A Product of the CMS Alliance to Modernize Healthcare
Federally Funded Research and Development Center

Prepared For U.S. Department of Veterans Affairs
As Required By the Veterans Access, Choice, and Accountability Act of 2014
Section 201

Independent Assessment of the Health Care Delivery Systems and Management Processes of the Department of Veterans Affairs

Volume I: Integrated Report

September 1, 2015
Prepared by CAMH under Contract No. HHS-M500-2012-00008I
Task Order No. VA118A14F0373

This page intentionally left blank.

Preface

Congress enacted and President Obama signed into law the Veterans Access, Choice, and Accountability Act of 2014 (Public Law 113-146) ("Veterans Choice Act"), as amended by the Department of Veterans Affairs (VA) Expiring Authorities Act of 2014 (Public Law 113-175), to improve access to timely, high-quality health care for Veterans. Under "Title II – Health Care Administrative Matters," Section 201 calls for an Independent Assessment of 12 areas of VA's health care delivery systems and management processes.

VA engaged the Institute of Medicine of the National Academies to prepare an assessment of access standards and engaged the Centers for Medicare & Medicaid Services (CMS) Alliance to Modernize Healthcare (CAMH)[1] to serve as the program integrator and as primary developer of the remaining 11 Veterans Choice Act independent assessments. CAMH subcontracted with Grant Thornton LLP, McKinsey & Company, and the RAND Corporation to conduct 10 independent assessments as specified in Section 201, with MITRE conducting the 11th assessment. Drawing on the results of the 12 assessments, CAMH also produced the Integrated Report in this volume, which contains key findings and recommendations. CAMH is furnishing the complete set of reports to the Secretary of Veterans Affairs, the Committee on Veterans' Affairs of the Senate, the Committee on Veterans' Affairs of the House of Representatives, and the Commission on Care.

[1] The CMS Alliance to Modernize Healthcare (CAMH), sponsored by the Centers for Medicare & Medicaid Services (CMS), is a federally funded research and development center (FFRDC) operated by The MITRE Corporation, a not-for-profit company chartered to work in the public interest. For additional information, see the CMS Alliance to Modernize Healthcare (CAMH) website (http://www.mitre.org/centers/cms-alliances-to-modernize-healthcare/who-we-are/the-camh-difference).

This page intentionally left blank.

Acknowledgments

Conducting this assessment on behalf of our nation's Veterans has been an honor. A common theme emerged as we explored data, interviewed staff, reviewed prior assessments, and assembled this report—Americans take the care of our Veterans seriously.

We would like to acknowledge those who have enabled us to complete this assessment, which carries the promise of improving Veterans health care.

First and foremost, we want to thank the leadership and staff of the Department of Veterans Affairs (VA) who routinely and unselfishly shared their time, insights, perspectives, and data. Our assessment teams visited 87 Veterans Health Administration facilities, including VA Medical Centers, Veterans Integrated Service Network headquarters, acquisition centers, construction and facilities management offices, and pharmacies, where we observed staff working diligently to provide the best possible clinical care to Veterans. During these visits, assessment teams conducted multiple interviews of VA employees, including providers, clinicians, administrators, and senior leaders. VA also provided 560 requested data sets.

Second, we are grateful to the Blue Ribbon Panel members who served as our advisers. This panel brought together individuals with years of experience in successfully transforming and running health care systems. We turned to these experts for advice and to determine if our ideas were aligned with current industry wisdom and emerging health care trends. The panel meticulously examined the materials we presented, applied their experience and industry knowledge, and shared candid recommendations. They are identified in Appendix Q.

Third, we appreciate the support of the Veterans Service Organizations (VSOs) listed in Appendix M that shared their data, reports, and surveys and their understanding of their constituents' health care needs. They provided the invaluable "Voice of the Veteran."

Fourth, we engaged with U.S. health care industry leaders who gave their time and provided access to their organizations and senior leadership teams. They shared their experience, perspectives, health initiatives, and viewpoints of best practices in health care that could be adopted by the Veterans health care system. Several also supported on-site visits to examine their clinical and administrative operations. These organizations are listed in Appendix M.

Finally, on behalf of the CMS Alliance to Modernize Healthcare, we would like to thank the team members from The MITRE Corporation, McKinsey & Company, RAND Corporation, Grant Thornton LLP, the Institute of Medicine of the National Academies, and numerous smaller companies and consultants who dedicated their time and energy to gather data, conduct analyses, and develop the materials that have been assembled in these Assessments and the Integrated Report. Throughout the process, it was clear that every team member shared a common commitment—to improve the health care for Veterans "who shall have borne the battle."[2]

[2] Lincoln, A. (1865, March 4). Second inaugural address. Washington, D.C. Retrieved from http://www.va.gov/opa/publications/celebrate/vamotto.pdf.

This page intentionally left blank.

September 1, 2015

The Honorable Robert A. McDonald
Secretary
U.S. Department of Veterans Affairs
810 Vermont Avenue, N.W.
Washington, D.C. 20420-0002

Dear Secretary McDonald:

To support the Independent Assessment required by Section 201 of the Veterans Choice Act, The MITRE Corporation created a Blue Ribbon Panel, composed of experts from diverse health care and stakeholder backgrounds, to fully engage with MITRE in producing the Integrated Report and its findings and recommendations. Although the Panel was not specifically required by the Veterans Choice Act, we were fully involved by MITRE from the onset of the study, with complete access to raw data, subcontractor consulting teams, and MITRE subject matter experts and senior management.

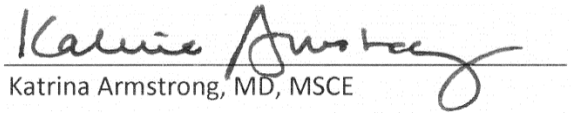
MITRE assured the Panel of our complete independence, meaning that there would be full disclosure of data and assessments; that the Panel could meet in executive session as often as necessary; that the Panel would provide candid feedback and advice on the final findings and recommendations submitted by MITRE; and that the Panel was under no obligation to endorse the final Integrated Report. In addition, following public submission of the report to Congress and the VA, Panel members would be free to independently express their personal opinions regarding the process or findings, while protecting the confidentiality and propriety of the information.

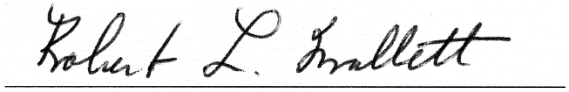
With independence and transparency, the Panel pursued this study with extraordinary energy and commitment, because we—like everyone involved—were passionate about improving the health and quality of care for our Veterans. Over the past months, we reviewed thousands of pages of drafts, engaged in numerous conference calls, and spent four 2-day sessions in lively meetings at MITRE headquarters near Washington, D.C. We facilitated data collection, provided frequent and timely feedback, and worked collaboratively with MITRE to develop final priorities and recommendations. MITRE was consistently responsive to the Panel, and incorporated our advice at all stages.

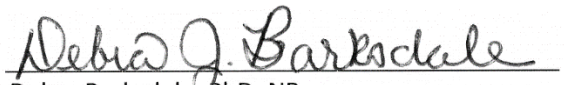
Now, we the members of the Panel unanimously endorse the Integrated Report and its findings and recommendations. The report provides not only operational, near-term strategies to improve clinical care for Veterans, but also details remedies for root-cause problems that must be addressed both by Congress and the VA before any long term, sustained improvement can be realized. Among these root issues are the need to prospectively and clearly define the role of the VHA within the modern health care ecosystem, including whether the VHA should become a comprehensive health care system for all health needs, or focus on specific areas of service-related conditions. In addition, the Congress and the VA must solve the VHA crises in leadership and culture, establish and empower the governance structure, and provide the VHA with core tools essential for any modern continuously-improving, value-based, health care system.

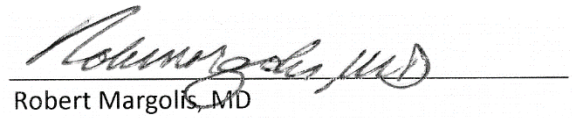
Finally, the Panel would like to express our appreciation to the hundreds of experts who have contributed to this report, and to the literally thousands of contributing Veterans and VHA employees who believed that this report would become a roadmap to achieve the highest quality of care for Veterans, at a cost we can afford, and in a culture that would be the envy of any health care system in the nation.

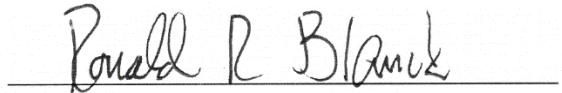
Sincerely,

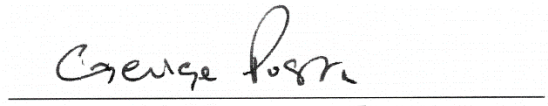

Katrina Armstrong, MD, MSCE

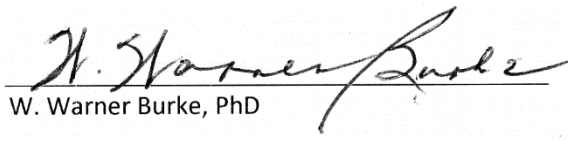

Robert L. Mallett

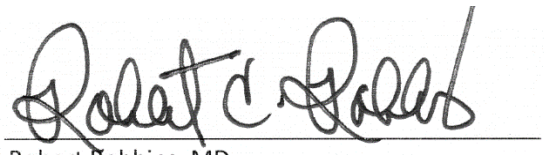

Debra Barksdale, PhD, NP

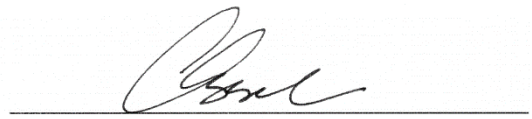

Robert Margolis, MD

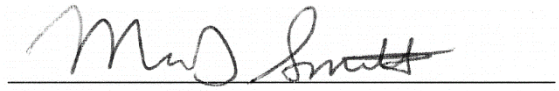

Ronald R. Blanck, DO, Lt. Gen. USA (Ret.)

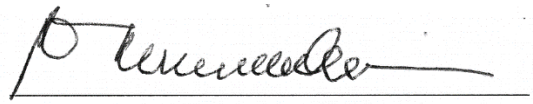

George Poste, PhD

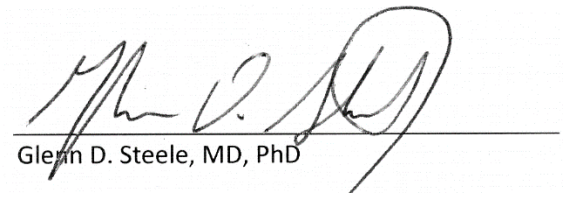

W. Warner Burke, PhD

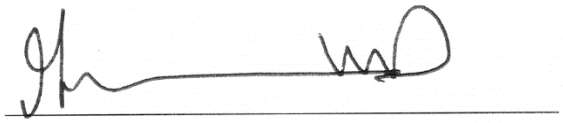

Robert Robbins, MD

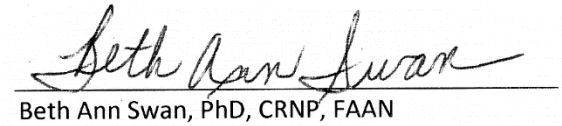

Christine K. Cassel, MD

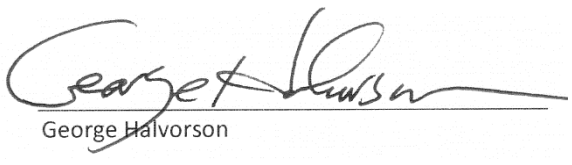

Mark D. Smith, MD


Peter W. Chiarelli, Gen. USA (Ret.)


Glenn D. Steele, MD, PhD


Brett Giroir, MD, Chair


Beth Ann Swan, PhD, CRNP, FAAN


George Halvorson

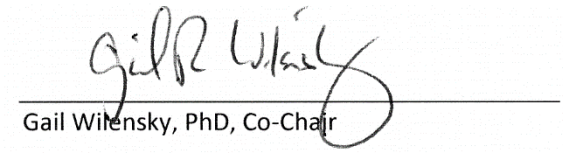

Gail Wilensky, PhD, Co-Chair

Table of Contents

List of Figures

List of Tables

Executive Summary

Background: Section 201 of the Veterans Access, Choice, and Accountability Act of 2014 required an Independent Assessment of the hospital care, medical services, and other health care furnished in medical facilities of the Department of Veterans Affairs (VA). The Act specifically directed that assessments be conducted in 12 areas, covering a broad spectrum of Veterans Health Administration (VHA) services, operations, and support (Figure ES-1). The findings and recommendations from these assessments revealed interrelationships that demand a holistic understanding of VHA.

ES-1. Veterans Choice Act Assessments

A. Demographics
B. Health Care Capabilities
C. Care Authorities
D. Access Standards
E. Workflow – Scheduling
F. Workflow – Clinical
G. Staffing/Productivity
H. Health Information Technology
I. Business Processes
J. Supplies
K. Facilities
L. Leadership

VHA's health care delivery system is challenged by a unique combination of factors including its significant scale and scope, unique patient population, and congressionally mandated funding, governance, and oversight. VHA operates one of the country's largest and most complex organizations, with 1,600 care sites (including 167 medical centers) across 50 states, currently staffed by approximately 300,000 employees who cared for nearly six million Veterans last fiscal year. VHA is a major research and teaching organization, with a $1.2 billion annual research budget. Its health professional education program is the nation's largest, clinically training nearly 120,000 individuals each year via affiliations with more than 1,800 educational institutions.

Approach: The Independent Assessment was performed by interviewing VA employees and outside observers, visiting 87 VA sites, conducting multiple surveys, analyzing 560 data sets provided by VHA and data from other sources, and performing literature reviews. In addition, best practices were gathered from the private sector through interviews with top health care executives, site visits to high-performing health care organizations, and consultation with an independent advisory panel of nationally recognized health executives and stakeholders (Appendix Q: Blue Ribbon Panel). This approach not only provided deep understanding of the 12 assessment areas, but additionally provided a comprehensive view of VHA. It is VHA's interdependent system that is the focus of the findings and recommendations in the Integrated Report.

The Independent Assessment: The Independent Assessment includes this Integrated Report and the 12 major assessment reports for the areas designated in ES-1. Each area is addressed in a separate assessment report that includes findings and evidence-based recommendations (Appendices A–L and Volume II). The Integrated Report builds upon the findings and recommendations of those reports and identifies the four systemic findings that must be addressed to enable a sustained transformation of VHA.

Significant Flaws: While VHA exhibits a deep commitment to serving Veterans, many of the assessment teams consistently found that VHA's health care facilities deliver strikingly different patient experiences, apply inconsistent business processes, and differ widely on key measures of performance and efficiency. The assessments also provided evidence that the organization is plagued by many problems: growing bureaucracy, leadership and staffing challenges, and an unsustainable trajectory of capital costs. Other reports and assessments have pointed to local failures of access and quality. On the other hand, there are bright spots throughout VHA that illuminate best practices that work effectively within the VHA environment. Understanding the various aspects of these differences sets a context that can allow VHA to identify and act on opportunities for continuous sustained improvement.

Systems Approach: VHA must adopt systems thinking to address its most challenging problems, including access, quality, cost, and patient experience.[3] Systems thinking is a framework for solving problems based on the premise that a component part of an entity can best be understood in the context of its relationships with the other components of the entity, rather than in isolation. It takes into account the interdependencies of the parts to find the best combination of strategies that meet the needs of the whole. This approach is required to address the interdependent nature of the people, processes, and technologies supporting VHA. This approach has been well established in many industries, including health care, and often enables leaders to reframe the problem into opportunities based on an appreciation of how components of the program should be working together, as opposed to how they are currently interacting. Systems thinking does not promote tackling individual problems independently because the solutions—more often than not—will be sub-optimal, non-scalable, and non-sustainable.

While complex problems benefit greatly by reframing problems in creative ways, systems solutions also work well for improving existing processes and motivating people to believe they can successfully change. Continuous improvement is one such approach that often uses a Plan-Do-Study-Act cycle that identifies, reduces, and eliminates suboptimal processes for continuous incremental or breakthrough improvements. This approach relies heavily on measuring, analyzing, and experimenting for successful innovations. The current culture in VHA would benefit greatly from instituting continuous improvement more effectively so that everyone participates, sees progress, and can build on the pride they have in being part of VHA. Some of VHA's best performers already focus on continuous improvement, but it is not widely adopted as a standard way of operating. Transforming any organization, especially one the size of VHA, requires that everyone understands, feels accountable for, and acts daily on how to continuously improve the organization. It is as much about engaging the people as it is about fixing the processes.

Four Systemic Findings: A review of the extensive evidence, findings, and recommendations in the assessment reports—informed by an analysis of industry benchmarks and best practices, insights from health care executives and high-performing health care systems, and interactions

[3] This information is informed by the Institute of Medicine Assessment D (Access Standards) in Volume II.

with Veterans Service Organizations—enabled the identification of four systemic findings that impact mission execution.

- A disconnect in the alignment of demand, resources, and authorities
- Uneven bureaucratic operations and processes
- Non-integrated variations in clinical and business data and tools
- Leaders are not fully empowered due to a lack of clear authority, priorities, and goals.

The recommendations that will enable VHA to address these findings are discussed below. These recommendations are interdependent and must be coordinated and implemented via a systems approach to improve the VHA system overall.

Finding 1: A disconnect in the alignment of demand, resources, and authorities

VHA's mission—"Honor America's Veterans by providing exceptional health care that improves their health and well-being"[4]—is inspirational and widely accepted by VHA staff, but there are significant geographic variations with respect to how the mission is translated into action for individual Veterans. Complex eligibility rules make determining which Veterans are covered and which services those Veterans receive a challenge, and navigating VHA is often difficult for Veterans—a problem exacerbated by incomplete guidance and non-standardized business processes. Furthermore, the growing role of outside providers has not been effectively integrated into VHA's operating model, which is based on providing direct care within VHA facilities.

At present, VHA is over-committed in some geographic areas, given its broad mission, an expanding list of automatic eligibility criteria, and limited resources. Matching supply and demand at the local level is challenging because supply is relatively fixed each year once service projection models allocate resources to each facility through the appropriation and budgeting process.

Although the population of Veterans is expected to decline by 19 percent over the next decade,[5] the demand for health care services is expected to rise before it levels off in five years, based on demographic factors (primarily aging)—and likely will rise even more if access to VHA health care is improved (Assessment B [Health Care Capabilities]). On the other hand, in some areas and for some health conditions, VHA may not have a sufficient population of patients to sustain highly specialized service lines with enough volume to achieve and maintain clinical excellence.

Recommendation 1—GOVERNANCE: Align demand, resources, and authorities.

Congress, the Commission on Care, and VA leadership should address the misalignment of demand with available resources both overall and locally. They should align VHA's goal to

[4] U.S. Department of Veterans Affairs. Veterans Health Administration. "About VHA." [Website]. Retrieved from http://www.va.gov/health/aboutVHA.asp

[5] This information is presented in RAND Corporation Assessment A (Demographics) in Volume II.

provide comprehensive health care to Veterans with VHA's capacity by adjusting capacity or reshaping the expected benefit—that is, the Veteran population to be served (eligibility) on the one hand, and the health care those Veterans will be provided (service lines) both by VHA and by community resources on the other.

Supporting Recommendations

- **Establish a governance board to develop fundamental policy, define the strategic path, insulate VHA leadership from direct political interaction, and ensure accountability for the achievement of established performance measures.**

  Congress should consider the following alternatives for such a governance board:
  - Charter a commission modeled after the 1955 U.S. President's Commission on Veterans' Pensions.
  - Empower a board or commission to reshape geographic service areas and optimize facilities resourcing and lines of service (along the lines of the Defense Base Realignment and Closure Commission process used for military installations).
  - Assign the definition of the governance board as a mission for the Commission on Care, established under Section 202 of the Veterans Choice Act.
  - Whatever approach is selected, ensure that the solution focuses on governance, that members have sufficient longevity of term, and that the authorities of the board are fully endorsed by Congress.
- **Require a patient-centered demand model that forecasts resources needed by geographic location to improve access and to make informed resourcing decisions.**

  VHA should:
  - Effectively explore predictive tools to continually forecast local demand and fine-tune estimates of required resources.
  - Reallocate and manage resources flexibly to meet national, regional, and local variations in patient-centered demand.
- **Clarify and simplify the rules for purchased care to provide the best value for patients.[6]**

  VHA should:
  - Develop a stronger management structure for purchased care and allocate responsibility and authority to the most appropriate levels.
  - Establish an ongoing process for evaluating third-party administrator performance.
  - Develop clear and consistent guidance and training on VA's authority to purchase care.
  - Ensure that both new and existing purchased care contracts with outside providers and third-party administrators include appropriate requirements for data sharing, quality-of-care reporting, and care coordination.

[6] This information is derived from RAND Corporation Assessment C (Care Authorities) in Volume II.

Finding 2—Uneven bureaucratic operations and processes

Several centralized operational and support functions appear to have lost customer focus and do not adequately support the needs of the medical centers. In response, individual VA Medical Centers (VAMCs) have adopted local implementations of certain processes, but many of these were found to be unnecessarily complex and, not surprisingly, inconsistent across VHA. In many cases, these centralized and local process issues have become inefficient or bureaucratic and have had a direct and negative impact on the overall Veteran experience and timely access to care.

These widely varying processes highlight the complexity of VHA within the larger, equally complex VA organization. Severe problems may manifest themselves at one facility, while another constantly receives tributes from Veterans and health care experts. The oft-quoted reminder, "if you've seen one VA hospital, you've seen ONE VA hospital," captures this reality.

Recommendation 2—OPERATIONS: Develop a patient-centered operations model that balances local autonomy with appropriate standardization and employs best practices for high-quality health care.

As Assessment L (Leadership) suggests, VA and VHA should streamline their Central Offices and strengthen poor-performing support functions. VHA should adopt systemic means to identify, assess, disseminate, adapt, and scale best practices throughout the system—whether these practices originate inside or outside of VHA.

Supporting Recommendations

- **Right size and reorient the VHA Central Office to focus on support to the field in its delivery of care to Veterans.** This implies a series of actions to include reassessing all VHA Central Office-directed metrics and policies to ensure that they add sufficient value to patient outcomes and eliminate those that do not**.**
- **Fix substandard processes that impede the quality of care provided to the Veteran.** This is clearly dependent on, among other efforts, implementing an operating model that provides medical centers with the autonomy and flexibility to innovate and address local needs while also providing standardization across the system.
- **Design and implement a systematic approach to identify best practices and disseminate them appropriately across the enterprise.** This approach would include defining the role of the Veterans Integrated Service Network (VISN) to lead the best-practice identification and to share ideas within and across the enterprise, working collaboratively with VAMC leaders and staff.

Finding 3—Non-integrated variations in clinical and business data and tools

A lack of common, integrated VHA enterprise systems and tools negatively impacts VHA's operations and resulting data. Inconsistent and ineffective data collection and analysis undermines rapid, evidence-based assessment and improvement of quality and customer satisfaction. VHA lacks a holistic, enterprise approach to collecting and leveraging its data. Data interchange with the Department of Defense (DoD) and external health care providers is

limited, which creates unnecessary clinical risk. Since newly discharged Veterans often become VA patients, interoperability with DoD is necessary and expected. These shortfalls hinder using available data to support effective decision making and performance management.

Recommendation 3—DATA AND TOOLS: Develop and deploy a standardized and common set of data and tools for transparency, learning, and evidence-based decisions.

Supporting Recommendations

- **Use standardized clinical and administrative data for accuracy and interoperability.**
- **Implement a single, integrated set of system-wide tools centered on a common electronic health record (EHR) that is interoperable across VHA and with DoD and community providers.[7]**

  Specifically, VHA should implement and integrate one system-wide:
  - EHR system that is interoperable across the entire system and with DoD and community providers
  - Electronic claims payment system to pay for outside services
  - Billing system to collect from other payers
  - Patient-friendly scheduling system with modern, single toll-free-number call-center support
  - Set of electronic clinical decision-support tools describing standard work, protocols, and guidelines housed in an electronic medical library.
- **Transparently share performance metrics for leadership, clinical, and business functions across VHA to identify and adopt best practices for continuous improvement.**

Finding 4—Leaders are not fully empowered due to a lack of clear authority, priorities, and goals

As Assessment L indicates, VHA leaders operate within a challenging and disempowering environment that discourages emerging leaders from seeking promotion within the organization. While VHA has seen a 160-percent growth in headquarters program office staff in the past five years, key field leadership positions throughout the organization sit vacant or are staffed with acting leaders, and more than half of executives are eligible for retirement, potentially creating a larger number of vacant positions. Further, a misalignment of accountability and authority exists within a broader VHA culture characterized by risk aversion and lack of trust. Those leaders who are effective too often achieve outcomes despite the challenges of the organization within which they operate.

[7] This information is derived from The MITRE Corporation Assessment H (Health Information Technology) in Volume II.

Recommendation 4—LEADERSHIP: Stabilize, grow, and empower leaders; galvanize them around clear priorities; and build a healthy culture of collaboration, ownership, and accountability.[8]

VHA must resolve the leadership crisis by putting the right leaders in the right jobs with the right skills under an appropriate governance model for the appropriate amount of time.

Supporting Recommendations

- **Push decision rights, authorities, and responsibilities to the lowest appropriate level throughout the organization.**
- **Build on Veteran-centered behaviors to drive a culture of service excellence, trust, continuous improvement, and healthy accountability.**
- **Revitalize the leadership pipeline through establishment of enterprise-wide, comprehensive succession-management and leadership-development functions.**
- **Strengthen the appeal of senior leadership positions by pursuing flexibilities in hiring and compensation.**
- **Establish sustained leadership continuity by extending tenure for key positions.**

A Call for System-Wide Change: The Independent Assessment highlighted systemic, critical problems and confirmed the need for change that has been voiced by Veterans and their families, the American public, Congress, and VHA staff. Solving these problems will demand far-reaching and complex changes that, when taken together, amount to no less than a system-wide reworking of VHA.

Several high-performing health care organizations were examined by the study team, including Kaiser Permanente, Virginia Mason, Geisinger Health System, and the Cleveland Clinic. Although all of these are of a differing scale than VHA, all overcame significant clinical or economic troubles by making consistent, organization-wide changes that enabled them to transform themselves into organizations that now excel at their specific missions. Similarly, during 1994 to 1999, sustained leadership within VHA deployed system-wide changes that effected a major transformation of the agency's operations. VHA should once again commit to that level of systemic change.

A system-wide transformation is required, based on an integrated systems approach that acknowledges the interdependence of the four systems recommendations:

1) **Governance**: Align demand, resources, and authorities.
2) **Operations**: Develop a patient-centered operations model that balances local autonomy with appropriate standardization and employs best practices for high-quality health care.
3) **Data and Tools**: Develop and deploy a standardized and common set of data and tools for transparency, learning, and evidence-based decisions.

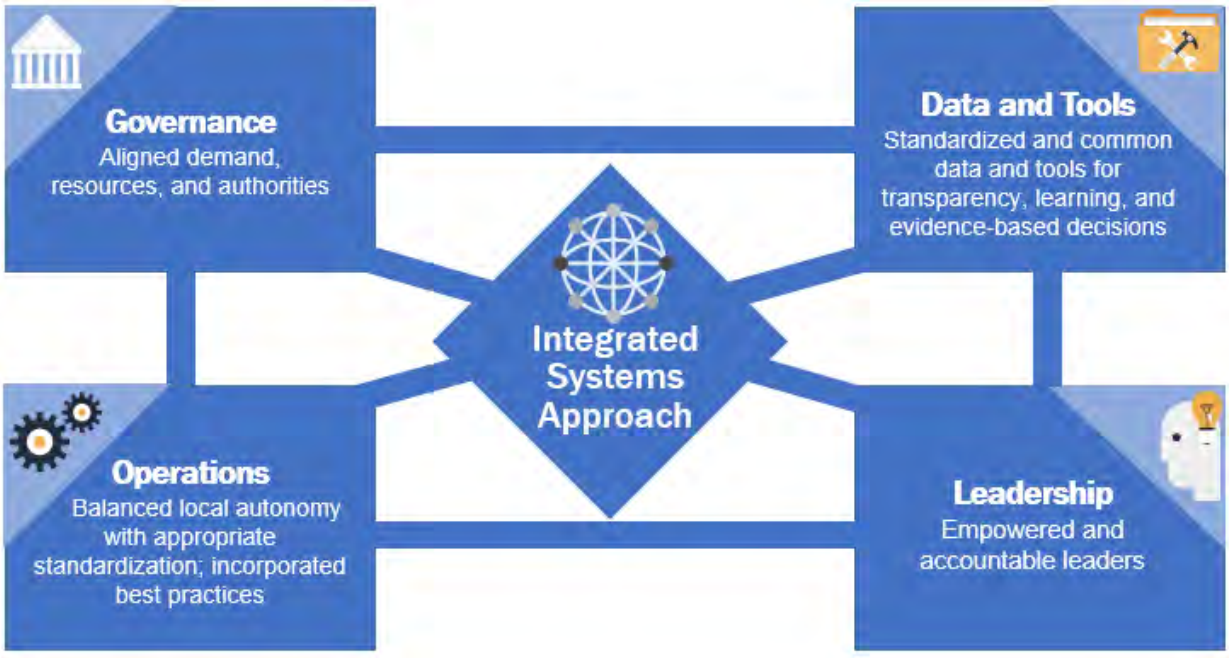
[8] This recommendation and the ideas expressed in the supporting recommendations reflect information provided in McKinsey & Company Assessment L (Leadership) in Volume II.

4) **Leadership**: Stabilize, grow, and empower leaders; galvanize them around clear priorities; and build a healthy culture of collaboration, ownership, and accountability.

These four recommendations create the integrated systems cornerstones, as shown in Figure ES-2.

With these four interdependent systems components successfully in place, VHA will have the opportunity to achieve a place among the highest performing health care systems in the world. As an example of the value of this systems approach, consider the challenges that VA faces in managing its capital program in facilities management. As Assessment K (Facilities) highlights, provided that average funding levels remain consistent over the next 10 years, the $51 billion capital requirement would significantly exceed the anticipated funding level of $16–26 billion.[9] Not only would this shortfall jeopardize the capital program, it would also threaten the financial integrity of the entire VHA health care delivery system and, in turn, significantly impact the quality of health care provided to Veterans. Viewing this primarily as a funding problem would be shortsighted. Rather there are interdependent findings in each of the four cornerstones that need to be addressed in an integrated fashion to achieve a sustainable solution. In terms of governance, external constraints limit VHA's ability to deliver and operate medical facilities at the level of private-sector benchmarks; investments in facilities are not effectively linked to workload growth; existing space is not being used at its highest efficiency; and expected funding levels do not support identified capital needs.

ES-2. Integrated Systems Cornerstones



As Assessment K also reveals, for operations, total cost of ownership is not calculated or integrated into capital planning decisions; VHA has no integrated system to manage the entire

[9] This information comes from McKinsey & Company Assessment K (Facilities) in Volume II.

leasing process; comprehensive tracking or measurement of the leasing program and its outcomes is precluded; and a large majority of facilities noted challenges in hiring staff and filling vacant positions. For data and tools, data capture occurs at multiple levels and through multiple tools, generating multiple sources of truth about the status of the capital program; tools for developing Strategic Capital Investment Plan business cases rely on user creativity and capabilities to consider creative alternatives to capital solutions; and systems do not consistently capture key performance indicators, and the metrics are not standardized across all stakeholders. And for leadership, there are recognized shortfalls in overall accountability, role clarity, personal ownership, internal communication, and proactive problem-solving approaches that limit VA's and VHA's ability to deliver the correct projects on time and on budget; the broader culture of facilities functions is characterized by silos and risk aversion, resulting in an inability to consistently advance projects in an efficient manner; and competition for limited funds has led leaders to make a range of choices in developing projects that favor approval strategies over efficient project delivery.

Viewing these facilities challenges through the lens of the integrated systems approach begins to reveal the complexity of the problem, the integrated nature of the required transformation, and the opportunity to reframe the facilities challenges as part of a larger set of interdependent pieces of VHA's overall health care system. Facility challenges can be significantly mitigated by a transformative realignment throughout the capital program deploying best practices in leasing and contracting; realigning the strategy of the capital program to improve project selection, optimize the infrastructure portfolio, implement innovative care delivery models, understand demand-based needs, and explore and partner with purchased-care opportunities; and reevaluating funding requirements. In short, employing the systems view could help reframe the vision for future health delivery and significantly reduce VHA's current and future capital investment issues. It also positions VHA not to be burdened long term with hospital overcapacity as the nature of health care delivery trends toward smaller inpatient facilities, increasing outpatient care, and more virtualized health care delivery.

The richness of the systems approach extends not just to facilities, but across many of VHA's biggest challenges. Patient access to clinician appointments cannot be sustainably addressed by only focusing on increasing overtime in the near term without looking at demand modeling, improving scheduling processes and tools, and a number of other dependencies. Choice Card funding is critical to increase purchased care access, but will not succeed without strong Veteran navigational aids, clearer rules of use, and a number of other cultural and leadership changes to promote using health care services outside of VHA. Prioritizing these findings and then solving them individually is tempting, but such an approach would not guarantee a sustainable solution. As H.L. Mencken stated, "For every complex problem there is an answer that is clear, simple, and wrong."

There are clear obstacles. As the assessment reports reveal, the number of issues VHA currently faces appears overwhelming. In its current state, VHA is not well positioned to succeed in the transformation that this analysis suggests. Three essential actions are required to realize the recommendations inherent in this transformation. VHA must:

- Recognize that the four cornerstones are interdependent and the success of any one of the four overarching recommendations hinges on the implementation of the other three. These solutions must be coordinated and implemented via a systems approach to improve VHA overall.
- Establish a transformation program management office with authority and funding (redirected from current central and local funding mechanisms) to implement the system-wide reworking of VHA. This will include establishing priorities, defining timelines for execution, allocating resources, and instituting appropriate metrics for success. It should merge relevant components of MyVA, the *Blueprint for Excellence*, and other ongoing initiatives into one coherent, focused transformational approach.
- Require evidence-based systems models to inform and implement integrated solutions that balance governance, operations, data and tools, and leadership.

It will be the charge of Congress, the Commission on Care, and VA leadership to see that these recommendations and resulting transformation efforts are given the necessary attention and support that they—and our nation's Veterans—deserve.

Table 1. Assessment Areas

	TOPIC	FOCUS	ORGANIZATION
A	**Demographics**	Current and projected demographics and unique health care needs of the patient population served by the Department.	**RAND Corporation**
B	**Health Care Capabilities**	Current and projected health care capabilities and resources of the Department, including hospital care, medical services, and other health care furnished by non-Department facilities under contract with the Department, to provide timely and accessible care to Veterans.	**RAND Corporation**
C	**Care Authorities**	The authorities and mechanisms under which the Secretary may furnish hospital care, medical services, and other health care at non-Department facilities, including whether the Secretary should have the authority to furnish such care and services at such facilities through the completion of episodes of care.	**RAND Corporation**
D	**Access Standards**	The appropriate system-wide access standard applicable to hospital care, medical services, and other health care furnished by and through the Department, including an identification of appropriate access standards for each individual specialty and post-care rehabilitation.	**Institute of Medicine**
E	**Workflow – Scheduling**	The workflow process at each medical facility of the Department for scheduling appointments for Veterans to receive hospital care, medical services, or other health care from the Department.	**McKinsey & Company**
F	**Workflow – Clinical**	The organization, workflow processes, and tools used by the Department to support clinical staffing, access to care, effective length-of-stay management and care transitions, positive patient experience, accurate documentation, and subsequent coding of inpatient services.	**McKinsey & Company**
G	**Staffing/ Productivity**	The staffing level at each medical facility of the Department and the productivity of each health care provider at such medical facility, compared with health care industry performance metrics.	**Grant Thornton LLP**
H	**Health Information Technology**	The information technology strategies of the Department with respect to furnishing and managing health care, including an identification of any weaknesses and opportunities with respect to the technology used by the Department.	**The MITRE Corporation**
I	**Business Processes**	Business processes of VHA, including processes relating to furnishing non-Department health care, insurance identification, third party revenue collection, and vendor reimbursement.	**Grant Thornton LLP**
J	**Supplies**	The purchasing, distribution, and use of pharmaceuticals, medical and surgical supplies, medical devices, and health care related services by the Department.	**McKinsey & Company**
K	**Facilities**	The process of the Department for carrying out construction and maintenance projects at medical facilities of the Department and the medical facility leasing program of the Department.	**McKinsey & Company**
L	**Leadership**	The competency of leadership with respect to culture, accountability, reform readiness, leadership development, physician alignment, employee engagement, succession planning, and performance management.	**McKinsey & Company**

This page intentionally left blank.

1 Introduction

Requirements: Several congressional hearings in the spring and summer of 2014 attempted to explore the potential uneven access and quality in the Veterans Health Administration (VHA) health care system and to identify the sources of the problems that were dominating the press. In August 2014, Congress passed the Veterans Access, Choice, and Accountability Act of 2014 (Pub. L. No.113–146, 128 Stat. 1754), also known as the Veterans Choice Act. Section 201 of the Veterans Choice Act, Independent Assessment of the Health Care Delivery Systems and Management Processes of the Department of Veterans Affairs—hereafter called the Independent Assessment—calls for a private-sector entity or entities to "conduct an independent assessment of the hospital care, medical services, and other health care furnished in medical facilities of the Department."[10] The Act specifically directed that the assessments be conducted in 12 areas, covering a broad spectrum of VHA services, operations, and support. Eleven of these assessments were conducted under the auspices of the CMS Alliance to Modernize Healthcare (CAMH), a federally funded research and development center sponsored by the Centers for Medicare & Medicaid Services (CMS) and operated by The MITRE Corporation. MITRE entered into contracts with three organizations to help execute the required assessments, with the exception of Assessment D (Access Standards), which VHA separately contracted to the Institute of Medicine (IOM). Table 1 identifies the specific assessment areas and the organizations conducting the assessments.

Activities: For the 11 CAMH assessments, the assessment teams conducted numerous activities to better understand VHA processes, functions, and operations. As Table 2 illustrates, they captured and utilized a vast amount of information gathered through site visits, surveys, data requests, and focused interviews. All of the individual assessment reports, summarized in Appendices A through L and contained in Volume II, provide a comprehensive discussion of the analytical techniques that each team used to conduct its assessment. This Integrated Report was created by applying an integrated systems perspective across all of the individual assessments' activities, findings, and recommendations.

