

WellSpan Case Study

WellSpan Health transforms care delivery with Artisight Smart Hospital Platform



Introduction

WellSpan Health is a large integrated delivery system serving Central Pennsylvania and northern Maryland, providing inpatient care across nine hospitals. With 23,000 team members, 220 patient care locations, home care services, and a multispecialty medical group employing over 3,000 physicians and advanced practice providers, WellSpan is dedicated to comprehensive, high-quality healthcare.

The Challenge

Like many healthcare systems, WellSpan faces a critical nursing shortage. Even before COVID-19, the profession was strained by an aging workforce, a shortage of experienced nurses, and growing workloads. The pandemic exacerbated these issues, driving many nurses out of the field and leaving those who remained with intense stress, heavy workloads, and limited work-life balance.

Recognizing the need for change, WellSpan's leaders aimed to modernize traditional nurse staffing models to alleviate the burden on nurses, allowing them to prioritize patient care over paperwork. The goal: boost nurse retention, increase job satisfaction, and enhance patient care and communication.



"Nurses are the lifeblood of any hospital system. We understood the need to innovate to help them spend more time on patient care while also relieving them of many non-clinical and time-consuming administrative tasks."

Kasey Paulus, RN, MBA, CENP, Senior Vice President, Chief Nursing Executive

The Solution

After evaluating multiple solutions, WellSpan selected Artisight's Smart Hospital Platform. This Aldriven system combines sensors, computer vision, voice recognition, vital sign monitoring, indoor positioning, and actionable analytics, empowering nurses with enhanced patient care capabilities.

WellSpan deployed two core functions of Artisight's platform:

- Virtual Observer: Enables nursing assistants to monitor patients for safety, fall prevention, and signs
 of confusion.
- **Virtual Nursing**: Extends bedside nurses' capacity, supporting documentation, assessments, and patient education.

The platform also supports OR capacity management, e-consults, provider rounding, capacity optimization, and translation services integrations.

Using computer vision and a multi-sensor network, Artisight's platform adapts in real time to specific environments, capturing previously inaccessible data. Algorithms monitor for falls and pressure ulcers, track patient movement in and out of the OR, and more. By reducing repetitive documentation tasks, it frees up to 30 minutes per shift, allowing clinicians more time with patients.

Artisight's platform is customized for each facility, with Al algorithms tailored to site-specific design, workflows, and processes, maximizing efficiency and coverage through clinician and administrator input.

The Results

WellSpan went live with the Artisight pilot program in August 2023, starting with a high-traffic rehabilitation center. The results were impressive:

- 52% Reduction in Patient Fall Rates: Real-time monitoring significantly enhanced patient safety and response times.
- Increased Patient Satisfaction: Patient satisfaction at discharge climbed from the 26th percentile to the 56th percentile.
- Enhanced Nurse Communication: Patient experience with nurse communication rose dramatically, moving from the 20th percentile to the 56th percentile.
- 92% Reduction in Median 1:1 Sitter Hours: Virtual monitoring drastically reduced the need for in-person sitters, optimizing staff allocation.
- 86% of Nursing Staff Reported Improved Safety: A majority of nursing team members noted that virtual programs greatly improved safety on the unit.

Among the examples of improved patient safety and outcomes:

- A Virtual Observer detected a patient in respiratory distress and initiated a rapid response, preventing escalation to a code blue.
- A **Virtual Observer** identified a visitor bringing food to a patient on NPO status, ensuring adherence to care protocols.
- A **Virtual Nurse** quickly alerted staff when a patient removed their IV in an elopement attempt, preventing potential harm.

The Impact on Nursing Engagement

The Artisight Smart Hospital Platform has not only improved patient outcomes but also revitalized employee engagement. Nurses report that the platform has reignited their passion for the profession and significantly reduced on-the-job stress.

"When I end my shift as a Virtual Nurse, I feel a true sense of accomplishment," said Alisha Wike, RN. "Knowing that I've made a positive impact on another nurse's day is incredibly gratifying. The uninterrupted 1:1 time with patients, especially for education, is personally meaningful. Overall, it has greatly reduced my nursing stress levels."

Following the success of the pilot, WellSpan has decided to expand the program across its entire health system, reaching 1,000 patient beds that will benefit from this transformative technology.

"The Smart Hospital Platform is fulfilling its promise to enhance the lives of both nurses and patients," said Paulus. "WellSpan is transforming care delivery through technology that supports hands-on care, alleviates administrative burdens, and boosts efficiency."