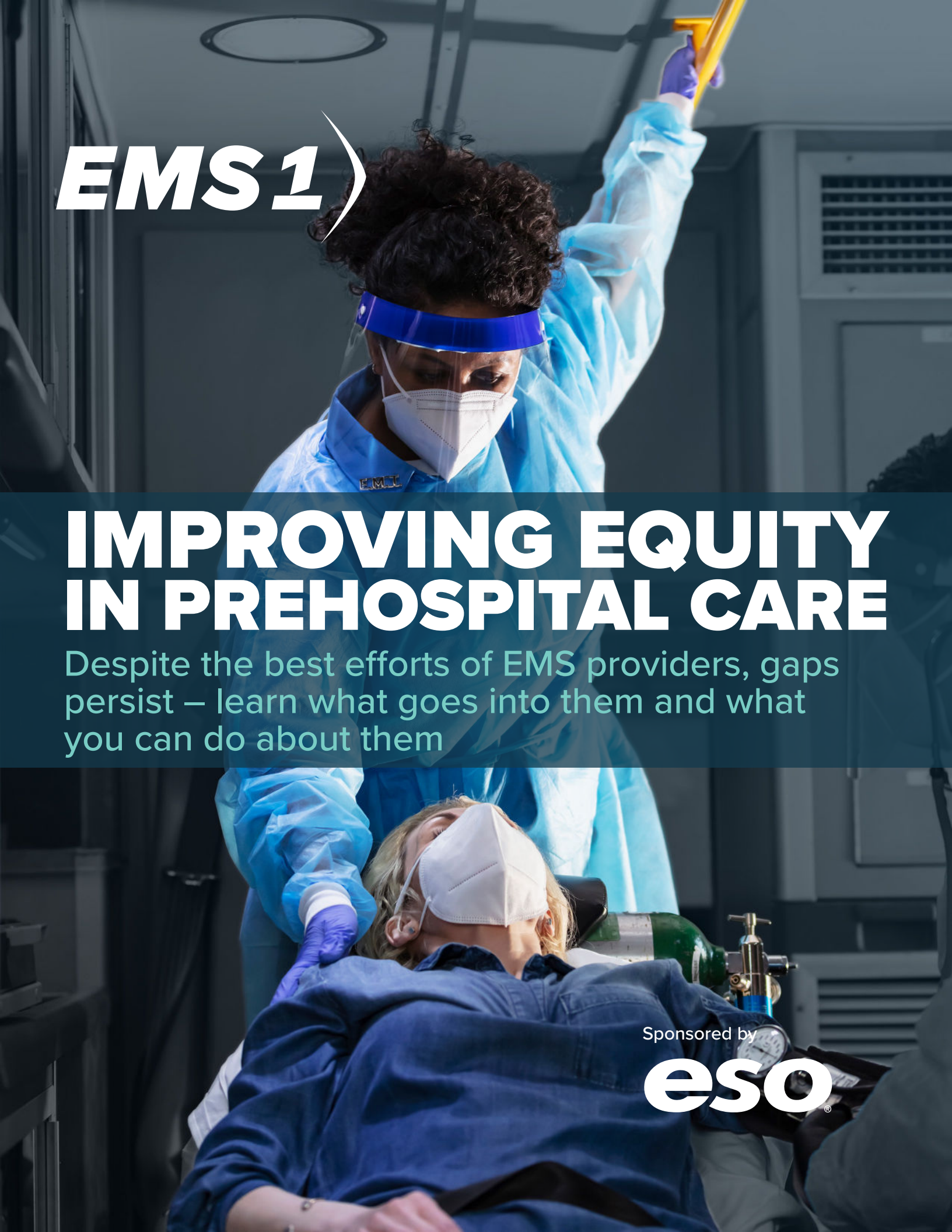


EMS1

IMPROVING EQUITY IN PREHOSPITAL CARE

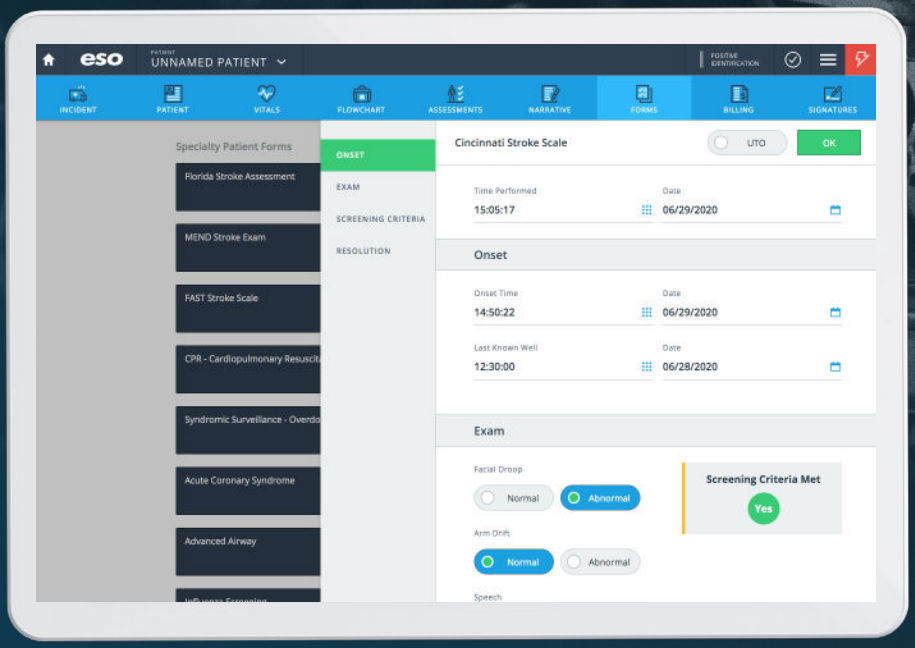
Despite the best efforts of EMS providers, gaps persist – learn what goes into them and what you can do about them

Sponsored by

eso

BETTER DECISIONS IN REAL-TIME.

