Since arriving at the McGuire VA Medical Center as the Director in 2013, I have had the great privilege and honor to serve America’s Veterans. Each year, about 60,000 Veterans choose our medical center as their preferred healthcare provider, and I am truly honored to serve such an engaged and impassioned group of Soldiers, Sailors, Marines, Airmen and Coast Guardsmen. Our Veteran population is so diverse; it is a true microcosm of this great country. I know the thousands of men and women who visit McGuire each day get the care they need and the care they have earned.

Every day, thousands of McGuire team members bring their absolute best to work to deliver high-quality healthcare to Veterans. From our outstanding clinical professionals to our fine volunteer, support and administrative staff, McGuire has the most engaged and talented employees in VA. It’s truly amazing to see our team members come together to create a world-class academic medical center.

We serve one of the fastest-growing areas for Veterans in the country with annual growth rates averaging 8–10 percent. Because of the need to bring VA services to more and more Veterans, I am excited to discuss plans for our expansion in Richmond and the surrounding areas.

In 2017, we received approval from Congress to move forward with several new projects. The largest of these is a 378,000 square foot Health Care Center for our Veterans in Fredericksburg and Northern Virginia, which will offer every medical and support service, with the exception of inpatient medical care. While this facility is currently in the planning stage, in the next few years we also expect to double the size of our northern Fredericksburg clinic and add two new satellite centers in Henrico and Petersburg. There is no doubt these new facilities will provide the same excellent patient experience as all of our other locations.

In addition, we have over $134 million of modernization projects in various stages of planning, design and construction on our main campus. From new operating rooms and ICU areas to a Women’s Health Center and Cancer Center, we expect these new additions to enhance the outstanding care we provide to Veterans.

At McGuire, it is our shared belief to put the Veteran first in all we do. I want to extend my sincere thanks and appreciation to our wonderful Veterans and McGuire team who make this organization such a great place to receive care and work. There are many great accomplishments and successes to be proud of in 2017, and I am positive the future will bring even more.

Best Regards,

Director
TABLE OF CONTENTS

Message From Our Director .............................. 2

Rewalk Exoskeleton ............................................. 6

Prosthetic Hand .................................................... 7

By the Numbers ..................................................... 8

Amputee Boot Camp ........................................ 10

Clinical Command Center ............................... 11

Construction Strategic Plan .............................. 12

Veteran Colors .................................................... 13

Fecal Transplant ................................................. 14

PBS Documentary ................................................ 15

EDITORIAL STAFF
Darlene Edwards · David Hodge · Patrick Gordon · Yanitz Irizarry · Mary Beatty-Brooks · Jason Miller
In 2017, McGuire VA served approximately 60,000 different patients and completed nearly 750,000 outpatient visits with Veterans of all eras and ages. From the main hospital in south Richmond, to the four community-based outpatient clinics located in Fredericksburg, Spotsylvania County, Charlottesville and Emporia, we serve as the nearest VA facility for an estimated population of 200,000 Veterans. Our catchment area stretches from Culpeper County in the north, to Northampton County in North Carolina. This area encompasses approximately 52 cities and counties covering 22,515 square miles of the Commonwealth.

Currently, the two largest patient populations—Vietnam Era and Persian Gulf Era—account for more than 70 percent of Veterans in our healthcare system. These two groups come from two different generations in society and have many similarities and differences in their healthcare needs. No matter the era, McGuire VA is committed to the medical needs of all Veterans. We look forward to serving you!
Meet **Kashe Moss**, pictured right with CBS news personality Rob Desir during National Salute to Veteran Patients Week in February 2017.

At age 18, Moss seemingly had her entire enlistment ahead of her. She served as a security forces airman in the Air Force until a serious car accident left her with multiple lower body injuries.

“I remember driving and hitting something big,” Moss recalled. Her legs were crushed. Moss required multiple emergency surgeries before being transferred to McGuire to begin her recovery.

“The doctors are really nice and understanding,” Moss said. “My nurses are funny, and they’re able to brighten me up even when I don’t want to.”

