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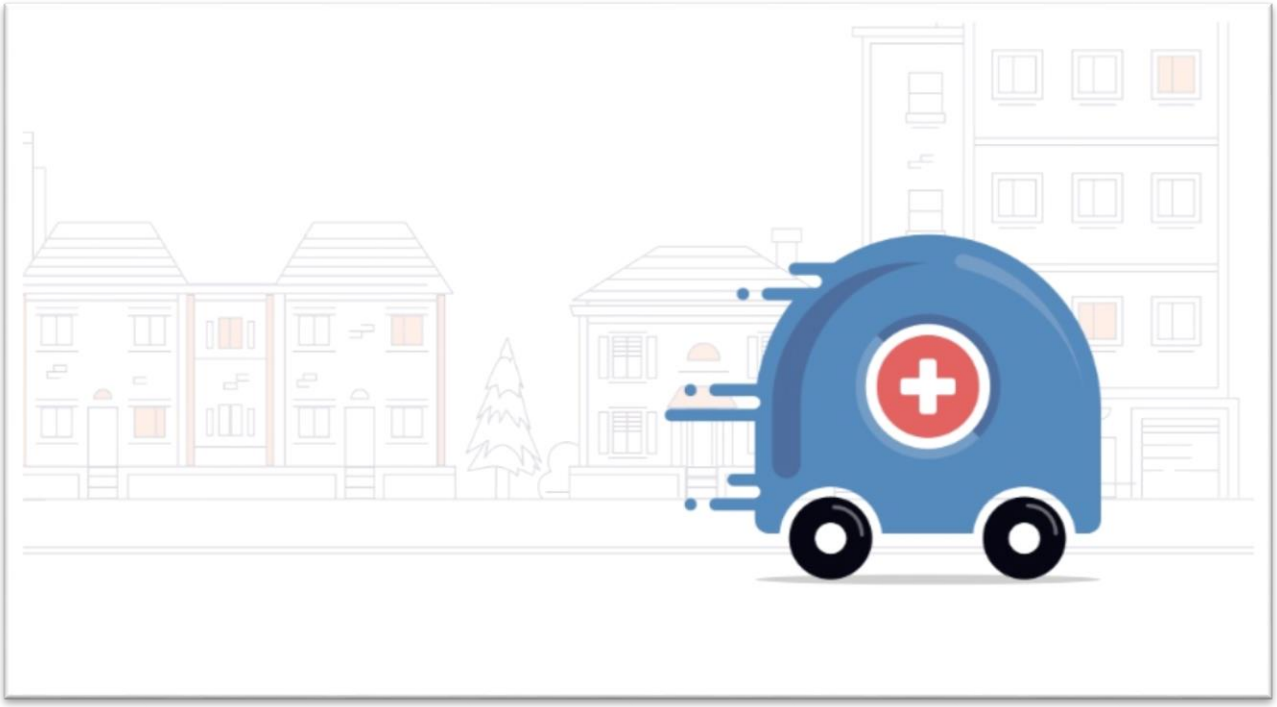
DispatchHealth

Disrupting Emergency Medicine

Interview with Dr. Mark Prather and Kevin Riddleberger



By Jean Galiana

ACCESS Health International

Denver, Colorado February 2016

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no matter what their age, have a right to access
high quality and affordable healthcare.

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Elder and Long Term Care
An ACCESS Health International Program Area

Background

The transition from fee for service to value based reimbursement arrangements has inspired many creative healthcare innovations. Denver, Colorado based DispatchHealth is one such innovation. DispatchHealth began in 2013 as True North Health Navigation. The founders are veteran healthcare leaders whose goal was to develop a clinical delivery model of convenient, accessible, patient centered acute care. The organizational vision was to redefine healthcare by incorporating technology, convenience, and service into an acute care delivery model. The model is designed to integrate into existing healthcare systems.

DispatchHealth partners with healthcare organizations across the continuum of care. Their partners include 911 emergency medical services, health systems and hospitals, retirement communities, senior care communities, home health agencies, primary and specialty care groups, employers, insurance providers, and nurse advice lines. These partnerships improve access, quality, and patient experience of acute care, at a fraction of the cost.

In this interview, Mark Prather and Kevin Riddleberger discuss the DispatchHealth model of acute care delivery.