Table 2. Data Collection, Assessment, and Integration Activities

Conducted 87 site visits to 38 VAMCs, 16 primary care community-based outpatient clinics, 7 multi-specialty community-based outpatient clinics, 1 health care center, 13 VISN headquarters, 4 construction and facilities management offices, 2 acquisition centers, 2 consolidated mail outpatient pharmacies, 3 consolidated patient account centers, 1 health administration center, and 6 active major construction sites.
Conducted numerous interviews and workshops with VA and VHA leadership, staff, and union representatives.
Conducted extensive literature reviews that included 137 previous assessments of the Veterans health care system.

[10] United States. Congress. Veterans Access, Choice, Accountability, and Transparency Act, 38 U.S.C. § 1701 (2014) (Pub. L. No.113–146, 128 Stat. 1754).

Met with 27 leading private health care organizations and obtained information from 10 Veteran Service Organizations (VSOs). Visited four health care systems that have undergone successful major transformations in the last 10 years.
Conducted 5 individual-level surveys to include leaders at VA administrative parent organizations, schedulers, providers and administrators, inpatient clinical staff members at all VAMCs, and VHA employees about its leadership beliefs and practices.
Received 560 data sets from VHA; received and analyzed more than 20,000 files.
Created an independent Blue Ribbon Panel consisting of 16 preeminent health care industry leaders to leverage their expertise in health care industry best practices and innovative practices. The panel members (listed in Appendix Q) remained engaged throughout the assessment process and provided advice and feedback on the integrated assessment approach and this Integrated Report.

Limitations: These efforts had certain limitations:

- The assessment teams assumed that the quality, reliability, and accuracy of the data provided by VHA were acceptable. Sometimes data were unavailable, used non-standard definitions, or appeared to have inconsistencies. Conducting audits was beyond the scope of this effort.
- The assessments did not include a survey of Veterans' experiences or perceptions. The defined time frame did not permit the design and implementation of a formal survey. We engaged Veterans Services Organizations (VSOs) to gain their perspective on the viewpoints of their membership.
- The assessments did not compare costs of VA and non-VA care because the Veterans Choice Act did not require cost comparisons. The Congressional Budget Office (CBO) has previously reported to Congress on the challenges of comparing the costs of VA and non-VA care, citing the scarcity of cost-accounting data for Veterans' care and the complete absence of data on non-VA care received by Veterans who are also treated by VA.[11] We do recognize that the value of Veterans' health care, defined as health care outcomes relative to costs, should inform efforts for improvement.
- Due to time constraints, the assessment teams did not visit every Veterans Affairs Medical Center (VAMC). Rather, the assessment team implemented a process that defined an appropriate sample of medical facilities to visit and used data calls and surveys to cover the remaining facilities that could not be visited. The sample included representation across all (Veterans Integrated Service Networks (VISNs); satisfied assessment requirements; and 87 site visits, including visits to 38 VAMCs, were conducted. To ensure consistency across each site visit, we also ensured that the same

[11] Congressional Budget Office. (2014, December). *Comparing the Costs of the Veterans' Health Care System with Private-Sector Costs*. Washington, D.C.: Congressional Budget Office. Retrieved from https://www.cbo.gov/publication/49763

population (i.e., roles and units) were used for observation and focus-group participation.

Organization: The results of these efforts are captured in two volumes:

- Volume I contains this Integrated Report and one appendix for each assessment, summarizing that assessment's findings and recommendations.
- Volume II contains the detailed and complete assessment reports.

Table 3 provides the major elements of this Integrated Report:

- Sections 1–3 include the Introduction, Context, and Systems and are intended to enable readers to understand the purpose of the effort, to capture VHA's state at the time of the assessment, and to introduce the need for an integrated system-level perspective to resolve identified systemic findings.
- Sections 4–7 discuss the four interrelated systemic findings of concern and respective system-wide recommendations.
- Section 8 describes the transformational journey that VHA must embark upon to become a high-performing health care system.

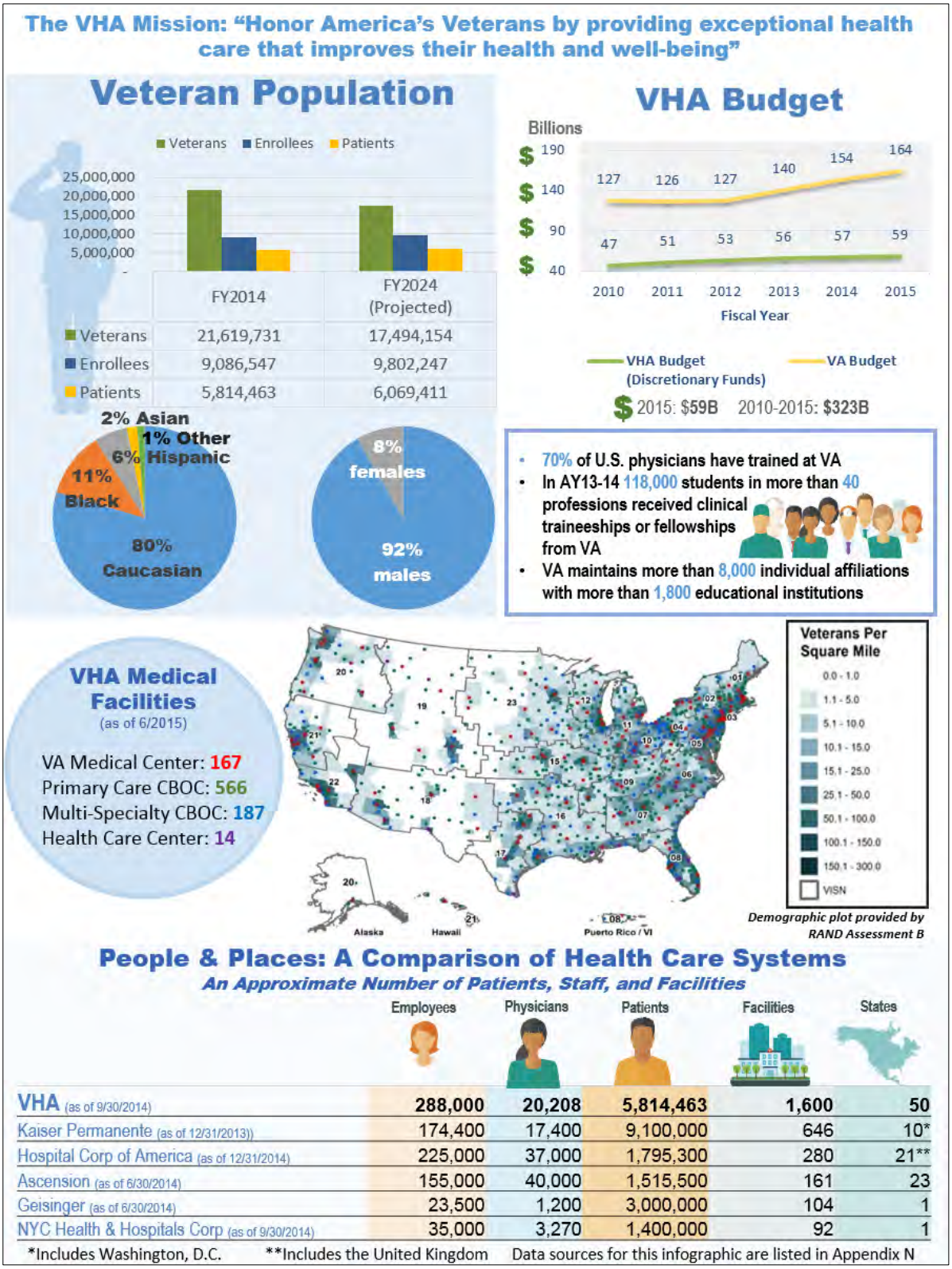
This Integrated Report provides an integrating perspective based on the findings and recommendations from across the independent assessment reports. It does not provide a summary of the individual findings or recommendations of the assessments; rather, readers are strongly encouraged to study those assessments in detail.

The findings and recommendations from all of the independent assessment reports revealed four systemic findings, defined in Section 3, that are clearly interrelated and underlie many of VHA's recurring problems. This Integrated Report concludes that solving VHA's more challenging problems requires VA leadership to adopt systems thinking, a framework for solving problems based on the premise that a component part of an entity can best be understood in the context of its relationships with the other components of the entity, rather than in isolation. This approach takes into account the interdependencies of the parts to find the best combination of strategies that meet the needs of the whole. Systems thinking has been well established in many industries, including health care, and requires leaders to understand how components of the system should be working together, as opposed to how they are currently interacting. Systems thinking does not promote tackling individual problems independently because the solutions, more often than not, will be sub-optimal, non-scalable, and non-sustainable. This Integrated Report also concludes that VHA should establish a transformation program management office with authority and funding necessary to effectively implement a system-wide reworking of VHA based on systems thinking and that VHA should exploit evidence-based systems models to enable informed decisions about integrated solutions.

Table 3. Integrated Report Directory

SECTION	PURPOSE	PAGE NO.
I. Introduction	Explains the purpose, scope, and structure of the report	1
2. Context	Describes VHA	7
3. Systems	Introduces the systems approach to enabling transformation and identifies the four systemic findings that emerge from this assessment	13
4. Governance	Provides recommendations on how to align demand, resources, and authorities within VHA	23
5. Operations	Addresses variance in the execution of business operations across VHA, defines the need to identify and share best practices and to develop a patient centered operating model	31
6. Data and Tools	Motivates the need for common, transparent, accurate, and timely system-wide data and tools	41
7. Leadership	Discusses the impact of and solutions to the current leadership challenges	51
8. Transformation	Describes the transformation journey upon which VHA must embark	59
Appendices A–L	Provide a short synopsis of assessment reports contained in Volume II	A-1
Appendix M	Highlights the outreach efforts that were conducted with Veterans Service Organizations, high-performing health care systems, and health care executives	M-1
Appendix N	Provides the list of references that support this effort	N-1
Appendix O	Provides the list of acronyms used in the Integrated Report	O-1
Appendix P	States Section 201 of the Veterans Choice Act	P-1
Appendix Q	Identifies the Blue Ribbon Panel members	Q-1
VOLUME II	Provides background information, analytic approach, findings, conclusions, and recommendations prepared by each of the 12 assessment teams	CD

Figure 1. Veterans' Health Care Key Metrics



This page intentionally left blank.

2 Context

The assessments focused on the care provided under the auspices of the U.S. Department of Veterans Affairs (VA). This care is primarily provided through the medical facilities operated by the Veterans Health Administration (VHA)—the VA organization directed by the Under Secretary for Health—and through health care funded by VA and provided outside of VHA facilities (i.e., purchased care or community care). Veterans also receive health care outside of VHA facilities that is not funded by VHA. Our focus excludes care that is not directly provided by or paid for by VHA.[12]

VHA is a multifaceted organization with several dynamics that impact how it operates. These include its mission, funding, size and scale, organizational construct, and an evolving patient population influenced by complex eligibility rules and multiple care options.

VHA Mission and Vision: VHA's stated mission is "Honor America's Veterans by providing exceptional health care that improves their health and well-being."[13] VHA aspires to the following vision:

> VHA will continue to be the benchmark of excellence and value in health care and benefits by providing exemplary services that are both patient-centered and evidence-based.
>
> This care will be delivered by engaged, collaborative teams in an integrated environment that supports learning, discovery and continuous improvement.
>
> It will emphasize prevention and population health and contribute to the Nation's well-being through education, research and service in national emergencies.[14]

Fiscal Resources: VHA estimates that its funding for fiscal year (FY) 2015 will total $59 billion, including $3 billion in third-party collections.[15] Currently, VHA's budget request is based on estimates developed two years prior and is constrained by overall federal budget growth. Thus, VHA may be limited in its ability to respond quickly to unexpected demand for health care, especially after changes in eligibility. This happened several times in the past: for example, after eligibility reform in 1996 and when certain diagnoses were designated presumptively service connected for Veterans who served in Vietnam, the Gulf War, and other situations.

Size and Scale: VHA has an extensive geographic presence across the United States and its territories and manages a significantly large number of facilities. It provides health care through 21 Veterans Integrated Service Networks (VISNs). In each VISN, hospitals known as VA Medical

[12] The terms VA and VHA are not interchangeable. Throughout this report, VA refers to the department and VHA refers to the administration within the department.

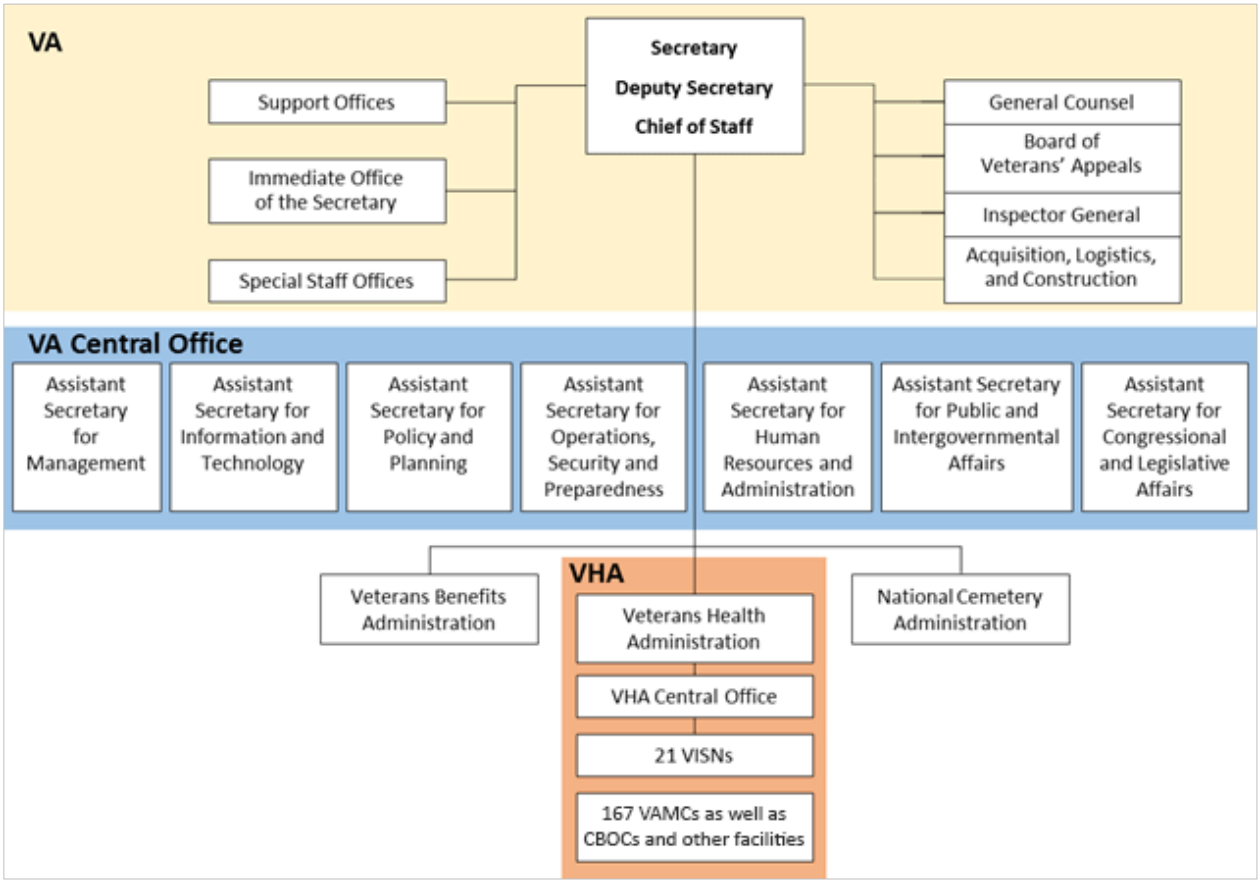
[13] U.S. Department of Veterans Affairs. Veterans Health Administration. VHA Strategic Plan FY2013-2018, pg. 1. Retrieved from http://www.va.gov/health/docs/VHA_STRATEGIC_PLAN_FY2013-2018.pdf

[14] U.S. Department of Veterans Affairs. (2014, September 21). *Blueprint for excellence: Veterans Health Administration*. Retrieved from http://www.va.gov/HEALTH/docs/VHA_Blueprint_for_Excellence.pdf

[15] U. S. Department of Veterans Affairs. Volume II: Medical programs and information technology programs; Congressional submission, FY 2016 funding and FY 2017 advance appropriations, pg. VHA-3. Retrieved from http://www.va.gov/budget/docs/summary/Fy2016-VolumeII-MedicalProgramsAndInformationTechnology.pdf

Centers (VAMCs) coordinate with smaller clinical sites known as community-based outpatient clinics (CBOCs) to care for Veterans in a specified geographic area. In addition to providing direct patient care to Veterans, VHA also provides medical education for physicians and other health care providers (it has been estimated that 70 percent of all U.S. physicians received some of their training from VHA),[16] and conducts critical clinical, basic, and health services research.

Figure 2. U.S. Department of Veterans Affairs Organization Chart



Organization: As Figure 2 indicates, Veterans Health Administration is one of three administrations under the Secretary of Veterans Affairs. It is by far the largest administration, with 89 percent of the full-time equivalent (FTE)[17] staff employed by VA and 87 percent of the fiscal year (FY) 2016 VA discretionary budget.

- All three administrations rely on the VA Central Office (VACO) to provide Information Technology (IT), Human Resources (HR), Contracting, Administration, Acquisition, Logistics, and Construction Services, among others.

[16] U.S. Department of Veterans Affairs. (2015, April 14-15). MyVA Advisory Committee: Inaugural meeting [PowerPoint slides].

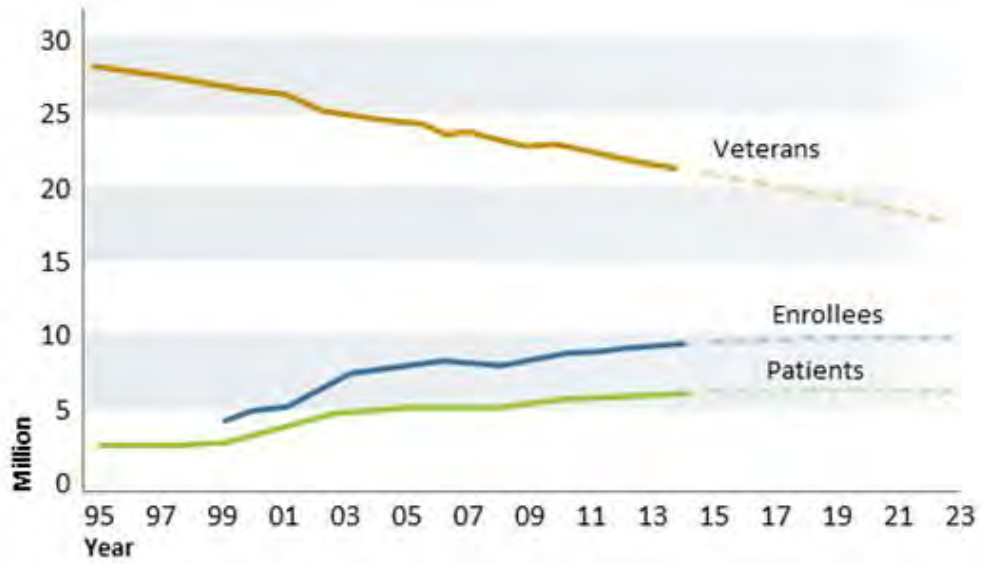
[17] U.S. Department of Veterans Affairs. (2015, February 3). Office of Budget: President's Budget Request Fiscal Year 2016. [Website]. Retrieved from: http://www.va.gov/budget/products.asp

- VHA also has a Central Office (VHACO) that includes offices for Operations and Management, Policy and Services, Nursing Services, Academic Affiliations, Business, Medical Inspector and Quality, Safety, and Value.
- The 167 VA Medical Centers (VAMCs) are distributed across 21 Veterans Integrated Service Networks (VISNs). These VAMCs and VISNs are nested within VHA under the direction of VHACO. VHA and VHACO are, in turn, nested under VA and the VA Central Office.

Evolving Population of Veterans:[18] Figure 3 illustrates trends in the total Veteran population, enrollment, and use of VA care. In 2014, the Veteran population totaled 21.6 million who had served on active duty in the military; of these, 9.1 million were enrolled for VHA health care coverage. Among those enrolled, about 5.9 million Veterans used a VHA hospital or clinic at least once during the year. Historical data show that the number of Veterans peaked around 1980 at 30 million and has steadily declined since then, but the number of VHA health care enrollees and users has steadily increased over the 20 years for which data are available.

The Veteran population is projected to continue to decline over the next decade by an additional 19 percent to 17.5 million. The number of enrollees and patients is estimated to reach its peak level in 2019 before plateauing or possibly declining in future years, as the population decline begins to overtake the upward trend in use of VHA health care by eligible Veterans. Changes in access to VHA in-house or purchased care, enrollment eligibility, or external factors could result in a resumption of the upward trend or a more rapid decline.

Figure 3. Trends in the Veteran Population, Enrollment, and Use of VA Care



Source: Congressional Research Service, Assessment A Projections

[18] This information is presented in RAND Corporation Assessment A (Demographics) in Volume II.

In terms of geographic distribution, over the next decade, the Veteran population will become more concentrated in urban areas, and the relative share of the Veteran population in the Ohio River Valley region will diminish. However, migration is less frequent among Veterans than non-Veterans and will not play a substantial role in the geographic distribution of Veterans between 2014 and 2024. While migration rates vary with a range of demographic characteristics, the overall trend is one of slow decline in migration rates generally.

Health Conditions:[19] Veterans are substantially older and therefore face more chronic conditions than the general civilian population. Approximately 50 percent of all Veterans are age 65 or older, compared to only 17 percent of the civilian population. Veterans report more health problems than civilians. Compared to Veterans who do not use VHA health care, VHA patients are older, less socio-economically well off, and experience a higher prevalence of common chronic conditions (such as diabetes and cancer). The prevalence of these conditions is expected to increase over the next 10 years.

The overall prevalence of mental health conditions is 56 percent higher among VHA patients than other Veterans. Twenty-five percent of all patients seen at VHA have a mental health condition, and the prevalence of post-traumatic stress disorder (PTSD) among VHA patients (at four percent) is 11 to 14 times the prevalence among Veterans not using VHA care. When combined with the otherwise rare conditions related to combat—amputation, traumatic brain injury, blindness, and severe burns—VHA handles a patient mix that is distinct from what civilian community providers typically treat. VHA also faces challenges, as do civilian providers, in treating patients who are homeless or have unstable living arrangements. An estimated 50,000 Veterans were homeless in 2014, and while overall homelessness among Veterans is declining, some areas still serve a large homeless population.

Complex Eligibility Rules: The Veterans Health Care Eligibility Reform Act of 1996 established the foundation for today's eligibility rules for Veterans' health care. The Act defined eligibility priority groups while mandating care for Veterans with service-connected health conditions, service-connected disabilities, exposure-related health conditions, and those without other means to pay for their care. However, health care for these Veterans is not an entitlement because it is limited by "the amount provided in advance in appropriations Acts for such purposes."[20] It is worth noting that VHA has discretion in the law over how to provide care, but it is required to maintain specialized treatment and rehabilitation programs for spinal injuries, blindness, amputations, mental illness, and other serious service-connected health conditions.

The threshold for enrollment eligibility has changed several times since 1996. After Congress expanded health care eligibility to all Veterans, the number of enrollees increased rapidly. By 2003, VHA found itself "unable to provide all enrolled Veterans with appointments within a reasonable time."[21] To ensure quality and timeliness of care for higher priority Veterans, VHA

[19] This information is presented in RAND Corporation Assessment A (Demographics) in Volume II.

[20] United States. Congress. H.R. 3118. Bill Summary and Status, 104th Congress 1995–1996, Veterans' Health Care Eligibility and Reform Act of 1996. Retrieved from http://thomas.loc.gov/cgi-bin/bdquery/z?d104:H.R.3118

[21] Enrollment-Provision of Hospital and Outpatient Care to Veterans Subpriorities of Priority Categories 7 and 8 and Annual Enrollment Level Decision, 38 CFR 17 (2003)

terminated the enrollment of Veterans who do not have a compensable service-connected disability and do not have incomes below the threshold used to determine which Veterans cannot pay for their care. The income threshold was relaxed in 2009, opening enrollment to Veterans whose incomes are within 10 percent of the threshold. Finally, Veterans who deployed to a combat theater after November 2009 are automatically eligible to enroll for up to five years after leaving the military without having to first establish their priority group.

Multiple Sources of Health Coverage for Veterans: Health care planning for VHA must also consider the fact that most Veterans have at least one source of health insurance coverage other than VHA health care, and Veterans with other coverage have markedly different VHA use rates than Veterans without other sources of coverage. Slightly more than half of Veterans reporting to non-VA sources of coverage have used VA health care services in the past, and 43 percent report using VA health care services in the past six months. Only eight percent of Veterans using private coverage alone report using VA health care in the past six months.

Purchased Care:[22] Historically, VHA treated Veterans almost exclusively in its own facilities. In recent years, the use of purchased care has increased rapidly and now accounts for about 10 percent of expenditures. The Veterans Choice Act guaranteed purchased care for enrolled Veterans who, under certain parameters, are unable to access care in VHA facilities. VHA has begun to develop a more robust purchased-care program, relying on a network of community providers who have agreed to treat Veterans and provide information about the care provided.

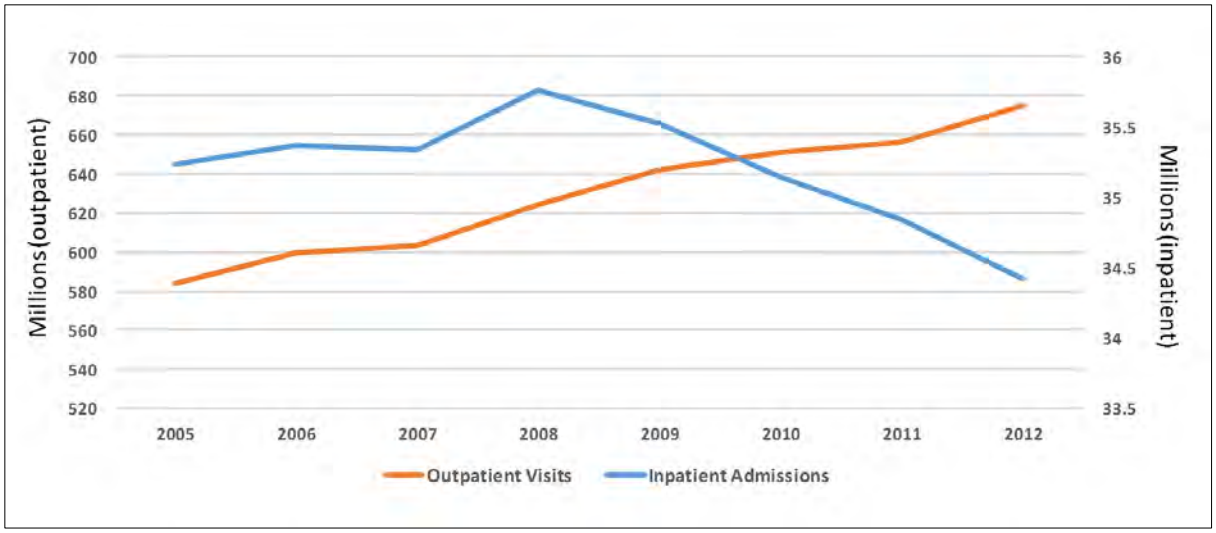
Quality of Care:[23] Although Congress did not specify quality of care as a specific assessment area, one assessment did characterize current VA quality of care by including a review of previous studies and new analyses that compared VA's quality with non-VA providers on a published set of quality measures. After a careful examination of many published, peer-reviewed studies, Assessment B (Health Care Capabilities) concludes that VHA health care quality is better on many measures than non-VA providers' care, while similar or worse on other measures. In new analyses comparing VHA's quality with non-VA providers, VHA performed the same or significantly better on average than the non-VA provider organizations on 12 of 14 effectiveness measures (providing recommended care) in the inpatient setting, and worse on two measures. On average, VHA performed significantly better on 16 outpatient Healthcare Effectiveness Data and Information Set® (HEDIS) measures of effectiveness compared with commercial health maintenance organizations (HMOs); on the 15 outpatient HEDIS measures of effectiveness that were available for Medicaid HMOs; and on 14 of 16 outpatient effectiveness measures compared with Medicare HMOs. On 6 of 10 patient-centeredness measures, on average, patients in VA hospitals reported significantly less favorable experiences with the care they received than did patients in non-VA hospitals. Assessment B observed marked differences between highest and lowest performing VA facilities for most quality measures—indicative of the uneven quality of care suggested in Section 1.

[22] This information is presented in RAND Corporation Assessment C (Care Authorities) in Volume II.

[23] This information is presented in RAND Corporation Assessment B (Health Care Capabilities) in Volume II.

Shift from Inpatient to Outpatient Care: U.S. health care has been transforming from hospital-centric sick care to an outpatient model that emphasizes primary and preventive care. Data from the American Hospital Association reveals a decline in inpatient admissions since 2008, dropping from 35.8 million community hospital admissions to 34.4 million. Outpatient visits over the same period grew from 624 million visits in 2008 to 675 million visits in 2012 (Figure 4[24]). These trends are traced to health care reform changes and the adoption of new models of care that accommodate more patients in an outpatient setting. More hospitals are establishing medical home programs. "In 2013, 20.4% of hospitals had a medical home program compared with 14.5% in 2011."[25] A review of Medicare data from 2004 to 2011 reveals that inpatient admissions per Fee for Service (FFS) beneficiary declined by 7.8 percent while the number of outpatient services per FFS beneficiary increased by 33.6 percent across all types of insurance.[26] Within VHA, outpatient visits are increasing while inpatient Bed Days of Care has declined, with some VISNs experiencing more dramatic swings than others. These trends will eventually impact the number, size, and configuration of the health care facilities required to provide support to Veterans.

Figure 4. U.S. Inpatient Admissions vs. Outpatient Visits



[24] American Hospital Association. (n.d.). Utilization and Volume. *Trendwatch Chartbook 2014*. Retrieved from http://www.aha.org/research/reports/tw/chartbook/ch3.shtml

[25] Robeznieks, A. (2015, January 27). Hospitals saw fewer admissions, more outpatients in 2013. *Modern Healthcare*. Retrieved from http://www.modernhealthcare.com/article/20150127/NEWS/301279903

[26] Medicare Payment Advisory Commission. (2013, March). Report to the Congress: Medicare payment policy. Retrieved from http://www.medpac.gov/documents/reports/mar13_ch03.pdf?sfvrsn=0

3 Systems

Systems Thinking: A review of the findings included in the assessment reports indicates that each finding has an impact on patient care, and many findings have been recognized by previous studies.[27] Over the last 10 years, more than 15 studies and assessments have addressed scheduling issues alone. Prioritizing these findings and then solving them individually is tempting, but such an approach would not guarantee a sustainable solution. While focusing on one simple metric and attacking that measure is tempting, doing so may be transient and may fail to address the underlying problems. As H.L. Mencken stated, "For every complex problem, there is an answer that is clear, simple, and wrong." Often, the simple answer is not sustainable, is not scalable, and can even create unintended consequences.

An analysis of the Veterans' access issue illustrates this conclusion. Using wait times as the one metric for patient access, Assessment D (Access Standards) reports an average wait time of 43 days for new primary care appointments, with a range of 2–122 days across all VA facilities, based on an October 2014 VHA report. Comparison data from a review of Massachusetts physicians in the civilian sector showed average wait times of 50 days for internal medicine and 39 days for family medicine appointments. This suggests that, on average, VHA was not that different from the civilian sector. Assessment B (Health Care Capabilities) also "did not find evidence of a system-wide crisis in access to VA care." But looking only at overall averages can mask troubling instances of poor access and can preclude the investigation of the underlying causes of those instances. Assessment D asserts that achieving sustainable access improvements requires a systems approach, incorporating multiple factors: systems strategies, supply and demand alignment, reframing the type of patient encounter, the need for standards, the need for evidence-based best practices, and leadership. Each of these will require its own evidence-based metrics and benchmarks. Taken together, they will provide a much more comprehensive and accurate assessment of access. Creating a locally tailored model of these pieces gives VHA the ability to understand how access varies from location to location. Local models can then be aggregated to provide understanding of overall system performance while still retaining local granularity to uncover previously hidden issues.

VHA must adopt a systems perspective to address its most challenging problems, including access. Systems thinking views problems within the context of the overall system and avoids isolated solutions to specific problems. It takes into account the interdependencies of the parts to find the best combination of strategies that meet the need of the whole.[28] This approach has

[27] This team reviewed 137 previous assessments of VHA, including reports by the Government Accountability Office, Veterans Administration Office of the Inspector General, and multiple other organizations. These assessments were conducted between 1998 and 2015. (Seventy-seven percent of the reports were conducted in the last five years.) They contain 790 findings about the state of VHA health care, many of which are overlapping. About 80 percent of the findings identified in this Integrated Report are aligned with or reflect those previous findings. The unique value of this report is not in the list of findings but in the recognition of the need for an integrated systems approach to address the underlying causes of those findings.

[28] Frank, M. (2000, March 31). Engineering systems thinking and systems thinking. *Systems Engineering, 3(3),* 163–168.

been well established in many industries, including health care. This approach often enables leaders to exploit identified strengths and to reframe problems into opportunities based on an appreciation of how components of the program should be working together, as opposed to how they are currently interacting. As was stated in a recent Senate hearing on VHA, the tendency to chase "shiny objects"[29] must be avoided and replaced by focusing on an integrated process executed at the enterprise level. The Government Accountability Office (GAO) has also encouraged VA to address those systemic findings that will enhance the ability of VHA to provide high-quality health care to Veterans.[30]

Systemic Findings: To understand the interdependence of issues and the potential causes of systemic problems in VHA, multiple reviews of all the findings across the assessment reports were conducted. Through an analysis of industry benchmarks and best practices, insights from health care executives and high-performing health care organizations, the perspective of our Blue Ribbon Panel, and interactions with Veterans Service Organizations, four systemic findings repeatedly emerged. Each of these systemic findings then motivates a cornerstone recommendation that should be integrated into a VHA systems approach.

Finding 1—A disconnect in the alignment of demand, resources, and authorities

VHA's mission is inspirational and widely accepted by employees, but there are significant geographic variations with respect to how the mission is translated into action for individual Veterans. Complex eligibility rules make determining which Veterans are covered and what services they receive a challenge, and navigating VHA is often difficult for Veterans—a problem exacerbated by incomplete guidance and non-standardized business processes. Furthermore, the growing role of outside providers has not been integrated effectively into VHA's operating model, which is based on providing direct care within VHA facilities.

At present, VHA is over-committed in some geographic areas, given its broad mission, an expanding list of automatic eligibility criteria, and limited resources. Matching supply and demand at the local level is challenging because supply is relatively fixed each year once service projection models allocate resources to each facility through the appropriation and budgeting process.

Recommendation 1—GOVERNANCE: Align demand, resources, and authorities.

Finding 2—Uneven bureaucratic operations and processes

Several centralized operational and support functions appear to have lost customer focus and do not adequately support the needs of the medical centers. Individual VAMCs have adopted

[29] Clark, C. (2015, April 30). Senators propose acting as "Board of Directors" for VA. Government Executive. Retrieved from: http://www.govexec.com/management/2015/04/senators-propose-acting-board-directors-va/111613/

[30] U.S. Government Accountability Office. (2015, February 11). *High-risk series: An update. (GAO Publication No. 15-290)*. Washington, D.C.: U.S. Government Publishing Office. Retrieved from http://www.gao.gov/assets/670/668415.pdf

local implementations of certain processes, but many of these were found to be unnecessarily complex and, not surprisingly, inconsistent across VHA. In many cases, these centralized and local process issues have become inefficient and bureaucratic, creating a direct negative impact on the overall Veteran experience and timely access to care.

These widely varying processes highlight VHA's complexity. Severe problems may manifest themselves at one facility, while another constantly receives tributes from Veterans and health care experts. The oft-quoted reminder, "if you've seen one VA hospital, you've seen ONE VA hospital," captures this reality.

Recommendation 2—OPERATIONS: Develop a patient-centered operations model that balances local autonomy with appropriate standardization and employs best practices for high-quality health care.

Finding 3—Non-integrated variations in clinical and business data and tools

A lack of common, integrated VHA enterprise systems and tools negatively impact VHA's operations and resulting data. Inconsistent and ineffective data collection and analysis undermines rapid, evidence-based assessment and improvement of quality and customer satisfaction. VHA lacks a holistic, enterprise approach to collecting and leveraging its data. Data interchange with the Department of Defense (DoD) and external health care providers is limited, which creates unnecessary clinical risk. Since newly discharged Veterans often become VA patients, interoperability with DoD is necessary and expected. These shortfalls hinder using available data to support effective decision making and performance management.

Recommendation 3—DATA AND TOOLS: Develop and deploy a standardized and common set of data and tools for transparency, learning, and evidence-based decisions.

Finding 4—Leaders are not fully empowered due to lack of clear authority, priorities, and roles

VHA leaders operate within a challenging and disempowering environment that discourages emerging leaders from seeking promotion within VHA. Key leadership positions remain vacant or are staffed with acting leaders, and more than half of executives are eligible for retirement, potentially creating a larger number of vacant positions. A misalignment of accountability and authority exists within a broader VHA culture that is characterized by risk aversion and lack of trust. Those leaders who are effective too often achieve positive outcomes despite the challenges of the organization within which they operate.

