

## Inova Health System



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Steven Dean  
Director of Telehealth at Inova Health System



Inova Health System is a non-profit health organization based in Falls Church, Virginia, near Washington, D.C. The system is a network of hospitals, outpatient services, assisted living and long-term care facilities, and healthcare centers.

Inova Health System already had teleICU operations in place providing useful expertise in telemedicine. At the onset of COVID, the CIO, David Quirke, engaged early and directed that telehealth must be a focus to respond to the demands of the pandemic. The operations were led by Steven Dean as Director of Telehealth, Dr. Theresa Davis, Clinical Operations Director of TeleICU and Rachel Lewis as Senior Continuous Improvement specialist. The clinical effort was led by Drs. Neeta Goel, Maruf Haider, and Z Chris as CMO of Ambulatory Physicians, Chief Health Information Officer, and Telemedicine Medical Director respectively.

Inova moved rapidly and developed a robust infrastructure to achieve rapid telemedicine adoption at the start of the pandemic. To operationalize at scale, an all-hands-on-deck collaborative approach, strong support from senior leadership and physician engagement were key. A steering committee of physician leaders and champions across multiple specialties was formed at the very start of the pandemic to engage providers in regular discussions on

operational processes and potential barriers, improving overall buy-in and driving adoption. Several months into the pandemic, Inova had tremendously scaled efforts in inpatient areas, including expansion of its tele-ICU and standing up a bed management center. TeleICU applications were expanded to non-traditional applications including:

- *Sitters* - iPads were placed in isolation rooms to minimize the need to have providers enter rooms of COVID infected patients physically. Providers observed and visited the patient virtually through the iPad. This reduced infection exposure and the use of PPE.
- Pulse oximeter monitoring in the home using Masimo's home monitor and applying the rules of "Hospital to Home" and Chronic Disease Management (CDM)

Volume rapidly accelerated to 5,000 encounters per day.

Key services prior to the pandemic included TeleICU, which support all ICU operations at Inova and Tele-Behavioral Health/Crisis intervention. The program rapidly expanded to enable virtual patient encounters for all specialties with primary care, obstetrics, behavioral health and cardiology as the largest volume users in that order. Further expansion to a Command Center approach integrated bed management into the center.

Initially physicians used Epic MyChart to document encounters using whichever video platform was available to them (Zoom, Doxy.me, Doximity). Within a few weeks of

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the pandemic's onset, Inova implemented Epic's "context linking" integration of video into the MyChart session. This gave providers the ability to externally launch video services from within the EMR platform. Physicians are being converted over to this new standard technical approach (currently about 50/50).

### ■ Challenges/Barriers

- Balancing the government waivers permitting any conferencing solution with standardizing EMR workflow
- Supporting the overnight growth with service desk capabilities, access, and training
- Education and communication
- Rapidly creating and implementing non-traditional workflows
- Communication of rapidly changing protocols, workflows, and technology

### ■ Solutions/Advantages/Lessons Learned

- Provider acceptance proved less of an obstacle than assumed
- A focus on education and updates. Zoom calls attracted up to 500 providers per call and about 3500 physicians were trained
- There was limited resistance from providers. They did not want themselves or their staff exposed to COVID
- Creating an all-hands-on-deck collaborative approach early was critical
- Strong support from senior leadership and physician engagement were key
- A governance committee was implemented to shape the physician and care model concerns
- A steering committee of physician leaders and

champions across multiple specialties was formed at the very start of the pandemic to engage providers in regular discussions

- Automating dashboard reporting so everyone is viewing the same telehealth data

### ■ After COVID

- Telemedicine has now been brought to the forefront of care delivery and will become a bigger part of delivery operations
- Expected to average 30% of all visits to be virtual – this will be service line dependent driving variance among long term adoption
- Care model redesign is anticipated to incorporate telemedicine
- Expansion/growth of command center with remote monitoring of critical care, chronic care, triage, bed management, and transfer center
- Opportunities related to hospital to home and

*Note: This content is sourced from healthcare provider interview summaries developed for the National Pandemic Response Action Plan by the National Telehealth Technology Assessment Resource Center. For additional information, please visit: <https://telehealthtechnology.org/toolkit/project-background-and-summary/>*



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