Air Force Medical Service Aims for High Reliability in Its Quest to Achieve Zero Harm

By Audrey Doyle

Aim high. It’s what members of the U.S. Air Force pledge to do every day in their mission to “fly, fight, and win in air, space, and cyberspace.”

It’s also what Air Force Medical Service (AFMS) senior leaders pledged to do when a 2014 review revealed there were gaps in the access to and consistent delivery of safe, high-quality medical care to Air Force personnel and their families.

To fill those gaps, the leadership team launched a multiyear culture improvement initiative with the goal of transforming the AFMS into a High Reliability Organization (HRO). Although only about a quarter of the way through its transformational journey, the AFMS has already reduced its Serious Safety Event Rate (SSER®) by 49% enterprise-wide. Other key metrics have improved as well, including those pertaining to patient experience, patient outcomes, readmissions, and follow-on care interventions.

The AFMS is a subsidiary of the U.S. Military Health System (MHS). One of the largest and most complex health care organizations in the world, the MHS, which also includes Army Medicine, Navy Medicine, and the Defense Health Agency (DHA), serves nearly 10 million Americans who are entitled to health care coverage through the Department of Defense (DoD).

The AFMS, whose headquarters are based in Falls Church, Virginia, is sizable as well. It consists of teaching hospitals, ambulatory surgical centers, outpatient centers, aeromedical evacuation units, and dental and other specialty clinics, and its workforce is composed of tens of thousands of clinical and nonclinical personnel who provide health care to some 2.6 million active duty and retired Air Force service members and their families at more than 70 Air Force military treatment facilities located around the world.

The AFMS’s High Reliability journey began in mid-2014, when then-U.S. Secretary of Defense Chuck Hagel instructed the MHS to conduct a comprehensive 90-day review of the health care services that military service members and their families were receiving at MHS facilities. The purpose of the review was to establish a baseline measure of MHS performance, determine whether that performance was comparable to top-performing health care systems in the private sector, identify gaps that were preventing the MHS from being considered a leading health care system, and offer recommendations to fill those gaps.

For two months, subject matter experts collected and analyzed metrics, compared them to national standards, and validated them by visiting selected military hospitals and clinics. A DoD working group then met with patients and staff at several military treatment facilities to gather feedback on whether the MHS was providing timely access to health care, as well as the quality and safety of the care being delivered. In addition, three private sector health care systems provided their data to the MHS for purposes of comparison.

The collected information was then analyzed by external experts. The analysis revealed that overall the MHS was providing good-quality care that was safe and timely compared to that found in the private sector, but its performance was widely variable, with some areas performing better than civilian counterparts and others performing below the national benchmarks.
After a thorough analysis of recommendations from military, interagency, and private sector experts, the MHS leaders determined that the best way to ensure consistent access to and delivery of safe, high-quality care throughout the MHS would be for each of its subsidiaries, including the AFMS, to become an HRO.

According to Lt. Col. Michael Fea, Special Assistant to the USAF Surgeon General for Trusted Care, becoming an HRO was a logical step for the AFMS. “The principles, tactics, and techniques of High Reliability have their roots in the aviation and nuclear enterprises. The Air Force has embraced a High Reliability culture in these two portfolios, but the MHS review indicated that we had work to do,” Fea said. “By embracing a High Reliability culture in the delivery of health care, we’d be following in the footsteps of our Air Force leadership. So, learning, growing, and maturing as an HRO made perfect sense for us.”

A Commitment to Provide Trusted Care, Anywhere

The AFMS began its High Reliability journey with the launch of an initiative they dubbed “Trusted Care.” According to Fea, who serves as Trusted Care lead, the main goal of the initiative is to reflect the AFMS’s longstanding commitment to providing “Trusted Care, Anywhere” by building and nurturing a culture of safety and Zero Harm, with an eye toward addressing the intricacies of safety and reliability implementation in a military setting.

“It’s different for us than it is in the private sector. We have to be ready to deploy at any time, to be in a war zone somewhere, treating patients,” explained Fea.

“That’s why culture is so important for us,” added Col. Theresa Clark, Chief of Trusted Care Execution at the Air Force Medical Operations Agency, which is responsible for executing policy across the AFMS. “If we have a High Reliability culture, we’ll practice the same no matter where we are in the world. The practice will be standardized, and errors will have less of a chance of creeping in.”

To that end, the AFMS developed a model for understanding High Reliability. The model consists of four Domains of Change, with the first three domains reflecting industry-leading practices and the fourth reflecting the AFMS’s commitment to put patients and families first.

