James J. Peters Medical Center:

Providing Coordinated Care for Veterans and Designing Groundbreaking Health Innovations

*Interview with Erik Langhoff and Angela Laurio*

By Jean Galiana

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Our vision is that all people, no matter where they live, no matter what their age, have a right to access high quality and affordable healthcare.

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Background

The Veterans Health Administration (VHA) has been a cabinet level agency of the United States Government since 1989. It represents the healthcare delivery component of the United States Department of Veterans Affairs. The Veterans Health Administration evolved from the first federal soldiers' facility, founded by President Abraham Lincoln in 1864 in the aftermath of the Civil War. Today the Veterans Health Administration operates one of the largest healthcare systems in the world, with one hundred and fifty two hospitals, eight hundred community clinics, one hundred and twenty six nursing homes, and thirty five domiciliaries. VHA affiliations with medical schools throughout the country have resulted in important medical advances and innovations. The Veterans Health Administration hospitals and research facilities are responsible for providing at least some training for approximately sixty percent of all medical residents in the United States.

The mean age of the veteran population is approximately fifty eight years of age, as compared to the average age of the US population, which is approximately thirty eight years of age. Approximately forty percent of veterans are over sixty five. Patients of the Veterans Health Administration have on average lower incomes and higher rates of comorbidity than the general population. Twenty five to thirty percent have physical or other health issues that are related to their time in the military. These veterans are known as “Service Connected Disabled” Veterans. The system also serves veterans whose ailments are not service connected.

The James J. Peters VA Medical Center in Bronx, New York, has been serving veterans for over seventy five years. The center is the first Veterans Administration medical center established in the New York metropolitan area. It currently comprises over two hundred inpatient hospital beds and sixty eight nursing home beds, and provides outpatient medical care in primary and subspecialty categories to approximately seventeen hundred patients per day. The campus includes a separate research building and supports three community outpatient clinics located in Queens, Yonkers, and White Plains, New York. It is a robust and innovative medical center, with a two hundred and fifty million dollar annual operating budget and a twenty five million dollar research program. The facility has been the origin of many medical breakthroughs and treatment innovations, and is proud to have supported the research of many prominent
scientists, including Rosalyn Yalow, PhD, who was awarded the Nobel Prize in Medicine in 1977 for her work at the medical center.

In this interview, Medical Center Director Erik Langhoff, MD, PhD, and Andrea Laurio, Registered Nurse, describe the research, medical training, and healthcare delivery of the James J. Peters VA Medical Center.
About Erik Langhoff

Dr. Erik Langhoff became the Director of the James J. Peters VA Medical Center in 2012. Earlier in his career, Dr. Langhoff was an Attending Physician in Nephrology at the Hershey Medical Center in Hersey, PA, and at the Massachusetts General Hospital in Boston, MA. He became Chief of Nephrology at the James J. Peters VA Medical Center in 1999. In 2002, Langhoff was appointed Chief of Staff at the Center. Dr. Langhoff is a graduate of the Soro Academy of Soro, Denmark, and completed his MD and PhD at the University of Copenhagen, Faculty of Medicine, Denmark. He is a Professor of Medicine at the Mount Sinai School of Medicine, Mount Sinai Hospital, New York, New York.

About Angela Laurio

Angela Laurio is a Management and Program Analyst of Medical Informatics at the US Department of Veterans Affairs. Ms. Laurio is a Registered Nurse and doctoral student at the City University of New York School of Public Health. For the last ten years she has focused on the design, development, and usability of health information systems, and the development of analytical reports using clinical data. Formerly, Ms. Laurio was a Management and Program Analyst in Medical Informatics at the James J. Peters VA Medical Center. She is currently a Regulatory Information Specialist in the Office of Science, Center for Tobacco Studies at the Food and Drug Administration.
Interview

Jean Galiana (JG): Approximately how many veterans do you care for?

Erik Langhoff (EL): We serve an enrolled population of approximately fifty thousand veterans with an active user population of approximately twenty five thousand.

JG: How are you reimbursed for the care that you provide?

EL: The Veterans Health Administration is a capitated system, meaning that for each “service connected” veteran we serve, we receive a predetermined reimbursement. The more complex the health profile of the veteran, the higher the reimbursement. Complex medical conditions might include HIV, kidney disease, and Hepatitis C. The least complex patients receive primary care and specialty care, including general annual visits. The veterans are divided into eight categories by complexity. Those categories determine the percentage of allocated reimbursement and the degree of copayment that the Veteran may be responsible for.

JG: How are you able to provide a hip replacement turnaround more quickly than other hospitals?

EL: We are a completely integrated facility, offering all manner of healthcare specialties and services under one roof. In addition, we maintain one of the most comprehensive electronic medical records in the world. All caregivers have access to the notes, lab tests, and results ordered by other physicians in the facility. When a veteran sees his primary care physician and complains of an ongoing hip problem, that physician can establish an immediate consult to an orthopedic doctor or to a rehabilitation therapist, in the same building. If those doctors need X-rays, lab tests, or diagnostic studies, they are done in house, usually the same day. If those studies indicate the need for surgery, a consult can be established immediately, with appropriate surgical clearance, and an operation conducted, all in the same facility, without a need to travel from one physician or facility to another.

JG: Do you have programs dedicated to keeping people out of the emergency room?
**EL:** The key to keeping patients out of the emergency room is providing the care they need as soon as they need it. By the end of the year we expect to have implemented same day access to primary care and mental health services. We want to provide our veterans with a better option than using the emergency room because the emergency room does not offer the continuity of care that we are committed to. We are in the process of establishing telemedicine from the emergency room so our veterans can call and speak with a doctor instead of coming in. We also have a telephone triage center that covers a large area and approximately nine hundred thousand veterans. Veterans can call any time during the day. Eventually we hope to offer this service at night with an average answering speed of twenty seconds.

**JG:** How long have you offered these services?

**EL:** We have had the telephone triage in place for the past five years. We have always tried to provide same day access to basic care. This is not a big change for us.

**JG:** Was the Veterans Health Administration the first integrated healthcare organization with an electronic medical record?

**Angela Laurio (AL):** Yes. The Department of Veterans Affairs was the pioneer in electronic health records. Other organizations such as the Mayo Clinic, Boston Mass General, Harvard, and a provider in California were developing them at the same time. They were all homegrown systems, but the Department of Veterans Affairs system, developed in the early 1990s, was fully networked across the country from the time it was implemented.

**JG:** How many institutions does the electronic health record system include?

**EL:** All of the Veteran Administration hospitals, community clinics, nursing homes, and domiciliaries are part of the electronic health record system.

**JG:** Did you use Epic or another commercial system?

**AL:** We built our own.

**EL:** We use our own system called CPRS.

**AL:** The database structure used by Epic was developed in the Department of Veterans Affairs. It is called the **MUMPS** database. That is our underlying
structure. There are other commercial electronic health records systems, like Medsphere, that are based on our system. They are popular in India. Ours is the only really patient centered record because for many years we did not do any kind of billing. Epic, Allscripts, and all the other large commercial electronic health records were mostly geared toward coding and billing.

**EL:** The patient care and coordination aspect was less emphasized.

**JG:** What specific aspects of the electronic health record do you consider patient centered?

**AL:** All of them. The fact that the record is connected wherever they receive care, including inpatient, outpatient, and emergency room settings.

**JG:** Is the record of each veteran available at all Veterans Health Administration facilities?

**AL:** Yes. The provider can easily access the health records from all of our facilities.

**EL:** We have access to the record of any veteran who received care at any Veterans Health Administration facility in the country. Our physicians routinely access the national information of veterans because some of the patients come here seeking specialty care that is not available in their local Department of Veterans Affairs.

Another patient centered feature of the Department of Veterans Affairs is electronic prescriptions, which clinicians enter into the computer and the medication is dispersed via mail by a centralized pharmacy or, if the patient prefers, by our pharmacy. I do not write any orders for X-rays. I just enter them into the electronic health record. I receive the X-ray results in the electronic health record. It is available when I need it. It is very different from my past experience in the private healthcare sector where I would receive only pieces of the total healthcare record. We see the whole picture. In addition, we also have all demographic data that can inform us about social determinants. We also have a program called [My HealtheVet](https://www.myhealthevet.va.gov/). The patient can log in to the system and have access to their health summary.

**JG:** Are they able to access the results of their lab tests?
**AL:** They can access their lab results, a list of their prescriptions, a list of all their diagnoses, and the contact information for their primary care doctor.

**EL:** We have a transparent system. This access was not always available for other providers.

**AL:** Other providers are beginning to use personal health records. My HealtheVet is different because the record shows the information from all of a veteran’s visits to any Veterans Health Administration facility across the country. If someone has been to two separate private hospitals in the area, even those that do use an electronic health record, the providers will have to log in to two separate personal health record systems.

**EL:** We also have a new scheduling app that should be in use in the next couple of months.

**JG:** Do you employ Lean Six Sigma to improve efficiency?

**EL:** We have many ongoing Lean projects. Our culture is based in Lean Six Sigma. I have two people on staff who are solely focused on Lean projects. I would estimate that we have approximately two hundred Lean programs in operation at this time. We also encourage staff members at all levels in the organization to contribute their ideas and input. It is our culture to continually make the Veterans Health Administration more streamlined and efficient.

**JG:** What makes you different from other governmental organizations?

**EL:** I can only speak from this organization. My annual review is based on more than two hundred performance measures, including finance, patient care, culture, diversity, turnover, staffing, and empowerment, to name a few. The power of the Veterans Health Administration system, and adherence to best practices and performance measures, is that leadership in Washington is able to draw upon large amounts of data. Performance measures that are intended to standardize best practices for the benefit of the patient are being rolled out in all the Department of Veterans Affairs facilities.

**AL:** We are divided into a complex five star system that is based on our performance.

**JG:** Do you have challenges with staffing?
EL: With the exception of a few specialty categories, we do not face challenges hiring the highest level providers. This is because we have something we can offer that many affiliates do not have. Among other things, we can reinforce extensive research on site. The Department of Veterans Affairs is a different environment because we are not driven by billing. I am originally from Denmark. I know what a well run government healthcare system can be. I understand the value in taking a little more time to have a conversation with patients rather than racing in and out of appointments. Here we can provide value over volume because, while we are tasked with being responsible stewards of public money, our salaries are not dependent on billing. We do not chase profit. It makes a big difference. Did you ever read “Bitter Pill: Why Medical Bills are Killing Us” in Time magazine? The Department of Veterans Affairs provides medication for veterans and negotiates a discounted rate for many of them.

JG: Do you have issues of staff turnover?

AL: We have very low nurse turnover at this facility. We also have one of the lowest administrative to clinical ratios. We keep the administrative overhead at a minimum. Veterans represent approximately thirty four percent of the entire Veterans Health Administration employee population. Many work here because they have experienced the system and understand the importance of providing care and support to veterans. It is a job with a mission.

JG: Do you have any programs dedicated to older people?

AL: We have Geriatric Research Education and Clinical Centers, GRECC, which are our geriatric research and clinical care areas.

EL: The Centers are focused on research related to managing the health and well being of elderly veterans.

AL: The Centers have been collaborating in quality improvement projects with the Bronx Regional Health Information Exchange (BronxRHIO). The Bronx Regional Health Information Exchange is a consolidated electronic health record from many facilities. We do not provide them with data, but Montefiore, St. Barnabas, and a handful of community nursing homes, clinics, and community based organizations contribute to the database. Our Geriatric Research Education and Clinical Centers coordinate with the Bronx Regional Health Information Exchange so they can access data for their patients who may have
sought treatment elsewhere in the Bronx. Our Geriatric Research Education and Clinical Centers use the data for quality improvement.

**EL:** The Bronx Regional Health Information Exchange is a unique system. Approximately ten years ago all the hospitals in the area that served Bronx County decided to link up for population health purposes. Their geographic area represents almost one and a half million residents. If the area was a standalone city, it would be the eleventh or twelfth largest city in the United States. It has the fastest growing population of all Northeastern counties. It also has the highest prevalence of HIV, Hepatitis C, hypertension, diabetes, obesity, and asthma. Our facility was invited to participate in designing the structure of the health information exchange.

**JG:** Are the Geriatric Research Education and Clinical Centers using the Bronx Regional Health Information Exchange database to inform their research?

**EL:** They use the database to examine and track what happens to a veteran after discharge. They want to follow where the veteran seeks services and follow up on the health outcomes. It is quite fascinating.

**JG:** Please discuss your population health efforts in more detail.

**EL:** We have specific programs for various diseases and specific ethnicities. For example, we have a program for Native Americans and many other minority populations. Different populations of veterans receive special attention to address illnesses common within their populations.

We are in the process of establishing a kidney transplant program to serve veterans in the Northeast. The incident rate of kidney disease is threefold higher in the veteran population as compared to the nonveteran population. That is another example of the much higher comorbidity rates found in the veteran community.

**AL:** Some of the work that we do in data analytics is a population management program. All the reporting that we do is based on patient cohorts. The information can be accessed and tailored to a variety of interests such as research, management, or clinical care. We focus our reports on data that allow a provider to look at a patient and compare that patient to the larger cohort that the patient belongs to.

**JG:** Does the Department of Veterans Affairs provide care in the home setting?
**EL:** Yes. Hospital at Home is one of our home care programs. It has been implemented in several VA facilities and is currently under consideration at this VA. We also have a home based primary care program for older adults and a telehealth program for all veterans. We are able to provide telemedicine in some form in almost every subspecialty area. We were one of the first facilities to provide telenephrology and telekidney disease monitoring, which we instituted a long time ago. These services are increasing and expanding with technological developments. We push the progress along.

**JG:** How are you advancing the progress of telemedicine?

**EL:** The Veterans Health Administration has a great advantage in telemedicine that the private industry does not have. Because our licensure is based on federal guidelines, I can examine a patient in Alaska because my license is good in an Alaska Department of Veterans Affairs facility. All licenses are valid within all the territories in the Veterans Health Administration system. If you are a physician at a private facility with a license in New York, you cannot connect with a patient via telemedicine in Connecticut. Other providers need to be licensed in all territories and in all the states. I can practice anywhere there is a federal facility. I only need one license. That is a big difference.

**JG:** Do you have a medical school?

**EL:** We don’t have our own medical school, but we teach students, residents, interns and fellows by way of our affiliations with two medical schools—Columbia and Mount Sinai. Our attending physicians teach at these institutions and are credentialed there.

**JG:** Do you research collaboratively with Columbia and Mount Sinai?

**EL:** Yes. For example, we are part of the Columbia Comprehensive Cancer Center. There are only two such centers in the city. One is Sloan Kettering and the other is Columbia. It provides us access to unique treatments that we can offer to the veterans. If someone is not a veteran, they may not have access to those treatments. The chiefs of medicine of Columbia and Mount Sinai participate in collaborations that ensure our formal affiliations are mutually beneficial for education and healthcare delivery.

**JG:** Can you please address questions of healthcare access and quality in the Veterans Health Administration?
**EL:** Let us address those issues separately. Access is an issue of supply and demand. A little history lesson will show that the Veterans Health Administration has had issues with growing capacity in some areas of the country for more than two decades, since the passage of the Healthcare Eligibility Reform legislation. Before 1996, the Veterans Health Administration only served veterans who were service connected or poor. Our population was approximately two million, and we had one hundred and seventy two hospitals. After passage of the reform legislation, making all honorably discharged veterans eligible for care, our population grew exponentially, reaching seven million by early 2000. At the same time, the number of Department of Veterans Affairs hospitals declined to our current number of one hundred and fifty four. Most Veterans Health Administration medical centers have been able to maintain and improve their availability to veteran patients by various creative means, including adding night and weekend and walk in clinics, increasing staff, introducing telemedicine, and other options. Our specific facility has never had problems with access.

With regard to quality, let me just say that there have been many independent studies indicating that Department of Veterans Affairs care is as good, or better, than any care available to the general public. All of our hospitals are affiliated with medical schools, and our particular facility is associated with some of the finest medical facilities in New York, namely Mount Sinai, Columbia Presbyterian, and the Hospital for Special Surgery. Our residency programs require that we provide the latest in technological and medical advances. You simply cannot teach new young physicians using outdated technologies or practices. I can assure you that while no healthcare institution is perfect, some of the best care available in New York is provided right under our roof, by physicians who also practice at these premier health facilities.

**JG:** Does your dedication to efficiency and working for a government run health system stem from your Danish roots?

**EL:** My career has been in both the public and the private sectors. The Scandinavian healthcare system is highly regarded. The Veterans Health Administration is similar to the Scandinavian system. That makes it easy for me to appreciate and understand it. It has its quirks, but so do all large health systems. The point is that we keep trying harder, implementing innovations and learning from one another. There are often funding challenges, as there are in the private sector, but we work it out.

**JG:** Are you affected by changes in the White House administrations?
**EL:** The Veterans Health Administration moves on. It is the largest healthcare system in the United States. Introducing change is like turning a supertanker, which takes thirty miles to accomplish, but that also creates continuity of healthcare in times of transition. Approximately four to five thousand political employees and political appointees arrive to and leave their administration with every election. Still, we continue because there are many other employees who continue to sustain the enterprise. It is a very stable structure.

**AL:** Also, there are veteran service organizations like the Disabled American Veterans, the American Legion, and the Veterans of Foreign Wars that lobby Congress on behalf of veterans.

**EL:** By many estimates, as many as sixty percent of all physicians in the United States have trained in a Veterans Health Administration facility. The training given here is important for medical education and the greater healthcare system of the United States.

**JG:** Do many physicians stay in the Veterans Health Administration after their education is complete?

**EL:** The continuity of the workforce is very strong. Physicians stay at the Veterans Administration because they like the population of patients, among other reasons.

**JG:** Do your physicians receive geriatric education to care for the aging veteran population?

**EL:** Everyone has realized that the veteran population is aging rapidly. The mean age of the veteran population is much older than that of the civilian population.

