

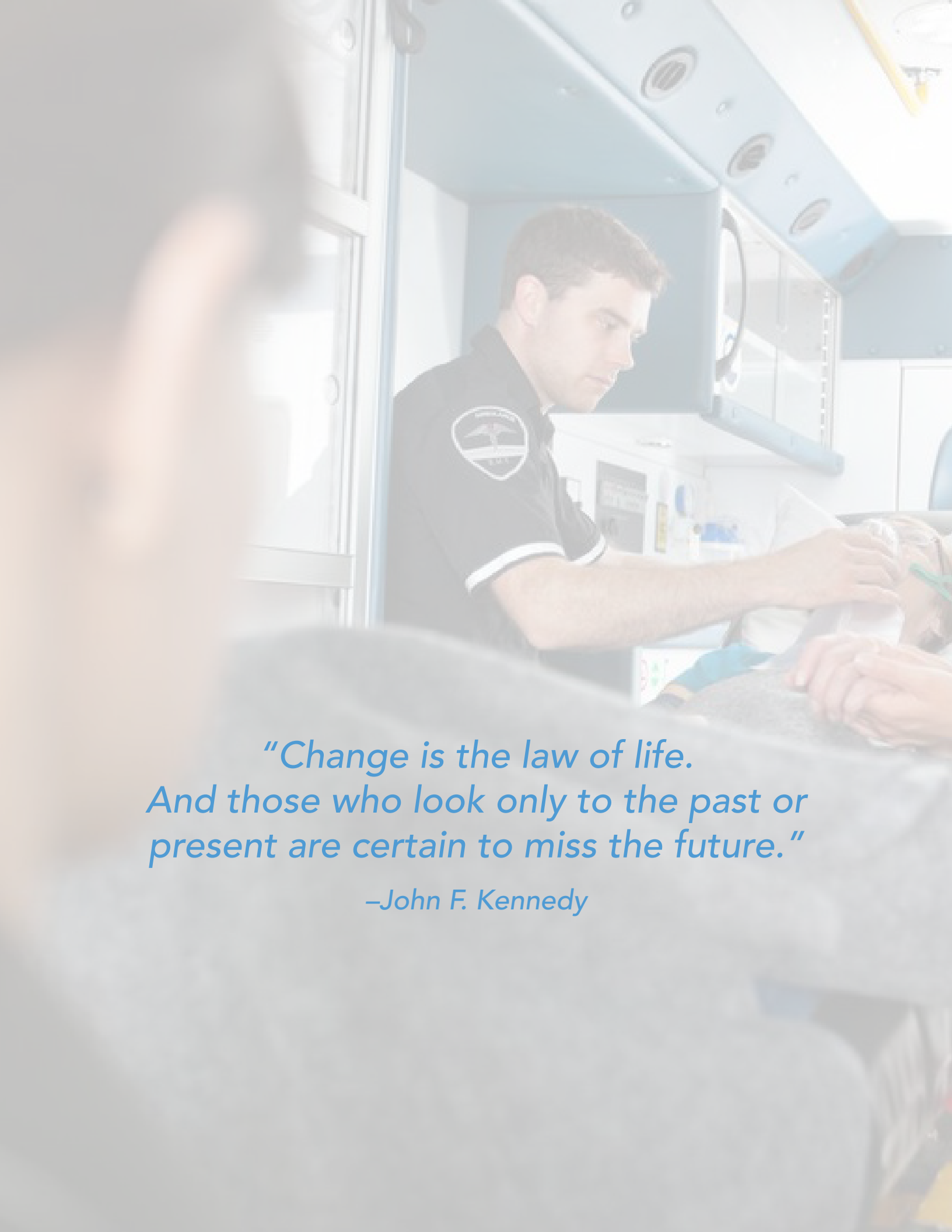
How Can the Ambulance Industry Meet the Demand for Value-Based, Consumer-Driven Care?



By Susanna J. Smith

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*“Change is the law of life.
And those who look only to the past or
present are certain to miss the future.”*

–John F. Kennedy

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Change is coming

The future of the ambulance service industry rests on the choices we make today ●

We live in a world that is changing faster than ever. In healthcare, a number of disparate forces—including skyrocketing costs, legal reforms, an epidemic of chronic illnesses, changing consumer demands, and widespread ownership of mobile technology—are driving expansive, industry-wide change.