About Mark Prather

Dr. Mark Prather is the Chief Executive Officer of DispatchHealth. He has over twenty years of experience as a board certified emergency medicine specialist. He has managed large provider groups and most recently served as managing partner for an outsourced emergency and pediatric staffing group in Denver, Colorado. He has been involved in multiple medical industry startups including iTriage, where he served as medical director.

Dr. Prather completed his undergraduate studies at Vanderbilt University. He attended medical school at the University of California at Los Angeles where he graduated Alpha Omega Alpha. He completed his residency training in emergency medicine at Denver Health where he served as Chief Resident. He obtained his MBA from the University of Colorado.

About Kevin Riddleberger

Kevin Riddleberger is the Chief Strategy Officer for DispatchHealth. He has nearly fifteen years of experience in the healthcare industry as a clinician and executive. He was head of clinical solutions and strategy at the consumer mobile health app iTriage prior to cofounding DispatchHealth. He has been a board certified physician assistant for over a decade. He has served as a clinical preceptor for area physician assistant students, served on numerous boards and committees including quality improvement committees, emergency medical records deployment committees as a provider “champion,” and served as president of the Colorado Academy of Physician Assistants. He also provides business and clinical expertise to the healthcare industry startup community in Denver, Colorado.

Riddleberger received his undergraduate degree from the State University of New York at Plattsburgh. He received a Master of Science Degree from the Rosalind Franklin University of Medicine and Science in Chicago and an MBA with a concentration in healthcare administration from the University of Colorado at Denver.

Interview

Jean Galiana (JG): Please tell me about the leadership of DispatchHealth.

Mark Prather (MP): I am Mark Prather. I am the chief executive officer. Kevin is our chief strategy officer. We are the cofounders of DispatchHealth. I am an emergency room doctor by training. I have worked in the field for over twenty five years. Before being an emergency room doctor, I managed a large outsourced emergency room physician group. I also worked for a mobile health company called iTriage. Many of the employees of DispatchHealth were formerly employed by iTriage. DispatchHealth is the culmination of my training and desire to provide an alternative to visiting the hospital emergency room or urgent care center that is technology enabled, consumer centric, and more convenient for the patient.

Kevin Riddleberger (KR): After being a physician assistant for just over ten years, I decided to obtain further training in the business side of healthcare. I had the goal of helping to fix the way that medicine is delivered, including improving patient access to care and coordinating care throughout the continuum. I had a strong interest in how technology can enable that goal. That interest led me to taking a position with iTriage. iTriage was a Denver based, consumer facing mobile app startup. The app guides people to make better decisions about the appropriate level of care. That experience highlighted the patient engagement piece of the puzzle for me. iTriage was eventually purchased by Aetna and is now part of the Aetna family of consumer facing products.

We have former iTriage individuals on the technology side of DispatchHealth. Our board chairman, Dr. Pete Hudson, is one of the founders of iTriage. We also have many team members with a vast amount of clinical experience. Our vice president of operations, Andy Wagner, is an emergency room doctor. Andy was formerly the chief medical officer of Statdoctors, a telemedicine company that was bought out by Teladoc. Teladoc is one of the first, or is the first, telemedicine companies to go public. Our medical doctor, Dr. Phil Mitchell, an emergency room doctor, has been involved in clinical medicine for over twenty years as well.

JG: Do you also have nurses and other clinical caregivers on your team?

KR: Yes. The team is comprised of half technologists and half clinicians. The clinicians include doctors, mid level providers including physician assistants and nurse practitioners, and emergency medicine technicians. Our model of care

