as much as 35%

2) In surgical wait rooms patients can track their loved ones' status and location — creating an improved experience

There are many implications to service providers, including the simple likelihood that doctor-patient meetings might be shorter because waiting room screens have done some of the upfront work of explaining conditions and answering questions.

For aging patients, interactive screens provide their grown children with basic education on conditions like dementia, and provide information and even some options on home care or residential care.

**Experience** – Healthcare facilities are invariably emotional, and Boston's Spaulding rehab hospital<sup>3</sup> wanted to ensure the prevailing mood of its rehabilitation facilities was hope and recovery, not despair and debilitation. For a new building in 2015, the facility used a series of digital signage video walls around common areas that showed former patients getting on with their lives – getting past their injuries. The stories have included videos provided by former patients, and included people maimed in the Boston Marathon Bombing.

**Donor Recognition Walls** – Large interactive displays are increasingly common in donor-funded healthcare facilities – with touchscreen video walls being the new, better version of engraved plaques and framed posters thanking individuals and companies.

With large video walls<sup>4</sup>, administrators and their fundraising staffers have the ability to not only highlight and celebrate the contributions in images and videos, but also show why the money was needed and what the results have been. Plaques tend to show names. Digital screens can tell stories.

Hospitals are also adopting direct view LED technology – creating screens that can seamlessly fill feature walls, wrap

around curved headers or even function as faux ceilings. The broader possibilities for shape are the big attraction, but LED also has the brightness levels needed to win a fight with ambient natural light and glare – ensuring messages and experiences are always visible, even in sun-filled atriums.

**Patient Registration** – Use touchscreen digital displays to create a seamless check-in experience, which can increase workflow efficiency, mobilize the hospital admittance process and streamline patient registration and record-keeping.

**Patient Education** – Provide patients with access to education, and services to boost patient satisfaction.

**Timely Information** – Food services operators, whether in-house or contracted third-party companies – are using digital menu boards in the same manner as quick service restaurants. Menus can change through a day just as they do in mall food courts, and digital makes changes easy and even automated.

Hospital communicators are also replacing printed material in hallways and common areas with digital posters, changeable on demand and addressable, so different messages can be placed in different zones. Any digital screen in a properly planned facility can also be mapped to emergency alert systems, to inform and guide people in the event of things like fires or hazardous material leaks.

## Signage For Staff

**Operations** – Effective digital signs around active care areas can not only improve communications for physicians, nurses and support staff, but also reduce and minimize the risks of mistakes. With screens at patient room doorways, managed by central desks and information systems, caregivers can see at a glance things like the specific requirements, restrictions and cautionary notes about patients, as well as the status of the room (does it need cleaning?) and meal deliveries. That information can roll up to dashboard monitor displays at central nursing stations that provide another at a glance view of patient care delivery.

**Real-Time Status** – Businesses are now using data extracted from its systems to visualize their day-to-day operations, showing trending and identifying looming issues and opportunities. The same technology is well-suited to healthcare, with data pulled in real-time from patient management, inventory and room assignments systems, among many, to create highly visual dashboards, charting and alerts that provide at-a-glance summaries of where things stand in a busy clinic. When staffers know supplies are running low, they can do something about it before the problem is real.

**Staff Communications/Training** – Frontline caregivers are constantly on the go. Reaching them for staff communications through conventional means like emails can be difficult. Digital posters and interactive e-boards in breakrooms and other behind-the-scenes settings allow HR communicators to convey important safety, policy, continuing education, and benefits messaging with some certainty it will be viewed.

Interactive screens can be used to do things like play on-demand videos on the features, benefits, and proper use of new equipment or treatments, while other screens can steadily reinforce one of the most critical routines in sensitive treatment environments – proper hand washing, to prevent the spread of infections.

## Getting Started

If your health care facility is just starting to examine digital signage options, resist any temptation to just dive in and start buying display technology and software. Instead ...

**Establish and Answer the 5 Ws: Why, What, When, Where and Who** – The Why question is the big one to nail down, but this process of posing and answering basic questions nicely enforces some discipline on your planning and thinking.

What are the main day-to-day challenges of the facility?

If the reception desk in the main lobby is busy, all day, providing visitors with directions to clinics, and struggling to help people arriving with limited English language skills, perhaps the most essential application is interactive, multilingual wayfinding directories that take the strain off staff?

If there is frustration in crowded waiting rooms, would a queue management system coupled with digital signs make the big difference? Waits may be longer than people want, but screens showing the status at least keep people from drawing their own conclusions and growing upset.

There may be a wide variety of technologies that will boost experience and service delivery, and raise patient satisfaction scores.

Once you have a sense of needs and objectives:

**Observe** – Visit some other health care facilities that match your scale and operating style to see what they are doing. Go with a skeptical point of view. Just because a facility does things a certain way doesn't mean it's the right way, for your facility. What you see may inspire you, or reinforce what not to do.

**Research** – There is no shortage of good information online about health care in digital signage – with tips on what to do, and stories of smart, real-world applications.

**Fit Guidelines And Needs** – The hub for any digital signage network is its Content Management System – the software used to plan, organize, schedule and distribute content, and manage all the players and screens on a network. While much of digital signage is cloud-based, the IT group may insist the software be installed and managed on-premise, behind a hospital firewall. That directly affects software choices, as do things like the scale of the installation, how and who will use the software, the frequency of content changes and scores of other variables.

**Have A Plan** – The software choice may seem intimidating based on what was just covered, but if the people considering a network for their health care institution apply the disciplines of the 5 Ws, their needs will be defined and their choices narrowed.

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[Learn more about Digital Signage in Healthcare.](#)

## Footnotes

1. <https://www.healthwaresystems.com/2018/04/11/lowering-waiting-room-anxiety-patients-family-members-patient-tracking-board/>
2. <https://www.qminder.com/queue-management-system-for-hospitals/>
3. <https://www.sixteen-nine.net/2015/04/10/projects-spaulding-boston-inspire-patients-families-using-digital-signage/>
4. <https://pid.samsungdisplay.com/en/learning-center/case-studies/digital-signage-for-healthcare-in-medical-centers>

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