Within healthcare, the EMS profession is at a crossroads. It is in the middle of what some have called an “identity crisis,” struggling to define its roles and value within a rapidly changing environment.

More than a crisis of identity, however, the ambulance service industry is poised on the precipice of transformative change. The future of this industry will be determined by its leadership’s ability to be nimble, adaptive, open-minded, and entrepreneurial in embracing and directing this change.

The ambulance service industry can thrive in the future, if it embraces change.

We believe the future of the ambulance service industry is bright. In this whitepaper, we suggest that for this industry to thrive in the future, it must:

- ❑ **Determine the value of ambulance services** for patients, healthcare providers, healthcare organizations, and payers,
- ❑ **Meet the changing consumer demands** of patients, healthcare providers, and healthcare organizations, and
- ❑ **Adopt and maximize the potential of mobile technology** to help the industry become more efficient and innovative.

How Healthcare is Changing

What healthcare reform means for the ambulance service industry

As healthcare costs have skyrocketed, there has been widespread recognition that Americans see a poor return on their healthcare dollars in terms of quality of care.¹

The national push for lower-cost, higher-quality healthcare gained momentum with the passage of the Patient Protection and Affordable Care Act (ACA) in 2010. The ACA puts hospitals in the hot seat by financially penalizing them for patient readmissions. This has far-reaching implications for the ambulance service industry and many other healthcare industries.

“Healthcare reform will force change on the EMS system. Period.”

—Brenda Staffan, Healthcare Innovation Project
Director, REMSA, Reno, Nevada

Hospital Readmissions a Proxy for Poor Quality Care

Part of the push for higher-quality care focused on eliminating hospital readmissions for the same problem within a short period of time. The ACA specifically focuses on eliminating unnecessary hospital readmissions among Medicare patients—who account for 20 percent of national healthcare spending.²

Currently, about one in five Medicare patients who are admitted to a hospital are readmitted within 30 days. Readmissions cost the Medicare program an estimated \$17.5 billion/year.³

Hospitals Being Hit Hard with Readmissions Penalties

In 2013, as a result of the readmissions penalties, Medicare payments to 40 percent of US hospitals dropped by a total of **\$227 million**.⁴ Those fines are expected to rise with the recent inclusion of patients readmitted for chronic obstructive pulmonary disorder and total hip or knee replacement in addition to heart attack, heart failure, or pneumonia.

Nationally, hospital penalties for preventable readmissions are predicted to hit **\$756 million in 2014**,⁵ and will likely have a trickle down effect in many other healthcare industries, including the ambulance service industry.

Medicare Fraud Making Waves

Another pressing challenge for healthcare systems, which continues to make headlines nationwide, is Medicare fraud. Hospitals and other accountable care organizations are eager to ensure transparency and adherence to reimbursement regulations. The ambulance service industry faces the intense scrutiny of regulators. It is crucial, now more than ever, that ambulance service industry leaders have systems in place to guarantee the accurate collection of patient and billing information, a must in the new healthcare landscape.

Defining Value

The role of the ambulance service industry in an integrated healthcare system

Defining the Value of Ambulance Services for Hospitals, Providers & Patients

Under the ACA, hospitals—as well as physician groups, starting in 2015—are being rewarded or penalized by Medicare based on their scores on value-based metrics such as clinical outcomes, patient experience, and efficiency.⁶

As healthcare moves toward a value-based payment system, ambulance service industry leaders are pushing for the industry to define its own value-based metrics within the context of an integrated healthcare system.

“The time is rapidly approaching, whether we like it or not, when EMS will be required to report outcome-based, quality metrics based on demonstrated clinical practices that make a difference in patient outcomes in order to be eligible for payments.”