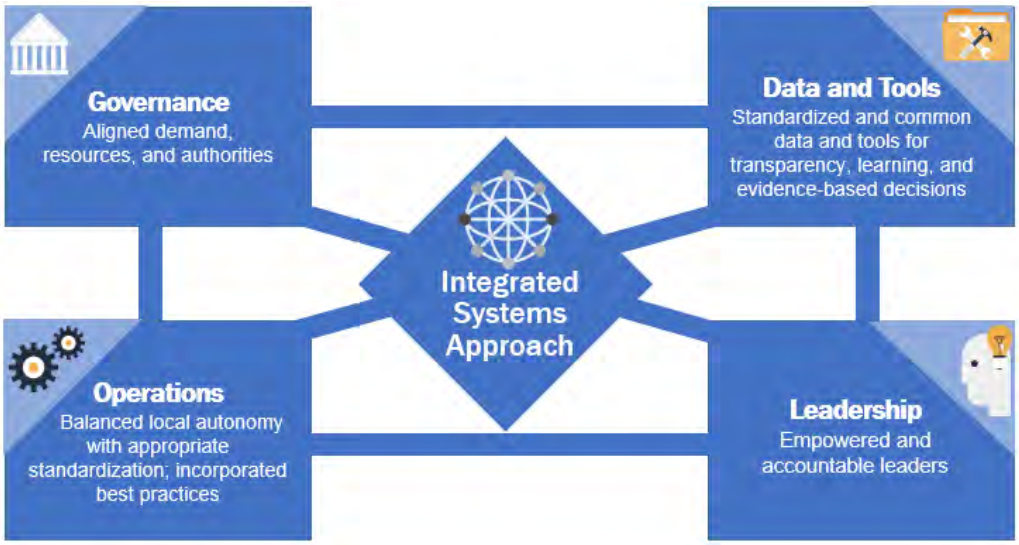
Recommendation 4—LEADERSHIP: Stabilize, grow, and empower leaders; galvanize them around clear priorities; and build a healthy culture of collaboration, ownership, and accountability.[31]

Integrated Systems Cornerstones: These four systemic findings in governance, operations, data and tools, and leadership all contribute to the critical problems that plague VHA. It should not

[31] This information comes from McKinsey & Company Assessment L (Leadership) in Volume II.

be surprising, then, that when addressing any one problem, the solution must integrate all of these systems cornerstones as part of a sustained solution. For example, improving access in a scalable and sustainable manner is more than just authorizing and funding temporary overtime to create more appointments; improving access must also include forecasting demand, streamlining scheduling processes, improving the efficiencies of existing hospital capacities, changing the way health delivery occurs to include telehealth, and having clarity and authority for using purchased care options. Similarly, even funding $10 billion for Choice Cards without addressing the other parts of the system such as educating Veterans about their new options and changing the culture to embrace non-VHA providers can lead to poor results. Figure 5 illustrates the four integrated systems cornerstones that must be addressed together to enable enduring solutions in VHA.

Figure 5. Integrated Systems Cornerstones



Applications of the Integrated Systems Approach: Three examples emerge that demonstrate the value of the systems approach in addressing the significant challenges facing VA. These examples deal with facilities management, Veteran patient access, and health information technology.

Facilities[32]: Consider the challenges that VA must resolve in managing its capital program in facilities management. Provided that average funding levels remain consistent over the next 10 years, the $51 billion capital requirement would significantly exceed the anticipated funding level of $16–26 billion.[33] Not only would this shortfall jeopardize the capital program, it would also threaten the financial integrity of the entire VHA health care delivery system and, in turn, significantly impact the quality of health care provided to Veterans. Viewing this primarily as a funding problem would be shortsighted. Rather, interdependent findings exist in each of the

[32] This information comes from McKinsey & Company Assessment K (Facilities) in Volume II.

[33] This information comes from McKinsey & Company Assessment K (Facilities) in Volume II.

four cornerstones that need to be addressed in an integrated fashion to achieve a sustainable solution, as shown in Table 4.

Table 4. Facilities Challenges Through the Lens of the Systems Approach

Governance
External and internal constraints limit VHA's ability to deliver and operate medical facilities at the level of private-sector benchmarks; to appropriately rebalance inpatient and outpatient facilities; and to accommodate future trends, including telehealth.
Investments in facilities are not effectively linked to workload growth; existing space is not being used at its highest efficiency; eliminating underutilized space is difficult.
Expected funding levels do not support identified capital needs.
Operations
Lengthy approval and funding timelines hinder VHA's ability to meet the identified space requirements to keep up with Veteran demand and invest in facilities updates that align with changing models of care.
VHA has no integrated system to manage the entire leasing process timelines, comprehensive tracking, or measurement of the impact of the leasing program.
A large majority of facilities noted challenges in hiring staff and filling vacant positions that were open and for which budget had been allocated.
Scope and design criteria for major projects are frequently subjected to major changes, especially during the design phase, affecting overall cost and schedule.
Data and Tools
Data capture occurs at multiple levels and through multiple tools, generating multiple sources of truth about the status of the capital program.
Tools for developing Strategic Capital Investment Plan business cases rely on individual effort versus a systematic process to consider creative alternatives to capital solutions.
Systems do not consistently capture key performance indicators. The metrics are not standardized across all stakeholders.
Leadership
There are recognized shortfalls in overall accountability, role clarity, personal ownership, internal communication, and proactive problem-solving approaches that limit VA's and VHA's ability to deliver the correct projects on time and on budget.
The broader culture of facilities functions is characterized by silos, risk aversion, and role ambiguity, resulting in an inability to consistently advance projects in an efficient manner.
Competition for limited funds has led leaders to make a range of choices in developing projects that favor approval strategies over efficient project delivery.

Viewing these facilities challenges through the lens of the integrated systems approach reveals the complexity of the problem; the integrated nature of the required transformation; and the

opportunity to reframe the facilities challenges as part of a larger set of interdependent pieces of VHA's overall health care system. Facility challenges can be significantly mitigated by a transformative realignment throughout the capital program deploying best practices in leasing and contracting; realigning the strategy of the capital program to improve project selection, optimize the infrastructure portfolio, implement innovative care delivery models, understand demand-based needs, and explore and partner with purchased-care opportunities; and reevaluating funding requirements. Closing or resizing facilities to match local demand and resizing to take into account inpatient and telehealth trends will avoid significant costs. Understanding local demand can lead to a smaller facility need with overflow arrangements with local private-sector options. Other key opportunities include improving contracting and leasing processes as well as considering when to outsource construction. In short, employing the systems view could help reframe the vision for future health delivery and significantly reduce VHA's current and future capital investment issues. It also enables VHA to avoid being burdened in the long term with hospital overcapacity as the nature of health care delivery trends toward smaller inpatient facilities, increasing outpatient care, and more virtualized health care delivery.

Access: As introduced earlier in Section 3, current VHA access challenges can be viewed through a systems perspective, as shown in Table 5. Multiple findings contribute to the access problem, and they are distributed among all four cornerstones, with clear interdependencies. Taken together, they provide a much more comprehensive understanding of the access problem, and demonstrate why point solutions will fail. Initial efforts to shorten wait times focused on a long-standing shortage of physicians.[34] However, this addresses only one issue in an integrated set of issues. A sustainable solution depends on a systems approach to the access challenge.

Table 5. Access Challenges Through the Lens of the Systems Approach[35]

Governance
Congress stipulates appointment wait times as the access metric
Lack of governance commitment on basic access principles
Lack of governance to ensure system-wide standards are developed, proposed, tested and appropriately applied based on local conditions
Operations
Lack of identification and use of evidence-based best practices
Approaches do not balance supply and demand, limited ability to modulate capacity, or implement surge contingencies to include technology-based alternatives to in-person visits

[34] Voorhees, J. (2014, November 12). Less firing, more hiring. Slate.com. Retrieved from http://www.slate.com/articles/news_and_politics/politics/2014/11/veterans_affairs_overhaul_the_va_should_worry_less_about_cleaning_house.html

[35] This information comes from the Institute of Medicine Assessment D (Access Standards) and McKinsey & Company Assessment E (Workflow – Scheduling) in Volume II.

Substandard processes in patient scheduling; lack of centralized call centers
Data and Tools
Lack of patient access metrics, including data on patient and family experience, scheduling practices, patterns and wait times, cycle times, and effective care continuity
Lack of real-time capacity data
Definition of a patient encounter precludes exploiting alternative engagement approaches, including non-physician clinicians and technology mediated consultations
Leadership
Lack of employment of and commitment to systems approach
Lack of accountability that would ensure delays in access are addressed by all relevant stakeholders across care continuum, rather than with piecemeal, independent process changes
Lack of facility leadership focused on continuous assessment and adjustment at each care site

Health IT: As another example of the value of the systems approach, Assessment H (Health Information Technology) discovered that few major improvements have been implemented to the primary health care software system (VistA) in the past 10 years. Many problems undermine deployment of new capabilities. Viewed through the lens of a system approach in Table 6, issues with governance, operations, data and tools, and leadership all contribute to the inability of VA to successfully implement and modernize VistA.

Table 6. Health IT Challenges Through the Lens of the Systems Approach

Governance
Inadequate collaboration between VA's centralized IT organization and VHA results in failure to prioritize IT capabilities that will support VHA health care needs
Lack of a robust, detailed strategy and roadmap for scheduling initiatives across VA to integrate Veteran scheduling via all modalities
Lack of dedicated VHA IT executives
Operations
Document-centric, schedule-focused project management and execution processes that preclude delivery of needed capabilities
Challenges in building and maintaining a skilled health informatics workforce
Lack of technical support to Veterans for home telehealth

Data and Tools
Lack of standard clinical documentation impedes clinical research and electronic health record exchange with DoD and private sector health care providers
Inconsistent and ineffective data collection within and across VA medical facilities prevents evidence-based assessment and improvement of quality and customer satisfaction
Overly complex processes for system development impede cost-effective delivery of new health IT capabilities and limit VA's ability to measure the value of IT investments
Leadership
Internal project-focused central IT service management philosophy vice customer focused
Turnover in the VA CIO position (four in the last 10 years) has precluded an enduring focus on a coherent approach to consolidate new infrastructure technologies, resulting in even greater software complexity
Lack of organization and staffing in the VistA Evolution program preclude successful management, development, and integration of a large complex software program

Continuous Improvement: The richness of the systems approach extends not just to facilities, access, and IT, but across many of VHA's biggest challenges. While complex problems benefit greatly by reframing problems in creative ways, systems solutions also work well for improving existing processes and motivating people to believe they can successfully change. Continuous improvement is one such approach that often uses a Plan-Do-Study-Act cycle[36] that identifies, reduces, and eliminates suboptimal processes for continuous incremental or breakthrough improvements. This relies heavily on measuring, analyzing, and experimenting for successful innovations. VHA's current culture would benefit greatly from instituting continuous improvement more aggressively so that everyone participates, can see progress, and can build on the pride they have in being part of VHA. Some of VHA's best performers already focus on continuous improvement, but it is not widely adopted as a standard way of operating. Transforming any organization, especially one the size of VHA, requires that everyone understands, feels accountable for, and acts daily on how to continuously improve the organization. It is as much about engaging the people as it is about fixing the processes.

In summary, Table 7 shows each systemic finding, the associated recommendations to address each finding, and a short list of early actions to turn each weakness into a strength.

[36] Taylor, M.J., et al. (2013, August 12). Systematic Review of the Application of the Plan-Do-Study-Act Method to Improve Quality in Healthcare. BMJ Qual Saf 0:1-9. doi:10.1136/bmjqs-2013-001862

Table 7. Systemic Findings and Recommendations

Finding 1: A disconnect in the alignment of demand, resources, and authorities
Recommendation 1—GOVERNANCE: Align demand, resources, and authorities
Establish a governance board to develop fundamental policy, define the strategic direction, insulate VHA leadership from direct political intervention, and ensure accountability for the achievement of established performance measures.
Require a patient-centered demand model that forecasts resources needed by geographic location to improve access and to make informed resourcing decisions.
Clarify and simplify the rules for purchased care to provide the best value for patients.
Finding 2: Uneven bureaucratic operations and processes
Recommendation 2—OPERATIONS: Develop a patient-centered operations model that balances local autonomy with appropriate standardization and employs best practices for high-quality health care
Right size and reorient the VHA Central Office to focus on support to the field in its delivery of care to Veterans.
Fix substandard processes that impede the quality of care provided to the Veteran.
Design and implement a systematic approach to identify best practices and disseminate them appropriately across the enterprise.
Finding 3: Non-integrated variations in clinical and business data and tools
Recommendation 3—DATA and TOOLS: Develop and deploy a standardized and common set of data and tools for transparency, learning, and evidence-based decisions
Use standardized clinical and administrative data for accuracy and interoperability.
Implement a single, integrated set of system-wide tools centered on a common electronic health record (EHR) that is interoperable across VHA and with DoD and community provider systems.
Transparently share performance metrics for leadership, clinical, and business functions across VHA to identify and adopt best practices for continuous improvement.
Finding 4: Leaders are not fully empowered due to a lack of clear authority, priorities, and goals
Recommendation 4—LEADERSHIP: Stabilize, grow, and empower leaders; galvanize them around clear priorities; and build a healthy culture of collaboration, ownership, and accountability
Push decision rights, authorities, and responsibilities to the lowest appropriate level throughout the organization.
Build on Veteran-centered behaviors to drive a culture of service excellence, trust, continuous improvement, and healthy accountability.
Revitalize the leadership pipeline through establishment of enterprise-wide, comprehensive succession management and leadership development functions.
Strengthen the appeal of senior leadership positions by pursuing flexibilities in hiring and compensation.
Establish sustained leadership continuity by extending tenure for key positions.

This page intentionally left blank.

4 Governance

Finding 1: A disconnect in the alignment of demand, resources, and authorities
Recommendation 1—GOVERNANCE: Align demand, resources, and authorities
Establish a governance board to develop fundamental policy, define the strategic direction, insulate VHA leadership from direct political intervention, and ensure accountability for the achievement of established performance measures.
Require a patient-centered demand model that forecasts resources needed by geographic location to improve access and to make informed resourcing decisions.
Clarify and simplify the rules for purchased care to provide the best value for patients.

CURRENT STATE

VHA's primary function is clearly defined in Title 38 of the U.S. Code—to "provide a complete medical and hospital service for the medical care and treatment of Veterans."[37] To implement that function, VHA has defined its mission as "Honor America's Veterans by providing exceptional health care that improves their health and well-being."[38]

While this mission inspires and motivates VHA staff, it also creates a dilemma for those same individuals who are committed to its successful execution. It holds out the promise of unconstrained health care to all Veterans when, in reality, the capacity of VHA to meet that promise is constrained by the appropriated funding. While the mission captures the intent of comprehensive health care for all Veterans, VHA's authorities, resources, and flexibility are less comprehensive. This dilemma was fueled in part by congressional actions, including the Veterans' Health Care Eligibility Reform Act of 1996. This act mandates that VHA provides a broadly defined set of services for groups of prioritized Veteran populations, based on their eligibility, but "only to the extent and in the amount provided in advance in appropriations acts for such purposes."[39]

This prioritization approach was intended to provide VHA leadership with the flexibility to match the extent of care to annual budgets, and it has done just that. It has created a situation under which the organization manages to the budget, regardless of the level of demand envisioned by the aspirational mission statement. In addition, Congress appropriates VA's budget as a nondefense discretionary program; thus, congressional priorities can influence both the level of money available and the way VA can spend the money once allocated. Funding for other large federal health programs differs in important ways. Medicare is considered an

[37] Title 38—United States Code Veterans' Benefits and the Servicemembers Civil Relief Act, 38 U.S.C. § (2011) (Pub. L. No.112-7), Chapter 73, Subchapter 1, Section 7301.

[38] U.S. Department of Veterans Affairs. Veterans Health Administration. VHA Strategic Plan FY2013-2018, pg. 1. Retrieved from http://www.va.gov/health/docs/VHA_STRATEGIC_PLAN_FY2013-2018.pdf

[39] United States. Congress. H.R. 3118. Bill Summary and Status, 104th Congress 1995–1996, Veterans' Health Care Eligibility and Reform Act of 1996. Retrieved from http://thomas.loc.gov/cgi-bin/bdquery/z?d104:H.R.3118

entitlement program; funding is provided from the Medicare Trust Fund, spending is mandatory, and the program's annual cost has no formal budget constraint. TRICARE funding is included in the U.S. Department of Defense (DoD) appropriation and is therefore discretionary, but the benefit is well defined, and DoD must cover any costs incurred beyond the appropriated funding. For VHA, congressional priorities can also direct money away from the overall budget for patient care toward specific programs through the special purpose funds. According to interviewees at VA medical facilities, these silos of money can make it difficult for facilities to efficiently and effectively use their entire budgets in any given year.[40] When demand exceeds capacity to deliver care within the budget, the inevitable result is a decrease in access to care and unmet demand for some Veterans. As this report is written, VHA is facing a potential crisis in its ability to provide care as the demand for Hepatitis C therapy grows.[41]

> "It appears that the culture of leadership, management, and accountability is focused on making the funding fit at every level. Leadership at every level must have the confidence that if they have a need, they can ask for that need to be addressed. VA, the Administration, and Congress must resolve to make the true need the priority, not the need to make budget lines fit."
>
> *Deputy Director*
> *Veterans of Foreign Wars*
> *Before the U.S. Senate*
> *May 15, 2014*

This approach for funding VA complicates the development of a coherent strategic direction and has hindered a consistent interpretation of the mission across the enterprise. Local organizations interpret their expectations locally, leading at least one VAMC to promise excellent care to "every Veteran, every time!"[42] In an interview, one VAMC leader described the challenge in terms of "double messaging" around "managing to a budget" and "managing to the need." At present, VHA is over-committed in some geographic areas. Matching supply and demand at the local level is challenging because supply is relatively fixed each year once service projection models allocate resources to each facility through the appropriation and budgeting process.

Although the population of Veterans is expected to decline by 19 percent over the next decade, the demand for health care services is expected to rise before it levels off in five years, based on demographic factors (primarily aging)—and likely will rise even more if access to VHA health care is improved (Assessment B [Health Care Capabilities]). On the other hand, despite this possible growth in demand, in some areas and for some health conditions, VHA may not have a sufficient population of patients to sustain highly specialized service lines with enough volume to achieve and maintain clinical excellence.

[40] This information is presented in RAND Corporation Assessment B (Health Care Capabilities) in Volume II.

[41] Wagner, D. (2015, June 21). VA to outsource care for 180,000 vets with hepatitis C. *USA Today*. Retrieved from http://www.usatoday.com/story/news/nation/2015/06/21/va-outsource-care-vets-hepatitis/29059755/

[42] U.S. Department of Veterans Affairs. (2015). About the Huntington VA Medical Center. Retrieved from http://www.huntington.va.gov/about/index.asp

Congress and VA leadership must address this challenge. They must work to align VHA's promise to provide comprehensive health care to Veterans with VHA's capacity by defining the expected benefit—that is, the Veteran population to be served and the health care those Veterans will be provided. This will drive the allocation of the funding adequate to meet this demand. VHA must broadly and transparently communicate the strategy for delivering that care to Veterans, VHA employees, other stakeholders, and the public. To start, the following policy questions must be addressed:

- Who will VHA serve? Is it truly all Veterans, or a subset of Veterans whose care is mandated?
- What health care services will VHA provide, and in what settings? Will it provide all care necessary to advance population health and desired outcomes for individual Veterans? How will it address the various social needs (e.g., caring for the homeless) that can complicate the provisioning of services for some Veterans?
- How will VHA provide care? How will VHA determine the appropriate balance between provided care and purchased care? How should this care be customized at the local level to reflect local issues?

The implications of developing answers to these policy questions are significant. All eligible Veterans have not enrolled for health care. The Veteran population is aging and developing conditions and ailments that are not necessarily service related. At the same time, the health care landscape is evolving, changing the manner in which health care is being provided. To address these policy questions and to leverage the answers to those questions, three recommendations are provided.

RECOMMENDATIONS

- Establish a governance board to develop fundamental policy, define the strategic direction, insulate VHA leadership from direct political intervention, and ensure accountability for the achievement of established performance measures.
- Require a patient-centered demand model that forecasts resources needed by geographic location to improve access and to make informed resourcing decisions.
- Clarify and simplify the rules for purchased care to provide the best value for patients.

Establish a governance board to develop fundamental policy, define the strategic direction, insulate VHA leadership from direct political intervention, and ensure accountability for the achievement of established performance measures.

The fundamental policy questions about who is eligible for benefits and for which benefits are truly difficult ones that may engender heated debate and emotional responses. But these issues only represent current critical problems; moving forward, other contentious issues will need to be addressed. For example, attempts to realign resources or close facilities have been met with vehement demands that the "public input needs to carry weight with any changes in the

system."[43] Initiatives to close or eliminate older, often historic, VHA facilities can meet strong resistance from multiple groups. For example, some Veteran Service Organizations have objected to facility closures by suggesting that such closures would reduce the level of care to Veterans.

In the near term, several models could be tailored to address these policy issues in an objective and unbiased manner. Congress could charter a commission modeled after the 1955 U.S. President's Commission on Veterans' Pensions. This Commission studied different benefit packages that had been granted to Veterans, collected extensive information from various government agencies, and also surveyed randomly selected Veterans to develop statistical analyses of the use and effectiveness of various benefit programs. The studies compiled by the Commission were submitted to Congress and influenced subsequent legislative actions. A second model is the Defense Base Realignment and Closure (BRAC) Commission. That Commission was empowered to perform an independent analysis and evaluation of the Defense Department-proposed base closure list and present a report of its findings and its own suggestions to the President and to the American public. Once Congress received the presidentially endorsed report, it had a definitive suspense date to enact a joint resolution rejecting the report in full or the report became law. VA has already introduced this notion "in congressional hearings and has gotten very little pushback from authorizers and appropriators for a BRAC of its own."[44]

But these are short-term models that may not be able to provide the long-term oversight, guidance, and direction that is expected. VHA operates in a complex and dynamic environment, answering to a large number of stakeholders, sometimes with competing demands. It is a health care system managed as a government agency; some have suggested that Congress is VHA's "board of directors."[45] The long-term governance structure of a health care system can influence many aspects of that organization, to include capital investments, operations, staffing, and the definition and implementation of the strategic plan. Alternative governance models do exist. One was introduced by the Commission on the Future for America's Veterans, which proposed that Congress "establish a new entity with characteristics not unlike a federal government 'not for profit' corporation" that would be empowered with "unencumbered" authority to use all the assets of VHA to "maximize benefits to Veterans."[46] A second model, titled the "Independent Non-Taxing Unit of Government," suggests a governance structure

[43] Woster, Kevin. (2011, December 13). VA proposes Hot Springs medical center closures. *Rapid City Journal*. Retrieved from http://rapidcityjournal.com/news/local/communities/hot-springs/va-proposes-hot-springs-medical-center-closures/article_56b5a98e-2545-11e1-a04d-001871e3ce6c.html

[44] Serbu, J. (2015, March 6). VA calls for its own BRAC process to close outdated facilities. *Federal News Radio*. Retrieved from http://federalnewsradio.com/congress/2015/03/va-calls-for-its-own-brac-process-to-close-outdated-facilities/

[45] Clark, C. (2015, April 30). Senators propose acting as "Board of Directors" for VA. *Government Executive*. Retrieved from http://www.govexec.com/management/2015/04/senators-propose-acting-board-directors-va/111613/

[46] Walters, H. et al. (2009, December). *Commission on the Future for America's Veterans: Preparing for the Next Generation*. Commission on the Future for America's Veterans.

under which a health care board and administrative leadership "still have accountability to elected officials" but are "much more insulated" from direct political interaction.[47] The New York City Health and Hospitals Corporation (HHC), the largest municipal hospital and health care system in the United States, operates under such a model, as do other municipal and state health care systems. HHC underwent a series of transformative efforts and links the success of those efforts to "a series of successful service and clinical improvements…while also emphasizing continuity of leadership, system wide strategic planning, and board-level accountability for achieving performance objectives."[48]

Congress and VA should charter the Commission on Care to explore and identify the governance model that would best enable VHA to complete the proposed transformative efforts and sustain its ability to provide the highest quality health care to Veterans. The model that is developed should clearly focus on governance. VA currently has 25 advisory committees, some of which are mandated by Congress, to assess specific VA policies or programs. But these committees are, by title, focused on advising, not governing, and should not be considered a solution to this recommendation. Congressional endorsement is perhaps the key enabler to effectively implementing a governance board.

VHA should charter a transformation program office that has the authority and resources to implement a system-wide reworking of VHA. This office should be provided sufficient and dedicated funding to enable the envisioned transformation's execution without having to tax other offices or borrow from other initiatives. The office should act as the "guiding team,"[49] staffed by individuals with the right emotional commitment and core competencies in executing organizational change. The office should coordinate directly with the established governance body and should focus on establishing transformation priorities, defining timelines for execution, implementing both strategic and tactical initiatives, allocating resources, and instituting appropriate metrics and processes to measure progress and success. It should replace any ongoing change initiatives and merge the relevant components of MyVA, the *Blueprint for Excellence*, and other initiatives into one coherent, focused transformational approach.

Require a patient-centered demand model that forecasts resources needed by geographic location to improve access and to make informed resourcing decisions.

Assessment D (Access Standards) states that improvements in health care access will be underpinned by continuous assessment, monitoring, and realigning of supply and demand. The assessment also states that most clinical settings do not take a sufficiently broad view of the

[47] Bharucha, F., & Oberlin, S. (2009, May). Governance Models among California Public Hospitals. California HealthCare Foundation. Retrieved from http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/G/PDF%20GovernanceModelsCAPublicHospitals.pdf/

[48] McCarthy, D. & Mueller, K. (October 2008). The Commonwealth Fund: Commission on a High Performing Health System. The New York City Health and Hospitals Corporation: Transforming a Public Safety Net Delivery System to Achieve Higher Performance. Issues Research, Inc.

[49] Kotter, J.P. & Cohen, D.S. (2002, November 26). The heart of change. *Harvard Business Review*.

various options to either increase supply or reduce demand, nor do they maintain the analytic capacity to observe, measure, and understand the dynamics involved. Without this information, patterns of variability will be unobserved, alternatives will go untapped, and a supply-demand mismatch—which is often unnecessary—will be inevitable and chronic.[50]

VA data and analytical systems face these challenges. In addition to the need for fundamental policy guidance, VA data systems and U.S. data collection efforts have limitations that hinder planners' ability to assess how demand for VA services might change over time. For example, there has not been a full accounting of the U.S. Veteran population since the 2000 Census. Current VA data collection systems do not assess detailed information on Veterans' health care conditions and health care utilization patterns. Data are often completely unavailable for Veterans who are not currently eligible or enrolled in VHA health programs. Additional data collection would be needed to fully understand Veterans' total health care needs, including use of care currently covered by private insurance or Medicaid.

Assessment A (Demographics) also suggests the importance of developing methods and models that respond with speed and agility to policy changes. Two existing VA models—the Enrollee Health Care Projection model and the Veteran Health Care Scenario Model—can be used to estimate, for instance, how changes in demographic characteristics or economic conditions may affect demand for VA services and related costs. Expanding these models to address changes in the civilian health sector, unanticipated changes in perceptions about health care quality, and groundbreaking new technologies will enable VA to address the types of uncertainties that current models may not address.[51]

Other assessments identify additional demand modeling requirements that would enhance health care provided to Veterans. These requirements would address challenges in facility planning and supply-chain management. These models could answer the need for an enterprise-wide, timely, population-based ambulatory appointment demand modeling capability to forecast appointment demand. They also could provide the basis for staffing models that justify the number of resources needed to meet patient access standards and to proactively identify and forecast staffing needs.

VHA should expand its utilization of dynamic simulation modeling. The fundamental premise of the application for dynamic simulation modeling in health care is that "health care delivery systems are inherently complex, consisting of multiple tiers of interdependent subsystems and processes that are adaptive to changes in the environment and behave in a nonlinear fashion."[52] Traditional analytical methods might neglect the wider health system impacts that can be critical for achieving desired health system goals. VHA leadership could underestimate or ignore the interactions among the leadership, governance, operations, and data and tools. The literature is beginning to highlight the increasing application of dynamic simulation

[50] This information was presented in Institute of Medicine Assessment D (Access Standards) in Volume II.

[51] This recommendation was derived from RAND Corporation Assessment A (Demographics) in Volume II.

[52] Marshall, D.A. et al. (2015, January). Applying dynamic simulation modeling methods in health care delivery research—The SIMULATE checklist: report of the ISPOR simulation modeling emerging good practices task force. *Value Health*. 18(1):5-16. doi: 10.1016/j.jval.2014.12.001

modeling methods to health care delivery systems. These tools enable the decision maker to better understand the dynamics and complexities of the system under analysis and the consequences, both intended and unintended, of recommended changes.

In summary, VHA should use predictive tools and dynamic simulation modeling to continually forecast local demand and underpin decisions addressing resource allocation. These patient-centered demand models should enable the management of resources to meet national, regional, and local variations in patient-centered demand.

Two examples of dynamic simulation modeling methods applied to health care delivery:

1) "The Mayo Clinic's Center for the Science of Health Care Delivery applied health care delivery systems thinking to predict the minimum number of beds needed to meet quality standards of care. The model incorporated assumptions about surgery growth and new patient recovery protocols, as well as smoothing surgery schedules and transferring long-stay patients from the ICU. The model predicted 30% lower bed supply requirements than did the traditional bed planning approach. System dynamics modeling was used for high-level planning of primary care staffing; allowing for 'what-if' scenarios to be evaluated, and showing projected access performance measures.
2) "The ReThink Health model simulates the behavior of a health system, tracking changes in health status, utilization, and costs and has been used to evaluate five different health reform policy proposals. The results demonstrated that certain options would improve health status but at higher cost and greater health care inequality. Other options were found to improve health status, reduce inequalities, and lower costs. Such divergent outcomes would be extremely difficult to anticipate or quantify without the aid of a simulation model."

Applying Dynamic Simulation Modeling Methods in Health Care Delivery Research—The SIMULATE Checklist

Clarify and simplify the rules for purchased care to provide the best value for the patients.[53] One of VHA's core responsibilities involves providing health care services to eligible Veterans. Although VHA has traditionally carried out its health care role primarily by operating a national network of hospitals and other facilities, the agency also administers a purchased-care function through which it pays for health care services from outside providers (sometimes referred to as purchased care or community care). VHA purchased care has evolved primarily to address situations in which VHA's direct-care resources are unable to offer needed services to Veterans. Although purchased care has accounted for only a small fraction of VHA's health care budget over the past decade, that fraction is growing. In the wake of the recent crises in access to care through VHA facilities, stakeholders and policy makers are revisiting the role and performance of VHA purchased care. Specifically, they are considering whether modifications to VHA's purchased-care approach might be desirable, given broader goals of expanding access to care,

[53] This information was presented in RAND Corporation Assessment C (Care Authorities) in Volume II.

enhancing trusted partnerships, and improving VHA operations to deliver seamless and integrated support for Veterans' health.

The purchased care landscape is already in the midst of a transformation. Numerous changes to VHA's authorities and mechanisms for purchasing care are being proposed, planned, or implemented. With so many facets of purchased care authorities and practice in flux, the full landscape of VHA purchase care is not just complicated, but dynamically so. Moreover, while the proposed policy changes aim at addressing many different problems and issues, their sheer multiplicity suggests the drawbacks of a piecemeal approach, absent a guiding orientation and strategy for VHA's purchased care enterprise as a whole. To enhance the availability of purchased care to the patient, VHA should:

- Develop a stronger management structure for purchased care and allocate responsibility and authority to the most appropriate levels. VHA purchased-care activities require improved program management, with responsibilities assigned to organizations at the appropriate level of VHA's administrative hierarchy.
- Establish an ongoing process for evaluating third-party administrator performance. VHA should also assess the adequacy of the provider networks, the efficiency of claims and other processes, and Veteran experiences with the programs.
- Develop clear and consistent guidance and training on VHA's authority to purchase care. Existing VHA guidance pertaining to purchased care is scattered, sometimes outdated, and inconsistent in setting clear standards, leaving local facilities to develop their own policies and procedures.
- Ensure that both new and existing purchased-care contracts with outside providers and third-party administrators include appropriate requirements for data sharing, quality-of-care reporting, and care coordination.

"Today we have seven different programs for providing community care. Each one has its own exclusions, each one has its own payment options. It's incredibly confusing."

Secretary Robert A. McDonald
House Veterans Affairs Committee Hearing on VA Health Care Budget

July 22, 2015

5 Operations

Finding 2: Uneven bureaucratic business operations and processes
Recommendation 2—OPERATIONS: Develop a patient-centered operations model that balances local autonomy with appropriate standardization and employs best practices for high-quality health care
Right size and reorient the VHA Central Office to focus on support to the field in its delivery of care to Veterans.
Fix substandard processes that impede the quality of care provided to the Veteran.
Design and implement a systematic approach to identify best practices and disseminate them appropriately across the enterprise.

CURRENT STATE

There is recognized variability in the execution of business operations across VHA. Many VA Medical Centers implement operations differently, resulting in widespread inconsistencies across the organization. Multiple assessments, including Assessments E (Workflow – Scheduling), F (Workflow – Clinical), G (Staffing/Productivity), I (Business Processes), and J (Supplies), found differing approaches to staff management, scheduling, quality measurement, documentation and coding, patient flow, performance management, claims, and purchased care. Multiple assessments also found support functions (e.g., HR, IT, and Contracting) that do not adequately meet the needs of the medical centers in the delivery of patient-centered care. In some cases, the lack of standardization and local variations contribute to the direct and negative impact on the overall Veteran experience and timely access to care. In 2014, the VA OIG reported that a lack of common business rules "has resulted in quality of care deficiencies."[54] In other cases, the assessments found local implementations and best practices that are creating positive outcomes (e.g., shorter length of time to hire); however, when process improvements occur at the local level, they are often not shared or do not scale across other facilities. These widely varying processes also highlight the complexity of the VHA system. Severe problems may manifest themselves at one facility, while another constantly receives tributes from Veterans and health care experts.

To operate effectively and provide the best care to Veterans, VHA needs to increase the empowerment of local leaders while simultaneously increasing the standardization of critical operations and processes. There is a need for greater support and flexibility for those providing care at the local level as well as a need for improved processes to more reliably support Veteran care across the system. Addressing these imperatives simultaneously is not simple. As one senior leader stated, "We can't figure out what to standardize...We tend to standardize everything and nothing at the same time." VHA needs an operating model that will encourage

[54] U.S. Department of Veterans Affairs. Office of Inspector General. (2014). Part II: Performance section. Major management priorities and challenges. Retrieved from: http://www.va.gov/oig/pubs/VAOIG-2014%20MMC.pdf

both standardization and the appropriate level of local autonomy, focusing on providing Veterans with high-quality health care.

Some observed areas in which the current VHA operating model does not support well-defined, consistent, and standard processes—causing variability in the system and possibly resulting in a negative Veteran experience—include the following:

- The length of the HR-directed hiring process for all VHA staff was cited as a challenge in 100 percent of 19 staffing workshops conducted by Assessment F (Workflow – Clinical). The VHA hiring timeline significantly exceeds private-sector benchmarks, affecting VHA's ability to fill vacancies on patient care teams. VHA targets 60 days from receiving a request for a job posting to making a tentative offer, but it does not include the steps needed and time required to make a final offer. Interviewees and workshop participants consistently reported that hiring exceeds the 60-day target, reaching approximately six months for most clinical occupations.
- As Assessment E (Workflow – Scheduling) found, many private-sector systems have adopted larger, more centralized scheduling call centers that have lower per-unit costs; put less stress on space-constrained care facilities; and are able to offer more coaching, training, and career options to schedulers. Some of these have resulted in significant improvements. Since 2008, for example, Cleveland Clinic's centralized scheduling call center has enabled a 28-percent decrease in abandoned calls, a decreased scheduling error rate, increased physician utilization of scheduling templates, and a 12-percent increase in the number of patient visits. That organization believes it was "able to capitalize on economies of scale," scale that should be available to VHA.[55] But VHA scheduling call centers, where they exist, are operated at the VAMC level to address local needs. These call centers are not tracked or coordinated on a national scale, and there is no centrally available information about VHA's scheduling call centers, including how many call centers exist, what functions they serve, or how many schedulers they employ. As one interviewee suggested, "It would be nice to know where else there are [scheduling] call centers and talk to them." Since these centers are not tracked or coordinated, there is no effort to share best practices. In response to a data call generated by Assessment E, the vast majority of schedulers operate in clinics with only a small percentage actually operating in what VHA considers call centers. The call centers that do exist tend to be fairly small, with a median size of 12 schedulers, compared to most private-sector health systems that have an average of 28 agents. In response to the same data call, VA facilities reported that the average speed of answer (ASA) was 79 seconds and the average abandonment rate was 11 percent. In comparison, average private hospital call centers achieve a 32-second ASA and a 5.15-percent abandonment

[55] Rodak, S. (2013, August 8). Cleveland Clinic's call center improves care access. *Becker's Hospital Review*. Retrieved from http://www.beckershospitalreview.com/capacity-management/cleveland-clinic-s-call-center-improves-care-access.html

rate.[56] On average, Veterans are waiting longer to reach a VHA scheduler and give up at a greater rate than private-industry patients.

- Assessment J (Supplies) indicates that the organizational structure of VA's supply chain enterprise is unduly complex and duplicative. VA and VHA both contain multiple organizations that play a role in managing VA's medical supply chain and, as a result, there are areas of overlap and tension between involved groups. There is a recognized stovepiped and fragmented structure with a lack of clarity on roles and responsibilities. VA's IT and data systems in the supply management area are also antiquated, not integrated, and they do not meet the needs of a modern health system. There are multiple instantiations of the underlying architecture for VA's clinical, procurement, and inventory management systems, each with its own product nomenclature and numbering system as well as extensive free-text entries. As a result, efficient and effective cross-site comparisons or regional and national rollups are not feasible. VA's current inventory management does not have a feedback loop that links inventory to product utilization, contracting, ordering, and vice versa. This prevents optimal use of the Medical Surgical Prime Vendor program and prohibits more effective volume-based national or regional contracts. VA has not taken full advantage of its scale or potential for product standardization to achieve optimal pricing and efficiency. An analysis of unit prices for facilities across two VISNs showed significant variation in price paid for identical items.[57] For example, the highest price paid for a commonly used disposable blood pressure cuff was more than twice the lowest price. An analysis of purchase order data shows that 38 percent of purchases are made on a government contract, with the remainder through open-market purchasing. VA's supply purchasing systems are not integrated with contract or pricing catalogs, requiring the buyer to research whether an item is on contract and, if so, through which contract a purchase should be made. Several buyers reported that they bypass this step and buy products through the channel that is most familiar and convenient rather than potentially exploiting new contracts and pricing arrangements. VA also has limited ability to monitor and drive compliance with contract requirements because the required data are not captured electronically. More than 60 percent of all clinical supply items do not have a contract number listed.[58] Finally, VA does not have a mechanism to identify products for which central contracts should be established.

