TRUSTED CARE
CONCEPT OF OPERATIONS (CONOPS)

OCTOBER 2015

Office of the Air Force Surgeon General

FOREWORD

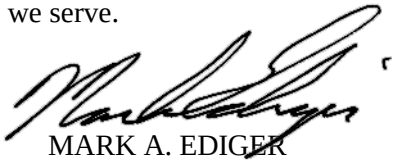
The Air Force Medical Service (AFMS) and our partners in Army Medicine, Navy Medicine, and the Defense Health Agency exist primarily to support the missions, Airmen, Soldier, Sailors, and Marines serving our nation and their families. This collaboration, known as the Military Health System, has the unique responsibility of delivering health services across a spectrum of environments including hospitals, clinics, aircraft, shipboard, and isolated/harsh locations around the globe. Remarkably, this joint collaboration has achieved historic survival rates among wounded service members during the past 14 years of combat operations.

The AFMS is extensively experienced in deployed medical support and en route care. Through the dedication and professionalism of the men and women of the AFMS, the Air Force contributions have been considerable to a joint effort that has produced impressive results on a large scale. Those results are reflected in facts such as the lowest "died of wounds" rate in the history of warfare, aeromedical evacuation of over 85,000 patients since 2001, and long-range critical care movements often within 24 hours of wounding. Additionally, the AFMS has supported the health and performance of remarkable Airmen performing across dynamic domains of air, space, and cyber operations. We are continuously striving to advance AFMS capabilities. Through research and innovation, our deployable capabilities are continuously evolving to adapt to changing operational circumstances and to bring innovative techniques and technology into the operational environment to improve outcomes.

Why, then, Trusted Care? Simply put, because those we serve deserve the very best. They deserve the very best across all the domains in which our unique system provides medical support. As military medical professionals, we have a tradition of commitment to excellence, as stated in the Air Force Core Values. Trusted Care is our concept for applying our commitment in a new way—by applying principles known to lead to high reliability. The principles are adapted from aviation and nuclear power experts and from the Air Force Safety Center—all deeply experienced in reduction of operational risk in sensitive missions. Trusted Care will be a sustained and substantive change in our approach to our mission. The concept described in this document will be the basis for our strategic roadmap to ensure the AFMS remains ready to provide "Trusted Care, Anywhere."

The principles described in this concept include a commitment to vigilance for circumstances posing risk to our patients. That vigilance requires ongoing careful examination of our processes and outcomes with a focus on continuous improvement through day-to-day problem solving. As a starting point, this concept document includes a forthright assessment of our current state. While our processes for providing care and our programs for improving quality meet industry standards, we must sustain a critical and vigilant eye towards our own processes and performance to ensure an indefatigable effort to improve. Our steadfast goal is to eliminate harm to our patients by identifying and eliminating risk before it becomes a harmful error. **Our goal is Zero Harm.**

To succeed, every medical Airman must understand and apply the principles in our daily duties. Every Airman must be a problem-solver, every day. I am certain we will be successful. In the AFMS, our dedicated professionals have proven their commitment to those we serve and their commitment to our mission. "Trusted Care, Anywhere" is core to Air Force Medicine as it speaks to our medical support in every domain and our unfailing commitment to those we serve.



MARK A. EDIGER
Lt Gen, USAF, MC, CFS
Surgeon General

EXECUTIVE SUMMARY

> ***Trusted Care***
> *is a vision of the AFMS as a continuous learning and improving organization with a single-minded focus of safety and Zero Harm.*

This Trusted Care concept of operations (CONOPS) describes the transformation of the AFMS into a high reliability healthcare system. High reliability organizations (HROs), as originally described in the nuclear power and aviation industries, consistently achieve better-than-expected outcomes despite operating in complex or high-risk environments. Healthcare HROs demonstrate significantly reduced rates of patient harm, high-quality care, and a systematic approach to process improvement that sets them apart from their peers. Trusted Care embodies the vision of the AFMS as a high reliability healthcare system providing safe, world-class care in-garrison, en route, and in the deployed setting.

The Secretary of Defense's Military Health System (MHS) 90-Day Review of Access, Quality, and Safety identified significant opportunities to improve performance across the MHS. The magnitude of change needed to address the shortfalls identified in the MHS Review warranted a transformational, vice incremental, approach to improving performance. Based upon recommendations from leading experts and healthcare systems participating in the MHS Review, the MHS committed to the adoption of high reliability principles and practices as the chosen method to improve system performance.

The AFMS held an HRO Summit and Strategy Session in early 2015 to define the foundations of Trusted Care. AFMS leaders recognized the changes needed to achieve Trusted Care could only be achieved by concentrating on avoiding failures that cause patient harm and creating a transparent environment where everyone, regardless of rank or experience, has the responsibility to speak up and report any unsafe condition or error, with the intent to make improvements and raise awareness across the enterprise.

Four pivotal domains were identified that will serve as the major lines of thrust for this AFMS-wide effort: Leadership Engagement, Culture of Safety, Continuous Process Improvement (CPI), and Patient Centeredness. Supporting these domains are key Trusted Care principles that are vital to success as an HRO. In the Air Force, three Core Values are the foundation of our culture and guide our performance within the mission. The Trusted Care principles apply the Core Values through specific practices producing highly reliable medical care and mission support.

The MHS Review and a subsequent AFMS gap analysis highlighted that, like most healthcare organizations beginning their HRO journey, the AFMS has much work to do to achieve high reliability. While the AFMS delivers safe, quality care, there is clearly room for improvement in education, training, and culture. This affects every Airman—from frontline medics to the AF Surgeon General. Every Medical Airman wants to improve in this direction. The Current State section of this CONOPS outlines some of the challenges in the current system to illustrate areas of opportunities. These statements are not reflective of individual performance or leadership, but instead highlight the variability in our system and some of the limitations and external forces affecting our current performance.

The Future State section seeks to define the behaviors, process changes, and training necessary for the AFMS to achieve Trusted Care. Leaders at every level will display competence in safety science principles, will be accountable for behaviors that foster safe, high-quality care, and must master the basic process improvement skills necessary to lead Airmen in a problem-solving approach to their work. The AFMS safety program will build upon the Air Force aviation safety program, in which the culture of safety is engrained in each Airman from day one and in which the systematic approach to event investigation and mitigation is a leadership priority. The domain of CPI seeks to build a robust process improvement framework capable of developing standard, reliable work processes supporting safe, high-

quality patient care. Finally, Trusted Care will shape those behaviors and processes that detract from a focus on the patient, seeking to ensure the work we do adds value for our patients and their families.

While the future state of each domain is discussed individually in this CONOPS, successful implementation of each domain is interdependent on the others. The concept of a Trusted Care System (TCS) acknowledges this co-dependence and seeks to define the interrelationships necessary for the whole to succeed. For example, a culture of safety cannot be achieved without leaders practicing safety science and Just Culture principles. Similarly, Airmen trained in safety and CPI are more likely to quickly identify unsafe conditions and to effectively mitigate them through a systems-based approach to problem solving. As a final example, the AFMS must become a learning organization and be able to effectively translate safe practices and procedures proven at one location across the enterprise in a systematic manner.

The final portion of this CONOPS highlights a number of enablers that are pivotal to the success of Trusted Care. These are pre-existing or upcoming initiatives that will influence the implementation of Trusted Care. Some enablers, like TeamSTEPPS® or Medical Modeling and Simulation, are wholly aligned with key domains of Trusted Care and will be synergistic to their execution. Others, like AFMS Governance and Transition to a Learning Organization, will require ongoing discussions and analysis in order to fully align with the Trusted Care future state. The importance of these enablers to the future of the AFMS marks them as necessary for inclusion in this CONOPS.

TABLE OF CONTENTS

1 PURPOSE

This document lays out the concept of operations (CONOPS) for the Air Force Medical Service (AFMS) transformation to a high reliability healthcare system with increased focus on safe patient care; exceptional quality in-garrison, in the air, and deployed; and a systematic approach to continuous process improvement (CPI). This effort is titled "Trusted Care" because its principles embody the commitment of AFMS medics in fulfilling the promise of "Trusted Care, Anywhere" to our patients. This CONOPS provides historical context leading to the Trusted Care effort, describes Trusted Care principles, and presents the four domains of Trusted Care. It then presents an operational model of the AFMS as a Trusted Care System (TCS) and reflects how Trusted Care operationalization will lead the AFMS to achieving the desired future state across domains. Finally, it describes next steps and essential enablers to support this journey.

The CONOPS is not a mission-essential task list or recipe to follow; it is a doctrine-like change to our healthcare delivery process that will require immediate action and continually progress over a period of years to reach our goal as a learning and improving high reliability organization. Safety will be the priority of each and every member, requiring a vigilant commitment to identifying precursors or actual harm and engaging in CPI to improve the AFMS.

2 INTRODUCTION

The 1999 Institute of Medicine (IOM) report *To Err is Human* initially highlighted the high cost of medical errors in U.S. healthcare. The report calculated upwards of 98,000 deaths annually were due to medical error and served as the launching point for the patient safety movement in the United States (IOM, 1999). While the medical establishment largely dismissed the report as inaccurate, subsequent studies revised this figure to nearly 400,000 deaths per year due to medical error. The report was followed by a 2001 IOM report titled *Crossing the Quality Chasm*, which highlighted the gaps in care that are possible with advances in medicine compared to the reality of care delivered (IOM, 2001). The report went on to identify six aims for the healthcare system. More recently, the National Academy of Sciences (NAS—formerly known as IOM) published *Improving Diagnosis in Health Care*, noting delivery of health care for decades has had a blind spot with persistent diagnostic errors across all setting of care. The report noted most people will experience at least one diagnostic error in their lifetime, sometimes with devastating consequences (NAS 2015).

Six Aims of Healthcare Improvement

- Safe—avoiding injuries to patients from the care that is intended to help them.
- Effective—providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit.
- Patient-Centered—providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.
- Timely—reducing waits and sometimes harmful delays for both those who receive and those who give care.
- Efficient—avoiding waste, in particular waste of equipment, supplies, ideas, and energy.
- Equitable—providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status

– SOURCE: IOM, 2001

The reports launched a national movement in patient safety, including the establishment of Military Health System (MHS) Patient Safety Programs in 2001 and the subsequent establishment of an AFMS Patient Safety Program (PSP) in 2003. In their 2011 article, "The Ongoing Quality Improvement Journey: Next Stop, High Reliability," Drs. Mark Chassin and Jerod Loeb from The Joint Commission describe the characteristics of a small number of hospitals that "cracked the code" to provide extremely safe, high-quality care. They drew on lessons learned from the non-medical safety literature and from studies of "high reliability" industries to suggest high reliability safety practices held the potential to greatly reduce patient harm (Chassin and Loeb, 2011). The works of James Reason and authors Karl Weick and Kathleen Sutcliffe figured prominently in Chassin and Loeb's analysis of these world-class hospital systems (Reason 2000; Weick and Sutcliffe, 2001).

> ***Knowing is not enough; we must apply. Willing is not enough; we must do.***
>
> – Goethe (IOM, 2013)

While the Trusted Care transformation will promote safety as a defining value with an enterprise goal of Zero Harm, it is important to understand the pathway to get there is not another program or process but instead a change in "how" we function and behave as a system. The 2013 IOM report *Best Care at Lower Cost: The Path to Continuously Learning Healthcare in America* outlines the fundamental paradox of American healthcare; that despite an explosion in biomedical knowledge, new and innovative therapies, and improvements in the management of previously fatal conditions, the U.S. healthcare system continues to fall short in quality, outcomes, cost, and equity. The report notes the failure to advance from the traditional systems for transmitting and adopting new knowledge to the need for healthcare systems to become learning organizations with the foundation of continuous knowledge development, improvement, and application. For the AFMS to achieve its strategic goals, it will need to become a continuously learning organization delivering reliable performance and constantly improving, systematically and seamlessly, with each care experience and transition (IOM, 2013). Such movement to become a highly reliable, continuously learning organization can be integrated into AFMS strategy and culture, but it will take tremendous effort at all levels to execute. All organizations who have taken this journey say it take years to achieve but believe it is essential to deliver high quality care at a lower cost and approach the goal of Zero Harm. The AFMS journey will be no different.

3 BACKGROUND

3.1 MHS Review

The key elements of Trusted Care originated from events in the spring of 2015. At that time, the Department of Veterans Affairs (VA) came under fire for poor access to care and for unethical leadership practices that tied executive bonuses to inflated access metrics. The resulting resignation of the VA Secretary, along with media articles focusing on medical care provided in the MHS, led then-Secretary of Defense Chuck Hagel to initiate an unprecedented 90-day review of MHS quality, safety, and access to care. The MHS Review, directed on 28 May and concluded 29 August 2014, drove an exhaustive examination of the current state of quality, safety, and access to care in the MHS and compared MHS performance against selected national benchmark healthcare systems. As the MHS Review kicked off, AFMS leadership proactively contracted an external reviewer to conduct a gap analysis on the AFMS and a comparative analysis with leading healthcare systems in the domains of leadership, safety, and reliability.

The DoD released the MHS Review Final Report to the Services in September 2014. It highlighted six overarching recommendations that focused on patient safety, transparency of information, and the development of the data infrastructure necessary to support effective quality and performance management. It also included 77 specific recommendations in support of these overarching goals, along

with 82 action items intended to move the MHS toward becoming a top-performing healthcare system. While there were common gaps across all Services, AFMS leaders were particularly interested in improving AFMS performance to reduce patient harm, maximize access to care, and develop the necessary performance management infrastructure needed to improve care quality. The MHS Review highlighted several benchmark healthcare systems that had achieved these goals through the implementation of high reliability processes, and this became a focus of the gap analysis activity.

3.2 Gap Analysis: Clinical Quality Management Program Evaluation

Input for the gap analysis included materials developed for the MHS Review, an exhaustive literature review of the concepts of safe and reliable healthcare, interviews with more than 25 AFMS leaders and functional experts, and consultation with Healthcare Performance Improvement (HPI)—a company specializing in high reliability healthcare consulting. During the analysis, AFMS leaders also engaged with several external healthcare organizations, including Kaiser Permanente (performance management), ThedaCare (Lean healthcare), Intermountain Healthcare (use of information technology [IT] to drive quality), and Johns Hopkins (patient safety focus), to understand how these organizations achieved excellence in their specific domains. Additionally, key AFMS leaders visited the Air Force Safety Center at Kirtland AFB to learn how aviation safety and reliability practices might be applied to the AFMS. The gap analysis report is attached in the References section of this CONOPS.

3.3 AFMS Trusted Care Summit Outputs

These efforts culminated in a "High Reliability Summit" attended by senior AFMS leaders in February 2015. HPI safety experts introduced leaders to key elements of safety science and presented lessons learned from their experience with more than 800 commercial health systems. The gap analysis highlighted five key gaps that require attention to achieve consistent safe and reliable care:

- Leadership engagement: More direct leadership engagement is critical to improving the culture of safety and reducing patient harm in the AFMS.
- IT and data resources: Improved IT tools and real-time data availability are needed to aid leader decision-making.
- Safety focus: Gaps in the AFMS' PSP and culture of safety limit the active reporting, investigation, and, most importantly, effective prevention of patient harm events.
- Process improvement: The AFMS needs more data-driven process improvement (PI) activity and leadership engagement in PI, along with fostering problem solving in its Airmen.
- Quality and safety integration: The AFMS needs to integrate quality and safety programs better to improve the delivery of safe, high-quality patient care.

After the Summit, AFMS leadership noted that significant changes were necessary to achieve the desired level of safety and quality found in a high reliability organization (HRO). The Summit summary report is attached in the References section. The AFMS adopted the term "Trusted Care," reflected in its longstanding commitment to providing "Trusted Care, Anywhere," as the title of its HRO transformation efforts.

To begin this endeavor, a senior leader HRO Strategy Session was conducted in March 2015 with the goal champions and leaders of key AFMS Strategic Objectives. This session established the vision for high reliability in the AFMS, defined key domains and guiding principles, and envisioned how HRO initiatives could be integrated into the AFMS Strategy Map. Attendees also brainstormed organizational roles around the adoption of HRO principles and considered key leadership behaviors to anchor the HRO concept.

The AFMS Trusted Care Transformation Task Force (TCTTF) was launched in summer 2015 to develop a Trusted Care CONOPS and function as a network in support of the journey to high reliability. Task Force leaders and AFMS functional experts met throughout the summer of 2015 to formulate the future state of Trusted Care in the AFMS. Using that future state, the specific steps necessary to move the AFMS from its current state (as outlined in the MHS Review and gap analysis) to the desired future state of Trusted Care were defined. AFMS leaders met at a Trusted Care Integration Summit in August 2015 and identified key action items to drive the AFMS from the current to the desired future state in Trusted Care across the four domains. The work of the Task Force, the MHS Review, gap analysis, and leader strategic planning served as the foundation for this CONOPS.

> ***Individual physicians, nurses, technicians, pharmacists, and others involved in patient care work diligently to provide high-quality, compassionate care to their patients. The problem is not that they are not working hard enough; it is that the system does not adequately support them in their work.***
>
> – Source: IOM, 2013

4 TRUSTED CARE PRINCIPLES

Trusted Care cannot be achieved through addition of programs or initiatives alone. It must be anchored by a culture driven by guiding principles that will promote sustainable excellence. In the Air Force the common adage "mission first, people always" highlights the critical role leaders play influencing culture and Airmen play in mission success. Culture is a collection of behaviors, which are influenced by our beliefs and systems. Our values influence our beliefs and ultimately how we behave. In the Air Force, three Core Values are the foundation of our culture and guide our performance within the mission. The Trusted Care principles apply the Core Values through specific practices producing highly reliable medical care and mission support.

The Shingo Model™ offers a widely recognized approach to improve work processes by embedding principles of excellence into organizational culture. It proposes principle-based behavior is how organizations can create predictable outcomes, noting the closer our actual behavior is linked to a principle, the greater the likelihood outcomes from our behavior can be predicted (Shingo Model, 2015). When individuals in an organization share a common understanding and commitment or collective mindfulness to a set of principle-based behaviors, a high likelihood exists for a culture that achieves predictably excellent results with safety as the priority.

