

Hackensack Meridian Health and Google Expand Relationship to Improve Patient Care

Hackensack Meridian Health becomes one of the first health systems in the world to fully transition to Google Workspace and Chrome OS devices, improving data security, practitioner productivity, and healthcare delivery

Healthcare organization also partnering with Google Cloud to deploy AI/ML in clinical settings, improve care for thousands of patients across New Jersey

October 20, 2021 – Edison, NJ & Sunnyvale, CA – Hackensack Meridian *Health* and Google today announced the two organizations are expanding their relationship to improve patient care. Hackensack Meridian *Health* recently migrated to Google Workspace and will be one of the first health systems in the world to use Chrome OS devices across clinical and business environments. In addition, Hackensack Meridian is partnering with Google Cloud to deploy artificial intelligence (AI) and machine learning (ML) in key clinical areas, such as screening and detection, to help transform the way healthcare is delivered to thousands of patients across New Jersey.

“Hackensack Meridian *Health* is always looking for new and innovative ways we can utilize technology to transform the patient experience,” says Robert C. Garrett, FACHE, CEO, Hackensack Meridian *Health*. “Through our collaboration with Google, we are enhancing patient care and improving health outcomes.”

Enabling collaboration and distributed care with Google Workspace and Chrome Enterprise

The pandemic changed the way society lives and works, and in response, Hackensack Meridian *Health* worked alongside Google to transform its healthcare organization. The hospital system chose to deploy a combination of Google Workspace and Chrome OS’ business-focused solution Chrome Enterprise -- which includes Chrome browser and Chrome OS devices such as Chromebooks and Chromeboxes -- for an integrated experience across clinical and operational settings. This combination simplifies tasks and facilitates seamless interactions between frontline workers, such as clinicians and care teams, office workers, administrators, and patients wherever they are.

Over the course of the last year, Hackensack Meridian *Health* effectively utilized Chrome Enterprise to empower approximately team members to work remotely by deploying 3,000 Chromebooks with Citrix and enabling secure access to core healthcare applications. This solution provides a consistent experience for team members and a secure environment that protects patient data. Chromebooks also helped physicians conduct visits from home or the office, which was critically important as the health system’s network experienced a significant increase in the number of telehealth visits—from approximately 8,600 in 2019 to nearly 200,000 in 2020.

Like many large integrated healthcare delivery systems, Hackensack Meridian *Health* has performed a number of mergers and acquisitions over the years. Chrome OS is making it much simpler to consolidate 11 different Active Directory forests into a single domain in coordination with the Chrome OS rollout, ensuring a smooth transition for team members.

“The COVID-19 crisis showed that our team members are true healthcare heroes,” added Mr. Garrett. “Google Chrome Enterprise will continue to allow our team members to work from home, collaborate seamlessly, and deliver convenient access to high quality care during challenging times, while keeping patients and team members secure.”

Deploying artificial intelligence and machine learning to improve care

Google Cloud and Hackensack Meridian *Health* are also partnering to deploy Google Cloud’s AI/ML offerings to aid physicians and care teams and allow them to provide better care, at scale, as well as to drive operational efficiencies. For example, they’ll work together to deploy AI/ML solutions to assist in screening and disease detection, such as:

- **Newborn Screenings** - Newborn Screening is a public health program that tests babies for congenital disorders. Hackensack Meridian *Health* is looking at ways to leverage AI/ML technologies like Natural Language Processing (NLP) and Optical Character Recognition (OCR) to put results in the provider's hand as soon as possible. This initiative allows providers to receive automatic notification of test results and expedite access to review the newborn patient's screening results and medical information.
- **Mammography Screenings** - A routine mammogram is one of the best ways to find breast cancer in women aged 50–74, and it is critical for patient outcomes to provide high accuracy in mammogram readings. Hackensack Meridian *Health* is looking to improve the accuracy of mammogram readings using AI to conduct secondary screenings, potentially catching issues undetected by a provider and improving overall quality.
- **Prostate Cancer Screenings** - Recent research has identified a wide variance in prostate cancer outcomes among male patients within different demographic groups. Hackensack Meridian *Health* is using AI/ML technologies to pinpoint and understand specific factors that influence this variance in patient outcome. AI/ML models can be built to predict patient outcomes and provide potential treatment paths.
- **Sepsis Detection** - According to the CDC, at least 1.7 million adults in the U.S. will develop sepsis this year and nearly 270,000 Americans die from it. Diagnosing a septic infection can be difficult, which is why Hackensack Meridian *Health* is looking to utilize AI/ML technologies to analyze patients' medical data and predict risk of infection in real-time.
- **COVID-19 Detection** - Hackensack Meridian *Health* is looking at ways to use NLP, an AI technology, to analyze the clinical notes of patients with COVID-19. The goal of this initiative is to better understand COVID-19 signs and symptoms, and how the disease progresses in patients.

Through this work, Hackensack Meridian *Health* is leveraging Google Cloud's secure, reliable foundation to protect data and facilitate secure collaboration. As is typical with use of cloud services, Hackensack Meridian *Health* controls access and use of its patient data.