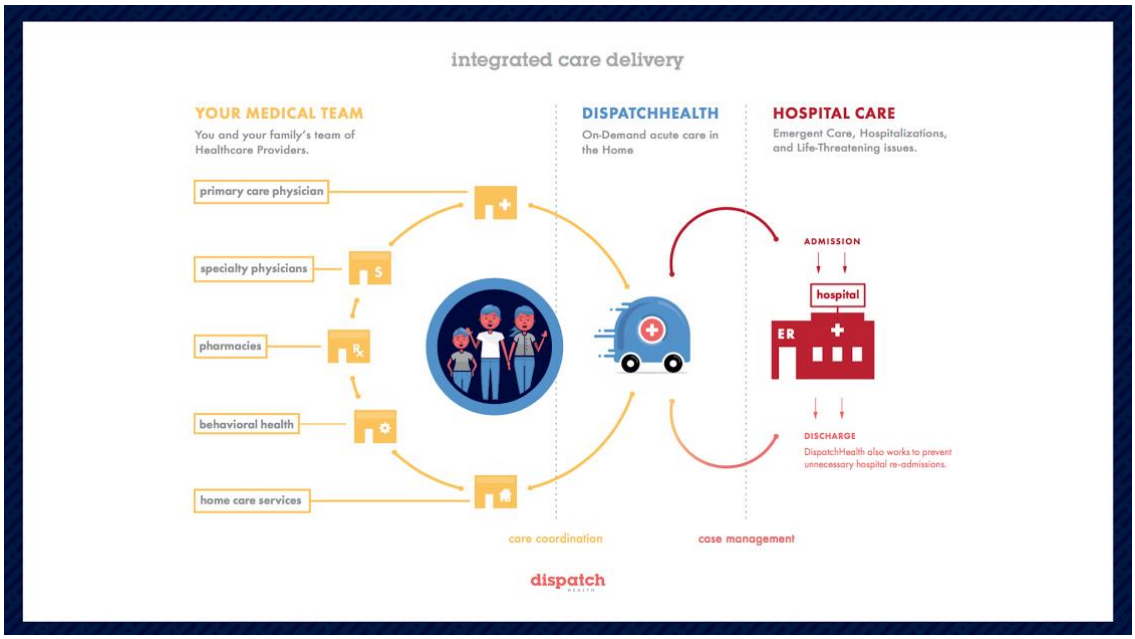
includes an emergency department trained virtual doctor who is always available. A nurse practitioner, physician assistant, and emergency medicine technicians travel in our vehicles to treat patients in a variety of settings.

JG: How does your program work?

MP: We have several access points. We started in the 911 system and are still there today. We are cobranded with the fire department. When a 911 call comes in, there is a triage process that occurs. If the call is determined to be low acuity, our vehicle is dispatched. Our provider and the fire department paramedic make the decision in tandem. When appropriate, we treat and release the patients on scene. That is one mechanism.

There are several ways to reach us in the private channel. The traditional phone call works. If a senior care facility has a resident who needs assistance, they can pick up the phone and talk to us right away. We would prefer that the majority of commercial consumers access us through our app or our website. That way, the patient is instantly geolocated. The client enters his or her chief complaints, verifies their address, and then receives a call from the care team to do the first level of triage. In this call, we determine whether it is appropriate for us to see them. If we decide to go to the person, they will see through the app or the website that the care team is on the way.

The initial phone interview becomes a technology triage also. Throughout the country, there are health information exchanges. There are other sources of data as well. If I know something about someone before they even call me, that can help me determine whether it is appropriate for us to treat them. In some cases, we might decide that we can talk through the health issue and that person can wait to see their doctor the next day. That patient would not incur any cost.



JG: How do you obtain access to the health information exchange?

MP: It varies state by state. Once we have established a provider patient relationship, we have access to the health information exchange data source. Through the health information exchange, we are able to learn what medications a person is taking and their health history. If a patient has a nosebleed, we would like to know whether he or she is taking a blood thinner. Access to the health information enables us to deliver the safest care possible.

KR: The health information exchange also allows us to be part of the follow up care. We access medical records to make appropriate decisions during the acute events. Post visit, we track those individuals to determine whether they bounced back to the emergency department or the hospital for the same or related complaints. We follow our patients for thirty days through the health information exchange. Tracking the bounce back rate enables us to have accurate outcome measures. A bounce back occurs when a patient is released from the emergency department or acute care clinic and returns to either setting for the same health concern within thirty days.

MP: These measures show us that we are making a difference in the health system. The system, as it is today, is not outcome based. That is starting to change because of the shift toward value based medicine and shared risks. This enables the clinical team to look across systems. For example, after I discharged a patient from the emergency room, how often did they end up back in an

emergency room for the same issue? The statistic is one in five patients, representing a twenty percent bounce back rate. We have held our bounce back rate to approximately five percent. We are able to achieve that rate by using other tools and interventions that we perform on scene that I will describe in more detail later in our conversation. Our goal is to produce outcome based medicine not more medicine.