1. **Leadership Engagement:** Develop Trusted Care leaders at all levels in the AFMS who are trained in HRO practices and place a clear and constant emphasis on safety and accountability while creating a culture where staff at all levels feel empowered to speak up for safety.

2. **Culture of Safety:** Put the health and safety of others first and believe that safe care is everyone’s responsibility.

3. **Continuous Process Improvement:** View the operational environment as a system of care that can be studied to effect positive change, eliminate gaps, and reduce waste.

4. **Patient Centeredness:** Communicate clearly and maximize value to patients, ensure that patient values guide all clinical decisions, empower patients as partners in ensuring safe care, and consistently display empathy, transparency, and humility in patient interactions.

The model also includes nine Trusted Care Principles designed to promote a culture committed to achieving Zero Harm. Principles 1 through 3 help to create a psychologically safe environment; principles 4 and 5 help to focus on creating a learning and improving organization; principles 6 and 7 ensure enterprise alignment; and principles 8 and 9 are the desired values to be achieved.

1. **Respect for People:** Respect your colleagues, your patients, and their families.

2. **Duty to Speak Up:** Identify unsafe potential errors that may lead to harm.

3. **Commitment to Resilience:** Quickly cope with adverse events and bounce back stronger.

4. **Every Airman, Every Day, a Problem Solver:** Constantly find ways to identify areas that can be improved.

5. **Focus on the Front Line Operations and the People Who Do the Work:** Empower your colleagues to identify potential system failures.

6. **Systems Thinking:** Build and leverage connections to solve problems.
7. **Constancy of Purpose:** Unite in a shared vision of safety and Zero Harm.

8. **Maximize Value to the Patient:** Involve your patient in discussions to improve the system.

9. **Zero Harm:** Eliminate harm through improved efficiency and mission readiness.

Because of the AFMS's vast size, leadership determined that the HRO transformation would consist of large-scale changes executed over the course of several years. Working with internal and external partners, they created a plan that would take a phased approach to becoming an HRO.

They began by visiting a number of AFMS military treatment facilities, reviewing harm events that had occurred over the prior three years and conducting in-depth root cause analyses to help leadership and front-line staff identify and resolve common issues to prevent their recurrence.

Next, in collaboration with Press Ganey’s HPI safety consultants, they developed a comprehensive education and training program designed to engrain the four Domains of Change and nine Trusted Care Principles throughout the AFMS. The AFMS piloted the training at large inpatient facilities before taking the program systemwide. Everybody received safety behavior and error prevention training as well as training in the different types of human failures, such as Skill-based, Rule-based, and Knowledge-based thinking errors, according to Clark.

Leaders and middle managers also received training in evidence-based leadership methods for building and reinforcing accountability and finding and fixing problems. In addition, safety coaches were chosen to receive additional training to reinforce the practice of High Reliability behaviors by observing and providing feedback to staff and leaders. A training package that includes an internally developed board game called Quest for Zero serves to further build knowledge and understanding of the Trusted Care Principles, Domains of Change, and safety behaviors among entry-level personnel.

**An Ongoing Journey**

Training of the AFMS’s workforce began in late December 2015 and ended in July 2018. The training has also been embedded into newcomers’ orientation, Clark said. In addition, virtual coaching and mentoring and peer-to-peer coaching via safety coaches provide ongoing support and reinforcement of the Trusted Care Principles and behaviors. In-person visits are also conducted to strengthen the AFMS military treatment facilities’ understanding and use of the tools.

According to Clark, the AFMS has “made great strides” in its safety journey thus far, but it still has work to do. This past fall, the DHA officially assumed the administrative and management responsibilities of a handful of Air Force hospitals and clinics. The change, which had already begun in the other MHS subsidiaries, is part of reforms to the MHS that Congress mandated in the National Defense Authorization Act of 2017.

According to Fea, the current plan is for the remaining Air Force hospitals and clinics to transition to the DHA in phases by Sept. 30, 2021. In the meantime, the AFMS has been collaborating with the DHA to develop a strategy to ensure that its HRO journey continues. “The DHA realizes the importance of safe, high-quality patient care and knows that it’s the foundation for better health and improved performance, and it stands behind our mission fully,” Fea said.

“The MHS review said our performance was average, but we don’t want to be average, we want to be great,” he concluded. “With the DHA, we’ll continue to aim high and work hard to engrain High Reliability principles into our culture and provide every member of the AFMS the medical care they deserve.”