Exacerbating these challenges is the recognition that, as Assessment L (Leadership) identifies, VHA Central Office (VHACO)—consisting of a series of individual, highly unintegrated program offices—does not yield the coordination and collaboration required to support the field in its delivery of care to Veterans and adequately address the variability in the system. VHACO has experienced dramatic growth in the number of program offices and staff over the past five years, with VHACO program office full-time equivalent (FTE) growth vastly outpacing the

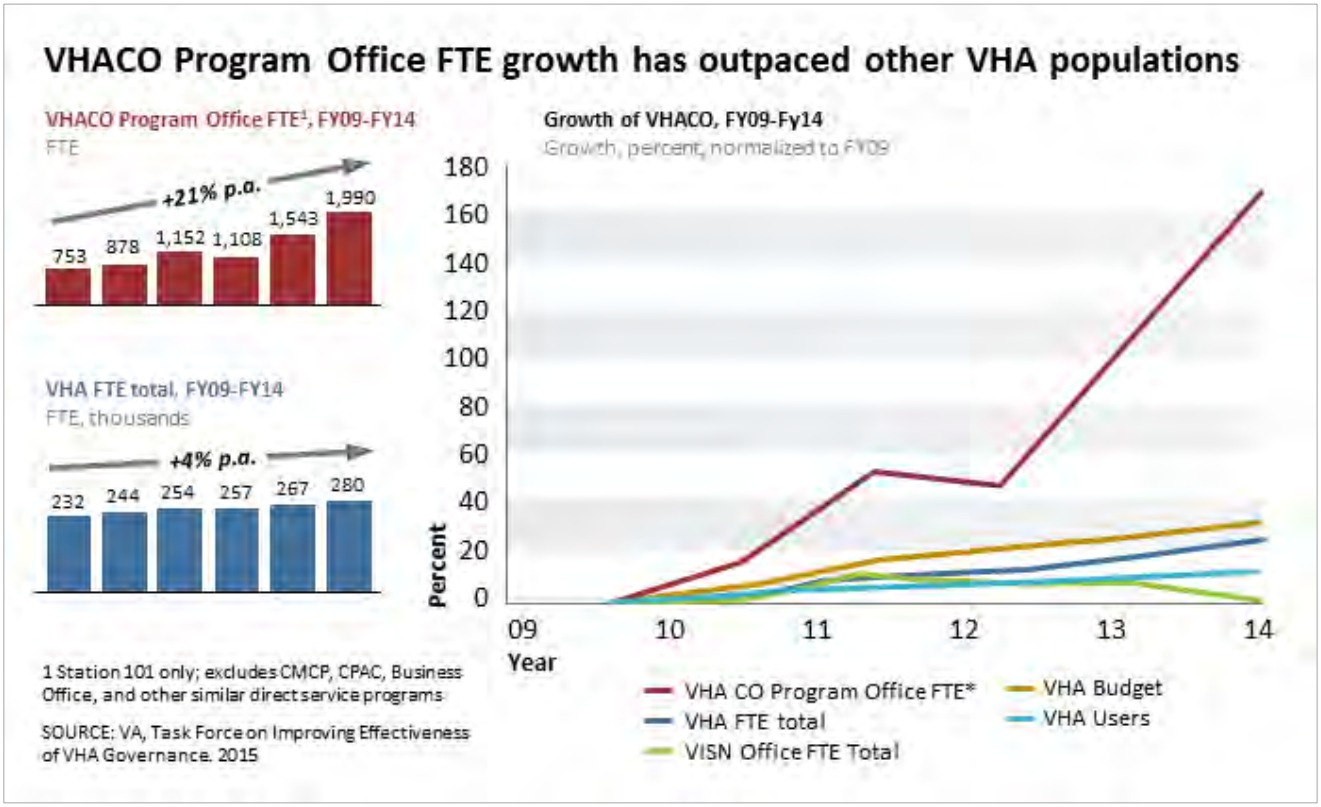
[56] Belfiore, B., et al. (2015, January 28). 41 KPI Industry Report: Health Care – Provider/Hospitals. BenchmarkPortal.com. Retrieved from http://www.BenchmarkPortal.com

[57] U S. Department of Veterans Affairs. (2014). IFCAP Purchase Data for Five VISNs.

[58] U.S. Department of Veterans Affairs. (2014). IFCAP Purchase Data for Five VISNs.

growth of total VHA employee population and Veterans served (Figure 6).[59] However, in spite of program office growth, there is little systematic effort to coordinate or integrate efforts and initiatives, and there has been no discernible improvement in business or health outcomes in VHA as a result of this growth.[60] Instead of alleviating the administrative burden on the field, the growth of VHACO has had the inverse effect, creating an environment where the field is serving VHA Central Office.

Figure 6. VHACO Program Office FTE Growth



Further, the Central Offices—VACO and VHACO—are not playing a key and necessary integrator role to help spread best practices across the organization. [61] While pockets of best practices and innovation exist, the assessments found the adoption of best practices to be isolated, sometimes even within the same facility. While in many cases local best practices and innovation are allowing specific VAMCs to maximize operational efficiency and positive Veteran experience, these best practices are not systematically shared and adopted across VAMCs.

[59] U.S. Department of Veterans Affairs (2015, February 28). Task Force on Improving Effectiveness of VHA Governance: Report to the VHA Under Secretary for Health.

[60] U.S. Department of Veterans Affairs (2015, February 28). Task Force on Improving Effectiveness of VHA Governance: Report to the VHA Under Secretary for Health.

[61] The information in this section is derived from McKinsey & Company Assessment L (Leadership) in Volume II

> "As best the Task Force could determine, the addition of new program offices occurred on the basis of ad hoc decisions by VHA leadership. There was no systematic review by an internal resource committee or by NLC [National Leadership Council] committees for which they were responsible and there was no systematic review to determine if they had been successful in improving organizational outcomes. Similarly, there was no process for systematically reviewing requests for additional [full-time equivalent] or resources for a given office. Finally, there was no process at the organizational level such as review by the collective senior VHA CO leadership, by the resource committee, or by the NLC itself for formulating clear recommendations on how much funding from the VHA budget was to be set aside for VHA CO program offices versus allocated to the field for providing direct care to Veterans."
>
> *Task Force on Improving Effectiveness Of VHA Governance: Report to the Under Secretary for Health*

As one previous assessment of VHA points out, "There is no mechanism for sharing scheduler tips and best practices for using the systems or to improve scheduling activities. Seasoned schedulers share their insight and lessons learned by word-of-mouth."[62] A recently published internal VHA report titled "Task Force on Improving Effectiveness of VHA Governance—Report to the VHA Under Secretary for Health" reached a similar conclusion. As that report suggests, "there has been little or no ongoing effort to share best practices or standardize procedures among either VHACO program offices or VISN offices."[63]

RECOMMENDATIONS

- Right size and reorient the VHA Central Office to focus on support to the field in its delivery of care to Veterans.
- Fix substandard processes that impede the quality of care provided to the Veteran.
- Design and implement a systematic approach to identify best practices and disseminate them appropriately across the enterprise.

> "I'm shameless about stealing what works at other places. The problem is, I don't know what other places are doing. We need a way to connect, to learn from each other."
>
> *Associate Director of Patient Care Services*

[62] Northern Virginia Technology Council. (2014, October 29). Opportunities to improve the scheduling of medical exams for America's veterans: A report based on a review of VA's scheduling practices by the Northern Virginia Technology Council (NVTC). Retrieved from http://www.va.gov/opa/choiceact/documents/NVTCFinalReporttoVA-revised3.pdf

[63] U.S. Department of Veterans Affairs. (2015, February 28). Task Force on Improving Effectiveness of VHA Governance: Report to the VHA Under Secretary for Health.

Right size and reorient the VHA Central Office to focus on support to the field in its delivery of care to Veterans.[64] As Assessment L (Leadership) concludes, VHA should adjust the balance of control and empowerment across all levels of the organization by clarifying decision rights, offering greater role clarity, empowering leaders, and encouraging appropriate risk taking. VHA should refocus the role of VHA Central Office to managing outcomes and providing support to the field. Specifically, VHA should clarify the roles and responsibilities of each major operating unit: VHACO, VISNs, VAMCs, community-based outpatient clinics (CBOCs), and other organizational units. Once this clarification is achieved, the VHA Central Office should focus on enhancing collaboration, supporting resource prioritization, executing certain centralized functions, ensuring alignment with strategic direction, and, most importantly, supporting the field. The intent of this is to move from a series of individual program offices issuing independent directives and action items, with few mechanisms to encourage coordination, to a much smaller number of coordinated primary strategic priorities, or lines of business, around which supporting program offices would be organized and through which supporting program office work would be conducted.

> "Program offices should be a consultancy—a small group of people. There should be more oversight of the Program Offices, because there are turf issues that leave the Field constantly answering to everyone."
>
> *VHACO Leader*

In addition, VHA should:

- Reassess all VHA Central Office-directed metrics and policies to ensure that they add sufficient value to patient outcomes and eliminate those that do not.
- Release process guidance on a regular and routine schedule to medical centers to enhance coordination and to minimize the disruptive effect of new, frequent, and duplicative directives on existing guidance.
- Create policy communication standards that require that any new policy includes a clear rationale tied to desired outcomes, recommended approach, suggested local implementation plan, and sufficient time to implement.
- Increase alignment and coordination between the offices responsible for policy and the offices responsible for operations by actively eliminating the "artificial distinction between policy and ops"[65] that exists today.
- Clarify the decision rights of VACO, VHACO, VISN, and the Medical Center, to include clearly articulating decision rights by level, organization, and role and standardizing where appropriate while allowing for local flexibility based on local needs.
- Define the role and responsibilities of the VISN (or any other local structures being considered), the balance between empowerment and support of medical facilities, and

[64] The information in this section is derived from McKinsey & Company Assessment L (Leadership) in Volume II.

[65] (2015). Choice Act assessment interviews with VHA.

the VISN role in coordinating, translating, communicating, and innovating across the system.

- Coordinate with VACO to select a chief information officer (CIO) for VHA to identify and advocate for health IT needs and to measure the value of IT services and capabilities for health care.
- Implement a more participative management approach that engages leadership at all levels in analyzing problems, developing strategies, implementing solutions, and measuring and tracking outcomes. Doing so would create a greater sense of ownership in VHA; instill a sense of commitment, safety, and pride among VHA leaders; create more receptive conditions for implementing change across the organization; and serve as a breeding ground for future leaders. In addition, as one journal suggests, "creativity and innovation are two important benefits of participative management."[66]

Fix substandard processes that currently impede the quality of care provided to the Veteran. The independent assessments provide substantive and detailed recommendations to address many of the operational challenges that impact VHA's ability to provide timely and consistent patient-centric health care. At an overarching level, VHA needs an operating model that provides medical centers with the autonomy and flexibility to innovate and address local needs while also providing standardization across the system to allow for more consistent and efficient delivery of Veteran care. As one VHA senior leader stated, "We need to identify key business processes that have to be standardized, such as scheduling, and standardize those things ruthlessly. We need fidelity in the system to run the business."

In addition to the need for more consistent and efficient key processes, findings support the need for a fundamental overhaul of the core support functions of HR, IT, and Contracting to increase responsiveness and efficiency and improve customer service. These functions should be aligned with the needs of the VHA organizations delivering care to Veterans and hold those organizations accountable to outcome-based metrics to enable timely and effective care. This is consistent with the recent guidance from the Office of Management and Budget (OMB) in response to the Federal Information Technology Information Reform Act (FITARA), which enhances agency CIO authority while requiring that officer to focus on and be explicitly accountable for assuring that agency IT resources support agency mission and programs (i.e., are aligned with requirements of VHA mission and programs). While the scope of the existing statutory provisions address IT, the intent can be extended to other support functions (e.g., Contracting, HR).[67]

The department has already taken some action to address the current deficiencies in VA support functions. MyVA established as one of its five focus areas "Achieving Support Service Excellence," with a stated mission to "optimize the organization, functions, and activities of VA's core support functions that focus on delivery of world-class services to VA facilities and

[66] McMillan, A. (n.d.). Participative management. [Website]. Reference for Business. Retrieved from http://www.referenceforbusiness.com/management/Or-Pr/Participative-Management.html

[67] For more information on FITARA, see The MITRE Corporation Assessment H (Health Information Technology) in Volume II.

organizations that directly serve Veterans." The assessments' findings and recommendations support the following aspects of the "vision of the future" for VA support services as stated in the MyVA Transformational Plan:

- A collaborative process that produces clear business requirements and processes as well as accountable service-level agreements (SLAs) for support services.
- Integrated contracting and supply-chain activities that directly support delivery of Veteran outcomes.
- HR functions aligned to support facility directors with timely hiring, benefits, and employee relations.
- Fully integrated VA-wide information capabilities, supported by IT operational capabilities optimized to meet expectations at point of service.[68]

Design and implement a systematic approach to identify best practices and disseminate them appropriately across the enterprise. To improve overall operational performance, VHA must create a systematic way to identify, share, and scale the solutions and best practices achieved by its top performers and those of other organizations. Coordinated reviews and assessments of identified best practices should be conducted to determine if the practices are scalable across the organization. The VHA Central Office should provide strategic guidance and should support establishing and implementing the approach. It would then be an appropriate role of the VISN to lead the best-practice identification and to share ideas within and across the enterprise, working collaboratively with VAMC leaders and staff. A clear example of the impact of such an approach was observed in VISN 4 as described in Figure 7.

While VHA has numerous assets in place to identify and spread innovation and best practices, these resources have not taken hold. VHA's current culture and organizational structure, which allows for differing VISN business models, do not support standardization or effectively leveraging best practices on an enterprise basis. VHA should strive to standardize when it can and enable variation and innovation when it should. The National Leadership Council, or another identified advisory board, must be empowered by senior leadership to systematically review and consider which best-practice assets support and align to strategic outcomes such as Veteran satisfaction and access. In performing this review, the advisory board should consider the following:

- Integrating best practices with performance management and encouraging collaboration across VAMCs; those medical centers that are not performing as well as others should be encouraged to adjust their processes by leveraging others' approaches.
- Developing an implementation strategy that migrates best practices from high-performing to lower performing facilities.

[68] U.S. Department of Veterans Affairs. (2015, April 14–15). MyVA Advisory Committee: Inaugural meeting [PowerPoint slides].

- Evaluating the current use and efficacy of the Virtual Learning Center (VA's current online database with shared innovations, best practices, and lessons learned from VAMCs and CBOCs) for capturing and disseminating best practices.
- Developing criteria for rationalizing the best practices that should be performed at a local versus regional or enterprise level. For example, where national economies of scale can be achieved versus where local issues (e.g., demographics) prohibit broader application.

The above recommendations recognize that the best practices found in one facility or VISN will be an excellent source of inspiration and guidance for their peers, but it is important not to expect every best practice to be equally effective or implemented exactly the same way in every location.

Figure 7. VISN 4 Best Practices

This page intentionally left blank.

6 Data and Tools

Finding 3: Non-integrated variations in clinical and business data and tools
Recommendation 3—DATA and TOOLS: Develop and deploy a standardized and common set of data and tools for transparency, learning, and evidence-based decisions
Use standardized clinical and administrative data for accuracy and interoperability.
Implement a single, integrated set of system-wide tools centered on a common electronic health record (EHR) that is interoperable across VHA and with DoD and community provider systems.
Transparently share performance metrics for leadership, clinical, and business functions across VHA to identify and adopt best practices for continuous improvement.

CURRENT STATE

Multiple assessment efforts identified challenges in collecting, managing, and effectively using data:

- A lack of standard, interoperable enterprise VHA systems and tools negatively impacts VHA's operations and resulting data.
- The quality of data and multitude of metrics limit VHA's overall performance and continuous improvement efforts.
- VHA lacks a holistic, enterprise approach to managing, collecting, and leveraging its data.

In addition, Assessment H (Health Information Technology) identified several key challenges in VA's use of information technology. Inadequate collaboration between VA's centralized IT organization and VHA has precluded the implementation of capabilities that support VHA health care needs. Due to excessive project management overhead, a complex legacy IT infrastructure that is difficult to modernize, and more than 130 variations of the primary software system deployed across VHA medical facilities, the implementation of improved IT capabilities in the last 10 years has been extremely limited. During that time frame, VA applied the majority of its development resources to HealtheVet and the integrated EHR (iEHR) projects, both of which failed to provide the expected results. This delayed further development and improvement of VistA and CPRS so that they are no longer leading-edge products and are in danger of becoming obsolete. Scheduling, telephone, and billing systems have stagnated, and there is no strategy and roadmap for scheduling initiatives across VA that integrates Veteran access to scheduling via phone, telehealth, and mobile apps. Inconsistent and ineffective data collection across VA medical facilities has prevented evidence-based assessments that would inform capability improvements. VA is falling significantly behind the private sector in using data to improve all aspects of Veterans health care.

Enterprise Data: VHA's operational environment is plagued by a significant level of fragmentation and a lack of standards. Data aggregation across the entire VA system is problematic when each system either lacks standards or conforms to different, local data

standards.[69] This constrains VHA's ability to recognize organizational trends, identify best practices, and assess the effectiveness of health care delivery services across the entire VHA system. Efforts to access data in support of these assessments illustrated some of the issues plaguing the operational environment. Several data discrepancies and data quality issues were noted. Some data routinely maintained by other health care systems were simply not available.[70] Three different VHA sources had to be accessed to obtain lab data. Each source resulted in a different answer, and various groups within VHA did not know how to reconcile these three sources or which source provided the most accurate information.[71]

The impact of these enterprise data issues was evident across various assessments.

- VHA maintains several different systems to manage access and flow; however, a lack of integration across systems, inconsistent methods for tracking data, and gaps in key flow metrics results in highly variable, non-actionable demand and capacity data. While the National Bed Control Database showed that 81 percent of one VAMC's inpatient beds were operational, that facility reported that only 51 percent of its beds were available for patients due to unreported staffing and construction-related bed closures.[72]
- Systems limitations often demand manual processes that can obviously reduce the timeliness and accuracy of data and obscure the true state of VHA's activities. In FY2014, 28.6 percent of claims for non-VHA-provided care were submitted via Electronic Data Interchange, versus a 94-percent benchmark for commercial claims in civilian practice.[73] Significantly relying on manual processes slows collections and payments activities and introduces errors and waste into the process.
- There is a lack of quality, system-wide data for developing predictive models to prospectively match provider availability with patient needs.[74] Such models are built on important inputs (such as aggregated views of provider availability) and allow

> "Greater issue is lack of standardization of code sets. One aspect of data standardization is in lab tests—any given site may name it any number of ways, ex. hemoglobin tests. That site may know what it means. When you roll it up nationally—have a lot of variability. Reference ranges can be different. Different sites use different lab instances."
>
> *Office of Informatics and Analytics Leader*

[69] This information is presented in The MITRE Corporation Assessment H (Health Information Technology) in Volume II.

[70] This information is presented in McKinsey & Company Assessment F (Workflow – Clinical) in Volume II.

[71] Decision Support System Lab data sets, Medical Statistical Analysis System data sets, and Corporate Data Warehouse inpatient and outpatient sources.

[72] This information is presented in McKinsey & Company Assessment F (Workflow – Clinical) in Volume II.

[73] This information is presented in Grant Thornton Assessment I (Business Processes) in Volume II.

[74] This information is presented in McKinsey & Company Assessment E (Workflow – Scheduling) in Volume II.

for important activities, including assessing the likelihood of patients missing appointments (so that they can be targeted for more proactive individualized appointment reminders or other interventions to increase likelihood of appointment completion); aggregated views of provider availability; and facility-centralized patient reminder systems across multiple modalities. Thus, this lack of data and data management systems compromises the ability to maximize provider availability for treating patients.

- Measuring each health care provider's productivity is challenged by several issues. First, while work Relative Value Units (wRVU) are "the current tool for physician productivity measurement in the clinical arena, a more complete productivity measurement would capture the sum total of a physician's contribution."[75] For example, the wRVU does not reflect patient satisfaction with the encounter or the provider's effectiveness in improving the patient's health outcomes. The accuracy of productivity, when measured by wRVUs, is dependent on accurate and thorough coding and documentation practices; during site visits, assessment teams observed a general lack of local infrastructure to assist providers and nurses in accurately and comprehensively documenting all encounters. [76] VHA does not capture FTE-level information for its fee-based care providers, which limits its ability to systematically track fee-based provider productivity. The proportion of clinical workload generated by fee-based physicians represents 13 percent of all physician workload and may be higher at smaller facilities where fee-based providers can be a greater proportion of specialty care provided. VHA uses multiple standards to measure its primary care panel size that rely on local interpretations of policy and a range of situational factors (for example, whether the panel is a specialized panel such as geriatric or home-based primary care, and adjustments for new providers based on start dates).
- VHA also lacks the data governance to define and implement standards and business rules to ensure consistent data definition, integrity, and documentation. During the course of our assessments, documentation related to VHA's data also presented issues. Dozens of sources of documentation describing the various types of data are scattered throughout VHA. This requires analysts to sift through many different intranet sites and encounter totally different documentation styles with varying levels of usefulness.

Enterprise Tools: Discussions with industry executives identified a number of system capabilities that are essential to operating a high-performing health care system, to include a common electronic health record (EHR) and tools that enable scheduling, billing, claims payment, and patient-centered navigational tools.[77] Standardizing these capabilities and implementing them at an enterprise level results in information and care continuity, cost

[75] Reddy, V. Seenu & Johnston, Ben. (2012). Surgeon productivity: are RVUs the end all, be all? The Society of Thoracic Surgeons. Retrieved from http://www.sts.org/news/practice-management-pearls-surgeon-productivity-are-rvus-end-all-be-all

[76] This information is presented in Grant Thornton Assessment G (Staffing/Productivity) in Volume II.

[77] Several health executives also highlighted the need for an Electronic Medical Library (EML) that includes a single set of clinical care protocols. VHA's EML was not assessed as part of this effort.

savings, and consistent care delivery and business processes. The strategy should be standard across the enterprise wherever and whenever possible, and vary locally when needed. The timely and accurate enterprise data produced through these system capabilities are of particular importance as they provide the means to optimize the overall performance of the health care system. In addition, the potential of dynamic simulation modeling to underpin decisions enabling the delivery of health care is increasingly being realized and should be exploited. Our findings related to each of these important components is discussed below.

- **Electronic Health Record**: An EHR represents the core of VHA's VistA system. As outlined in Assessment H (Health Information Technology), customized implementations of VistA at the VAMC level that do not all employ standard data elements and algorithms has resulted in approximately 130 instances of VistA across VHA, leading to a complex, heterogeneous mix of hardware and software, which impedes developing and deploying system changes and new capabilities and raises operations and maintenance (O&M) costs. Those instances are not well documented, further complicating efforts to upgrade and maintain the system and to conduct end-to-end testing outside of the operational environment. VHA's EHR issues stymie interoperability between VHA facilities as well as with DoD and non-VA providers. Multiple assessments noted the lack of interoperability resulted in incomplete patient records with potentially significant implications for the Veteran and VHA. This is not a trivial issue, and multiple solutions have been attempted over the last several years without success. Nevertheless, it remains a crucial issue. Incomplete records introduce unnecessary clinical risk, complicate the transition from DoD to VHA care, and inhibit VHA's ability to bill and collect revenue accurately and timely.[78]
- **Scheduling**: VistA is also VHA's primary scheduling tool. As highlighted in Assessment E (Workflow – Scheduling), VHA scheduling tools do not provide facility staff with the capability to effectively match patient requirements to provider availability. In addition, the tools do not provide information that allows clinic management to improve scheduling performance. For example, because providers operate across multiple and sometimes overlapping clinic schedules, also known as "profiles," calculations of aggregate appointment slot supply and therefore appointment slot utilization rates are not always correct in clinic access reports. VHA has created additional operational processes to address the recognized state of imbalance for supply and demand for appointments. Essentially, staff had to employ additional processes to work around system limitations. Current processes and infrastructure concerning the scheduling systems reduce the ability of clinics to maximize the use of provider time.
- **Billing**: Assessment I (Business Processes) noted significant shortcomings in the systems and tools supporting VHA's billing and collections activities. Technical capabilities typically seen in private health care systems are lacking or absent in VHA. For example,

[78] On July 29, 2015, the Department of Defense awarded a contract to a commercial team for "an electronic health record off-the-shelf solution, integration activities and deployment across the Military Health System." See http://www.defense.gov/News/Contracts.

automated tools for providing real-time estimates of out-of-pocket expenses, electronic submission of Veteran payment plan forms, and automated first-party claims matching do not exist at VHA. In addition, Assessment I lists more than 10 systems and tools used to support VHA's billing process. Lack of integration and interoperability between billing systems and tools (e.g., VistA and Nuance) slow billing activities and introduce potential errors in data as staff are required to enter redundant data into different systems. In fact, VA billing staff are manually reviewing 100 percent of claims subsequent to automated claim edits. This manual process is typically limited to 10–20 percent for industry.

- **Claims Payment**: VHA's claims payment activities are similarly burdened by lack of automation, multiple systems that are not integrated, and a significant amount of manual work. Specifically, automation is lacking in VHA's primary claims system, Fee Basis Claims System (FBCS), requiring VHA staff to scan the majority of the paper claims into FBCS and manually adjudicate claims. In addition, non-VA providers do not have visibility into the status of their claims. FBCS does not support certain types of claims for non-VA care, and these claims must be processed through VistA. Overall, the high reliance on manual processes slows payments activities, introduces potential errors (e.g., lost claims and misrouting of claims), and introduces waste into the process (e.g., providers filing duplicate claims due to delays in payment and a lack of easy visibility into their status). In addition, such reliance on these manual processes reduces the timeliness and accuracy of data and obscures the true state of VHA's financial activities.

> "As a service-disabled Veteran, I know first-hand the challenges women face during military service and when they return home. I, like many women who served, did not understand on leaving military service the benefits and services to which I was entitled, despite the fact that I suffered an injury during my service as an Army medic."
>
> *Disabled American Veterans Deputy National Legislative Director Before the Committee on Veterans' Affairs*
>
> *U.S. House of Representatives*
>
> *April 30, 2015*

- **Patient-Centered Navigational Tools**: The *Voices of Veterans* report, published by VA's Center for Innovation in November 2014, lists two of its key themes as "Many Veterans don't know what benefits are available to them, or how to access them" and "Utilizing VA

> "Almost everything I find out is either from another Vet or by accident."
>
> *2014 Wounded Warrior Project Survey Report of Findings*

technology has severe limitations with some bright spots."[79] The benefits available to the Veteran can be complex and difficult to understand. Making matters worse, the current suite of options and the navigational tools to explore available benefit options have proven challenging. Data presented by the MyVA initiative provide some perspective on the magnitude of this challenge, identifying more than 1,000 VA websites and more than 900 1-800 numbers. Further, Assessment A (Demographics) found that "among respondents of the National Survey of Veterans who report not using VA services, 12.4 percent (1.8 million) report that the barriers to access are a reason for non-use. If these obstacles are addressed, that assessment estimates that an additional 492,000 new patients will use VA for some of their health care needs."[80]

Metrics for Performance Management: VHA lacks a clear strategy to effectively apply its data and metrics to performance improvements, including distilling and prioritizing metrics to drive patient-centered outcomes. As Assessment B (Health Care Capabilities) notes, VHA has more than 500 quality measures to monitor quality of care regionally and locally, concluding that the proliferation of measures creates burdens on staff and resources and can lead to an emphasis on the measures rather than improving areas of care that are more likely to improve patient outcomes. One VACO leader stated, "Our problem is that we're awash in data and don't do anything with it."

The Centers for Medicare & Medicaid Services defines quality measures as "tools that help us measure or quantify healthcare processes, outcomes, patient perceptions, and organizational structure and/or systems that are associated with the ability to provide high-quality health care and/or that relate to one or more quality goals for health care. These goals include: effective, safe, efficient, patient-centered, equitable, and timely care."[81] Among quality metrics, only a subset should be considered performance measures—those quality metrics with attributes rendering them suitable for explicit comparisons of care between institutions or health care providers.[82] Rather than adopting the practice of many high-performing health care systems—where targets are balanced in support of the mission, and a limited number of key metrics are used to measure performance and drive outcomes—VHA has adopted a catch-all approach to performance management. As Assessment L (Leadership) notes, with 382 measures today in its 10-N National Performance Measures Report provided by interviewees, VHA is not setting clear, actionable organizational targets (10N NPRM, 2015). Further, there is widespread recognition of the overabundance of metrics and the need to simplify, with one VAMC director

[79] U.S. Department of Veterans Affairs. Center for Innovation. (2014, November). *Voices of Veterans: Introducing personas to better understand our customers - Findings report*. Retrieved from http://www.innovation.va.gov/docs/Voices_Of_Veterans_11_12_4.pdf

[80] This information is presented in RAND Corporation Assessment A (Demographics) in Volume II.

[81] Centers for Medicare & Medicaid Services. (2015, April 17). Quality measures. [Website]. Retrieved from https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/index.html?redirect=/QualityMeasures/03_ElectronicSpecifications.asp

[82] Bonow, R. et al. (2008, December 9). ACC/AHA Classification of Care Metrics: Performance Measures and Quality Metrics. *Journal of the American College of Cardiology 52*(24), 2113–2117. doi: 10.1016/j.jacc.2008.10.014

describing his perception of VHA's approach to setting performance measures as, "If 50 metrics are good, 100 must be better."

Ironically, the sheer number of performance measures and the limitations of the current performance management process make effectively tracking performance difficult. One of the VISN's roles is to ensure that performance targets are negotiated with VHACO and are being met at the VAMC level. This leads to regularly scheduled meetings with VAMC leadership to review binders of performance reports and requests for detailed corrective action plans when a measure needs improvement. These progress reviews generally focus on the weakest performance measures, contributing to a commonly held perception that metrics are used to identify weak performers rather than to help drive performance excellence.[83]

> "Moving away from blame allows an organization to learn from mistakes and conduct systematic improvement efforts based on that knowledge."
>
> *Bringing a Systems Approach to Health*

This emphasis on those not meeting performance targets extends to reviews conducted by multiple internal and external organizations. The bureaucratic and highly politicized environment within which VHA operates has led to a dramatic increase in the number of assessments, administrative investigation boards, and root cause analyses of VAMC performance. This focus has led many of those interviewed to describe VHA's culture as "punitive" rather than constructive or incentivizing. While understanding where VAMCs are not working well is important, this focus on poor performers is limiting from a systems perspective because it does not expose the systemic findings or potential solutions. It is equally important to understand where things are going well and the lessons that can be drawn from those high-performing sites, where successful systematic improvements and best practices are taking place.

RECOMMENDATIONS

- Use standardized clinical and administrative data for accuracy and interoperability.
- Implement a single, integrated set of system-wide tools centered on a common EHR that is interoperable across VHA and with DoD and community providers.
- Transparently share performance metrics for leadership, clinical, and business functions across VHA to identify and adopt best practices for continuous improvement.

Use standardized clinical and administrative data for accuracy and interoperability. VHA must take a more comprehensive approach toward managing its data. A key prerequisite for an effective data management strategy is clarifying the demand expectations to inform the direction and priorities of the data strategy. With that direction in place, VHA's data management strategy should include:

[83] This information is presented in McKinsey & Company Assessment L (Leadership) in Volume II.

- Identifying, rationalizing, and prioritizing VHA's data needs and uses enabled by common definitions and document templates
- Identifying the internal and external data sources and analytical products required to address these needs and assessing the sources and analytical products relative to users' requirements (timeliness, accuracy, completeness, volume)
- Implementing more formal management structures and tools to bring control to VHA's data environment (governance, standards, documentation repositories)
- Identifying potential resources to support the effort (budget, staff, tools)
- Defining an implementation strategy that sets a realistic path toward improving VHA's data environment—acknowledging and working within VHA's current challenges (existing issues with enterprise data).

Implement a single, integrated set of system-wide tools centered on a common electronic health record (EHR) that is interoperable across VHA and with DoD and community providers. Specifically, VHA should implement one-system wide:

- EHR system that is interoperable across the entire system and with DoD and community provider systems, beginning with a cost-versus-benefit analysis performed by VHA between a commercial off-the-shelf (COTS) EHR and the current VistA EHR
- Electronic claims payment system to pay for outside services
- Billing system to collect from other payers
- Patient-friendly scheduling system with modern, single toll-free-number call-center support
- Set of electronic decision support tools describing standard work housed in an electronic medical library.

Along with standardizing VHA processes as discussed in Section 5, a single, integrated set of common system-wide tools centered on an EHR will substantially help address the above issues. In addition, well-designed and developed systems and tools will help VHA enforce and automate business rules, allowing for greater process standardization and reducing variation across VHA. The VA and VHA CIOs should transform the VA IT strategy to a model based on best practices for enterprise IT services that will provide the capabilities that support improved governance, operations, leadership, health care quality, and patient satisfaction. VHA should consider the following recommendations:

- **In partnership with the VA CIO, the VHA CIO should oversee a comprehensive cost-versus-benefit analysis between a COTS EHR and continued in-house custom development of the VistA EHR currently in use**. As Assessment H (Health Information Technology) noted, the analysis should take into account all the complexities of the VistA and CPRS architecture and infrastructure and known issues with performance, scalability, extensibility, interoperability, and security. It should also address full life-cycle costs, including development time (based on recent delivery trends), availability of development resources, maintenance and licensing costs, and infrastructure costs. The VA and VHA CIOs should conduct site visits and review the successful IT practices

implemented at high-performing health care organizations (including VISN 4) to inform their strategies for effective approaches and potential contributions that IT can provide to improve the treatment of Veterans today. Those approaches would address the challenge of providing billing and claims processing capabilities beyond what the existing VistA and CPRS currently provide.

- **Focus on automation, integration, and interoperability for billing and claims.** As outlined in Assessment I (Business Processes), VHA initiated its Health Care Payment System (HCPS) as a replacement for FCBS to serve as VHA's centralized claims processing system and to address many of the issues outlined above. The system is approximately two-thirds complete; however, further development has been stalled by funding issues. VHA should resolve the HCPS funding issue to ensure that this needed functionality is delivered. An effort similar to HCPS is also necessary for VHA's billing process. Assessment I identifies a number of specific capabilities required for VHA's billing system, such as integration across patient intake, medical records, coding, and billing systems; single sign-on capability; automated first-party claims matching; real-time estimate of out-of-pocket patient expenses; and automation to support algorithmic edits and claims correction.
- **Align patient-centered navigation efforts to the MyVA initiative**. In November 2014, VA announced the MyVA initiative to reorganize VA to better serve its Veterans. As stated by Secretary McDonald, "The reorganization, to be known as 'MyVA,' is designed to provide veterans with 'a seamless, integrated and responsive customer service experience—whether they arrive at VA digitally, by phone or in person.'"[84] Central to this theme is enhancing the Veteran experience, approaching the Veteran holistically (e.g., as one VA organization versus three administrations, independent of the channel used) and simplifying and facilitating their use of VA services. From a technology perspective, VHA currently supports its Veterans through a variety of channels, including kiosks located at facilities, call centers, web portals such as My HealtheVet, and mobile applications. VHA must identify and review the tools and channels used to support its Veterans and determine how these tools align with the MyVA initiatives and principles. Based on this assessment, VHA may need to drop, enhance, or expand VHA systems and tools or potentially adopt systems and tools being developed as a part of MyVA.

Transparently share performance metrics for leadership, clinical, and business functions across VHA to identify and adopt best practices for continuous improvement. VHA lacks a clear strategy for its performance measures.[85] As with its enterprise data management strategy, VHA must align its performance management strategy with its clarified mission. As VHA clarifies and focuses its mission, VHA must revisit its performance management approach to ensure that metrics are strategically aligned to the organization's outcomes and that timely and accurate

[84] Daly, M. (2014, November 10). VA announces "MyVA" plan, largest reorganization in department's history. PBS. Retrieved from http://www.pbs.org/newshour/rundown/va-announces-myva-plan-largest-reorganization-departments-history

[85] These recommendations are derived from McKinsey & Company Assessment L (Leadership) and several other assessments.

data are available to support those metrics. VHA should consider the following in its performance management strategy:

- Focus and simplify metrics to clarify accountability and mission alignment. VHA should develop an integrated and balanced performance scorecard for VAMCs, focusing on a smaller number of core metrics that roll up to support the broader enterprise view. These metrics should focus on the mission, encourage cross-functional collaboration, and be carefully cascaded. This requires eliminating obsolete metrics while continuing to exploit the progress achieved with the Strategic Analytics for Improvement and Learning (SAIL) initiative.
- Evolve performance management along with enterprise data improvements. Given current data limitations, an effective performance management system will be limited in its ability to support leadership. Performance management relies on data that is trusted by those being measured. As the timeliness, accuracy, and consistency of VHA's data evolves, so can VHA's performance measures.
- Monitor the impact of the performance management strategy and the behaviors it promotes. Unrealistic performance targets may disengage staff or worse—they could result in unintended consequences or undesirable behaviors. At the high-performing health care systems that were visited, the use of performance management metrics that were aggressive and frequently not being met was discussed. Rather than apply punitive measures, these health care systems focused on achieving an overall trend in increasing organizational performance or operations within a specific range. The organizational performance metrics also served as an effective means of identifying those best practices that were enabling these organizations to demonstrate continuous improvement.

> "Performance goes down when there are more measures. We need to get away from the spreadsheet and closer to the action. Facilities need coaches—not just shaking a finger and saying, 'Can't miss this.'"
>
> *VHACO Leader*

- Review industry standards to provide further transparency. Ultimately, VHA is responsible to the Veterans it serves and the public that funds its operations. In developing its performance management approach, VHA must also consider how it can further its accountability and transparency. VHA's SAIL data are a positive start, as they do align with nationally accepted metrics that provide for facility-level, industry comparisons. However, VHA must go further and should review industry benchmarks with the intent of more fully aligning its metrics with industry standards. This would provide greater transparency and would highlight opportunities to adopt industry best practices.

7 Leadership[86]

Finding 4: Leaders are not fully empowered due to lack of clear authority, priorities, and roles
Recommendation 4—LEADERSHIP: Stabilize, grow, and empower leaders; galvanize them around clear priorities; and build a healthy culture of collaboration, ownership and accountability
Push decision rights, authorities, and responsibilities to the lowest appropriate level throughout the organization.
Build on Veteran-centered behaviors to drive a culture of service excellence, trust, continuous improvement, and healthy accountability.
Revitalize the leadership pipeline through establishment of enterprise-wide, comprehensive succession management and leadership development functions.
Strengthen the appeal of senior leadership positions by pursuing flexibilities in hiring and compensation.
Establish sustained leadership continuity by extending tenure for key positions.