—Matt Zavadsky, Director of Public Affairs,
MedStar Mobile Healthcare,
Ft. Worth, Texas

The ambulance service industry can follow the model offered by the Medicare requirements of hospitals and define value in terms of patient experience and clinical outcomes. Matt Zavadsky, Director of Public Affairs at MedStar Mobile Healthcare, takes a step in this direction in an article, “[Is EMS Next to Transition to Medicare’s Value-Based Payment Model?](#)”⁷ by suggesting several sample value metrics, e.g.:

Value could be measured by:

- ❑ The percentage of calls where EMS arrives on scene in < 10 minutes for a suspected ST elevation myocardial infarction (STEMI) patient,
- ❑ The percentage of STEMI patients who are given an ECG and it is sent to the receiving healthcare facility in < 3 minutes,
- ❑ The percentage of stroke patients who were last seen as normal more than six hours before and are taken to a comprehensive stroke center, or
- ❑ The percentage of patients surveyed who would recommend the EMS team to friends or family.⁷

These types of value metrics are important. The value of ambulance services in an integrated healthcare system encompasses customer satisfaction and clinical outcomes as well as the value-add of ambulance services to the healthcare system as a whole.

The ambulance service industry's ability to survive and thrive in the future will revolve, in part, on its ability to articulate its value to healthcare providers, healthcare organizations, hospital systems, and payers, as well as patients and family members. This demands out-of-the-box thinking from the ambulance service industry leadership.

The Value-Add of Ambulance Services

The value-add of ambulance services lies not just in the capacity to respond to emergencies but also in the potential to offer basic community healthcare. New models are deploying EMS professionals to respond to chronically ill patients, who often demand a bulk of the healthcare system's resources.

“I think what's changing is that EMS systems are being recognized as just as valuable for the non-acute, unplanned care as they are on the acute, unplanned care in terms of navigation.”

—Ed Racht, MD, Chief Medical Officer,
American Medical Response,
Austin, Texas

How can the value of ambulance services be described and measured in terms of the profession's unique ability to help these types of patients navigate an increasingly complex healthcare system?

“At the end of the day, the buying side of healthcare wants to pay for services that are appropriate but pay for hospitals only when it's required. For the ambulance service industry, this means a growing demand for mobile services, healthcare technicians, and ways to remotely monitor and provide healthcare interventions at home, which helps people avoid the expensive bricks and mortar systems of care.”

—Don Jones, CEO,
Trial Fusion & Chief Digital Officer,
Scripps Translational Science Institute

The ambulance service industry must articulate its value in terms of cost-savings for healthcare systems, provider and patient satisfaction, and clinical outcomes when an EMS team:

- ❑ Offers more cost-effective, out-of-hospital care,
- ❑ Helps a patient and hospital avoid costly ER admissions by appropriately triaging a patient to an urgent care or primary care alternative,
- ❑ Connects with a patient in her home and helps remedy social and economic factors that affect care compliance, such as taking medication, or
- ❑ Reviews a patient's care plan with him immediately post-hospital discharge to help prevent unnecessary readmission.

The value of ambulance services could *also* be measured by:

- ❑ The customer experience scores of the EMS personnel responding to a call,
- ❑ The percentage of patients transported safely,
- ❑ Efficiency tracking of the accuracy of ETAs to pickup and drop off patients,
- ❑ The percentage of patients who report improved experience when offered the option of a community paramedic home visit within 24 hours versus waiting for care in the emergency room,
- ❑ The percentage of patients *not* readmitted to the hospital, post-hospital discharge when offered regular home visits by an EMS team,
- ❑ The percentage of patients appropriately diverted from the ER to urgent or primary care alternatives,
- ❑ The efficiency of the use of the ambulance fleet to pick patients up quickly and route them to their destination using real-time traffic reports,
- ❑ The percentage of chronically ill patients showing improved health outcomes when supported by the EMS team to navigate the healthcare system.

The Mobile Mind Shift

Why technology is changing everything ●

Beyond healthcare reform and the move towards a value-based payment system, a third trend driving change in a number of industries, including healthcare, is the ubiquity and widespread use of mobile technology.

Today, 90 percent of Americans own a cellphone.⁸ Two-thirds of Americans own a smartphone.⁹ These computers in our pockets have changed how we get information and make decisions; they have shifted how we do business, including how we bank, shop, decide on a restaurant, or even order a taxi.