ESO ELECTRONIC HEALTH RECORD



SCAN QR CODE TO LEARN MORE

At ESO, we understand EMS like nobody else. We're more than a vendor — we're a partner that's helping move the EMS profession forward. That's why we designed ESO Electronic Health Record the way we did: It's intuitive to use, so you can move from incident to signature quickly and while capturing the right information.

eso®

VISIT ESO.COM/EHR-SOFTWARE

EDITOR'S NOTE

"To conserve life, alleviate suffering, promote health, do no harm, and encourage the quality and equal availability of emergency medical care. To provide services based on human need, with compassion and respect for human dignity, unrestricted by consideration of nationality, race, creed, color or status; to not judge the merits of the patient's request for service, nor allow the patient's socioeconomic status to influence our demeanor or the care that we provide."

This pledge begins the Code of Ethics for EMS practitioners written by Charles B. Gillespie, MD, and adopted by the National Association of Emergency Medical Technicians.

Yet, as with any pledge, this statement of intention must be backed with action. In this EMS1 eBook, sponsored by ESO, learn how to take action to identify and mitigate unconscious biases that may result in care disparities, and how to foster a diverse workforce that reflects the community you serve.

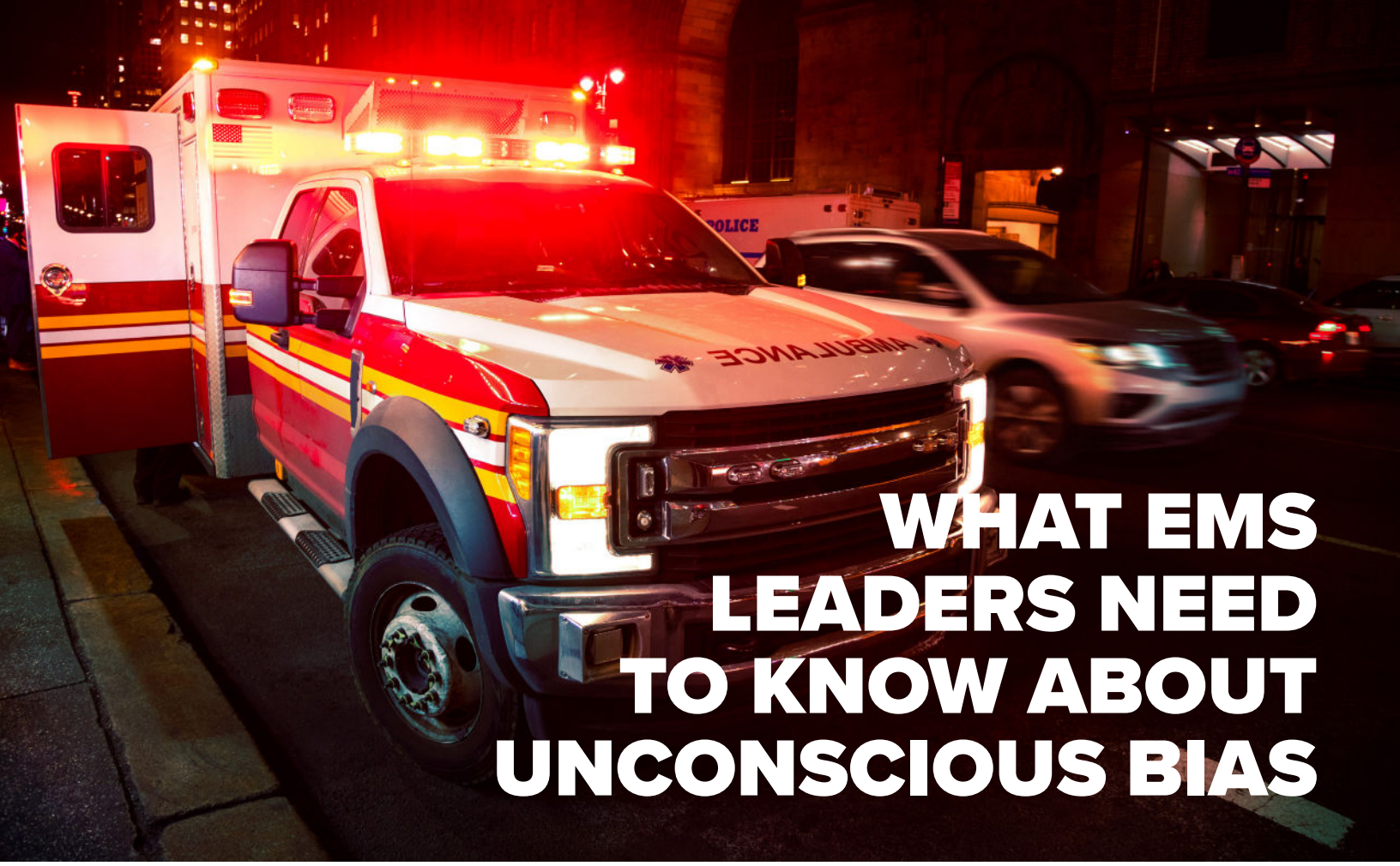
I encourage you to share this resource with your colleagues and consider how your department is supporting the EMS pledge.

— Kerri Hatt
Editor-in-Chief, EMS1

ABOUT THE SPONSOR

ESO is dedicated to improving community health and safety through the power of data. Since its founding in 2004, the company continues to pioneer innovative, user-friendly software to meet the changing needs of today's EMS, fire departments and hospitals. ESO currently serves thousands of customers throughout North America with a broad software portfolio, including the industry-leading ESO Electronic Health Record (EHR), the next generation ePCR; ESO Health Data Exchange (HDE), the first-of-its-kind health care interoperability platform; and ESO Fire and ESO FIREHOUSE Software for fire departments.