JG: If you follow up with the records on the health information exchange and you see one of your patients has been readmitted for the same condition, what do you do?

MP: We always follow up at three days and sometimes longer, depending on the patient. We are deeply integrated into the hospital system and into several large primary care groups who are taking risks. We examine every case of readmission, to determine what went wrong. If there is a continued medical issue that needs to be addressed, we contact their primary care doctor and hand the patient back for care after three days. We will examine where we, together, may have made a mistake. In certain situations, it is unavoidable. Sometimes it is our fault and then we learn from that case. Our internal culture is ingrained, with continued process and performance improvement.

JG: When you visit a patient, does that treatment information go to their primary care doctor or specialist or others on the patient's care team?

MP: The information is transferred in real time from the location of the treatment.

JG: Does information go back and forth in real time from both you to their doctor and their doctor to you?

MP: Yes. If we are going to create a better system, we need to eliminate redundant care. We do not need more care. We need more integrated care. When I started DispatchHealth, I contacted providers and said, "I am planning to do the emergency care that I have always done for you. You historically send your patients to see me in the emergency room. Why not send me to them and realize better outcomes at less cost?" We are aligned and on the same team in terms of much of our payer compensations. Providers are shifting away from fee for service to value based payments. Many large primary care groups are taking complete risk for patients, meaning they are getting a set amount of reimbursement annually for a patient. If they spent more on the patient, they lose

money. If they spend less, then they make money. A service like ours integrates well within the new reimbursement landscape.

KR: We are an additional tool for physicians, whether it be a primary care physician or specialist, for managing their patient population. If they are more efficient and meet established quality outcome benchmarks, they are more profitable. When we are on the scene of one of their patients, we are communicating with those providers to understand the patient's current care plan, describe the acute health need to the physician, and determine what our current care plan will be. From the clinical notes perspective, we discuss current state and future state. In the current state, we fax all of our notes to the primary care team as soon as we see the patient. We are also bundling our clinical notes into what is called a Health Level Seven structure. This enables us to share patient information in a more structured and efficient way. That is easier said than done at this time. Most provider practices do not yet have the capability to absorb the Health Level Seven feed in their electronic medical record system. The goal of bundling this data is to achieve data interoperability, which aids the coordination of care delivery.

In the state of Colorado, the health information exchange is sharing real time patient information with the primary care doctors. When someone enters the emergency department, the primary care doctor is alerted. That is happening today. We are now sending our notes to that health information exchange so the primary care providers are alerted that DispatchHealth clinicians are seeing their patient.

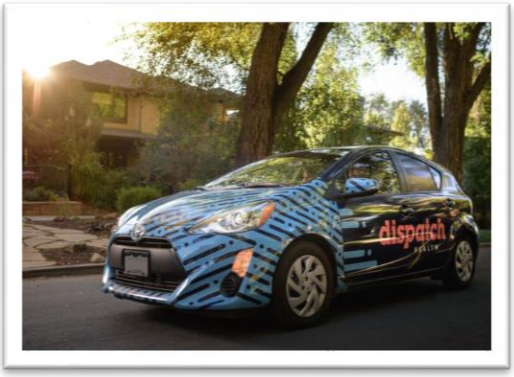
JG: What are your hours of operation?

KR: Our hours of operation are 9:00 am to 9:00 pm. We recently expanded the hours of operation for three days a week from 8:00 am to 10:00 pm.

JG: If someone has an emergency after those hours, a traditional ambulance is dispatched?

MP: Yes. We do not foresee DispatchHealth extending to all night care. The 2:00 am emergencies probably should go to the emergency room. Often, in the late hours, you will find patients with a combination of drug and alcohol poisoning. That type of emergency is not appropriate for us. I was an emergency room doctor and am familiar with late night and early morning emergencies.

JG: In what other ways do you differ from a traditional ambulance model?



MP: We never pick someone up and take them to a different location. We started to work in the ambulance or the 911 system simply because we saw a need. One in five patients who are transported to the hospital do not need to go to the hospital. We saw an opportunity to take the emergency room into the field. We do not think of ourselves as an ambulance. We have more advanced treatment capabilities, such as administering IV medications, IV fluids, repairing lacerations, splinting, performing urinary catheterization, and replacing feeding tubes. We have partnered with low cost outpatient imaging to provide imaging when needed. We have the first mobile lab that has been certified by the Clinical Laboratory Improvement Amendments by the Centers for Medicare and Medicaid Services. We have the ability to perform laboratory tests in any setting we serve. We are an evolutionary extension of the emergency room.

JG: How much of your service is medication compliance, chronic care management, and how much is urgent care?

MP: Our service is all acute episodic care. We do not provide chronic care management. We do recognize that there is an opportunity to restratify individuals from a patient population and to reach out more proactively. It could be useful to systems or primary care groups who are taking on risk with populations. Someone could manage chronic care and then coordinate that care back to the primary care provider. We do not provide chronic care management.

KR: We document impediments to care for each patient we visit. The value of being in an individual's home versus seeing the patient in an office or hospital setting is the ability to learn about their living situation. Are they at a risk for falls where they are living? Do they have ten cats and five dogs running around and they continue to experience pulmonary issues? Do they have their medications all over their kitchen counter in a way that would lead them to medication noncompliance? Is there food in the house? There was a study published that found that more than one half of the cognitively intact, non critically ill elderly in the emergency department suffer from or are at risk of malnutrition. We document any issues we find and send that information back to the primary care

physician. This gives the physician more insight that enables the physician to connect that patient with the proper supportive resources to achieve improved health status.

MP: Documenting impediments to care is a new level of care coordination. The doctors can have more informed discussions with the patient. The doctor can also align the patient with social services, for food, home modifications, pill dispensers, and interventions for other identified issues.

JG: How do you deliver work compensation care?

MP: Providers perform work compensation care in the emergency room and urgent care all day, every day. This was a service we were asked to provide. Employers said, "We would prefer that the work compensation care does not take place in the emergency room after hours, when occupational medical offices are closed. Could you be that alternative for us?" When an injured worker cuts his or her finger in the kitchen, where do they go for help at eight o'clock? You could send them over to the emergency room. The emergency room doctor may or may not be well versed in occupational medicines. He may or may not fill out the forms properly. Four days later, the patient will be seen in a work compensation clinic. In the meantime, the employer has indemnity payments, meaning the employer is responsible to pay for lost employee wages. We could have sewn that finger up and gotten the employee back to work the next day. Employers love us because we provide an initial on site visit and quick treatment. The employee gets back to work sooner. This results in cost savings for the employer.

JG: What geographic areas are you currently serving?

MP: We serve the Denver Metro area. That includes the entirety of the Denver market except a small area to the north. Over the course of the summer, we will be expanding north, to Boulder. For our model of service running in Colorado, we need a higher population density. There are only two other large Colorado cities that we are considering moving to: Colorado Springs and Fort Collins. We are also in a capital raise, to expand into two new additional markets. Hopefully, that expansion will occur within the next nine months.

JG: What is the general demographic of the patients you serve?

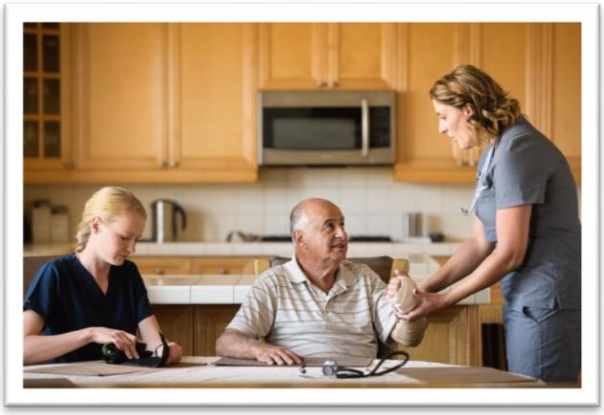
MP: Approximately one half of the patients we serve are seniors who are insured by Medicare and Medicaid. The other half of our clientele uses our service

because of the convenience and the cost savings. Those patients are usually not seniors and are insured by self insured and fully insured employers.

KR: DispatchHealth is a member benefit of Anthem, United Healthcare, Cigna, Humana, Aetna, and others. Insurers realize much lower costs, and patients have easy access to care.

MP: Most employers have at least some issue with low acuity emergency room usage.

JG: Please share more details of how you care for the elderly.



KR: Our advance treatment capabilities are especially useful to the elderly. The elderly are more frail and often have multiple chronic conditions. Our high level of care is great value for senior communities and skilled nursing facilities.

MP: When we were envisioning DispatchHealth in the early days, we had the senior population in mind. There are many seniors who go to the emergency room simply because they feel weak. That senior could have a serious ailment, like a bleeding stomach ulcer or dehydration. In that case, the patient would need laboratory capability to provide intravenous fluid, intravenous antibiotics, or intravenous antiemetics. We have the capability to perform intravenous procedures in the home setting. We are well versed in complex lacerations and nosebleeds. Nosebleeds sound simple, but they can be problematic. In some instances nosebleeds can only be stopped with cautery and packing. We have a higher level of clinical capability than most urgent care centers. We have made over fifteen hundred acute care home visits to seniors. These individuals would have gone to the emergency room if they did not have the option to be treated at home. The cost savings of these fifteen hundred visits is estimated to be nearly two million dollars.

Our high level of care is great value for senior communities and skilled nursing facilities. Possibly you read our white paper describing our on demand care to

seniors in their homes and retirement communities.[1] Our advance treatment capabilities are especially useful to the elderly who are more frail and often have multiple chronic conditions.

JG: What other technology do you use?

MP: We will soon be using portable ultrasound equipment. The technology is so small that the probe will fit into an iPad or a tablet. This enables us to view a high quality ultrasound in all settings. We plan to expand our scope further as technology evolves. Xray equipment is still a bit too large, but I think that soon there will be a portable version suitable for our use.

MP: One of the strategic advantages of our organization is that we are not only a healthcare delivery service. We are also a health information technology company. We internally develop software to benefit our providers and our patients. We built queuing software. It will show the user which people are waiting for care, what resource is closest to that person, and determine the most appropriate vehicle to send for each clinical situation. We are also in the process of building a chief complaint or condition based queuing piece to the software. If, in the queue, we have a six year old with an earache and a ninety year old who is vomiting, our software will determine which patient should be seen first based on the acuity of care required.

KR: Our technology facilitates a better experience for our providers, our patients, and our clinical providers. We use an outside electronic medical record system to document clinical encounters. We also customize other documentation tools. We are building technology for our end user as well as for our providers. This way, we are controlling our own growth destiny, and are not limited by the existing electronic medical record and its capabilities.

JG: Since you began in 2013, how many responses have you made?

KR: We have seen nearly fifteen hundred patients since 2013. We are now expanding rapidly. In August 2015, we put our private vehicles on the road in conjunction with the 911 system. We have served over one thousand patients in the seven months following.

[1] https://www.dispatchhealth.com/download-white-paper

MP: When we began using our own trucks in 2013, DispatchHealth was still in the proof of concept stage. We wanted to make sure that the medicine was sound, no one was getting hurt, and we were achieving the outcomes that we expected. We were only operating from 8:00 am until 5:00 pm, Monday through Thursday.

KR: At that point, we were simply collecting data, perfecting the medicine, working with payers, and refining our model.

JG: What types of organizations do you have service arrangements with?

KR: We work with a number of different entities across a continuum of care. We mentioned the 911 system that we continue to operate through. We have established a relationship with Centura Health, the largest health system in Colorado. We work with primary care groups, specialty groups, home health providers and adjunct to home health at senior communities, independent living and assisted living communities, hospice and skilled nursing facilities, and employers.

JG: How do you envision home based care in the future?

MP: Home based care is growing and will continue to do so. Providers of Home Based Primary Care, Hospital at Home, and acute care in the home or work setting are indispensable in creating a sustainable and effective care ecosystem. These programs address much of the care continuum. Thirty to forty percent of what used to be done in the hospital can be done in the home, for a fraction of the cost.

JG: How do you measure outcomes?

MP: Data is important to us. We build our own software so everything is data structured. We track the request for care, the speed of the provider response, the time of arrival at the patient's home, and what is ordered and performed in the electronic medical record. That is all system structured data. We have a place in our software where data is housed. We have an analytics tool for formulating a variety of reports. We also track bounce back outcomes, as we mentioned earlier, and compare our outcomes with national average. The national average of a person returning to the emergency department to treat the same care need within thirty days is twenty percent. We are significantly lower than twenty percent. Our average is six.