The Forrester Research group has posited that mobile technology is fundamentally changing consumer expectations and disrupting entire industries. Ted Schadler, Vice President and Principal Analyst at Forrester, calls this shift the “mobile mind shift.”¹⁰

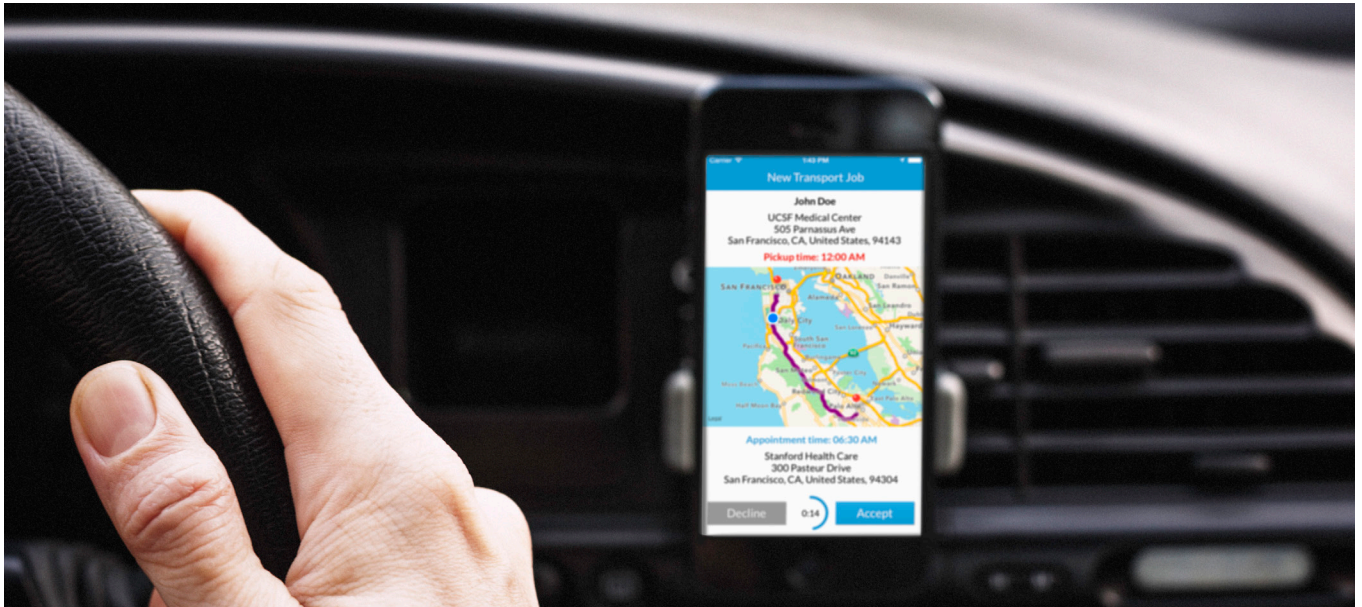
“The mobile mind shift is the expectation that I can get what I want in my immediate context and moments of need.”

—Ted Schadler, Vice President
and Principal Analyst,
Forrester Research

The Mobile Mind Shift & New Platforms Transforming Industries

Schadler and his team at Forrester argue that in a new era of widespread mobile technology, businesses—entire industries perhaps—will succeed or fail based their responsiveness to customer demands to be able to interact, purchase, consume, and engage from a mobile device, anywhere, anytime.

The Forrester team offers a number of examples of how companies are responding to these customer expectations in an effort to solidify market share or, in some cases, to transform a market through creating a new mobile experience.¹⁰ Uber, the mobile-based, ride-sharing company, offers an example of how mobile technologies can transform industries.



How Uber Transformed Transportation with Mobile

Founded in 2009, Uber is a mobile app that connects people who need rides with Uber drivers, who operate like taxis. Driven by a commitment to customer service, mobile engagement, and ratings and quality metrics, Uber has transformed ride commerce in many cities, much to the chagrin of established taxi services.

The Uber app offers its customers the ability to:

- Check how many Uber cars are close by,
- Calculate the estimated cost of a ride to your desired drop-off,
- Order a car,
- See the name of the driver, along with the make and model of the vehicle picking you up,
- Pay for the ride, tip included, using a credit or debit card uploaded into the app, and
- Submit a customer review of your ride/driver.

