VA’s need to improve Veterans’ access to timely and high-quality care has been much in the news lately. In August, Secretary Bob McDonald told the American Legion at its national convention that “more Veterans are coming to VA for care, and waiting less time.”

In his speech, the Secretary said that in 2015, Veterans had nearly 4 million more appointments than in 2014. Almost 57 million of those appointments were in VA facilities, and more than 16.8 million were for VA care in communities.

Today, the Secretary continued, the average wait time is about five days for primary care; six days for specialty care; and two days for mental health care. He added Veterans should expect same-day access in primary care and mental health care by December 2016.

These are impressive accomplishments and ambitious goals. I am proud of the important role VA research has played in achieving them, by working to identify innovative strategies that can improve access and quality, especially for Veterans who may face barriers to care—including rural Veterans and racial or ethnic minorities.

VA research groups dedicated to ensuring high-quality VA care include two Centers of Innovation (COINs). The mission of the Center for Comprehensive Access & Delivery Research and Evaluation (CADRE) is to develop, implement and test innovative strategies that expand access to high-quality primary and specialty care, while ensuring that the care delivered is safe and free of preventable infections.

Researchers with the Health Equity and Rural Outreach Innovation Center (HEROIC) work to improve access and equity in health care for all Veterans by eliminating geographic, racial, ethnic, and gender-based disparities.

VA’s Collaborative Research to Enhance and Advance Transformation and Excellence (CREATE) Initiative encourages investigators to collaborate with VA partners for research on high-priority issues that affect Veterans’ health.
care. The Improving Rural Veterans’ Access/Engagement in Evidence-based Mental Healthcare CREATE seeks to inform VA policy-making and program development regarding mental health services delivered in CBOCs. And VA’s Quality Enhancement Research Initiative (QUERI) uses research evidence to improve clinical practice. I’d like to highlight three QUERI programs, in particular, that relate to the theme of this issue:

- The eHealth Partnered Evaluation Initiative, with VA’s Office of Connected Health, supports the further implementation of eHealth technologies and measures their impacts on access and other outcomes.

- The Partnered Evidence-based Policy Resource Center is refining VA measurements of access to care, productivity, demand, and capacity, and studying the relationships among them to improve policy and planning.

- The Virtual Specialty Care QUERI Program works to implement and evaluate technology-facilitated clinical interventions designed to improve outcomes for rural Veterans.

On a related note, our Cooperative Studies Program (CSP) has established a Network of Dedicated Enrollment Sites (NODES). The goal is to have a consortium of VA medical centers with teams, or nodes, in place dedicated to enhancing the performance, compliance, and management of CSP’s large multisite clinical trials and observational studies, as well as the Million Veteran Program. NODES and the VA Women’s Health Practice-based Research Network are now working together to share best practices in conducting studies involving women, and providing tools for meeting the needs of women interested in participating in clinical research.

In his speech, Secretary McDonald told the American Legion that “we’re making important progress. But you never hear that in the media. You’d never know we lead in many fields of research that benefit all Americans—PTSD, traumatic brain injury, spinal cord injury, prosthetics, genetics.”

In this issue of VA Research Quarterly Update, we provide information on the important progress we are making in these and other areas. I’m proud of the contributions we have made, and are making, to ensuring high-quality care for America’s Veterans—and I thank you for taking the time to read about them. I hope you enjoy this issue of VARQU.

David Atkins, M.D., M.P.H.
Acting Chief Research and Development Officer
New Initiatives

New research center to open in New Orleans

The new New Orleans VA Medical Center, built to replace one made unusable during Hurricane Katrina, will open Nov. 18, 2016.

Among the features of the new medical center is an entire building dedicated to research. Located in a building formerly used to brew Dixie beer, the 100,000 square-foot structure is designed mainly for biomedical research.

Some 15 laboratories will be located on the second and third floors of the four-story building. A small animal vivarium will be located on the fourth floor.

The building will support investigators developing non-addictive analgesics and better treatments for addictive disorders, and conducting biomedical investigations related to cancer, diabetes, PTSD, and dementia.

Researchers working in the building will also support the medical center’s growing health-service research portfolio, and a small clinical-trials unit will also be housed there.

Funding for new suicide studies

VA’s Biomedical Laboratory Research and Development (BLR&D), Clinical Science Research and Development (CSR&D), and Health Services Research and Development (HSR&D) services have issued Requests for Applications (RFAs) from VA researchers for projects focused on the prevention of suicide and the treatment of suicidality in Veterans.

Continued on next page
BLR&D asked for proposals from VA researchers for work on animal models of suicidality, biomarkers, genetic risk factors, and other aspects of the neurobiological underpinnings of suicidality.

CSR&D seeks to fund work on the development, validation, and testing of preventive measures ranging from medications and devices to psychotherapies, among other areas.

HSR&D aims to fund studies that “improve identification and engagement of Veterans at risk or examine and improve the delivery of suicide prevention interventions and strategies, while drawing from the perspectives of patients, caregivers, providers, and managers as well as from [relevant] datasets.”

More information is available on the VA intranet for VA-affiliated investigators.

Exploring precision medicine for depression

VA’s Genomic Medicine Implementation program, along with the QUERI program and VA Health Services Research and Development, is funding a study of precision medicine’s role in improving treatment for Veterans with major depressive disorder.