During her four month stay, Moss, then age 19, progressed through the Polytrauma Rehabilitation Center program and the Servicemember Transitional Rehabilitation Program (STAR).

“The STAR program has been a breath of fresh air,” Moss said. “Even if it’s 10 minutes a day, I still love to get up and walk. I can’t wait to get back to Florida and to my unit.”

**Louis F. Martin, Lt. Col. (Ret),** at left, visited the McGuire VA Medical Center just a few days before his 100th birthday in 2017.

Martin celebrated his centennial in July. The Army and Air Force Veteran visited the podiatry clinic for a checkup and group photo with staff members.

The World War II Veteran worked as a teacher before entering the military. Martin said he spent a total of 28 years in the service—six years of active duty and 22 years in the reserves—during which time he went from the rank of private to lieutenant colonel. He shares the same birth year as Fort Lee, where he attended Officer Candidate School.

Martin said his first surgery at McGuire was before the current main building (Bldg. 500) was dedicated in 1983. He also said he’s extremely happy with his care in geriatrics and podiatry. Martin attributes his longevity to daily walks, often around his local mall.

From us at McGuire, thank you for your service, Lt. Col. Martin!
EXOSKELETON RESEARCH AT McGUIRE CHANGES LIVES

In 2017, thanks to an ongoing research study being conducted in McGuire's Spinal Cord Injury (SCI) unit, several Veterans got the chance to experience extremely rare life-changing technology that is unavailable to many people in the United States.

As part of the study, McGuire received six ReWalk 6.0 exoskeleton systems for Veterans with spinal cord injuries. Ashraf Gorgey, lead researcher in McGuire’s SCI unit and a co-investigator of the ReWalk study, said his goal was to eventually send all six of them home with Veterans, giving them the opportunity to live more independently.

According to the manufacturer’s website, ReWalk is a wearable robotic exoskeleton that provides powered hip and knee motion to enable individuals with spinal cord injury (SCI) to stand upright, walk, turn, climb and descend stairs. It’s the first exoskeleton to be FDA-approved for home use.

Marine Veteran Terry Labar and Army Veteran Eugene Simpson were two Veterans participating in the study. Individually, they trained to use the equipment and practiced routinely walking around the SCI unit. The goal of the study was for them to eventually master it and take a ReWalk system home for regular use.

For Labar, it had been 33 years since he lost his ability to walk. Several local news outlets, including Richmond’s CBS, ABC and NPR affiliates, visited McGuire to witness Labar walking with the assistance of the ReWalk exoskeleton.

Simpson was injured by an improvised explosive device in Iraq in 2004. Before participating in the ReWalk study, he had not walked in 13 years. This VA study gave him the opportunity to walk again, and regain some mobility and independence.

Extraordinary progress and recovery are hallmarks of the care offered at McGuire. Many have entered the facility in a wheelchair with multiple severe injuries, including traumatic brain injuries, and eventually are able to walk out of the building under their own power and resume a productive life. ReWalk is just one of many ways McGuire VA Medical Center continues to change lives.
VETERAN RECEIVES HIGH-TECH PROSTHETIC HAND

Veteran Daniel Glanz lost his hand while serving in Afghanistan 12 years ago. Today, Glanz has a brand new prosthetic hand with world-class technology which gives him the ability to adjust hand functions on the fly in ways that weren’t possible in the past.

For the past 10 years, Glanz has been coming to McGuire VA Medical Center to receive the latest in prosthetic hand technology. On May 8, he was fitted for an iLimb Quantum prosthetic hand, which is able to be programmed with a smartphone app and change functions with a simple gesture.

The device can be programmed with up to four different hand settings at a time. Each setting is activated by the wearer gesturing with their arm to the left, right, forward or back.

This allows Glanz, who served in the Army Reserves from 1993 to 2006, to instantaneously switch between various modes. For example, to shake hands, he can move his arm slightly to the left. With a slight gesture to the right, he could change to a pinching grip to hold a car key. Another gesture forward could switch it to a grip more suited to gripping a steering wheel.