CURRENT STATE

VHA is in the midst of a leadership crisis. Through the course of more than 300 leadership-focused interviews and the analysis of multiple employee survey instruments, Assessment L (Leadership) developed a picture of an environment that is challenging and disempowering for current leaders. (A full treatment of VHA's leadership issues is provided in Assessment L.) This environment discourages emerging leaders from seeking promotion within the system. And while there are many resilient leaders working to make a positive impact on our nation's Veterans, they too often achieve desired outcomes despite the challenges of the system within which they operate. The VA staff assessment of their work environment is reflected in the federal government's "Best Places to Work Survey." Since 2010, both VA and VHA have scored lower than the large agency median and both received particularly low ratings in 2014 during the height of the scheduling crisis. Consider the following:

Mission: The lack of clarity of mission expectations, as discussed in Section 4, has resulted in confusion around leadership priorities and VHA's strategic direction. As one VHACO leader expressed, "We need to first figure out what business we want to be in…[and] choose leaders specifically for the need, change, strategy [we've] decided on." Clarifying the mission and expectations serves as a precursor to many critical leadership decisions.

Misaligned Accountability and Authority: VAMC leaders clearly understand that they are accountable for every aspect of a Medical Center as experienced by patients, employees,

[86] The information in this section is drawn primarily from McKinsey & Company Assessment L (Leadership) in Volume II.

oversight entities, and external stakeholders; however, they do not feel they have the authority required to fully perform their role in the current environment. A standard VA Medical Center Director position description includes the provision that a Director "operates on a broad delegation of authority with independence of action to manage the Medical Center."[87] In both perception and practice, however, this written expectation of delegated authority does not match reality; instead, it is replaced by a fragmented environment with numerous internal and external entities possessing or competing for control. Internally, the VHA organization is viewed as being intensely, unnecessarily complex due to a lack of a clear operating model (as highlighted in Section 5), limited role clarity, fragmented authority, and overlapping responsibilities. This lack of clarity around operating model, roles, and responsibilities extends across VAMCs, the VISNs, and VHACO.

> "It is very much a rule by 'You shall' edicts—I am told the exact number of people I will hire and the jobs that they need to do—even if I don't have a need for the policy or the people."
>
> *Physician Leader*

> "...nobody feels safe, including us. How am I supposed to role model psychological safety when I don't feel safe myself?"
>
> *VAMC Leader*

A complicated external environment exists for VHA, as the organization is treated by oversight entities and external stakeholders as both a hospital system and a traditional government agency, and Congress sees itself in the role of the VHA Board of Directors.[88] An increase in centralized control intended to mitigate risk has in fact constrained leaders' authority. Communications from Congress, VACO, VHACO, and VISNs tend to be overly prescriptive directives governing many aspects of operating a Medical Center. A general lack of clarity around roles and responsibilities contributes to poor coordination across entities and levels, resulting in duplication, communication breakdowns, and functional responses too slow to meet mission needs.

Culture and Environment: Although the broader VHA culture includes a deep commitment to mission at all levels of the organization, it is also characterized by risk aversion and distrust, resulting in an inability to improve performance consistently and fully across the system. At almost every facility visited, at least one leader interviewed mentioned that risk aversion and a reluctance to "speak up" were a significant issue. Three out of every four leaders interviewed at

[87] U.S. Department of Veterans Affairs. Veterans Health Administration. Job Announcement: Health System Administrator (Medical Center Director) (VA Job Announcement Number: VASES151407823LR). Retrieved from https://www.usajobs.gov/GetJob/ViewDetails/403947600

[88] Clark, C. (2015, April 30). Senators Propose Acting as "Board of Directors" for VA. Government Executive. Retrieved from http://www.govexec.com/management/2015/04/senators-propose-acting-board-directors-va/111613/

VISNs echoed this concern.[89] This culture permeates across all levels—from the front lines to Medical Center leaders to people at the VHA Central Office—and it contributes to a lack of innovation and best-practice dissemination across the organization. VHA's *Blueprint for Excellence* lists *Provide a Psychologically Safe Environment for Employees* as a key transformational action.[90] However, although psychological safety is acknowledged as a challenge, the broader culture of distrust and risk aversion will not improve until leaders themselves feel safe and can actively demonstrate the desired behaviors.

Leader Preparation: Mission focus alone is insufficient to attract top-notch leaders to the organization or motivate high potentials to seek promotion to senior leadership positions in the current environment. In fact, many current VHA leaders perceive the risk of advancing to significantly outweigh the potential reward. The lack of a comprehensive approach to leadership development and a complete lack of formalized succession planning results in an inability to identify potential leaders and prepare them to assume their future roles.

Compensation is clearly a disincentive for many experienced senior medical health leaders to enter the VHA system,[91] and it remains a point of contention among those leaders who are already in VHA. Some leaders spoke freely about their current salary and how it compares to their peers' salaries in medical centers outside VHA. Ironically, there is a perceived disincentive for Chiefs of Staff and other clinical leaders to aspire to VAMC Director or any other Title 5 (non-clinical) leadership positions, as clinical leaders hired under existing Title 38 authority are granted more flexibility in hiring, compensation, and performance evaluation in their current positions.[92] A VAMC Chief of Staff echoed his peers and offered, "If I became the Director, I would take a $100K cut."[93]

> "The salary is $187,000 [sic] for a medical center director. In private industry, a director could get $600,000. They don't do it for the money, but they need some reward for doing well."
>
> *Acting VAMC Associate Director*

All of these factors have contributed to an anemic leadership pipeline that does not support VHA's existing or future needs. Assessment L (Leadership) paints a dire picture of the current vacancy situation:

[89] This information is derived from McKinsey & Company Assessment L (Leadership) in Volume II.

[90] U.S. Department of Veterans Affairs. (2014, September 21). *Blueprint for Excellence: Veterans Health Administration*. Retrieved from http://www.va.gov/HEALTH/docs/VHA_Blueprint_for_Excellence.pdf

[91] This information is derived from RAND Corporation Assessment B (Health Care Capabilities) and Grant Thornton Assessment G (Staffing/Productivity), both in Volume II.

[92] Under the Title 38 employment system, VA has considerable hiring flexibility. It can hire professional employees directly and has flexibility to remunerate Title 38 employees at levels that are consistent with such staff's professional qualifications. Promotions under the Title 38 system are awarded by review panels comprised principally of clinical peers having similar credentials and experience.

[93] The current salary cap for a VA Medical Center Director paid under the SES pay scale is $183,300. Currently, seven Medical Center Directors are compensated under Title 38.

- 39 percent of Quadrad or Pentad senior leadership teams[94] at VHA Medical Centers have at least one current vacancy
- 43 percent of Network Directors are fulfilling the duties of that position in an "acting" status
- 16 percent of VHA Medical Centers do not have a permanent Director (i.e., Acting, Interim, or vacant).

And VHA has been unable to fill these field leadership gaps in a timely manner. The length of time that these openings have been unfilled stretches for greater than seven months on average, with more than half currently open for longer than six months.[95] The tactical, short-term solution to filling VAMC Director positions has been to fill them with Acting or Interim Directors. However, this revolving door of Acting VAMC Directors prevents sustainable change, hurts employee morale, and compromises delivery of care to Veterans in these facilities. One VAMC leader expressed frustration with this current practice, saying "We've had no consistency at the top. We've had Acting Directors. There is no permanent body. We need that consistency. The Directors come in with new ideas, but they don't have the time to implement anything."

> "Accountability is tough when the leadership is rotating (i.e., Acting Director is here 90 days to six months)...There's a perception of 'who's the Director today?'"
>
> *VAMC Leader*

Complicating this challenge is the realization that VHA faces a large and widespread number of potential retirements in key field leadership roles. Fifty-seven percent of leaders in key positions are eligible for retirement.[96] More than two thirds of Network Directors, Nurse Executives, and Chiefs of Staff are also eligible for retirement, as well as 47 percent of Medical Center Directors. There are indications that this retirement threat is beginning to be realized; in FY2014, retirements by VHA employees GS-13[97] and higher increased by 37 percent over the previous five-year average.[98]

[94] A Quadrad leadership team consists of a Medical Center Director, an Associate Director, an Associate Director for Patient Care Services/Chief Nurse Executive, and a Chief of Staff. A Pentad leadership team consists of a Medical Center Director, an Associate Director, an Associate Director of Clinical Operations, an Associate Director of Patient Care Services, and a Chief of Staff.

[95] (2015). Choice Act assessment interviews with VHA.

[96] "Key positions" are defined as VISN Network Director and Medical Center Quadrad leaders (Medical Center Director, Associate Director, Associate Director for Patient Care Services/Chief Nurse Executive, and Chief of Staff).

[97] The general schedule (GS) is the predominant pay scale within the United States civil service, with 15 levels. GS-15 has the highest base salary.

[98] U.S. Office of Personnel Management (OPM). (2015, March). FedScope database.

RECOMMENDATIONS

As outlined in Assessment L (Leadership), VHA must stabilize, grow, and empower leaders; galvanize them around clear priorities; and build a healthy culture of collaboration, ownership, and accountability.

- Push decision rights, authorities, and responsibilities to the lowest appropriate level throughout the organization.
- Build on Veteran-focused behaviors to drive a culture of service excellence, trust, continuous improvement, and healthy accountability.
- Revitalize the leadership pipeline through establishment of enterprise-wide, comprehensive succession management and leadership development functions.
- Strengthen the appeal of senior leadership positions by pursuing flexibilities in hiring and compensation.
- Establish sustained leadership continuity by extending tenure for key positions.

Push decision rights, authorities, and responsibilities to the lowest appropriate level throughout the organization. Clarifying decision rights is a critical factor in empowering leaders in the field. VHA should articulate decision rights clearly by level, organization, and role, standardizing where appropriate while also allowing for local flexibility based on local needs. Clarifying the role of the VISN is particularly important as this role has become unclear over time. This clarification should define key roles and responsibilities, particularly with the local realignment in progress. It must address the necessary balance between empowerment and support between medical facility leaders and VISN leaders. This must be done in the context of overarching systems and clear standard performance goals and outcomes.[99]

Build on the existing commitment to Veteran-centered care to drive a culture of service excellence, trust, continuous improvement, and healthy accountability. Research suggests that "most people won't change their behaviors until they observe the role models in their organization acting differently, and when they see this new behavior positively recognized and rewarded—a clear promotion, a plum assignment, a change in authority or responsibility, or simply praise from the top of the organization."[100] VHA leaders will need to demonstrate desired behaviors with the understanding that culture change will not occur until employees are motivated and feel supported to act differently.

VHA must reinvigorate its mission-driven culture through greater employee collaboration and ownership and by creating a unified organization in support of mission, strategic direction, and a goal of integrated patient care. To do this, VHA will need to foster a culture of continuous improvement and learning, spur collaboration, encourage innovation (within and across the system, and beyond), and connect all employees to the mission. Communications should make

[99] See McKinsey & Company Assessment L (Leadership) in Volume II for more detail on the role of the VISN.

[100] The Bridgespan Group. (2011). *Strategies for Changing Organizational Culture*. Retrieved from http://www.bridgespan.org/Publications-and-Tools/Leadership-Effectiveness/Lead-and-Manage-Well/Strategies-for-Changing-Organizations-Culture.aspx

clear how activities performed by employees support the mission and strategic direction and how measures, directives, and requests directed by VHA Central Office align with and advance the mission.

Culture is often described simply as "how things are done around here," and changing the VHA culture will need to happen at all levels—VHACO, VISN, and the VAMC level. VHACO should consider how to integrate its efforts so that the workforce is involved and experiences a coherent set of messages, policies, and support. The VISNs should support the VAMC leaders by sharing best practices, demanding steady improvement, and encouraging innovation. VAMC leaders will need to role model the change, describe why the culture must change, reinforce desired behaviors, and provide leaders and employees alike with the coaching, training, and tools they will need to succeed. As stated in Assessment D (Access Standards), leadership at every level of the health care delivery system is essential to steward and sustain cultural and operational changes needed to reduce wait times. Leadership must be devoted to reflecting, sustaining, and enhancing patient-centered care in scheduling and access, and the results must be continually gathered, assessed, made available, and deployed to drive and reward improvement.

> "Cleveland Clinic has always had a high tolerance for renegades—the kind of people who are dissatisfied with the status quo and are always looking for better ways of doing things. Because no organization can be successful unless its people are free to learn from their mistakes, Cleveland Clinic allows ample room for failure."
>
> *Toby Cosgrove*
> *The Cleveland Clinic Way*

VHA must shift its thinking to acceptance, and in fact encouragement, of risk taking and even smart failures. A cultural and leadership emphasis on healthy risk taking was adopted across all of the high-performing health care systems we studied and should be emulated by VHA. VHA should strike a risk-reward balance that enhances the organization's ability to reward senior leaders for the risk they assume in this increasingly politicized environment, while also making it easier to usher poor performers out of VHA. Leaders' performance plans should not only focus on compliance requirements, administrative investigation boards, root cause analyses, and peer reviews[101] but should also emphasize trends that are improving, best practices that are shared, risks taken, and accomplishments achieved. VHA must hold leaders accountable for rebuilding a culture of trust that is patient centered, streamlines processes, and expects best practices to be adopted.

Revitalize the leadership pipeline through establishment of enterprise-wide, comprehensive succession management and leadership development functions. As Assessment L (Leadership) concludes, a system as large, complex, and unique as VHA requires an enterprise-wide, highly coordinated succession management function, beyond traditional workforce planning. A comprehensive and enterprise-wide program to identify high-potential candidates, provide

[101] United States. Congress. Veterans Access, Choice, Accountability, and Transparency Act, 38 U.S.C. § 1701 (2014) (Pub. L. No.113–146, 128 Stat. 1754).

development in core health care administration competency functions, and connect these individuals with leadership opportunities is critical to moving VHA forward. A formal candidate identification, preparation, and placement program is required to identify and promote the next generation of leaders. Policy changes and congressional action, including expanding hiring authorities, should be sought to change or grant temporary exceptions to alleviate any constraints. The succession planning function should be coupled with development programs that strengthen VHA's leadership foundation. Current leadership development offerings should be rationalized, eliminating existing programs that do not reinforce or build on the behaviors expected of VHA leaders. Development programs should provide current and future leaders with the appropriate strategic, operational, and leadership skills to drive and implement change in this complex system and challenging environment. VHA should also attract and recruit leaders from outside the organization with deep health care management expertise who have demonstrated the behaviors and possess the competencies desired within VHA. These leaders would be expected to leverage and share their knowledge gained outside the organization while acting as catalysts for change within VHA.

Strengthen the appeal of senior leadership positions by pursuing flexibilities in hiring and compensation. The role of senior leaders within VHA should be strengthened by pursuing regulatory or legislative changes that expand or create a new federal classification for VHA Pentad leaders and other critically needed and vacant positions. These changes should enable the flexibility that exists in other federal positions (e.g., Title 38,[102] Senior Executive Service, Excepted Service[103]) to address compensation and benefits, hiring decisions, promotion process, and performance management. It should be noted that VA is pursuing a legislative remedy in its most recent federal budget request to expand Title 38 salary flexibility to non-clinical leadership positions, although at the time of this report Congress has yet to act on this request.

Establish sustained leadership continuity by extending tenure for key positions. Building sustained leadership continuity will be critical to successfully transforming culture and will give leaders the authority, accountability, ownership, and time needed to stabilize the organization, strengthen its health and performance, and shepherd change efforts. To build this continuity, VHA and Congress should consider longer terms for critical leadership positions such as the Under Secretary for Health. Extending the tenure of the Under Secretary so that it spans presidential administrations and election cycles would increase leadership stability and resilience in political headwinds. This top leadership position in one of the nation's largest health care systems could be considered akin to the Internal Revenue Service (IRS) Commissioner position. Congress passed the U.S. Internal Revenue Service Reform and Restructuring Act of 1998. That legislation allowed the IRS Commissioner a five-year term that crossed administrations and provided the opportunity to fully implement the IRS

[102] Title 38 is a federal classification for health care professionals and covers a range of clinical professions at VHA.

[103] There are four schedules (A, B, C, and D) of Excepted Service that fall under OPM regulations. Agencies may make Excepted Service appointments upon specific authorization by OPM.

transformation.[104] Extending the assignments of Medical Center Directors would also increase organizational stability and continuity at the facility level by ensuring that each leader is present long enough to build a rapport with the facility and his or her leadership team and see significant efforts through to completion or sustainable implementation. These extended assignments would reduce the frequency of geographic displacement, a dynamic that is becoming increasingly unattractive to many facility leaders.

[104] Rainey, H. & Thompson, J. (2006, July–August). Leadership and the Transformation of a Major Institution: Charles Rossotti and the Internal Revenue Service. *Public Administration Review*.

8 Transformation

Taken together, the 12 assessments found numerous, critical shortfalls validating the many calls for change made by Veterans, the American public, Congress, and VHA staff and leaders.[105] These shortfalls should not be viewed as individual anomalies, but rather manifestations of the systemic findings that plague VHA:

- A disconnect in the alignment of demand, resources, and authorities that impacts mission execution
- Uneven bureaucratic business operations and processes
- Non-integrated variations in clinical and business data and tools
- Leaders are not fully empowered due to a lack of clear authority, priorities, and roles; they work in a culture of growing risk aversion and distrust.

To successfully and sustainably address these systemic findings, a system-wide transformation is required[106] based on an approach that acknowledges the interdependency among the four cornerstones as depicted in Figure 5 in Section 3.

Transformation is Hard but Possible. Transformation is not easy, nor is success guaranteed. Successful, sustained transformation requires unwavering persistence, enduring attention, committed leadership, and the sustained cooperation and commitment of those calling for change, as well as new approaches and capabilities. Across many industries, longitudinal research has found that only about 30 percent of attempted transformations succeed for the long term.[107] Employee resistance, a lack of engagement by organization leadership, scarce resources, and other organizational issues (including poor accountability and misalignment between organizational aspirations and individual and team goals and targets) are major reasons why transformational efforts fall short of their goals. Unless VHA makes major changes from its current state, it is unlikely to successfully transform.

As difficult as a major transformation is, it is still achievable. In the course of conducting the assessments and performing research for these assessments, we visited four highly regarded health care institutions that have successfully undergone transformations and emerged as high-

[105] A Gallup poll from June 9-10, 2014, on Americans' issue priorities found that 87 percent of Americans polled thought that improving the way in which health care services are provided to U.S. military Veterans was extremely/very important, topping the list. Retrieved from: http://www.gallup.com/poll/171596/prioritize-improving-veterans-health.aspx

[106] In his statement before the Senate Committee on Appropriations, Subcommittee on Military Construction, Veterans Affairs, and Related Agencies, on April 21, 2015, Secretary of Veterans Affairs Robert A. McDonald said, "We are implementing an historic department-wide transformation, changing VA's culture, and making the Veteran the center of everything we do." Retrieved from http://www.appropriations.senate.gov/sites/default/files/hearings/042115%20Secretary%20McDonald%20Testimony%20-%20MilCon-VA.pdf

[107] Keller, S. & Price, C. (2011). Beyond Performance: How Great Organizations Build Ultimate Competitive Advantage. Hoboken, NJ: John Wiley & Sons.

performing health care systems (Kaiser Permanente, Cleveland Clinic, Virginia Mason, and Geisinger). We also interviewed more than 27 health care executives and experts from industry, academia, and government. From these experiences, six themes enabling the successful transformations emerged:

- A shared sense of urgency
- Empowered leaders and new mission
- Recognition of the journey through a sustained and time-consuming process
- Patient-centric culture and value system
- Supportive and knowledgeable governance
- Transparent data-driven management system.

These themes reflect the systemic findings and recommendations provided in this report and reinforce the conclusion that a systems approach is essential to a successful VHA transformation.

VHA has also seen major transformation occur from 1994 to 1999. In 1994, care was fragmented and uncoordinated, hospital centric, specialist based, and episodic and reactionary. It was often difficult to access, with long waiting times and long distances to hospitals for some patients. The system was plagued with irregular and unpredictable quality and rapidly rising costs. Management was highly bureaucratic, centralized, and hierarchical. Organizational leadership changed frequently, and governance issues and capital investment decisions were highly politicized. Patients were unsatisfied, and staff demoralized.

After a careful, major transformational effort, there were many quantifiable examples of positive impact at the end of five years. VHA:

- Treated 24 percent more patients
- Implemented universal primary care
- Improved access with 302 new community-based outpatient clinics
- Markedly reduced waiting times
- Closed 29,000 acute-care hospital beds
- Reduced bed days of care per 1,000 patients by 68 percent
- Reduced annual hospital admissions by 350,000
- Merged 52 hospitals into 25 locally integrated multi-campus facilities
- Decreased staffing by 12 percent (25,867 FTE positions) while concomitantly increasing the number of caregivers
- Substantially decreased annual operating costs
- Decreased annual expenditures per patient by more than 25 percent in constant dollars
- Improved patient satisfaction and achieved higher aggregate patient satisfaction ratings than in the private sector (in 1998, 80 percent of patients thought that care was “definitely better” than two years before)

- Markedly improved quality of care according to standardized performance measures for a wide array of conditions.[108]

Transforming VHA to a High-Performing Health Care System: In its *Blueprint for Excellence*, VHA has captured its aspirations and goals citing the IOM's "Six Aims for High Performance Healthcare" as a framework underpinning its "clinical performance improvement and measurement for comparison with non-VA care."[109]

> *"The goal of a learning health care system is to deliver the best care every time, and to learn and improve with each care experience. This goal is attainable only through system-wide changes of the sort that have been successfully undertaken in certain activities of the manufacturing sectors. In these cases significant benefits have been realized through organization wide transformations guided by principles of systems and process engineering and the practices of structured data feedback for process improvement."*[110]

Although the goals of VHA already echo many of the system findings of our assessments, the keys to future success are effective execution and implementation. All leaders and staff must be engaged and empowered to assist overcoming challenges in the transition from strategy to execution. Most transformations take at least 12 to 18 months for initial impact, and transformations of the magnitude needed at VHA may take 5 to 10 years to fully take hold. To avoid change fatigue and loss of focus, VHA leadership must set appropriate expectations with clear milestones, but also make visible early changes to demonstrate commitment and promote front-line acceptance. To this end, as Section 4 recommends, VHA must establish a new Program Management Office staffed by individuals with the right emotional commitment and core competencies in executing organizational change. This office should answer directly to the Office of the Undersecretary for Health. This team should create the strategy and roadmap for the implementation of this transformation, with the requisite

> "Minor tweaks to the current system may incrementally improve health care in the near term, but the monopolistic VHA bureaucracy is likely to return to a standard operating model heavily influenced by the desires and concerns of the institution and its employees. Only fundamental reform will break the cycle and empower Veterans."
>
> *Fixing Veterans Health Care*
> *Concerned Veterans for America*
>
> *February 26, 2015*

[108] Kizer, K.W. (2012). Commentary 12-1: Lessons learned in transforming the Veterans Health System. In Levy, B. S. & Gaufin, J. R. (Eds.), *Mastering public health: Essential skills for effective practice*. Oxford University Press.

[109] U.S. Department of Veterans Affairs. (2014, September 21). *Blueprint for Excellence: Veterans Health Administration*. Retrieved from http://www.va.gov/HEALTH/docs/VHA_Blueprint_for_Excellence.pdf

[110] Institute of Medicine. (2001). *Crossing the Quality Chasm: A New Health System for the 21st Century*, Committee on Quality of Health Care in America. Washington, D.C.: National Academies Press.

metrics, milestones, and timelines. This roadmap should set reasonable timelines, strive for early wins, and be willing to wait for major impact. Most importantly, VHA leadership must provide and Congress must endorse funding to enable this transformation—funding that is separate from the annual budget cycle; funding that is protected; and funding that has special rules for allocation. "A best practice is to establish an independent budget that's distributed when—and only when—the kinds of milestones"[111] that measure success have been achieved.

With this multi-dimensional systems approach to complex problems, VHA will be able to successfully tackle its most complex problems in innovative, sustainable ways. Facility challenges can be significantly mitigated by a transformative realignment throughout the capital program deploying best practices in leasing and contracting; realigning the strategy of the capital program to improve project selection, optimize the infrastructure portfolio, implement innovative care delivery models, understand demand-based needs, and explore and partner with purchased-care opportunities; and reevaluating funding requirements. Such an integrated approach would proactively position VHA for the health care delivery model of the future. Similarly, the problems of access addressed by the Choice Card should, as noted in Appendix D, integrate multiple factors—systems strategies, supply and demand alignment, reframing the type of patient encounter, the need for standards, the need for evidence-based best practices, and leadership. This holistic approach is the heart of our proposed systems solution with its four systemic cornerstones. A systems approach to solving large scale health care delivery issues has been suggested by experts at IOM, the National Academy of Engineering, and the President's Council of Advisors on Science and Technology.[112,113,114] Approaching all of the recommendations in the 12 individual assessments with a systems solution that is scalable and sustainable will provide a pathway for enduring transformation.

Conclusion: Veterans, the American public, Congress, and VHA staff and leadership all want to see and support VHA returning to a high-performing health care system. Deputy Secretary Sloan D. Gibson stated, "We know that unacceptable, systemic problems and cultural issues within our health care system prevented some Veterans from receiving timely care." We believe this Integrated Report describes a scalable and sustainable way to create the environment for enduring solutions.

---

[111] Harreld, J.B. & Laurie, D.L. (2013, July-August). Six ways to sink a growth initiative. *Harvard Business Review*. Retrieved from https://hbr.org/2013/07/six-ways-to-sink-a-growth-initiative

[112] Kaplan, G. et al. (2013, July 10). *Bringing a systems approach to health*. Retrieved from http://nam.edu/wp-content/uploads/2015/06/systemsapproache

[113] National Academy of Engineering and Institute of Medicine of the National Academies. (2005). *Building a Better Delivery System: A New Engineering/Health Care Partnership*. Washington, D.C.: The National Academies Press. Retrieved from http://www.nap.edu/catalog/11378.html

[114] President's Council of Advisors on Science and Technology. (2014, May). *Better Health Care and Lower Costs: Accelerating Improvement Through Systems Engineering*. Washington, D.C. Retrieved from https://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/pcast_systems_engineering_in_healthcare_-_may_2014.pdf

But there are clear obstacles. The number of issues VHA currently faces appears overwhelming. The overlap of our individual assessment recommendations with those of past reports is troubling. The success rate of successful transformations is not encouraging.[115]

> "Implementing systems approaches in health care, including strategies to address scheduling and access issues, requires changes not only in operational processes, but also a fundamental shift in thinking. All members of a health care organization must transition from the siloed, independent, and fragmented mentality of traditional health care culture to a culture of service excellence, an integrated approach with shared accountability in which physicians, employees, and patients treat one another with respect and as partners and patient satisfaction and employee engagement are high."
>
> *Institute of Medicine of the National Academies Assessment D (Access Standards)*

In its current state, VHA is not well positioned to succeed in such a transformation. As already discussed in the Integrated Report, three essential actions are required to realize the recommendations inherent in this transformation. VHA must:

- Implement a systems approach that recognizes and embraces that the four cornerstones are interdependent and the success of any one of the four overarching recommendations hinges on the implementation of the other three. These solutions must be coordinated and implemented via a systems approach to improve VHA overall.
- Establish a transformation program management office with the authority and funding (redirected from current central and local funding mechanisms) to implement the system-wide reworking of VHA. The office should be staffed by individuals with the right emotional commitment and core competencies in executing organizational change. The office should focus on confirming and communicating the aspirational state, establishing transformation priorities, defining timelines for execution, implementing both strategic and tactical initiatives, allocating resources, and instituting appropriate metrics and processes to measure progress and success. It should replace any ongoing change initiatives and merge the relevant components of MyVA, the *Blueprint for Excellence*, and other initiatives into one coherent, focused transformational approach.
- Require evidence-based systems models to inform and implement integrated solutions that balance governance, operations, data and tools, and leadership.

VHA has the opportunity to achieve a place among the highest performing health care systems in the world. It will be the charge of Congress, the Commission on Care, and VA leadership to see that these recommendations and resulting transformation efforts are given the necessary attention and support that they—and our nation's Veterans—deserve.

[115] Keller, S. & Price, C. (2011). Beyond Performance: How Great Organizations Build Ultimate Competitive Advantage. Hoboken, NJ: John Wiley & Sons.

This page intentionally left blank.

The following sections contain Appendices A through Q as referenced throughout the Integrated Report.

This page intentionally left blank.

Appendix A Demographics

Scope

Assessment A examined the "current and projected demographics and unique health care needs of the patient population served by the Department." The assessment described characteristics of the current and projected population of U.S. Veterans and patients of the U.S. Department of Veterans Affairs (VA) health care system. In addition, the assessment examined the characteristics of Veterans who are most likely to rely on VA for their health care, described the unique health care needs of the patient population currently served by VA, and projected the health care needs of Veterans who might become patients in the future. The assessment also examined the potential impact of future policy changes, such as broader eligibility for VA care, and other events, such as a major conflict, on demand for VA health care services.

Findings

The population of U.S. Veterans will decrease by 19 percent over the next 10 years. The Veteran population has been has been decreasing for the past two decades, and this trend will continue. In 1990, there were 27.5 million Veterans; in 2014, there were 21.6 million. Over the next 10 years, our projections, drawing on VA and Department of Defense (DoD) data, show that the Veteran population will decline to 17.5 million, a decrease of 19 percent. Geographically, the Veteran population will shift from the Ohio River Valley and upper Midwest to the Southwest and Mountain regions and concentrate further in urban areas. Over the next 10 years we estimate that the share of female Veterans will increase from 8 to 11 percent, while the share of non-Hispanic white male Veterans will fall from 80 to 75 percent. Mean age will increase slightly as the population will have a higher proportion of both older and younger Veterans.

Veterans generally enjoy favorable socioeconomic outcomes relative to their non-Veteran counterparts. Veterans are more likely to be employed and have health insurance, and also have higher median incomes, than non-Veterans, on average. Despite the overrepresentation of Veterans in the U.S. adult homeless population, the rate of homelessness is still low among Veterans and has been declining over time.

The VA patient population will increase through 2019 and then plateau. While the Veteran population is projected to decline by 19 percent over the next 10 years, we estimate that the number of VA patients will reach its peak level in 2019 before plateauing or possibly declining in future years. The increase in the size of the patient population relative to the Veteran population is related to recent trends in eligibility, enrollment conditional on eligibility, and use of VA health care among those eligible, particularly among younger Veterans.

The number of Veterans who use VA health care is dependent on eligibility criteria, access constraints, and other factors. For example, our scenario analysis found that expanding eligibility for VA health care to currently excluded groups of Veterans could lead to over 4.8 million newly eligible Veterans, and as many as 2.1 million new VA patients, amounting to a 35.1 percent increase in the size of VA's patient population.

Lower income Veterans, those in rural areas, Veterans without other access to health insurance coverage, and Veterans with poorer self-reported health status rely more on the VA than other Veterans. Most Veterans have health care options other than VA, such as employer provided health insurance or Medicare, and use VA for only part of their overall health care needs. Our estimates of the extent to which Veterans rely on VA for health care versus other sources of care are lower than VA estimates. For example, our estimates indicate that VA patients obtain 30 percent of their prescription drugs through the VA. In contrast, VA estimates that enrollees obtain 66 percent of their prescription drugs through VA. Because the VA estimates are in part based on proprietary methods, the reasons for these differences could not be fully determined.

Veterans have higher *unadjusted* rates of many key health conditions than non-Veterans. Unadjusted results show how Veterans differ from non-Veterans at the population level. Some of these differences are related to the fact that Veterans are older and more likely to be male than non-Veteran civilians, and therefore disappear when we adjust for these factors. At the population level, the prevalence of diabetes and gastroesophageal reflux disease (GERD) disorders among Veterans is substantially higher than for non-Veterans. Veterans are more likely than non-Veterans to be diagnosed with cancer, hearing loss, and posttraumatic stress disorder (PTSD). Mental health conditions, however, are equally prevalent in the Veteran and non-Veteran populations.

Veterans have a higher *adjusted* prevalence of key health conditions than non-Veterans. Adjusted results characterize how Veterans differ from non-Veterans with similar demographic characteristics, including age, sex, and race. While Veterans continue to have a higher prevalence of many chronic conditions, most differences are smaller, relative to unadjusted estimates. For example, in the unadjusted models Veterans are almost twice as likely to have diabetes; after adjusting for demographic characteristics, the relative difference is only 13 percent. An important exception is that, after adjusting for demographics, Veterans have higher prevalence of mental health conditions than non-Veterans. Differences between Veterans and non-Veterans are particularly large for PTSD, where Veterans are 13.5 times more likely than non-Veterans to be diagnosed with the condition.

VA patients are typically less healthy than Veterans who do not use VA health care. VA patients—defined as Veterans who obtained care from a VA provider or had any payment by VA for health care services used in the past year—are in poorer health than Veterans who had not used VA health care. Partly these differences in prevalence are inevitable, because Veterans with disabilities and service-connected conditions have prioritized access to VA care relative to other Veterans. Among VA patients, the unadjusted prevalence of common chronic conditions (such as diabetes and cancer) is 51 to 96 percent higher than for Veterans who do not use VA care. Approximately 25 percent of all patients who received care paid for by VA have a mental health condition and three percent have PTSD. When combined with the otherwise rare conditions related to combat—amputation, traumatic brain injury, blindness, and severe burns—VA handles a patient mix that is distinct from what community providers typically see.

The prevalence of many common conditions is projected to increase among Veterans over the next 10 years. As the Veteran population ages, they will face higher rates of conditions such

as hypertension, diabetes, and mental health. VA patients are projected to experience relatively steeper increases in many conditions relatively to the overall Veteran population. As a result, the gap in prevalence rates between VA patients and Veterans who do not use VA health care is projected to increase over time.

In the event of a hypothetical future conflict, even moderate levels of deployment could substantially increase the size of the incoming cohort of VA patients. However, previous cohorts of Veterans, especially the Vietnam cohort, were much larger than recent cohorts, so the difference would be small relative to the entire VA patient population.

Recommendations

Prepare for a changing Veteran landscape. After increasing for decades, the VA patient population is projected to level-off or even begin to decrease after 2019, a trend that is likely to continue over an even longer time horizon. While demand for VA services during this time period will be influenced by utilization patterns, there is a possibility that demand for services will decrease for the first time in several decades once the size of the Veteran population begins to plateau after 2019. The VA has been, and continues to be, responsive to increasing demand for services, but once population growth slows, VA may be left with a larger footprint than needed in the longer-term. Increasing the use of care purchased from the civilian sector may enable VA to meet short-term increases in demand without requiring costly investment in facilities, infrastructure, and personnel that could become less needed in the future.

Anticipate potential shifts in the geographic distribution of Veterans, and align VA facilities and services to meet these needs. Given projected declines in the size of the Veteran population living in the Ohio River Valley and upper Midwest, it may be possible to consolidate relatively proximal VA facilities in those regions. At the same time, some areas of projected Veteran population growth—including Montana, Wyoming, Colorado, and much of the Southwest—are not currently well covered by VA facilities. Some regions, such as Washington D.C., Los Angeles, Dallas, and northern New Jersey, may experience growth in the Veteran population under age 35.

Improve collection of data on Veterans. Because the 2010 Census did not capture information on Veteran status, there has not been a full-scale accounting of the U.S. Veteran population since 2000. Since then, there have been surveys of representative samples of Veterans that provide useful counts and information about the Veteran population, but they are only estimates. An updated census of the Veteran population would enable a definitive count of all Veterans, while also helping to refine the sampling procedures for the yearly surveys of samples of the population.

Improve collection of data on Veteran health care utilization and reliance. To gain a clearer understanding of Veterans' health care use, VA should collect data on all sources of health care that are used by Veterans—including where care is delivered, what diagnoses are recorded and procedures performed, and who pays for the services—as well as what needs for care are unmet, and why. Creating these data would enable an analysis of the extent to which Veterans currently rely on the VA for health care, and how that reliance may change as a result of internal VA policies or external factors. It would also provide insight into where the VA succeeds

in meeting the health care needs of its patient population and what obstacles exist in delivering needed care.

Monitor use of VA health care by younger cohorts and Iraq and Afghanistan Veterans. Iraq and Afghanistan Veterans are more likely to have service-connected disabilities than other Veterans, and are automatically eligible for VA health care for five years after leaving the military. Historically, Veterans have relied less on VA health care as they age, gain access to other health insurance (e.g., through an employer), and start families. However, it is not clear the extent to which these patterns will hold for newer Veterans who have different exposures and enhanced eligibility relative to previous cohorts. Understanding how patterns for these Veterans will evolve may inform future planning.

The complete Assessment A is available in Volume II.

Appendix B Health Care Capabilities

B.1 Scope

Access to quality health care is a central part of our nation's commitment to Veterans. However, concerns about access to VA care, including long wait times for appointments, lack of available appointments within certain clinical specialties, and problems with care transitions for patients discharged from mental health services, led to the passage of the Veterans Choice Act in 2014. Section 201 of the Veterans Choice Act includes a requirement for an independent assessment of VA health care. Assessment B provided "an independent assessment of the current and projected health care capabilities and resources of the VA, including hospital care, medical services, and other health care furnished by non-VA facilities under contract with the VA, to provide timely and accessible care to Veterans" (Veterans Choice Act, Section 201). Assessment B also explored how selected policies could affect Veterans' access to high-quality care. Volume II contains the full Assessment B report.

B.1.1 Findings

VA operates a unique health care system with broad and deep resources and capabilities. However, VA faces a number of barriers in planning for and using its resources effectively:

- **Fiscal resources:** We identified concerns about the data used for VA's budget planning, inflexibility in budgeting stemming from congressional appropriation processes, and challenges in VA's allocation processes.
- **Workforce and human resources:** VA has an extensive health care workforce, but VA capacity may not be sufficient to provide timely care to Veterans across a number of key specialties as well as primary care. VA faces shortages of physicians in some geographic areas and of certain physician specialists. These constraints are influenced by low salaries, a slow credentialing process, and infrastructure constraints. Variations in coding, inconsistently entered workload data, and incomplete physician encounter data make it difficult to measure productivity.
- **Physical infrastructure**: VA operates one of the most extensive systems of health care infrastructure in the country, but the need for additional physical space is a limiting factor in improving access, and it is sometimes difficult to update the physical space in older buildings to accommodate new technology and equipment.
- **Purchased care:** VA has many outside options for providing care to Veterans, including several programs and various types of payment or contractual arrangements, although managing these overlapping resources can be challenging.
- **Informational resources:** VA has been and continues to be an innovator and leader in IT, although there is room for improvement in some areas, including issues related to the management and planning of its IT systems. VA's electronic health record technologies suffer from aging architecture and 10 years of limited development. However, interviews suggest strong support for renewed investment in a modern, home-grown product rather than transitioning to a commercial alternative.