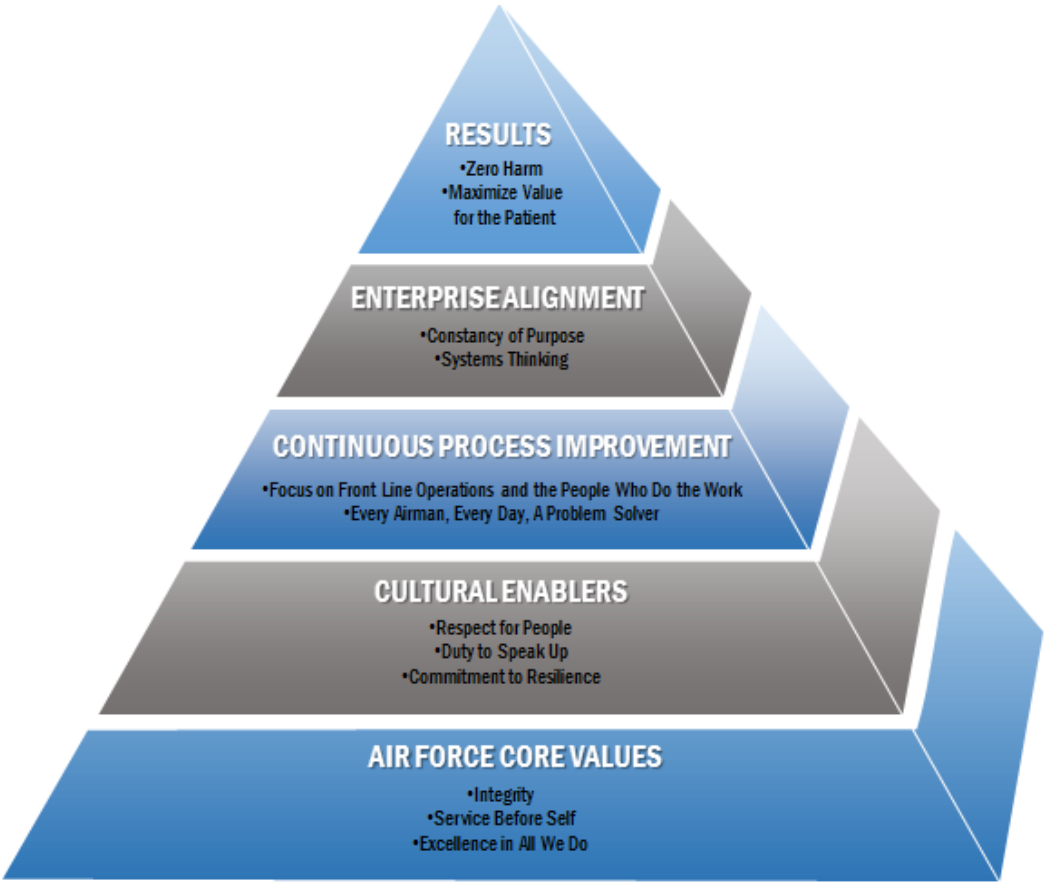
With Zero Harm as our goal, we need to develop a collective mindfulness through purposeful organizing practices. Recognizing the challenge in achieving Zero Harm, we must have principles that support the anticipation of harm, create processes to eliminate harm, and nurture resilience to respond when harm events or hazards occur. To do this, our principles need to foster behaviors that support a culture of respect and accountability, enabled by systems thinking that recognizes the complexity of individual actions that impact the overall process. In other words, each individual needs to know how they should behave and how the work they do contributes to the mission. To align individual actions, we need an infrastructure that embodies the principles around mindful organizing for safety and high reliability.

One of many commonalities among HROs in aviation, nuclear power, and healthcare is each adopted a set of principles to guide their work at every level of the organization. Successful healthcare organizations consistently incorporate their guiding principles into their decision-making processes and into messages from leaders to their patients and staff. Moreover, the organization's leaders model principle-based behaviors demonstrating organization values and establishing frontline culture.

The following set of principles, illustrated in Figure 1, was developed and adopted by the AFMS as the foundation of Trusted Care. These principles follow the structure outlined by Shingo Model and begin with the AF Core Values as our foundation, followed by a set of Trusted Care principles known as

cultural enablers. Cultural enablers are a direct extension of our AF Core Values. They in turn support Trusted Care principles of CPI and facilitate enterprise alignment, which brings value to the patients and results in Zero Harm. Following the principle definitions are a series of "I will …" statements illustrating personal actions that will lead to successful embodiment of the principles.

Figure 1: AFMS Trusted Care Principles



Air Force Core Values

Whoever you are and whatever your role on the Air Force team, the Core Values of Integrity, Service Before Self, and Excellence in All We Do are shared by all Airmen. The Core Values are much more than minimum standards. They remind us what it takes to get the mission done. They inspire us to do our very best at all times. They are the common bonds among all comrades in arms, and they are the glue that unifies the Air Force and ties us to the great warriors and public servants of the past. The Core Values provide a common foundation on which to anchor the principles.

Cultural Enablers

These principles follow through AF Core Values in building the foundation for the culture of a unit to both anticipate and react to errors or harm. Collectively they will drive a culture that values and exhibits respect, accountability, trust, and resilience.

Respect for People: Leading healthcare organizations establish "Respect for People" as the foundation for improving healthcare delivery. This principle recognizes that a daily environment in which staff and patients are trusted, valued and relied on to initiate improvements and innovations at the frontlines is vital to achieving safe, reliable care. Leaders of high performing organizations create a Just Culture supported by individual accountability for self and coworkers. Leaders also celebrate and recognize staff engaged in fostering a culture of safety. Every member of the healthcare team demonstrates respect for the patients and the families they serve and for their professional colleagues. Respect for people allows us to create a work environment that is meaningful and safe, and it fosters teamwork and trust.

Respect for People: Personal Actions for Success
• I will obtain diverse input in making decisions. • I will listen to others' views. • I will not use ambiguous language when communicating a task. • I will ask patients how they want to be addressed, introduce myself by name and role and ask how I can meet their needs. • I will sit down when talking with patients. • I will not disparage other members of the care team in front of patients or co-workers. • I will treat my colleagues with respect. • I will ensure that I know the names of the other members of the care team. • I will help my colleagues when needed. • I will lead with humility. • I will work with the team to create a development plan for employees to include appropriate goals. • I will involve employees in improving the work done in their areas. • I will continually provide coaching for problem solving.

Duty to Speak Up: Duty to speak up describes the attitude and habit of all Airmen to point out potential errors or unsafe conditions that may lead to harm. Every Airman shares a collective mindfulness for a preoccupation with failure. This means openly discussing potential risks and having a constant vigilance for the possibility for unexpected events. Duty to speak up fosters a mindset featuring a reluctance to simplify, values alternative perspectives, and reinforces a respect for people. It also includes a leadership and team environment in which this action is encouraged, even when it results in slowing the process and the condition of concern is determined to not be valid. Duty to speak up uses tools for verbally signaling concern in an escalating fashion: asking questions, making requests, announcing concern, and finally, raising the situation to the chain of command. Leader's actions of accountability, removal of barriers, and coaching reinforce the practice of speaking up and build deeper organizational trust.

Duty to Speak Up: Personal Actions for Success
• I will seek to identify risks and report them. • I will work to reduce risks. • I will actively seek alternative perspectives and opinions. • I will be curious and ask questions when faced with uncertainty. • I will speak out to colleagues when I identify risks or concerning behavior. • I will speak up to my manager when speaking out was not effective or when I observe reckless, inappropriate or illegal behavior. • I will listen without judgment when other staff raise concerns. • I will not become angry when colleagues speak up, even when potential risks are not validated. • I will foster an environment of trust and collegiality. • I will encourage patients and families to speak up if they sense something is wrong with their care.

Commitment to Resilience: Resilient healthcare organizations recognize that, in spite of safeguards and a shared commitment to eliminate harm, errors will occur that threaten safety or result in harm. Leaders promote an environment that copes with, contains and bounces back from mishaps. Leaders of resilient organizations ensure staff are trained, supported, and prepared to learn from failures to minimize the risk of a recurrence. Leaders of high-performing organizations seek out and "Defer to Expertise" by listening to and valuing the input of those with the most knowledge of—and expertise with—an issue, rather than relying on top-down direction to solve problems. This "Commitment to Resilience" enables staff to deliver high-quality care even after a major mishap.

Commitment to Resilience: Personal Actions for Success
• I will see "near misses" as opportunities to improve. • I will not view near misses as proof that the system has enough checks to prevent errors. • I will consistently work to improve my competence and develop new response inventories. • I will seek help from others in resolving a crisis. • I will be aware of available resources to address unexpected occurrences. • I will defer to those with more expertise, even if I am the ranking individual. • I will understand that systems can fail in ways they never have before and will prepare. • I will use action plans and checklists for critical actions.

Continuous Process Improvement

We must all adopt habits of thought that see opportunities for improvement, and take action to improve and sustain performance. To achieve Trusted Care, the AFMS must become a continuous learning organization that strives to constantly improve with every care experience and transition.

Focus on Frontline Operations and the People Who Do the Work: Leaders and staff of high-performing healthcare organizations are "Sensitive to Operations." They are constantly aware of the state of the systems and processes that affect patient care. Operational change within the AFMS will be driven by the frontline staff who best understand the processes and outcomes that can improve care and eliminate harm. Staff must feel empowered to identify errors, defects, and system failures that could lead to an unsafe environment for patients or staff, and, as a collaborative team, actively participate in CPI to make necessary change. Leaders in these organizations support the use of daily staff huddles to share

information and engage in leadership rounds as a means to learn more about how they can help frontline staff improve care and eliminate harm. They develop standards and support the use of standard work to minimize errors and enable identification of preconditions for errors and opportunities for improvement. Successful leaders increase frontline staff trust that promotes positive and successful change and the delivery of highly reliable healthcare.

Focus on Frontline Operations and the People Who Do the Work: Personal Actions for Success
• I will devote time every day to guarantee the principles of continuous process improvement are deeply embedded in all daily operations. • I will participate in daily huddles. • I will standardize work for routine processes. • I will support standard work for complex and/or high risk processes. • I will seek root causes of process issues prior to implementing countermeasures. • I will manage my work based on data of my unit's performance. • I will visually display my unit's daily performance in key process indicators. • I will work to improve performance on key process indicators.

Every Airman, Every Day, A Problem Solver: HROs rely on CPI to reduce variability and increase reliability. CPI within Trusted Care focuses on growing Airmen into effective and efficient thinkers and problem solvers, primarily through the use of Lean thinking. It is about moving the organization to the point where everyone is committed to asking themselves, "What have I improved today?" Additionally, this principle supports behavior driven from the core value of Excellence in All We Do." Leaders of high-performing organizations recognize that healthcare delivery is highly complex with inherent risks to patients. Staff are "Reluctant to Simplify," avoiding simple or easy explanations for mishaps, instead seeking to understand how complex, interdependent policies and processes can better support safe healthcare delivery.

Leaders own the responsibility to remove barriers and make the best use of Airmen's time, thereby, improving efficiency and effectiveness of operational capabilities. "Every Airman, Every Day, A Problem Solver" is about changing people's behavior patterns to create a pervasive environment of continuous improvement owned by every Airman.

Every Airman, Every Day, A Problem Solver: Personal Actions for Success
• I will learn and master the skills of continuous process improvement. • I will improve my daily work using the appropriate tools of continuous process improvement. • I will share my expertise to standardize work. • I will adhere to standard work as expected of me. • I will seek to identify risks and defects in my work and speak up about them.

Enterprise Alignment

The entire organization must orient toward those activities that bring value to the patients, staff, and enterprise through the delivery of highly reliable healthcare.

Constancy of Purpose: Leaders of high-performing organizations promote a "Constancy of Purpose," sharing a clear, unwavering commitment to eliminating harm, and setting organizational goals based on a shared vision of safety. Over time and with much effort, this collective mindfulness fosters a "culture of safety."

Constancy of Purpose: Personal Actions for Success
• I will clearly communicate the directions and purpose of the organization to all. • I will set goals connected to the organization's overall principles of Trusted Care. • I will have a visual display of my unit's daily performance. • I will talk about mishaps, their causes, and what can be learned from them. • I will consider patient safety in all decisions. • I will open all major meetings with patient safety. • I will behave and speak consistently with the priority of safety.

Systems Thinking: Systems thinking is a mindset taking into account the interaction of all parts in the context of the larger whole. Changes in one part of the system are evaluated as to the effect on the larger system. It requires an understanding by individuals of how their actions contribute to and support the mission. Systems thinking requires a common understanding of interdependencies and how units interact across the continuum of care to include the chains of supply and support. Successful organizations understand the criticality of these relationships and leverage them to improve problem solving and enhance unit effectiveness.

Systems Thinking: Personal Actions for Success
• I will be mindful of the complexity of systems in which I work. • I will recognize near misses as symptoms of systems or processes that should be improved. • I will vary from standard work process mindfully. • I will manage my work based on data of my unit's performance. • I will hold a daily huddle with my team. • I will meet and communicate frequently with my team.

Results

We will achieve our desired outcomes only by establishing and sustaining the necessary processes, thoughts, and actions.

Zero Harm: "First, do no harm" is one of the oldest principles of healthcare. It is a commitment by all members of the healthcare team to first consider the risks and potential benefits of any action or decision. By eliminating harm and maximizing benefits, we better serve our patients through better care and better health, improve staff satisfaction and engagement, improve the efficiency of the health system, and improve readiness to execute our mission. Reliable organizations relentlessly focus on eliminating harm as one of their core principles to improve reliability and safety. Achieving Zero Harm is the "True North" in Trusted Care.

Zero Harm: Personal Actions for Success
• I will seek to identify risks and unsafe conditions. • I will work to reduce risks and unsafe conditions. • I will consider one harm event too many. • I will not assume that certain harm events are just "known complications." • I will appreciate the challenge and maintain my commitment to Zero Harm.

Maximize Value for the Patient: Maximizing value for the patient is at the center of what we do. Note in this Trusted Care CONOPS, "patient" can be interpreted in a broad context, and may include caregivers and others with responsibility and authority to represent the patient's interests. Value means providing high-quality, accessible, personalized, and caring health care that respects patient preferences. It is the right patient, at the right place, receiving the right care at the right time—resulting in a high level of satisfaction with the care experience. Maximizing value is not just for frontline staff who routinely interact with patients. Business processes and organizational decisions will be patient-centered and also bring value to the patient. Patients and families, if able and willing, should be encouraged and equipped to take active, meaningful roles in their healthcare as engaged partners with their healthcare team. By using CPI and focusing on the patient, we will also bring value to staff.

We maximize value for the patient through Patient Centeredness. "Patient centered" has increasingly been part of the American healthcare vernacular, particularly since the IOM's *Crossing the Quality Chasm* report (IOM, 2001).

Maximize Value for the Patient: Personal Actions for Success
• I will ask patients how they want to be addressed, introduce myself by name and role, and ask how I can meet their needs. • I will invite patients and family to participate in the delivery of their care. • I will ensure the nurse and care team join rounds. • I will place the impact to the patient above my personal convenience. • I will take the necessary time to clearly explain the purpose of interventions. • I will communicate clearly with patients and families. • I will make decisions that bring value to the patient. • I will encourage patients to be active, engaged partners in their healthcare. • I will support 24/7 visitation by family members and loved ones. • I will seek to understand and act on patients and families' values. • I will incorporate Shared Decision Making principles and tools in helping patients navigate through preference-sensitive conditions/situations. • I will support including patients on MTF governance committees to ensure the voice of patients and families are heard. • I will embody empathy, transparency, and humility in patient interactions.

The Trusted Care Principles are the cornerstones for behavior and govern the consequences of our actions. The principles allow the AFMS to establish collective mindfulness through purposeful organizing practices to achieve our mission and vision. Collectively exhibiting principle-based behavior will result in more predictable outcomes. When every Airman from the frontlines to the highest level of leadership

embrace these principles along with our AF Core Values to drive our daily behavior and mindset, we will establish the necessary culture to achieve our goal of Zero Harm.

5 TRUSTED CARE DOMAINS OF CHANGE: CURRENT STATE

According to the literature and HRO experts, the three key domains of change required to make significant progress toward high reliability are Leadership Engagement, a Culture of Safety, and CPI. Additionally, Patient Centeredness is indispensable to Trusted Care transformation, which aligns with our longtime commitment to patient-centered care. Patient Centeredness—as an additional domain of change—ensures the patient is at the center of our decisions and they are active partners in the care delivery system. As a learning organization, we need to appreciate the critical role engaged patients can play partnering with the healthcare team in navigating the explosion of knowledge and innovation to determine the right care option for the patient.

The sections below provide the definition of each domain of change followed by the current state of each domain. Current state was derived from multiple resources including but not limited to MHS Review Final Report, gap analysis, and leader focus groups at the HRO Summit and Trusted Care Strategy Session. Statements are generalized to the AFMS and not reflective of every individual. It is important to note that external factors and system challenges influence current and previous leader actions and should not be perceived as derogatory. Finally, the AFMS currently provides good quality, safe care, and the following assessment is to help identify current system challenges that provide opportunities to advance to a high reliability system and allow delivery of the safest and highest quality of care.

5.1 Leadership Engagement

Leadership Engagement Definition
Leaders committed to Trusted Care demonstrate a clear and constant emphasis on patient safety by regularly discussing its priority, focusing on processes, expecting and actively searching for failures, fostering a Just Culture, and recognizing staff that help improve the care we provide. Trusted Care requires an operating environment engendering trust and empowerment where staff recognize and act to eliminate unsafe conditions; this is primarily the responsibility of the organization's leaders. Leaders create trust and a Culture of Safety by modeling behavior derived from the Trusted Care principles and enable staff at all levels to excel through coaching and by removing barriers.

Current State

Lack of Defined Commitment and Strategy Alignment: While there is no question of the commitment of AFMS leadership to the AFMS mission, repeated interviews and reports have found challenges in leadership engagement in safety and the principles of high reliability. Part of this leadership disconnect begins with the lack of a clearly defined commitment to Zero Harm and safety as a priority in the AFMS strategy to guide leaders decisions and actions.

Organizational Disconnect: Current resourcing, policy, and performance measures fail to support safety and reliability as a foundational priority for the AFMS. This lack of enterprise alignment has been identified as a potential contributor to the variability in leader behaviors and actions in support of Trusted Care principles. Additionally, the military hierarchical structure can present challenges that hinder sensitivity to operations and deference to expertise within the organization. At the MTF level, the alignment of safety and quality sometimes results in siloed operations with lack of shared responsibility and accountability across the command and functional communities. At higher levels of the AFMS, vertical hierarchies within HAF and AFMOA can result in unintentional lack of shared operational

awareness and support to systems thinking and challenge the constancy of purpose around safety and reliability.

Misalignment of Leadership Incentives: Leaders enable a culture of safety through accountability and recognition, and this has been inconsistent throughout the AFMS. Current measures and incentives are not properly aligned to hold leaders accountable for safety and reliability, so leaders inconsistently apply accountability and recognition in evaluation of errors and promoting a culture of safety and CPI.

Disconnect with Operational Mission: At the MTF and MAJCOM level, commanders and other leaders sometimes identify a disconnect between support of operational mission and the focus on safety and quality. While the change to UEI and release of Wg/CC HUD have provided line leadership with more input to engage and assist medical commanders, several leaders still express perception of competing demands and priorities. For some leaders, this is magnified by their own struggle in how to articulate and balance dual requirements for readiness and in-garrison healthcare delivery, often defaulting to view them as competing priorities instead of synchronous and enabling. Additionally, the stand-up of AFMOA and shift of resources has resulted in some confusion regarding the role of MAJCOM/SG and staff in support of MTFs safety and quality efforts.

Gaps in Leader Competencies: While the AFMS has an established force development model and programs, gaps exist in defined leader competencies related to safety, quality, and process improvement, with corresponding gaps in leadership development curriculum. The literature identifies the need for healthcare leaders to have established current competency in both "hard skills," such as finance expertise, and "soft skills"—skills related to individual's emotional intelligence and ability to interact with and lead others. AFMS needs to increase development of leader "soft skills" and embed assessment and feedback into current evaluation, promotion, and recognition programs.

Career Paths Lack Focus on Safety/Quality/Process Improvement: The career paths for both officer and enlisted marginalize the role of functional leaders and often are at odds with advancement in the executive or command path of leadership. The AFMS force development model lacks support for the development of patient safety expertise, especially for critical leader positions. Responsibility and oversight of safety, quality, and process improvement is frequently delegated to functional or clinical leaders. At the functional level, there are silos of responsibility for safety, quality and process improvement, often resulting in a lack of shared knowledge and commitment to these goals. For example, while policy dictates the SGH has oversight responsibility for safety, quality, and CPI, variable levels of collaboration with SGN, SGP, and SGA exist in managing these programs.

Variable Leadership on Frontlines Results in Undermined Trust and Constancy of Purpose: Significant variability exists regarding the presence of leaders, both officer and enlisted, as well as a lack of understanding and sensitivity to daily operations. Reviews of adverse events frequently identify failure of staff to follow policies and unit processes resulting from workarounds to barriers or a culture of "normalized deviance." The lack of daily interaction between frontline staff and engaged, knowledgeable middle management leaders is a significant contributing factor. Middle management leadership struggles are due to unclear priorities, competing demands, and a lack of knowledge and coaching. A climate of frontline confusion, workarounds, and lack of collective mindfulness persists, aggravated by frequent problem solving within silos. Unintentionally, this results in lack of frontline trust and constancy of purpose to principles of Trusted Care.