CONTENTS



WHAT EMS LEADERS NEED TO KNOW ABOUT UNCONSCIOUS BIAS

WRITTEN BY
Mike Taigman and Cheri C. Wilson

Understanding your unconscious biases will make hiring decisions, disciplinary choices, relationships and clinical care more equitable

An Asian man dressed in a tattered football team T-shirt, worn blue jeans and old tennis shoes collapsed in a liquor store. A bystander called 9-1-1, and the first responders started CPR. Paramedics worked through their protocols without result. As they arrived at the closest hospital they said, “Asian male, unknown age, found in cardiac arrest in a liquor store, fine ventricular fibrillation unresponsive to defibrillation or ALS medications.”

After working the arrest for 15 or 20 minutes, the hospital staff decided to call it and pronounced the patient dead. The ward clerk found his wallet and opened it to see about notifying the next of kin when she yelled, “Oh, my God, it’s Dr. XXX!”

The medical director of the emergency department, who had just pronounced the patient dead, restarted CPR. They worked him for more than two hours before finally admitting it was futile.

One of the nurses wandered out of the room with tears in her eyes and said, “I’m so ashamed, I thought he was just a drunk in a liquor store.”

Understanding our own unconscious bias

We form ideas in our minds about people based on the color of their skin, hair style, tattoos, piercings, accent, credit score, occupation, perceived disability, gender expression, sexual orientation, political party, the location where we meet them and more. These ideas form instantly,

automatically and in unconscious minds where we are not aware it is happening.

Our distant ancestors relied on these split-second decisions ("friend or threat?") to keep them alive. While this instinctive mental process still helps protect us from real threats like someone posturing to hit us, it has not evolved to consider differences in people that are not threatening.

Many snap judgments go by unnoticed. Some are irritating. Some have a tangible negative impact on people's careers. Some cause people to receive substandard medical care. And some result in preventable suffering or death.

"People who engage in this unthinking discrimination are not aware of the fact that they do it," David Williams Ph.D., Harvard School of Public Health, said.

This dynamic is known as "unconscious bias" or "unintended bias." It is a major component of the Institute for Healthcare Improvement's focus on equitable health care. Unconscious bias is made up of attitudes, stereotypes and beliefs that affect our understanding, actions and decisions. These biases are activated involuntarily, without our awareness or voluntary control.

Unconscious bias in EMS patient care

People with sickle cell disease who are in crisis are one of the best EMS examples of the impact this can have on health care. While there have been cases of sickle cell disease in many races, it is much more common in African Americans (1 out of 365) or Hispanic Americans (1 out of every 16,300). People with sickle cell disease are at risk for anemia, infections, acute chest syndrome (like pneumonia), splenic sequestration (sickled cells getting trapped in the spleen), vision loss, leg ulcers, stroke and pulmonary embolism.

Of the many complications associated with sickle cell disease, the most common manifestation of a crisis is pain. This is caused by the sickled

cells getting stuck in small blood vessels, causing tissue hypoxia and pain, which is sometimes severe. The EMS management of people in sickle cell crisis includes assessing and treating their oxygenation, hydration and pain.

Many people in sickle cell crisis have had prior episodes and are knowledgeable about the appropriate treatment. This is where unconscious bias often flares up. A young Black or Latino man calls 9-1-1 and tells their medic, “I’m having a sickle cell crisis, and I need morphine because I hurt real bad all over.”

The image of a drug seeker may pop into the mind of the medic even if they are committed to providing good care for everyone. They look at the patient and don’t see anything that looks serious, and of course they can’t see the pain or how severe it is. The care this patient receives or does not receive largely depends on if the medic is aware of how unconscious bias can inappropriately inform their thinking.

With awareness, the medic notices the thought, acknowledges it and then refocuses on the reality and needs of the person they are caring for right now.

We have templates in our minds that help us organize what and who we see into broad categories. We automatically categorize people based on their skin color, hair, accent, girth, perceived gender, age and clothes. The people we meet are automatically mapped into these categories. The meanings associated with those categories are immediately activated and influence our interactions with that person. Without awareness, these ingrained habits of thought can lead to errors in how we perceive, reason, remember and make decisions.

Assessing your own unconscious bias

It’s difficult to see into our own hidden bias. Both authors believe deeply in our hearts that we are open-minded, embracing of all kinds of people, and are free of bias. It’s likely those of you

reading are wondering what if any unconscious bias may be going on for you.

One way to assess your own situation is to take the Implicit Association Test created in 1998 by three scientists from the University of Washington, Harvard University and the University of Virginia.

I'm not sure what your results show, but both of us were disturbed to learn our inclusive belief systems did not know about our own unconscious biases. The results have helped us be more vigilant about pushing snap judgments aside to really connect with the person we are with, rather than the story our unconscious mind would have us believe. Although this test is not an exact science and there are critics of it, it can be a useful tool to improve awareness and relationships.

Another way to explore how your mind works is to notice what flashes into your mind when you think about a:

- New York lawyer
- Grateful Dead fan
- Volunteer EMT
- Transgender male paramedic
- Stay-at-home mom
- Vegan Republican
- Drug seeker
- EMS frequent flier
- Guy with a Confederate flag T-shirt

The key learning from this exploration is not to feel bad about yourself, but to become aware of your own biases so you can work to transform them so they do not negatively impact the people you care for or work with. The most important thing you can do is pause for a moment or two before you act on your judgment. That will likely make your hiring decisions, disciplinary choices, relationships in general and clinical care more equitable.