VA does not currently face an overall crisis in access to care; however, we found considerable variability across the dimensions of access (geographic, timely, financial, digital, and cultural). There is wide variation in access: For example, at 91 top-performing VA facilities, over 96 percent of new primary care patients receive appointments within 30 days of the preferred date. However, 14 VA facilities were far below this benchmark, with less than 84 percent of patients receiving appointments within 30 days of the preferred date. At top-performing VA facilities, more than 60 percent of Veterans report that they "always got urgent care appointments as soon as needed." At the worst-performing VA facility, this rate was closer to 20 percent. On patient surveys, Veterans are substantially less likely than private-sector patients to report getting appointments, care, and information as soon as needed.

Geographic access is another challenge for VA. Veterans are highly dispersed throughout the United States, and ensuring nearby access to needed services is difficult. Many Veterans have access to VA care by a general standard of less than 40 miles distance from any facility (measured either using a straight line or driving distance), not considering the services available. Geographic access is worse when using different types of access standards. Veterans who must rely on public transportation, for example, have much lower levels of access than other Veterans. Geographic access to specialized facilities and providers is also lower.

There is substantial variation in quality measure performance across VA facilities, indicating that Veterans in some areas are not receiving the same high-quality care that other VA facilities are able to provide. For example, there was a 21-percentage-point difference in FY 2014 performance between the lowest- and highest-performing VA facilities on the rate of eye exams in the outpatient setting for patients with diabetes.

VA uses many systems for monitoring quality. On most quality measures for outpatient care, VA outperformed other health care systems, while the performance on quality measures of inpatient care was mixed, with some better and others worse. On average, VA hospitals performed the same or significantly better than non-VA hospitals on 12 inpatient effectiveness measures, all six measures of inpatient safety, and three inpatient mortality measures, but significantly worse than non-VA hospitals on two effectiveness measures and three readmission measures..

Changes in policy can help ensure continued access to VA care. If no substantial changes are made, projections indicate that it could be more difficult in 2019 for VA to provide accessible and timely care for Veterans than it was in 2014. However, we identified several policy options to ensure that Veterans have continued access to care, including formalizing full nursing practice authority, increasing the number of VA physicians, and expanding virtual access to care.

The impact and feasibility of increasing purchased care would be highly dependent on the scope of the change. Shifting a greater share of services from VA to purchased care would require more fundamental changes to VA. We did not find evidence of a current system-wide crisis in access to VA care that would indicate that such a change is necessary, but it is possible that such a reorientation would improve both access and the quality of care. However, our analyses indicate that many Veterans without access to VA health care also face significant barriers to accessing purchased care, including distance and cultural barriers. Thus, the option

to transform VA from a provider to a purchaser of health care would not necessarily have a significant positive impact on access.

B.1.2 Recommendations

Based on the findings of Assessment B, we make several recommendations to improve access to care for Veterans:

Use a systematic, continuous performance improvement process to improve access to care. Although many VA facilities achieve very high levels of performance on key access and quality measures, there is also a great deal of variation across the system. A systematic effort is needed to identify unwarranted variation, identify and develop best practices to improve performance, and embed these practices into routine use across the VA system. Some of the best solutions may be developed locally to reflect local needs and contexts. Solutions should be designed to be responsive to Veterans' preferences, needs, and values.

Consider alternative standards of timely access to care. Timeliness standards should be reexamined. VA should examine the utility of existing alternative benchmarks, such as same-day availability or the third next available appointment. Access standards for other dimensions, such as cultural access, should also be developed and used in performance monitoring and improvement. VA should develop methods to routinely compare the timeliness of VA care with non-VA benchmarks and publish these comparisons for transparency.

Develop and implement more sensitive standards of geographic access to care. VA should compare the "one-size-fits-all" approach of driving distance to alternative standards that are more sensitive to differences between Veteran subgroups, clinical populations, geographic regions, and individual facilities. This assessment highlighted the importance of time spent driving, mode of transportation, traffic, and availability of needed services as key considerations in assessing geographic access to care.

Continue moving toward using a smaller number of quality metrics in quality measurement and improvement activities. VA maintains an extensive set of quality measures. Although use of these measures has led to improvements in care, the proliferation of measures creates burdens on staff and resources and can lead to emphasis on the measures rather than improvement in areas of care that are more likely to improve patient outcomes. VA has already moved toward reporting systems that rely on a smaller number of measures, such as Strategic Analytics for Improvement and Learning (SAIL).[116]

Take significant steps to improve access to VA care. Our projections indicate that increases in both VA resources and the productivity of resources will be necessary to meet increases in demand for health care over the next five years. The options we considered that have the highest estimated potential impact are formalizing full nursing practice authority, increasing physician hiring, and increasing the use of virtual care. These are commonly proposed options for increasing access to VA care. In addition, new models of health care delivery are emerging

[116] Although SAIL uses fewer measures to simplify reporting, they are composite measures which still incorporate numerous individual performance measures.

rapidly in the U.S. health care system that could improve access to care. VA should seek to be an early adopter of these new models and should build a strategy that enables and supports such innovation.

Establish VA as a leader and innovator in health care redesign. As a large integrated delivery system, VA is well-placed to innovate in comparison with many U.S. health care delivery systems. It should endeavor to maximize this opportunity, given the constraints associated with being a public entity (for example, hiring processes, salaries, budgeting). VA should also endeavor to learn from current leaders in areas where its leadership position has eroded, particularly in health IT, and seek to reestablish its leading position.

Streamline programs for providing access to purchased care and use them strategically to maximize access. Currently available programs are overlapping and confusing to Veterans and VA employees as well as non-VA providers. VA should clearly identify the objectives of purchased care access and streamline programs to meet those objectives.

Systematically study opportunities to improve access to high-quality care through use of purchased care. Some types of care may be more effectively and efficiently delivered by non-VA providers. Identification of these types of care and the impact of shifting care to non-VA providers requires an in-depth systematic analysis that was beyond the scope of this assessment.

Appendix C Care Authorities

Scope

Assessment C examined the "authorities and mechanisms under which the Secretary may furnish hospital care, medical services, and other health care at non-Department facilities, including whether the Secretary should have the authority to furnish such care and services at such facilities through the completion of episodes of care." The Assessment C team reviewed the history of VA purchased care authorities and the programs through which VA has carried out these activities nationally and at the local level, related challenges and opportunities for VA purchased care in the future, and the ways in which varying definitions of "episodes of care" affect VA authorities and strategies for purchasing health care services.

Findings

VA has a complex set of authorities to purchase care, reflecting tension among implicit aims. Prior to the passage of the Veterans Choice Act in 2014, the Secretary of VA had longstanding authority to furnish purchased care if VHA facilities could not provide the needed services directly. Although the basic grant of authorities to the Secretary is expansive in some respects, it is not unlimited. It involves significant controls on when, how, and for whom medical care may be purchased. These controls implicitly reflect several competing aims beyond simply making outside care available, including restricting costs and maintaining a balance between VA's provider and payer functions. In sum, not only are VA's authorities for furnishing purchased care complex and scattered, but they also embody more than one aim, and those aims may operate partly in tension with each other.

The episode of care defines the "unit" of VA authorization and may help shape purchased care in practice. The authorities for purchasing care tie into "episodes" primarily through program requirements for authorization (for example, as specified under the Veterans Choice Act). However, in principle, an episode conceptually bounds a clinical problem for which a Veteran might require outside services, so it might therefore make sense to outsource care as a coherent "unit." Future refinements in defining episodes of care, and an authority framework that allows the Secretary to adopt such refinements, may be critical to supporting VA's adoption of bundled payment and value-based purchasing mechanisms in the future.

The purchased care landscape is in the midst of transformation. Numerous changes to VA's authorities and mechanisms for purchasing care are being proposed, planned, or implemented. These developments have included new administrative pilots for administering the Choice and Patient-Centered Community Care (PC3) initiatives, modifications to the eligibility criteria under Choice, revisions to VA's procurement authority for purchased care, the extension of the Choice program and reallocation of funding, and the consolidation of existing purchased care mechanisms and initiatives under a unified programmatic umbrella. With these facets of purchased care authorities and practice in flux, the full landscape of VA purchase care is not just complicated, but dynamically so. Moreover, while the proposed policy changes seek to address many different problems and issues, their sheer multiplicity suggests the drawbacks of a piecemeal approach to reform and the lack of guiding orientation and strategy for VA's purchased care enterprise as a whole.

Recommendations

VA and Congress should articulate a clear strategy governing the use of purchased care. Such a strategy should clearly explain how purchased care fits into VA's broader health care mission and establish benchmarks for success in the adoption of purchased care reforms. The strategy should provide structure for purchased care authorities and procedures, as well as flexibility to support surge needs and Veteran-centered care.

VA and Congress should address cost control explicitly and systematically to guide consistent utilization and decision-making. Existing purchased care authorities establish an indirect set of cost controls through a discretionary health benefit funded by annual appropriations. VA should address cost control in purchased care explicitly and directly through a rigorous performance evaluation of existing purchased care contracts, better and more systematic collection of data on purchased care costs, and stronger cost-control mechanisms, such as co-pays, deductibles, and utilization reviews.

VA should collect better data to accurately estimate the demand for and use of purchased care. VA lacks systematic data on various facets of purchased care, particularly at the local facility level. It needs a strong base of data and analysis to monitor purchased care costs and processes and improve outcomes for Veterans.

VA should develop a stronger program management structure for purchased care and allocate responsibility and authority to the most appropriate levels. For example, referrals should be managed locally, while large contracts (such as those under Choice and PC3) should be managed centrally. VA leadership should issue clear policy and procedural requirements while facilitating appropriate flexibility in the field at the local level.

VA should evaluate the third-party contractors administering its managed purchased care programs. As the PC3 and Choice programs are fully implemented and continue to grow, VA should establish an ongoing process for evaluating the performance of third-party administrators. It should also assess the adequacy of the provider networks, the efficiency of claims processing and other activities, and Veterans' experiences with the programs.

VA should develop clear, consistent guidance and training on its authority to purchase care. VA should create a consolidated manual on purchased care, together with associated training and messaging that explains VHA's authority to purchase care and clarifies eligibility standards and processes.

VA purchased care contracts should include requirements for data sharing, quality monitoring, and care coordination. In its contracts with outside providers and third-party administrators, VA should require routine reporting of quality measures to ensure that the quality of care Veterans receive through non-VA providers is equivalent to the quality of care offered by VA. Such contracts should also include provisions for how non-VA providers will communicate and coordinate with VA counterparts.

VA should consider adopting innovative, but tested, ways to purchase care. TRICARE and Medicare offer useful lessons in how to purchase care. VA should incorporate some of these

strategies, including outsourcing administrative functions and offering performance incentives to contractors.

VA and Congress should eliminate inconsistencies in current authorities and provide VHA with more flexibility to implement a purchased care strategy. There are several points of tension and confusion within existing authorities, including inconsistencies in standards for episodes of care, the subjective nature of some elements of 38 U.S.C. 1703 (the core statutory authority for VA purchased care), different definitions of geographic inaccessibility and wait times, and conflict between the language and intent of the rule specifying that the Choice program can be used if there is not a VA facility within 40 miles of the Veteran's residence. Congress and VA should also consider the more ambitious step of simplifying purchased care authorities and mechanisms generally, by seeking to consolidate and harmonize them. At least in principle, such a step could help reduce the complexity and ambiguity now associated with purchased care authorities and mechanisms.

VA and Congress should revise the definition of episode of care to better accommodate Veterans' needs. Under the Veterans Choice Act, VA must allow Veterans who use the Choice program to seek outside services through the completion of an episode of care, "but for a period not in excess of 60 days." The legal requirement for a fixed-term reauthorization of an episode runs contrary to evolving clinical practice and standards in the broader health care sector. A revision of this authority would improve monitoring of episodes of care and reduce the administrative burden on VA staff and Veterans.

VA and Congress should adopt a consistent strategy for setting reimbursement rates across purchased care initiatives. Such a strategy should balance cost and access considerations. In setting reimbursement rates, VA mechanisms and contracts for purchasing care should reflect the reality of local competitive market conditions.

The complete Assessment C report is available in Volume II.

This page intentionally left blank.

Appendix D Access Standards

Scope

Assessment D responded to language in Title II, Section 201, of the Veterans Choice Act of 2014 that mandated an independent assessment of "the appropriate system-wide access standard applicable to hospital care, medical services, and other health care furnished by and through the Department, including an identification of appropriate access standards for each individual specialty and post-care rehabilitation."

To address the requests in Assessment D, the Department of Veterans Affairs, Veterans Health Administration contracted the Institute of Medicine (IOM). The IOM formed an ad hoc Committee and instructed it to conduct a study and prepare a report directed at exploring appropriate access standards for the triage and scheduling of health care services for ambulatory and rehabilitative care settings to best match the acuity and nature of patient conditions.

Convened at the request of VA/VHA, the committee was charged with the following tasks: (1) review the literature assessing the issues, patterns, standards, challenges, and strategies for scheduling timely health care appointments; (2) characterize the variability in need profiles and the implications for the timing in scheduling protocols; (3) identify organizations with particular experience and expertise in demonstrating best practices for optimizing the timeliness of scheduling matched to patient need and avoiding unnecessary delays in delivery of needed health care; (4) consider mandates and guidance from relevant legislative processes, review wait time proposals from the VA/VHA Leading Access and Scheduling Initiative, and evaluate all evidence indicated above, along with input and comment from others in the field; (5) organize a public workshop of experts from relevant sectors to inform the committee on the evidence of best practices, their experience with acuity-specifics standards, and the issues to be considered in applying the standards in various health care settings; and (6) issue findings, conclusions, and recommendations for development, testing, and implementation of standards, and the continuous improvement of their application. Throughout its work, the committee has been guided by its view that health care must always be patient and family-centered and implemented as a goal oriented partnership.

To do so, the committee:

1. Reviewed the literature assessing the issues, patterns, standards, challenges, and strategies for scheduling timely health care appointments
2. Characterized the variability in need profiles and the implications for the timing in scheduling protocols
3. Identified organizations with particular experience and expertise in demonstrating best practices for optimizing the timeliness of scheduling matched to patient need and avoiding unnecessary delays in delivery of needed health care
4. Organized and held a public workshop of experts from relevant sectors to inform the committee on the evidence of best practices, their experience with acuity-specific

standards, and the issues to be considered in applying the standards under various circumstances

5. Issued findings, conclusions, and recommendations for development, testing, and implementation of standards, and the continuous improvement of their application.

In the course of its work, the committee considered mandates and guidance from relevant legislative processes, reviewed VA wait time proposals from the Leading Access and Scheduling Initiative, and evaluated all evidence indicated above, along with input and comment from others in the field.

Findings

The committee summarized its findings as follows:

- **Variability**: Timeliness in providing access to health care varies widely.
- **Consequences**: Delays in access to health care have multiple consequences, including negative effects on health outcomes, patient satisfaction with care, health care utilization, and organizational reputation.
- **Contributors**: Delays in access to health care have multiple causes, including mismatched supply and demand, a provider-focused approach to scheduling, outmoded workforce and care supply models, priority-based queues, care complexity, reimbursement complexity, financial barriers, and geographic barriers.
- **Systems strategies:** Although not common practice, immediate engagement for patients is achievable through queue streamlining and related systems strategies to access and scheduling.
- **Supply and demand:** Continuous assessment, monitoring, and realigning of supply and demand are basic requirements for improving health care access.
- **Reframing:** Alternatives to in-office physician visits, including the use of non-physician clinicians and technology-mediated consultations, can often meet patient needs.
- **Standards:** Standardized measures and benchmarks for timely access to health care are needed for reliable assessment and improvement of health care scheduling.
- **Evidence:** Available evidence is very limited on which to provide setting-specific guidance on care timeliness.
- **Best Practices:** Emerging best practices have improved health care access and scheduling in various locations and serve as promising bases for research, validation, and implementation.
- **Leadership:** Leadership at every level of the health care delivery system is essential to steward and sustain cultural and operational changes needed to reduce wait times.

In addition to the significant variability in wait times among care settings, among specialties, and over time, there is a lack of national standards and benchmarks for appropriate wait times. While references to timely care appear regularly in legislative proposals, a prevailing definition of timeliness has not yet emerged. While national standards for access and wait-times do not presently exist, the committee did also identify examples of organization-specific benchmarks

within various health care settings. For example, some organizations set internal benchmarks of same-or next-day engagement for new and returning patients in primary care (Southcentral Foundation's Alaska Native Medical Center) or first time appointments of newly diagnosed cancer patients (Dana- Farber/Brigham and Women's Cancer Center in Boston); internal benchmarks guide door to provider times within emergency departments (Virginia Mason Hospital), wait times for specialty new visits (Cincinnati Children's Hospital), and primary care backup practices for urgent services (Tufts Health Plan Network Health). The Joint Commission has also developed standards pertaining to emergency department boarding times and hospital discharge risk assessments. Organization-specific benchmarks, such as these, serve as promising reference points for future research and validation.

Recommendations

The committee issued four recommendations for health care delivery systems leadership, leading to: 1) front-line scheduling practices anchored in the basic access principles, 2) governance commitment to leadership on basic access principles, 3) patient and family participation in designing and leading change, and 4) continuous assessment and adjustment at every care site.

Specifically, the committee recommended that:

1. The front-line scheduling practices of primary, specialty, hospital, and post-acute care appointments should be anchored in basic access principles, including: supply matched to projected demand, immediate engagement, patient preference, care tailored to need, surge contingencies, and continuous assessment.
2. The leadership and governing bodies at each level of the health care delivery sites should demonstrate commitment to implementing the basic access principles through visible and sustained direction, workflow and workforce adjustment, the continuous monitoring and reframing of supply and demand, the effective use of technology throughout care delivery, and the conduct of pilot improvement efforts.
3. Decisions involving designing and leading access assessment and reform should be informed by the participation of patients and their families. The potential ways that patients could provide their expertise through informal or formal channels (e.g., patient and family advisory councils, surveys, and focus groups) include contributing input on their expectations, experiences, and preferences for scheduling practices and wait times; helping representatives of health systems explore alternative access strategies; contributing to the design of pilot improvement efforts; helping to shape communication strategies; and interfacing with governance and leadership.
4. Care delivery sites should continuously assess and adjust the match between the demand for services and the organizational tools, personnel, and overall capacity available to meet the demand, including the use of alternate supply options such as alternate clinicians, telemedicine consults, patient portals, and web-based information services and protocols.

The complete Assessment D report is available in Volume II.

This page intentionally left blank.

Appendix E Workflow – Scheduling

E.1 Scope

Health systems across the United States have struggled with ensuring optimal patient access to the services they provide, and VHA is no exception. Although the Veterans Health Administration (VHA) has faced public concerns about access to outpatient care for several decades, many factors that influence access have been only partially analyzed to date at VHA and were called out in the Choice Act as areas for independent assessment. The Choice Act tasked Assessment E with assessing "the workflow process at each medical facility of the Department for scheduling appointments for Veterans to receive care, medical services, or other health care from the Department." The assessment was also asked to address several supplemental areas related to provider scheduling templates, scheduler training, the use of call centers and the appointment scheduling system. All of these factors—as well as others explored in Choice Act assessments such as overall health care capabilities (Assessment B) and clinical staffing (Assessment G)—are critical to ensuring that our Veterans receive improved access to care. Volume II contains the full Assessment E report.

E.1.1 Findings

In this assessment, we have reviewed VHA performance in the scheduling workflow areas against best practices from both within VHA and across the private sector. The major finding of this assessment is that VHA is not fully leveraging provider resources, scheduling best practices, or scale to deliver the best possible scheduling experience and access for Veterans. These shortcomings have a negative impact on both patient access to outpatient appointments (in terms of total number of appointments available and the matching of patients to those available appointments) and the patient experience of scheduling an appointment with VHA. It is likely that, with improved data visibility, more streamlined processes and performance management, VHA could expand the supply of appointments even with its existing provider base, as well as improve overall utilization of appointment supply and patient experience.

More specifically, we observed the following challenges that reduce the overall effectiveness of VHA scheduling today:

- **System limitations prevent accurate visibility into the supply of available appointments, inhibiting VHA's ability to understand the gap between total appointment supply and demand and to effectively manage current performance and plan for the future**. Due to system design limitations, some providers operate across multiple, potentially overlapping, booking templates or "clinic profiles" for any given day or session. As a result, these profiles, when aggregated, provide an inaccurate picture of total available appointment supply and make it challenging to easily understand whether appointment supply matches the quantity VHA should expect given the number of providers. The issue of overlapping profiles not only affects centralized calculations of overall and provider-level appointment supply, but also makes it challenging to calculate provider utilization rate, which is an essential metric for

managing access to care. These limitations mean VHA cannot determine how much patient demand its current provider capacity can meet in a timely manner.

- **Imbalance between supply and demand has led to policies that add responsibilities for schedulers and administrators.** Because VHA has a persistent backlog of patient demand, VHA created additional policies that do not exist in the private sector, such as the capture of patient desired date and the use of the Electronic Wait List (EWL). These policies for measuring wait times and managing waitlists have resulted in a significant number of additional activities required within the scheduler's day-to-day workflow. Further, the implementation of these policies is left largely to frontline interpretation, which may also result in inconsistent experience for patients across clinics or facilities. For example, use of the EWL varies across clinics; some clinics use it solely to measure backlog while others use it to highlight patients who may be willing to take an appointment that becomes available at the last minute (Choice Act site visits, interviews 2015). Veterans may then experience variation in when they are removed from the waitlist depending on how their clinic has implemented EWL.
- **Clinics do not consistently employ standard industry practices related to schedule setup and other scheduling processes.** VHA clinics are inconsistent in their use of industry and VHA best practices in scheduling, resulting in a fewer appointment slots available than may be possible within existing provider capacity and a significant number of booked appointments not being completed as originally scheduled. On schedule setup, examples of these practices in common use in industry and within certain services (such as Primary Care) within VHA include using standard appointment lengths within a sub-specialty and determining appointment mix (for example, number of new patient slots) based on patient demand (Institute for Healthcare Improvement (IHI), "Reduce Scheduling Complexity," n.d.; Primary Care Clinic Profile Standardization Guide, 2014). Similarly, inconsistent scheduling practices, such as the ways in which appointment reminders are used, exist across facilities and clinics. For example, a patient could expect a reminder from a clinic and not receive it (and potentially not go to the appointment as a result). Ultimately, the variability in these practices may result in reduced appointment availability and utilization as well as inconsistent patient experience.
- **Facility-level differences in performance management and accountability limit system-wide improvements in access.** VHA facilities lack consistent organizational structures for managing scheduling or access and, in many cases, lack dedicated resources to manage performance and outcomes for these activities. Given structural differences, formal monitoring of schedules is not a clearly defined duty for any staff members at the facility level, which hinders cross-system sharing of best practices, policy dissemination, and process standardization. In addition, this lack of consistency in organizational structure and accountabilities limits VHA performance management of facilities, as no one individual is specifically accountable and data analysis is

cumbersome.[117] The Veterans Choice Act (Section 303) identified this lack of accountability and aims to assign management of access responsibilities to a particular role within each clinic and to provide tools and processes to help perform this duty ("Veterans Access, Choice, and Accountability Act of 2014," 2014). VHA plans to fulfill this mandate without any new facility hires; instead, the organization will designate current FTEs as owners of these responsibilities at the clinic and facility levels (Access and Clinic Administration Program [ACAP], interviews, 2015).

- **VHA-specific processes paired with a scheduling system that does not simplify processes leads to a greater reported need for scheduler training**. In response to a survey, 90 percent of schedulers noted the need for additional training in at least one area (for example, wait times and wait list policies) to become proficient at executing their basic responsibilities (Assessment E VHA Employee Survey, 2015). This perceived need for enhanced training may be due to systems and processes that do not simplify scheduler responsibilities, a common focus among private sector health system executives we interviewed. For instance, scheduling systems of private sector health systems have more user-friendly interfaces, fewer unique programs, and more automated processes (Private sector health system, interviews, 2015). As a result of greater complexity, VHA schedulers must receive additional training (on wait times and wait list policies, for example) to become proficient at executing basic VHA scheduler responsibilities.
- **Scheduling call centers are not maximizing their performance due to their small scale and disparate service offerings.** VHA call centers are smaller than industry standard (median size of 12 agents within VHA compared to 28 agents in private sector health systems and 110 agents across other industries) (Assessment E national data call, 2015; Belfiore et al., 2015). The scheduling call centers that do exist provide different services and support different specialties depending on the facility. Due to efficiencies in managing call demand that can lead to service improvement for patients, other provider systems have, in some cases, moved to pooling call volumes in more central locations. Larger scale call centers can also have lower per-unit costs and put less stress on space-constrained facilities than facility- or clinic-based operations. Further, larger call centers may be able to offer more coaching, training and career options to schedulers.

E.1.2 Recommendations

VHA has received significant feedback on ways to improve its scheduling and access performance. In fact, since 1999, more than 35 reports by the Government Accountability Office, VA itself, VA Office of the Inspector General (OIG), and independent contractors have commented on possible approaches for VHA to improve scheduling and access. Despite the number of reviews, there has been little articulation of the fundamental need for VHA to solve its ability to manage provider appointment slot supply until the Institute of Medicine's February

[117] For example, at present, there is no easy or automated way to consistently and accurately monitor provider schedules.

2015 "Innovation and Best Practices in Health Care Scheduling" white paper, which recommended that VHA get "back to the basics" to understand provider supply vis-a-vis patient demand and ultimately design schedules that optimize the two. With the access crisis and subsequent Choice Act in 2014, VA/VHA have accelerated several efforts to address issues raised in past reports, including funding provider hiring and non-VA care, initiating the procurement of a commercial off-the-shelf (COTS) scheduling system referred to as the Medical Appointment Scheduling System (MASS), and designing a clinic manager training program to better manage the scheduling process. However, to drive overall improvement to scheduling and address the specific challenges described above, we recommend that VA and VHA successfully complete in-flight initiatives and consider additional actions, which would be most effective if executed in an integrated manner. These actions include the following:

- **Address system limitations to provide visibility into aggregate appointment supply, alternative measures of wait times, and provider-level performance data.** VHA providers can operate across multiple and sometimes overlapping clinic schedules (also known as "profiles"),[118] which can result in double-counting of appointment slots when aggregated. VHA has a current initiative to clean-up overlapping schedules and unused clinic profiles that should result in a more accurate view of each clinic's appointment slot supply. Although this is an important first step, the effort may not eliminate all overlap in schedules and will not by itself allow understanding of appointment supply and utilization. One consolidated schedule for each provider would allow VHA to capture total appointment supply and measure the industry-standard wait time metric. With VA OI&T's current procurement of a new scheduling system (discussed in detail in section 7, Scheduling System), VHA may be on the path to addressing system limitations. Of course, when updating or acquiring a system to support scheduling, it is important to understand the business case relative to modifying the existing system or locally sourcing solutions at the facility / regional level.
- **Codify proven scheduling practices and empower clinics to improve appointment utilization and deliver a consistent patient experience.** Several pockets of scheduling best practice exist within VHA, such as the predictive missed opportunity model. However, many of the best practice VHA tools and processes are not widely disseminated nor utilized. The VHA ACAP Office reported that it is beginning to codify system-wide knowledge of scheduling best practices, but there is also an opportunity to ensure that these practices are consistently utilized in the field (ACAP, interviews, 2015). This will require addressing the lack of clinic management resourcing, addressing scheduler vacancies and ensuring that providers have an understanding of why certain practices (for example, overbooking) may be necessary to provide access.
- **Streamline scheduling policy implementation with supporting tools and implementation guidance; where possible, utilize technology to support.** The current Scheduling Directive policy is designed to aid VHA facilities in managing in an environment of excess demand relative to the appointment supply it is offering. This has

[118] Described in Provider Availability Section 5 of this report

resulted in policy steps, such as wait time capture and wait list management being added to the scheduling process, which can result in inconsistent patient experience due to discrepancies in policy interpretation and implementation in the field. For instance, to adhere to the policy regarding the Electronic Wait List, the scheduler will place a patient scheduled outside of 90 days on a wait list, an additional step in the scheduling process (Choice Act site visits, interviews, 2015). Further, while the EWL prioritizes Veterans to be scheduled based on policy, schedulers can find it challenging to use the list in conjunction with other policies (e.g., how many times the patient should be called before moving to the next patient on the list). In contrast, an ideal system would automatically place relevant patients on the EWL, provide a manager with a comprehensive dashboard for monitoring the waitlist demand, and prioritize which patients should get the first available appointments based on additional parameters. As a result, these changes would improve schedulers' efficiency and improve consistency of policy implementation.

- **Improve scheduler training by sharing local best practices and increasing experiential and on-the-job training, while also minimizing the need for training by simplifying policy implementation and improving system functionality.** Currently VHA's need for scheduler training is exacerbated by its scheduling software, policies (like EWL), and clinic- and provider-specific scheduling rules. Improvements to the scheduling systems, streamlining policy implementation, and minimizing unnecessary clinic-specific rules would reduce demands for schedulers' training and create more consistent patient scheduling experience. To optimize its training program, VHA should also leverage local best practices to create an improved and standardized curriculum for training and minimize duplication of materials development at the facility-level. In addition, training should be delivered using more experiential training methods to increase its effectiveness and information retention by schedulers.
- **Design scheduling call centers that can provide expanded services for Veterans relative to current state.** Currently, VHA scheduling call centers are managed locally at the facility level. As a result, most are small (median size of 12 schedulers, based on facilities that responded to our data call) and each call center varies in regards to the responsibilities and specialties for which it is responsible (Assessment E national data call, 2015). Decentralized call centers are difficult to centrally monitor and manage with regards to patient experience. Through the new myVA effort, the organization is examining how it interacts with Veterans across various channels (such as, web, call centers, mail). This includes a VA-wide Call Center Task Force that may ultimately address scheduling; however, the scope does not yet appear to be clearly defined. VA has an opportunity to evaluate its current call center use for scheduling and develop an approach based on existing VHA call centers in other areas (like Health Resource Centers) and leading private sector scheduling call centers. VHA can then evaluate which responsibilities and specialties should be handled at larger scheduling call centers. Additionally, VHA should analyze the appropriate degree of centralization (for example, regional or virtual call center) and the call center locations.

- **Ensure that the clinic manager training program and subsequent implementation are appropriately scoped and resourced to drive access and clinic management.** Different roles, accountabilities and levels of expertise exist across facilities for managing access and scheduling, which affects how access and scheduling is managed and prioritized at different facilities. Via the Choice Act, VHA was directed to develop a clinic management training program to address these gaps within the system. While many important scheduling functions are reported to be addressed in the training curriculum as it is currently envisioned, resourcing and accountability for these activities will be equally important in ensuring that VHA is able to fully utilize its provider capacity and the appointment supply made available to Veterans. Further, tools need to be developed and distributed to ensure that these new clinic managers are successful.

Despite many of its broader organizational and operational challenges, VHA can leverage multiple positive aspects of its current scheduling and access management practices in the future. For instance, VHA's scheduling policy has created the mechanism to identify potential supply-demand imbalances by tracking patients waiting for care at the clinic level. Similarly, VHA's efforts to encourage patient appointment adherence through a multi-pronged patient reminder approach, coordination of transportation and efforts to coordinate multiple services, where possible, demonstrate a commitment to supporting Veterans receiving care. Additionally, locally developed scheduling innovations demonstrate the potential for new scheduling tools and practices within the organization. For example, several VA Medical Centers (VAMCs) have developed home-grown "best practice" tools, including the predictive missed opportunity model, aggregated views of provider availability, and facility-centralized patient reminder systems across multiple modalities. In addition, VHA can build on its early efforts to modernize its patient-facing scheduling capabilities, such as online self-scheduling. This foundation suggests that VHA can draw on experience and assets within the organization, as well as on external best practices, to improve its scheduling processes.

In summary, if VA / VHA were to continue to build on existing assets, execute on its in-flight initiatives and supplement them by executing on the recommendations above, it may be able to offer a more consistent experience across clinics and facilities, expand appointment supply with existing provider resources and ensure better utilization of its supply. The impact of this for Veterans could come in the form of both improved experience and improved access.

Appendix F Workflow – Clinical

F.1 Scope

Assessment F (Inpatient Clinical Workflow), Section 201 of the Veterans Access, Choice, and Accountability Act of 2014 ("The Choice Act") mandates an assessment of the "organization, workflow processes, and tools used by the Department to support clinical staffing, access to care, effective length-of-stay management and care transitions, positive patient experience, accurate documentation, and subsequent coding of inpatient services." Pursuant to this language, Assessment F focused on the organization, workflow processes, and tools (i.e., structural components and approaches) in place within acute care hospitals to facilitate the five identified sub-assessments as both individual components as well as part of the interdependent continuum of inpatient care. Comparison of current VHA practices to accepted best practices (drawn from literature and professional associations), as well as standard practices (drawn from public and private sector benchmarks) provided insight into alternative approaches and recommendations. While selected performance outcomes were used to prioritize areas of focus, a complete analysis of clinical, performance, operational, or other outcomes associated with the employed approaches was not in scope for this assessment. Volume II contains the full Assessment F report.

F.1.1 Findings

Our assessment identified both cross-cutting strengths and opportunities for improvement as well as findings and recommendations specific to each of the five sub-assessment areas reviewed.

F.1.1.1 CROSS-CUTTING FINDINGS

We observed three common themes supported by findings across sub-assessment areas.

- **Ineffective data collection and management drives a lack of transparency into many key aspects of clinical operations, hindering VHA's ability to effectively manage inpatient care**. Despite having a well-regarded EMR system and the capability of tracking extensive clinical data, poor data collection and management of operational metrics was a consistent theme heard during site visits. Furthermore, it was clearly evident from our central and local requests for specific information. Data that is standard in private sector hospitals was frequently inaccessible in a timely manner or not tracked in a usable format by VHA. For example, VHA FTE and payroll data includes information by clinical occupation but not by department, which prevented planned analysis of the appropriateness of staffing, since needed staffing levels vary considerably by department (e.g., the ICU requires more concentrated nursing attention than med/surg floors; see Volume II, Assessment F, Section 5 for more detail). We observed data integrity and availability issues significantly affecting VHA's visibility into clinical operations in four of our five sub-assessment areas and believe that this likely affects VHA's ability to manage operations at the local and national levels.

- **VHA resources (e.g., staff, beds) do not always match Veterans' care needs.** The practical allocation and prioritization of resources across the VHA system may not be consistently aligned to meeting the broader health needs of the Veteran patient population. Mis-match of resources to patient care needs manifests itself in three ways: hiring that does not consistently match staffing needs; allocation of staff to tours ("shift") that do not consistently match Veteran demand; and limited access to appropriate outpatient and post-/sub- acute care options. An example of the impact limited outpatient and post-acute care options has on Veterans can be seen in the abundance of inpatient admissions and continued stays that do not meet acute care admissions or continued stay criteria. National Utilization Management (NUMI) data[119] indicates that 23 percent of inpatient admissions (see Volume II, Assessment F, Section 6 for more detail) and 34 percent of inpatient stays overall do not meet admission and continued stay criteria (see Volume II, Assessment F, Section 7 for more detail). Many are admitted to, or remained in the hospital, due to challenges in accessing the appropriate level or type of care (e.g., primary care, detoxification center, post-acute rehabilitation). The disconnect between resources and demand has clear implications on VHA's ability to effectively and efficiently provide the care needed to improve the health and well-being of Veterans.
- **While best practices exist in selected pockets, communication and support for implementation at scale appears to be a challenge**. Our site visits revealed several clear best practices in place at various VAMCs; however, adoption of these practices was isolated even within the facility. Case studies of particularly strong programs are included in all sub-assessments. Despite successfully adopting best practices in some units, however, facilities appeared to struggle to implement programs house-wide. Moreover, information-sharing between VAMCs appears to be limited and ad hoc. As one Assistant Director of Patient Care Services described, "I'm shameless about stealing what works at other places, the problem is, I don't know what other places are doing. We need a way to connect, to learn from each other"[120]. This sentiment was echoed by many staff across all of the facilities we visited.

SUB-ASSESSMENT FINDINGS

In addition to the broad cross-cutting findings, a review of each sub-assessment identified specific strengths and opportunities for improvement within their areas of focus.

- **Clinical staffing:** Siloed resource management (e.g., limited coordination across service lines on FTE requests), poor data management, and limited guidance on staffing methodology result in staffing practices that are seldom evidence-based, outside of a few best practice areas (such as nursing). This prevents VHA from knowing whether staffing

[119] NUMI (National Utilization Management Integration): supports national utilization management agenda by providing a common tool for tracking performance on utilization management metrics across facilities

[120] Facility interview

allocations are appropriate. Furthermore lengthy hiring timelines and inconsistent alignment of staff to patient care needs have downstream implications.

- **Access:** Best practices exist at disparate facilities however, their lack of systemic adoption combined with an inaccurate understanding of patient demand and available capacity and inconsistent admission and bed assignment practices hinder inpatient access.
- **Length-of-stay and care transitions:** National efforts to improve length-of-stay have been hampered by challenges meeting discharge needs of patients requiring specialized post-acute care (e.g., homeless, psychiatric diagnoses), inefficiencies in care delivery practices (e.g., limited availability of weekend consults), and inconsistent approaches to discharge planning often delay care transitions and discharge beyond private sector benchmarks.
- **Patient experience:** Best practice innovations are evident at the national and local levels, but challenges with patient satisfaction data transparency and national implementation support limit system-wide adoption.
- **Documentation and coding:** Limited understanding by providers and coders of the link between coding and resource allocation, coupled with limited performance management, likely contribute to sub-optimal documentation practices yielding lost revenues and misaligned resources. Despite these challenges, coding performance is a relative strength and comparable with industry standards.