Lack of Leadership in Initiative Implementation: Leader engagement has been variable in training and implementation of new programs and initiatives. Studies show 75–80% of all initiatives requiring behavior change fail in the absence of leadership managing that change (McChesney et al., 2012). Several excellent AFMS programs and initiatives designed to improve quality, safety, and reliability of care have faltered or failed to sustain due to lack of leadership engagement. For example, lessons learned from multiple patient-centered medical home (PCMH) senior consultant site visits revealed difficulty in

sustaining PCMH operations significantly related to absence of senior leader engagement and visibility—more importantly—that no training platforms were available to provide comprehensive PCMH training at flight and group leadership levels. Apropos to that: 2015 became the year of PCMH leadership training.

Frequent Leader Transition: Frequent leader transition has been cited as a significant contributing factor to the substantial variability, lack of constancy of purpose, and failure to sustain change seen across the AFMS. However, our leader transition is no more than our line counterparts and not even significantly different from civilian healthcare organizations where healthcare CEO tenures average 3.5 years and their turnover often results in almost half of the executive team being replaced within nine months (Becker's Hospital Review, 2013). The challenge is likely not leader transition but more the multiple system and individual challenges outlined above that inhibit effective leadership transitions.

5.2 Culture of Safety

Culture of Safety Definition
A Culture of Safety is the totality of an organization's values, attitudes, habits and behaviors which demonstrate commitment to zero patient harm. This is evidenced by trust in leadership and leaders' trust in staff, willingness to admit error and identify unsafe conditions, respectful communication, and the belief that safe care is everyone's duty. Individual staff view themselves as LEADERs, committed to Learning from feedback, Engaging in effective teamwork, Anticipating the unexpected, Deferring to expertise, being Extra-sensitive to operations, and being Reluctant to simplify. They know how to identify and prevent errors, and, when things go wrong, know how to quickly recover.

Current State

Patient Safety Program Foundation: The AFMS developed a substantial PSP over the last decade that serves as a solid foundation for transition to a culture of safety. AFMS Airmen *believe* in safe care and understand basic patient safety tools and procedures. However, for reasons listed below, Airmen do not necessarily routinely manifest behaviors that are vital to providing safe care or understand the rationale for such behaviors.

Difficulty for Contract Staff to Lead Transformation: The current PSP is staffed as a contract service, with contract Patient Safety Managers at each MTF, AMC, and USAFE and a central support cell at AFMOA. These functional staffs have traditionally "owned" patient safety in the AFMS, such that many leaders only rarely discussed safety topics. Airmen have been trained to report safety events or concerns, not necessarily to solve them. Patient safety staffs are also assigned at key headquarters' positions in support of Aeromedical Evacuation (AE) and deployed PSPs. The MHS Review raised questions about the wisdom of contracting a core function such as patient safety, and as a result the proper staffing of the program for the future is under review. Until changes are made, it is anticipated that contract staff will ably support initiatives aimed at implementing Trusted Care initiatives, but will likely not be sufficient to lead the necessary transformation.

Training Commonly Occurs in Stovepipes and Lacks Measures of Effectiveness: Even though healthcare is delivered by teams, the AFMS leverages multiple training platforms operated under different hierarchical stovepipes, resulting in training gaps and redundancies. Additionally, training is often developed with a focus mostly on the training event and lacks attention to post-training application to work the environment. This lack of organizational alignment and measures for training effectiveness are negatively impacting organizational outcomes.

Lack of Leadership Attention on TeamSTEPPS®: The AFMS PSP has focused on TeamSTEPPS® as its safety education program. TeamSTEPPS®, developed by DoD and the Agency for Healthcare

Research and Quality, is an excellent set of behavioral tools proven to reduce harm events when used regularly. There is significant variability in the quality of TeamSTEPPS® training between MTFs, and the only measurement of training is completion rates. TeamSTEPPS® is not used regularly in our clinical settings and across all platforms, inpatient and outpatient. Improving MTF leadership engagement in the implementation and sustainment of TeamSTEPPS® is an opportunity. Moreover, the AFMS has never had a curriculum explaining the science behind TeamSTEPPS® behaviors. This has resulted in the belief that harm events are primarily due to individual error. The repercussions of this lack of education are significant. Airmen are hesitant to report events due to concerns with being punished, and leaders believe the root causes of most harm events are individual errors and not poor system design. To successfully build a culture of safety, the AFMS will need to educate all Airmen, including leaders, in the evidence-based role of safety science in harm prevention.

Underutilization of Medical Modeling & Simulation (MM&S): MM&S has been effectively used for individual skills enhancement; however, utilization to support teamwork and communication has been variable. While efforts have been underway in MM&S to transition from Measures of Performance (MOP—criterion used to measure task accomplishment) to Measures of Effectiveness (MOE—criterion used to assess changes in system behavior or capability that is tied to measuring the achievement of an objective), the lack of a coordinated process or body to validate and prioritize Specific, Measurable, Attainable, Relevant, Time-bound (SMART) objectives to align individual and team performance to end-state objectives has not been realized. Today there is no formal strategy or outcome metrics for use of MM&S in support of teamwork and communication training. Instead, the MM&S is highly variable by MTF in focus, execution, measurement, and leadership engagement. Certain functional communities, especially the perinatal community, are more advanced in development of MM&S to include emphasis on teamwork and communication.

Patient Safety Reporting System Underuse: The AFMS uses the DoD-purchased Patient Safety Reporting (PSR) system as its safety event-reporting tool for medical facilities, while the AE System uses the Patient Movement Quality Report (PMQR). PSR is on the great majority of computer desktops across the AFMS. Unfortunately, despite mandatory education campaigns, less than 5% of Airmen report safety events on a regular basis. Reasons for this include challenges using the PSR, lack of feedback from prior PSR submissions, fear of retribution for reporting events, and lack of understanding regarding the role of reporting in harm prevention. Additionally, there is significant variability between MTFs and even units within MTFs in reporting events. Data on event submission is tracked at AFMOA-led Performance Management Forums, but the AFMS has not effectively translated PSR data into actionable event rates or MTF-level safety dashboards that can drive a culture of safety and improvement.

Insufficient Investigative Processes: The AFMS uses the TapRoot© tool to guide facility-level Root Cause Analyses (RCAs) and, unlike many healthcare systems, requires RCAs be performed on sentinel and serious harm events. The AFMS also uses the Medical Incident Investigation (MII) process when an external team for event investigation is needed to give an unbiased assessment. The challenges for RCA and MII investigations are similar: A lack of well-trained investigators, including investigators with Human Factors expertise, root cause analyses that fail to take a systematic and Human Factors approach to causal identification, and the tendency to recommend "weak" corrective actions that are unlikely to prevent event recurrence (DoD, 2014). Healthcare systems that have achieved safe and reliable care inevitably improve the quality of their event investigation processes as part of their PSP—a goal the AFMS must undertake if it is to achieve Trusted Care.

Limited Effectiveness of Failure Mode Effects Analysis: While the effective investigation of harm events is important, it is necessary to identify system weaknesses or risks before harm events happen and take effective steps to prevent such harm events. This proactive approach to safety (or as Hollnagel calls it, "Safety 2") is the reason the AFMS requires MTFs to conduct a proactive Failure Mode Effects Analysis (FMEA) every 18 months. There is broad compliance with this requirement, but the same

limitations affecting the RCA process also limit FMEA effectiveness. A single FMEA every 18 months is inadequate to promote a culture of safety.

The AFMS PSP has matured substantially over the last 10 years and is in no way a "poor" program. Nevertheless, AFMS leaders are aware that improvements must be made to achieve the Trusted Care vision. Given the Air Force's long tradition of excellence in aviation safety, it is natural for the AFMS to model system improvements on an aviation safety model. With help from the Air Force Safety Center (AFSEC), AFMS leaders are developing an "Operational Patient Safety (OPS)" model that will enable the AFMS to achieve a culture of safety and to fulfill the promise of Trusted Care.

Diagnostic Errors Remain a Cause for Concern: NAS (formerly IOM) recently published *Improving Diagnosis in Health Care*, which estimated that 5% of U.S. adults who seek outpatient care each year experience a diagnostic error, and diagnostic errors contribute to approximately 10% of patient deaths. NAS recognized diagnostic errors result from multiple factors, including "inadequate collaboration and communication among clinicians, patients, and their families" and a "culture that discourages transparency and disclosure of diagnostic errors." Additionally, limited feedback to clinicians on diagnostic performance, poor communication and collaboration among providers, and system design flaws are also contributing to diagnostic errors. AFMS harm event, claims, and potentially compensable event data are consistent with this national trend and validate this "blind spot" in our healthcare system. A patient-centered AFMS must address diagnostic errors in a transparent manner and improve teamwork among health care professionals, patients, and their families (NAS, 2015).

5.3 Continuous Process Improvement

Continuous Process Improvement Definition
A commitment to CPI is the habit of seeing the operational environment as a system of care that can be scientifically studied to effect positive change, eliminate gaps, and reduce waste. Systematically improving processes requires the establishment of performance standards supported by standard work and workflows as a foundation upon which to continuously improve. In short, the essence of CPI is "Every Airman, Every Day, A Problem Solver."

Current State

Limited Adoption of CPI Methods: Air Force Smart Operations for the 21st Century (AFSO21) began nearly a decade ago as a campaign focused on growing Airmen into effective and efficient thinkers and problem solvers, primarily through the use of Lean. Although resourced with a major push for education, action and results, the adoption and widespread use of Lean and other CPI methods (e.g., Six Sigma, Business Process Reengineering, Theory of Constraints) had some initial success but has not resulted in the sustained level of use and change desired. Within the AFMS—a microcosm of the Air Force—the experience was no different.

Current thinking of CPI is:

Normal daily management
+ periodic improvement

Lack of Shared Understanding of CPI: There is not a widely shared understanding of CPI as "improving all processes every day." The AFMS relies on periodic improvements and innovations, only improving as a result of a special effort, workshop, or campaign. However, periodic projects and workshops do not equal CPI. The root cause for this condition is the perception that process improvement and managing are unique and separate activities. Process improvement is an activity that is added on to managing.

Inattention to Processes: The focus of AFMS management is primarily on process outcome targets (e.g., access, quantity, quality, cost) and consequences (e.g., rewards, punishment, feedback). There is little emphasis on how people are tackling the details of a process to generate those outcomes. With some exceptions, the inattention to processes has resulted in lower levels of process maturity (Figure 2) and a paucity of standard work.

"Normalization of Deviance" Culture: Normalization of deviance, a phrase that describes how small, incremental deviations are observed and tolerated over time eventually create a culture where risk is accepted and eventually expected. Figure 2 illustrates a generic process maturity model; the majority of AFMS processes are level 1–2 in maturity. Process maturity correlates with process stability, the latter defined as the capability to produce consistent results over time. Unstable processes yield inconsistent results, and AFMS staff has become habituated to variability and defects and a culture of "normalization of deviance."

Figure 2: Process Maturity Model

Levels	Description	Characteristics
Level 5 *Innovating*	Feedback loops are in place to update standard processes	Synergy, evaluation, and organizational management
Level 4 *Managed*	Standard processes have outcome metrics	Problem prevention, process updates, resource accountability
Level 3 *Defined*	Standard processes are defined and institutionalized	Tools and templates, central repositories, training and job aids
Level 2 *Executing*	Processes are occurring but are dependent on individuals	Independent learning and process focuses
Level 1 *Ad Hoc*	Almost no repeatable processes, reactive management	Based on practitioner's abilities

CPI Viewed as Add-on Responsibility: Institutional neglect of processes and improvement carries down to the frontline staff and junior leaders. They often question whether improvement is legitimate work, viewing it is as an add-on to their "real job" rather than being a core activity. When improvements are pursued, there is an absence of change management to sustain them, thus reinforcing the sense of futility. This futility results in the current state of "learned helplessness" whereby Airmen believe change is not possible and no longer engage in any attempts at improvement.

5.4 Patient Centeredness

Patient Centeredness Definition
Patient Centeredness is "care that is respectful of and responsive to individual patient preferences, needs, and values and ensures that patient values guide all clinical decisions" (IOM, 2001). It is at the center of everything the AFMS does. Value is maximized, as defined from the patients' perspective, by promptly anticipating patients' expectations and excelling in every aspect of their experience. The AFMS strives to create a climate that encourages activated, engaged patients as indispensable partners in ensuring safe care and Zero Harm. The AFMS exemplifies Patient Centeredness by communicating clearly to patients, and consistently displaying empathy, transparency, and humility in patient interactions.

Current State

Limited Enterprise Focus on Patient Centeredness outside Primary Care: Patient Centeredness within the AFMS has been equated with the PCMH, the approach to delivering high-quality,

comprehensive primary care for children, youth, and adults. This care incorporates interactions between clinical and non-clinical ancillary staff in support of the patient. PCMH facilitates partnerships between patients and their providers and PCMH team, and when appropriate, the patient's family.

In 2009, the Assistant Secretary of Defense, Health Affairs (ASD(HA)) committed the MHS to adopting PCMH as the foundation of primary care. Integral to this model was fostering continuity and accountability through a primary care manager (PCM) team. Air Force Instruction 44-171, *Patient Centered Medical Home Operations,* 28 November 2014, is the foundational policy for how PCMH is organized in the AFMS.

PCMH in the AFMS will further evolve with the complete implementation of Air Force Medical Home (AFMH), as outlined in the AFMH CONOPS, 5 November 2014. A critical piece of AFMH is segmenting the patient population into "meaningful subgroups" based on patients' mission areas. Through AFMH, individual patient care is augmented by enhanced capability to address population health and human performance.

Additionally, specialty clinics; inpatient services; aeromedical evacuation operations; ancillary services, such as pharmacy, laboratory, and radiology; administrative/clinical support services, such as patient administration, medical logistics, information systems, and resource management; and even the TRICARE network providers collectively must work in sync to optimize patient centeredness.

PCMH Structure Not Enough to Ensure Patient Centeredness: Incorporating patient values into clinical decision making, accommodating limited health literacy, and understanding how family and work dynamics contribute to patients' concerns are examples of how we must operationalize Patient Centeredness. There are limited shared decision making tools to customize care to patient preferences, needs, and values.

Patient Activation Not Perceived as Connected to High Reliability and Zero Harm:[1] Our culture does not integrate patients as indispensable partners in care using crew resource management principles.[2] If patients are discouraged from speaking up, patient safety and trust are at risk. The AFMS and MHS need to shift the paradigm away from care provided unilaterally to the patient and toward care that involves staff and patients partnering in mutual shared responsibility.

Health Literacy Not an Organizational Priority: Health literacy is "the degree to which an individual has the capacity to obtain, communicate, process, and understand basic health information and services to make appropriate health decisions" (Patient Protection and Affordable Care Act, 2010). Poor health literacy is a national problem. Only 14% of the American population is proficient in health literacy.[3] While there is no specific data on health literacy in AFMS patients, poor health literacy is systemic and affects people of all ages, races, and socioeconomic levels.[4] The majority of what is communicated in

[1] Activated patients are less likely to be readmitted to the hospital within 30 days of discharge, to have experienced a medical error, to have poor care coordination between healthcare providers, to suffer a health consequence because of poor communication among providers, or to lose confidence in the healthcare system (DoD Patient Safety Program, 2013)

[2] Air Force defines crew resource management as "*effective use of all available resources—people, weapon systems, facilities, equipment, and environment—by individuals or crews to safely and efficiently accomplish an assigned mission or task.*" (AFI 11-290, *Cockpit/Crew Resource Management Program,* 15 October 2012).

[3] 2003 National Assessment of Adult Literacy was the first large-scale national assessment in the United States to contain a component designed specifically to measure health literacy—the ability to use literacy skills to read and understand written health-related information encountered in everyday life (https://nces.ed.gov/naal/health.asp)

[4] According to Karen Baker, Vice President, Mission Initiatives, Healthwise, there are no easy metrics to track health literacy at the enterprise level and screening patients for poor health literacy is not recommended. Providers

ambulatory visits is not understood or forgotten once the patient leaves the exam room. This is associated with more serious medication errors; higher rates of emergency department visits and hospitalizations; lower rates of preventive care; lower ability to self-manage chronic conditions; lower ability to manage and support children's health needs; and increased mortality. Poor health literacy is also more than just an individual problem; health literacy is also influenced by the design and complexities of the healthcare system. Organizational self-assessment tools exist to identify opportunities to improve health literacy. To reach Zero Harm, we must eliminate problematic health communication that leads to misunderstanding and risks to patient safety.

Transparency Not an Organizational Priority: The AFMS does not have an organizational culture that has committed to full, immediate disclosure of medical errors to patients. Unlike some civilian health systems, such as the University of Michigan Health System, we are not universally trained in how to disclose medical errors.

6 TRUSTED CARE AND THE TRUSTED CARE SYSTEM

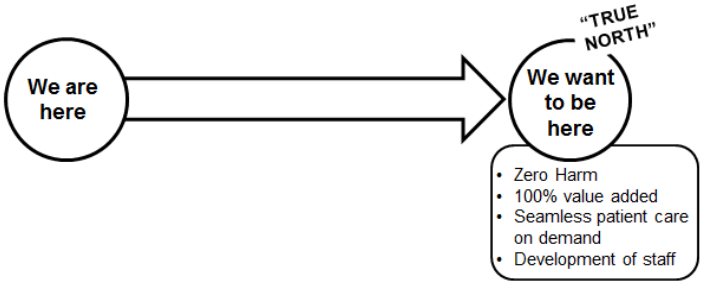
The transformation from a less than highly reliable organization to a continuously learning HRO is often described as a multiyear journey. To create enthusiastic followers and an environment of trust to take this journey, leaders must instill confidence and belief throughout their organization that they are headed to a desirable destination. That destination is a future state, and defining the future state is the most critical step in planning strategy. For the AFMS, the chosen future state is "Trusted Care," which is a healthcare environment with a single-minded focus on the elimination of harm and mitigation of errors. Defining the values and vision of the future state is the most critical step in planning strategy. It serves as an architectural view or blueprint for how the AFMS will look in the future. The AFMS, by embracing the principles described earlier, will deliver value to our patients through the provision of safe, reliable, high-quality clinical care across the continuum, carried out by an entire staff with the single-minded focus of Zero Harm.

As depicted in Figure 3, the Trusted Care future state consists of:

- Zero defects/harm events
- 100% value-added services
- Seamless patient-centered care on demand
- Professional growth of its staff

This Trusted Care future state complements and supports the AFMS strategic vision of making our beneficiary population the healthiest and highest performing segment of the U.S. by 2025.

Figure 3: AFMS' Vision for Trusted Care Healthcare Operations

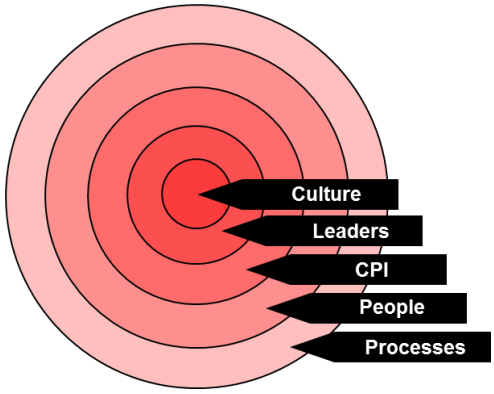


are encouraged to ask patients the open-ended question "What is the best way that you learn?" (National Patient Safety Foundation webinar "Health Literacy: A Vital Sign for Patient Safety", 6 Oct 2015.)

To create the future state, we must change our present healthcare delivery system into a TCS that reliably delivers value to our patients with Zero Harm. Humans inherently have inertia and resist change, seeking to maintain the status quo. If we are to reach the Trusted Care future state, we will have to create a new status quo and leadership must commit to Zero Harm, foster a Culture of Safety, and lead the organization daily with a commitment to CPI. Leaders need to recognize the accomplishments and contributions of their staff as they inspire the entire organization's commitment to Zero Harm.