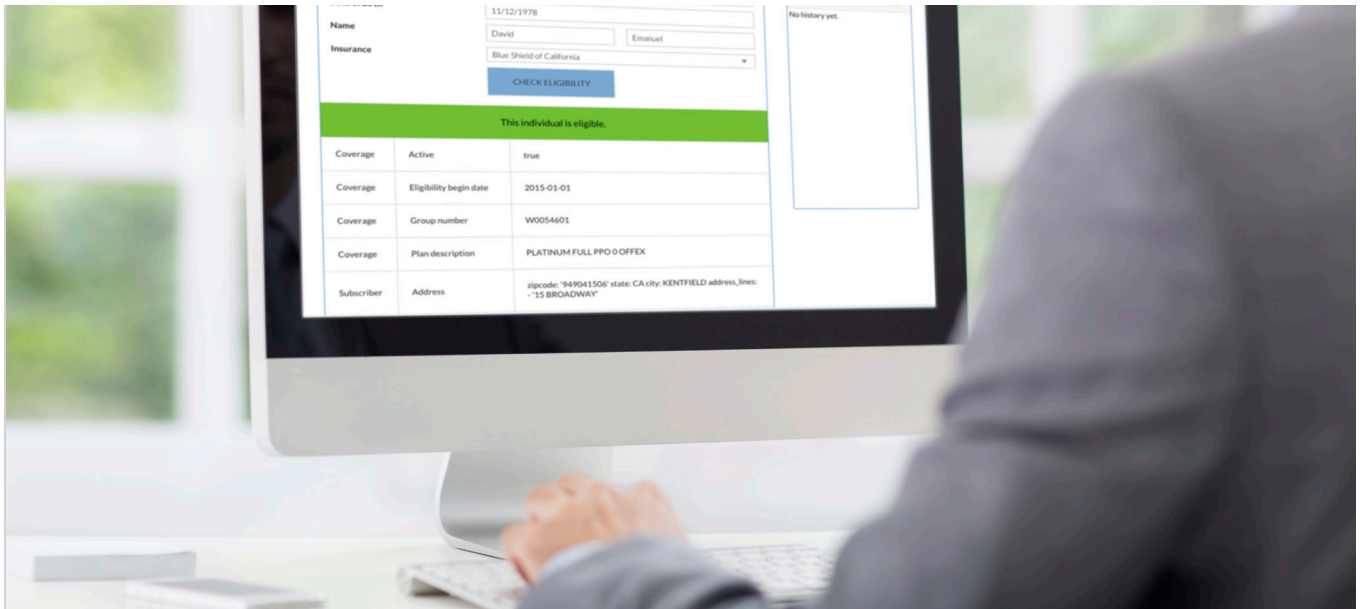
The Uber model offers drivers:

- Guaranteed payment from customers and
- Flexible, contract work options.

Uber is one example of a company that is using the mobile mind shift to transform their business. The Uber model offers many potential lessons for the ambulance service industry about how to use mobile to potentially transform medical transport.

In early 2015, *Business Insider* and *PBS Newshour* published articles suggesting that Uber offered faster customer pickup than the local ambulance service in New York City and in London.

While these services are not comparable, the comparison begs the question of how could the ambulance service industry learn from and adapt Uber's approach.



Is the ambulance industry committed to trying new business models? Can ambulance service companies create and adopt smarter mobile-enabled platforms for faster, more efficient service? Is the industry committed to building better systems that seamlessly track analytics on efficiency, safety, and customer experience as today's customers expect?

Healthcare, Including Ambulance Services, Must Engage Mobile

The healthcare industry, including the ambulance service industry, is not exempted from customer demands for mobile tools—although as an industry, it has been slower to adopt them. As in other industries, more mobile-savvy healthcare organizations and providers that adopt mobile technologies will gain a competitive edge.

2/3 of Americans Now Have Smartphones

Currently, about a third of American cellphone owners and half of smartphone owners use their phone to find healthcare information.¹¹ According to a Deloitte survey, the majority of Americans do not currently use a mobile device to share information with their healthcare providers, but they would be comfortable doing so.¹²

Likewise, healthcare providers are eager to use mobile. Some are already doing so. One recent [survey](#) from Healthcare Information and Management Systems (HIMSS) found that among a sampling of 400 healthcare providers:¹³

- ❑ 60 percent reported using two-video or webcam,
- ❑ 55 percent reported using image-sharing tools,
- ❑ < 20 percent used remote patient monitoring tools, and
- ❑ < 20 percent used smartphones at the clinic.

These findings are similar to a Deloitte survey that suggested that a quarter of physicians use mobile health tools, and half of those use them every day. Current use rates, however, do not reflect interest: nine out of ten physicians report wanting to use mobile health tools that have clinical value.¹⁴

There Is More to Mobile Than Smartphones

When it comes to the potential for mobile technology to transform the healthcare industry, using a smartphone to find healthcare information or communicate with a healthcare professional is just the tip of the iceberg.

In a recent piece in the *Journal of the American Medical Association*,¹⁵ Steven R. Steinhubl, MD, and his co-authors point to three forces behind the large-scale, transformative potential of mobile health tools. They highlight:

1. The need for disruptive solutions in the current environment of unsustainable healthcare spending,
2. The rapid growth of wireless connectivity and its potential for the fast, bidirectional transfer of information, and
3. A push towards personalized medicine, which requires individualized data streams that go beyond our current data collection systems.

Increasingly, our use of mobile technology in healthcare will expand beyond the current, limited use of smartphones to include:

- ❑ Wearable mobile devices to monitor patients, particularly those with chronic illness, and
- ❑ Mobile tools for point-of-care testing, such as:
 - Blood glucose monitoring,
 - iStat and other blood analysis tools,
 - Mobile ultrasound tools, and
 - Cardiac monitoring.

Mobile tools present an enormous opportunity for EMS professionals to provide a new level of patient monitoring and care, which will be in growing demand as the population ages and struggles with an epidemic of chronic illness.

These mobile technology tools offer ways to integrate and connect pre-hospital and in-home care with the larger healthcare system by sharing data, test results, and care notes. New mobile technology tools also provide collaboration platforms for EMS professionals with other healthcare professionals and within new healthcare delivery models.

Given the potential for mobile technology to transform healthcare, the question now facing the ambulance service industry is how they will meet consumers' needs—meaning healthcare providers, patients, hospitals, healthcare organizations, and payers—in their mobile moments.

The Age of the Consumer

Consumer demands on the healthcare system are changing ●

The age of the healthcare consumer is upon us.

Healthcare consumers today are often more savvy, in part, because the rise of high-deductible health plans means they are often shouldering more of the burden of healthcare costs.¹⁶

The shift to mobile devices, too, is driving a more informed and demanding healthcare consumer. Many other industries are catering to consumers' demands for mobile tools and solutions. Industry experts suggest healthcare must do the same. Half of American smartphone owners seek health information on their phone,¹¹ but they want to do more than just seek information.

Consumers today expect:

- ❑ Convenience and an easy user experience,
- ❑ Proven value for a service, especially a paid service,
- ❑ Personal connection, and
- ❑ Accessibility of services, anywhere, anytime.

To thrive in today's healthcare consumer environment, the ambulance service industry must meet and exceed consumer demands.

“With a growing number of baby boomers becoming the dominant healthcare consumers, more and more people have customer service expectations. Many of these patients demand choice. I believe that customer service is going to be a key driver in EMS.”

—Glenn Leland, Chief Strategy Officer,
Pro-Transport-1,
San Francisco, CA

“Consumers” in the ambulance service industry are:

- ❑ Patients,
- ❑ Healthcare providers,
- ❑ Hospitals, and
- ❑ Healthcare organizations, including skilled nursing facilities, assisted living organizations, and others.

Changing Consumer Demands on Ambulance Services

To fully understand and meet consumer demand, the ambulance service industry has to recognize how consumer needs are shifting because of:

- ❑ An aging population,
- ❑ An epidemic of chronic illness, including obesity, heart disease, and diabetes, and
- ❑ A shortage of primary care providers and clinics.

Shift from Acute to Non-Acute EMS Care

“We need to recognize that we’re healthcare providers, not emergency providers anymore. We have to redesign our systems around who is really calling for help and what kind of help they need. I think that’s the real challenge.”

–Jerry Overton, Chair, International Academies of Emergency Dispatch

Increasingly, the ambulance service industry is being asked by patients and healthcare organizations to provide basic healthcare. This a fundamental shift for a profession that was created to offer lifesaving, acute, on-scene care and transport.