F.1.2 Recommendations

Across sub-assessments, our recommendations also fall under three major themes:

- **Improve clinical management through establishing clear operational metrics, and streamlining data collection focused on clinical priorities, monitoring, and performance management**. Appropriately defining standards for high performance and having accurate information on how departments and facilities measure against defined targets is the foundation of managing operations. Site visits, data analysis, and comparison against best and standard practices suggest that VHA lacks such visibility into clinical operations, significantly reducing its ability to address challenges and innovate (see Volume II, Assessment F, Section 3.1). We believe that improving transparency is critical to ensuring effective, timely, and efficient delivery of care to Veterans, across many of our sub-assessment areas. In part, transparency could be improved through enhanced data management, meaning both better data integrity and sharper focus on a targeted set of key metrics needed to assess performance. Equally important, VHA should ensure that facilities have clear operational guidelines on how to set and track appropriate performance goals (e.g., by providing comprehensive staffing methodologies for service lines with no national guidance).
- **Realign resourcing (for example, staff, facilities) to allow VHA to serve patients at the appropriate level of care (such as, increase Veteran access to sub-acute and post-acute care to reduce clinically inappropriate admissions and prolongation of acute inpatient stays)**. We observed many instances in which VHA resources were not appropriately matched to patient demand. As described in Volume II, Assessment F, Section 3.2, there is a disconnect between resources and demand in delayed hiring of staff needed to

support patient care, mis-allocation of staff to tours (i.e., shifts), and limited outpatient and post-acute care options needed to ensure treatment at the appropriate level of care. In order to provide high quality care that promotes the health and well-being of Veterans in a cost efficient manner, VHA should ensure that resourcing allows the system to serve patients at the appropriate level of care. Broadly, we see three categories of changes that could help effect this recommendation: improve hiring, allocate staff to match patient demand (e.g., align that staffing on weekend, holiday, and evening hours is sufficient to meet patient need), and increase access to outpatient and post-acute care options.

- **Scale existing best practices and support further innovation at the local and national levels.** A consistent theme during our site visits and interviews was that the opportunity to build off of existing strengths within the system was encumbered by limited sharing of best practices across VAMCs (see Volume II, Assessment F, Section 3.3). In instances where best practices have been developed nationally, challenges appear to exist due to unclear guidance on implementation, occasional flaws in the design of programs, and lack of VAMC adoption. In instances where best practices have been developed locally, scaling seems to be inhibited by limited infrastructure for information-sharing and lack of resources. To address both sets of challenges and fully leverage and build off of institutional strengths, we suggest improving practices through a combination of targeted national guidance (e.g., streamline Veteran-centered care initiatives and mandates) and nationally-supported local best practice-sharing and innovation (e.g., build infrastructure to promote cross-facility sharing of patient flow best practices).

Several recommendations will require national coordination, while others could be implemented in the near-term at the facility level. We have provided additional tactical steps, titled near-term actions, for associated recommendations at the sub-assessment level and encourage facilities to review these and take action quickly at the local level where appropriate. Additionally, several pre-conditions for implementation (see Section II, Assessment F, Section 4.2.1) have been identified for prioritization by Congress and VACO to support a successful and sustainable system-wide transformation.

Implementing solutions to long-standing challenges will require collaboration among Congress and the Executive Branch, VA leadership (VACO, VISN, and VAMC) and staff, as well as the unions and external stakeholders. We see this assessment as an opportunity for improvement, to be achieved by all stakeholders through a combination of local, regional, and national action. Addressing these challenges will require sustained commitment as a part of an integrated transformation effort for the system as a whole.

Appendix G Staffing/Productivity

Scope

Assessment G (Staffing/Productivity) examined "the staffing level at each medical facility of the Department and the productivity of each health care provider at such medical facility, compared with health care industry performance metrics, which may include an assessment of the case load and number of patients treated by each health care provider, time spent by health providers on matters other than caseload, including time spent at an affiliate, conducting research, training or supervising other health care professionals of the department."

Findings

The Assessment G team had several key findings and observations pertaining to the core assessment objectives: staffing, productivity, and time allocation.

The Assessment G team analyzed VHA provider staffing levels and compared them to the private sector (using physician per population ratio industry comparisons) and identified some of the challenges VHA faces in ensuring it has sufficient providers to meet demand. With respect to provider staffing levels, the Assessment G team found that:

- **VHA specialties with the highest provider full time equivalent (FTE) levels include medicine specialties, mental health, and primary care, consistent with VHA's care model and the needs of the Veteran population**. Social Workers also represent a significant portion of provider FTEs. VHA does not systematically track fee-basis provider productivity, and does not capture FTE level information for fee-basis care providers.
- **VHA physician staffing levels per population are, in most specialties, lower than industry ratios**. These ratios are not sufficient to establish whether VHA is staffed to meet demand. One factor to consider is that even industry physician supply is not sufficient to meet demand in many specialties. Another factor to consider is that VHA uses Advanced Practice Providers (APPs) extensively, but APPs are not included in industry ratios.

The Assessment G team also assessed the productivity of VHA providers in comparison to providers in the private sector. With respect to provider productivity, the Assessment G team found that:

- **VHA measures the performance of its primary care providers (PCPs) using panel size.** VHA calculates a modeled panel size for providers based on a variety of factors at each facility. The model was developed based on research into the appropriate panel size for the unique needs of Veterans.
- **In accordance with policy, VHA facilities establish a maximum panel size for each primary care provider which is often lower than the modeled panel size.** The maximum figure takes into account specialized panel needs (for example, a geriatric population) and other factors deemed appropriate by the facility.
- **The actual panel size of VHA primary care providers is lower than internal and external benchmarks.** The actual panel size for VHA general practice physicians is 13 percent

below the VHA modeled panel size, 12 percent below the external benchmark, and 5 percent below the facility maximum.

- **When compared to the private sector using wRVUs, there is a productivity gap in VHA specialty care**. When encounters (visits) are used as a measure, the gap shrinks and VHA specialty care compares more favorably to the private sector. VHA mental health providers are more productive than academic medical center (American Medical Group Management Association [AMGMA]) benchmarks, as measured by both wRVUs and encounters.
- **Overall, VHA specialty care providers are producing fewer wRVUs than private sector benchmarks; however, VHA specialty care providers at the highest complexity facilities are more productive than their peers**. Further, the most productive VHA providers (those at the 75th percentile of VHA providers) are often more productive than the private sector.
- **Productivity and access are important measures in population based health models like VHA that focus on patient outcomes, rather than volume**. VHA's Office of Productivity, Efficiency, and Staffing (OPES) reports on productivity and access offer tools for use by medical facilities. With some improvements to expedite adoption and regular use by medical centers, these tools could become key resources in optimizing productivity and maximizing access to care.
- **VHA dentists see fewer patients on average than private sector benchmarks, but serve a population with special needs**. The dentistry patient population of VHA generally has a compensable service-connected dental disability, is older, has more complex injuries, and may present for dental care following years of dental neglect.

The Assessment G team identified several barriers which limit provider productivity and may explain the differences between VHA provider productivity and that of the private sector, especially in specialty care. These include:

- A shortage of examination rooms and poor configuration of space
- Insufficient clinical and administrative support staff ratios
- Providers may not fully document and accurately code all of their clinical workload, which may impact the accuracy of wRVU productivity measurement

We noted the insufficient clinical and administrative support staff ratios as a key barrier to optimizing productivity and studied this more closely. More specifically, we found that:

- While there has been widespread implementation of the Patient Aligned Care Team (PACT) model in primary care clinics and the National Nurse Staffing Methodology in many areas of inpatient care, **there are no current VHA standards for staffing levels and/or mix in specialty clinics**, with the exception of eye clinics. Furthermore, VHA OPES has developed state of the art tools for managing staffing and productivity, but these tools will require improvements for leaders to more effectively leverage them in resource decisions.

- **Organizational siloes and separate reporting lines exist for physicians, nurses and medical service administrators at a majority of VA Medical Centers** (VAMCs). As a result, service chiefs do not have control over the resourcing and performance of their clinical support staff (nurses) or clerical and administrative support staff.
- **Many facilities do not have a centralized staffing office or nurse float pool to address daily staff variances or absences.**

With respect to how providers spend their time, the Assessment G Team observed that:

- **VHA physicians spend a comparable proportion of total time devoted to clinical activities as private sector physicians.** There is some potential difference in the definition of direct patient care used by the private sector, specifically with respect to training, teaching and research, but we believe this represents only a small proportion of a provider's direct patient care time.
- **Across all VHA providers, less than two percent of time is devoted to research.** Since provider time spent devoted to clinical care activities is comparable to the private sector, it does not appear that research activities reduce providers' time spent treating patients. Despite the overall low proportion of time spent on research, the accomplishments of VHA's research program, and contributions to advancing care for Veterans, are numerous.

Recommendations

Taking the above findings into consideration, the Assessment G Team offers five cross-cutting recommendations:

VHA should improve staffing models and performance measurement. VHA should conduct an evaluation of the design and implementation of current VHA staffing models to determine the extent to which they are sufficient to meet the goals of VHA's population health focused model and ensure all eligible Veterans have access to high quality, timely care. VHA should conduct a program review of the implementation of the PACT staffing model in primary care to identify the causes of the gaps between actual, facility maximum, modeled and external benchmarks, the impacts of these performance gaps on access to quality care, the appropriateness of current guidelines and performance standards, and determine areas for improvement. VHA should develop and implement staffing models for outpatient specialty care services and improve existing performance measurement systems to realize the benefits of specialty care staffing models. VHA should refine and implement the National Nurse Staffing Methodology across inpatient services and improve the performance measurement system to realize the benefits of the methodology. We further recommend that VHA mandate all VAMCs adopt and report nursing quality metrics to a national database to compare VHA to other external health organizations.

To improve staffing and productivity measurement and better determine the capacity of VHA specialty clinics, this assessment recommends that VHA gather data and assess the productivity of fee-based providers, as well as conduct a work measurement study (or confirm existing workload data) to determine the volume and distribution of workload annually to better match staffing requirements to demand. For future reporting, OPES should complete the development

of the APP productivity cube, to include completion of business rules that would allow APPs to be mapped to a specialty designation and included in OPES specialty group practice and facility productivity reports to accurately reflect care teams' overall effort and present a combined provider (doctor of medicine [MD] and APP) productivity view.

VAMCs should create the role of clinic manager and drive more coordination and integration among providers and support staff. We identify recommendations for increasing the level of teamwork and accountability among all outpatient clinic staff, especially in specialty care services. This might be achieved by creating multidisciplinary management teams for specialty clinics that include a physician leader, nurse leader, and business administrator. Alternatively, specialty clinics might establish a single or dual reporting line and operating a model for providers and their clinical and non-clinical support staff, so that all of the members of the specialty clinic team have more accountability to each other and the Service Chief of the specialty.

VA Medical Centers should implement strategies for improving management of daily staff variances, and include a replacement factor for all specialties, including PACT. With respect to managing staff absences, we make recommendations for improving the management of daily staffing variances by implementing several strategies that include intermittent float pools of support staff and the inclusion of a replacement factor across all staffing methodologies/models, to include PACT.

VA Medical Centers should implement local best practices that mitigate space shortages within specialty clinics. We identify recommendations to help VA medical facilities mitigate space shortages within specialty clinics. These include strategies such as: standardized schedule templates, expanded clinic hours, increased use of non-face-to-face encounters for follow-up consults by specialty care, and system redesign initiatives to improve patient flow within clinics.

VHA should improve the accuracy of workload capture. We recommend that VHA conduct an audit of health record documentation and current procedural terminology (CPT®) coding accuracy and reliability to validate physician productivity measurement and that if the results support it, evaluate the ability of commercially available computer assisted coding (CAC) applications to assist providers with coding. The creation of the role of clinic manager for Specialty Care clinics should also be used to improve clinic management and coding practices.

Appendix H Health Information Technology

Scope

Assessment H responded to language in Title II, Section 201, of the Veterans Choice Act of 2014 that mandated an independent assessment of "the information technology strategies of the Department with respect to furnishing and managing health care, including an identification of any weaknesses and opportunities with respect to the technology used by the Department, especially those strategies with respect to clinical documentation of episodes of hospital care, medical services, and other health care, including any clinical images and associated textual reports, furnished by the Department in Department or non-Department facilities." The recognition that Veteran health and satisfaction constitute important measures of information technology (IT) effectiveness guided the assessment team's investigations and the resulting recommendations.

To gain comprehensive insight into Department of Veterans Affairs (VA) health IT and the strategies that guide its implementation, the Assessment H team conducted 185 interviews in the course of site visits to Veterans Integrated Service Networks (VISNs), VA Medical Centers (VAMCs), and Community Based Outpatient Clinics (CBOCs), as well as VA's Office of Information and Technology (OI&T). The team also reviewed plans, reports, audits, and protocols procured from OI&T and VHA, as well as external reports and journal articles relevant to health IT and complex system development. Further, the team compared its observations and findings against lessons learned and best practices identified by executives, administrators, clinicians, and IT professionals at high-performing private health systems. Because IT touches nearly every aspect of operations at VHA, the data gathered by Assessment H generally supports the qualitative evidence related to IT collected by the other assessments.

Findings

Several decades ago VA led the development of electronic health record (EHR) technology with its Veterans Health Information Systems and Technology Architecture (VistA) system and Computerized Patient Record System (CPRS) systems. Most VHA clinicians have a high opinion of the clinical applications and databases enabled by VistA and CPRS, as well as VA's newer technologies such as telehealth and mobile applications (apps). Several Assessment H interviewees attributed the success of the early VistA and CPRS development efforts to the close working relationship between VistA/CPRS developers and clinicians. This collaboration seems to have disappeared with the centralization of IT in 2006, resulting in uncoordinated execution of health IT strategy and limited development of new and improved capabilities for VistA/CPRS. During the past decade, VistA and CPRS development has been confined to point solutions and minor enhancements.

Clinical users have become increasingly frustrated by the lack of any clear advances during the past decade. Numerous VHA clinicians have experience with commercial EHR systems and want the same level of features, modern clinical capabilities, integration, and mobility they see emerging in the commercial marketplace.

VHA and OI&T do not collaborate effectively with respect to the planning and execution of IT strategies for managing and furnishing health care. Although the goals of OI&T and VHA do not conflict at the strategic planning level, the organizations often do not agree on priorities for executing the strategic plans.

During the past decade, VA's ability to deliver new capabilities for its VistA system to meet changing Veteran health care needs has stalled. As a result, VA/VHA health care systems are in danger of becoming obsolete. The VistA/CPRS systems are based on a tightly integrated, monolithic architecture and design with numerous and diverse functional components and associated interdependencies. These characteristics impose significant barriers to modernizing these systems. In addition, the high cost of infrastructure operation and maintenance (85 percent of the total IT budget) reduces funding available for new development efforts. Maintenance and data sharing are further complicated because most VAMCs have customized their local versions of VistA, leading to approximately 130 different instances of VistA across the country.

Overly demanding processes for system development, as defined by OI&T's Project Management Accountability System (PMAS), impede cost-effective delivery of new health IT capabilities and limit VA's ability to measure the value of IT investments. The PMAS process is schedule driven and risk averse, leading many project managers to limit the amount of functionality in each release, thereby increasing the total time for any useful capability to be released.

The lack of standard clinical documentation has made it harder to develop effective clinical decision support systems and hinders EHR information exchange among VAMCs, between VA and non-VA facilities (including those of the Department of Defense [DoD]), and between VA and the individual Veteran. The lack of data standards presents challenges to using comparable data for analysis and disparities among the 130 tailored local instances of VistA complicating information sharing, data aggregation, and analytics. The outdated technology underlying VistA weakens VHA's ability to leverage powerful new technologies for extracting information from free-form text, processing genomic data and images, and extracting and analyzing data from personal health monitoring devices.

While VA has successfully developed and deployed telehealth capabilities and mobile apps, it does not effectively assist end users of these technologies and it does not match the pace of the commercial marketplace. VA's support for telehealth users (patients and clinicians) is weak, understaffed, and poorly integrated with IT systems. In addition, barriers associated with providing VISN-to-VISN telehealth make optimizing the caseload across VISNs more difficult, creating unnecessarily long waits for care in certain regions. VA has the opportunity to apply mobile technology at a low price point, but until VA improves its IT development process to emphasize delivery instead of process, it cannot match the pace of the commercial marketplace with respect to delivery and improvement of mobile apps. These limitations prevent VA from realizing the strategic value of mobile technologies as an enabler of both Veteran access and Veteran satisfaction.

Recommendations

VA/VHA must resolve IT challenges comprehensively, targeting solutions to the entire system rather than seeking to solve isolated problems. To their credit, many leaders within OI&T and VHA, as well as administrators, health information management and IT professionals, and users at the facility level, recognize the need to address these issues. This report describes a future vision for VA/VHA as a high-performing health care system and a continuously learning health system that implements enterprise IT service management best practices.

At the strategic level, VA and VHA need to transform IT strategy, planning, and execution in a systematic manner with dedicated executive-level leadership. Specifically:

The VA chief information officer (CIO) should select a CIO for VHA to manage and advocate for VHA's IT needs and assist in transforming the VA IT strategy to a model based on enterprise IT service model standards and best practices. This involves taking the following actions, explained in more detail in this report:

- Establish mutually acceptable IT service level agreements and optimize them for effectiveness.
- Refine the planning and budgeting process to ensure that business needs are effectively identified, prioritized, funded, and used to drive health IT investments.
- Develop a governance policy to ensure the strategic plans are executed well and in a timely manner.
- Establish product (capability)-focused teams to ensure delivery of needed capabilities to users.
- Refine VA's agile development process from a document-and-schedule focus to a delivery focus.

The VHA CIO, in partnership with the VA CIO, should oversee a comprehensive cost-versus-benefit analysis between a commercial off-the-shelf (COTS) EHR and continued in-house custom development of the VistA EHR currently in use. The analysis should take into account all the complexities of the VistA/CPRS architecture and infrastructure and known issues with performance, scalability, extensibility, interoperability, and security. It should also address full life-cycle costs, including development time (based on recent delivery trends), availability of development resources, maintenance and licensing costs, and infrastructure costs. VIS

The VA and VHA CIOs should conduct site visits and review the successful IT practices implemented at high-performing health care systems (including VISN4), to inform their strategies for effective approaches and potential contributions that IT can provide to improve the treatment of Veterans today.

The VA CIO and VHA CIO should report to Congress at the end of fiscal year 2016:

- Evidence that the VHA CIO serves as an effective advocate for the IT needs for health care delivery. This should include, but not be limited, to a description of the requirements for an effective health care management system to provide a basis for comparing VistA and COTS EHRs.

- Actions taken and evidence that OI&T acts as a service provider and delivers IT capabilities and IT services that improve health care delivery to Veterans. Evidence should include results of clinician and Veteran surveys confirming the quality of and satisfaction with the newly delivered capabilities and services.
- Results of the cost-versus-benefit analysis between a COTS EHR and continued in-house custom development of the VistA EHR.

VA should implement a broad process, inclusive of clinicians, to pursue requirements that support clinical documentation best practices and improved functionality and usability while considering the positive aspects of existing systems. Although providers can continue to leverage the free text capability available in the current EHR, it must be augmented with discrete, structured data capture using industry standard definitions to increase the interoperability with other systems inside and outside of VHA. This is especially critical due to the increased use of non-VA care.

VHA should accelerate efforts to establish semantic definitions for data elements through the use of standard nomenclatures, terminologies, and code sets. By doing so, VA can ensure consistency and integration across multiple systems, leverage follow-on IT products, and facilitate analytics for clinical decision making.

VA/VHA should assess the effectiveness of analytical products in driving health and business outcomes. They should identify and recommend improvements needed in the information systems that serve as the sources of the data to improve the reporting capabilities. VA/VHA should track actions taken as a result of the analytical products and quantify how effective those actions were in improving health and business outcomes.

To reduce the number of Veterans who abandon telehealth, VA should offer technical support to Veterans, should make testing a connection between Veterans and providers easier for all parties, and should better integrate telehealth technologies across VA medical facilities and VISNs. Assisting Veterans with use of this technology should improve the Veteran experience and reduce health care costs. VA should also address the challenges that complicate telehealth appointments between VISNs.

VA should explicitly identify mobile applications as a strategic enabler to increase Veteran access and satisfaction and help VHA transition to a data-driven health system. Mobile technology could effectively leverage patient-generated data to augment the data captured in the EHR to feed the learning health system.

Appendix I Business Processes

Scope

Assessment I reviewed the "business processes of the Veterans Health Administration, including processes relating to furnishing non-Department health care, insurance identification, third-party revenue collection, and vendor reimbursement, including an identification of mechanisms as follows:

- To avoid the payment of penalties to vendors.
- To increase the collection of amounts owed to the Department for hospital care, medical services, or other health care provided by the Department for which reimbursement from a third party is authorized and to ensure that such amounts collected are accurate.
- To increase the collection of any other amounts owed to the Department with respect to hospital care, medical services, and other health care and to ensure that such amounts collected are accurate.
- To increase the accuracy and timeliness of Department payments to vendors and providers."

I.1 Summary of Findings

VHA Revenue—VHA is Not Optimizing Revenue Due to Ineffective Veteran Insurance Identification, Clinical Documentation and Coding, and Cultural Barriers.

Ineffective Veteran-facing (front-end) VAMC processes for insurance identification, and clinical documentation, and outpatient coding issues result in CPAC staff members having to address issues "after-the-fact." The issues correspond to $581 million in denials from insurance companies in 2014.

For first-party (Veteran) co-payments, VAMC staff members are not collecting the co-payments at the point-of-service and CPACs must collect the co-payments weeks to months after the date of service. Further, based on feedback from VAMC leadership, Veterans do not always understand the need to provide insurance information and VHA staff can be reluctant to ask for it.

Revenue processes span across VAMCs and CPACs; however, only the CPACs are accountable for revenue collection and the associated performance outcomes. VAMC commitment is required to monitor and correct issues early in the process to reduce collections delays and denials.

Non-VA Care Payments—VHA Does Not Have Adequate Infrastructure and Streamlined Processes to Pay Non-VA Care Claims Timely and Accurately.

VHA's complex and disparate processes for paying Non-VA Care claims are confusing to Non-VA providers and VHA staff, resulting in inconsistencies in authorization and payment practices. VHA's mechanisms to pay Non-VA claims timely and avoid delinquent payments, particularly at

select VISNs. However, inadequate data analytics indicate the issues could be more widespread. VHA mechanisms to avoid delinquent payments to external providers are inadequate putting VHA at risk for significant interest penalties.[121]

Inadequate claims submission guidance discourages widespread use of electronic claims submission. VHA receives only a small percentage of non-VA claims electronically, which increases workload, manual processing, and the likelihood for payment errors. Low staff retention and a 20 percent vacancy rate further exacerbate delays and errors in claims payments.

VHA established Patient Centered Community Care (PC3) to expand Non-VA care access by entering into national contracts with Healthnet and TriWest to provide Veteran health care on a fee for service basis. Feedback from VA employees interviewed indicate that PC3 is experiencing challenges due to gaps in the non-VA provider network.

Information Technology—Lack of Automation and Integration Prevent VHA from Optimizing Performance in both Collections and Payments.

VHA will not be able to make necessary improvements in their billing and collection processes without modern, automated technology. Antiquated systems used to support the revenue collection processes for third-party reimbursements and first-party (Veteran) co-payments do not provide needed functionality. These systems require significant manual intervention and processing that creates an environment prone to human error and delayed claims payments from insurers.

VHA software tools and functions do not interoperate across clinical and revenue management systems and their limited interoperability with other internal and external systems inhibits VHA's ability to bill and collect revenue accurately and rapidly.

Few Non-VA providers submit their claims to VHA electronically, relying instead on paper claims, which reduces payment timeliness and accuracy. In addition, staff members process claims manually compared to private-sector benchmarks of 79 percent automation.

Oversight and Metrics—VHA Lacks Certain Performance Reporting to Provide Effective Oversight and Proactive Process Improvements for Collections and Payments.

VHA lacks standard national reporting of key performance metrics for timely insurance identification and verification across VHA, inhibiting visibility into VAMC insurance capture performance of VAMCs. In addition, VHA cannot establish effective productivity standards and monitor Non-VA Care staff performance because processes are inconsistent across VAMCs and VISNs. Current decision support capabilities are not sufficient to provide oversight and management of Non-VA Care claims processing and payment. Proactive and retrospective processes are in place to find inaccurate payments, but these practices are highly manual.

[121] There is an ongoing VA Office of General Counsel review of the universe of payments to which the Prompt Payment Act applies.

I.2 Summary of Recommendations

Recommendation 1—VHA: Develop a long-term comprehensive plan for provision of and payment for non-VA health care services.

The expansion of Non-VA Care over the last decade has resulted in a combination of programs that lack sufficient infrastructure to successfully perform the business functions today or meet the demands of the future. The demand for Non-VA Care will be determined, in large part, by the decisions made regarding VHA care and, in turn, by VHA's capacity to meet demand for services. For example, decisions about VHA facilities and workforce will affect demand for Non-VA Care, as will changes in the demographics and clinical needs of Veterans. VHA should adjust the plan as necessary depending on ongoing studies regarding VHA's capacity.

Recommendation 2—VHA: Establish a formal governance model that allows CBO and VISN leadership to converge, aligning interests and accountability.

The growth of both VHA and Non-VA Care requires an increased focus on business processes to sustain care for an increasing Veteran population. An organizational structure that balances central management with local autonomy is vital to VHA. VHA must align accountability and interests at the leadership level of CBO and the VISNs. Under the current alignment, CBO is dependent upon the VAMCs and VISNs to execute core business functions. With CBO and VISNs reporting separately to the VHA Office of the Under Secretary, VAMC priorities do not always align with CBO's. Placing both organizations under a single governance structure will promote convergence of interests, accountability, cooperation, and coordination.

Recommendation 3—VHA: Standardize policies and procedures for execution of Non-VA Care, particularly the Choice Act, and communicate those policies and procedures to Veterans, VHA staff, VHA providers, and Non-VA providers.

Examination of the claims processing protocols and operations revealed opportunities to standardize the manner in which VHA implements Non-VA Care and the Veterans Choice Act across the organization. Standardization will enable VHA to communicate processes and benefits effectively to both patients and Non-VA providers.

Recommendation 4—VHA: Employ industry standard automated solutions to bill claims for VHA medical care (revenue) and pay claims for Non-VA Care (payment) to increase collections, to improve payment timeliness and accuracy.

The growth of both VHA and Non-VA Care over the last decade has produced a combination of programs that lack sufficient technology to support the execution of routine business functions. In large part, these deficiencies result in a high degree of manual intervention required to bill and pay claims. The focus on automation should expand to include integration with front-end processes such as scheduling, insurance identification and verification, medical records, and coding.

Recommendation 5—VHA: Consider and further evaluate aligning the Patient Intake and Health Information Management Service (to include Coding) functions under CBO.

An emerging practice in private-sector health care is to align all components of the revenue cycle under the Chief Financial Officer (CFO) linking job responsibilities to financial performance. VHA's revenue cycle activities currently owned by the VAMC/VISN are Scheduling, Pre-Registration, Registration and Coding—all primary functions for identifying and verifying insurance, and ensuring accurate and timely first- and third-party collections. The private sector has recognized that aligning these functions under a single organization improves accountability and revenue cycle performance. Our findings indicate that the separation between business process and organizational structure within the VHA revenue cycle processes has resulted in a lack of coordination and consistency in these functional areas. Given the size and complexity of VHA compared to the private sector, any realignment needs to be carefully considered. Added to this, the VHA CBO recently completed a very large organizational consolidation of Non-VA Care employees and adding significantly more responsibility to the CBO at this time may be difficult for the CBO to absorb in the near-term.

Recommendation 6—VHA: Align performance measures to those used by industry, giving VHA leadership meaningful comparisons of performance to the private sector.

VHA should continue its progress toward implementation and management reporting of common industry performance measures. Once these practices are in place, VHA should identify performance standards that balance meeting VHA requirements with achievable, incremental performance improvements. This approach would immediately allow VHA to leverage common industry measures and benchmarks to conduct analysis, make informed decisions, and help to bring VHA performance into congruence with private-sector benchmarks.

Recommendation 7—VHA: Simplify the rules, policies, and regulations governing revenue, Non-VA Care, eligibility, priority groups, and service connections, educate all stakeholders, and institute effective change management.

Simplifying the rules, policies, and regulations will allow VHA to execute business processes uniformly, and to communicate clearly with all stakeholders.

Recommendation 8—VHA: Identify, share and institutionalize best practices across the agency.

There are numerous examples of business practices in VHA (as described in section 4 of this report) that produce results that significantly exceed VHA averages. VHA should develop a recurring process to examine these peer organizations' "positive deviants" and determine where successful practices apply to VHA business processes. Doing so will enable VHA to not only standardize, but also improve upon current best practices.

Appendix J Supplies

J.1 Scope

Assessment J examined the "purchasing, distribution, and use of pharmaceuticals, medical and surgical supplies, medical devices, and health care related services by the Department." In line with the language of the legislation, pharmaceuticals, medical and surgical supplies (hereafter referred to as clinical supplies), and medical devices are considered within the scope of this assessment. In addition, services directly related to the purchasing, distribution, and use of these products are also considered, such as third party distributors and inventory management services. As the strengths and opportunities related to pharmaceuticals are quite distinct from clinical supplies and medical devices, the assessment is structured in two parts: (1) pharmaceuticals and related services, and (2) clinical supplies, medical devices and related services. Findings and recommendations are outlined below and described in more detail in the full report found in Appendix J.

J.2 Findings

J.2.1 FINDINGS RELATED TO PHARMACEUTICALS AND RELATED SERVICES

VA pays low prices for pharmaceuticals overall but several factors limit its ability to consistently access the lowest price available. Through mandated price concessions and national contracting, VA has relatively low pricing overall for pharmaceuticals. However, pharmaceuticals are not always bought at the lowest price available for a number of reasons, including inconsistencies between Federal Acquisition Regulations (FAR) and VA Acquisition Regulations (VAAR), contract lapses, national drug shortages, and requirements to buy from countries that are compliant with the Trade Agreements Act (TAA).

VA's distribution of pharmaceuticals to Veterans and to facilities is efficient and effective: VA's pharmaceutical prime vendor (PPV) is a distributor that sources pharmaceuticals and delivers them to VA facilities. The PPV model ensures efficient delivery of pharmaceuticals to facilities and Consolidated Mail Order Pharmacies (CMOPs) and supports a just-in-time inventory management approach. It received unanimous support from the pharmacists, pharmacy managers, and CMOP leaders interviewed during this assessment.

Supporting distribution directly to Veterans, VA's seven CMOPs deliver 80 percent of outpatient prescriptions directly to Veterans' homes, and they do so efficiently and cost effectively at $1.53 per prescription[122]. The CMOP program also achieved the highest overall customer satisfaction scores of any U.S. mail order pharmacy in a recent J.D. Power customer survey.[123]

VA has developed effective mechanisms to drive appropriate utilization such as its formulary, clinical use guidelines, and involvement of clinical pharmacists: Physicians and pharmacists

[122] VHA Pharmacy Benefits Management. CMOP Overview for the Secretary. Filename: CMOP Info 4-1-15.pptx

[123] J.D. Power (2014) U.S. Pharmacy Study

believe the VA formulary helps guide good clinical decisions, and they express strong buy-in to the formulary process. Veterans have access to medications based on clinical need regardless of their formulary status. Standardized processes enable off-formulary prescribing, including electronic submission of clinical justification by physicians and review by clinical pharmacists. Around 80 percent of off-formulary requests are approved and five percent of outpatient prescriptions are for non-formulary drugs.[124]

High generic drug use supports delivery of high quality, FDA-approved medications to Veterans while ensuring efficient use of taxpayers' dollars. While VA does not measure generic use as industry does, VA purchases 97 percent of its drugs (by volume) as a generic when a generic exists[125] – similar to health care leader Kaiser Permanente which claims 99 percent generic prescription dispensing when a generic exists[126]. However, there are pockets of opportunity to use a higher share of generics within certain drug classes in some geographies.

VA has implemented policies and processes to improve patient transitions from the Department of Defense (DoD) to VA but challenges remain: Prior reports have highlighted challenges to Veterans' transitions directly from DoD to VA care, particularly related to medication continuity. VA has taken steps to improve this process in recent years, including the release and implementation of a January 2015 directive. However, three key challenges remain in the transition: timely access to primary care before existing prescriptions run out, limited mobility of health information between DoD and VA, and some differences in the DoD and VA formularies (see Appendix J, Section 3.2.4 for more detail).

VA has successfully implemented programs to reduce utilization of high-risk medications and early results are promising: For example, VA's opioid reduction program has cut the share of patients prescribed opiates by almost three percentage points since 2012. However, there are opportunities to improve the current measurement approach by taking into account the type, strength, and dosage frequency of opioids dispensed.

J.2.2 FINDINGS RELATED TO CLINICAL SUPPLIES, MEDICAL DEVICES, AND RELATED SERVICES

The organizational structure of the VA's supply chain enterprise is unduly complex and duplicative: VA and VHA both contain organizations that play a role in the management of VA's medical supply chain. There are several areas of overlap between VA and VHA overall, between national and regional contracting organizations, and between the four VA-level contracting organizations. Senior leaders in VA's and VHA's supply chain organizations who were interviewed unanimously said that the current organizational structure is too complex and should be simplified to improve collaboration, ownership and accountability.

VA's current IT systems, data systems, and analytical capabilities related to finance, inventory management, and purchasing are major impediments to effective supply chain management:

[124] VHA Pharmacy Benefits Management. 2014 Outpatient dispensing data

[125] VHA Pharmacy Benefits Management. 2014 PPV purchase data

[126] Kaiser Permanente, http://businesshealth.kaiserpermanente.org/manage-costs/pharmacy/ accessed June 2015

VA's IT and data systems in these areas are antiquated, not integrated, and do not meet the needs of a modern health system. Health, procurement, finance, and contracting systems do not communicate needed information seamlessly, requiring manual manipulations leading to data inaccuracies and tracking problems. VA has at least 130 separate instances of its clinical, procurement, and inventory management systems, each with its own product nomenclature and numbering for items. As entries are mainly free text, data from each instance can be quite different and cross-site comparisons or regional/national roll-ups are almost impossible. This situation is a major impediment to effective management of VA's medical supply chain.

The performance of VA's contracting organization does not meet customers' expectations, so frontline staff have developed workarounds: Users are not satisfied with the communication, responsiveness, and time it takes for contracting requests. At one facility, data showed it took on average 21-39 days from the date of initial submission to receive the first response from contracting[127] requesting, for example, additional information or paperwork. Conversely, individuals in contracting reported VAMC requests submitted to them were often incomplete or unclear, and facilities were poor at forecasting demand for items, leading to unpredictable peaks in demand for contracting services that exceeded their capacity.

Two interrelated workarounds avoid delays from contracting: (1) staff buy the majority of their clinical supplies and devices on VA-issued purchase cards to enable greater autonomy to choose products and buy through preferred suppliers; and, (2) staff mainly place orders below the $3,000 micro purchase threshold. As a result, approximately 98 percent of VA's purchases of clinical supplies are made on purchase cards[128], which can limit VA's ability to ensure compliance with regulations because purchase card holders are responsible for identifying appropriately priced goods and contracted vendors, and VA's current systems do not support these tasks with integrated catalogs and controls. This likely leads to higher prices paid for goods. Purchase card processes are also inefficient when compared with modern alternatives, such as electronic order transmission and funds transfer.

VA has not taken full advantage of its scale or potential for product standardization to achieve optimal pricing and efficiency: Unit prices showed significant variation in the price paid for identical items. In addition, at least 27 percent of clinical supply purchases were made at open market prices[129]. Unlike pharmaceutical purchasing, VA's supply purchasing systems are not integrated with contract or pricing catalogs. This results in limited ability to monitor and drive compliance with contract usage. In fact, over 60 percent of all clinical supply items have no contract number listed.[128]

VA has achieved limited product standardization leading to a fragmented supplier network and a high number of items managed by the logistics organization. Despite some efforts, there is no routine mechanism to identify products for which central contracts should be established.

[127] VAMC IFCAP/eCMS communications log

[128] VHA Procurement and Logistics Office. FY2014 IFCAP purchase data for five VISNs

[129] VHA Procurement and Logistics Office. Four months FY2015 system-wide clinical supply orders with IMF numbers

Inventory management process, practices, and systems are neither integrated nor optimized: VA has contracts with six Medical/Surgical Prime Vendors (MSPVs) – distributors like the PPV that provide services supporting purchasing, distribution, and use of clinical supplies. To date, VA takes limited advantage of services offered such as electronic ordering platforms or lean delivery models, resulting in suboptimal utilization of the MSPV program. There is also no robust feedback loop linking inventory to product utilization, contracting, and ordering, which leads to fluctuating demand for contracting services that can overwhelm its capacity.

VA struggles to attract, hire, and retain high caliber supply chain talent: Interviewees estimated 20-30 percent of positions were currently unfilled. As an example, VA had 563 open positions for medical supply aides and technicians[130] – 20 percent of all those positions or almost four vacancies per facility. Supply chain leaders perceive three factors contribute to recruitment and retention challenges: recent position downgrades, long lead times to fill positions, and lack of a clear career path. Moreover, competition for supply chain talent in health care is also high and organizations are paying more to attract and retain the highest performers.

There are pockets of good performance and innovation across VA's supply chain that could be replicated across VA: The Denver Acquisition and Logistics Center (DALC) is a bright spot within VA's supply chain organization in its acquisition and distribution of select devices such as hearing aids to Veterans. It has developed an integrated operating model that brings together clinicians, contracting, finance, logistics, and program management to create a holistic view of what is best for Veterans. Another VA strength is the autonomy VAMCs and VISNs have to test and pilot new processes, management approaches, and technologies. Several innovations were observed during this assessment that could be scaled across VA to improve service to Veterans.

J.3 Recommendations

J.3.1 RECOMMENDATIONS RELATED TO PHARMACEUTICALS AND RELATED SERVICES

Establish mechanisms to ensure VA secures a reliable supply of pharmaceuticals and accesses the lowest possible pricing more consistently. The largest hurdle to accessing favorable pricing more consistently, is its management of suppliers and at-risk supplies. To that end, VA should improve lifecycle management of contracts to prevent lapses, and identify drugs at highest risk of shortages and price spikes, and develop specific strategies to limit impact. VAAR and FAR conflicts are also likely to cause confusion among VA contracting officers. VA should consider updating the VAAR, including options to ensure fair competitive prices are obtained when only a single supplier is on the Federal Supply Schedule.

Continue driving efficiency through VA's CMOP network. VA should drive more volume to CMOPs, increase automation of packing and shipping to improve throughput and quality, and optimize the network's footprint to improve utilization of fixed assets and reduce costs.

[130] VHA Office of Workforce Services May 2015 staffing update

Develop strategies to improve the transition of patients from DoD to VA care. Access to primary care during a transition and better interoperability between DoD and VA are key improvements for ensuring continuity of care and clinical management. Improvements for access can be found in Assessment B and Assessment E, while recommendations for improving IT strategy can be found in Assessment H. VA should also explore opportunities to align or integrate formularies taking into account clinical evidence and economic impact. As differences are likely to remain because of different Departmental strategies, VA should develop drug-class-specific guidance for medication changes related to transitions and explore opportunities to improve communication with Veterans about their medications during transitions.