Every system has leverage points, or centers of gravity, that exert a greater influence on the whole system than do other components. Change these centers of gravity and the system changes. The Five Rings Model (Figure 4) is used here to help understand our system and identify its centers of gravity (Warden and Russell, 2002). These centers of gravity align to and support the four domains of change identified by AFMS leadership as critical to the Trusted Care transformation. If we go to where patient care is delivered, we see staff acting at the level of processes—that is, performing their daily work. If we want different outcomes then we need to change processes and people's actions within those processes. We need a culture that promotes learning at every level to create an organization that generates and transfers knowledge from every patient interaction to drive greater predictability and reliability across the system. Systematically focusing on CPI is the means for achieving results or process outcomes such as Zero Harm, quality, healthcare team productivity (which underlies access), reduced cost, and more. Additionally, selectively focusing on improving processes that generate value for patients drives patient-centered operations. Effective CPI requires specific leader behavior patterns as well as an enabling organizational culture.

Figure 4: Five Rings Model



With this understanding, we can now focus on the whole system and drive all the system elements in parallel to become the TCS. The coordinated set of principles and activities to change the system constitutes the TCS implementation plan. Targets of that plan must include the following centers of gravity, working from the outside (more tactical) to the center (more strategic) ring of the Five Rings Model.

6.1 Centers of Gravity along the Domains of Change

6.1.1 Processes

Standardized processes are the foundation for CPI and staff empowerment. Standardized processes help maximize compatibility, interoperability, safety, repeatability, and quality. Standardized processes provide a primary mechanism for problem solving, building in quality and facilitating change management. The goal is "flexible regimentation" in which a balance is struck between performing processes based on the best available evidence and efforts to improve the standard processes. While standardized processes describe how the work should be done, standard work is how the processes

actually operate as the standards are specified. The latter is the focus of process improvement efforts. The system needs to support standardized processes with a robust infrastructure that gathers and shares information across the continuum, linking individual patient care episodes, knowledge, data, and processes to promote care delivery and care coordination with focus on outcomes.

6.1.2 People/Staff

The frontline staff, in collaboration with patients, are the agents of CPI. Their challenge is to improve every process every day to maximize the value they deliver to patients through their work. The staff do this by engaging in a fundamental behavior pattern referred to as the *improvement pattern*, which is a repeating routine by which they improve, adapt, and evolve. The improvement pattern is captured in the concept of "Every Airman, Every Day, A Problem Solver." The improvement pattern is embedded in and made inseparable from their daily work in standardized processes. When these behavior patterns are repeatedly practiced and reinforced by leaders, they eventually become part of the organization's culture.

It is important to recognize the "medical ecosystem" required to deliver care and the necessity for high levels of care coordination and systems and processes that support the team delivering care which includes the patient. The medical ecosystem is comprised of both clinical and nonclinical staff and each care experience and transition depends on strong teamwork and communication within teams of clinical and nonclinical frontline staff.

Both engaged patients and frontline staff play a special role in improving processes to increase safety. Since staff are working at the level of processes, they are sensors detecting abnormalities and potentially unsafe conditions and have a "duty to speak up." The AFMS puts the responsibility for safety and quality directly in the hands of frontline staff. Every individual involved in a process has the responsibility to stop the process whenever they see something out of standard or suspect an evolving unsafe condition. Stopping a process immediately highlights the problem to leadership so concerted attention can be placed on solving the problem. Both staff and leaders develop countermeasures and error-proofing to fix the problem. This approach prevents unsafe process conditions from persisting and potentially impacting multiple patients and/or staff.

The AFMS will ensure a comprehensive force development model that instills competence in the tasks appropriate to their role and which support delivery of highly reliable care. The AFMS will support continuous learning that reinforces key Trusted Care principles at every opportunity and by every member of the team and will engage in systematic problem solving and systems re-engineering to assist frontline staff in their commitment to Zero Harm.

6.1.3 Continuous Process Improvement

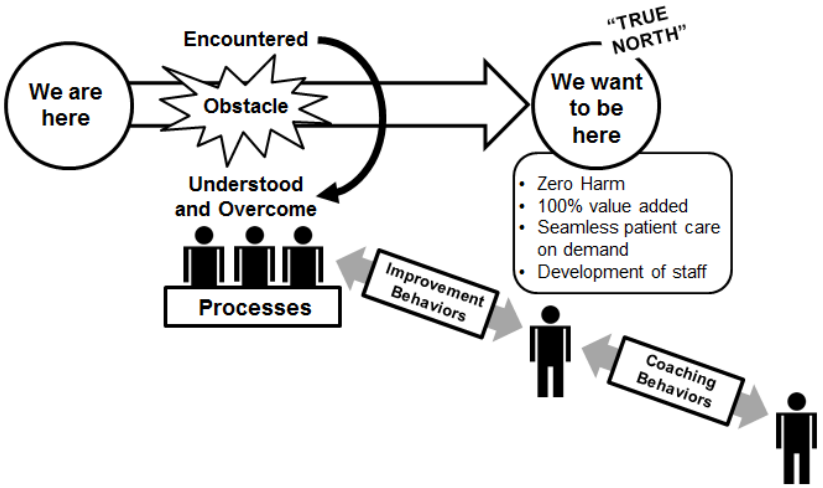
The AFMS must become an adaptive organization in which *improving and managing are one and the same*. At the highest level, the AFMS purpose and direction needs to change from "making our supported population healthier and better performing" to "improving and evolving how we make our supported population healthier and better performing." While these two statements sound similar, there is a significant difference: improvement and adaptation moves from being an add-on in the first statement to become the center of what the AFMS does in the second statement. The operating system for daily management is CPI. Rather than primarily focusing on outcome targets, management emphasizes how staff tackle the details of the standardized processes, which in turn generate the outcomes. Selectively focusing on improving processes that generate value for patients drives patient-centered operations. Over time, daily improvements relentlessly reengineer the AFMS to become more reliable and higher performing in producing value for patients.

6.1.4 Leaders

Leaders and managers are the agents responsible for teaching and mentoring the improvement pattern to everyone in their organization. They do this by engaging in another fundamental behavior pattern referred

to as the *coaching pattern* (Figure 5). The coaching pattern is synopsized in the concept of "Every Leader a Problem Solving Mentor." Leaders need to be competent in the improvement pattern so they can model the behavior to develop it in others. Training of staff is accomplished through frequent coaching cycles on actual problems "at ground zero" where the processes occur. Leaders at all levels help others grasp their current condition, they understand the direction the organization needs to go, they establish target conditions that drive CPI activities while ensuring all activities achieve a unity of purpose, and they help remove obstacles to process improvement activities.

Figure 5: Trusted Care Behavior Patterns



Leaders routinely walk around and observe processes and actions of staff and patients at those processes. The purpose in observing staff and patient interaction in progress is to allow a leader to question, analyze, and evaluate daily processes rather than relying solely on data or anecdotal evidence. Leaders gain a better understanding of situations and process interaction at a deeper level and use that understanding to make more effective decisions. Senior leaders in highly reliable organizations go to observe staff in action on the frontlines; they also take full advantage of the wisdom and experience of others to gather and discuss information obtained through direct observation.

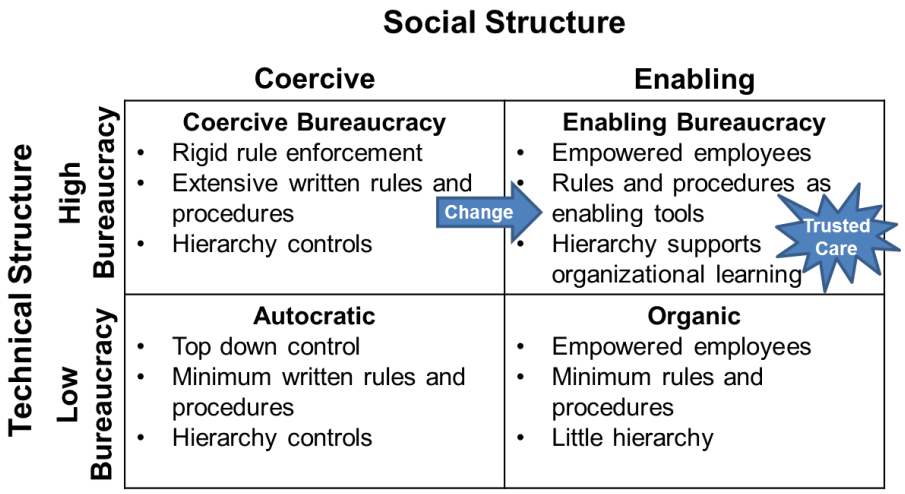
Walking around and observing direct patient interaction extends a deeper understanding of what patients really want. The first purpose of leaders in the TCS is to put patients first in all actions and decisions their organization does every day. The priority for generating value from healthcare operations should be in the order of patients and families, then staff, and lastly, the organization. This philosophy is the best approach to winning the trust of patients, families, and staff, and ultimately brings growth to the organization and the AFMS at large. The emphasis on patient centeredness creates a bond between patients and staff. When patients need care, they will then seek out the AFMS healthcare delivery system in lieu of choosing other healthcare options.

6.1.5 Culture

The AFMS is organized as a bureaucracy as are nearly all elements of government and medicine. While the term bureaucracy has negative connotations, in reality a bureaucracy is not necessarily bad. To understand this statement, we need to recognize there is both a technical (high vs. low bureaucracy) and social (coercive and enabling) dimension to organizations (Figure 6). While a coercive bureaucracy uses standardized processes to control people, an enabling bureaucracy uses standardized processes to help people control and improve their own work. Workers in the enabling bureaucracy are analysts and problem solvers and not just a means to accomplish work. The AFMS delivers Trusted Care by

standardized processes so it can continually improve its work. Consequently, the AFMS must evolve its social structure from coercive to enabling.

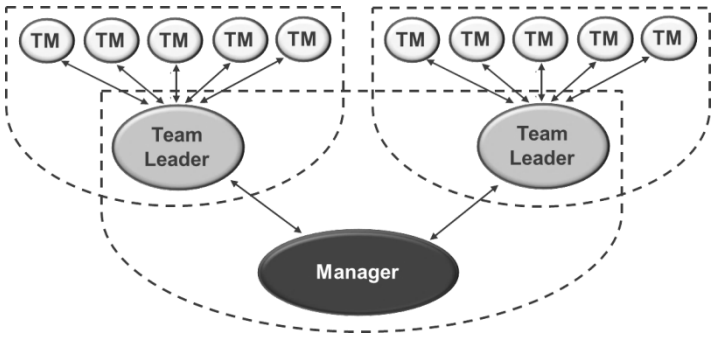
Figure 6: Coercive versus Enabling Bureaucracies



– Source: Liker, 2012 (adapted)

Key elements of the enabling bureaucracy are the improvement and coaching behavior patterns, the latter which implies a servant leader perspective that upends the bureaucracy (Figure 7). While the path to Trusted Care will need to start with a top-down approach to introducing and advancing high reliability principles and behaviors, the future state is one in which leaders generate high levels of trust and support to the frontlines through an inverted structure as servant leaders. Over time, these behavior patterns establish a Zero Harm culture, a Culture of Safety, and value. Once an enabling social structure is established, the stabilizing trait of this bureaucracy helps anchor the emerging culture across leaders and leader transitions. When processes are managed through CPI focused on patient value, then the bureaucracy will be outwardly focused and agile in responding to dynamic and unpredictable future conditions.

Figure 7: Inverted Structure of an Enabling Bureaucracy



(TM = team member).

– Source: Liker, 2012 (adapted)

An enabling bureaucracy is based on a Just Culture in which safety and quality problems are first and foremost considered opportunities for organizational learning and improvement. In a Just Culture when safety or quality problems occur, leaders observe frontline staff performing standardized processes

looking for deviations. If staff follow standardized processes and unsafe conditions persist or quality problems still occur, then standardized processes need to be modified. If staffs exhibit unintentional deviations, leaders take on the role of coach and teacher. The influence of peers is exercised through a culture of "200% accountability," where peer checking and coaching is the norm. However, none of the above overshadows individual accountability. Individual accountability is not about blame and punishment, but about learning and growing. A comprehensive accountability system recognizes the collective influence of each source of accountability in providing positive reinforcement to engrain safety and improvement behaviors aligned to Trusted Care principles. Remedial or punitive action is reserved for the extreme cases where standardized processes are not followed and there is conscious disregard for safety, putting patients at risk.

Figure 8: Relationship of Accountability and Recognition in Development and Reinforcement of Trusted Care Behaviors

In the TCS, accountability must be closely coupled with the practice of recognition and positive reinforcement. Leaders and peers relentlessly practice the art of recognition that is timely, authentic and aligned to reinforce desired behaviors. Just Culture accountability married with recognition using 5:1 positive to constructive feedback, simple thank-you, and other techniques will enable a culture of trust and higher levels of staff satisfaction and engagement. Engaged, enabled, and energized frontline staff are critical to expediting the development of a TCS that embodies "respect for people" and the right environment for continuous learning and improvement.

7 TRUSTED CARE DOMAINS OF CHANGE: DESIRED FUTURE STATE

As Trusted Care is operationalized through the TCS described above, the AFMS will evolve toward the desired future state that embodies the definitions of the four domains of change. This future state envisions safer care, better quality, higher reliability, and improved efficiency across all care settings: in-garrison, en route, and deployed. The Trusted Care future state adds value to AFMS' support of the mission and brings the AFMS into better alignment with high reliability Air Force aviation operations. The following sections provide a set of future state declarations as determined by AFMS leadership followed by the vision of the desired future state for each domain.

7.1 Leadership Engagement

Leadership Engagement Future State Declarations
• AFMS commitment to safety doesn't waiver with leader transition. • AFMS structure demonstrates commitment to safety as a priority. • The AFMS develops, evaluates, and selects leaders based on demonstrated application of Trusted Care principles. • Leaders are visible in support to frontline operations through coaching and empowering Airmen as problem solvers. • Leaders foster a Just Culture that supports recognition and accountability of safe behaviors and trust. • The AFMS enables leaders through a reliable, real-time performance management system.

Leaders are foundational to an organization and central to any organizational transformation. Leadership Engagement is the keystone to Trusted Care. Obtaining leadership commitment and engagement must be the first step for creating a Culture of Safety and CPI. Leaders must have a shared understanding that the Trusted Care journey is a long one; it may take more than 10 years and must be the highest priority of every leader. Engagement must begin at the most senior levels of leadership and end with the same level of engagement at all levels of management (Chassin and Loeb, 2011; Frankel et al., 2006).

Engaged and committed leadership produces organizational culture change, acceptance of Trusted Care principles, and increased frontline staff trust, ultimately resulting in reduced patient harm. Frontline trust is the ultimate arbiter of success in leader development and culture change. Reduced patient harm is the ultimate indicator for a successful journey to Trusted Care.

Desired Future State

The AFMS strategy defines what is important, while Trusted Care provides principles to translate strategy into action.

Safety Commitment Embedded in Strategy, Structure, and Operations: Trusted Care acknowledges the central role of leaders in establishing frontline trust in support of a culture of safety and CPI. The AFMS needs to make a commitment to safety that does not waiver and is supported by leaders in their application of Trusted Care principles. The commitment to safety must be embodied in strategy, structure, and operations and be visible and understood at all levels of the organization. Leader behaviors in modeling the Trusted Care principles will reshape the AFMS by demonstrating commitment to Zero Harm and maximizing value from the patient's perspective.

Unwavering Focus on Safety: This commitment must be pervasive and impermeable to leader transitions. Leaders of high-performing organizations promote a "Constancy of Purpose," sharing a clear, unwavering commitment to eliminating harm and setting organizational goals based on a shared vision of safety. Over time and with much effort, this collective mindfulness fosters Trusted Care. The entire organization must orient toward those activities that bring value to the patients, staff, and enterprise through the delivery of safe and reliable healthcare.

Emphasis on Systems Thinking: The collective mindfulness of an organization is sustained by leaders who embrace systems and Human Factors engineering thinking, a mindset that takes into account the interaction of all parts in the context of the larger whole. Leaders need to recognize how changes in one part of the system are evaluated as to the effect on the larger system. A systems approach supports leaders through establishing standards that can drive standard work and standardization and improve problem-solving efforts and effectiveness.

Strong Leadership Development: Leaders need to have a shared knowledge and skills in the science of safety, reliability, and process improvement. These should be thoughtfully developed, evaluated, and refined through sustained coaching and built from a strong foundation of leadership development steeped in Trusted Care principles. Leader development will be conducted in an environment that promotes teamwork and shared responsibility for commitment to safety.

Visible Presence at Frontlines: Supported, trained leaders will drive organizational change through their visible presence to frontline operations. Leadership engagement will be a uniform standard across the AFMS demonstrating their commitment to safety and process improvement. Airmen's thoughts, ideas, and aspirations will be cultivated, and their actions encouraged, thus enabling a culture of trust that promotes a cycle of positive growth and open sharing of ideas and concerns. Innovation should be encouraged and leaders must foster the growth of subordinates who demonstrate the ability to lead change. Leaders will empower Airmen as safety sensors and problem solvers through coaching and enable them by removing barriers.

Accountability in Creating Just Culture: Leaders will be trained and equipped to foster a Just Culture that supports recognition and accountability. Leaders will be accountable for their actions and behaviors and provided regular feedback to further enabled in creating Trusted Care. Leaders will promote recognition rewarding behaviors in support Trusted Care.

Frontline trust is the ultimate arbiter of Trusted Care success. The presence and actions of leaders in support of frontline operations empower, enable and energize the frontline, whose actions will transform the AFMS to embody the principles of Trusted Care.

7.2 Culture of Safety

Culture of Safety Future State Declarations
• The AFMS has a relentless drive to achieve Zero Harm. • All Airmen are trained, equipped, and empowered to report and mitigate unsafe conditions, near misses, and errors. • All Airmen demonstrate commitment and are held accountable to policies, principles, and standards. • The AFMS has substantial depth and ability to sustain patient safety and quality expertise. • The AFMS demonstrates resilience through systematic and Human Factors approach with rapid response, analysis, and corrective action following a serious safety event. • The AFMS exhibits a high level of trust and transparency amongst staff and patients. • The AFMS prioritizes patient safety in all infrastructure, systems, organizational alignment, and acquisition decisions.

Desired Future State

The foundation of Trusted Care is the unwavering commitment to the provision of safe care and the elimination of patient harm. A Culture of Safety is manifested by leaders well trained in safety science theory and behaviors leading Airmen who are adept at effective teamwork, mindful of day-to-day risks, and focused on safe operations. Leaders understand the critical role of trust and respect for the individual and demonstrate those qualities in word and deed.

Key components of this Culture of Safety can be viewed using the Operational Patient Safety (OPS) model currently under development. The OPS model leverages Air Force expertise in aviation safety by applying key risk reduction strategies and behaviors to Air Force medicine.

LEADERs are …

Learning from feedback

Engaging in effective teamwork

Anticipating the unexpected

Deferring to expertise

Extra-sensitive to operations

Reluctant to simplify

Safety Training and Accountability for All: The AFMS will develop a safety curriculum in which all Airmen receive training in safety science principles, key safety behaviors, and techniques necessary to improve error-prone processes. This approach models Air Force aviators who are immersed in safety practices and behaviors from day one and continue to develop safety knowledge and expertise throughout their careers. The training will be standardized, with defined competencies according to rank and position, and will include measures of effectiveness. This training will begin at the first school or duty station, impressing upon new Airmen key safety skills and behaviors that foster teamwork, accountability, and compliance. Mastery of these safety skills and behaviors is just as important as technical competence and is required for Airmen to progress in all aspects of training. Supervisors will ensure that work is performed to standards and proper safety precautions are followed, and will be trained to hold members accountable for complying with prescribed standards. Senior leaders gain expertise in safety coaching, rounding to influence, and advanced process improvement techniques to effectively lead Airmen in the provision of safe care.

Rigorous Reporting of Near Misses and Harm: PSR near miss events would be routinely used to identify potential risks and, using a process improvement framework such as Lean or Plan-Do-Check-Act (PDCA), be used to proactively correct systemic safety risks and prevent occurrence. In a culture of safety, proactive harm prevention is the primary focus of every Airman.

Enhancement of a Just Culture: A Just Culture is one in which errors are reported without fear of blame or reprisal. Leaders understand the majority of errors are caused by poor process and system design, not human error. In a Just Culture, harm events and near misses are consistently reported, with a focus on process improvement and prevention instead of blame. This transition will be achieved by ensuring staff and leaders are well-versed in advanced safety science principles, the mentoring of leaders at all levels regarding error causation and investigation, and leadership communication that supports the blame-free reporting of errors.

Thorough Investigation of Harm Events: Harm events are thoroughly investigated using RCAs with careful consideration of contributing human and system-based causal factors. AFMS functional experts and leaders will be formally trained in medical event analysis, Human Factors, and effective corrective action implementation. Mechanisms will exist to validate implementation of corrective actions and to make necessary policy and system design changes where needed.

Use of Clinical Standards and Standard Work: The culture of safety under Trusted Care envisions the use of clinical standards and standard work to reduce variability and improve safety. Just as aviators have developed standard procedures and training for high-risk and frequently performed maneuvers, the AFMS will develop standards for high-risk and frequently performed medical procedures. Current medical AFIs create a framework for the provision of care, but do not define the key clinical performance tasks that define safe care. In a culture of safety, medics at all levels will be trained to approved work standards and, once trained, will be held accountable for correct performance. Like the application of the Standards and Evaluation function in flying units, the AFMS must create a process for developing standard clinical workflows and validating their routine performance.

7.3 Continuous Process Improvement

Continuous Process Improvement Future State Declarations
• The AFMS uses CPI that produces value as defined by the patient and drives the organization to its goal of Zero Harm. • The AFMS is a learning organization that continuously improves and transforms. • The AFMS leaders create and sustain an environment of continuous improvement executed and owned by Airmen. • The AFMS uses standard scientific problem solving method across the enterprise. • The AFMS establishes standards and standard work to reduce risk and variation.

Desired Future State

Process Improvement Is Normal Daily Management: The AFMS can only achieve the strategic goal of Zero Harm by becoming an adaptive organization in which *improving and managing are one and the same*: Improvement and adaption become the center of what the AFMS does on a daily basis and forms how we think and operate.

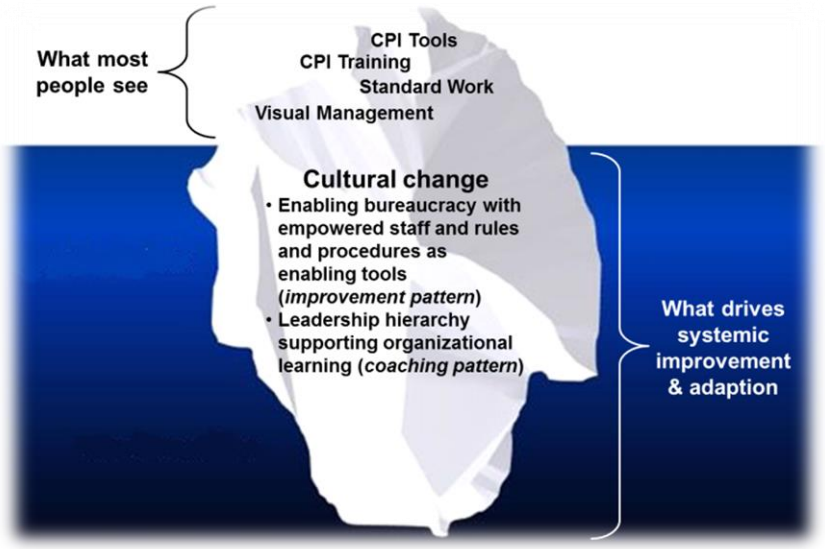
> ***Current thinking of CPI:*** Normal daily management + periodic improvement
>
> ***Trusted Care thinking:*** Normal daily management = process improvement

Focus on Processes that Generate Patient Value: Systematically focusing on improving processes is the means for achieving results or process outcomes such as Zero Harm, quality, healthcare team productivity (which underlies access), cost, and more. Selectively focusing on improving processes generates value for patients and drives patient-centered operations.

Sustained Improvement and Coaching Patterns: Two fundamental Trusted Care behavior patterns drive and sustain the organizational culture of improvement and adaption. The first is the *improvement* pattern, which is the repeating routine by which staff on the frontline of AFMS operations improve, adapt, and evolve (Rother, 2010). The improvement pattern is synopsized in the concept of "Every Airman, Every Day, A Problem Solver."

The second is the *coaching* pattern, which is the repeating routine by which AFMS leaders and managers model and teach the improvement pattern (Rother, 2010). Cultural change is the largest obstacle that must be overcome to realize Trusted Care (Figure 9). Cultural change starts by describing and emulating the requisite behavior patterns. Accordingly, the AFMS' journey to Trusted Care begins with leaders teaching, practicing, and reinforcing the improvement and coaching patterns until they become organizational habits—that is, they become the instinctual way we think and act. Unlike historical attempts at process improvement focused on those things above the waterline, Trusted Care anchors the needed behavior patterns in organizational culture.

Figure 9: Iceberg Model of Continuous Process Improvement



7.4 Patient Centeredness

Patient Centeredness Future State Declarations
• The AFMS places the patient at the center of everything it does. • The AFMS defines value from the patient perspective. • The AFMS anticipates the patient's expectations and excels in every aspect of the patient experience. • Patients are enabled, informed, and empowered to actively engage in the delivery of their care and the systems that support it.

Desired Future State

Patient Centeredness is at the center of everything that the AFMS does.

Patients are Active Partners in Their Care: Patients are strongly encouraged to be active, engaged partners in care. They feel welcome and comfortable to express values, concerns, and preferences without being judged. The message they receive from all levels of the AFMS, from the Surgeon General of the Air Force to the E-1 medical technician, is that the AFMS invites patients to speak up if they sense something wrong, ask questions, and make their values known to the healthcare team. We want and need patients and families to speak up when they do not understand something or sense something is not right. Patients and AFMS staff are trained to positively leverage patient activation to improve outcomes, safety, and the patient experience. They utilize standardized patient activation tools endorsed by the National Patient Safety Foundation (e.g., Ask Me 3). A more robust AF Patient Advocate program transitions away from reactively addressing patient complaints and toward proactively promoting patient activation and Patient Centeredness. AFMS policies enhance Patient Centeredness, including bedside rounds and 24/7 visitation policies. Patients are included on MTF committees, empowering the patient's voice.

Patient Experience Wins Their Trust: The AFMS maximizes patient value by promptly anticipating patients' expectations, and excelling in every aspect of their experience—clinical and administrative. By understanding and respecting patients' values, the AFMS wins the trust of our patients and demonstrates a commitment to their welfare.

AFMS Staff Speak Clearly to Minimize Misunderstanding and Risk: AF medics implement industry best practices to mitigate the harm posed by poor health literacy on patient safety. Such practices include the "teach back method," "universal precautions," and an organizational self-assessment to ensure communication products, signs, and forms are written at a level that patients understand (CDC, 2015).

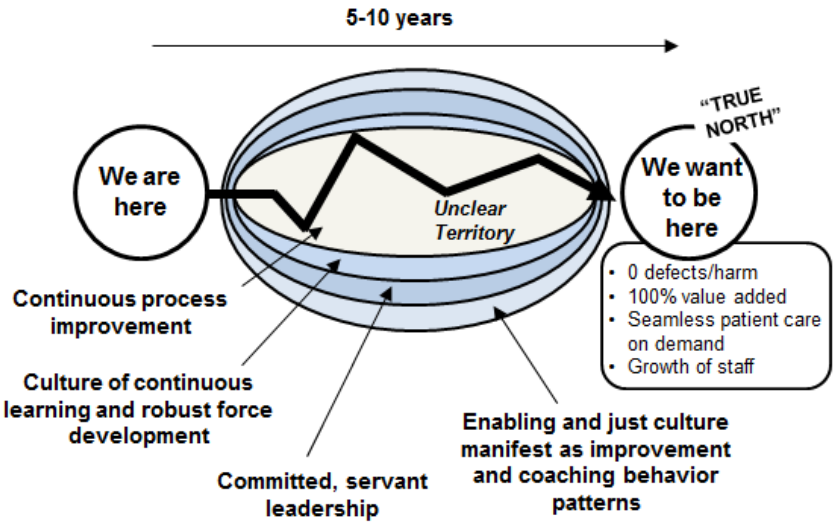
Commitment to Transparency: The AFMS is committed to transparency, including full, immediate disclosure of events that cause or may cause harm to patients; public reporting of outcomes; and sharing of best practices and lessons learned to promote learning within the provider community. The AFMS will be recognized nationally for its commitment to transparency, thereby demonstrating Patient Centeredness. Disclosing medical errors promotes positive communication, decreases losses from medical harm claims, and increases patient satisfaction.

Demonstrate Empathy and Humility: AF medics consistently demonstrate empathy and humility. We address patients' healthcare needs and provide care that does not appear rushed or distracted. We give sufficient time for the patient to express their concerns without interruption. Professional development enhances patient-provider communication skills as part of organizational commitment to Patient Centeredness.

8 NEXT STEPS: LAUNCHING THE JOURNEY

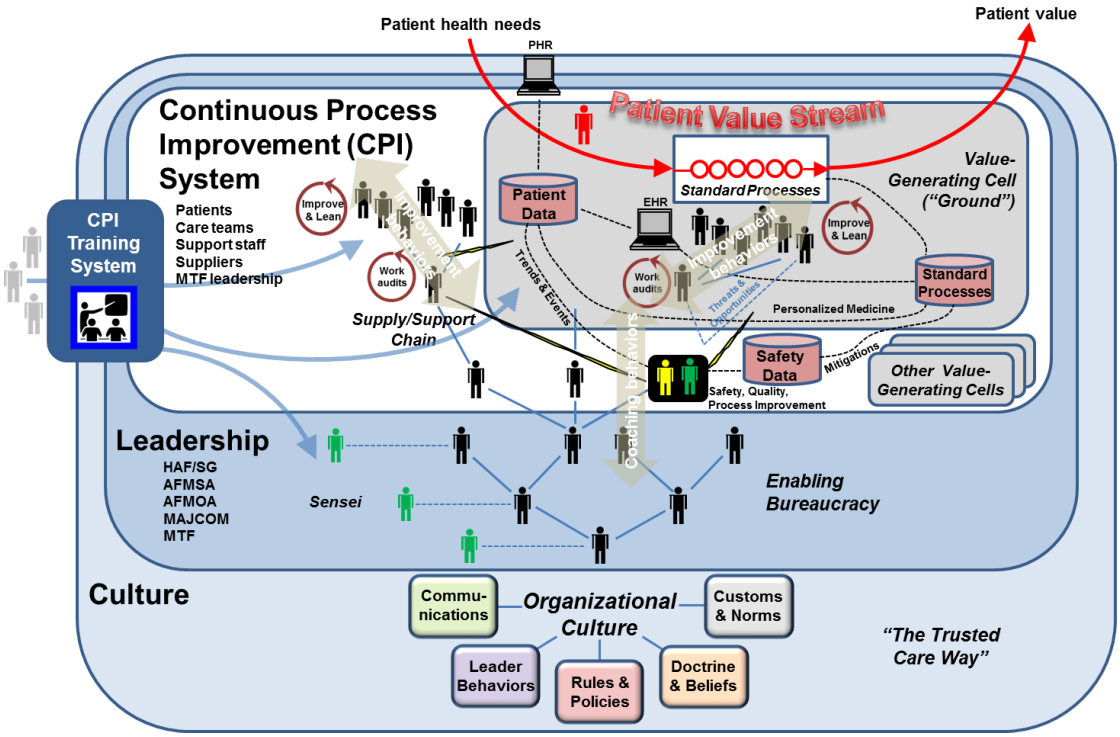
Targeting the centers of gravity launches the AFMS on its journey to Trusted Care by transforming the current system into the TCS. Processes will need to be standardized and stabilized at the start. Empowered staff engaged in behaviors that continuously improve standardized processes every day will move the AFMS along the journey (Figure 10). The staff are enabled and mentored by servant leaders engaged in coaching behaviors. These leaders set intervening target conditions to guide process improvement efforts towards True North. The staff and leaders work within an enabling bureaucracy where the cultural norms are for staff to improve processes and leaders to coach staff in process improvement. As depicted in Figure 10, people and processes are the critical engine of the system, while leaders and organizational culture provide a stable and supportive environment for CPI. The journey is not a straight line trip because there will be inherent uncertainties, and learning and adaptation will be critical to long-term success.

Figure 10: Continuous process improvement within a leadership and cultural environment driving the journey to higher reliability



In contrast to the above simplistic caricature of the TCS, Figure 11 provides a more detailed architectural view of the TCS known as the DoD Operational Viewpoint-1 (OV-1) High Level Operational Concept Graphic. The same three embedded system elements (i.e., leadership, culture, and CPI) are present, but now other system components and their relationships are shown. For example, standardized processes are shown both as a series of interrelated activities comprising the patient value stream as well as a data element that can be tailored based on patient data (personalized medicine) and portrayed via the electronic health record system. The standardized processes are performed by staff who are engaged in CPI and learning. The first-level managers are responsible for mentoring improvement behaviors and auditing standard work. A training system is depicted as the workforce who will require role- and grade-specific education and training in science of safety, reliability, and process improvement as well as application of CPI tools and methods. Also depicted is a safety, quality, and process improvement specialty function that analyzes patient events, facilitates problem solving, and updates standardized processes. Leadership is comprised of the inverted, enabling bureaucracy where leaders are paired with process improvement coaches. Lastly, organizational culture is comprised of a set of elements that need to be changed to reflect the Trusted Care System.

Figure 11: Operational Viewpoint-1 (OV-1) High Level Operational Concept Graphic of the TCS



The initial TCS implementation plan is designed to bring concerted pressure on the system to move it into a new state. This requires multiple, parallel efforts beginning over the next several months within each of the four domains of change.

Leadership: In order to instill the required actions and behaviors among leaders to successfully undertake the Trusted Care transformation, the AFMS must educate and train current AFMS leadership—throughout the entire organization from the headquarters to the MTF levels—on the science of safety reliability, and process improvement. Executive leaders will also need training on coaching so they can launch the rollout of Trusted Care principles to inculcate and reinforce Trusted Care behaviors among their staffs. This goal can also be furthered through a deliberate program of executive leadership rounding

at the frontlines. A frequently recurring MTF Leadership Culture Survey will help establish a cultural baseline among facilities and track progress over time. To support their efforts, leaders will receive an engagement toolkit, as well as tools to help them recognize and celebrate Trusted Care behaviors in staff.

Culture of Safety: Near-term actions to foster the culture of safety include optimizing manning of patient safety, quality, and infection prevention, as well as developing and enhancing training platforms and curriculum to support Trusted Care. The AFMS needs to improve and simplify patient safety event reporting and work to operationalize error investigations (e.g., corrections, preventions, mitigation strategies, process improvements, information dissemination). Moving forward, steps need to be taken to develop and implement a physician engagement strategy and integrate patient safety expertise into the acquisition process.

Additionally, the AFMS has contracted with external consultants including HPI on care site transformation engagements at the nine largest CONUS MTFs. The consultant team will diagnose current safety performance and culture, integrate evidence-based change into existing processes, and hardwire that change for sustainability. Early activities in this endeavor include an evaluation of each site's current state, development of a targeted intervention plan to advance safety and reliability, and efforts to unify leadership and staff understanding around Trusted Care principles, as well as addressing site-specific strengths and challenges. These initial engagements will be targeted to specific inpatient institutions before tailoring high reliability implementation lessons to the rest of AFMS. To support this effort and promote standardization, the consultant team will support development of an AFMS leadership bundle and error mitigation toolkit. Additionally, curriculum used by these MTFs and lessons learned will be adapted for broader use across AFMS and aligned with efforts in Trusted Care force development. The consultant engagements will begin the development of a core cadre of AFMS high reliability and safety experts who will provide internal expertise for the spread to other MTFs.

Continuous Process Improvement: The AFMS needs to design, develop, and implement the CPI System as depicted above in Figure 11. This work begins in the technical part of the system by creating enterprise-level value stream maps to develop the future state vision that serves as the entry point into the enterprise change management process. Work in the social part of the system begins with a commitment from the top leaders to lead and reinforce the cultural change. Cultural change starts with a top-tier leader going to see healthcare operations from the perspective of staff. With the aid of a cadre of external process improvement experts, this leader then engages in improvement behaviors by leading a process improvement project involving an element of the enterprise value steam. This top-tier leader simultaneously engages in and models the coaching behaviors for leaders from the next leadership tier who also participate in this first process improvement project. This mentor-mentee process is then iteratively repeated until frontline staff are being mentored by junior leaders. This "first wave" of social and cultural change should lead to series of "go see" models of successful process improvement projects spanning all levels of the AFMS. While the initial social and cultural change proceeds through a "learn by doing first and training second" approach, concurrent efforts must be undertaken to develop the CPI training system as this is a long lead time capability. Additionally, the services of CPI coaches will be needed as a bridge until an organic cadre is developed. These experts should be used for teaching and getting quick, early results.

The AFMS must deliberately begin developing a succession of future Trusted Care leaders to sustain the social and cultural change. This process starts by embedding a deputy top-tier leader within an exemplar Lean civilian healthcare institution for a period of several months (another form of go and see leadership). Upon returning, this deputy then leads the enterprise change management process within the technical system leveraging their new found deep understanding of the required change and desired future state. The top-tier leader also attends to development of the pool of future Trusted Care leaders through a formal series of recurring mentoring summits with MTF commanders and other senior personnel.

Patient Centeredness: To help patients and families become more engaged and active in their care, we will develop and disseminate a Patient Activation Toolkit to help AFMS staff, patients, and families understand how to increase patient activation and engagement. We will scale up successful MTF pilots addressing patients on committees that better integrate the patient perspective in MTF governance. We will articulate the need for a robust health literacy initiative throughout MHS and show simple steps that MTFs can take to address health literacy and improve patient safety. We will promote MTF policies that promote patient and family involvement and exemplifies the partnering behavior that is critical to achieving Zero Harm. We will also shift the Patient Advocate Program from a reactive means of dealing with patient complaints to a proactive tool promoting patient activation, engagement, and Patient Centeredness throughout all units within the MTF.

9 ESSENTIAL ENABLERS

While activities to drive the AFMS Trusted Care transformation must occur across the four key domains of change, leaders also recognize work needs to occur in supportive areas, here called "essential enablers." The concepts below represent organizational and infrastructure elements that support change and will help to realize the benefit of Trusted Care.

9.1 Establish the AFMS as a Learning Organization

> ***The path to achieving the vision of a learning healthcare system entails generating and using real-time knowledge to improve outcomes; engaging patients, families, and communities; achieving and rewarding high-value care; and creating a new culture of care.***
>
> – Source: IOM, 2013

Development of an AF medical leader skilled and knowledgeable in Trusted Care is a career-long journey requiring force development, which necessitates both training and experience. Initial development will occur by infusing AFMS education and training curricula with the appropriate Trusted Care competencies and ensuring venues allow Airmen to demonstrate understanding and application of the Trusted Care principles. Additionally, to fully develop this capability, our Airmen need experience to validate and enhance their skill set. This experience must be supported through coaching and feedback by leaders and mentors to facilitate a continuum of growth. The result will be proper application of Trusted Care principles, ability to foresee and resolve safety challenges at the earliest onset, and the future aptitude to coach and mentor others on Trusted Care principles.

The ultimate goal for Trusted Care in support of the Force Development of our people should be AFMS' commitment to become a learning organization. Successful civilian organizations have recognized the need for this commitment to support the enduring requirement for education, training, and a culture of innovation. Likewise, AFMS' ability to reach the goal of Trusted Care will require leadership commitment, exploring novel approaches to learning and innovation and creating new means to validate the effectiveness of the development. Recognizing that delivery of healthcare is a team event, the AFMS should also re-evaluate the current development paradigm to embrace team concepts, unconstrained by AFSC or Corps, which will support growth in Trusted Care knowledge, skills, and attitudes (KSAs).

The Kirkpatrick Model remains the benchmark for design and evaluation of training, yet few ever consider the four levels in development and assessment of training. The Kirkpatrick Model is depicted in Figure 12 and ideally should be used in the design of the training programs and not applied afterward as research shows most organizations do (Kirkpatrick Partners, 2015).

Figure 12: Kirkpatrick Four Levels

Level 4: Results	To what degree targeted outcomes occur, as a result of the learning event(s) and subsequent reinforcement.
Level 3: Behavior	To what degree participants apply what they learned during training when they are back on the job.
Level 2: Learning	To what degree participants acquire the intended knowledge, skills, and attitudes based on their participation in the learning event.
Level 1: Reaction	To what degree participants react favorably to the learning event.

The model has been extensively studied over the years and remains valid decades later. Research has demonstrated most organizations apply 85% of resources in the actual training event, which contributes to only 24% of learning effectiveness of the participants (Peterson, 2004; Almeida, 2009). Even the most excellent training does *not* lead to change in behavior and results without deliberate and consistent reinforcement. Greater emphasis needs to be placed on the follow-up activities if the AFMS is going to achieve desired change in behavior and organizational outcomes. The Kirkpatrick Model further reinforces the important role of leaders at all levels to reinforce the training through coaching and accountability, illustrating the invaluable role medical modeling and simulation can play.

To date measurement of most AFMS education and training in support of Trusted Care domains measures participation and rarely moves through the levels outlined above. The AFMS needs to change to measure effectiveness of learning on multiple levels to provide leaders with actionable information. One example is the Gateway Academy, developed by the 59th Medical Wing. The Academy provides several educational opportunities, including a 1-day introduction to Trusted Care principles and a 9-day education event, that were established as model programs to demonstrate how an Air Force MTF can undergo a cultural transformation and embed the principles of Trusted Care in the cultural fabric of the organization. The Academy tracks outcomes and behavioral changes in students who have consistently demonstrated a mindset of continuous process improvement and a focus on HRO principles such as a preoccupation with failure, sensitivity to operations, deference to expertise, and a commitment to resilience.

Organizational culture empowers learning when it provides psychological safety and open communication, incentivizes experimentation among staff, and recognizes failure as key to the learning process and does not penalize staff when their improvement efforts are unsuccessful. The AFMS needs to promote systematic problem solving and experimentation, learn from past experience, and use internal transparency as a tool to motivate further improvement. At the systems level the AFMS needs to become adept at transferring knowledge throughout the organization and support learning through an operational model that aligns goals, resources, and incentives to make learning actionable (IOM, 2013).

The TCTTF identified three key development areas to initiate the AFMS learning organization. These areas include 1) a cadre of experts/leaders in patient safety/quality/process improvement (PS/Q/PI); 2) a workforce with the knowledge and skills required to implement safety and quality science at the frontlines of patient care; and 3) visionary, innovative leaders who can coach and mentor Airmen and develop a learning culture. Although development of our future leaders is important, priority should be placed on our current leaders to equip them with knowledge and skills to model and shape Trusted Care behaviors.

The commitment to the establishment of an organization-wide culture of continuous learning and the Trusted Care force development of all Airmen is the largest investment in Trusted Care. This is appropriate, as staff is our most valuable resource in support of the mission. Strategic external partnerships and collaboration with other Services will be critical in the early stages to gain expertise. Additionally, expanding model programs with demonstrated success such as the Gateway Academy will provide a jump start in the AFMS Trusted Care transformation.

Even the most excellent training does not lead to change in behavior and results without deliberate and consistent reinforcement.

Establishing the starting point with leader development and training mirrors the approach by high performing healthcare organizations farther ahead on this journey such as Kaiser Permanente, Memorial Hermann, and North Shore-Long Island Jewish (North Shore-LIJ) health systems. All began their HRO journeys with leader training with a top-down driven goal of building trust at the frontline of care. All organizations discussed their methodical efforts at leader behavior change, to which they attributed increased frontline trust and which they felt spurred efforts toward becoming an HRO. Frontline trust is the ultimate arbiter of success in leader development and culture change. Reduced patient harm is the ultimate indicator for a successful journey to an HRO (Chassin and Loeb, 2011).

Another argument for becoming a continuous learning organization is the unmanageable explosion of information and the complexity of healthcare that exceeds human cognitive capacity. The volume of biomedical and clinical research has risen exponentially, with an average of 200,000 journal articles a year in the 1970s to more than 750,000 articles a year in 2010 (IOM, 2013).

The pace of new knowledge exceeds the ability of any clinician to read, remember, and manage information in application to clinical decisions. This strengthens the need for patients to be engaged in their care and clinicians to embrace a learning attitude and actively involve patients in decision making as well as our organization's engaging patients in systems problem solving.

The pace at which new knowledge is produced outstrips the ability of any individual clinician to read, remember, and manage information that could inform clinical practice.

– Source: IOM, 2013

The complexity of care continues to magnify with the presence of more chronic disease, conflicting clinical guidelines, new diagnostics and new treatment modalities. Research has demonstrated complexity can have negative impact on people's decision-making ability, resulting in default option of making no decision or making an incorrect decision. While the impact is very significant in complex, high-risk environments like the ICU and ED, the impact is not limited to hospital environments but also seen in ambulatory settings. The result is clinicians feeling stressed and that they have inadequate time for the patient encounter. These perceptions have been validated in a study demonstrating that managing the acute, preventive, and chronic care needs of a standard patient population would take 21 hours a day (Yarnall et al., 2009).

Figure 13: Time Requirements for a Primary Care Physician to Treat a Standard Patient Panel

Recognizing these factors is important in designing systems that support our staff to navigate the exploding complexity of the healthcare system. Our staff need to recognize human limitations and shift from traditional paradigms of learning and improvement to new paradigms capable of utilizing available knowledge and managing the rising complexity of care. Leaders need to avoid adding directives and mandates without proper evaluation, design of workflows, and accurate outcome measures. Our system needs to provide the appropriate level of computational power and connectivity to support continuous learning and improving.

It is critical the AFMS appreciate that traditional model of learning will not allow the transformation necessary. It will require significant investment in force development, a new model of education and training, and use of technology and systems thinking that supports staff to navigate the explosion of knowledge and rising complexity of care. Consultants and strategic partnerships will likely be required to help us break from our traditional approach. Leaders also need to appreciate that a new approach will be disruptive and require their support in removing barriers. We have no other option; failing to become a continuous learning organization will not only hinder our ability to achieve our goals, it will cause us to fail our frontlines and risk losing our most valuable asset—our people.

9.2 TeamSTEPPS®

Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS®) is an evidence-based teamwork system designed to improve communication and teamwork skills among healthcare professionals. TeamSTEPPS® incorporates decades of research in team performance/training, crew resource management, and various applied sciences aimed at reducing human error and promoting organizational change.

Inadequate communication and teamwork failures continue to be top contributing factors of AFMS sentinel and adverse events.

Inadequate communication and teamwork failures continue to be top contributing factors of AFMS sentinel and adverse events. TeamSTEPPS® provides the tools for higher quality, safer patient care by 1) producing highly effective medical teams that optimize the use of information, 2) employing people and resources to achieve the best clinical outcomes for the patient, 3) increasing team awareness and clarifying team roles and responsibilities, 4) resolving conflicts and improving information sharing, and 5) eliminating barriers to quality and safety.

Research has shown the benefit of TeamSTEPPS® and the importance of leadership engagement for success. In an article by Dr. Frankel and colleagues, he identifies two components for successful training and implementation of teamwork and communication skills into clinical practice. First is the adoption of critical tools and behaviors along with effective leadership support. Second is the use of medical

simulation to embed and practice such skills (Frankel et al., 2006). He goes on to emphasize the critical role of visible and consistent senior leader involvement to sustain effective teamwork and communication.

The AFMS needs to reassess the current TeamSTEPPS® program to include standards for training, use of assessment tools, and application of training with leadership coaching. In support of small hospital risk mitigation, the OCONUS AFMS small hospitals will serve as pilot sites for the enhancement of the TeamSTEPPS® program. To demonstrate the importance and commitment to the program, OCONUS MTF leaders will be expected to have recent currency in TeamSTEPPS® training and to become trainers and coaches. Standard leader work will be developed to promote leader coaching and assessment of ongoing application of training within work centers. Recurrent TeamSTEPPS® training will be accomplished through simulation and continued coaching in application of skills by MTF leaders.

TeamSTEPPS® success will require enhanced leadership engagement.

AFMOA will work with the pilot MTFs to evaluate the above leadership training and engagement strategies to include TeamSTEPPS® Leadership Toolkit, modify the pilot as necessary, and refine the program for application to other MTFs. While the primary focus for risk mitigation in small hospitals is high-risk areas, it is important the entire staff, clinical and nonclinical, inpatient and outpatient, are skilled in the application of TeamSTEPPS®. Thus, lessons learned at the pilot MTFs will allow refinement of the program and development of standards and standard work for application across the AFMS.

9.3 Medical Modeling and Simulation

Delivery of safe, highly reliable care requires a high performing team especially in high-risk situations. The most highly competent individuals put together can fail as a team from poor communication and teamwork. Fortunately the opposite is also true: a less-seasoned team with mixed experience and competence can perform successfully during unexpected adverse events through strong teamwork and communication. As with any sport, the ability to practice as a team is essential and simulation creates a vigorous practice environment for leveraging classroom skills taught in TeamSTEPPS® and other training.

A less-seasoned team with mixed experience and competence can perform successfully during unexpected adverse events through strong teamwork and communication.

Given the need to reduce preventable adverse events caused by human error, leaders should consistently strive to enhance healthcare team members' knowledge, skills, and attitudes (KSAs). Medical modeling and simulation (MM&S) as an enabling tool in support of education and training allows for this type of growth, as well as for practicing crew resource management-style communication through the concepts of TeamSTEPPS®. Through simulation, participants develop an awareness and eventual competence of the skills required to utilize available resources to manage clinical problems. Enhancing KSAs and practicing known effective communication concepts in a low-risk learning environment will solidify their use during actual clinical practice. Specific simulation scenarios can be found in the scenario catalog on the AFMMAST portal (https://usaf.deps.mil/usaf/afmmast). Use of MM&S must be incorporated into the AFMS teamwork and communication educational strategy and validated with appropriate outcome metrics and assessment tools.

The small hospital community within the AFMS is more susceptible to challenges when unexpected clinical scenarios unfold that potentially exceed either facility resources or staff knowledge and experience. MM&S can reduce the threat of an unexpected clinical scenario by allowing an immersive environment for staff to prepare for such events by practicing responses in order to enhance the function

and critical thinking of the team and improve clinical outcomes. For this reason, the initial focus for advancement of the MM&S program will use the small hospitals as pilot sites.

Leadership support is crucial to the success and sustainment of MM&S teamwork and communication training platform. Thus, leaders at the MTF level and above must be knowledgeable about MM&S concepts, resource requirements, and assessment tools and metrics, and most importantly must share a collective mindfulness of the important value of this training platform. Leadership is key to supporting the execution of training in a manner that embeds it into the daily work of the organization and not as a competing priority. Furthermore the MM&S program needs to be closely integrated with the patient safety and process improvement programs of the organization as both a test bed for new processes and for identifying opportunities to improve existing processes. Simulation is an essential enabler in the development of standard work and in the assessment of workflow.

Accountability for MM&S when used in a purposeful, directed method should increase the confidence of the individual practicing the skills, as well as the communication skills of the entire team, which will improve clinical outcomes. Accountability for the adoption of teamwork and communication training is a leader responsibility. Assessment tools need to be utilized to provide feedback to the leaders on adoption of behaviors and culture in support of Trusted Care. From an organizational perspective, measurement of impact should be along the four levels of the Kirkpatrick Model.

To facilitate this vision, the AFMS will develop a Teamwork & Communication Education and Training Strategy incorporating use of MM&S especially at inpatient and ambulatory surgery MTFs as well as for AE and en route care. Once complete, an assessment of the current AFMS MM&S program's ability to support this strategy, to include resources necessary at MTF level, should be conducted. Investing in equipment, support staff, and the time to train should be part of the MTF and AFMS culture, and is critical to our success in reliably delivering high-quality care. Initial priority should focus on the small hospitals and leverage existing functional community resources, especially perinatal.

Additionally, identification of assessment tools and outcome metrics should be established to measure success of strategy and provide feedback at both the MTF and AFMS level. MTFs will be expected to create a standing agenda item within their executive committee meetings where MM&S activity and outcomes are reported to include alignment with patient safety and process improvement. These actions promote the AFMS becoming a learning organization, reinforcing the Trusted Care principles and responsibility of every individual as part of a larger team.

Under Trusted Care, accountability for the adoption of teamwork and communication training is a leader responsibility.

Pending the completion of a formal MM&S Training Strategy, the AFMS needs to be careful to not mandate training requirements to the MTFs that are not supported with adequate training resources. Doing so poses the risk of creating more variability with less organizational alignment, drive undesired attitudes and behaviors, and perpetuate a culture of "check the box" training. Finally, the AFMS should reexamine the organizational alignment of MM&S both at the headquarters and MTF level in order to ensure adequate support to MM&S as an enabler of Trusted Care perspective.

9.4 AFMS Strategy and Trusted Care

The AFMS strategy defines what is important while Trusted Care supports how we execute strategy. It is important Trusted Care is not seen as a program or an objective on the strategy map but is instead woven throughout AFMS strategy with clear alignment and support to AFMS vision, mission, and goals.

Figure 14: AFMS Strategy Map

"Trusted Care, Anywhere" is at the bottom of the AFMS Strategy Map, forming the visualization that Trusted Care is the foundation of what we do and Trusted Care permeates all environments where Airmen operate. The current strategy map lacks demonstration of safety as a priority. Healthcare organizations that have significantly improved their outcomes, safety, and reliability have made their commitment to safe care a prominent component of their organizational strategy. Some have identified that the current strategy is more of a situational awareness display of current operations and that alignment of objectives in support of the mission is confusing. The strategy objectives fail to provide the frontlines with a clear sense of purpose and priority.

Since March 2015, Goal Champions and their teams have reevaluated strategic objectives, initiatives, and metrics to identify opportunities for support to enhancing Trusted Care. Results to date include rewording of A5, A7, E5, E6 resulting in some presence of Trusted Care principles and priorities on the map. The process was challenging. Future strategy maps should clearly convey the importance of safety to our mission, as well as our aspirational goal of Zero Harm to provide a constancy of purpose in support of Trusted Care.

In addition to rewording of objectives, approximately 34 initiatives have been added. With the creation of the CONOPS, the Trusted Care Integration Summit group walked through the initiatives and mapped them against identified Trusted Care major lines of effort and action items necessary to begin the journey to Trusted Care. It was identified some initiatives were more tactics, some were overlapping, and several had issues with their scope being too large or too small. The current process for adding initiatives did not allow for consideration of dependencies and necessary organizational changes to support success of the initiatives. Future revisions will focus on strategic initiatives and avoid overlap to the greatest extent possible.

Transformation of an organization to achieve high reliability in support of safety will require many supporting actions that should be aligned and embedded in the AFMS strategy. Additionally, the AFMS strategy should provide a clear vector for Airmen at all levels regarding the priorities of the organization. AFMS performance measurement and management efforts should support the ability to assess successful execution of the AFMS strategy.

Major healthcare organizations that have succeeded in implementing high reliability operations have found the need to reevaluate their organizations' strategy and priority measures.

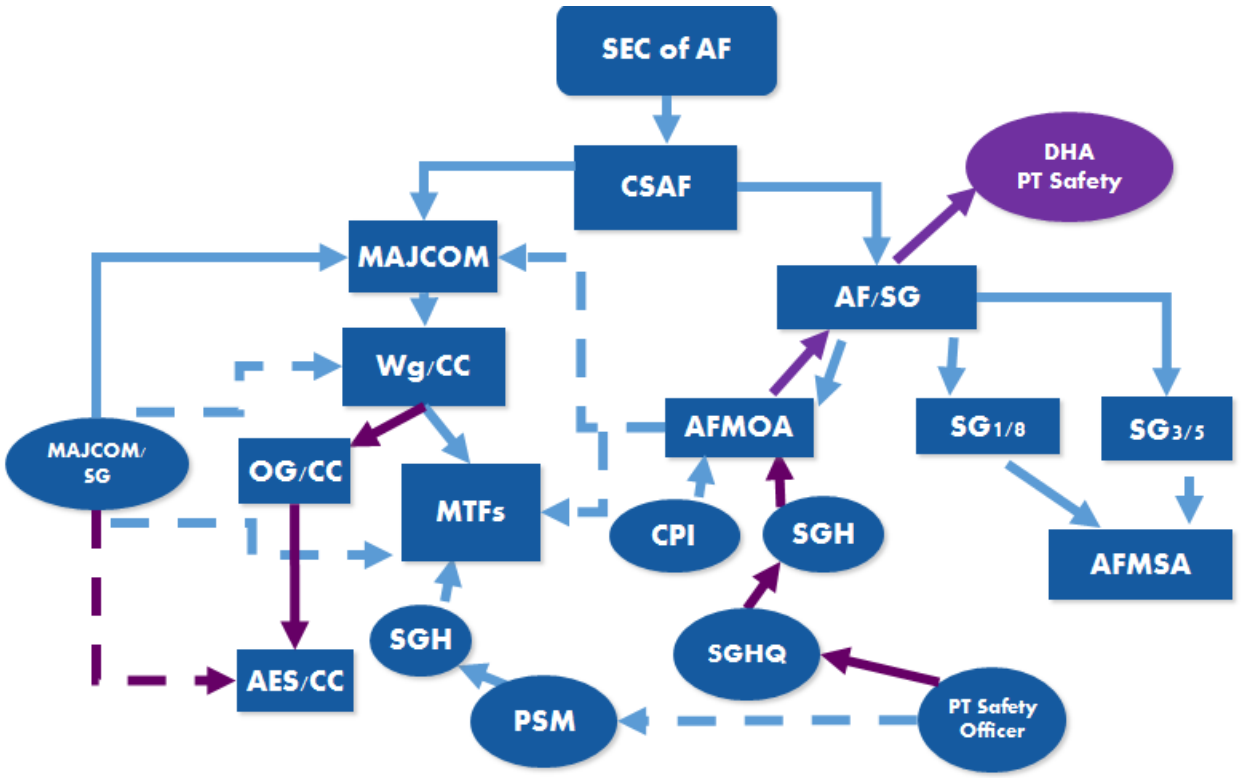
Major healthcare organizations that have succeeded in implementing high reliability operations have found the need to reevaluate their organizations' strategy and priority measures. Recognizing the importance of strategy as the foundation for supporting mission and aligning resources and effort, it is recommended that the AFMS relook at its strategy and the strategy process to include measurement. The AFMS should consider leveraging the experiences of other successful healthcare organizations and even consider establishing strategic partnerships to provide guidance to the AFMS in strategy development.

In the interim, the AFMS should evaluate current initiatives for alignment and dependencies and, where appropriate, consider pausing initiative implementation to help avoid unintended confusion and misalignment of effort and resources. The Trusted Care CONOPS can help provide a framework upon which AFMS strategy can align reinforcing the Trusted Care domains and principles.

9.5 Overview of Current Governance for Safety in the AFMS

The AFMS is a healthcare Service component in a larger integrated federal system: the Military Health System. The current AFMS governance for safety is essentially two vertical flows of command within the service. The AFMS governance structure for safety is shown in Figure 15.

Figure 15: Governance for Safety in the AFMS



Unlike the Army and Navy medical services, the AFMS is not a medical command; AFMS MTF/CCs work for a line Wing/CC. This presents opportunities and challenges in that the line Air Force is, in many respects, an HRO. AFMS line units operate in complex and dangerous environments with less-than-expected untoward outcomes. AFMS leaders have the opportunity to learn from experienced line officers with substantial knowledge of safety operations while AFMS staff gain Human Factors and accident investigation expertise alongside their line counterparts. Since most Wing/CCs are unfamiliar with medical quality or safety measures, MTF/CCs are challenged to translate medical quality and safety priorities into terms their line counterparts can effectively support.

As noted in the organizational diagram, the current AFMS governance for safety follows parallel vertical organizational flows. The MTF leadership is responsible for oversight and implementation of safety practices/principles. AFMS patient safety governance is also challenged by the fact that the AFMS safety program is essentially a contracted service. Each MTF is assigned one contract Patient Safety Manager (PSM) and some MTFs also have a contract patient safety data analyst. AFMS patient safety staff work under the SGH at each MTF but report to a COR at AFMOA. This allows for considerable unity of effort in the safety program due to central oversight and direction of the contract, but also creates silos within the MTFs that can impair collaboration with active duty and civilian MTF staff. As an example, safety is not well-represented in AFMS business or resourcing discussions, as contract staff typically lack a voice in these areas.

This governance structure for safety also hinders effective dissemination of lessons learned by circumventing traditional MAJCOM information dissemination channels, instead going directly from AFMOA to MTF safety contract staff. Compliance oversight is also challenging because AFMOA lacks chain of command authority for compliance, while MAJCOMs have such authority but lack dedicated staff to perform safety oversight duties.

AFMOA is the execution arm for patient safety for the AF/SG. AFMOA is the central body of leadership and expertise that supports and advises the MTFs with guidance to implement safety and quality policy, protocols, and processes. Specifically, the patient safety element in AFMOA/SGHQ provides direct support and guidance to the MTFs for all patient safety processes and requirements, whereas AMC/SG does the same for the AE System. The current governance within the patient safety element includes: Chief of Patient Safety, an active duty Colonel (transitions every 1–3 years), active duty patient safety fellow (transitions every year), and several contract patient safety experts. The Chief of PS is the COR for the patient safety contract. The patient safety contract Program Manager has direct authority over the 95 contract PSMs and data analysts. Within the past year AFMOA established the TCTTF, which is chartered to support the implementation of the AFMS Trusted Care strategy and initiatives, including the oversight of contracted consultants involved in these efforts. The HAF SG1/8 and SG3/5 Directorates supported with AFMSA staff lack dedicated staff to support patient safety, quality, and process improvement, thus limiting broader AFMS organizational awareness and requiring support from AFMOA for policy, training, and resourcing.

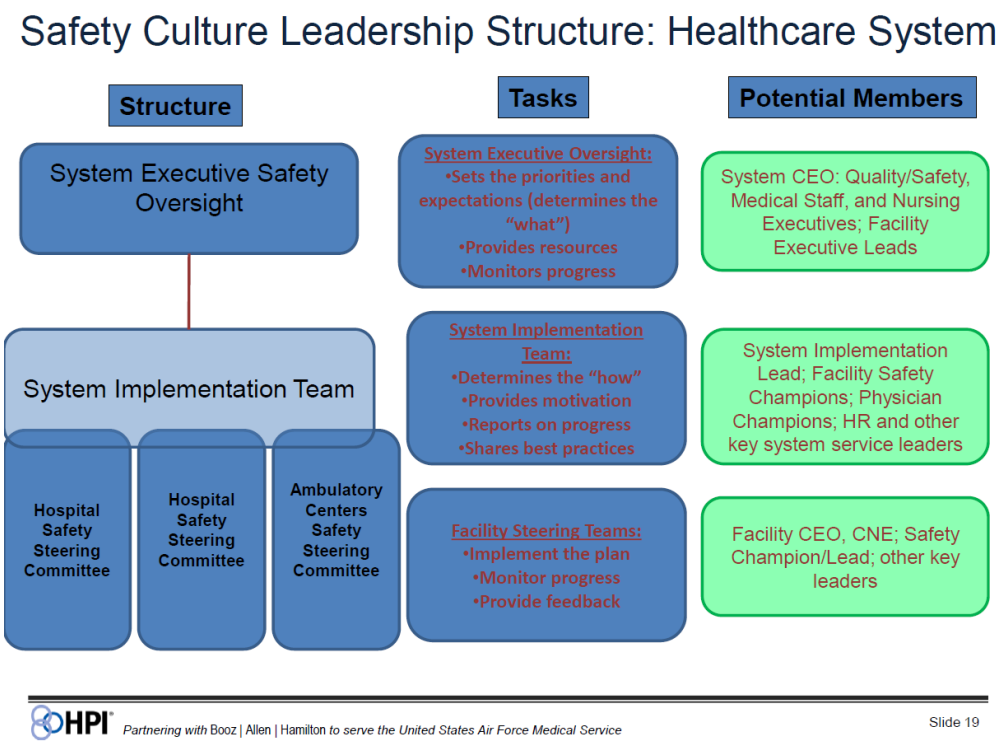
Limited patient safety metrics flow through AFMOA with variable level of transparency to the MTFs, MAJCOM/SGs, and DSG/SG. AFMOA/SGHQ pushes required patient safety metrics and sentinel event reports to DHA, which in turn are made accessible to ASD(HA). AFMOA conducts quarterly Performance Management Forums that include some patient safety metrics promoting transparency between peer MTFs and MAJCOM/SGs. AFMOA leads review all error investigations and selectively share outcomes with senior leadership. No formal AFMS governance structure exists to proactively review quality and safety data, and review of error investigations is fragmented. The result of lack of formal governance supporting quality and safety results in a disconnect with organizational awareness and decision making in the AFMS strategy, resource, policy, and execution of quality and safety programs.

The Defense Health Agency (DHA) was established in 2013. Among other responsibilities, the DHA exercises management responsibility for shared services, functions, and activities of the MHS common business and clinical processes; this includes the DHA PSP. The DHA collects and analyzes Service patient safety data and makes process improvement recommendations based on identified problems. The DHA supports patient safety education/training (e.g., basic PSM course, TeamSTEPPS®), and shares lessons learned from data analysis. However, dissemination of DHA reports and available resources typically do not have wide penetration across AFMS and often are seen only by limited staff in AFMOA and MTF PSMs.

Finally, AFMS PSP governance, which has been in place since the program's inception, is not consistent with that seen in other healthcare HROs. The AFMS' safety program exists relatively far down the chain of AFMS governance when compared to civilian HROs, in which safety is often within 1–2 direct reports of system leadership. The AFMS has broad leadership support for safety initiatives, but no overarching "voice" of safety at the headquarters level. The implementation of this CONOPS will be challenging to execute without additional safety resources and changes to the current AFMS safety staffing model.

Healthcare and nonmedical organizations that have embraced the HRO journey all found the need to reevaluate and reorganize organizational structure and governance to support safety as the priority. The AF construct with a Chief Safety Officer who reports directly to the CSAF and role of AFSEC offer a model worth exploration that can help align the AFMS with the AF. Additionally, the work begun with HPI has also identified the need for a governance structure that supports proactive and reactive review and action around establishing a safety program in support of goal of Zero Harm. One potential model HPI offered for consideration is shown in Figure 16.

Figure 16: Potential Governance Model



9.5.1 Recommendations/Considerations

With the vision for Trusted Care outlined in the CONOPS, it is important the AFMS provide serious consideration to the right structure and governance to best support Trusted Care. The following recommendations are for consideration and need to be further explored. Suggested approach would be collaboration with current consultants, AFSEC and representatives from key AFMS constituencies to conduct a value stream analysis and develop COAs for consideration by AFMS senior leaders. The goal is to ensure the AFMS has a structure and governance process which fosters synchronized collaboration and communication among groups and bidirectional information flow from the most senior leaders to the frontline staff in support of the TCS.

- Review HQ (HAF and AFMOA) structure regarding safety/quality (FAC) to support Trusted Care journey and consider:
    - Establish Chief of Safety for AFMS – similar to line Chief of Staff, 2 star
    - AFMS safety center – similar to AFSEC; Led by Chief Safety Officer
    - Streamline unit structure to more flat organization with less chains to allow for better communication and enhanced flexibility to respond/implement improvements
    - Reevaluate the MTF structure and responsibilities for patient safety, quality management, and process improvement; strong relationship between MTF/CC and Patient Safety Manager is critical to program success
    - Include patient safety/quality SME in the executive team
    - Resource key Patient Safety positions (POM)
    - Shared leader responsibilities for PS/QM/PI; Dyad – SGH/N; Triad – SGH/N/A; Role of SQ/CCs
    - Add SGP expertise in aviation safety and Human Factors to patient safety program and error investigation
    - Examine roles of SGH – identify what could be shared with other functions GPM – SGA and MedMgmt – SGN (DM,HCI,CM,UM)
    - Include patient safety as criteria within AFMS decision making processes (i.e., POM)
- Educate Wg/CC and MTF/CC how the Wing can support a culture of patient safety and Trusted Care
- Create Medical Center of Excellence for innovation (AFMS Patient Safety Center or DoD Center of Excellence)

9.5.2 Role of the Trusted Care Transformation Task Force

The AFMS Trusted Care Transformation Task Force (TCTTF) synchronizes and integrates all AFMS efforts to achieve high reliability. These efforts include, but are not limited to, recommendations to develop or improve programs targeting Leadership Engagement and fostering a Culture of Safety, CPI, and Patient Centeredness. The TCTTF serves like a dual operating system to the existing AFMS operating hierarchy—crossing Directorates, AFMOA, and AFMSA—with an emphasis on transparency and teamwork. It leverages expertise and passions from across the enterprise, with all programs going back to AFMS operating hierarchy for implementation, sustainment, and strategy alignment. Additionally, the TCTTF works to ensure synchronization of AFMS efforts with similar work at the MHS level and in sister Services.

Membership comprises a Task Force Lead and Deputy Lead, along with leads for each of the four domains. The members represent the operating hierarchy and form the Guiding Coalition. Using a network fashion, work is accomplished under a Task Force member to allow close alignment with the operating hierarchy and assimilation when complete back into the hierarchy for further development and sustainment. A network leverages expertise and passion from outside the Directorates, AFMOA, and AFMSA serving as an accelerator of change. This approach will also assist the transformation to be more bottom-up and agile and engage stakeholders closer to the frontlines. The TCTTF will provide the AFMS

and leadership with Trusted Care advisors and will lead development and deployment of change management and change communications strategies across the enterprise.

To promote horizontal communication and collaboration across the Directorates, AFMOA, and AFMSA, a group of "Supporting Representatives" will be created and meet regularly to strengthen communication, alignment, and collaboration between work of the TCTTF and operating hierarchy. This effort will also begin to build Trusted Care continuity and expertise within the operating hierarchy.

The TCTTF was chartered in August 2015 for one year, allowing the AFMS opportunity to evaluate the best model to further support the Trusted Care transformational journey. A diagram of the TCTTF and list of members is presented in Appendix 12.3.

9.6 AFMS Performance Management System

A comprehensive performance management system (PMS) is vital to the successful execution of this Trusted Care CONOPS. Indeed, there is considerable overlap in those changes necessary to implement Trusted Care (leadership and improvement culture) and those needed for a PMS. While the AFMS has traditionally focused on the information technology (IT) aspect of performance management, leading health systems engaged by the MHS Review made it clear that a true PMS requires more than just robust IT infrastructure. These health systems, including Kaiser, Intermountain Healthcare, and the VA, did have impressive IT systems, but also realigned their clinical operations and management frameworks to fully support performance management. Their experience suggests to fully benefit from a PMS, the AFMS must not only improve its IT infrastructure, but also must train its clinical staff in the necessary improvement skills needed to capitalize on IT assets. Additionally, the AFMS must train its leaders in how to effectively lead in a culture of CPI.

Since the MHS Review, the AFMS has worked with DHA to develop the IT infrastructure to support an enterprise PMS, and this effort is ongoing. Key components of this effort include a senior leader performance dashboard (tied to the DHA Partnership for Improvement [P4I] initiative), an expanded range of measures available on the Population Health Portal (PHP), enhanced online tools for frontline staff (particularly PHP Action Lists), the Heads-Up Display Report for Wing leadership, and a focus on data quality across a number of quality and safety domains. Available PMS measures are typically compared with the other Services or against nationally accepted benchmarks.

Additionally, the AFMS is committed to providing frontline clinicians tools that leverage their ability to provide safe, high-quality care. For example, easier access to a clinical support system in which preventive health needs are readily identified (such as PHP Action Lists), simplifying medication reconciliation, and facilitating compliance by "hardwiring" key guidelines and care paths into clinical IT systems (e.g., Essentris Order Sets). IT system redesign is underway to ensure performance data is easier for clinical staff to obtain, allows comparison between specific teams and providers, and identifies opportunities for improvement at the frontline level (e.g., PCMH team-based HEDIS results). Ongoing work will ensure MTF leaders have visibility over an array of performance measures tied to safety, quality, access, readiness, and productivity. Ongoing challenges, including delays in data availability and the lack of AFMS analytic capability, will require improvement in order to allow MTF leaders to effectively set priorities, apportion resources, and lead improvement activities.

In support of this PMS, the AFMS is working to change its approach to improving areas of underperformance. AFMOA has modified its Performance Management Forums (PMFs) to provide more in-depth analyses of specific topics, and to address key safety topics that were never discussed previously. Current efforts have shifted toward the use of the eight-step problem solving process in which the drivers of sub-par performance are identified, different solutions are tested, and processes and workflows are developed that will sustain improvement. The use of the eight-step tool does require proper training and

coaching of frontline staff. AFMS leaders are aware that this new approach will not fully bear fruit until such training for staff and leaders is provided as part of this CONOPS.

Beyond the MTF level, an effective PMS allows MAJCOM leaders to monitor MTF performance, identify best practices and areas of concern, and provide resource support to MTFs as needed to meet performance goals. As noted previously, AFMOA's role in the PMS is to monitor performance AFMS-wide, assist MTFs in meeting improvement goals, provide data analysis when needed, provide coaching support to the MTFs for improvement initiatives, and to keep senior leaders informed of overall system performance. Additional AFMOA roles include identifying system reasons for underperformance, working to address data quality concerns, and to develop cross-functional process improvement plans. By selecting PMF measures that support Trusted Care safety and quality goals, AFMOA ensures performance monitoring aligns with strategic AFMS goals. Selection of these measures must be a dynamic process that is driven by AFMS priorities under Trusted Care.

Finally, at the highest levels, a PMS allows senior AFMS and MHS leaders to effectively assess overall AFMS performance, set improvement goals and priorities, and to apportion resources, when necessary, to mitigate identified shortcomings. Compared to the outstanding health systems engaged by the MHS Review, the AFMS is still in the early stages of developing its PMS. The early push to improve IT resources and analytics continues and will inevitably evolve in the coming years. The realization that sustained improvement will require staff and leadership training in process improvement techniques to include change management is pivotal to performance management and is thoroughly integrated into this CONOPS. Such training will foster an improvement culture that will move away from "quick fixes" to true process improvement. Finally, training leaders in advanced PI coaching techniques will foster frontline problem solving and facilitate a true PMS.

9.7 Electronic Health Record

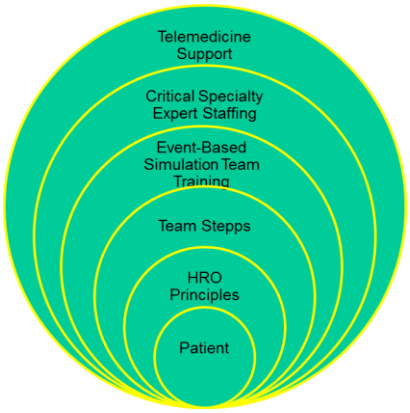
Multiple experts have identified health information technology (HIT) as one of the critical components of a high-performing healthcare organization (Porter and Lee, 2013; Glickman et al., 2007). HIT systems with integrated electronic health records (EHRs) improve the ability to present data and provide analytical assessment of information that enables staff to identify process improvement opportunities, monitor the impact of initiatives and pilot programs, sustain new processes through automation, and share the these processes with others. High-performing healthcare organizations have also integrated medical devices with their EHR and with other devices in order to provide staff with more complete, synchronized information about a patient's condition, enabling early awareness of potential risks (Karsh, 2004). Additionally, as patients become more likely to leverage digital platforms for communication and visit locations that support digital platforms, online appointing, and virtualized care, a robust HIT capability can support the migration of patient-centered care to participatory medicine.

The MHS recently announced the award for a next-generation EHR, led by the Defense Healthcare Management System Modernization (DHMSM) Program Office. Deployment of the new EHR is scheduled to begin in Calendar Year 2016 and be completed in Calendar Year 2022. Once fully deployed, the modernized EHR will eliminate many of the risks created by having disparate EHR systems. However, the experience of other large healthcare systems has shown that deploying a new EHR requires a significant organizational commitment and transformation, with well-documented risks during the transition period. Simultaneously deploying a new enterprise EHR and committing to transforming how care is delivered within the organization can create both opportunities and challenges. Successfully synchronizing the rollout of the MHS-wide EHR and the Trusted Care endeavor within AFMS will enable faster improvements and mitigate the risks of deploying a new EHR.

9.8 Small Hospital Clinical Skills Enhancement

Patient safety, quality of care, and outstanding mission support are the top priorities at all AFMS MTFs. Small AFMS hospitals provide critical mission support to remote bases but face unique challenges that must be considered when implementing Trusted Care. These challenges include, among others, remote locations that drive reliance on host nation medical support; lack of adequate patient volume to maintain staff currency in key areas such as emergency/urgent care, surgical care, and obstetrics; and a limited capability to handle medical emergencies. Efforts to address these challenges were underway before the AFMS' development of Trusted Care, under the auspices of the Small Hospital Clinical Skills Enhancement (SHCSE) program. The primary thrust of this program, which included robust TeamSTEPPS® training and use of MM&S, was considered consistent with Trusted Care and has been integrated into this CONOPS. While Trusted Care provides the foundation for mitigating risk in small hospitals, the challenge of maintaining staff clinical currency is unique and warrants additional measures.

Figure 17: Small Hospital Clinical Skills Enhancement – Tiers



SHCSE envisioned a tiered approach to risk mitigation in small hospitals (Figure 17). The first three tiers have been discussed previously and will only be mentioned briefly here. The first tier is the application of Trusted Care high reliability safety principles and practices. This is supported by the second tier, robust TeamSTEPPS® implementation centered on effective teamwork, communication, and proactive risk mitigation. The third tier is an enhanced event-based MM&S program staffed by additional MM&S manpower necessary to support facility-wide training exercises. This augmented manning model is a pilot initiative sponsored by AETC in support of SHCSE.

The fourth tier of SHCSE specifically addresses staff currency concerns. There are three enterprise-level initiatives planned to address critical specialties currency: enhanced oversight of small hospital critical specialty and leadership assignments to small hospitals; critical specialty expert staff visits in the form of senior mentors; and currency augmentation at designated venues.

To ensure the right clinical staff are assigned to small hospitals, SG Specialty Consultants will work with AFPC assignment personnel to coordinate the staffing of critical specialties at low-volume facilities. The goal is to explore all options to get the right people, at the right time, to the right place. Specialty consultants and AFPC personnel must work to forecast assignments and balance expertise among facilities. For example, most small hospitals have an obstetric product line and need experienced provider and nursing staff to provide safe, quality care. Rotational cycles may need to be adjusted and DEROS curtailment waivers executed when necessary to minimize the loss of currency caused by assignment to a low volume facility. Additionally, further work needs to be done by local leadership to enhance the practice environment for critical specialty staff and to maximize their ability to maintain currency.

To support these critical specialty staff, the AFMS must work to improve its selection of small hospital leadership to ensure assigned leaders have the right experience to lead in these challenging settings. This includes strong candidates in clinical high risk areas such as obstetrics and surgery, and also includes leadership staff such as the SGH, SGN, and MTF/CC. Executive leadership trained with the right knowledge and skills to support clinical leaders is critical in developing the right culture to promote strong teamwork and communication. Knowledgeable clinical leaders need to be present to constantly assess quality of care and reinforce processes and policy. The AFMS assignment process must support selection of key executive leaders with proven experience and skills in the inpatient platform to strengthen the safety net.

The second element of improving currency for critical specialty staff is through the use of periodic senior mentor rotations. Senior mentor rotations allow for structured mentoring and clinical guidance for those who would benefit from oversight and lessons learned shared by a senior clinician in a critical specialty. The focus of the senior mentor oversight would be opportunities for education, sharing of lessons learned, case conference participation, process improvement, decision making practices, and participation in the technical aspects of the specialty (e.g., in the operating room or emergency room). AFMS Master Clinicians or Clinical Nurse Specialists would be highly effective for these rotations, when available.

The final component of supporting clinical currency for critical specialties includes pursuing a number of curriculum-driven opportunities to augment currency. Criteria should be established to promote use of currency opportunities such as the Sustained Medical and Readiness Trained (SMART) Program, in particular the use of Regional Currency Sites (RCS). The Center for Sustainment of Trauma and Readiness Skills (C-STARS) is a deployment training platform, but also offers an opportunity to augment currency for those with a C-STARS requirement. Periodic rotation of small hospital staff to a larger CONUS MTF could also serve as opportunities to enhance currency with high acuity cases.

The final tier of SHCSE is the use of telemedicine support to enable staff at small hospitals to obtain timely guidance in routine, urgent, and emergent patient care issues from their peers at larger MTFs. Large MTFs often employ more senior physicians and subject matter experts than at small MTFs. The AFMS has effectively implemented tele-Radiology, tele-Dermatology, and limited tele-Psychiatry initiatives. Further work should be done to expand these programs into an easily accessible and reliable telemedicine SME support system for small hospitals.

The SCHSE is an ambitious effort aimed at mitigating risk and enhancing currency at AFMS small hospitals. This program must be implemented in a systematic manner so that outcome measures of effectiveness can be tracked. Adding mandatory training using MM&S may not, in and of itself, ensure program objectives are achieved. Training mandates should be carefully considered before being assigned as it is not the training that drives outcomes but the post training ability to execute the skills and behaviors that must be monitored. Structured senior mentor rotations will help to assess the effectiveness of these tiered initiatives in driving the desired outcomes. Senior leaders will need to ensure adequate staffing and resources are provided to small hospitals to allow SHSCE to succeed.

9.9 Ambulatory Military Treatment Facilities

While the initial focus of Trusted Care appears to center around larger, more complex inpatient MTFs, it is important to recognize the majority of AFMS MTFs are ambulatory clinics. Trusted Care implementation in this setting must recognize the ongoing challenges faced by outpatient MTFs. These challenges include, among others, the need to balance Wing mission support with access to care demands, maintaining medical readiness skills in a low acuity setting, struggling to track patient transitions between direct and network care settings, and juggling frequent staff shortfalls and manning gaps. To be of value, Trusted Care implementation must be mindful of the challenges ambulatory MTFs face and add value by helping leaders to effectively solve these problems. It must also achieve its broader goals of improving

the safety and reliability of patient care, empowering Airmen as problem solvers, and facilitating dissemination of lessons learned across the enterprise.

An assessment of common safety events in AFMS clinics is informative to how Trusted Care can best be applied in this setting. Clinics comprise 84% of AFMS MTFs and are responsible for 40% of sentinel events and 55% of paid malpractice claims. Harms in the outpatient setting most commonly occur due to lapses in high volume, low-risk activities such as pharmacy dispensing errors, failures of test result follow-up, or dropped hand-off communication between providers. This is distinct from the low-volume, high-risk events seen at inpatient facilities such as birth trauma events, surgical mishaps, or healthcare acquired infections. The approach to Trusted Care implementation at ambulatory MTFs is informed by these different harm patterns and by previous work completed on the Base Operational Medicine Cell (BOMC), Clinical Innovation, Test and Evaluation System (CITES), and AFMH CONOPS. A CPI-heavy implementation that focuses on process standardization and improvement, enhanced hand-off communication, and early instruction on PI tools will best address ambulatory safety concerns. Coincidentally, application of robust PI methods such as Lean in civilian healthcare demonstrate significant quality improvements in addition to 20–30% efficiency gains that would be invaluable in AFMS' resource-constrained clinics. Early trials of BOMC and AFMH implementation support taking a CPI-heavy approach to clinic Trusted Care implementation. .

While the initial emphasis in clinic implementation will be CPI, it must be emphasized that for Trusted Care to succeed, the AFMS must effectively implement all four domains in both the inpatient and outpatient settings. An AFMS Airman might move from an outpatient to inpatient facility, deploy to an expeditionary hospital, and move back to an outpatient facility, all within a span of 3 years. To achieve the culture shift necessary to sustain Trusted Care over the long term, all AFMS Airmen must have a basic foundation of safety science competencies, CPI training, and apply safety behaviors that enable them to smoothly transition to any patient care setting. Leaders in the outpatient setting must establish a culture of trust, accountability, and transparency similar to AFMS inpatient facilities. The "toolkit" of safety behaviors necessary to achieve reliable operations at in- or outpatient facilities is identical, though certain tools (such as pre-op time outs or read-backs) are more common at inpatient MTFs. A systematic approach to problem solving will use the same PI tools in either the in- or outpatient setting. By implementing all Trusted Care domains in a consistent fashion across all care platforms, the AFMS will achieve a true Culture of Safety, high reliability, CPI, and patient centeredness.

Multiple opportunities exist for ambulatory clinic MTFs to serve as pilot sites for new initiatives to support Trusted Care domains of change. An area of focus for ambulatory clinics can be activities to promote patient centeredness. The following are considerations for MTFs to develop and pilot; implementing shared decision making tools; completing an organizational self-assessment of health literacy; including patients on MTF committees; encouraging patients to speak up using resources from the National Patient Safety Foundation's Ask Me 3 campaign; and transforming the patient advocacy program to proactive outreach to enhance the patient experience.

Another area of focus for an ambulatory clinic pilot can be professionalism. The foundation of Trusted Care is the staff and their collective professionalism exhibited through behaviors that ultimately define the level of trust in an organization. Recently the Air Force established the Profession of Arms Center of Excellence (PACE) (http://www.airman.af.mil/Home.aspx) to enhance professionalism building human capital and institutional health. Professionalism is about learning to lead oneself and framed by a requirement for trust, loyalty, dignity, and personal commitment. The goals of PACE are:

1. Inspire a strong commitment to the profession of arms
2. Promote the right mindset to enhance effectiveness and trust
3. Foster relationships that strengthen an environment of trust
4. Enhance a culture of shared identity, dignity, and respect

These goals are highly synergistic with principles of Trusted Care and suggest PACE could be an ideal partner in development of Trusted Care Airmen and building a culture of trust in our units. Consideration should be given to identify a select group of clinic MTFs who can be a pilot site for a partnership with PACE. Additionally, strategies to further enhance middle management leadership could be developed and tested at these clinics.

The above examples demonstrate the important roles that outpatient MTFs will have as the AFMS matures as a continuous learning and improving organization. As local pilot initiatives are successful the AFMS will need adopt these initiatives for broader use across the enterprise.

9.10 Assessment Strategies

Transformation to Trusted Care requires the AFMS to implement measurement strategies to assess facility progress toward high reliability as well as provide leaders and frontline staff with actionable information to drive continued advancement. To facilitate improvements, assessments must measure not only the desired end results of high reliability but also the supporting structures and behaviors required to produce those results. To ensure a coordinated and comprehensive approach to improvements, HRO measures should also align with and facilitate the success of strategies and products proposed in other sections of this CONOPS.

9.11 Change Management and Strategic Communications

Change management is critical to dealing with the "people side" of change by increasing stakeholder awareness, understanding, and desire to change. Only by creating awareness and then desire to change will the AFMS eventually achieve acceptance and ultimately individual ownership as behaviors shift to support the desired Trusted Care culture. Achieving a transformation of this magnitude will require a comprehensive change management strategy. Strategic communications will also be crucial to increasing stakeholder buy-in. A driving force of Trusted Care will be communications efforts that include traditional communications tools along with tactics and targeted change management approaches, informed by detailed stakeholder and communications analyses to shape effective message, influence, and engagement tactics.

A significant cultural shift will be required across the AFMS to change behaviors and to achieve success in the adoption of the Trusted Care principles. It cannot be viewed merely as another project or an initiative—rather, it represents a fundamental change in the approach to day-to-day performance for every member of the AFMS, from the most senior executive leaders to frontline healthcare providers and administrative staff, as well as patients themselves. It will be very important for leaders at all levels to stay engaged with staff as a shift in culture occurs. The adoption of Trusted Care principles will require leadership and staff to reflect upon "who we are" and "what we do" as a team, and leaders will need to be an example of taking proactive steps in modifying behaviors.

10 BUSINESS CASE FOR TRUSTED CARE

While a formal business case analysis has not been performed for Trusted Care, lessons learned from other healthcare organizations seeking similar transformation have repeatedly demonstrated the return on investment is substantial when a system commitment is made to safety as the priority supported by an organization committed to continuous learning and improvement. ThedaCare reported an 88% improvement safety/quality indicators, 83% improvement staff engagement indicators, and 50% improvement financial indicators from 2008–2011 (IOM, 2013). The IOM identified the current healthcare system waste diverts resources from productive use at a cost of $750 billion in 2009.

The story of Paul O'Neill tenure as CEO of Alcoa is another example of how safety as a keystone habit can result in not only achievement of safety goals but also result in significant financial profits. In 1987 O'Neill took over as CEO of Alcoa and while Alcoa's safety record was better than the general American workforce he made the proclamation, "I intend to make Alcoa the safest company in America. I intend to go for zero injuries." He didn't talk about finances; instead he talked about creating a habit of excellence with safety as the indicator. Within a year Alcoa's profits hit a record high, and by time he retired five years later the company's annual net income was five times larger. More important is the company's safety record soared with some facilities going years without a single employee losing a workday due to an accident, compared to before his tenure with most facilities having at least one accident a week.

When patient harm occurs, not only the patient suffers but it also impacts the staff as we all entered the profession wanting to heal. Additionally, there is often a cost to the mission. Studies have quantified the cost in dollars due to medical errors and preventable harm; however, if you are the patient, their family, their commander, or our staff is there a price we can place on harm that justifies any commitment less than aiming for Zero Harm?

11 REFERENCES

Becker's Hospital Review. 2013. 10 Statistics on CEO Turnover, Recruitment. http://www.beckershospitalreview.com/hospital-management-administration/10-statistics-on-ceo-turnover-recruitment.html (accessed September 30, 2015).

Centers for Disease Control and Prevention (CDC). 2015. Health Literacy: Accurate, Accessible and Actionable Health Information for All. http://www.cdc.gov/healthliteracy/ (accessed September 30, 2015).

Chassin, M. R., and J. M. Loeb. 2011. The ongoing quality improvement journey: Next stop, high reliability. *Health Affairs* 30(4):559-568.

Department of Defense (DoD). 2014. Human Factors Analysis and Classification System (DoD HFACS) Version 7.0. http://www.uscg.mil/safety/docs/pdf/DoD_HFACS7.0.pdf (accessed September 30, 2015).

DoD Patient Safety Program. 2012. Patient Activation Reference Guide.

Frankel, A., M. Leonard, and C. Denham. 2006. Fair and Just Culture, Team Behavior, and Leadership Engagement: The Tools to Achieve High Reliability. *Health Services Research* 41(4):1690-1709.

Glickman, S.W., K.A. Baggett, C.G. Krubert, E.D. Peterson, and K.A. Schulman. 2007. Promoting quality: The healthcare organization from a management perspective. *International Journal for Quality in Healthcare* 19(6):341-348.

Institute of Medicine (IOM). 1999. *To err is human: Building a safer health system.* Washington, DC: National Academies Press.

IOM. 2001. *Crossing the quality chasm: A new health system for the 21st century.* Washington, DC: National Academies Press.

IOM. 2013. *Best Care at Lower Cost: The Path to Continuously Learning Healthcare in America.* Washington, DC: National Academies Press.

Karsh, B.T. 2004. Beyond usability: Designing effective technology implementation systems to promote patient safety. *Quality and Safety in Healthcare* 13(5):388–394.

Kirkpatrick Partners. 2015. The Kirkpatrick Model. http://www.kirkpatrickpartners.com/ (accessed September 30, 2015).

Kotter, J.P. 2012. "Accelerate!" *Harvard Business Review* 90(11):45–58.

Leonard, M. and A. Frankel. 2012. *How can leaders influence a safety culture?* Health.org.uk. London, England: The Health Foundation.

Liker, J.K. 2004. *The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer*. New York: McGraw-Hill.

McChesney C., S. Covey, and J. Huling. 2012. *The 4 Disciplines of Execution: Achieving Your Wildly Important Goals.* New York City: Free Press.

National Academy of Sciences (NAS). 2015. *Improving Diagnosis in Health Care*. Washington, DC: National Academies Press.

Patient Protection and Affordable Care Act, 42 U.S.C. § 18001 (2010).

Peterson B., 2004, and S. Almeida, 2009, cited by Kirkpatrick et al. *The Kirkpatrick Four Levels™: A Fresh Look After 50 Years 1959 – 2009*.

Porter, M.E., and T.H. Lee. 2013. The strategy that will fix healthcare. *Harvard Business Review* 91(10):50-70.

Reason, J. 2000. Human error: models and management. *BMJ : British Medical Journal* 320(7237):768–770.

Rother, M. 2010. *Toyota Kata: Managing People for Improvement, Adaptiveness, and Superior Results*. New York: McGraw-Hill.

Shingo Model. 2015. Utah State University. http://www.shingoprize.org/model.html (accessed September 30, 2015).

Warden, J.A. and L.A. Russell. 2002. *Winning in FastTime*. Montgomery, AL: Venturist Publishing.

Weick, K. E., and K. M. Sutcliffe. 2001. *Managing the unexpected: Assuring high performance in an age of complexity*. San Francisco, CA: Jossey-Bass.

Yarnall, K. S. H., K. Krause, K. Pollak, M. Gradison, and J. Michener. 2009. Family physicians as team leaders: "Time" to share the care. *Preventing Chronic Disease* 6(2):A59.

Supporting Documentation: Gap Analysis and HRO Summit

This report describes results of the AFMS gap analysis and shares actionable recommendations for the AFMS to adopt leading practices in safety, reliability, and continuous quality improvement.

AFMS Gap Analysis.pdf

This report summarizes the topics described in presentations during the February 2015 High Reliability Summit as well as the results from attendees' self-assessments and breakout discussions.

AFMS HRO Summit Report.pdf

12 APPENDIX

12.1 Acronyms

AE	Aeromedical Evacuation
AETC	Air Education and Training Command
AFB	Air Force Base
AFMH	Air Force Medical Home
AFMOA	Air Force Medical Operations Agency
AFMS	Air Force Medical Service
AFMSA	Air Force Medical Support Agency
AFPC	Air Force Space Command
AFSC	Air Force Specialty Code
AFSEC	Air Force Safety Center
AMC	Air Mobility Command
ASD(HA)	Assistant Secretary of Defense for Health Affairs
BOMC	Base Operational Medicine Cell
CITES	Clinical Innovation, Test and Evaluation System
CONOPS	Concept of Operations
CPI	Continuous Process Improvement
CSAF	Chief of Staff of the Air Force
C-STARS	Center for Sustainment of Trauma and Readiness Skills
DEROS	Date of Earliest Return from Overseas
DHA	Defense Health Agency
DHMSM	Defense Healthcare Management System Modernization
DoD	Department of Defense
DSG	Deputy Surgeon General
EHR	Electronic Health Record
FAC	Functional Area Code
FMEA	Failure Mode Effects Analysis
GC	Guiding Coalition
GPM	Group Practice Manager
HAF	Headquarters Air Force
HEDIS	Healthcare Effectiveness Data and Information Set
HIT	Health Information Technology
HPI	Healthcare Performance Improvement
HRO	High Reliability Organization
IOM	Institute of Medicine
IT	Information Technology
MAJCOM	Major Command
MHS	Military Health System

MII	Medical Incident Investigation
MM&S	Medical Modeling and Simulation
MTF	Military Treatment Facility
MTF/CC	Military Treatment Facility Commander
NAS	National Academy of Sciences
OPS	Operational Patient Safety
OV-1	DoD Operational Viewpoint-1
P4I	Partnership for Improvement
PACE	Profession of Arms Center of Excellence
PCM	Primary Care Manager
PCMH	Patient-Centered Medical Home
PDCA	Plan-Do-Check-Act
PHP	Population Health Portal
PI	Process Improvement
PMF	Performance Management Forum
PMQR	Patient Movement Quality Report
PMS	Performance Management System
POM	Program Objective Memorandum
PS/Q/PI	Patient Safety/Quality/Process Improvement
PSM	Patient Safety Manager
PSP	Patient Safety Program
PSR	Patient Safety Reporting
RCA	Root Cause Analysis
RCS	Regional Currency Sites
SG	Surgeon General
SGA	Chief Administrator
SGH	Chief of the Medical Staff
SGHQ	Chief of Quality
SGN	Chief Nurse
SGP	Chief Flight Surgeon
SHCSE	Small Hospital Clinical Skills Enhancement
SMART	Sustained Medical and Readiness Trained
TCS	Trusted Care System
TCTTF	Trusted Care Transformation Task Force
UEI	Unit Effectiveness Inspection
VA	Department of Veterans Affairs
Wg/CC	Wing Commander
Wg/CC HUD	Wing Commander Heads Up Display

12.2 Terminology

TERM	DEFINITION
200% Accountability	Culture in which peer checking and coaching is the norm; staff are responsible for their own and their teammates' actions
Frontlines	Staff at the point of care; frontline team is not just clinical but also includes administrative and support staff who directly interact with patients
Standards	Serving as or conforming to an established or accepted measurement or value; something considered by an authority or by general consent as a basis of comparison; an approved model
Standard Work	Detailed **definition** of the most efficient method to produce a product or perform a service at a balanced flow to achieve a desired output rate
Trusted Care System	An integrated socio-technical system (i.e., people, processes, organizational structure, and leadership philosophy) for the daily management of patient value streams based on continuous process improvement; the practical expression of the AFMS' people and patient-oriented philosophy.
Value	Ratio of outcomes to costs and burdens (financial, time, effort to access, etc.) as defined from the patient's perspective.
Value Stream	A set of interrelated activities that the AFMS performs to create value for a patient.
Value Stream Analysis	The documentation, evaluation, and improvement of value streams.
Value Sink	A condition that generates a zero or negative return on the investment of resources in terms of patient value and usually can be eliminated without impairing a process.

12.3 Trusted Care Transformation Task Force Diagram

The diagram below presents the network operating scheme for the TCTTF. The center circles represent the Guiding Coalition (GC), with the Lead, Deputy Lead, and Lead(s) for each domain. The GC oversees and supports initiatives/collaboration in each domain that leverage SMEs from across the AFMS. It remains closely connected to the AFMS operating hierarchy by representatives from operating hierarchy (HAF Directorates/AFMOA). Every initiative the TCTTF supports is aligned back to the operating hierarchy (note colors). Initiatives may be short-lived or more complex and will be tracked by the GC. Through this network fashion, the TCTTF leverages expertise and passion beyond HAF/AFMOA yet maintains the alignment with operating hierarchy and enables their efforts accelerating change. The model is adapted from John Kotter's work (Kotter, 2012).

Figure 18: Trusted Care Transformation "Network"