The initiative, titled PRIME care (PRecision medicine in MEntal health care), will be led by Dr. David Oslin of the Corporal Michael J. Crescenz VA Medical Center in Philadelphia.

In May 2016, a VA Evidence-based Synthesis Program (ESP) brief found that pharmacogenomics (the study of how genes affect response to drugs) might help identify optimal treatments for those with depression by helping
predict how they might respond to particular antidepressants.

To that end, Oslin’s group will provide genomic test results for Veterans with major depressive disorder to both the patients and their providers, in hopes of establishing the clinical validity of pharmacogenomic testing.

Besides looking at the Veterans’ outcomes, the study will examine the most effective ways to provide these results to Veterans and health care professionals. Proponents hope the study will help guide similar studies of other illnesses and medications.

Precision medicine is an emerging approach for disease treatment and prevention that takes into account individual variability in genes, environment, and lifestyle.

Major depressive disorder is a common but serious mood disorder that causes a persistent feeling of sadness and loss of interest. It affects how people feel, think, and behave, and can lead to a variety of emotional and physical problems.

In VA, genomic medicine implementation is focused on the improvement of Veterans’ health through large-scale genetic testing, and on developing approaches to validate research-to-practice tests so they can be applied in routine care.
A Chat with Our Experts

Promoting health equity for LGBT Veterans

Dr. John R. Blosnich is a research health scientist with the Center for Health Equity Research and Promotion at the VA Pittsburgh Health Care System, and an adjunct assistant professor in the department of behavioral and community health sciences at the University of Pittsburgh Graduate School of Public Health. He earned his Ph.D. in public health sciences in 2011 from West Virginia University and completed a postdoctoral fellowship in suicide prevention at the University of Rochester, where he began his VA research in collaboration with the VISN 2 Center of Excellence for Suicide Prevention. His research areas of expertise include interpersonal and self-directed violence among lesbian, gay, bisexual, and transgender (LGBT) people. Blosnich’s health equity research in VA focuses on LGBT Veterans, with specific attention to suicide risk.

VARQU: What types of health care inequalities are you finding among LGBT Veterans?

Blosnich: My research is not yet looking at health care utilization. Currently, we are trying to get an accurate picture of the basic health disparities for LGBT Veterans, but we only have the “T” part. This is because we don’t have...
any way for Veterans to give us standardized information about their sexual orientation or gender identity. I worked with a team of VA researchers to develop a way to identify a subset of transgender Veterans.

So my work is mainly focused on transgender Veterans. The way we have been able to use a proxy measure to find transgender Veterans is by using the ICD-9 diagnosis code for gender identity disorder [GID]. [Note: ICD stands for International Classification of Disease.]

It’s a very imperfect way of finding transgender people, but it’s the best we have so far until we can get an actual gender identity field where patients can disclose their identity if they want to. Self-reported sexual orientation and gender identity is really the gold standard we need in order to do this research.

What are you learning about transgender Veterans?

My findings in suicide risk have indicated that the risk is remarkably high for trans Veterans—it’s very, very high. It’s not only high when you look at suicidal ideation and suicide attempts, but when we did a study looking at suicide mortality, we found that death by suicide was also very high for transgender Veterans.

My colleague Dr. George Brown wrote a paper looking at transgender Veterans with that ICD-9 diagnosis code, comparing them to nontransgender Veterans within the VA system. He looked at a whole host of different outcomes, including alcohol abuse disorder, HIV infection, hepatitis C—there’s a very long list of outcomes in which nearly all of them are higher for transgender Veterans. For people who work in transgender research, this wasn’t very surprising, but the big question mark is care. We don’t really know if there are differences in care for transgender Veterans.

We do know that over the past few years, there’s been a steady increase of transgender Veterans coming into VA. That work was spearheaded by Dr. Michael Kauth at the Michael E. DeBakey VA Medical Center in Houston, and I helped with the study. We looked at the number of GID diagnosis codes and found that they were going up in VA, which is heartening in that it seems to suggest more trans Veterans were coming to VA for care.

What we don’t necessarily know is what kind of care they are getting once they come in for care; what they think about that care; and how it compares
Much of Dr. John Blosnich’s research has focused on understanding the health needs of lesbian, gay, bisexual, and transgender Veterans. Photo: ©iStock/bennymarty

Definitely. VA’s LGBT program, which is headed by Dr. Kauth and Dr. Jillian Shipherd, is part of VA’s Office of Patient Care Services and has a SharePoint site for VA clinicians to use, with a number of training modules around how providers can deliver high-quality, respectful care to transgender Veterans. On the site, there’s everything from how to handle the initial introduction to mental health care, cross-sex hormone therapy assessment, and prescribing hormones—there are so many things providers can learn.

I think that at the end of the day, providers should first of all know the resources that are available in the system—but second, they should know that transgender Veterans are people, just like any other patients. One of the biggest questions that tends to come up is “what if I say the wrong name,” or “what if I use the wrong pronoun?” I tell people it’s not unlike if you forget someone’s name and have to ask them for it, or if you call someone by the wrong name. You apologize and move forward.

Is there anything being done to identify the subset of LGB Veterans?