"This partnership provides the opportunity to transform care for thousands of patients," says Thomas Kurian, CEO, Google Cloud. "We look forward to continuing our collaboration with the Hackensack Meridian *Health* team, as we further our joint efforts to develop innovative services that will push care to the next level."

"Google Cloud's AI and ML technologies are a new frontier in medicine," said Daniel W. Varga, M.D., chief physician executive, Hackensack Meridian *Health*. "Together, we will improve patient care, treatment precision and clinical outcomes of diseases, while increasing efficiencies that can help physicians devote more time to life-saving research and patient care."

ABOUT HACKENSACK MERIDIAN HEALTH

Hackensack Meridian *Health* is a leading not-for-profit healthcare organization that is the largest, most comprehensive and truly integrated health care network in New Jersey, offering a complete range of medical services, innovative research and life-enhancing care.

Hackensack Meridian *Health* comprises 17 hospitals from Bergen to Ocean counties, which includes four academic medical centers – Hackensack University Medical Center in Hackensack, Jersey Shore University Medical Center in Neptune, JFK University Medical Center in Edison and Ocean University Medical Center in Brick; two children's hospitals - Joseph M. Sanzari Children's Hospital in Hackensack, K. Hovnanian Children's Hospital in Neptune; eight community hospitals – Bayshore Medical Center in Holmdel, Mountainside Medical Center in Montclair, Palisades Medical Center in North Bergen, Pascack Valley Medical Center in Westwood, Raritan Bay Medical Center in Old Bridge, Raritan Bay Medical Center in Perth Amboy, Riverview Medical Center in Red Bank, and Southern Ocean Medical Center in Manahawkin; a behavioral health hospital – Carrier Clinic in Belle Mead; and two rehabilitation hospitals - JFK Johnson Rehabilitation Institute in Edison and Johnson Rehabilitation Institute in Brick.

Additionally, the network has more than 500 patient care locations throughout the state which include ambulatory care centers, surgery centers, home health services, long-term care and assisted living communities, ambulance services, lifesaving air medical transportation, fitness and wellness center, rehabilitation centers, urgent care centers and physician practice locations. Hackensack Meridian Health has more than 36,000 team members, and 7,000 physicians and is a distinguished leader in health care philanthropy, committed to the health and well-being of the communities it serves.

The network's notable distinctions include having more top-ranked hospitals than anyone in New Jersey, as recognized by *U.S. News & World Report*, 2021-22. Hackensack University Medical Center is the only hospital in New Jersey with the #1 adult and children's hospital rankings.

John Theurer Cancer Center at Hackensack University Medical Center is New Jersey's best cancer center, as recognized by *U.S. News & World Report*, 2021-22. This premier cancer center is also the largest and most

comprehensive center dedicated to the diagnosis, treatment, management, research, screenings, and preventive care as well as survivorship of patients with all types of cancers. John Theurer Cancer Center is part of Georgetown Lombardi Comprehensive Cancer Center, an NCI designated comprehensive cancer center.

Additionally, the network partnered with Memorial Sloan Kettering Cancer Center to ensure that patients have access to the highest quality, most individualized cancer care when and where they need it.

The Hackensack Meridian School of Medicine, the first private medical school in New Jersey in more than 50 years, welcomed its first class of students in 2018 to its campus in Nutley and Clifton. The Hackensack Meridian Center for Discovery and Innovation (CDI), housed in a fully renovated state-of-the-art facility, seeks to translate current innovations in science to improve clinical outcomes for patients with cancer, infectious diseases and other life-threatening and disabling conditions.

Hackensack Meridian *Health* is a member of AllSpire Health Partners, an interstate consortium of leading health systems, to focus on the sharing of best practices in clinical care and achieving efficiencies. To learn more, visit www.hackensackmeridianhealth.org.

ABOUT GOOGLE CLOUD

Google Cloud accelerates organizations' ability to digitally transform their business with the best infrastructure, platform, industry solutions and expertise. We deliver enterprise-grade solutions that leverage Google's cutting-edge technology – all on the cleanest cloud in the industry. Customers in more than 200 countries and territories turn to Google Cloud as their trusted partner to enable growth and solve their most critical business problems.

ABOUT CHROME ENTERPRISE

Chrome Enterprise is the business-focused solution for Chrome OS devices, Chrome browser, and Chrome OS. Chrome Enterprise offers cloud-first tools, integrations with third party products, and 24/7 support for IT administrators.

ABOUT GOOGLE WORKSPACE

Google Workspace enables teams of all sizes to connect, create and collaborate—to drive innovation from any device, and any location. Built on the industry's leading cloud-native communication and collaboration platform, Google Workspace brings together the apps loved by billions of people—Gmail, Chat, Calendar, Drive, Docs, Sheets, Meet and more—into a single integrated workspace.

<https://www.googlecloudpresscorner.com/2021-10-20-Hackensack-Meridian-Health-and-Google-Expand-Relationship-to-Improve-Patient-Care>