"In minor ways we differ, in major we're the same."
– Maya Angelou [1]

FOR MORE INFORMATION

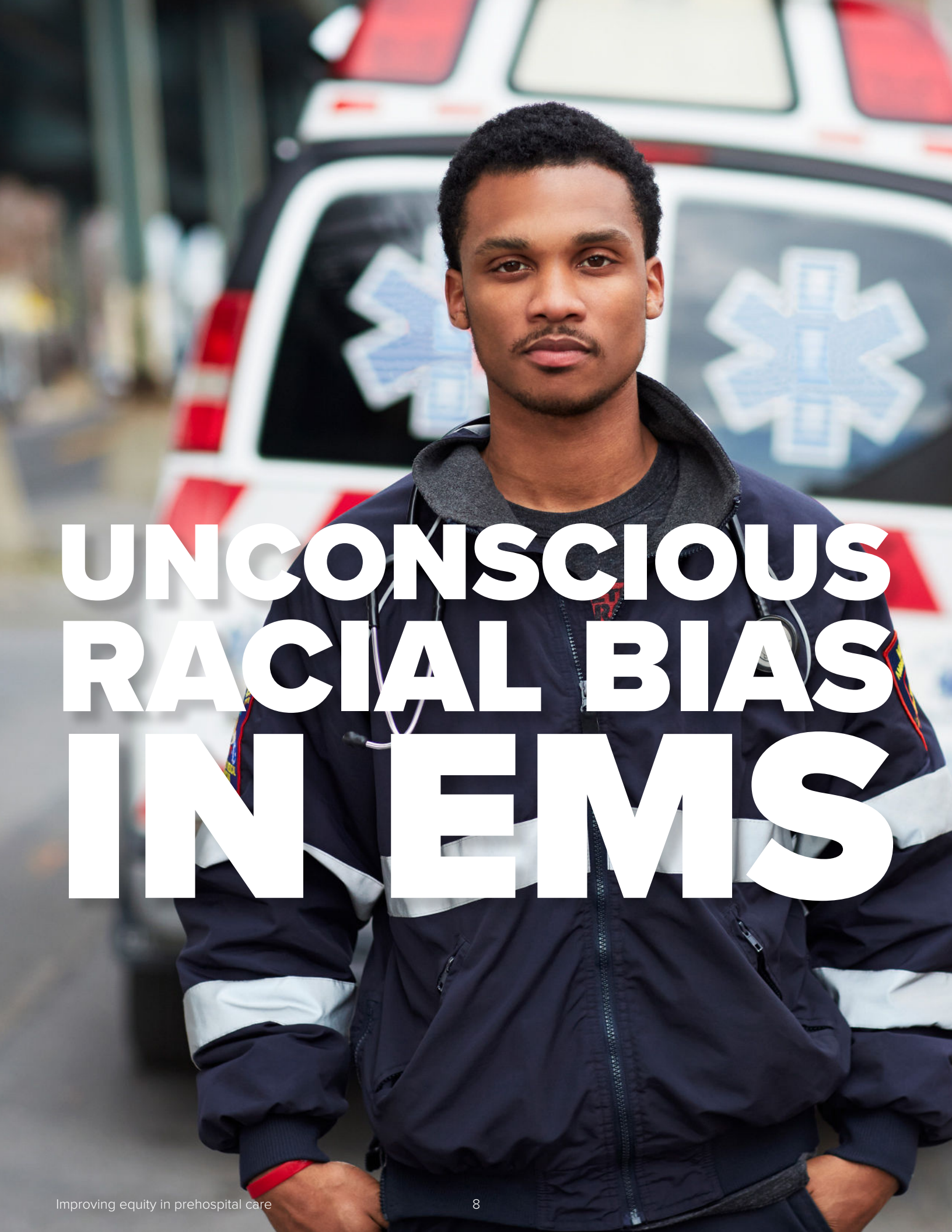
Here are three resources to learn more about health equity and unconscious bias:

1. Achieving Health Equity White Paper
2. IOM unequal treatment report
3. Training to erase unconscious bias

About the authors

Cheri C. Wilson, M.A., MHS, CPHQ, is a nationally recognized subject matter expert on diversity and inclusion, cultural and linguistic competence and health equity. Most recently, she served as the director of the corporate Office of Diversity and Inclusion at RWJ Barnabas Health in New Jersey. She previously was an assistant scientist in the Department of Health Policy and Management in the Johns Hopkins Bloomberg School of Public Health, Hopkins Center for Health Disparities Solutions. She is a certified professional in health care quality and past president of the Maryland Association for Healthcare Quality.

Mike Taigman uses more than four decades of experience to help EMS leaders and field personnel improve the care/service they provide to patients and their communities. Mike is the improvement guide for FirstWatch, a company that provides near-real time monitoring and analysis of data along with performance improvement coaching for EMS agencies. He teaches improvement science in the Master's in Healthcare Administration and Interprofessional Leadership program at the University of California San Francisco and the Emergency Health Services Management Graduate Program at the University of Maryland Baltimore County. He's the author of "Super-Charge Your Stress Management in the Age of COVID-19." Contact him at mtaigman@firstwatch.net.



UNCONSCIOUS RACIAL BIAS IN EMS

Jamie Kennel, cofounder of the Healthcare Equity Group, discusses the disturbing results of his research into pain assessment and treatment

WRITTEN BY
Scott Orr

Our anecdotal belief and desire are that we provide high-quality medical care to all of our patients. Research into EMS assessments in Oregon starts to call that into question.

The guest in this interview led a comprehensive study of nearly 26,000 EMS encounters in Oregon over two years. The results are disturbing. The data showed that medics were less likely to do pain assessments on Hispanic and Asian patients than white patients. It also found that Black patients were 40% less likely to be given pain meds.