Some forward-thinking ambulance agencies—REMSA in Reno, MedStar in Ft. Worth, American Medical Response nationally, MetroAtlanta in Atlanta, Acadian Ambulance in the southern region, WakeMed in North Carolina, to name a few—are embracing the challenge of meeting these demands. These organizations have created models for offering non-acute care with EMS teams and healthcare professionals, including nursing hotlines, community paramedics, homecare follow-up visit programs, and other innovative care models.^{17, 18, 19}

For EMS providers that are willing to embrace and meet changing consumer demands, it is an enormous opportunity. EMS can offer extraordinary added value within an integrated healthcare system by using innovative non-acute care models to:

- ❑ **Provide greater continuity of care** between healthcare facilities and the home,
- ❑ **Offer post-discharge follow-up visits** to help patients transition to home, maintain their care plan, and avoid hospital readmission,
- ❑ **Refer patients**, when appropriate, to urgent care or primary care, and
- ❑ **Help patients better navigate the healthcare system**, especially those with chronic co-morbidities or complicated medical conditions.

“We have to develop more people with the prevention and differential diagnosis skill sets. EMS needs to be helping patients get back to the programmed level of care— including as defined by the ACO or physician— that puts some of the biggest drivers in healthcare into the EMS providers’ wheelhouse.”

—Ed Racht, MD, Chief Medical Officer, AMR

As evidenced by the Uber experience, today’s patients and customers expect to be able to rate their experiences with a product or service. In the case of the ambulance services, patients may want to share meaningful feedback on things such as:

- ❑ Quality of care offered by EMS personnel responding to a call,
- ❑ Whether the ETA of when the ambulance would reach them was accurate,
- ❑ How long they had to wait for a ambulance to reach them, and
- ❑ Whether or not the ambulance ride was a safe and pleasant experience.

When instituting customer-facing quality metrics, ambulance companies can also build out and integrate important business analytics measures such as:

- ❑ Whether ambulances took most efficient transport route,
- ❑ How long their customers had to wait,
- ❑ How accurate ETAs are for patient pick-up and drop-off,
- ❑ Number of miles traveled per patient, and
- ❑ Important data tracking about accurate billing.

The Possibilities of Better Tech Platforms

8 ways better technology platforms can improve ambulance services

“A more efficient, secure, and connected healthcare system requires better technology platforms. The ambulance service industry has a critical role to play in this integrated, tech-savvy healthcare system of the future.”

—David Emanuel, CEO, Medlert Inc.

In the near future, better, faster, more secure technology platforms will transform the healthcare industry, including the ambulance service industry. For ambulance services, mobile and cloud-based technology will help:

1. **Provide a better experience for patients, providers, and healthcare organizations** using EMS/ambulances services,
2. **Integrate the EMS service into the healthcare team**, including healthcare professionals at hospitals and other healthcare organizations,
3. **Build better data** collection and sharing systems to demonstrate the value of ambulance services and create greater efficiency,
4. **Communicate and share information** more quickly with other agencies and with the hospital-based care team,
5. **Create better continuity of care and convenience** for step-up/step-down medical transport,
6. **Seek payment for services** quickly and easily and improve billing processes and compliance with reimbursement regulations,
7. **Reduce risk of non-compliance** with HIPAA, and
8. **Better manage personnel and the medical transport fleet.**

“Mobile technology adds context to the experience. This means we can get personal and granular to actually help people in a relevant mobile moment. At Medlert, we’re aiming to meet the needs of the ambulance service industry’s mobile moments.”

—Ernest Semerda, CTO, Medlert Inc.

The Imperative to Change

How ambulance service industry leaders can take action ●

Some agencies in the ambulance service industry will be satisfied to stand by and wait—and later to play catch-up—as technology shapes the future of healthcare and the ambulance service industry. Many other agencies, several mentioned in this paper, understand the fundamental truth:

“Change is the law of life. And those who look only to the past or present are certain to miss the future.” –John F. Kennedy

It is these forward-thinking ambulance service agencies that are the industry’s future. They are embracing new ways of doing business and serving their customers: patients, healthcare providers, organizations, and hospitals.

Why?

Because these leaders can see that the old business model—filling hospital beds and driving up ambulance transport volume—no longer applies. These leaders understand that the economic, political, social, and technological factors driving change in healthcare are also creating an imperative for change in the ambulance service industry.