There are dozens of potential modes, all of which can be selected via the smartphone app, and are tailored for everyday uses to help Glanz’s life. He selects the four modes that are most useful to him for a task and then has the ability to switch between them instantly.

If he wants to make changes later, it’s as simple as grabbing his smartphone.

Glanz says this technology will make it easier than ever for him to use his prosthetic hand.

“It’s just going to make wearing this hand more useful every day,” he said. “It will be easier to use it in everyday environments.”

John Fox, chief of McGuire’s Prosthetics Lab, said the technology is the best on the market right now and is far more advanced than technology available to most civilians.

Glanz now works as an aerospace engineer. He said he is hopeful his new prosthetic hand will help make life easier and allow him to do his job more efficiently than before.

The iLimb Quantum has dozens of different modes used to make the prosthetic hand hold a wide variety of different poses.

Veteran Daniel Glanz shows off the new prosthetic hand, an iLimb Quantum, which he received at McGuire on May 8.
**BY THE NUMBERS**

**TOTAL PATIENTS**

2017..59,627  
2016..59,278

**TOTAL ADMISSIONS**

2017..6,891  
2016..7,824

**OPERATING BUDGET**

2017..547 MILLION  
2016..545.5 MILLION

**TOTAL ENCOUNTERS**

2017 1,050,261  
2016 992,493

**EMERGENCY DEPT. (ED) VISITS**

24,583

**OPERATING BEDS**

Hospital........273  
Domiciliary.......16  
CLC..............60  
TOTAL............349

**SURGERIES PERFORMED**

4,470

**OUTPATIENT VISITS | AVERAGE DAILY: 2,045**

<table>
<thead>
<tr>
<th></th>
<th>Richmond</th>
<th>Fredericksburg</th>
<th>Fredericksburg Southpoint*</th>
<th>Charlottesville</th>
<th>Emporia</th>
<th>Total Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>651,446</td>
<td>33,544</td>
<td>24,597</td>
<td>25,978</td>
<td>10,950</td>
<td>746,515</td>
</tr>
<tr>
<td>2016</td>
<td>624,477</td>
<td>39,085</td>
<td>8,274</td>
<td>22,919</td>
<td>10,680</td>
<td>705,982</td>
</tr>
</tbody>
</table>

*Fredericksburg Southpoint opened May 2016
ANNUAL REPORT 2017

Mental Health Service

Veterans Served (Including CBOCs): 17,344
Appointments Scheduled: 186,980

Homeless Veteran Team

- HUD-VASH: 342 Veterans housed in FY2017, 74% housed less than 90 days
- GPD: 67% Veterans discharged with independent housing
- HCHV: 274 Unsheltered Veterans assisted

Pharmacy

Prescriptions: 1.4 million + prescriptions filled
Inpatient doses administered: 2 million +
Medications provided to patients: $70 million +

Voluntary Service

Number of Volunteers: 491
Total Impact of Volunteer hours and donations: $2.9 MILLION
In January 2017, William Miller had a mechanical problem with his Harley Davidson Softail motorcycle and pulled to the side of the road. Miller, who spent six years as a military policeman, believes the problem was the cruiser’s clutch system. While assessing the bike, he was struck by a passing vehicle.

Although Miller lost his left leg above the knee, the North Carolinian said he is lucky to have survived. He credits first responders for saving his life after the accident. By pure happenstance, an off-duty crew was traveling in an ambulance about a mile behind when everything occurred. They were able to provide live-saving first aid to Miller in the crucial first minutes.

Not one to let misfortune hold him back, Miller has worked hard and exceeded expectations since his arrival at the McGuire VA Medical Center in early May.

“Mr. Miller is not your run-of-the-mill kind of patient,” said Patty Young, amputee rehabilitation coordinator at McGuire. “He is also fearless, not afraid to challenge himself by being out of his comfort zone.”

Young leads the Amputee Boot Camp at McGuire and challenges participants to reach their goals. She leads Veterans to grocery stores, the mall, outdoor play areas and playgrounds, local coffee shops and even Belle Isle in Richmond. Participants are challenged to spend 3-5 hours in rehab each day as part of the program.