What's going on here? Certainly, no medic goes on a run thinking a racial or ethnic minority patient's going to get different treatment, right?

Jamie Kennel is the director of the paramedic program operated jointly by Oregon Health and Science University and the Oregon Institute of Technology, where Kennel is an associate professor. He's also a cofounder of the Healthcare Equity Group. They help EMS organizations improve the equity of their care.

Orr: Why did you decide to do a study on this topic?

Kennel: I'm in the process of completing a Ph.D. in medical sociology, and a lot of my background work was studying racial disparities in various other medical specialties. As an EMS provider, a paramedic myself, I was curious if some of the disparities I was seeing in other areas of medicine, such as the emergency department, were also showing up in EMS. Like any good researcher, in doing my literature review first, I discovered there aren't many people who have investigated this in a rigorous, publishable way, so I started to look into it myself.

What were some of the most important findings?

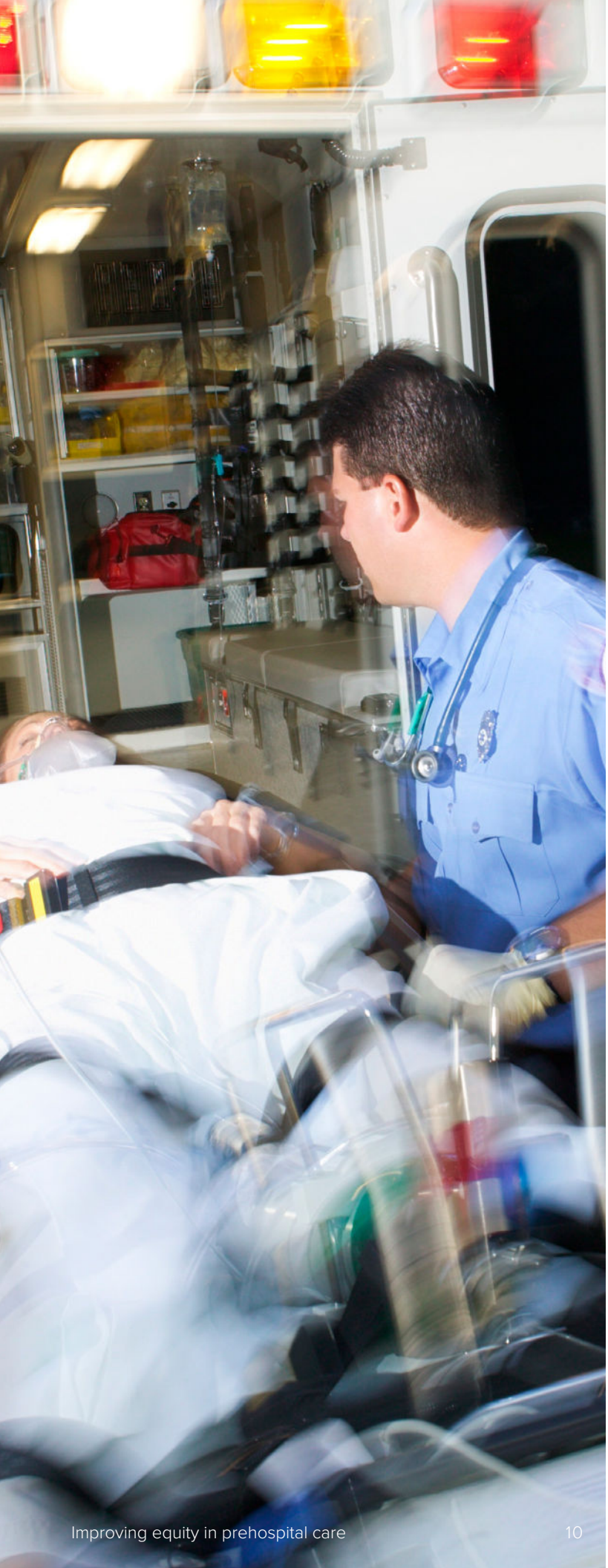
I think there were two. Our anecdotal belief and desire [are] that we provide high-quality medical care to all of our patients – this research starts to call that into question in two ways. One is, I looked at pain medication management and pain assessment. Racial minorities were much less likely to receive a pain assessment, and that's the score of 0–10, when I looked at the data in Oregon. Regardless of the pain assessment score, most racial minorities, being in many cases higher on average [with] pain scores from the white populations I investigated … were also much less likely to receive pain medications by EMS providers.

Given that you're in EMS field yourself, did you find that surprising?

I did, and I didn't. Working as a paramedic, you certainly can see some of the firsthand evidence of treating different patients differently, but what I did not expect is it to be so systematic across the entire state of Oregon and all racial minority patients. That makes the mechanisms involved more complicated to understand.

How applicable are these findings to the U.S. as a whole?

My particular study just looked at EMS medical charts in Oregon from 2015 to 2017, and so part of the generalizability question would be to understand if Oregon is similar to other states. However, there are a handful of other studies that are mostly descriptive in nature of EMS in other systems; one in Contra Costa County, California, and another using national data that



found very similar results. Together as a group, I think the findings are pretty generalizable, and they all found disparities in the same direction and severity.

Do we understand why it happens?