If VA turns out to be like the general population, there will be more LGB-identified people than there are transgender-identified people, just because of the nature of the population. However, there aren’t currently, to my knowledge, any systematic efforts to introduce a field in the medical record for sexual orientation. Nor are researchers using some other way to try to find LGB indicators in the medical record.

There’s been some discussion among researchers about using natural lan-
language processing for text fields, to see if there might be some sort of information in the text notes in medical records, but it would be a very large undertaking for a really nonspecific way of finding LGB people. At the end of the day, it would produce a vast underestimate of the population.

It’s very hard to determine LGBT inequalities in terms of VA administrative data and health care record data. There are some survey studies that have included sexual orientation, but that information would just give us what the Veteran reported in the survey. We have no way to link that information to administrative data. So to the extent that that sampling is representative, we may get an estimate—but a lot of these surveys are very specific to either Vietnam-era Veterans, or Iraq and Afghanistan Veterans, not of the general VHA population that includes all theatres of service.

**Do any of your studies involve the entire group of LGBT Veterans?**

Currently my studies are limited to transgender Veterans. Some of my earlier work looking at LGB Veterans used federal health survey data. A federal survey like the Behavioral Risk Factor Surveillance System has information about sexual orientation and also asks about military service, so there were ways we could compare LGB Veterans with heterosexual, or straight, Veterans.

Those studies, of course, produced very small sample sizes, because Veterans are only about 10 percent of the U.S. population, and then within that 10 percent, only about 2 to 3 percent might identify as LGB. The sample gets very, very small very, very quickly!

We had some findings we expected would be similar to the general population, such as that smoking and mental distress were more common among LGB Veterans than among heterosexual Veterans. What we found in the medical record with transgender Veterans is that they generally show a lot of health disparities for a lot of different conditions, like HIV and depression, not unlike what we have seen in non-Veteran trans survey research.

**What are you working on now and in the immediate future?**

Right now, I’m in the midst of my HSR&D Career Development award, which focuses on my transgender health services research at VA. We are working on questions of utilization and patient experiences. We want to examine what happens once a transgender Veteran gets the first diagnosis of
GID at VA. What does their pattern of care look like over time? And how does that differ from someone who does not have GID?

After we look at utilization outcomes and quality metrics, the last aim of my study is to begin recruiting transgender Veterans for us to talk with in semi-structured interviews to get their perspectives about care in VA. What are their experiences? What do they think about what works in the system, and what can be improved? We also are going to interview VA providers who treat transgender patients and get their perspectives on what works in the system for them, what we can improve on their behalf, and what they need to be able to provide high-quality care for transgender Veterans.

Any final thoughts on the future of LGBT research within VA?

The Office of Management and Budget convened a federal interagency working group on measuring sexual orientation and gender identity. VA participated in that, along with a lot of other federal agencies. The group summarized what the field knows about sexual orientation and gender identity and how it’s measured—and the official report conveyed that the government is interested in including these measures so that we can get past the point of documenting disparities and to thinking about interventions to reduce these disparities.

It’s good that these things are moving forward. It’s really difficult for health equity research for LGBT populations to move forward without being able to identify the population. For a lot of other minority groups in VA, we’ve gone past the point of identifying disparities—we’re actually beginning to address them through interventions. For LGBT people we can’t do that. We haven’t fully documented their disparities because we can’t identify them, and we can’t develop and test interventions for them because we can’t find them.

We need LGBT Veterans’ input into what this should look like, and we also need to be able to recruit them to test and implement interventions. Without the key step of asking questions and collecting data on sexual orientation and gender identity, the other steps of health equity research just can’t be taken.

If we’re going to put these questions out there, we’ve got to develop them, and part of that development includes getting input from multiple stakeholders, including actual LGBT Veterans; providers; front-line staff; and
even the people who would program this information into the medical record, so that we could determine what the information would look like on an input screen.

It’s very interesting how people think about sexual orientation and identity generally. They worry that asking questions will anger people. They think, “they won’t answer them, so why should we ask them anyway?” There’s a lot of evidence showing that’s not the case. People will answer, and they will understand why the questions are asked. It should be a core demographic field for people to answer.

In survey research we always ask about household income: it’s just seen as a standard demographic question. Every single time, without fail, household income is the item that people are most likely to refuse to answer. But we still ask it. People are more likely to complete sexual orientation and gender identity questions than income questions, but there are still a lot of false barriers and beliefs around using these questions in surveys. I hope that the preponderance of evidence will help to sway decision-makers and policy-makers to see that this is really important, and it’s doable.
University. Tsai’s work involves addressing the needs of homeless populations, improving understanding of PTSD and recovery from the condition, and evaluating psychosocial services for adults with severe mental illness. His HSR&D Career Development Award focuses on improving services for homeless Veterans.

**VARQU: Tell us about your Career Development project.**

**Tsai:** With support from VA, I have been able to study perhaps the most important homeless program for Veterans, HUD-VASH [Housing and Urban Development–VA Supportive Housing]. The HUD-VASH program provides independent, permanent housing to homeless Veterans. It does that by offering Veterans a voucher that helps pay their apartment rent and supportive case management that helps them live independently. The program is also unique because it is a collaboration between two federal agencies. My project focuses on improving the HUD-VASH program in several ways.