KR: Many health systems now are dealing with bundled payment care niches due to the Bundle Payments for Care Improvement Initiative (BPCI) of the Centers for Medicare and Medicaid. We measure our impact to prove that we are reducing the readmission and bounce back rates of the providers with whom we work.
We also look for adverse events. We look for deviations from clinical protocol. We measure patient satisfaction with the net promoter score. We are beginning to use the net promoter score for our employees and our partners also. At this time, our net promoter score with our patients ranges from approximately ninety three to ninety five, which is not bad if you have ever looked at net promoter scores. The average industry net promoter score is thirty. Apple is seventy. We must be doing something right, at least for now.

JG: How are you reimbursed?

MP: We are reimbursed in the traditional way, including Medicare, Medicaid, and private insurers. The payer is either an insurance company or the payer is a risk bearing entity.

KR: Health systems can be a risk bearing entity. Large primary care groups can be risk bearing. Even an employer who is self insured could be a risk bearing entity.

KR: The challenge in the industry today is how to define the payer. Five or ten years ago, it was clear who the insurance entity was. Today, there are so many providers taking on risk that a number of different entities can be the payer.

JG: Is your model profitable and sustainable?

MP: Yes. We are clearly in the venture stage where we are spending more than we are bringing in. We are close to profitability. We are planning to generate one million dollars in revenue this year. As we continue to add new markets, we will generate more.

KR: We are seeing a lot of interest in our program. We are equipping providers to realize more success in their risk based arrangements. Their patients have easier access, better outcomes, more convenience and comfort, which leads to higher satisfaction. The providers are more profitable while improving care coordination, quality, and cost — all important factors in value based care.

MP: Our task is to monetize value creation.

MP: We also have an impact on the Medicaid population in terms of access. A typical case could be a mother working two jobs. That mother did not get out of work until 9:00 pm. She has three sick children. If they are not well the next day, she will have to miss work. She cannot afford to miss work. She is afraid her boss will fire her. She goes to the emergency room at 9:30 pm with her three kids. That is a classic example that I have witnessed year after year for the last twenty five years. DispatchHealth is a solution to that type of problem.

KR: We have flipped the model of access to acute care. People can receive acute care in a comfortable surrounding. Rather than sitting in an emergency department for a long time, a senior is able to stay home with his or her partner. Children can be treated where they feel safe.

JG: What are your biggest challenges?

MP: One big challenge is getting the word out about acute care in the home. I did not have house calls as a kid. I did not have house calls when I trained as a physician. People are not used to house calls as a form of medical care delivery. The awareness is finally growing here in Colorado. Providers now recognize us as a tool within their continuum of care provision.

KR: Reimbursements are another challenge. We need to convince payers of the value we bring to their organization. We have been successful locally, but it does take time to build those relationships and partnerships. It also takes data, which we now have. You have to keep in mind that we are not concierge providers. We do not charge an annual fee. If we did, that would leave the most vulnerable population, including seniors, without access to our care.

JG: What are your plans going forward?

KR: We will continue to expand the business as it is. There are many more possibilities of expansion from a virtual perspective. We are hoping to have the technology built by the end of this quarter that enables patients to securely message a virtual doctor. The doctor will be able to triage that individual over a secure messaging platform inside the DispatchHealth app. We are also exploring partnerships with existing telehealth providers to be a flex opportunity for them. We can be an option for them if the patient needs to be seen in person. We will continue to look at that telehealth space in the future.

KR: We are a great option for providers who have patients who are remotely monitored in the home. If their patient has an adverse health event, they can call us first.

JG: Do you consult with organizations outside of the US?

KR: Not yet. The United States is not efficient with their healthcare dollars. Other countries may have the support of insurers to make adjustments to the delivery system more easily than is possible here.

JG: What healthcare industry problems are you positioned to address?

KR: There are several problems that we are positioned to address:

Four point four billion Medicare dollars wasted in unnecessary emergency care annually
Thirty seven percent of emergency room visits are estimated to be unnecessary
Potentially avoidable senior living admissions that cost over four billion dollars annually
The forty percent increase in emergency room visits due to Medicaid expansion
The health system needs fifty two thousand more primary care physicians than are currently available
Three point eight million 911 transports are unnecessary or inappropriate. This represents seventeen to twenty five percent annually.

JG: Thank you both for this interesting discussion.

MP: Thank you.

KR: Thank you for your interest in DispatchHealth.