electronic caregiver ®

# Electronic Caregiver, Inc.

_Electronic Caregiver: Rapidly Developing & Deploying an Innovative COVID-to-Home Program to Ensure Access to Care, Improve Patient Health & Prevent Community Spread_

## Electronic Caregiver

Electronic Caregiver ("ECG") is a private, for-profit digital health technology company headquartered in Las Cruces, New Mexico (U.S.) with a mission of creating the most intelligent platform to deliver value-based care. Founded in 2009, ECG has created a scalable, customizable telehealth platform to transform healthcare by presenting curated, actionable data to professionals in real-time. ECG's patented cloud-based Platform as a Service (PaaS) – Addison.care – accelerates the shift to value-based care by delivering better care, improved outcomes & resource optimization.

By mid-2020, ECG's team of 150 employees had partnered with leading providers and payors (Banner Health, BCBS, Honor, MD Revolution) across the country to design and deliver integrated, impactful remote patient management (RPM) and telehealth solutions. The evidence is clear that this technology improves outcomes, increases engagement, and results is better resource utilization. A 2018 study of 5,000 patients found a 47% decrease in emergency room (ER) visits by those using ECG technology. In addition, providers reported significant workflow efficiencies leading to increases in satisfaction among providers and professional caregivers. Such results are achieved through a telehealth platform that obtains a 90%+ daily engagement rate with patients.

Moving into 2021, ECG will build upon this foundation with the release of Addison – a virtual caregiver – which incorporates Intel's RealSense camera as well as an i5 Intel chipset. Addison represents the most sophisticated application of augmented reality technology in the field of aging services by providing continuity of caregiving and 24/7 engagement for patients and family members. The camera array enables unobtrusive, continual gait analysis for falls prevention and higher fidelity medication adherence monitoring while leveraging the visual sensor, AI, and ML algorithms to gain insights associated with visual signs of stress, lack of sleep, stroke, or Parkinson disease. Together, the insights from this data enables providers to dramatically improve the quality of care by proactively managing patient health and wellness.
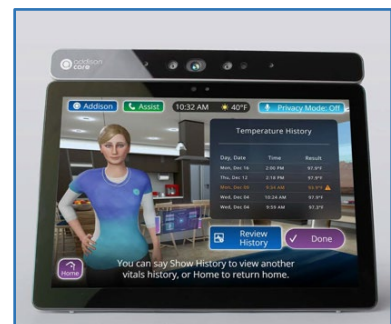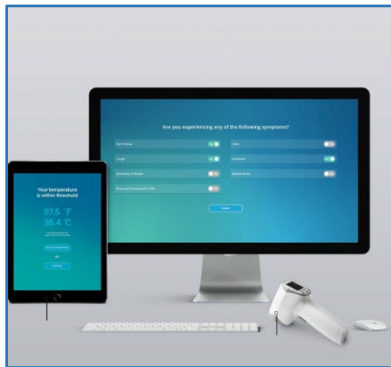
**COVID-19 Response**

In April 2020, as the COVID-19 epidemic began to spread across the globe, ECG was requested by the Paracelsus Medical University (Austria) and the World Health Organization to develop a COVID-19 risk assessment, contact tracing, and health monitoring solution. Leveraging the capabilities of the Addison.care platform, within eight weeks, the ECG design and development team progressed from capturing requirements to releasing two market-ready products: WallPass and Protector Initiative. These products were adopted at the university, across the Austrian Bundesliga (professional soccer league), and by the Red Bull performance athletes worldwide. With these results, in the summer of 2019 numerous local employers as well as New Mexico State University (NMSU) engaged with ECG to develop a solution which would enable individuals to be proactively monitored to determine risk to return to work, school or play. In a study with 96 ECG employees, study participants showed a 36% decrease in the likelihood of contracting coronavirus while no community-based spread was incurred within the workplace.

**COVID-to-Home Program**

Given these experiences, ECG was uniquely positioned to develop protocols to assess COVID-19 risks, monitor individual health monitoring, and provide real-time, actionable data to manage community spread.  Come November 2019, public health officials and health system leaders in Las Cruces turned to ECG to co-develop a COVID-to-Home program to address the spike of COVID-19 cases locally. As of November 1, 2020, ICU and hospital beds were at capacity in the region as community spread was surging. Moreover, being an impoverished, immigrant community – 67% non-Caucasian with 24% of the population reporting income below the poverty level prior to the economic impact of the pandemic – local public health officials feared that residents would not come in to receive care due to lack of insurance or the cost of care.

In response, ECG has partnered with regional public health stakeholders to develop and implement a no-cost, evidence-based model program - 'COVID-to-Home' - now in use at MountainView Regional Medical Center and Memorial Medical Center. The program participants are COVID-19 patients who normally would require hospital stays but capacity constraints prohibit this option. The goals are: (1) alleviate the capacity constraints at area hospitals, (2) make sure COVID-19 patients are receiving care support, and (3) prevent unintended spreading of the virus.

Under the program, patients are discharged to their home or to a hotel, with an Electronic Caregiver Pro Health smart health hub – a voice-driven, easy-to-use cellular-connected console. Through this device, patients receive a daily CDC risk assessment survey (in English or Spanish) while also providing vital signs input from a pulse oximeter, digital thermometer, and blood pressure cuff. Professional healthcare staff use a HIPAA-compliant secure web portal to assess patient results, triage patients and proactively provide care. In addition, Pro Health hub serves as a platform for patients to receive televisits with their care team and doctor, medication reminders, and 24/7 emergency response. The solution uses Intel technology in the workstations of the healthcare providers while also powering the Intel-based AWS servers used for data storage, analysis, ML, and hosting ECG's cloud-based backend Addison.care platform.

**Outcomes – Improving Care & Safeguarding the Community**

In response to the urgent community need, stakeholders from across Doña Ana County convened. This unprecedented community collaboration resulted in the virtual care protocol being developed, staff trained, equipment procured, and technology deployed within two weeks. The first patient was enrolled on November 23, 2020. Within a week, providers saw the benefits of the program and authorized additional enrollment. Within a month, over 100 patients were enrolled and were receiving care through the COVID-to-Home program (as of December 21, 2020).

| ECG COVID-to-Home Program | |
|---|---|
| Setting/Provider | Program Participants (as of Dec. 21, 2020) |
| Memorial –> home | 55 |
| MountainView –> home | 40 |
| Hospital –> hotel | 8 |
| Total | 103 |

Beyond the critically important benefits to the individuals involved in the program, the benefits to the health system are significant. As noted in *Health Affairs*, the average daily cost of an inpatient hospital stay in the US exceeded $1,800 in 2019 with the inpatient cost of a single COVID patient being $14,366. As such, without the COVID-to-Home program, the cost to Doña Ana County to treat these 100 individuals would have exceeded $1.4 million. By contrast, the all-in cost of the COVID-to-Home program is

$300 monthly. Not only are these cost differences staggering, but by treating people at home or in a dedicated hotel setting, the COVID-to-Home program has increased local bed capacity by 30%.

In addition to the benefits previously highlighted – capacity expansion, proactive monitoring, prevention of community spread – implementation of the COVID-to-Home program not only minimized staff exposure but also resulted in workflow efficiencies for the providers.

Due to the results delivered, the partners have committed to expand the program throughout the winter to ensure that all members of the community have access to care and to prevent unmitigated spread of the coronavirus.

Together, we continue to demonstrate the value of remote patient monitoring and telehealth to improve patient care and enhance community health in response to the COVID-19 pandemic. The protocols and interventions developed are available to assist any community, anywhere. Electronic Caregiver's technologies – powered by Intel and deployed by community partners – make a difference.