As you've stated, my study in particular – since there weren't any studies really clarifying if this happens – [asked] is there evidence that there's a different quality of treatment taking place? Obviously, it didn't get into the mechanisms why, which is an important next-step question. In my review of the literature and in some of the discussions in my study, [there are four] mechanisms that have been theorized to take place in other areas of medicine that I think are likely to apply at the EMS provider level:

1. One of them is language barriers.
2. The second one is a belief that race is a biological construct, which it is not, and a lack of understanding that it's a social construct.
3. The third is the theory around cognitive bias that takes place. When medical providers are under are under a heavy cognitive load, there are heuristics or stereotypes that get put into place to help decision-making processes, and those stereotypes are known to be laden with bias, which is likely involved in some of these situations but not all.
4. Then the fourth mechanism that's discussed in the literature is the concept of aversive racism. Racial scholars describe this as the third phase of racism in society, with the first being chattel racism or slavery. The second [is] state-sponsored racism, and you can think of the Jim Crow era as the second phase. The third phase is aversive racism, which is largely an externally communicated belief in equity but, internally, possibly even unconsciously, a discomfort in being in situations of mixed race.

How did you establish that medics were less likely to do a pain assessment on a racial minority patient?

It's a relatively simple statistical procedure in that, for example, we have 25,000 or so patients in this case that we're looking at. These are all charts EMS providers have filled out, and they're all, in this particular sample, traumatic injuries of recent experience, 2015 to 2017. In a simple way, the simple question is just to ask first, of the people who called 9-1-1 for traumatic injury, who has received a pain score as indicated by having a pain score charted on their EMS chart? There are limitations to that, as you might imagine, in that some providers may not be great at charting everything they perform and so may not chart some pain scores versus others. The theory here is, across 25,000 charts, it's unlikely that if a provider is a poor charter, they're a poor charter in patients of some races versus others.

You're a paramedic. When you were in the field working on a routine basis, did you experience any of these situations you observed?

I do have some memories of feeling the pressure to treat some people with a reduction in the quality of care versus others. I can certainly remember cases where we would respond to a very fancy, high-socioeconomic-status neighborhood for a person with chest pain. My partner and I and the fire department that was responding would certainly feel the pressure to treat them in a very different way than responding to a person who happens to currently be without a home, in the park, sleeping under a bench who has that same level and severity of chest pain. I can understand the pressures at a provider level that are exerted here, absolutely.

What about racial differences? Can you remember ever having felt or ever having noticed that maybe a partner acted in that way?

There is no single event that's really jumped out to me. The example I gave is very much a socioeconomic status difference, which is part of the complexity here: that race is often tightly interwoven with socioeconomic status, so it can be hard to extract the two from each other. One thing I attempted to do in the study is to try to isolate the effects of race, but there was no event, no single patient for sure that caused me to think I am– I certainly believe that I am victim of this because of my own upbringing … Some of it, I just had a lack of exposure to racial minorities.

To be clear, you are a white guy.

To be clear, I am a white guy. A white guy talking about race, which is always a tricky and yet very important thing to do.

Do EMS workers of color have the same experience in the field?

It's a great question. The short answer is we don't know. There have not been any studies in EMS about if the racial concordance or if the provider's race and patient's race match, does the disparity change? What we do know is, in other areas of medicine, they have studied racial concordance. What they found largely in most cases is that the disparity lessens a little bit, but it does not eliminate the disparity, which to me speaks to the complexity involved in the disparity we're talking about.

Having done this research, what do you think comes next? Is further research necessary?

The easy answer is yes, and always there's further research necessary, so this is just the tip of the iceberg. I think further research should go in a couple of different directions. One is we need to explore the full breadth and depth of these treatment disparities by EMS providers. This particular one I just isolated on pain medication practices specifically around traumatic injuries, but all the mechanisms in play are widely available to almost every treatment protocol EMS providers have. I expect to find disparities across many different treatment protocols, which is largely just not on the radar of most EMS agencies. This is just not something they pay attention to. My hope is that this research requests of them to pay attention and start to look at their quality measurement data in a stratified way across race, across socioeconomic status. There are likely disparities there and across gender.

The second big area of research next steps is around mechanisms, as you alluded to. We understand mechanisms that are likely in place in medicine for other health care providers, but this is a very unique area of health care. There should be more effort around the mechanisms at play that are affecting EMS providers.

Which then leads to the third area: What are some of the mitigation techniques that can be used to reduce these disparities once they are discovered?

What do you think we can do to fix this problem?

I think there are a bunch of things. I think this is the beginning of hopefully changing awareness. Many agencies I work with have this belief that's not backed up by any sort of research that they give quality care to everyone. Hopefully, this will start some conversations at many agencies to say, let's explore if we do vary the quality of our care based on a patient's social standing, and that could be categorized a number of different ways. Race is a very good one to look at because there's a strong literature body that suggests one of the persistent ways that we vary is by race, but there are many others. What I hope is that this encourages EMS providers to start to look at their own data in this way. Then they can all arrive at what the best way is to start to change this within their agencies and within their agency's culture.

One example of how one EMS agency is starting to address this is in Multnomah County, in Portland, Oregon. The county has progressively decided in its last RFP for its ambulance transport contract that it is requiring the agency that won that contract to report on quality-of-care measures by patient race. That holds that agency accountable to understanding it and then to eventually start to build in some training techniques to try to get their arms around it and start experimenting: How do we change this so that we are providing high-quality care to everybody and not just some of our community? 1

Editor's note: This article was adapted from a Code 3 podcast. Hear more here.

About the author

Code 3 podcast, a production of Enchanted Sky Media, is hosted by award-winning journalist Scott Orr, who has covered the fire/EMS/police beat for most of his 30-plus year career in news. He's worked around the country in both TV and print.

KEY CONSIDERATIONS FOR DIVERSITY RECRUITMENT AND RETENTION IN EMS

WRITTEN BY
Debra Jarvis

Use these ideas to help develop a more diverse department

There are several key considerations for EMS leaders when it comes to diversity recruitment and retention. The first is to form a diverse recruitment team. If there's not enough diversity in your organization for it, seek assistance from other EMS/fire departments or civilian organizations.