“I don’t tend to be the nicest when it comes to the outing,” Young said. “We take the long way, or the bumpy way, or the most crowded way to provide the opportunity to be in an uncontrolled environment.”

Miller is extremely agile and has strength and body awareness unlike many amputees, Young said. He was ready for everything the boot camp threw at him. “We go around outside,” Miller explained, gesturing his hands toward the patio landscaping outside the Polytrauma Transitional Rehabilitation Program building at McGuire. “I did some gardening the other day.”

Upon his arrival to McGuire, Miller, a spry 29-year-old, entered the Servicemember Transitional Advanced Rehabilitation (STAR) program. STAR is a residential treatment program focused on rehabilitating patients with amputations or other polytrauma injuries. While in STAR, Miller routinely visits with multiple therapists and specialists to track progress and address new issues.

Miller wants to one day return to his active lifestyle. Part of that process involves finding a proper fit with his new prosthetic leg. “I’m hoping to run on it one day,” Miller said. “I’m looking to do all that fun stuff I used to do.”

Before losing his leg, Miller trained to work as an airframe power plant technician. He gained employment shortly before his accident and the company agreed to hold the position for him, Miller said.

“They said it was because of my work ethic,” he said.

Miller said he is looking forward to starting his new job very soon.
behind an ordinary solid wood door on the second floor sits one of the busiest hubs of activity within the sprawling McGuire VA Medical Center.

The 600-square-foot room is home to a multidisciplinary team of doctors, nurses and social workers charged with managing patient flow for hospitalized Veterans entering and exiting the facility. The Clinical Command Center operates around the clock, said Dr. Trishana Glover, chief of the command center. It acts as a hub of information for the hospital, similar to air traffic control.

At McGuire, command center staff members gather, analyze and distribute information throughout the hospital so clinical staff can make timely and accurate decisions regarding admissions, discharges and inter-facility transfers, Glover said.

Large monitors cover an entire wall within the command center, displaying information vital to the staff members inside. Every two hours, Glover’s iPad dings with the latest patient flow report. “We get information from so many places,” Glover said. “We identify patterns and are the best-equipped outfit to help areas of the hospital to be efficient.”

The use of data-driven command centers in public sector healthcare is rising but in the Department of Veterans Affairs, the concept is still relatively new. McGuire is the only VA hospital in the region utilizing this model.

“By efficiently managing patient flow, we are able to have the patients in the right place at the right time with the correct staffing, and the patient gets the level of care they need,” said Dr. Sandeep Chhahira, deputy chief of staff, McGuire VAMC. In 2015, John A. Brandecker, director of McGuire, established the command center to streamline patient care and ensure the proper utilization of medical staff, Chhahira said. This is important because Veterans from across the nation receive highly-specialized services from McGuire. “We work towards seamless coordination of care,” Chhahira said. “If it’s fragmented, it creates bad outcomes for patients and employee dissatisfaction, so coordination is key.”

In its second year, the clinical command center has proven to be an important commodity for the hospital by increasing positive clinical outcomes, operating room efficiency, employee satisfaction and fiscal responsibility. Just last year, the command center saved the hospital $2 million through efficient management, increased access, continuous evaluation of processes and incorporating innovative ideas to overcome barriers.

“VA is unique in the sense that VA staff are the best trained to deal with care for Vets,” Chhahira added. “We have the knowledge the Veterans need.”

The hard work of the command center contributed to a 30 percent reduction in diversion hours between 2014 and 2016, explained Chhahira. Diversion occurs when a particular area in the hospital temporarily reaches max capacity.

“Since 2014, diversion has been gradually cut down,” Chhahira said. “In the last six months, it has been almost eliminated.” Less time spent on diversion equates to greater access for Veterans, he added.

McGuire VA is a Level 1A complexity health system serving approximately 60,000 Veterans throughout central Virginia at its main facility in Richmond, and four community-based outpatient clinics located in Fredericksburg, Spotsylvania County, Charlottesville and Emporia. •
600 additional PARKING SPACES projected between Jan 2017 – June 2018

300 more parking spots added June 2017

300 more added when garage is completed

286,000 square feet of space has been proposed to add to the facility

MORE THAN 100,000 square feet of space has been added since 2007

420,000 square feet of offsite medical care in the next five years

CONSTRUCTION STRATEGIC PLAN

2024 FREDERICKSBURG HCC EXPECTED
2023 POLYTRAUMA OUTPATIENT CENTER
DATA CENTER & CANCER CENTER
2022 WOMENS HEALTH CENTER
2021 4B SINGLE ROOMS
2020 CLC & SCI EXPANSION
2019 SINGLE ROOMS FOR 4C INPATIENTS
2018 ICU EXPANSION NEW DIALYSIS WING & PARKING GARAGE COMPLETION
2017 300 PARKING SPACES ADDED
2016 FREDERICKSBURG SOUTH CBOC RIBBON CUTTING
2015 CHARLOTTESVILLE CBOC NEW CLINIC SPACE & 4D RENOVATION
2014 MENTAL HEALTH ADDITION & FREDERICKSBURG NORTH CBOC NEW CLINIC SPACE
2011
2010 EMPORIA CBOC RIBBON CUTTING
2009
2008 POLYTRAUMA BUILDING AT MCGUIRE & CHARLOTTESVILLE CBOC

250+ beds will transition to PRIVATE ROOMS

$134 million in construction planned or underway

30 total dialysis bays after renovations

12 new beds are being built for MEDICAL INTENSIVE CARE UNIT

75,000 square feet of additional space planned for the SPINAL CORD INJURY unit
Hanging on a wall at the foot of the bed lies a rendition of Santa Claus in colored pencil. The image depicts a jolly face with a red hat and gray beard nestled by holly on each side.

The art belongs to World War II Veteran Robert Siegfried, 93, who served more than a decade in the Marine Corps. He survived conflicts in the Marshall Islands and continued his career as a hydraulic specialist for the VMF 422 Fighter Squadron, where he maintained 24 aircraft.

“Santa Claus was the first picture I drew when my daughter gave me this adult coloring book two years ago,” Siegfried said. “It’s enjoyable, something that I do to keep me busy.”

Since then, Siegfried has colored more than 100 drawings that fill an entire wall at his home in Richmond.

While receiving care at the McGuire VA Medical Center, Siegfried asked his daughter to bring those drawings to his bedside. Now, he uses the drawings from home and new ones to thank employees who help him.

“I didn’t have any money and they helped me out with all my treatments,” Siegfried said. “It’s what I can do to thank them for the service they provide.”

It takes him two or three days to complete one page, and even longer for pictures with extensive details and shapes. Staff who’ve received artwork have shown appreciation for the gesture of gratitude.

“I feel very special he gave me one,” said Teresa Anning, medical support assistant. “I haven’t yet, but I’m going to frame mine.”

He signs each artwork “Siegy” before offering it to someone who cared for him in one form or another to signify his personal pride for the special gift.

Nursing Assistant Fred Lee received his for helping the Veteran back in bed.

“They are nice; mine was autographed and all,” Lee said. “I received mine when I stayed late one day to help him out.”

Siegfried has maintained his attention for detail. Each page is meticulously filled in with a color pencil organized by number for ease of accessibility.

Before beginning, Siegfried selects a color from the box set color key, then locates the corresponding pencil by a numbering system to create his masterpiece.

“At home, I have a different method of doing things so my pencils are in order.”

As a retired plumber and former Virginia State Secretary for the Knights of Columbus, Siegfried said he’s had a good life. •
A researcher at McGuire VA Medical Center in Richmond is testing innovative ways to treat Veterans who suffer from hepatic encephalopathy (HE), a brain condition caused by liver disease.

Initially caused by liver failure, HE can present itself as confusion, a dementia-like state, or possibly a coma. New research in preliminary stages by Dr. Jasmohan Bajaj has shown fecal transplants may help mitigate symptoms of this condition.