They know that to survive and thrive in the future, the ambulance service industry must take bold steps and create a new business model. This model must involve:

- ❑ Defining the value of ambulance services in the healthcare system,
- ❑ Meeting consumer demands, and
- ❑ Embracing the potential of mobile technology.

Building the **model for the future of the ambulance service industry** requires industry leaders to:

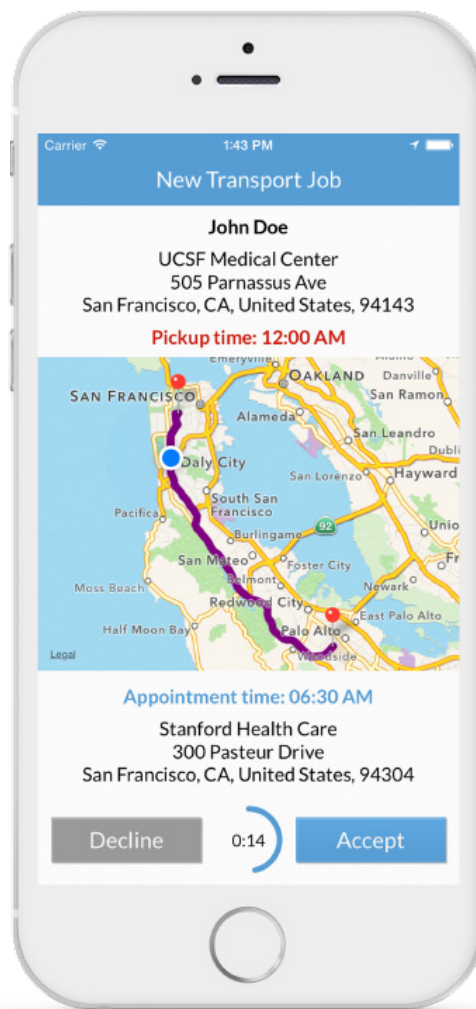
1. **Understand who their customers are and the needs of those customers**—patients, facilities, partner organizations, etc.
2. **Partner** with other healthcare organizations,
3. **Test new models** of out-of-hospital care,
4. **Adopt new technology** that makes their service more efficient and effective,
5. **Stay abreast of innovative models** via conferences, digital resources, networking, etc.

Smart, Mobile Tools to Power Ambulances

MedlertConnect, Eligibility & Responder

Medlert Inc., a San Francisco-based software company, has launched three new mobile and web, cloud-based software tools for the ambulance service industry: Medlert Connect, Medlert Eligibility, and Medlert Responder.

The Medlert Connect platform offers healthcare providers a seamless way to order non-emergent ambulance transport and simplifies payment and paperwork. Medlert Connect is secure and HIPAA-compliant, and it is available from any smartphone, tablet, or desktop.



MedlertConnect

Medlert Connect helps ambulance service providers:

- ❑ Improve operational and billing efficiency,
- ❑ Offer timely, accurate, reliable, medical transport,
- ❑ Know your facilities' care requirements,
- ❑ Verify patient eligibility upfront,
- ❑ Reduce dispatch on-call times,
- ❑ Never miss a PCS form,
- ❑ Make it easier for your customers to order a medical transport using a smartphone, tablet, or desktop computer.

MedlertEligibility

Medlert Billing is a software tool that enables ambulance companies to collect essential billing information. With the Medlert Billing helps ambulance service providers:

- ❑ Verify a patient's primary and secondary insurance,
- ❑ Get access to 185 million patient records,
- ❑ Check a patient's demographic information,
- ❑ HIPAA secure & encrypted

MedlertResponder

Medlert Responder is a mobile tool for ambulances for real-time routing, estimating accurate ETAs, tracking quality metrics & patient safety measures. Medlert Responder is the first all-in-one solution that helps an ambulance crew:

- ❑ Patient data capture
- ❑ Real-time traffic routing
- ❑ Voice-over navigation
- ❑ Sharing accurate ETAs, and
- ❑ Crash detection.

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This whitepaper was published by Medlert Inc. For more information on Medlert Inc. or Medlert Connect, go to www.medlert.com, or join the conversation on LinkedIn on the [Future of Medical Transport](#) group.

About the Author

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Reviewers

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