In addition, the following measures should be taken:

- Develop long-term relationships with community leaders of the groups you will be recruiting from and include them on your team.
- Analyze current organizational culture — does it welcome diversity? If not, how do we change the current culture?
- Identify and remove obstacles in the selection process.
- Identify target groups for recruitment, such as youth organizations, churches, gyms, community centers, amateur sports teams and civic clubs.
- Market to target groups with social media content, posters, brochures, career days, community center visits, church/school visits, community speaking engagements and other Internet tools.
- Reach out to diversity organizations for assistance and to develop media partnerships. Keep in mind that recruiters need to look like the people you want to hire.
- Market to department personnel by confronting and debunking the myth that recruiting women and minorities means lowering standards.

- Conduct training on the benefits of diversity as it relates to customer service and to internal leadership and professional development. Involve members in recruitment, develop incentives for successful recruitment and provide ongoing communications to personnel about the process.
- Identify and remove obstacles in organizational systems to ensure performance appraisals reward desired behaviors, discipline and accountability.
- Officer development programs, ongoing human relations training for all personnel, policies and procedures, recognition and reward systems also need to reward inclusive behaviors.
- Establish a mentoring program.
- Provide ongoing human relations training for department members. Damage control or “what not to do” training is not sufficient.
- Develop organization reward-recognitions systems for supporting diversity. 1

About the author

Debra Jarvis is a retired fire chief with 28 years’ fire service experience in Indianapolis and the Chicago suburbs. She currently consults, trains and does research with public safety and not-for-profit organizations throughout the United States.

HOW A PAIR OF DATA PLATFORMS CAN HELP AGENCIES IMPROVE THE EQUITY OF THEIR CARE

Sponsored by

eso

WRITTEN BY
John Erich, EMS1 BrandFocus Staff

Identify and address discrepancies using ESO's Electronic Health Record and Health Data Exchange

EMS providers deliver their very best care to every patient they treat. But when you step back and look at specific care metrics across demographic groups, you often find disparities.

Multiple factors go into that. Social determinants of health are a big one – the environmental circumstances like income, diet and access to care that shape people's health, functioning and quality of life. Implicit biases persist in all of us – not overt prejudices, but unrecognized assumptions that may manifest unconsciously. These can inadvertently influence our perceptions and care decisions for the various types of people we treat. Other factors – funding, cultural competency and more – likely play roles too.

Whatever the contributors, they can produce the kinds of outcomes no system likes to see. You read elsewhere in this eBook about minority patients in Oregon being less likely to receive pain assessments and pain medications

from EMS. That's far from the only example. Boston researchers recently discovered that Black and Hispanic patients were more likely than equivalent white patients to be sent to a more-distant emergency department or safety-net clinic. And a scoping review of disparities in EMS care published just last year found them widespread, "related to all phases of EMS care for underrepresented groups, including symptom recognition, pain management and stroke identification."

Where such inequities exist, we have a duty to fix them. Developing a more socially equitable EMS system was one of six guiding principles articulated in EMS Agenda 2050, the industry's 2019 vision for its development over the next three decades.

"In a socially equitable system," the project's authors envisioned, "access to care, quality of care and outcomes are not determined by age, socioeconomic status, gender, ethnicity, geography or other social determinants. In every community in the nation, EMS systems provide any resident or visitor the best possible care and services … to maintain the health of individuals and populations."

Closing equity gaps starts with identifying and measuring them, and ESO took an important step in that direction by including some equity questions in its 2022 ESO EMS Index. Drawn from almost 10 million EMS responses contributed by more than 2,000 agencies to the company's vast Data Collaborative in 2021, the Index provides a yearly overview of industry performance on a range of key issues. Last year those included stroke assessments, ketamine administration, lights-and-siren transport, overdose rates, non-transport dispositions and more.

Refer to the Index for its specific findings, but its focus on equity was explained by paramedic Jamie Kennel: "The 2022 EMS Index begins to expand our awareness into one of the most concerning areas of treatment differences: the trend for racial minority patients to receive a reduced quality of EMS treatment. This year the EMS Index stratifies stroke and 12-lead assessments by patient race. Even in these relatively simple medical decisions to perform a noninvasive assessment, we can start to see treatment differences by patient race where there should not be any. Prior research indicates that additional racial/ethnic treatment disparities are likely to be more common and more severe as the level of EMS provider discretion increases (e.g., pain medications, use of restraints, level of patient advocacy around refusals)."

WHAT CAN YOU DO ABOUT IT?

So what's an individual chief or EMS leader to do? How can busy agencies that are already at capacity identify their own care discrepancies and begin reducing them? The answer lies in the data your system's already collecting. ESO offers a pair of tools to help you gather good data and extract the needed details to find potential problems.

The ESO Electronic Health Record (EHR) and ESO Health Data Exchange (HDE) can work together to produce top-notch patient documentation, bridge data gaps with hospitals and help EMS leaders understand patient outcomes. Both thorough documentation of initial encounters and getting patient outcomes data back from hospitals can reveal differences in how patients may be treated by race, gender and other factors.

The EHR was designed to streamline and simplify the collection of patient information and chronicling of care on scene with an intuitive workflow and natural-feeling ergonomic design. Quick-treat buttons allow rapid data entry, and shortcuts speed the documentation of key actions. The easier real-time documentation – and the EHR's ability to run even in a disconnected state – facilitates the quicker completion of reports, which can then accompany the patient when they reach the hospital.

The EHR's built-in Analytics feature helps turn raw data into useful information. Quality leaders can choose from dozens of prebuilt reports or create

new ones – including those aimed at uncovering inequities in care. Administrators can also easily control more than 1,000 configurable fields, lists and validation routines in the EHR to produce the data they need. “It allows EMS administrators to really make the application their own in terms of driving their providers to document what they want and how,” said Sean McLeod, who heads EMS business development for ESO.