“HE is a spectrum of changes,” Dr. Bajaj explained. “People can be completely asymptomatic but have problems in their life where they can’t do their jobs. But they’re not confused. Some people start becoming confused and disoriented, and their family members notice there’s a change with them. It can even lead all the way to coma if left unchecked.”

Bajaj is a hepatology physician and researcher working with community partners to test fecal transplant methods that could be more effective for treating HE than current options. According to Bajaj, this disease is one of the leading causes of hospital readmission for Veterans.

“It’s a major burden to the Veterans and their families because with multiple episodes, they become dependent on their caregivers,” Bajaj said. “Even in the VA, where most of the medical care is covered, it’s still a huge financial nightmare for people because they have to give up their jobs. The caregiver can feel trapped because you don’t know when the patient is going to have a problem.”

In a limited sample size, the fecal transplant showed promising results. Over the course of the five-month study, the patients who received the fecal transplant through an enema had zero HE-related episodes or hospitalizations. Bajaj also noted brain functions increased for these patients. Of the patients who continued with traditional treatment, five were hospitalized due to HE episodes, and one was hospitalized twice.

Bajaj said the primary outcome for this round of research was to ensure the procedure is safe for patients. Further studies will focus on efficacy.

“We found no adverse reactions to the fecal transplant,” he said. “We hope to get more funding to do this in a proper randomized way, so we can compare the capsules to the enema and to do it in people who are similarly underserved.”

Bajaj is now researching a pill to deliver the fecal transplant rather than through an enema. His goal is to eventually compare the effectiveness of each method to see which is best.

Bajaj said he hopes this research will continue to show improvement in the quality of life for Veterans.
The McGuire VA Medical Center partnered with Richmond’s local public television station, WCVE, to film a documentary about the care Veterans receive within VA’s Polytrauma Rehabilitation Centers. On Sept. 6, approximately 140 people from both organizations and the community viewed an early screening of the documentary titled “Polytrauma Rehab in the VA: Compassionate Care.” There are currently five polytrauma centers in VA across the U.S. in Minneapolis, San Antonio, Tampa, Palo Alto and Richmond.

The documentary aired locally in Richmond and potentially will be played across many PBS stations in the U.S. sometime in 2018. The documentary can be found online at ideastations.org/polytrauma. Thank you to WCVE’s leadership and producer for chronicling the story of a few Veterans in our Polytrauma program, as well as the amazing work our staff do every day.

During an early screening of the PBS documentary “Polytrauma Rehab in the VA: Compassionate Care,” guests stand for a picture at the McGuire VA Medical Center in 2017. The documentary was filmed using patients and staff from the McGuire VAMC’s Polytrauma program. Pictured from left: John Felton, Vice President of Television Programming at WCVE; Dr. David Cifu, Principal Investigator, Chronic Effects of Neurotrauma Consortium for VA; Mason Mills, WCVE Producer of the documentary; Dr. Ajit Pai, Chief of Physical Medicine and Rehabilitation at McGuire; and John Brandecker, Director of McGuire VA Medical Center.

Marine Veteran John Koenig stands to thank members of the crowd during the early screening of “Polytrauma Rehab in the VA: Compassionate Care.” Koenig’s personal story was among several that were featured in the documentary.
OUR CLINICS:

Charlottesville Community-Based Outpatient Clinic
590 Peter Jefferson Pkwy, 2nd Floor, Suite 250, Charlottesville, VA 22911
Phone: 434-293-3890 | Fax: 804-675-6299

Emporia Community-Based Outpatient Clinic
1746 East Atlantic, Emporia, VA 23847
Phone: 434-348-1055 | Fax: 434-336-1493

Fredericksburg Community-Based Outpatient Clinic
130 Executive Center Pkwy, Fredericksburg, VA 22401
Phone: 540-370-4468 | Fax: 540-370-4048

Fredericksburg at Southpoint Community-Based Outpatient Clinic
10401 Spotsylvania Ave, Suite 300, Fredericksburg, VA 22408
Phone: 540-370-3140 | Fax: 540-693-3159