What I’ve discovered is that many homeless Veterans are incredibly isolated. In fact, one of the most common complaints from Veterans in the HUD-VASH program is that they are lonely. HUD-VASH case managers visit Veterans in their homes. There are Veterans who never leave their house, and the case manager’s visit is the only social interaction they ever have. So, I thought, this is really a problem, since so much of our lives is about social connection.

Another problem is that there are times the HUD-VASH program managers are issued a large number of housing vouchers all at once, and often there aren’t enough case managers to go around. There is quite a lot of upfront work that’s needed in order to use the vouchers, such as finding an apartment, getting the apartment inspected, and moving Veterans in. There just aren’t enough case managers to efficiently deal
with these waves of housing vouchers.

I recognized these were two issues with the HUD-VASH program, so I developed a new case-management model for the HUD-VASH program called Group-Intensive Peer Support (GIPS). Basically, the GIPS model offers group case management. In group case management, case managers see multiple Veterans at one time, which saves the managers’ time, and Veterans don’t rely only on the case managers, but receive peer support from fellow Veterans. Peer support involves having other Veterans mentor them, advise them about the best places to live away from negative elements, and even help each other move in.

Instead of spending time driving to individual Veterans, case managers see groups of Veterans in community spaces, borrowed spaces in churches, VA facilities, HUD buildings, even in vans. We heard wonderful stories of Veterans helping each other out with furniture and getting together to support one another. Besides these anecdotes, because this was a scientific project, we empirically evaluated the GIPS model. We found that, compared with other HUD-VASH programs that did not implement the model, the GIPS model was associated with greater social integration among Veterans, and it enabled case managers to have more time to perform different activities.

We’ve promoted the GIPS model to other VAs with some success, and several have adopted this approach. Our next challenge is to conduct a randomized controlled trial of the GIPS model at multiple sites, and we have been exploring various ways to do that.

How do you think the results of this project will benefit Veterans?

The project highlights a way for Veterans to help one another and also to combat the...
loneliness that can occur when you live by yourself independently. Part of the loneliness that Veterans feel reflects a greater feeling in American society. Sociologist Robert Putnam wrote about this in his famous book “Bowling Alone,” in which he documented the interesting phenomenon that more Americans are bowing alone and are no longer on bowling teams.

I think Veterans may even be more susceptible to this loneliness. Soldiers in the military were part of a tight, cohesive unit living on bases with an even larger military family and many were displaced from their hometowns. As a result, after they left the military, they often have difficulty integrating back into civilian life. This matters because a great deal of research has shown that social support buffers the effect of stress. Those with histories of substance abuse or mental illness can relapse because of a lack of social support, and because they do not have an adequate support system.

You have done a great deal of other work on behalf of the homeless Veterans population, and on behalf of seriously mentally ill Veterans. Can you describe a few highlights of the studies you have participated in?

Much of my work has involved helping people think about and pay attention to what can be done to support the long-term independence of Veterans. For example, Housing First is now the dominant approach to housing Veterans. The idea is that homeless Veterans should be provided immediate access to independent housing instead of asking them to “prove” themselves through first living in more supervised environments and graduating eventually to independent housing.
I’ve been known to ask, “If housing is first, then what’s second?” We’ve done several studies showing that providing housing to Veterans helps them stay housed, but it does not have a dramatic effect on many other aspects of their lives, such as their mental health, substance abuse issues, employment, and social connections.

Many people have talked about how great the Housing First model is, but I think getting Veterans housed is just the first step, and in fact, much of the real work is what happens after they have been housed. Are they able to keep their housing? Do they know how to manage their money? Do they find employment and contribute to society meaningfully in the ways they want to? Do they connect with others, find love, and live full lives so they not only exit homelessness but become productive citizens?

We are currently piloting a money-management program to help HUD-VASH Veterans learn how to budget their money, do things like build credit, and gain financial literacy. Some Veterans have never had a checking account, or don’t know how to responsibly track their bills. This is an exciting project that’s going on now.

Another intervention-type project that is really interesting is the concept of medical-legal partnerships. Medical-legal partnerships bring lawyers and VA health care providers together to help Veterans. Many homeless Veterans and Veterans with severe mental illness have civil legal problems that can impact their recovery, such as evictions, child support payments, and challenges obtaining disability benefits.

Housing First doesn’t help with those, and these legal problems can impede long-term recovery. At some VAs, there are actually lawyers that run legal clinics on VA grounds, which is really unique. VA clinicians can just walk down the hall and refer Veterans to a lawyer. We’re doing a study right now, funded by the Bristol-Myers Squibb Foundation, that’s studying the effect of these VA medical-legal partnerships to help homeless and at-risk Veterans with their recovery. I’ve submitted a request for a VA Merit grant to further study this innovative model.

How have these findings affected, or how do you hope they will affect, the way in which VA provides care to these Veterans?

Homelessness is really a multifaceted problem. It’s often seen as just...
a financial problem, but there are often so many other factors involved. If you think about what you or I would do if we became homeless tomorrow, we would probably be able to tap various resources to help us exit homelessness. We might have friends and family to help us, job skills and contacts that could help us find a job if we lost our job, and the know-how to avail ourselves of public resources like unemployment or disability benefits, welfare, and other programs. So part of my work is helping homeless Veterans build up these resources to permanently end their homelessness.

VA is really an incredible health care system, because it provides comprehensive care. There are programs that provide medical care, mental health care, and dental care—and there are also programs to help Veterans obtain education and employment, and to develop social skills. It’s an ideal place for my kind of research because the kind of services I am talking about are somewhat outside the traditional medical model and address social determinants of health.

There’s a growing movement [in VA] toward multidisciplinary care and addressing social determinants of health, and my work has taken advantage of the support that exists for these movements. I hope my work continues to help VA consider ways to expand the comprehensive care the department provides, as we recognize that social conditions like homelessness and many medical and mental health conditions are influenced by psychosocial factors, for which we can develop services.

What are your plans for the next phase of your research career?

I am very grateful for my VA Career Development Award, because it has allowed me dedicated time for research, and to explore a career path within the VA. I’m passionate about working with Veterans. What’s special about the VA Career Development Award compared to other career development awards, such as the National Institute of Health’s K-award, is that if you are a clinician, you can remain engaged in providing direct VA clinical services some of the time. I have a fear of being in an ivory tower and doing research and evaluating programs that is detached from the real VA world. So it’s been good that I’ve been able to stay connected to direct care, proving therapy, and seeing Veterans in clinical care.
Leveraging estrogen for cardiovascular and overall health—Estrogens are hormones that are important for sexual and reproductive development and fertility, especially in women.

In the body, estrogen binds to two proteins, called estrogen receptor alpha (ERα) and estrogen receptor beta (ERβ). Studies have shown that ERβ is largely responsible for the protection estrogen provides to the heart. When estrogen binds to ERβ in a cell, it triggers a series of biochemical events that protect the heart from a variety of insults. In blood vessels, both ERα and ERβ play important roles in protecting against diseases such as arteriosclerosis—the main cause of heart attacks—and other damage to the vessels.
Dr. Ellis Levin, a clinician scientist at the VA Long Beach Health Care System, and his colleagues published a study in the Oct. 15, 2016, issue of Molecular and Cell Endocrinology that showed the ability of ERβ to neutralize a hormone called angiotensin II, a known cause of high blood pressure and heart damage.

In a previous study by the team, female mice were given sufficient doses of angiotensin II to raise their blood pressure. Then, they were given a novel compound of synthetic estrogen designed to bind solely to ERβ “and it completely normalized their blood pressure,” says Levin.

In addressing why the new compound may be significant clinically, Ellis explains that previous synthetic estrogen compounds offered benefits to those receiving them—but also brought unwanted side effects. “While estrogen binds to both receptors and has many, many beneficial effects,” Levin says, “the problem is that it binds to ERα in the breast and uterus, thereby promoting cancer in both organs. That’s why women don’t want to take estrogen after menopause,” when natural production of estrogen declines significantly.

By using the synthetic estrogen compound that only binds with ERβ, “we don’t have to worry about ERα. So there will hopefully be no problem for women to take this.”

“This is a precision targeting of one receptor and not the other,” he continues. “We can now do precision hormone replacement.”

According to Levin, estrogen is also vital to preserving overall health.

“Estrogen preserves the healthy systems in our body, unless we have genetic predispositions or lifestyle issues that overcome the fundamental function of our bodies to keep things healthy,” he explains.

Men, too, produce estrogen. Studies show that in both sexes the hormone
protects the brain and cardiovascular system, and promotes bone health. Estrogen also protects both men and women from developing too much fat, unless they follow a particularly unhealthy diet and fail to exercise.

Next steps for Levin’s group include testing the new compound in male mouse models, and better understanding its pharmacokinetics—how it’s absorbed, how long it lasts, and how it gets into the body’s tissues. “Then we can go into clinical trials,” says Levin, “assuming we can get the money to do that.”

In clinical trials, Levin would like to initially target people who have early cardiovascular disease. “It’s exciting that this may be a novel approach to treating high blood pressure, and may substantially prevent all the downstream issues like heart enlargement, heart stiffening, and ultimately heart failure. It’s acting on both the blood vessels and the heart, which is the ideal situation.”

**Diabetes drug shows effectiveness against chronic liver disease**—A drug currently used to treat diabetes can also be used to halt the progression of another disease that is a leading cause of liver transplants, according to researchers at the Malcolm Randall VA Medical Center in Gainesville, Florida.

A three-year clinical trial, published in the Sept. 6, 2016, Annals of Internal Medicine, found that the drug pioglitazone, sold as Actos, is safe and effective for certain patients who have nonalcoholic steatohepatitis, or NASH. NASH is a chronic disease caused by a buildup of fat in the liver.

NASH is often called “silent” liver disease. It affects 10 to 20 percent of the population, and possibly as many as a third of all Americans with type 2 diabetes. Left unchecked, NASH can cause chronic inflammation that can lead to liver cancer or cirrhosis. It is the second-leading cause of liver transplants, and the number of patients with the disease grows annually.

The clinical trial involved 101 patients with...
NASH who had type 2 diabetes or pre-diabetes. It found that fatty liver disease was reduced in 58 percent of those receiving Actos. In 51 percent of patients receiving Actos, the disease was reduced enough that it was no longer considered a threat to the liver.

Although the research team is not entirely certain how Actos works against liver disease, they underscore the fact that the drug is an affordable medication already being used safely in humans.

Disparities between rural and urban Veterans—Rural women Veterans have significantly worse physical health functioning than urban women Veterans, according to a study in the July 28, 2016, Journal of Rural Health. Researchers from the VA Greater Los Angeles Health Care System and the VA Center from Comprehensive Access and Delivery Research and Education (CADRE) in Iowa City used data from the 2008-2009 National Survey of Women Veterans.

They also found that rural women Veterans were more likely to have a VA facility at which they regularly received care, and were also more likely to use VA care compared to care from other providers. They also had fewer non-VA health care visits, although the overall number of health care visits for both groups was similar.

Barriers to care for rural women Veterans included affordability and the availability of transportation. For urban women Veterans, the main challenge was getting time off from work.

The team concluded that VA has a crucial role to play in addressing disparities in health and health care access for rural women Veterans, and must continue to explore and develop innovative care models.
Lack of internet access can impede efforts to quit smoking—Quitting smoking isn’t easy, but according to VA’s Office of Public Health, more than half of all adults who ever smoked have quit. Researchers have shown that people have the best chance of quitting for good when they use smoking cessation medication approved by the Food and Drug Administration, and take part in tobacco cessation counseling.

VA offers Veterans ready to quit using tobacco both medication and counseling. Many of the counseling services VA offers are internet-based, including “Stay Quit Coach,” a mobile app designed to help Veterans with posttraumatic stress disorder to quit. And VA’s “Smokefree Vet” mobile site, a collaboration with the National Cancer Institute, allows Veterans to track their progress toward quitting and to get daily support, advice, and encouragement on their mobile phones.

Successful use of these counseling services and others requires access to the internet. A recent study by the VA Mid-Atlantic Region Mental Illness Research, Education, and Clinical Center and the VA Center for Health Services Research in Primary Care, both based in Durham, North Carolina, explored this issue.

The team looked at 408 Veterans who had been recruited and enrolled in a smoking cessation trial. They found that while 82 percent of them had access to the internet at home, those Veterans who were African-American, older, and not married were significantly less likely to have home internet access.

According to the researchers, these results highlight gaps in internet access among some groups of Veterans. They point to the need to improve access to web-based health interventions for low-income, minority, and socially disadvantaged Veterans.
Comparing VA and Medicare Advantage quality—VA’s quality performance was significantly better than that reported by Medicare Advantage plans for each of 12 nationally-recognized measures of quality, according to a study in the March 31, 2016, issue of Inquiry.

The study team, led by researchers with the Providence (Rhode Island) VA Medical Center, and including former VA Undersecretary for Health Kenneth W. Kizer, also looked at whether Medicare Advantage and VA assessments of quality agreed with each other. According to the team, little is known about the relative accuracy of these quality indicators for Veterans or others receiving care in more than one health care system, as many Veterans do.

The team used the Healthcare Effectiveness Data and Information Set (HEDIS) for their comparisons. HEDIS is a tool used by more than 90 percent of America’s health care plans to measure performance on important dimensions of care and service.

Among the factors taken into account in HEDIS are asthma medication use; beta-blocker treatment after heart attacks; blood pressure control; diabetes care; breast cancer screening; antidepressant management; immunization status; and cessation advice for smokers.

VA and Medicare Advantage both use HEDIS. The researchers found that reported VA performance was significantly better than reported MA performance for all 12 HEDIS measures they looked at. VA’s edge ranged from 9.8 percent in diabetes control, to 54.7 percent for blood pressure control in diabetes patients.

While neither Medicare Advantage plans nor VA fully captured quality of care information for dually enrolled patients, the team hypothesized that VA’s system-wide electronic health record may allow for more complete capture of quality information from multiple providers and settings.

Continued on next page


Care received by elderly US stroke survivors may be underestimated. LE Skolarus et al. *Stroke*, August 2016


Computerized triggers of Big Data to detect delays in follow-up of chest imaging results. DR Murphy et al. *Chest*, September 2016

Differences among states in rural Veterans’ use of VHA and non-VHA hospitals. AN West et al. *Journal of Rural Health*, Oct. 9, 2015

Expression of activated Ras in gastric chief cells of mice leads to the full spectrum of metaplastic lineage transitions. E Choi et al. *Gastroenterology*, April 2016


Pharmacotherapy for pain in a family with inherited erythromelalgia guided by genomic analysis and functional profiling. P Geha et al. *JAMA Neurology*, June 1, 2016


Deaths and complications from surgery decline at VA facilities—Patients who had major complications as a result of surgery at VA hospitals dropped from 10 percent to 7 percent from 1999 through 2014, according to a report on a VA study appearing on FOX News and other media outlets.

The study, posted online Sept. 21, 2016, in JAMA Surgery, examined data on more than 700,000 Veterans who had had inpatient surgery or operations for vascular, spinal, orthopedic, neurological, thoracic, genital or urinary issues. Cardiac surgeries were excluded from the analysis.

The research was conducted by researchers with the Michael E. DeBakey VA Medical Center in Houston and Baylor College of Medicine. They also found that among patients who did have major complications, the proportion who died as a result declined from 24 percent to 15 percent.

FOX News quoted lead author Dr. Nader Massarweh as saying that “our data in many ways mirror trends that we find in the private sector as well. Some of what we are seeing is probably the end result of underlying trends that have been occurring over time across all of health care, relating to our ability to provide better care.”

Massarweh also cited VA’s Surgical Quality Improvement Program, first implemented in the 1990s to track surgical outcomes, identify problems, and evaluate fixes, as another reason for VA’s improved performance.

The feature appeared on FOX News Sept. 22.

MVP program highlighted—VA’s Million Veteran (MVP) Program, launched in 2011 to foster genomic discoveries and position VA in the forefront of personalized medicine, was featured in an article published in The Week newsmagazine Sept. 25.

Reporter Carl Zimmer toured the repository for blood samples donated by Veterans located at the Jamaica Plain Campus of the VA Boston Healthcare System. He described a long, dimly-lit corridor, flanked on either side by 16 separate compartments cooled to as low as 80 degrees below zero Celsius,
with a robot located inside the freezer ferrying vials of blood to their assigned compartment.

He quoted Dr. Michael Gaziano, one of MVP’s principal investigators, as saying: “We’re working in a space where no one has ever worked before on this scale. If the project develops as planned, it could fuel discoveries for years to come, leading to new medical treatments not just for Veterans, but for all patients.”

MVP’s aim, described in the article, is to build one of the world’s largest databases of genetic, military exposure, lifestyle, and health information. With more than 512,000 Veterans as of mid-October 2016, MVP has already achieved this. The effort seeks to eventually reach an enrollment of 1 million.

Zimmer explained how the blood samples, which contain DNA material, are stored anonymously for future research. DNA, or deoxyribonucleic acid, is a self-replicating material present in nearly all living organisms. It is the carrier of genetic information.

Veterans who volunteer to be part of the program are asked to fill out surveys about their health and health-related behaviors, and to complete an optional health assessment. They are also asked permission to allow VA researchers to confidentially access information from their medical records, and to allow VA researchers to contact them in the future.

The article in The Week was excerpted from a previous article by the author that appeared in Stat News Nov. 11, 2015. That article included a video demonstrating how the vials of blood were safely handled, from loading dock to the blood bank repository. It also described, in significant detail, how VA protects the privacy of Veterans participating in the program, and favorably compared the rate of Veterans signing up for the program with that of a similar program conducted by Great Britain’s National Health Service.
In the News

**Study of aortic valve disease begins**—A new study of aortic valve disease, aimed at developing new treatments for the condition, has begun at the Providence VA Medical Center.

The Providence Journal reported on the new study in its Sept. 26 edition, and quoted Dr. Alan Morrison, a researcher at the facility and a professor at Brown University’s Warren Alpert Medical School, as saying that earlier research identifying inflammatory signals associated with calcification of heart plaque paved the way for the new study.

“It turns out,” Morrison said, “that as we inhibited the calcification of plaques, we also slowed aortic valve thickening and hardening. We hope to apply what we’ve learned to develop effective treatments for aortic stenosis.”

Aortic valve disease is a condition in which the valve between the main pumping chamber of the heart (the left ventricle) and the main artery to the body (the aorta) doesn’t work properly. It may be a condition present at birth, or may result from other causes. Aortic stenosis is a narrowing of the aortic valve, restricting blood flow through the valve.

The Journal also quoted Dr. Susan MacKenzie, the medical center’s director, as saying that “this is an exciting example of the kind of research we are doing here. Research like this may not only help us provide the exceptional care Veterans have earned, but could benefit the general population as well.”

**Lean processes cut wait times**—A study documenting ways in which lean processes improved wait times for surgical procedures at VA hospitals was publicized in MedicalXpress and other news outlets in early September.

The study, by researchers at the Richard L. Roudebush VA Medical Center and the Indiana University School of Medicine, appeared online in JAMA Surgery Sept. 7. It discussed the results of a 2013 analysis based on “lean processes” by VHA’s surgery service and systems redesign services.

“Lean” is a management philosophy that focuses on aggressive, continuous improvement guided by the customer’s perspective.

During the analysis, multidisciplinary teams identified strategies to improve interdepartmental and patient communication to reduce canceled consultations and cases, diagnostic rework, and no-shows.

Pilot projects implementing these strategies were then launched. The re-
search team found that as a result of the new strategies, average patient wait times for surgical procedures decreased from 33 days in FY 12 to 12 days in FY 14, a threefold decrease.

Operative volume increased from 931 patients in FY 12 to 1,072 in FY 14. Combined clinic, telehealth, and e-consultation encounters increased from 3,131 in FY 12 to 3,517 in FY 14, while the number of no-shows decreased from 366 in FY 12 to 227 in FY 14.

The article quoted the study’s authors as concluding that “improvement in the overall surgical patient experience can stem from multidisciplinary collaboration among systems redesign personnel, clinicians, and surgical staff to reduce systemic inefficiencies. Monitoring and follow-up of system efficiency measures and the employment of lean practices and process improvements can have positive short- and long-term effects on wait times, clinical throughput, and patient care and satisfaction.”

**VA in project to reduce hospital readmissions**—A universal toolkit that can be used with any electronic health record (EHR) system may be able to predict the risk of hospital readmission in real time, according to an Aug. 26, 2016, article in HealthITAnalytics. The Dartmouth Institute for Health Policy and Clinical Practice is developing the toolkit. It leverages EHR patient safety monitoring data and predictive analytics to help prevent unnecessary future hospital stays for patients. Initially, the toolkit will focus on patients who have been hospitalized after heart attacks.

The toolkit extracts complex information about patient health and health care factors from EHRs, including social risk factors such as living status and social support at home, and uses natural language processing to help identify risk and health status from clinicians’ narrative notes.
The goal is to help hospitals, including in VA, direct the appropriate extra resources to patients who face the highest risk of readmission, as indicated by the toolkit.

The toolkit is being developed to work with a number of different EHR systems. The final evaluation of the product will be conducted in VA. This effort will be led by Dr. Michael Matheny of the Tennessee Valley VA Health Care System in Nashville. He is part of the team developing the toolkit.

The article quoted Dr. Jeremiah Brown of the Dartmouth Institute as saying that “this is one of the first projects to develop and validate an informatics toolkit in multiple health systems. Overall, this project is designed to provide healthcare professionals with tools to maximize patient safety and health, especially after patients leave the hospital.”

Honorable Mentions

**Bender receives top paper award from AHA**—The American Heart Association (AHA) has recognized Dr. Shawn B. Bender, a VA research health scientist at the Harry S. Truman VA Medical Center in Columbia, Missouri, for one of two 2015 “Top Paper Awards” in the basic science category for the AHA journal Hypertension.

Every year, AHA selects two top papers published in the journal for three broad categories: basic science, clinical science, and population science.

Bender was the lead author of a paper titled, “Mineralocorticoid Receptor Antagonism Treats Obesity-Associated Cardiac Diastolic Dysfunction,” which highlighted findings from his VA-funded Career Development research.

The paper was published in the May 2015 issue of Hypertension.

Bender’s work was highlighted in a recent VA Research Currents article.

**Rubenstein receives SGIM award**—Dr. Lisa V. Rubenstein received the 2016 John M. Eisenberg National Award for Achievement in Research from the Society of General Internal Medicine (SGIM) at the group’s annual meeting in May.
Rubenstein directs the VISN 22 PACT Demonstration Laboratory, the Care Coordination QUERI Program, and the VA Quality Scholars Program. She has an international reputation for her work in studying, implementing, and spreading new models of health care.

Her studies on patient-aligned care teams (PACTs) were instrumental in VA’s shift to this new model of care. She has led numerous studies on the model and its impact on Veterans and VA staff.

Rubenstein has also conducted seminal work on the measurement of depression care quality. Her work on collaborative models of depression care led to the integration of primary care and mental health care within VA. From 1994 to 2012, she was founding director of VA’s Center for the Study of Healthcare Provider Behavior.

The John M. Eisenberg Award recognizes a senior member of SGIM whose innovative research has changed how doctors care for patients, how research is conducted, and how medical students are educated.

**Two VA researchers recognized by ACR**—Two researchers from the Birmingham (Alabama) VA Medical Center have been recognized by the American College of Rheumatology (ACR),

**Dr. John D. Mountz** received the 2016 ACR Distinguished Basic Investigator Award, a one-time, merit-based award given each year to a scientist making outstanding contributions to rheumatology. Mountz focuses on the link between the body’s autoimmune system and aging. He has also worked on lupus, arthritis, molecular nuclear imaging, the immune response to virus and poxvirus, and gene therapy for rheumatologic diseases.

**Dr. Jasvinder A. Singh** is the recipient of the 2016 ACR Henry Kunkel Young Investigator Award, which honors a young physician scientist, age 45 or younger, who has made outstanding and promising independent contributions to basic or clinical research.
research in rheumatology. Singh works to develop and test treatments for rheumatic diseases, including rheumatoid arthritis. He is also studying patient-reported outcomes in various forms of arthritis, in particular osteoarthritis, joint replacement, and gout; and the comparative effectiveness of treatments for gout and joint replacement.

Both investigators are funded by VA and the National Institutes of Health for their studies on the mechanisms of rheumatologic diseases. They will be honored at ACR’s Annual Session, to be held in Washington, D.C., in November 2016.

**Mor receives Robert W. Kleemeier Award from Gerontology Society of America**—Dr. Vincent Mor, a research scientist at the Providence VA Medical Center and a professor in the Brown University School of Public Health, received the 2016 Robert W. Kleemeier Award from the [Gerontology Society of America](https://www.geron.org) (GSA).

The honor is given annually to a GSA member in recognition of outstanding research in gerontology. It was established in 1965 in memory of Robert W. Kleemeier, PhD, a former president of the society.

The award presentation will take place at GSA’s 2016 Annual Scientific Meeting in November.

For nearly 40 years, Mor has studied the quality, costs, and outcomes of care for the aged and chronically ill.

A special focus of his work has been hospice and palliative care. He was a lead investigator on the National Hospice Study, which looked at the effect of hospice care—at the time a new Medicare benefit—on the quality of life of patients and their families, and the health care costs incurred by patients.

Mor was also an author of the nursing home Resident Assessment Instrument Minimum Data Set (MDS) mandated by Congress. He pioneered its use as a source of data for aging research. The MDS has been used by many researchers and clinicians to measure and improve the quality of care provided to frail elderly nursing home residents. The MDS is also used in public reporting of nursing home quality, helping consumers make more informed choices.

His current work includes a study of hospice and palliative care in the VA system.