

Easy to Use, Icon-based Population Health Management System for the Home Healthcare Industry that provides Real-Time Actionable Information Enabling Early Interventions and Lowers Healthcare Costs



Robert M. Herzog
CEO and Founder
eCaring

CEOCFO: *Mr. Herzog, the tagline on your site is, "Revolutionizing Home Health Care Through Real-Time Data." How is eCaring doing that?*

Mr. Herzog: We help people live longer and better in their homes. We are able to do that because we have invented a unique system that enables homecare workers, patients and caregivers, regardless of their computer skills or English literacy, to enter enormous amounts of information about their critical behaviors and activities, physical and mental state, medication adherence, vital signs, plan of care, from the home in real-time. That actionable data is then transmitted to care managers, family members, or whoever is responsible for the care of the patient. This allows for early interventions at any stage of the patient's care. Those early interventions help people in their homes stay at home longer, if they go to the hospital their length of stay is shorter and when they leave the hospital they have to return to the hospital less frequently.

CEOCFO: *How have you made it simple so that just about anyone can easily input the information?*

Mr. Herzog: We invented an icon based language that uses symbols so that a homecare worker, or caregiver, regardless of whether English is their first or second language, or whether they have ever used a computer before, can enter all of this information in real-time. We have partnered with Samsung and Verizon, so that many of the homes that we work with are low income Medicaid, Medicare, who are also the beneficiaries. They do not have internet or broadband in the home, wireless or Bluetooth. However, because of these partnerships, we are able to put a Tablet in the home and give them a cellular data connection. This enables the homecare worker in the home to enter all of this information that in real-time is transmitted into the cloud to our Care Manager System, so that people involved with care management will be alerted to situations that require immediate attention or trends would indicate that a patient is having some type of trouble.

CEOCFO: *How do you create icons that everyone recognizes?*

Mr. Herzog: We work with artists and designers. We go through multiple iterations or various kinds of icons, and some are straight forward and some are a bit more complex. For example, how do you share that someone has a fever or is going through diarrhea. We try the icons and test them to see if people respond to them and how. Then we change them if we need to, but by-and-large all of the icons that we have right now are really universal in terms of the way that they are recognized by people. We also so provide help text, so every icon is accompanied underneath the icon, by text indicates that someone did something such as refused a beverage, was depressed or was sad, or had a skin breakdown. All of these things have help text, and the help text is in the native language of the user. We offer the help text in Spanish, Russian, French, Chinese and Tagalog, and Portuguese as well as English. It is also easy to add more. Therefore, it is a double process of first iterating the icons to make sure that they are easily recognizable by everyone, and then second, providing the extra boost of the help text in the native tongue of the user.

CEOCFO: *Who decides what icons are on the tablet?*

Mr. Herzog: We have this tremendous menu of icons and we work with our clients, which can be an insurance company or a health plan, a homecare agency or a hospital. They select those icons that they want to have as part of the client appear that is viewed by the caregiver in the home. They also in turn select an established alert, so notifications based on their criteria for how often someone is confused or whether or not they have blood in their stool, or whether or not they are

constipated, refusing to drink beverages, or experiencing pain at a certain level. They establish a population template for both the information that they are gathering and the alerts and notifications that are connected to that information. They then have evidence basis for making decisions in regard to when and how to intervene with their patients. For example, an Aid enters clicks on the “Confused” icon on the screen, which is one of the icons for mental state. By clicking on the “Confused” icon it triggers an alert. Normally that patient would go to the hospital very quickly, because they may be upset about something. Instead, when the Aid enters confused with the Care Tracker, which is our software in the home, at that point that was an alert that immediately went out and was seen by a Care Manager, who will get the alert via text message or email. The Care Manager will respond immediately into the home to assess the situation to see if a visiting nurse can be used instead of a trip to the hospital. The nurse may go in and determine that they patient has a urinary tract infection, which is very common amongst elderly people. Then they are able to get antibiotics delivered into the home, and within two days the patient would be completely stable. In doing this we will avoid a \$15,000 hospital visit. What we have done is transformed the home from a black-box where there is no information going in and out, into a data rich environment, where there is a tremendous flow of information back-and-forth, between the care giver, the care work, the patient in the home and the care managers who are accountable, and responsible for taking care of them. With that real-time capability we are able to enable these interventions that keep people in their homes longer.

CEOCFO: How does this play into concerns over healthcare costs?

Mr. Herzog: What is important to understand is there is a tectonic shift that is taking place in the nature of payment programs within healthcare. There is a tremendous movement away from the old “fee for service” in which, someone just gets paid for doing something, to different alternative payment models in which a company or health plan might get paid a single fixed or capitated rate for the total cost relating to that patient. Suddenly, instead of getting paid for everything they do, they have to live within the ceiling, because if they do not the ceiling will come crashing down on them. This is true for health plans that exist in these capitated rate programs, it is true for hospitals, who now face penalties for excessively high readmission rate or they are under a bundle payment for providing a procedure plus all costs 90 days post the procedure. Therefore, it is a really different world for these people. They have value-based payments for healthcare plans where performance and outcomes matter. Then they get reimbursed and receive referrals based on how well or how poorly they are doing. These organizations are in flux as they become confronted with many of these new challenges.

“We help people live longer and better in their homes. We are able to do that because we have invented a unique system that enables homecare workers, patients and caregivers, regardless of their computer skills or English literacy, to enter enormous amounts of information about their critical behaviors and activities, physical and mental state, medication adherence, vital signs, plan of care, from the home in real-time.”- Robert M. Herzog

CEOCFO: How do you get the word out to organizations that might need your solution?