The ESO HDE allows information to flow the other way, letting transporting EMS organizations and first-response agencies learn how their patients ultimately did and if their providers’ diagnoses and interventions were appropriate. On the front end EMS ePCR data from all major platforms integrates automatically through the HDE into hospitals’ EHR/EMR systems; in return EMS agencies get back secure demographic, outcome and billing data, including important information like lab results, imaging and doctors’ notes. This data too can be scrutinized through the analytics platform, and insurance information can be imported into ESO Billing.

Looking at the decisions and interventions of the scene – and ensuring they’re equivalent for equivalent patients, regardless of other factors – is one straightforward way to spot inequities. Looking at outcomes across demographic groups can yield even more profound insights. Do comparable patients show different results across gender, ethnic or socioeconomic groups? Having that data enables specific, measurable interventions aimed at reducing gaps.

A secondary benefit lies in revenue: The patient insurance information coming back from hospitals is complete and accurate and provides a foundation for EMS organizations to pursue their own billing and reimbursement. “Agencies have told us how much better their billing capabilities have become,” said McLeod.

THE DATA HOLDS SECRETS

While ESO's EHR and HDE tools are useful for examining your operation's internal performance, there's also big value to knowing how you're doing compared to other agencies like yours. That's where the ESO Data Collaborative comes in. Its wealth of patient care data from systems across the country facilitates comparisons to neighbors, national leaders and systems of similar size and design. To date the collaborative has fueled more than 70 EMS research projects.

A recent paper drawn from that data shows the kinds of advanced insights around patient disparities that can be possible. Using ESO data, a team led by Florida pediatrician Briauna Lowery, M.D., evaluated the presence of SDH observations in the free-text notes of EMS caregivers and sought to quantify their association with pediatric transport decisions. Looking at almost 326,000 qualifying care records for patients under 18 from 2019, Lowery's team divided their dispositions into transport or non-transport, then scanned their narratives for six categories of SDH information: income insecurity, food insecurity, housing insecurity, insurance insecurity, poor social support and involvement of child protective services (CPS). Then they performed some advanced statistical analysis to adjust for variables and ensure accurate comparisons.

The results: While SDH information wasn't widely chronicled (fewer than 2% of records), its documentation was associated with increased likelihood of EMS transport. Specifically, CPS involvement, housing insecurity, insurance insecurity and poor social support were all linked with greater odds of children being taken to a hospital by EMS. Those who had SDH documented had an older median age than those who didn't (12 vs. 9 years), but the SDH and no-SDH groups were otherwise similar.

Lowery and colleagues considered a few reasons for the link between SDH and transport. One was that because EMS providers are mandatory reporters, any CPS involvement automatically makes them more cautious. Another was that housing insecurity, insurance insecurity and poor social support can suggest a lack of overall health care access that could influence a provider's decision. More research is needed, they concluded. It's possible SDH factors exist but are less documented for the non-transport sample, but if the EMS providers in this study are simply being extra cautious with their more vulnerable patients, that's also important to know.

While this review didn't identify gaps in the care of vulnerable patients, it did depict potential differences in care decisions based on nonmedical factors. System leaders can now determine if that's appropriate or a problem that needs solved.

TAKE THE IDEA AND RUN

It bears repeating in discussions about equity that no EMS provider wants to deliver suboptimal care or be unprofessional with people they don't like. But the fact is that inequities and discrepancies in care and outcomes persist across the health care continuum. Agencies face the urgent responsibility of identifying and mitigating them.

While the ESO Data Collaborative can be useful for advanced research (and is open to all), ESO's EHR/HDE combination can provide actionable insights immediately for organizations concerned about delivering their very best care to everyone who calls them.

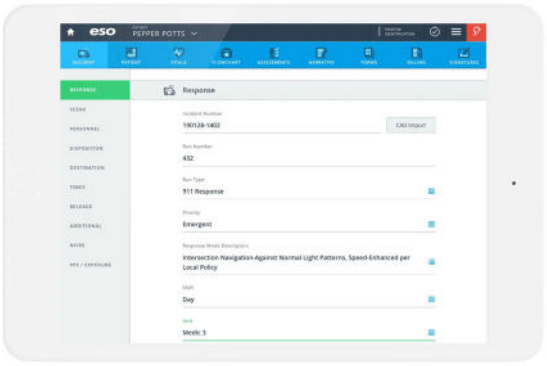
"What we really want to do is push the envelope and bring awareness to the idea that equity findings like we have in the Index are something every ESO customer can draw from the data," said McLeod. "My hope would be that customers take that idea and similar ideas and expand upon them – because you can run those same reports right on your own data – and see if they show similar kinds of inequities to make better patient care and operational decisions." 1

For more information, visit ESO.

Resources

ESO for EMS:

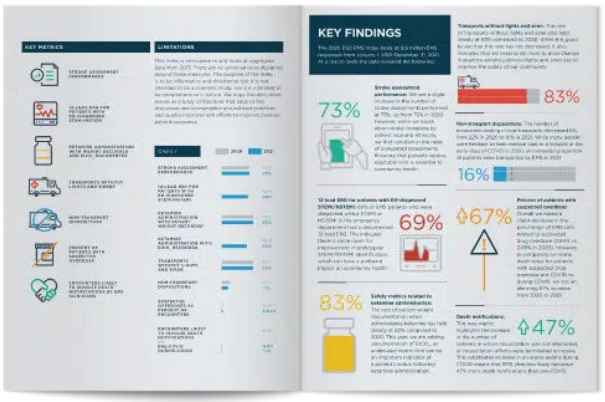
ESO Electronic Health Record (EHR):



ESO Health Data Exchange:

ESO Data Collaborative:

ESO EMS Index 2022:



More on diversity and equity from EMS1: