United States Air Force

Testimony

Before the Senate Appropriations
Committee, Subcommittee on Defense

Defense Health Programs

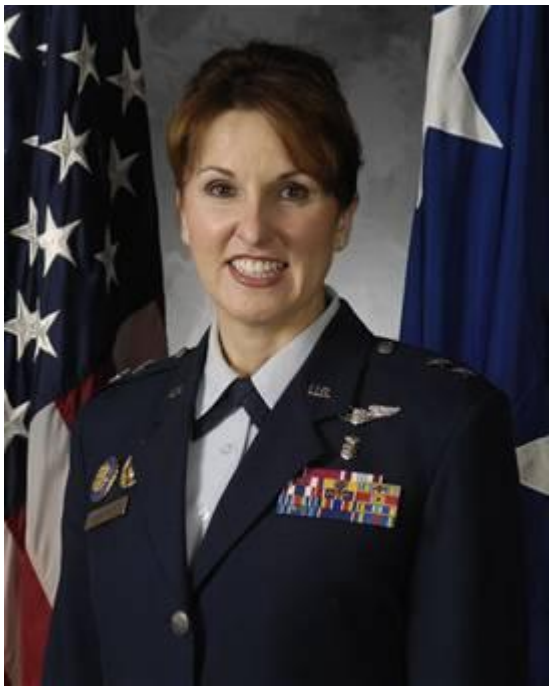
Statement of
Major General Kimberly A. Siniscalchi,
Assistant Air Force Surgeon General,
Medical Force Development
Nursing Services

March 28, 2012

BIOGRAPHY

UNITED STATES AIR FORCE

MAJOR GENERAL KIMBERLY A. SINISCALCHI



Maj. Gen. Kimberly A. Siniscalchi is Assistant Air Force Surgeon General, Medical Force Development, and Assistant Air Force Surgeon General, Nursing Services, Office of the Surgeon General, Headquarters U.S. Air Force, Bolling Air Force Base, D.C. As Assistant Air Force Surgeon General, Medical Force Development, she establishes new and appraises existing personnel policy and staffing requirements for 34,000 active-duty officer and enlisted medical personnel. Her directorate is responsible for all medical force education and training. As Assistant Air Force Surgeon General, Nursing Services, she creates and evaluates nursing policies and programs for 19,000 active-duty, Guard and Reserve nursing personnel. She interacts with Air Staff, Joint Staff, other services and major commands to ensure the highest caliber of nursing care and personnel.

General Siniscalchi received her commission in 1979 through the Reserve Officer Training Corps program at the University of Pittsburgh, Pa. Her leadership experience includes commanding eight consecutive years at squadron and group levels, and serving Presidents George H. W. Bush and William J. Clinton as the Air Force nurse assigned to the White House Medical Unit. She also deployed as Commander of the 380th Expeditionary Medical Group.

EDUCATION

1979 Bachelor of Science degree in nursing, Duquesne University, Pittsburgh, Pa.
1979 Critical care internship, Allegheny General Hospital, Pittsburgh, Pa.
1980 Medical surgical internship, March AFB, Calif.
1983 Flight nurse training, School of Aerospace Medicine, Brooks AFB, Texas
1984 Squadron Officer School, Maxwell AFB, Ala.
1985 Air Force Recruiting School, Lackland AFB, Texas
1988 Master of Science degree in nursing (clinical nurse specialist), University of Nebraska Medical Center, Omaha
1992 Air Command Staff College, by correspondence
1997 Air War College, Maxwell AFB, Ala.
1998 Medical Executive Skills Course, Bethesda Naval Hospital, Md.
1998 Interagency Institute for Federal Health Care Executives, George Washington University, D.C.
2001 Group Commanders Course, Maxwell AFB, Ala
2003 Executive Skills Capstone Course, Walter Reed Army Medical Center, Washington, D.C.

2004 TRAC 5000 Executive Leadership Program, Midwestern State University, Wichita Falls, Texas
2007 Fundamentals of Systems Acquisition Management, Defense Acquisition University, Fort Belvoir, Va.
2008 Senior Leader Orientation Course, Washington, D.C.
2008 USAF Senior Leadership Course, Center for Creative Leadership, Greensboro, N.C.
2008 Health Care CEO Course, The Wharton School, University of Pennsylvania, Philadelphia

ASSIGNMENTS

1. August 1980 - January 1981, nurse intern, USAF Regional Hospital, March AFB, Calif.
2. January 1981 - October 1981, clinical nurse, Medical/Pediatric Unit, USAF Hospital, Langley AFB, Va.
3. October 1981 - February 1982, charge nurse, Primary Care Services, Langley AFB, Va.
4. February 1982 - August 1982, charge nurse, Internal Medicine/Emergency Department, Langley AFB, Va.
5. August 1982 - October 1983, staff nurse, Surgical Unit, Offutt AFB, Neb.
6. October 1983 - May 1985, clinical nurse, Intensive Care Unit, Offutt AFB, Neb.
7. May 1985 - September 1986, Chief, Nurse Recruitment Branch, 3543rd Recruiting Squadron, Omaha, Neb.
8. September 1986 - June 1988, Chief, Health Professions Recruiting Branch, 3543rd Recruiting Squadron, Omaha, Neb.
9. June 1988 - July 1989, Clinical Nurse, Intensive Care Unit, Malcolm Grow Medical Center, Andrews AFB, Md.
10. July 1989 - June 1990, assistant charge nurse, Intermediate Cardiac Care Unit, Malcolm Grow Medical Center, Andrews AFB, Md.
11. June 1990 - August 1993, White House Nurse, Washington, D.C.
12. August 1993 - October 1994, Nurse Manager, Critical Care Services, 55th Medical Group, Offutt AFB, Neb.
13. October 1994 - January 1996, Chief, Medical Operations Flight, 55th Medical Group, Offutt AFB, Neb.
14. July 1996 - July 1997, student, Air War College, Maxwell AFB, Ala.
15. July 1997 - September 1997, Chief, Medical Readiness Logistics Branch, Air Force Medical Logistics Office, Fort Detrick, Md.
16. September 1997 - July 1998, Chief, Medical Combat Support Operations, Air Force Medical Logistics Office, Fort Detrick, Md.
17. July 1998 - June 2001, Commander, 11th Medical Operations Squadron; Chief Nurse, Bolling AFB, D.C.
18. June 2001 - July 2003, Commander, 17th Medical Group, Goodfellow AFB, Texas
19. July 2003 - July 2006, Commander, 882nd Training Group, Sheppard AFB, Texas
20. July 2006 - September 2008, Deputy Command Surgeon, Headquarters Air Force Materiel Command, Wright-Patterson AFB, Ohio (April 2007 - September 2007, Commander, 380th Expeditionary Medical Group, Southwest Asia)
21. September 2008 - present, Assistant Surgeon General, Medical Force Development, and Assistant Surgeon General, Nursing Services, Office of the Surgeon General, Headquarters U.S. Air Force, Bolling AFB, D.C.

MAJOR AWARDS AND DECORATIONS

Legion of Merit with oak leaf cluster
Defense Meritorious Service Medal
Meritorious Service Medal with three oak leaf clusters
Air Force Commendation Medal with two oak leaf clusters
Joint Meritorious Unit Award with two oak leaf clusters
Meritorious Unit Award
Air Force Outstanding Unit Award with four oak leaf clusters
National Defense Service Medal with bronze star
Global War on Terrorism Expeditionary Medal
Global War on Terrorism Service Medal
Air Force Expeditionary Service Ribbon with Gold Border

OTHER ACHIEVEMENTS
1987 Outstanding Young Women of America
1988 Outstanding Masters Graduate, University of Nebraska Medical Center Graduate College of Nursing
2008 Distinguished Alumni, College of Nursing, University of Nebraska Medical Center, Omaha

PROFESSIONAL MEMBERSHIPS AND ASSOCIATIONS
American Nurses Association
American College of Healthcare Executives
Association of Military Surgeons of United States
Air Force Nurses Association
Federal Nurses Association
Federal Health Care Executive Institute
Sigma Theta Tau International Honor Society of Nursing

PROFESSIONAL CERTIFICATIONS
National Certification in Nursing Administration, American Nurses Association

EFFECTIVE DATES OF PROMOTION
Second Lieutenant Jan. 20, 1979
First Lieutenant Jan. 23, 1981
Captain Jan. 23, 1983
Major Feb. 1, 1990
Lieutenant Colonel March 1, 1996
Colonel Sept. 1, 2001
Major General Dec. 3, 2008

(Current as of December 2008)

Mr. Chairman and esteemed members, it is indeed an honor to report to the Subcommittee on this year's outstanding achievements and the future initiatives of the over 18,500 members of our Total Nursing Force (TNF). I am proud to introduce a new team this year: Brigadier General Gretchen Dunkelberger, Air National Guard (ANG) Advisor; Colonel Lisa Naftzger-Kang, United States Air Force Reserve (USAFR) Advisor; and Chief Master Sergeant Cleveland Wiltz, Aerospace Medical Service Career Field Manager.

I extend, on their behalf and mine, our sincere gratitude for your steadfast support, which has enabled our TNF to provide world-class healthcare to more than two million eligible beneficiaries around the globe. Throughout the past year, Air Force nursing personnel have advanced the transition from healthcare to health through patient education, research, and evidence-based practice. Our TNF priorities are: Global Operations, Force Development, Force Management, and Patient-Centered Care. Woven through each of these areas are new initiatives in education, research, and strategic communication. Today, my testimony will highlight the accomplishments and challenges we face as we pursue our strategic priorities.

Global Operations

Operation IRAQI FREEDOM has now drawn to a close, and yet our medics remain fully engaged in wartime, contingency, humanitarian peace-keeping, and nation-building missions. In 2011, we deployed over 1,100 nurses and technicians in support of these global missions. Our TNF made up approximately 47 percent of all Air Force Medical Service (AFMS) deployed personnel.

The transition from Operation IRAQI FREEDOM to Operation NEW DAWN brought many of our troops home to friends and family. Joint Base Balad Theater Hospital closed in

November 2011 as a part of this transition. During its tenure, over 7,500 Air Force medical personnel deployed to Balad, approximately 50 percent of whom were nursing personnel. This premier trauma hospital supported over 19,000 admissions, 36,000 emergency patient visits, and 20,000 operating room hours while sustaining a 95 percent in-theater survival rate, the highest in military medical history. Serving as the last Deputy Group Commander, Chief Nurse, and Medical Operations Commander, during the final rotation at Balad, was my USAFR Advisor, Colonel Naftzger-Kang. She and her team successfully executed end of mission planning and the transition of $335,000 in equipment and over 90 personnel with facility on-time closure.

Balad's closure marked the end of an era, and was bittersweet for all those who had journeyed through the hospital doors. The final rotation had the honor of retiring the American flag that covered Heroes Highway, the entry that welcomed our wounded warriors into our care. As the flag was taken down, our nurses and medics stood in awe as they discovered that the stars from the flag were imprinted on the roof of the Heroes Highway tent. This flag, which offered hope to thousands of wounded Soldiers, Sailors, Marines, and Airmen, will be proudly displayed at the new Defense Health Headquarters, Falls Church, Virginia.

No matter the setting, high-touch, high-care remains the True North of the TNF. When a soldier, who was severely injured by an improvised explosive device (IED) blast first awoke in the Intensive Care Unit (ICU), at Craig Joint Theater Hospital, Bagram, his first concern was not for himself, but for his military working dog, also injured in the blast. The soldier was being prepared for evacuation to Germany; he knew his dog would be distraught if separated from him. Recognizing the importance of this soldier's relationship with his dog, Captain Anne Nesbit, an Air Force Critical Care Nurse, went above and beyond to reunite them. She spearheaded efforts to bring the dog to his bedside. The dog entered the ICU and immediately jumped on to the soldier's

bed and curled up next to his master. Those who witnessed this reunion were brought to tears. Even in the midst of war, the nurse's compassion is never lost.

Our medical technicians continue to deploy with our Army partners to Afghanistan as convoy medics to provide world-class healthcare at forward operating locations. One example, is Senior Airman Jasmine Russell, a medical technician assigned to a Joint Expeditionary Tasking as a logistics convoy medic with the Army. She traveled with her battalion over 80,000 miles throughout 40 districts and completed over 450 convoys in the Regional Command Southwest, Afghanistan. On January 7, 2011, while north of the Helmand Province, her convoy encountered 17 IEDs, three small arms fire attacks, and two missile attacks, killing a local national and injuring coalition forces assigned to the convoy. Despite being injured, this junior enlisted member acted far beyond her years of experience as she began immediate triage and care, preparing the wounded for evacuation. Senior Airman Russell stated, "I wasn't even concerned about myself; my peers were my number one priority."

While initial stabilization and surgery occurs at forward locations close to the point of injury, casualties must be aeromedically evacuated for further care. In wartime, contingency, peacetime, and nation-building, our Aeromedical Evacuation (AE) crews and Critical Care Air Transport Teams (CCATT) continue to provide world-class care and champion advancements in enroute nursing practice. This past year, AE moved 17,800 patients globally, with 11,000 from within United States Central Command alone. Since the start of Operations ENDURING and IRAQI FREEDOM over 93,000 patients have been safely moved.

In 2011, we introduced the Tactical Critical Care Evacuation Team (TCCET) concept and piloted the first team in Afghanistan. Lieutenant Colonel Virginia Johnson, a Certified Registered Nurse Anesthetist (CRNA), stationed at Langley Air Force Base (AFB), Virginia, led the way in

closing the gap in enroute care from initial surgical intervention to the next level of hospital care. Lieutenant Colonel Johnson and Captain Alejandro Davila, also a CRNA, took to the sky in a UH60 Helicopter. This Air Force team of two CRNAs, and an emergency room physician moved 122 critical patients, and provided state-of-the-art enroute care. In May 2012, the Air Force will deploy two more TCCETs into Afghanistan.

This past year, the Air Force field-tested a new Electronic Health Record (EHR) during AE missions. Our AE crews carried laptop computers, which facilitated documentation and downloading of enroute care into the same clinical database used by our medical facilities, and allowed all care provided to be readily visible to medical teams around the globe. This capability is fully operational for AE missions between Bagram and Ramstein AB (AB), Germany. Our teams continue to build the next information bridge by adding this capability to AE missions departing Ramstein AB enroute to Andrews AFB, Maryland and Lackland AFB, Texas.

Air Force nursing leaders are also filling critical strategic roles in the Joint operational environment. Colonel Julie Stola, the Command Surgeon for U.S. Forces-Afghanistan, was instrumental in the implementation of the Central Command's mild Traumatic Brain Injury (TBI) training and tracking procedures for the Combined Information Data Network Exchange Database. As the theater Subject Matter Expert on the use of EHR for Service members involved in blast exposures, her exceptional leadership and guidance to users resulted in an increase of blast exposures documentation from 35 to 90 percent in 2011.

An Air Force nursing priority for 2011 was to further advance research and evidence-based practice initiatives to improve patient safety and pain management during AE transport. Lieutenant Colonel Susan Dukes at Wright Patterson AFB, Ohio and Major Jennifer Hatzfeld at Travis AFB, California, are working closely with medical teams at Air Mobility Command and

leading efforts to evaluate the effectiveness of these safety initiatives and enroute pain management strategies. A team of our nurse scientists recently completed a project entitled "*Enhancing Patient Safety in Enroute Care Through Improved Patient Hand-Offs*." Major Karey Dufour, is member of this team, she will also be our first graduate from the Flight and Disaster Nursing Master's program at Wright State University, Ohio. She used this study as her Capstone project. One aspect of this research project was the development of a standardized checklist to facilitate communication during the preparation of patients for AE transport and at each patient hand-off. Pilot testing of this checklist demonstrated an improvement in the safety and quality of care throughout the AE system. Implementation of the checklist is ongoing across the AE community.

In our effort to optimize pain management of patients transitioning between ground and air, an in-depth review of care standards and safety was performed. As a result, all AE crews were trained in caring for patients receiving epidural analgesia. This advanced intervention ensures optimal pain management as patients move through the continuum of care. Major Hatzfeld, Lieutenant Colonel Dukes, and Colonel Elizabeth Bridges (USAFR), are currently evaluating patient outcomes from those who have received pain management through epidural analgesia and peripheral nerve blocks within the AE environment.

Our global AE force remains dynamic; sixteen additional crews were added to the active duty inventory to support global requirements. The AFMS responded by actively recruiting new AE members. Over 75 exceptional medics stood up to the challenge and joined the AE team. Aeormedical Evacuation Squadron (AES) manning levels are at the highest rate since the beginning of the war, with flight nurses at 89 percent and AE technicians at 85 percent.

Another accomplishment this year was a major transformation of our AE training.

The goal was to incorporate lessons learned from AE missions and the latest clinical protocols. We increased focus on evidence-based care, patient outcomes, safe patient hand-off, pain management, enroute documentation, and raised overall training proficiency levels. Currently, the Line of the Air Force Operations community is building a Formal Training Unit (FTU) to be co-located with the United States School of Aerospace Medicine at Wright-Patterson AFB, Ohio. This FTU will focus on enhancing the knowledge and performance required to operate in our AE aircraft. The new modularized curriculum and the relocation of the FTU will reduce overall training time by 130 days, provide flexibility in completing the training requirements, eliminate redundancies, and save thousands of dollars in travel costs. More importantly, this initiative will standardize training across the TNF, better preparing our AE community for any operational mission.

In 2011, our strategic AE mission from Ramstein AB, Germany expanded as San Antonio, Texas was added as an additional destination for our returning wounded warriors. This new Aeromedical Staging Facility (ASF) capitalizes on the available capacity and specialty care provided at the San Antonio Military Medical Center. It also allows wounded warriors from that region to be closer to their unit, friends, and family as they recover. The ASF staff of 57 Airmen is a seamless team of Active Duty, Reserve, and Guard personnel.

While we are learning, we are also sharing the knowledge of AE execution with our global partners. Our International Health Specialists are key to building global partnerships and growing medical response capabilities. As subject matter experts, they are part of a team that directs training and education to improve healthcare infrastructure and disaster response. Staff Sergeant Amber Weaver, an Aeromedical Evacuation Technician with the 187th, AES, Wyoming, ANG, expressed her enthusiasm as a member of a team that provided AE training for the Democratic

Republic of the Congo (DRC) Air Force. Her hope is that the Congolese military medical personnel will apply the training she provided to help their wounded. Lieutenant Jodi Smith, a Flight Nurse with the same unit, stated, "The goal was to teach the DRC's quick response force how to safely aeromedically evacuate their patients." The Congolese training staff noted that this effort definitely strengthened the partnership and cooperation between the U.S. and the Congolese.

Continuing around the globe, our Joint and coalition partnerships were never more evident than on March 11, 2011, when a 9.0 earthquake and tsunami caused catastrophic damage along the eastern coast of Japan. This event also posed a potential radiological threat from extensive nuclear plant damage. In support of Operation TOMODACHI, Air Force medics assisted air crews with 6 passenger transport missions, resulting in the safe movement of 26 late term pregnant females and their 40 family members to the U.S. Naval Hospital, Okinawa, Japan.

Another example of our international involvement took place in Nicaragua where this year 50 Air Force Reserve medics from the 916th Aerospace Medicine Squadron, Seymour Johnson AFB, North Carolina, provided medical care to over 10,000 local citizens during their Medical Readiness Training Exercise (MEDRETE). Each day began at 4:00 a.m., with hundreds of patients lining the roadway to the medical site, waiting to be seen by this team. Some patients traveled for hours on horseback, while others had walked countless miles in the August heat with their families in tow. Lieutenant Colonel Dawn Moore, commander of the MEDRETE mission stated, "We are proud to collaborate with other countries and provide excellent medical care, as well as build international capacity."

Air Force nursing continues to be vital in their role as educational and training instructors for the Defense Institute for Military Operations (DIMO) in their efforts to build global partnerships and capacity. An example of educational impact was from an Iraqi Air Force Flight

Nurse who reported that 78 lives were saved by Iraqi Air Force AE teams, just months after completing the Basic Aeromedical Principles Course. In another example, 10 soldiers were badly injured during an insurgent conflict west of Nepal. The follow-on forces that came to their relief the next morning were astonished when they found the badly wounded soldiers alive as a result of applying the self aid and buddy care techniques they learned in the DIMO First Responders Course. The DIMO medical training missions are making a profound difference in patient outcomes.

These critical partnerships grow not only through formal training and Joint exercises, but also through international professional forums. In 2011, we partnered with our nursing colleagues from Thailand and co-hosted the 5th Annual Asia-Pacific Military Nursing Symposium. The theme, "Asia-Pacific Military Nursing Preparedness in Global Change", reinforced partnerships to enhance nursing response to pandemics and humanitarian crises, and to advance evidence-based nursing practice. Twelve countries participated, more than 20 international colleagues briefed, and over 30 presented research posters. During this conference, the focus on Joint training initiatives in disaster response and aeromedical evacuation proved to be critical when Thailand experienced severe flooding, which impacted over 13 million people and resulted in 815 deaths. The very concepts discussed during the symposium were later applied during the rapid deployment and establishment of an Emergency Operations Center and successful aeromedical evacuation of patients. We look forward to continuing to build our international Asia-Pacific nursing partnerships as we prepare to co-host the 6th annual conference in 2012.

Force Development

It is imperative our TNF possess the appropriate clinical and leadership skills for successful execution of our mission. We are excited to announce three new fellowships: Magnet

Recognition, Informatics, and Patient Safety. The Magnet Fellowship provides the AFMS with a rare opportunity to gain first hand, up-to-date insights into the Magnet Culture; an environment that promotes nursing excellence and strategies to improve patient outcomes. Our Magnet Fellow will spend one year at Scottsdale Healthcare System, Arizona, a nationally recognized Magnet healthcare facility and one of our current Nurse Transition Program (NTP) Centers of Excellence (CoE). The Magnet Fellow will assume a consultant role to integrate Magnet concepts across the AFMS.

The Informatics Fellowship is critical to prepare nurses to participate in the development and fielding of computer based clinical information systems, such as the EHR. Nursing is a major end-user of these electronic information systems and should be actively involved in the development of requirements to enhance patient safety, communication, seamless patient handoff, and ease of documentation.

The Patient Safety Fellowship is a new partnership with the Veterans Administration (VA) at the James A. Haley VA Patient Safety Center of Inquiry in Tampa, Florida. The Fellow will learn how to design and test safety defenses related to the patient, healthcare personnel, technology, and organization, to export evidence into practice, and facilitate patient safety and reduce adverse events. This fellowship is designed to prepare nurses to lead interdisciplinary patient safety initiatives.

In last year's testimony, we previewed our plan to consolidate the Nurse Transition Program (NTP) training sites in order to provide a more robust clinical experience. We established four CoE: Scottsdale, Arizona; Tampa, Florida; Cincinnati, Ohio; and San Antonio; Texas. Our data shows NTP CoE offer many opportunities to practice a variety of clinical skills in an environment with a large volume of high acuity patients, which allows us to confidently decrease

our program length from 77 to 63 days. Additionally, the resulting 19 percent improvement in training efficiency allowed us to reduce NTP course instructors by 40 percent thus returning experienced nurses to the bedside.

In response to the National Council of State Board of Nursing Transition to Practice (TTP) initiative and the Institute of Medicine Future of Nursing recommendations, we have initiated a residency program to develop our novice nurses. Beginning in September 2011, all novice nurses entering Active Duty were enrolled in the new Air Force Nurse Residency Program (AFNRP). In the AFNRP, carefully selected senior nurses mentor novice nurses through their transition from nurse graduate to fully qualified registered nurse. We were pleased to discover that 80 percent of the TTP recommended content was already incorporated into the nurses' orientation during the first year of military service, allowing us to focus our efforts on weaving the remaining content such as evidence-based practice, quality, and informatics, into the AFNRP.

One of the desired outcomes of the NTP and AFNRP is enhanced critical thinking skills. Using a validated assessment tool in a pilot study, we found a significant increase in the critical thinking skills of nurses who completed the NTP. We expanded this assessment to systematically evaluate the effectiveness of the NTP and AFNRP. We gathered representatives from these CoE to reflect on successes of these military and civilian partnerships and to discuss the way ahead.

Another area where we are working to further develop our nurses is through our Critical Care Fellowship. We identified opportunities to enhance efficiencies of this training program. After extensive research on civilian and military programs, we recommended reduction from three training locations to two and initiated a review of curriculum to standardize the didactic and clinical experiences. Additionally, we are exploring civilian training partnerships which may give our students the opportunity to work with a greater volume of high acuity patients.

Our new mental health course is an example of our success in advancing our practice through education and training. Based on the changing needs of the mental health community, and in response to the National Defense Authorization Act, we are incorporating outpatient mental health case management training for our mental health nurses.

Advanced Practice Nurses are central to the success of a clinical career path that promotes optimal patient outcomes through critical analysis, problem solving and evidenced based decision making. Building on last year's initiatives, we continue to work with our Sister Services and the Uniformed Services University of the Health Sciences (USUHS) Graduate School of Nursing (GSN) to launch a Doctorate of Nursing Practice (DNP) program. This year, the Air Force has selected five Psychiatric Mental Health Nurse Practitioner (PMHNP) DNP students and three Doctor of Philosophy students for enrollment in the USUHS GSN. In addition, we also have developed a transition plan to meet the advanced practice doctoral level requirements for our Family Nurse Practitioner and Certified Registered Nurse Anesthetist by 2015.

In 2011, we moved forward with efforts to clearly define the roles of the Clinical Nurse Specialist (CNS), Master Clinician, and Master Nurse Scientist. As part of this endeavor, we discovered significant variance in the definition and expected educational preparation of the CNS. Standardization of qualifications for the title "Clinical Nurse Specialist" were determined to be paramount for us to match qualified nurses with designated positions. As a result, the Air Force Nurse Corps Board of Directors (BOD) approved a standard definition for CNS and standard qualifications in seven areas of practice. A special experience identifier (SEI), for the CNS, was approved by the Air Force Personnel Center (AFPC). This SEI allows us to clearly identify our CNSs and streamline the assignment process to fill these critical CNS requirements. Additionally,

the BOD approved standard definitions and qualifications for the Master Clinician and Master Nurse Scientist.

A new AFMS regulation governing anesthesia delivery by Air Force CRNAs was published this year, recognizing their full scope of practice. This change reflects the recommendations from the 2010 Institute of Medicine report, "*The Future of Nursing: Leading the Change, Advancing Health*", stating that nurses should practice to the full extent of their education and training. The President of American Association of Nurse Anesthetists, Dr. Debra Malina, CRNA, DNSc commended the Air Force for making this change.

One of our ongoing challenges is to optimize clinical training. It is imperative that our nurses and medical technicians maintain proficiency in their clinical skills not only for contingency operations, but also for peacetime operations. We continue to advance our partnerships with other federal and civilian medical facilities whose inpatient platforms and acuity levels provide the optimal environment for initial specialty development and skill sustainment. We have partnered with several civilian medical centers, as well as universities. In these partnerships, both civilian institutions and military facilities host each other's students and optimize educational opportunities available in each setting. This year, the AFMS processed 180 training affiliate agreements. Of these agreements, 39 were in nursing. These partnerships are vital to our training platforms and promote professional interaction.

As we strive to obtain efficiencies in Joint training, we are reviewing our electronic and virtual distant learning systems for ways to reduce redundancies within the Military Health System. This year, the Joint Health Education Council (HEC) facilitated shared access of 232 training programs between the DoD and the VA. In 2011, over 113,000 DoD and VA personnel accessed these sites representing over 800,000 episodes of training. We continue to be an active

participant on the HEC. Our involvement in this council is crucial, as a significant number of training programs are nursing related.

In last year's testimony, I spoke of the opening of the Medical Education and Training Campus (METC). I can now share a few of METC's successes in 2011. METC reached full operational capability on September 15, 2011, and was recognized nationally for it's accreditation process which earns METC graduates transferable college credits. Our additional ability to support the medical enlisted educational mission will foster international partnerships, and contribute to educational research and innovation.

We are constantly seeking ways to develop our enlisted medics. In 2011, we selected two Airmen to attend the Air Force Institute of Technology for graduate education in Information Resource Management and Development Management. The most recent graduate of the Development Management program, Master Sergeant Carissa Parker, lauded this program and stated, "This is by far, one of the most exciting and unexpected opportunities I've had in my Air Force career. This advanced academic degree allows me to apply the unique knowledge and skill set to best serve my Air Force." In order to align candidates for success in these programs, we continue to actively force develop our enlisted personnel.

Deliberate development of our civilian nursing personnel is ongoing. This year, we established a career path from novice to expert, which offers balanced and responsive career opportunities for our civilian nurses. We finalized two new tools, a civilian career path and a mentoring guide, to aid supervisors, both have been distributed Air Force wide. In January 2012, we conducted our second Civilian Developmental Board at AFPC, where civilian Master Clinician positions were laid in to allow for career progression and much-needed continuity in our military treatment facilities. Our next step is a call for candidates to outline the criteria and assist our

civilian nurses in applying for these targeted positions, which will ultimately enhance patient care and job satisfaction.

Force Management

The Air Force continues to be successful with recruiting. In 2011, we met our recruiting goal as we accessed 113 fully qualified nurses and 46 new nursing graduates. This brought our overall end strength to 95 percent. Our flagship programs for recruiting, the Nurse Accession Bonus and the Health Professions Loan Repayment Program, remain the primary vehicles for recruiting the majority of our entry-level nurses. This year we executed 35 accession and 89 loan repayment bonuses. Other accession pipelines include the Reserve Officer Training Corps scholarship program, the Nurse Enlisted Commissioning Program, and the Health Professions Scholarship Program.

Nurse Corps retention rates have improved with the implementation of the Incentive Special Pay Program, allowing the AFMS to retain high quality skilled nurses in targeted clinical specialties. Overall, retention has risen 13 percent since 2008 and now stands at 80 percent at the four-year point. Historically, we found retention drops precipitously, by at least 44 percent, at the ten-year point.

In an effort to explore factors affecting retention, USUHS conducted a triservice nursing study. The total sample size was 2,574 with an overall response rate of 30 percent. The results were released in January 2012. Significant factors found to influence a nurse's decision to remain on active duty were promotion, followed by family relocation. Overall, deployments were not a significant decision factor in determining intent to remain in the service. Most nurses were happy to deploy and saw this as part of their patriotic duty. Noteworthy comments from the study were, "the promotion rates in the Nurse Corps are behind the rest of the Service" and "the reason for my

consideration for leaving military is due to lack of promotion." Other findings, specifically related to promotion opportunity, confirmed our understanding of the grade imbalance within the Air Force Nurse Corps structure.

Over the past few years, the Air Force Nurse Corps has worked with the Office of the Deputy Chief of Staff, Manpower, Personnel, and Services, to provide consistent career opportunities for Nurse Corps Officers as intended by the Defense Officer Personnel Management Act (DOPMA). DOPMA grade tables are applied to the entire Service, not to a specific competitive category, so the challenge for the Air Force Nurse Corps is a lack of sufficient field grade authorizations for the clinical and scientific experience needed. The addition of the CNS and Master Clinician at the bedside, both of whom are educated to the masters or doctoral level has been crucial in providing the education and experience needed in the patient care arena. There is a positive correlation between advanced nursing education and experience as it relates to clinical outcomes and safety.

In a continued partnership with the Office of the Undersecretary of Defense, Personnel and Readiness, and the Assistant Secretary of the Air Force, Manpower and Reserve Affairs, we continue to pursue ways to alleviate deficits in field grade authorizations. Our goal is to improve retention of the uniquely trained experienced military nurse and increase return on investment for advanced education.

During 2011, we made significant strides in strategic communication. We launched the official Air Force Nurse Corps website and social network page. Our social network page has received over 250,000 visits since inception. These web pages are excellent recruiting and retention tools, and serve as a means to reach out to our retirees as well as the military and civilian community. In addition to the public domain, we have a targeted intra-net capability. The

Knowledge Exchange (Kx) is a phenomenal information resource for all Air Force military members and government employees to assist them with professional development at any level in their career. We launched a Kx subscriber campaign this year, highlighting the large amount of information available on this site. The number of subscribers increased 500 percent. The Kx is a venue where our nurses and medical technicians can share best practices, innovative suggestions, personal stories, accomplishments, and stay connected.

Patient Centered Care

Patient centered care is at the core of all we do; it is our highest priority. Care for our patients crosses into both inpatient and outpatient arenas, and has been redefined with a more focused emphasis on providing healthcare to promoting health.

An important contribution of nursing to healthcare is exemplified by the integral role of Disease and Case Managers in our Family Health Initiative. For example, at Moody AFB, Georgia, the nurses initiated disease management interviews with their diabetic patients. The nurses used motivational interviews, a face-to-face approach, enabling them to provide education, support, and individual goal setting. This innovative strategy increased accountability for the patient and medical team, and resulted in marked improvement in adherence to the treatment plan and control of the patient's disease process.

Overall, Care Case Manager (CCM) interventions have been found to mitigate risk. Major Don Smith, Health Care Integrator, and Director of Medical Management, Keesler AFB, Mississippi, implemented a process improvement for the identification of wounded warriors as they entered the healthcare system and enrollment of these individuals with a CCM. This initiative increased the communication and person-to-person transfer of care between facility Case Managers at Keelser, the VA, and Gulfport Naval Station. Additionally, Major Smith orchestrated

CCM services for vulnerable populations to include military retirees, Medicare, and Medicaid patients who are eligible for care on a limited basis at Keesler, but who are at risk for fragmented care as they transition across the healthcare system. Finally, he designed a "Medical Management Database" consisting of a comprehensive set of CCM documentation tools and tracking methods for patient volume and acuity. The database captures workload, quantitative, and qualitative outcomes. The use of this database improved CCM metrics and decreased documentation workload by 200 percent. Specific outcomes such as avoidance of emergency room visits, hospital admissions, or clinic visits were assigned a corresponding and substantiated dollar amount. The return on this investment exceeded savings of 1.1 million dollars in 2011. This database tool is currently being implemented Air Force wide.

The TBI clinic at Joint Base Elmendorf-Richardson, Alaska is advancing care for wounded warriors. This only Air Force led TBI clinic, offers wounded warriors comprehensive care, including specialized neurological assessment and testing, mental health services, pain management, and the creation of a tailored treatment plan.

Our partnership with the VA through our Joint Ventures has yielded improvements with staffing, efficiencies, and patient outcomes. One of the most recent Joint initiatives was the formation of a peripherally inserted central catheter (PICC) team from the 81st Medical Group, Keesler AFB. In the past, VA patients needing central line intravenous access were transported to Keesler for the procedure. The PICC team now travels to the VA to perform this procedure; resulting in significant cost savings associated with patient care. More importantly, patients who are too unstable for safe transport can now receive the best care in a timely manner at their bedside. Also, at the 81st Medical Group, a team of VA and military staff assisted with over 1,500 cardiac catheterizations in 2011.

The Joint Venture working group at Elmendorf determined there was a lack of continuity of care and sharing of medical information with the VA clinic for follow-up when VA patients were discharged from the ICU. This working group developed a process by which the ICU discharging nurse contacts the VA CCM to provide an up-to-date medical history to include medication reconciliation and discharge summary. This endeavor has assured that the Primary Care Provider has the most current medical information available at the follow-up appointment. In addition, a template was developed for primary care staff to track all the required medical documentation for patients being discharged from the Joint Venture ICU. This process was replicated at the Medical Specialty Unit.

Embedded in our patient-centered care is an emphasis on resilience. The Air Force is committed to strengthening the physical, emotional, and mental health of our Airmen and their families. We continuously reinforce the need for our Airmen to bolster their ability to withstand the pressures of military life. Our Air Force understands that we can only be successful when the entire Air Force Community promotes the importance of resilience and early help-seeking by all Airmen in distress. We continue efforts to diminish the negative connotation associated with seeking help. All Airmen need to perceive seeking help as a sign of strength, not a sign of failure.

We have persevered in our campaign spearheaded by leaders, who themselves have suffered post traumatic stress, and have come forward to openly discuss their experiences and encourage others to get the care they need from the many support services available. These leaders emphasize that their decision to seek care did not adversely affect their Air Force career; rather receiving care, made it possible for them to continue to be successful. During our nursing leadership symposium this year, one of our senior nurses presented her own personal, traumatic experiences to the audience and described what brought her to the point where she recognized the

need to seek mental health care. Mental Health professionals were in attendance and conducted on-site discussion groups for medics with similar experiences. Feedback from those who attended the groups was overwhelmingly positive.

Air Force Nurse Scientists are conducting research to enhance the resilience of our service members and their families. For example, Colonel Karen Weis, Director of Nursing Research, Lackland AFB, Texas with support from the TriService Nursing Research Program, is studying an innovative strategy using maternal mentors to build family resilience. Lieutenant Colonel Brenda Morgan, a recent USUHS graduate, identified psychological exercises that can be integrated into a daily routine to enhance resilience. We continue to seek avenues that build a resilient force, identifying at-risk Airmen and treating those in need of help.

Advancing a Culture of Inquiry

Air Force nurses are advancing healthcare and improving patient outcomes through a culture of inquiry. The ongoing process of questioning and evaluating practice, providing evidence-based care, creating practice changes through research, and evaluating the outcomes of our care reflects our culture of inquiry In support of this culture, the Air Force Nurse Corps sponsored a competition that highlighted research and evidence-based projects currently being implemented to improve patient care. Some of this work will be presented at this year's nursing leadership symposium, demonstrating the advancement of evidence-based care not only by our Nurse Researchers, but more importantly, by the nurses who provide direct patient care.

An excellent example of this initiative is the nursing staff of the Neonatal Intensive Care Unit (NICU), Kadena AB, Okinawa, Japan, who have taken patient safety to the next level. In 2011, 185 infants were admitted to the NICU. Often, these seriously ill neonates require the placement of a central intravenous catheter for administering life sustaining medications and

fluids. Unfortunately, these central lines can be a source of infection, which can lead to life threatening blood stream infections and even death. Although the unit's central line infection rate of 3.9 percent was well below the national average of 10 percent, the staff strived for a zero percent infection rate, due to the increased risk of mortality for these vulnerable patients. In FY11, the nursing staff implemented a new procedure used during the care and management of central lines. Following the implementation of this innovative solution they achieved their goal: zero infections from 69 central lines (representing 393 line days).

Research initiatives completed this year demonstrate the strategic leadership role played by our nurse scientists. In January 2012, Lieutenant Colonel Susan Perry, Assistant Professor in the CRNA program at USUHS, completed her PhD. Her ground-breaking research identified a genetic abnormality that may predispose an individual to malignant hyperthermia, an inherited muscle disorder triggered by certain types of anesthesia. Lieutenant Colonel Perry's research advances our understanding of this potentially fatal disease and provides insight into strategies to decrease the risk for malignant hyperthermia. Her research highlights the unique opportunities given to our students who study at the USUHS, as she was able to work in one of the only laboratories in the world dedicated to malignant hyperthermia. Similarly, current PhD students at the USUHS School of Nursing have their introduction to research at the renowned National Institute of Health.

Lieutenant Colonel Karen O'Connell, who completed her doctoral studies at USUHS, identified factors associated with increased mortality in combat casualties with severe head injury. According to her research, some of these factors are modifiable, which suggests areas of care that can be targeted to improve outcomes for these patients. Colonel Marla DeJong, Dean of the School of Aerospace Medicine, served as Chairperson of the Scientific Review Committee for

brain injury and mechanisms of action of hyperbaric oxygen therapy for persistent post-concussive symptoms after mild TBI. She also spearheaded the creation of baseline datasets that will be used in a study to evaluate the effect of hyperbaric oxygen therapy in casualties with post-concussive symptoms after mild TBI.

The research conducted by our nurse scientists is of the highest quality. In 2011, Colonel Bridges, with assistance from the Joint Combat Casualty Research Team (JC2RT), completed a study using noninvasive methods to monitor critically injured casualties during resuscitation. This research described the minute-by-minute changes in the combat casualty's vital signs and hemoglobin using a noninvasive probe placed on their finger. The results demonstrated the potential for earlier identification of clinical deterioration and the tailoring of resuscitation. This study received the 2011 Research Poster Award at the AFMS Research Conference. Colonel Sean Collins, Commander, 104th Medical Group, Westfield, Massachusetts, ANG and a nurse scientist, was the first Guardsman to serve on the JC2RT. During his deployment at Camp Dwyer, Afghanistan, Colonel Collins played a vital role in advancing operational research and in articulating the importance of nursing research in the care of our warriors. Colonel Collins completed a landmark analysis of the relationship between physical symptoms reported during deployment and emotional health. Analysis is ongoing to further identify those at highest risk for poor health outcomes to allow for targeted interventions.

Research and evidence-based initiatives also focused on readiness. Colonel Bridges completed a list of operational nursing competencies, which were validated by deployed nurses. These competencies will aid in the standardization of training for nurses across all Services. The results of this study further validated the content of the TriService Nursing Research Program *Battlefield and Disaster Nursing Pocket Guide*. This pocket guide was updated in 2011, and 7,000

copies of the updated guide were distributed to Army, Navy, Air Force nursing personnel. The evidence-based recommendations summarized are now the standards for Air Force nursing readiness training.

Along with research and evidence-based practice, we are also leveraging our existing collegial partnerships. One such endeavor is our participation in the Federal Nurses Service Council. This council includes the Service Chief Nurses, Directors of Nursing, Public Health, Veterans Affairs, USUHS, the American Red Cross, and Reserve counterparts of the Army, Navy, Air Force. This year, the group developed a strategic plan that focuses on blending our efforts as a single professional voice on three strategic Federal Nursing priorities: Role Clarification, Culture of Inquiry, Influence, and Collaboration. As a united force, we can tackle tomorrow's healthcare challenges today.

Way Ahead

The Air Force Nurse Corps is committed to achieving excellence in both the art and science of nursing. As a Total Nursing Force, we will continue to invest in nursing research and foster a culture of inquiry to further advance quality patient outcomes. We will continue to advocate for and invest in academic preparation to retain the Master Clinician at the bedside. We will continue to optimize training opportunities and efficiencies within the Air Force, Jointly, and with our civilian nursing colleagues. Above all, we will continue to invest in our nurses and technicians by focusing our efforts on enhancing resiliency, promotion opportunities, and education in order to retain those individuals whose experience makes military nursing the best in the world.

In closing, as Colonel Mary Carlisle, Commander Surgical Services, Misawa, AB, Japan stated, "You will know you're a military nurse when you visit the National Mall in Washington

D.C., and Vietnam Veterans visiting The Wall, tell you their stories of how nurses saved their lives, and then they thank you for serving. Then you swallow the lump in your throat and blink back the tears in your eyes and continue doing what you were doing without missing a beat. You can't find the right words to explain to anyone what you've just been through. You will know you're a military nurse when at the end of the day, at the end of the tour, or the career, you say, I'd do it all over again."

Mr. Chairman, and distinguished members of the Subcommittee, it is an honor to represent a committed, accomplished Total Nursing Force. Our Nation's heroes and their families depend on our nurses and technicians to deliver superior, safe, and compassionate care. Grounded in high-touch, high-care, our Air Force nurses and technicians proudly serve and will continue to deliver world-class healthcare anytime, anywhere.