Mr. Herzog: There are some people that we have had a relationship with. In addition, we do our own sales for outreach, and we let people know that we have an answer to this problem. The answer to this problem is, in order to do better care management we now need to have much greater information and insight into what is happening in the patient’s home. That is a problem that is growing, because of those payment schemes that are changing and because the demographics are increasing the number of people at risk. What eCaring has done is transformed the home, because for the first time you are able to get real-time information that is being entered by a human being. In the past it was inaccessible, unstructured data from humans that is now being converted into usable data that can be used for care management. It is an education process, because most people at organizations are not aware that they can even get this data, so they have not planned around it. Therefore, we need to inform them of the data, show them how to get it and show them how other organizations have used it successfully. With that, we design a customized plan of care, for the care management organization, so that they can monitor, respond and develop protocols for the items for which they care. That can be a general care plan or it can be specific around for example congestive heart failure (CHF) for hospitals concerned with coming back in after they have been discharged for CHF. It can also be around bundle payment for comprehensive joint replacement.

CEOCFO: Do most organization start with one or two areas that they want to cover or would they engage with you on a whole range of conditions?

Mr. Herzog: Generally it is multiple conditions, with COPD, diabetes, and CHF being the leading ones. It also depends on the frequency of utilization. If the patients have a history of high use in the emergency room, the heavy utilizers will be people that we are also concerned about. When we work with the dual eligible population, the Medicare/Medicaid recipients, there is historically such a frequent use in the hospital and emergency room. The home is more like a revolving door, in and out of the hospital. Even with a random sample of those patients who have a whole host of conditions and co-morbidities, we have very good success in reducing hospital use, readmissions and emergency room visits.

CEOFCO: *How big a burden on the healthcare system are the heavy utilizers of emergency room services?*

Mr. Herzog: The United States has a \$3 trillion healthcare economy, but the fact is if you ask any insurance company or any plan, they will tell you that 10% to 20% of their patients cost these 70% to 80% of their costs. Those heavy utilizers do not even have access to the full range of healthcare services that other people enjoy. They are underserved and beleaguered in their ability to get good access to care. Therefore, they use the emergency room often, as their primary care provider. There are 9 million Medicaid/Medicare recipients in the United States, who cost \$320 billion a year. There are 27 million with 4 or more chronic conditions that are Medicaid/Medicare beneficiaries. These are huge markets because these are the costliest people in the system. It is not always obvious, especially when you are in the middle of something. If a patient is constipated for several days with severe pain, they are going to go to the emergency room. Instead, with the eCaring system it triggers an alert, which goes to the Care Manager, who sends stool softener into the home and meds, and the problem goes away. We do this every day, which is a nice feeling as a company, as it impacts the quality of life for these people, and it also reduces healthcare costs.

CEOFCO: *Are you involved in the implementation phase?*

Mr. Herzog: Yes, we have trained thousands of homecare workers. We generally work with the home health agency. We train the trainer in the agency, who then trains the homecare aids. We will then work with the care management organization, which maybe the insurance company or the health plan, or the hospital with regard understanding how to do care management using our system. Therefore, we have very extensive protocols for engaging. What will happen is when a patient is discharged from a hospital or gets an order for long-term care; the agency will have an Aid trained in using eCaring. The Aid will get the Tablet and go to the home of the patient either when the patient is discharged or shortly thereafter, or when they get their long-term care requirement. The Tablet will stay in the home of the patient where it is setup, and the Aid will simply start entering information into the Tablet. We generate a great deal of information, generally between 500 and 1,000 data points per member, per month. It is a whole host of critical elements and conditions in their lives. Our algorithm filters that to roughly between 2 and 3 alerts per patient, per month. Therefore, it is very manageable for the Care Manager and it is very important, because you need to fit into the workflow of the Care Managers, so that their lives become easier and not more difficult with the system that they are using.

CEOFCO: *What was easier than what you envisioned and harder than you thought in getting eCaring off the ground?*

Mr. Herzog: This came out of a personal experience for me, when my mother who worked until she was 79 years old, retired, had a few good years, and then started requiring homecare. The way that homecare was recorded back then was on a sheet of paper, kept by the Aid whenever they bathed her. Once or twice a week it would go into the agency and it was used for billing and reimbursement. It was useless for intervention or prescriptive purposes. I realized that other people were going through the same thing and asked how we could upgrade this, and the first option was a computer relying on Microsoft Word and Google. However, I did not think that would work. Therefore, I suggested developing a language of symbols for the homecare worker, and we got that right very early on, years ago, and it has sustained itself as being a unique, vital and incredibly useful, robust environment in which homecare workers can enter information, regardless of their skills or language. It worked from the start and it has continued to evolve in a way that is very positive. What was harder was that I thought that everyone was like me, a son child willing to spend hours dealing with the care of their family member. Not everyone can do that. Then, with the change from fee for service, to fixed rates, bundled payments, value based payment, it is an industry that is in flux, and what was harder than we expected was to be able to understand and fit into the workflow of the Care Manager. That is where the rubber meets the road, and that is where we have evolved in the last couple of years, in our knowhow and understanding of working with Care Managers across the continuum of care in order to make their jobs more productive and effective. That was harder than I expected.

Interview conducted by: Lynn Fosse, Senior Editor, CEOFCO Magazine



**For more information visit:
www.ecaring.com**

**Contact:
Kathleen Osborne
Senior Account Executive at
King+Company PR
212-561-7472
Kathleen.osborne@kingcompr.com**