**JG:** Does this offer your medical students some experience in geriatric practices?

**EL:** Yes. We also have a nursing home on the grounds with sixty eight beds. We have clinicians with great training and expertise in aging.

**JG:** Are you involved with the homeless veterans program?

**EL:** We have approximately twenty five social workers dedicated to the issue of homeless veterans. We are very active.
**AL:** Our program, the United States Department of Housing and Urban Development-Veterans Administration Supportive Housing (HUD-VASH), has been operational for many years. The program provides rental vouchers for veterans. We cannot adequately address substance abuse, mental health, and other issues when they are living on the street. There are approximately sixteen Department of Veterans Affairs locations or communities that have basically eliminated homelessness. A recent article describes social worker involvement and the commitment of resources to helping homeless veterans.

**EL:** There is more structure around individuals who have a home. Those with a home may be more likely to attend to their healthcare needs and nutrition. Having a home is the first step to putting people on track again after being homeless.

**JG:** Do you see many family caregivers caring for the veterans you serve?

**EL:** Yes. We have a program that offers financial support to the caregiver who wishes to take care of their family member at home. We also have caregiver education and support services. When a veteran needs a certain care protocol to be given administered at home, we train the family caregiver, and we will reimburse them for the commitment of time.

**JG:** Is that to encourage people to be cared for at home?

**EL:** Absolutely. Nursing home care is very expensive. Veterans and their families often want to remain together in a setting that is familiar to them. We work with families to find other ways to provide care in the home. As the nation ages and the veterans do so as well, we must use innovations in technology and coordinated, well trained teams to improve and increase the delivery of care in the home.

You cannot compare the Department of Veterans Affairs to other healthcare systems because we provide many services that are not provided at the same level in other systems. Insurance companies and many other entities set terms of access for patients in private care facilities. While some people say that the Veterans Health Administration is expensive, they are comparing apples to oranges. We provide a much more extensive amount of care to a population that has more complex health profiles. Even then, studies have shown that Department of Veterans Affairs care is less expensive than Medicare, which is saying a lot.
**JG:** What makes this Department of Veterans Affairs special?

**EL:** While each medical center is a little bit unique, there is a common frame of values and goals for VA healthcare. We have a lot of informatics innovation. We also conduct extensive research and clinical development.

**AL:** Speaking of innovations, researchers at the Bronx VA were the first to study the ReWalk exoskeleton walking device, which allows a paraplegic to walk. Their research findings helped to advance the device to a Federal Drug Administration approval for home use.

**EL:** We are a regional center for spinal cord injury. That is a wonderful example of the Veterans Health Administration collaborating and partnering with an outside company. Together, we proved the health advantages of an exoskeleton system that enables those with a severe spinal cord injury to walk. Interestingly, the exoskeleton device was initially developed to help able bodied soldiers carry heavy loads.

**JG:** Are people using the exoskeleton?

**AL:** We are still testing it, but it has been approved for home use. It is likely we will soon be walking down the sidewalks next to people in these devices, who had previously been resigned to life in a wheelchair.

**EL:** We can do similar things for stroke patients. In the near future, someone will be able to start using an affected arm or leg. At some point we will be able to implant sensors in the brain that will enable a person to move a limb by thinking of it. We will get there.

**JG:** Do outside organizations and nonveterans benefit from your research?

**EL:** Yes, most certainly. Any discovery made in Department of Veterans Affairs is ultimately shared with the entire world and benefits all of humanity. What organization outside the Department of Veterans Affairs would be able to care for and fund research for a group of individuals with such complex care needs? Only the Department of Veterans Affairs has the patient numbers, the affiliation relationships, and the funding resources necessary for the level and size of care and innovation we provide.

**AL:** Recently, one of our outside research scientists examining the data on our nearly six hundred patients with spinal cord injury said that the data we have
available here is a larger set then he has seen anywhere else. We also have longitudinal data because we treat our veterans throughout their lifetimes. This information provides a rich resource for research.

**JG:** Do you have any new programs that you would like to mention?

**EL:** We are developing a program for amyotrophic lateral sclerosis (ALS) and for multiple sclerosis (MS). The prevalence of amyotrophic lateral sclerosis is approximately double for veterans than for civilians. We will be caring for more patients with amyotrophic lateral sclerosis or multiple sclerosis in the future because the prevalence of both diseases is growing in the veteran population.

We also have a large research center and various programs for traumatic brain injury. Our researcher, Mary Sano, and I are planning a meeting in New York next year to examine different ways to approach traumatic brain injury.

**JG:** Thank you both for this interesting discussion and for your dedication to our veterans.

**EL:** Thank you for visiting the Department of Veterans Affairs in the Bronx.

**AL:** Thank you.

**END**