Build sophisticated approaches to drive appropriate utilization of pharmaceuticals. VA has the opportunity to be a health care leader with respect to pharmaceutical use. To that end it should incorporate evidence-based prescribing guidelines into clinical protocols and pathways, building upon recommendations in Assessment F. Enabling these developments will require investment in IT and analytic capabilities to support outcomes-based data analysis. Ensuring compliance and changing physician behaviors should be driven with appropriate data interpretation and utilization through peer review, and by building utilization rules into prescribing systems to reduce inappropriate use.

J.3.2 RECOMMENDATIONS RELATED TO CLINICAL SUPPLIES, MEDICAL DEVICES, AND RELATED SERVICES

Transform and consolidate VA's entire supply chain organization. VA should rationalize the organizational structure by consolidating VA and VHA entities into one integrated supply chain organization. Guiding principles should include a single accountable leader for policy and end-to-end effectiveness, governance including all supply chain elements, clear expectations for supporting functions and users, and alignment of personnel by product categories. In making changes, VA should ensure the pharmaceutical supply chain is not negatively impacted; rather its practices are incorporated to improve clinical supply and medical device management.

Performance management focused on Veteran outcomes should be supported by service level agreements between supply chain functions and its end users, based both on end users' expectations and what is feasible within the constraints in which VA operates. Enhancing VA's performance management system will require a level of standardized data capture and reporting that is not possible with VA's current data systems. Therefore, system upgrades and/or replacements should be considered as per the recommendation below.

Improve key enablers required to support the organizational transformation, including IT systems, data standardization, and talent management. VA should update or replace supply chain IT systems to make them fit for purpose. Any decisions made should be in line with VA's overarching IT strategy and in full consideration of the interoperability and interdependencies between supply chain, financial, and clinical systems.

VA's lack of data standardization is a major impediment to effective monitoring and management of its supply chain. It should be a high priority to standardize supply chain data and overlay user-friendly interfaces that enable robust and timely decision-making across the enterprise. As a first step, VA should evaluate near-term options to standardize critical data

elements to enable some level of cross-comparability. This should include establishing a central item master file with standardized nomenclature and numbering of VA's commonly used items.

The future of VA's supply chain rests on the talent that can drive these changes, therefore professionalizing the supply chain workforce by creating clear opportunities for training and advancement within the organization should be a priority.

Streamline, standardize, and integrate key supply chain management processes. VA should expedite product standardization in key categories by prioritization. The approach should build upon learnings from VA's pharmacy committee structure, with its integrated cascade of testing, review, feedback, and decision-making related to selection and use of pharmaceuticals.

VA should expedite its process mapping initiative and also look holistically at acquisition policies and regulations to streamline contracting and purchasing processes. Electronic and automated purchasing processes should be improved and encouraged. Additionally, VA should build upon its ability and willingness to experiment by establishing an approach to more systematically capture, codify, prioritize, and if appropriate, scale innovations across VA.

The complete Assessment J report is available in Volume II.

Appendix K Facilities

Scope

Assessment K examined "the process of the Department for carrying out construction and maintenance projects at medical facilities of the Department and the medical facility leasing program of the Department." Specifically, the team was required to (i) review the processes for identifying and designing proposals for leases and capital projects, (ii) assess the process for determining the necessity and size of a lease or capital project, (iii) assess the processes and project management of the design, construction, leasing, and activation of medical facilities, and (iv) assess the medical facility-leasing program of the department. The Assessment K team also considered two additional areas that are critical to addressing VHA's facility needs, facility management and the long term capital funding needs of VHA.

Findings

We have found that VHA is expected to face accelerating and likely unfunded capital requirements driven by maintenance to aging infrastructure, projected workload needs to serve the Veteran population, and inefficient capital management. Moreover, we observed that VA performance in capital management, design and construction, leasing, and facilities management is on par with public sector performance in most cases, yet well below private sector performance, particularly in the cost to deliver major construction projects. Consistently deploying world class practices in capital management has the potential to improve performance significantly and address some of the capital constraints VA faces, but would require a further overhaul of VA's capital program and supporting organization. However, even if VA is able to meet the significant challenge of achieving best practice performance in capital management, VA would still likely experience a significant capital funding gap that will require strategic changes in operations and additional funding to close the gap.

The capital requirement for VHA to maintain facilities and meet projected growth needs over the next decade is two to three times higher than anticipated funding levels, and the gap between capital need and resources could continue to widen.

VA has identified more than $51 billion in total capital needs over the next 10 years through its capital planning methodology.[131] These requests cover current ten-year projections; however, new projects may be added as needs change and could change the total capital requirement. Provided that average funding levels remain consistent over the next 10 years, the $51 billion

[131] The $51 billion capital requirement combines $46 billion in projects submitted through the Strategic Capital Investment Plan (SCIP) and $5 billion in anticipated outstanding funding needs for on-going major projects projected in the FY2016 VA Budget Submission. While our team did not independently verify the cost estimates for the 8,038 capital requests that make up the $46 billion requests through SCIP, we did review the process by which these requests are identified and developed. See Section 3.1 and Appendix B.3 for additional detail.

capital requirement would significantly exceed the anticipated funding level of $16–26 billion.[132]

Multiple factors drive the scale of the capital need. VHA facilities are older buildings, with significant repair needs, and some are poorly suited to emerging models of care. The average VHA building is 50 years old, five times older than the average building age for not-for-profit hospital systems in the United States.[133] While many facilities have been extensively renovated, the renovations themselves have aged, and the condition of buildings shows this strain. Independent assessments of infrastructure and facilities through the VHA Facilities Condition Assessment (FCA) found that VHA facilities average a "C minus" score, meaning that much of the total facilities portfolio is nearing the end of its useful life.[134] More than 70 percent of VHA facilities correction costs result from infrastructure and facilities that are D rated, meaning that they are at the end of their useful life.

Current facilities, whether they have been maintained adequately or not, often do not match current models of care. The overwhelming majority of VHA hospitals were designed when care was focused more heavily around inpatient hospital treatments. Over the past eight years, Veteran inpatient bed days of care have declined nearly ten percent while outpatient clinic workload has increased more than 40 percent.[135] Space for outpatient care is typically housed in converted inpatient spaces or VHA's growing number of clinics. As a result, VHA's capital needs fall into a broad range of categories, including ensuring adequate facility condition, providing sufficient and appropriate space for Veteran care, and upgrading infrastructure. As facilities age further and care continues to shift to the outpatient setting, the size of the capital need could continue to grow.

Shortfalls in overall accountability, role clarity, personal ownership, internal communication, and proactive problem solving approaches limit the ability of VA and VHA to deliver the correct projects consistently on time and on budget. Facilities functions are dispersed through VA, resulting in a lack of accountability for facilities outcomes, a mismatch between planning efforts and funding decisions, and the separation of project execution and facilities management. Additionally, internal VA directives, federal procurement requirements, and stakeholder involvement impact VHA's ability to deliver and operate medical facilities at the level of private sector benchmarks.

[132] Over the last four years, VA's capital funding budget has ranged from $1.6 billion to $2.6 billion each year, averaging $2 billion.

[133] The age of VHA facilities is calculated by taking the year built recorded in the Capital Asset Inventory and weighting it by the gross square footage of each property. 2013 analysis of 139 not-for-profit hospital systems in US, encompassing 1,362 hospitals (Soule & Keller, 2013). See Section 5.2.1.4 for additional detail.

[134] FCA assessments are conducted by independent evaluators at each facility every three years. More than 180,000 individual items are scored across VHA facilities, using a scale of A (like new) to F (critical condition) scale. Average score was calculated using the aggregated reports in VA's Capital Asset Database, accessed March 2015.

[135] Workload reported by VAMCs in the 2015 VSSC Trip Packs, aggregated by VISN.

Capital is not being consistently allocated to projects that address the greatest areas of Veteran need in the most cost effective and timely manner. Lengthy approval and funding timelines hinder the ability of VHA to meet the identified space requirements to keep up with Veteran demand and invest in facilities updates that align with changing models for care. VA has recently established the Strategic Capital Investment Plan (SCIP), a systematic approach to approve capital projects and allocate funding. However, the process does not yet ensure full alignment with VA strategy, include rigorous business case scrubbing, or incorporate feedback on past project outcomes into the capital program assessment.

VA construction costs are similar to other public agencies in most cases, but double private industry best practice, and VA time-to-complete exceeds both public and private peers. Increased design requirements resulting from resilience, energy, security and community mandates increase the initial cost of projects over the private sector. Frequent design changes driven by users before construction contract award and during construction further increase the costs of projects and contribute to construction delays. Additionally, project teams are designed and staffed to support compliance requirements but these structures have resulted in reduced accountability for project delivery outcomes and a limited ability to develop solutions to manage cost overruns and schedule delays.

The leasing program is not effectively enabling VHA to provide facilities where and when they are required or at a reasonable cost for major leases. Lease timelines preclude VHA from benefitting from the speed and flexibility that leasing typically provides, often taking more than twice as long as private sector benchmarks. The leasing program typically achieves per square foot costs comparable to market prices for small and medium sized facilities, however, for larger build-to-suit facilities which are impacted by the same type of design and construction challenges seen in owned facilities we observed rents clustered at 40 to 50 percent higher than private sector benchmarks.

Facility management costs across VHA exceed those at comparable medical facilities. Facility management costs, including recurring maintenance and environmental services, are on the average two to three times higher than comparable private medical facilities, largely due to in-house management of these services rather than utilization of lower cost external service contracts. Facility management costs and practices are also highly variable across VHA facilities, with little incentive for individual stations to adopt cost effective measures.

Recommendations for consideration

Achieving best practice levels of performance in each of the assessment areas would require an overhaul of VA's capital program and supporting organization. Through our research, we have identified best practices from capital management organizations around the world that could be deployed to improve the total performance of capital programs of the scale and complexity of VA's. The cumulative improvement value of deploying all of these best practices in a single

organization could result in savings up to 40 percent.[136] However, even world class capital management organizations do not succeed in deploying all of these best practices consistently across their organizations, which illustrates the scale of the challenge. Shifts in the model of care delivery, lengthy approval processes, organizational health concerns, and strained budgets have combined to make capital management and delivery a formidable task for VA, and even the most ambitious transformation effort at VA may not achieve this total potential. As a result, we have estimated the total potential improvement opportunity for VA to be up to 25–35 percent.

Detailed recommendations for improving the capital program can be found in Sections 5 through 9, for each of the deep dives on core assessment areas. These recommendations fall into the following main opportunity areas:

VA should improve project selection and refine its project portfolio. VA should refine the SCIP process to rationalize and prioritize capital requirements by ensuring that space, energy, and condition criteria are reflective of the most critical items that contribute to Veteran care. The SCIP process, initiated four years ago, advanced VA capital project selection by creating a standardized methodology to review and approve projects which did not previously exist, but further steps are needed to improve the approach. These include a careful assessment of standards and a modification of the criteria for project selection. By focusing the criteria and approval processes for capital projects, VA could concentrate capital spending on strategic priorities and accelerate approval timelines. Capital project planning should also incorporate feedback on performance and outcomes from past projects to determine which capital programs respond to Veteran needs in the most cost effective manner possible. This would help enable a vital link between portfolio planning, project execution, and achievement of the desired outcomes in Veteran care.

VA should streamline project delivery across all construction types and leasing. VA should comprehensively address the root causes (for example, specifications, approval processes, project governance structures, team capabilities and composition) currently leading to consistent overruns in cost and schedule for construction projects and lengthy timelines for leases. This begins with modernizing and rationalizing design standards in keeping with current innovations in health care. A clear stage-gate process should be implemented to manage scope and design changes in the planning and design phases of projects and to limit scope and design changes that occur after a project receives funding and during construction. The recently launched Capital Program Requirements Management Process (CPRMP) introduced reviews during the design process to manage scope changes, another positive step which should be further developed and rolled out. To increase ownership and accountability, project delivery teams should be restructured with clear roles and responsibilities, well-defined handoffs, and adequate staffing levels. Additionally, contracting and other supporting entities should be

[136] "Infrastructure Productivity How to save $1 trillion a year," by McKinsey & Company (January 2013). This report includes more than 400 case examples from around the world. For this assessment, estimated savings have been adjusted to reflect requirements and constraints specific to VA.

accountable and equipped to support a fast-paced project environment and facilitate the needs of construction projects and leases.

VHA should ensure proposed projects make the most of existing infrastructure. VHA could improve the effectiveness of its infrastructure through incorporating a total cost of ownership assessment approach into design, capital planning, and facility management. This requires evaluating the operational cost implications of design choices and pursuing opportunities to optimize capital and operating costs simultaneously. Space planning programs should regularly evaluate underutilized and vacant space to identify opportunities for increased utilization or to actively divest unusable properties.

In addition to taking steps to address the above recommendations, VHA should consider more transformative options as needed to address the remaining unfunded capital requirement. If VA is able to successfully implement current improvement initiatives, act on the additional recommendations listed above, and demonstrate best practice performance, VA could potentially reduce its total capital need to $33 to $38 billion over the next 10 years. Based on average funding of $16–26 billion over 10 years, an unfunded gap of $7 to 22 billion would still exist. To close this remaining gap, funding would have to increase and VA will need to consider more transformative options. When other institutions have faced similar capital shortfalls, they have considered a range of strategic and business model redesign options in addition to implementing best practices in capital project delivery. This report lays out several strategic approaches for further consideration by VHA, including:

- *Maximize operational efficiency***.** Operating improvements, such as extending operating hours, improving scheduling efficiency, increasing tele-health options, and reducing average length of stay, can provide non-capital solutions to meeting workload needs. The operating recommendations in Assessments E, F, G, and H may contribute to addressing VHA's capital need.
- *Reassess how and where to best serve Veterans***.** When facing similar circumstances to VA, other health care organizations have considered strategic operating changes that result in a realignment in their capital portfolios. This could potentially include geographic realignment, community partnerships, or a shift in service offerings. Assessments B and C may offer some further insights.
- *Explore alternative vehicles for capital delivery***.** Alternative models of providing facilities have proved productive for some organizations. These models include contracting out capital investment, outsourcing facility management, and establishing innovative public-private partnerships.

In summary, VA has taken steps to improve its capital program, but much more is required given the scale of the capital need and the gap between current performance and best practice. Even with the most ambitious expectations for improving the capital program, VA will likely face a major funding gap over the next decade that will require a combination of additional funding and transformative changes to operations in order to ensure that Veterans receive the level and quality of care VA has committed to provide.

This page intentionally left blank.

Appendix L Leadership

L.1 Scope

Part L ("Assessment L"), Section 201 of the Veterans Access, Choice, and Accountability Act of 2014 ("The Veterans Choice Act") required an independent assessment of how leadership influences the Veterans Health Administration's (VHA's) ability to accomplish its mission. The law required an assessment of:

> "(L) The competency of leadership with respect to culture, accountability, reform readiness, leadership development, physician alignment, employee engagement, succession planning, and performance management."

Congress has thus directed that VHA leadership be viewed in the context of the eight separate but related elements of leadership, each of which is addressed in detail in the assessment, as summarized below.

The broad scope of the law's mandate represented an important opportunity to understand leadership at VHA, including its executive organization, Medical Center facility leaders, and regional network administrators. The scope of this assessment focuses on the senior leadership of VHA at each VA Medical Center (VAMC), Veterans Integrated Service Network (VISN), VA Central Office (VACO), and VHA Central Office (VHACO). The senior leadership at the VAMC and VISN are defined as the "Quadrad" or "Pentad" leaders: Director, Associate Director, Chief of Staff, Associate Director for Patient Care Services, and Assistant Director for Operations, if applicable.[137]

The assessment utilizes data and analysis from a survey of all VHA employees about its leadership beliefs and practices, 39 site visits and more than 300 interviews with VHA leaders across the country and analysis of existing VHA and other federal data. We then synthesized the findings and recommendations across the eight elements to identify patterns, points of interaction, and interdependencies, resulting in seven cross-cutting themes and six overarching recommendations.

L.1.1 Findings

Reviewing all eight elements described in Section 201 Assessment L provides an opportunity to create an integrated perspective of leadership at VHA. The scale of VHA is vast, and it is difficult to fully capture all the nuances and variability that exist throughout the system. Areas of excellence exist across the system, including some inspiring and resilient leaders, front-line systems redesign teams, and homegrown innovation. We touch on these throughout the full report. However, most areas of the organization show a highly risk-averse culture; lack of role clarity; fragmentation and organizational silos; and breakdowns in communication, accountability, and key processes that impair the organization's ability to deliver the mission.

[137] The terms Quadrad and Pentad are used interchangeably throughout this report as they are at VHA.

Our efforts have yielded a complex portrait of leadership practices reflecting leaders at VHA who are diverse in their approach, experience, skill, and effectiveness. They are operating in a system without common agreed upon leadership goals, methods and processes. Examining each of the eight elements, we identified the following seven themes about leadership today at VHA:

1. **An expanding scope of VHA activities has led to confusion around leadership priorities and the strategic direction of VHA.** The organization's focus has expanded and shifted over time, and it is unclear what the priorities are, and unclear when they will shift again. Over time, VHA has expanded into the delivery of a wide range of clinical services, as well as various social pursuits. The organization is not configured or resourced to deliver this expanding scope of activities, and it is unclear where the boundaries of the mission lie. VHA is also treated by oversight entities and external stakeholders as both a hospital system and a traditional government agency. This unique complexity of VHA is not supported by equally unique performance expectations, operational flexibility, and supporting tools.
2. **From the point of view of leaders and employees, the VHA organization is intensely, unnecessarily complex due to lack of a clear operating model, limited role clarity, fragmentation of authority, and overlapping responsibilities**. This lack of clarity around operating model, roles and responsibilities extends across VAMCs, the VISNs, and Central Office. The issue is exacerbated by a cultural context that is often unable to work effectively across chains of command, except where all parties concur. Fragmentation and silos exist across the system and within each tier of the organization. Many key support functions, such as human resources or contracting, suffer from this, resulting in service too slow to meet the needs of the mission. Meanwhile, the sheer number of operational performance measures in many cases overwhelms and makes it difficult to know and focus on what is most important.
3. **The broader VHA culture is characterized by risk-aversion and distrust, resulting in an inability to improve performance consistently and fully across the system**. At almost every facility visited, at least one leader interviewed mentioned that risk-aversion and a reluctance to "speak up" were significant issues. Three out of every four leaders interviewed at VISNs in which site visits were conducted echoed this concern (VHA interviews, 2015). A general aversion to speak up or take risks originates from: a) trying to perform in a heavily siloed organization; b) fear that raising issues will result in punitive actions toward the individual or addition of significant workload with no additional support; and c) insufficient reward for those trying to make improvements. This culture permeates across all levels of the organization – from the front-lines, to Medical Center leaders, to people at Central Office. This culture of risk aversion also hinders great ideas from spreading. A lack of enterprise-wide incentives and mechanisms for knowledge-sharing within or across the system yields pockets of innovation but not broader system-wide adoption (VHA interviews, 2015; VHA OHI survey, 2015).

4. **VHA leadership faces a workforce that appears to be steadily losing its motivation.** Caring for Veterans is a value that powerfully motivates VHA leaders and employees alike – however, this commitment alone is insufficient to fuel the organization's motivation and performance. Other sources of motivation such as a great work environment, job satisfaction, or working with an inspiring team have eroded in recent years (VHA interviews, 2015). Physicians are only partially aligned with the various demands put on them. In a changing environment in which VHA competes with other health care organizations for top talent, a value proposition that relies primarily on the intrinsic reward of caring for Veterans cannot make up for the erosion of other sources of employee motivation to meet the VHA mission.
5. **The performance of a particular VAMC hinges to a large degree on the capability of its Director and the executive leadership team; yet these leaders are "on their own" in many ways.** VAMC Directors often lack competent and timely assistance from support functions (including HR for disciplining, hiring employees, planning for succession; construction; IT; and contracting)**.** Support from VISN and VHACO is variable and often limited. Directors are left to navigate their own career progression and development (VHA interviews, 2015).
6. **VHA leadership attention is consumed by addressing crises that have occurred in the past, at the expense of preparing for tomorrow's opportunities**. The number of directives for which leaders are accountable, coupled with heightened scrutiny from internal and external sources, compels leaders to spend much of their time reacting to crises and completing action items from above. Bottom-up innovation and consultative leadership are not well-developed, and there is a heavy reliance on top-down directives, exacerbated by the growth of Central Office Program Offices (VHA OHI survey, 2015; VHA interviews, 2015).
7. **The leadership pipeline is not robust enough to meet VHA's current and future needs, a function both of inadequate succession planning and unfocused leadership development efforts**. As of March 2015, 16 percent of VAMC Quadrad and VISN Network Director positions are vacant or have acting leaders. Twenty-three VA Medical Centers (16 percent) do not have a permanent Director. Nine VISN Network Directors (43 percent) are Acting (VHA Office of Workforce Services, 2015). Leadership positions are increasingly unattractive to the next generation of VHA leaders, which contributes to the difficulty in filling leadership openings (VHA interviews, 2015). VHA is currently experiencing a large and widespread number of current vacancies and upcoming retirements in key leadership roles, and open positions remain unfilled due to a lack of qualified candidates. Meanwhile, VHA's lack of a comprehensive approach to leadership development—experiential, relational, and training—has resulted in leaders with uneven preparation for their future roles. Multiple competency models and frameworks are in use, and VHA's formal programs are not linked to career paths, not well-coordinated, and thus do not effectively bolster VHA's talent pipelines (VHA Office of Workforce Services, 2015; VHA interviews, 2015).

This report's findings indicate that immediate action is required. The challenges of the current culture and operating environment, the deteriorating atmosphere for leaders, and the intense public scrutiny suggest that sustaining an effective operation and an engaged employee and leadership base to serve six million Veteran enrollees each year will require a fundamental shift achieved through a bold, integrated, multi-year transformation.

L.1.2 Recommendations

The scale of the transformation needed to address the findings above has few precedents in the private or public sector. VHA employs one in nine federal civilian employees (OPM, Historical Federal Workforce Tables and FedScope, 2015). It is both the largest hospital system and the largest training ground for health care providers in the country, training tens of thousands of clinicians each year (VA, Office of Academic Affiliations, 2015). And the nature of the current system – with hundreds of unique locations, partnerships, and performance measures – only increases the complexity of the opportunity.

Given this challenge, the recommendations summarized below should not be approached like a checklist of individual and incremental performance improvements. Most transformations treated in this manner fail (Keller and Price, 2011). Instead, VHA should systematically implement these recommendations in a comprehensive, multi-year transformation program. The transformation program needs to clearly define its aspiration state, determine what is needed to meet this state, be housed in a formal change program, protect or build on best practices and high performing pockets, and ensure timely implementation faithful to the original aspiration.

These recommendations fall into six main opportunities:

1. **Galvanize VHA leaders around a clear strategic direction.**

   Decide and communicate the strategic direction of VHA going forward. The strategy could take a variety of forms, but there needs to be clarity within VHA of where the organization is headed, and this needs to be communicated throughout the organization and understood by all leaders and employees. We do not seek to define the strategic direction here, but clear strategic direction will be critical as the organization moves forward and works to implement the recommendations laid out herein.

2. **Stabilize, grow, and empower leaders.**

   VHA should strengthen its leadership foundation, both today's and tomorrow's. VHA should focus in the near term on increasing leadership stability and readiness by filling vacancies with high-quality leaders, improving the attractiveness of the role to prospective leaders, and ensuring leaders are ready to assume their roles. In the medium term they should build a coordinated people development strategy that connects top performers with the right opportunities and generates a robust pipeline of leaders through a formal succession planning program and a coordinated set of development opportunities. Efforts should be made to build sustained leadership continuity across the system, including considering longer tenures for key leaders, such as Medical Center Directors and select roles at VHACO. This is necessary to have the

authority, accountability, ownership and time needed to stabilize the organization, strengthen its health and performance, and shepherd the transformation.

3. **Redesign VHA's operating model to create clarity for decision-making authority, prioritization, and long-term support.**

   VHA should immediately lead an effort to clearly define roles and decision rights at each level and increase coordination within Central Office, refocusing the role of Central Office to managing outcomes and providing "corporate center"-like support to the field. The Central Office should prioritize, integrate, and actively provide support to the various initiatives and policies being implemented by the field. The net effect of the redesign should be a Central Office that is highly valued by the field for the expertise, services, and strategic direction it provides.

4. **Focus and simplify performance management to clarify accountability and actively support the mission.**

   Within six months, VHA should complete an effort to develop an integrated and balanced performance scorecard for VAMCs focusing on a smaller number of core metrics that roll up to support the broader enterprise view. These metrics should be designed to focus more on the mission and encourage cross-functional collaboration and should be carefully cascaded. This requires moving from hundreds today (over 382 alone in the National Performance Measures Report) to no more than 20 that cover quality, safety, patient experience, operational efficiency, finance, and human resources. The resulting data should be made readily available and accessible agency-wide with proper procedures in place to ensure quality.

5. **Rebuild a high-performing, healthy culture by cultivating greater employee collaboration, ownership, and accountability to accomplish the mission.**

   Culture is often described simply as "how things are done around here," and changing the VHA culture will need to happen at all levels of VHA: VHACO, VISN, and the VAMC level, as well as within the context of VA broadly. VHACO should consider how to integrate their efforts so the workforce is involved and experiences a coherent set of messages, policies, and support from VHACO. The VISNs should lead the VAMC leaders by sharing best practices, demanding steady improvement, and encouraging innovation. VAMC leaders will need to role model the change, describe why the culture must change, reinforce desired behaviors (and discourage unhelpful ones), and provide leaders and employees alike with the coaching, training and tools they will need to succeed. In our experience this is feasible, but there is no simple or fast way, and it will require a dedicated performance transformation effort.

6. **Redesign the human resources function as a more responsive customer service-focused entity.**

   VHA, with the full support and backing of VA, should begin an effort in the next 12 months to transform the human resources (HR) function to be more responsive to meeting the needs of VAMC leadership, more efficient, and more customer service-

focused. Although a comprehensive examination of HR was not within scope of Assessment L, systematic HR challenges were identified that need to be addressed through a transformation of the HR function. Such a transformation will likely require redesigning key processes (e.g., hiring), shifting the mindsets of HR cadre from compliance to effectiveness, training HR and its customers on key roles and responsibilities, and rationalizing its technology systems.

The complete Assessment L report is available in Volume II.

Appendix M Outreach

Over the past 10 years, many assessments of VHA have been conducted from different points of view, and many thoughtful solutions by experts from inside and outside the department have been provided. However, while some incremental changes may have been made, the real desired impact of a highly coordinated, enterprise-level, successful transformation of VHA has not been achieved.

MITRE conducted an analysis of selected health care systems that successfully transformed into high-functioning and performing health care systems. This effort included interviews with executive teams from 27 large U.S. health systems and also included visits to selected health systems.

Some of the lessons learned from these engagements include:

A sense of urgency: Many of the largest health systems faced financial crises in the late 1990s and early 2000s due to a dramatically changed medical payment landscape. Several leaders of the selected health care systems found their institutions were not profitable, and they faced a critical decision: either change management models from a fee-for-service model or go out of business. Within this crucible, new leaders often emerged. They recognized both the need for change and the importance of communicating the urgency of that change to all levels of the organization and to organizational stakeholders.

Empowered visionary leaders and new missions: The individuals who emerged to lead these institutions had similar characteristics. They were visionary and charismatic leaders who were fully committed to the new mission and exemplified the behaviors required to achieve that mission. Their leadership teams described them as actively shaping the culture, and they provided focus on change and freedom to fundamentally alter processes. They consistently were "hard on processes, not on people," meaning they built a culture that was developmental and transparent rather than punitive. Employee morale, motivation, and retention improved as they were empowered to remove non-mission essential burdens and increase time and resources for core mission activities. Leaders were routinely seen on the front lines of care and in regular meetings with cross-functional teams to resolve barriers to mission success and reinforce the vision and culture.

Sustained and time-consuming process: The institutions that were visited consistently pointed out that what they are doing to realize change is not a special project; rather, it is a management system. Each found that it took about three years for physicians and staff to recognize that the changes occurring were not the "change du jour." They also shared that after five to six years, staff and providers within the health systems felt the changes were successful and enduring. Along the way, it was important to experiment, tolerate mistakes, and learn from them and encourage employee engagement to instill a new culture within the organization.

A new management system that adheres to a patient-centric culture and value system: The new management models were patient centered and required working with physician leadership and payers to reshape clinical and operational processes around the patient. Leaders were selected carefully for performance, not on résumés. Leadership and staff were

empowered, recognized, and rewarded for challenging care decisions and modifying processes that did not add value to patients care.

Supportive and knowledgeable governance: The leaders of these high-performing systems often had a supportive and knowledgeable Board of Trustees. Some trustees had led similar successful transformations in other industries. This type of governance structure ensured adherence to a single clear architecture and the ongoing integrity of the health care system's mission and operating principles. The board also often had compacts with practicing physicians, leadership, and management. In addition, the leaders were given a wide berth and sufficient time (more than five to seven years) to execute needed reforms.

Transparent data-driven management system: The systems consistently demonstrated transparent use of data that was shared from the chief executive officer to front-line staff, clarifying how performance is measured and ensuring that everyone worked from the same accurate information. Many compared the performance data of similar teams and staff members to promote sharing best practices. Most health care systems focused on continuous improvement that originated within teams rather than setting team targets from higher levels in the organization. Lastly, "red" metrics were used as an opportunity for management to focus and fix, rather than blame and punish.

Methodology: In January 2015, CAMH gathered publicly available listings of the largest U.S. health care systems (by number of employees), health insurers (by market share), and organizations representing medical device manufacturers and pharmaceutical companies. CAMH leveraged its network of health care executives to add additional prominent health care systems with national reputations and then generated a convenience sample of 37 private-industry institutions to use for data collection. Upon inquiry, executive leaders from 27 of the selected U.S. health care organizations were available to be interviewed.

MITRE Officers and leaders conducted 30–60 minute interviews with the executives from selected health care systems to inform them of the Veterans Choice Act 201 assessments and to gain their insight, experience, and recommendations of best practices that, if adopted, would positively impact the Veterans health care delivery system. An interview guide was developed for each institution that targeted the Veterans Choice Act 201 assessment topic areas and was tailored to center on strengths (by reputation) of the institution being interviewed.

From March to June 2015, CAMH Choice Act Program Teams conducted site visits to selected health systems. Teams of 5–18 members from CAMH's Choice Act Program attended these one-to three-day site visits; participated in the discussions with executive leaders, administrators, and clinicians; and completed facility tours and observations. These site visits have included:

- Kaiser Permanente
- Cleveland Clinic
- Virginia Mason Hospital and Medical Center
- Geisinger Health System.

U.S. Health Care Industry Leaders: The following organizations gave freely of their time and provided access to their systems and their senior leadership teams for in-depth discussions.

During those conversations, they shared their experience, perspectives, health initiatives, and viewpoints of best practices in health care that could be adopted by the Veterans health care system. Several also provide on-site visits to examine their clinical and administrative operations. Many spoke of their thankfulness for our nation's Veterans and their pleasure to support the VA in making improvements to Veterans' care.

- Adventist Health System
- Aetna, Inc.
- American Pharmacists Association
- Anthem, Inc.
- Ascension Health
- Blue Cross Blue Shield of Massachusetts
- Blue Shield of California
- Cleveland Clinic
- Geisinger Health System
- Hospital Corporation of America, Inc.
- Humana Subsidiaries: Government Business - Humana Veterans (subsidiary of Humana Government Business) and Concentra
- Intermountain Health care
- Independence Blue Cross Group
- New York City Health and Hospital Corporation
- Johns Hopkins Medicine
- Kaiser Permanente
- Medical Device Manufacturers Association
- New York-Presbyterian Health care System
- NYU Langone Medical Center
- Partners Health care, including executives from Brigham and Women's Hospital and Mass General Hospital System
- Pharmaceutical Research and Manufacturers of America
- Providence Health & Services
- Tenet Health care Corporation
- ThedaCare Center for Health care Value
- University of California Health Sciences and Services
- University of Texas System
- Virginia Mason Hospital & Medical Center

Veterans Service Organizations (VSOs): The VSOs listed below shared with us data, reports, surveys, and their understanding of their constituents' health care needs. They provided the voice of the Veterans that the health care system serves. We are grateful to them for their support and for their daily commitment and service to Veterans.

- The American Legion
- American Veterans
- Disabled American Veterans
- Iraq and Afghanistan Veterans
- Military Officers Association of America
- Military Order of the Purple Heart of the U.S.A., Inc.
- Paralyzed Veterans of America
- Veterans of Foreign Wars of the United States
- Vietnam Veterans of America
- Wounded Warrior Project

This page intentionally left blank.

Appendix N References

N.1 Infographic Sources

Ascension. (2015). About us. [Website]. Retrieved from http://ascension.org/AboutUs.aspx

Ascension. (2015). Subsidiaries. [Website]. Retrieved from http://ascension.org/Subsidiaries.aspx

Bagalman, E. (2014, June 30). The number of veterans that use VA health care services: a fact sheet. Congressional Research Service.

Geisinger Health System. (2014). Transforming healthcare through continuous innovation, 2014 system report. [Website]. Retrieved from http://www.geisinger.org/pages/newsroom/includes/pdf/ar-final-2014.pdf

Hospital Corporation of America. (2015). HCA press kit. [Website]. Retrieved from http://hcahealthcare.com/news/press-kit.dot

Kaiser Permanente. (2013, December 31). Kaiser Permanente by the numbers. Retrieved from http://share.kaiserpermanente.org/static/kp_annualreport_2013/assets/docs/Kaiser%20Permanente%202013%20-%20By%20the%20Numbers.pdf

Michaels, I. (Business communication, July 10, 2015). Public relations at New York City Health and Hospitals Corporation.

New York City Health and Hospitals Corporation. (2014). 2014 HHC report to the community. Retrieved from http://www.nyc.gov/html/hhc/downloads/pdf/publication/2014-hhc-report-to-the-community.pdf

Panangala, S. (2005, January 14). Veterans' medical care funding: FY1995–FY2004. CRS Report for Congress. Congressional Research Service.

RAND Corporation. Assessment B (Health Care Capabilities). Volume II.

U.S. Department of Veterans Affairs. (2015, April 14-15). MyVA Advisory Committee: Inaugural meeting. [PowerPoint slides].

U.S. Department of Veterans Affairs. Office of Budget. Previous Fiscal Years (FY) Budget Submissions Archives. Retrieved from http://www.va.gov/budget/products.asp

U.S. Department of Veterans Affairs. Veterans Health Administration. About VHA. [Website]. Retrieved from http://www.va.gov/health/aboutVHA.asp

U.S. Department of Veterans Affairs. Veterans Health Administration (VHA) Support Service Center. (2015, January 7). VHA Site Tracking (VAST) snapshot. (VHA station listing reports documentation. Because VA is changing how it reclassifies its facilities, the number of VAMCs may differ in other reports.)

U. S. Department of Veterans Affairs. Volume II: Medical programs and information technology programs; Congressional submission, FY 2016 funding and FY 2017 advance appropriations.

Retrieved from http://www.va.gov/budget/docs/summary/Fy2016-VolumeII-MedicalProgramsAndInformationTechnology.pdf

N.2 Integrated Report References

(2015). Choice Act assessment interviews with Veterans Health Administration.

(2015). Access and Clinic Administration Program interviews.

American Hospital Association. (n.d.). Utilization and Volume. *Trendwatch Chartbook 2014*. Retrieved from http://www.aha.org/research/reports/tw/chartbook/ch3.shtml

Belfiore, B., et al. (2015, January 28). 41 KPI Industry Report: Health Care – Provider/Hospitals. BenchmarkPortal.com. Retrieved from http://www.BenchmarkPortal.com

Bharucha, F., & Oberlin, S. (2009, May). Governance Models among California Public Hospitals. California HealthCare Foundation. Retrieved from http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/G/PDF%20GovernanceModelsCAPublicHospitals.pdf/

Bonow, R. et al. (2008, December 9). ACC/AHA Classification of Care Metrics: Performance Measures and Quality Metrics. *Journal of the American College of Cardiology 52*(24), 2113–2117. doi: 10.1016/j.jacc.2008.10.014

The Bridgespan Group (2011). *Strategies for Changing Organizational Culture*. Retrieved from http://www.bridgespan.org/Publications-and-Tools/Leadership-Effectiveness/Lead-and-Manage-Well/Strategies-for-Changing-Organizations-Culture.aspx

Centers for Medicare & Medicaid Services. (2015, April 17). Quality measures. [Website]. Retrieved from https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/index.html?redirect=/QualityMeasures/03_ElectronicSpecifications.asp

Clark, C. (2015, April 30). Senators Propose Acting as “Board of Directors” for VA. Government Executive. [Website]. Retrieved from http://www.govexec.com/management/2015/04/senators-propose-acting-board-directors-va/111613/

Concerned Veterans for America. (2015, February 26). *Fixing Veterans Health Care: A Bipartisan Policy Taskforce*. Retrieved from http://fixing-veterans-health-care.legacy.cloud-pages.com/accounts/fixing-veterans-health-care/original.pdf

Congressional Budget Office. (2014, December). *Comparing the Costs of the Veterans’ Health Care System with Private-Sector Costs*. Washington, DC: Congressional Budget Office. Retrieved from the Congressional Budget Office web site: https://www.cbo.gov/publication/49763

Daly, M. (2014, November 10). VA announces “MyVA” plan, largest reorganization in department’s history. PBS. Retrieved from http://www.pbs.org/newshour/rundown/va-announces-myva-plan-largest-reorganization-departments-history

Dobbs, R., Pohl, H., Lin, D., Mischke, J., Garemo, N., Hexter, J. Matzinger, S., Palter, R. & Nanavatty, R. (2013, January). Infrastructure productivity: How to save $1 trillion a year. McKinsey & Company. Retrieved from http://www.com/insights/engineering_construction/infrastructure_productivity

Dukes, T. (2015, June 19). The VA and Father's Day. [Letter to the editor]. *Purcellville Gazette*. Retrieved from http://purcellvillegazette.com/letters-to-the-editor-june-19-2015-edition/

Enrollment-Provision of Hospital and Outpatient Care to Veterans Subpriorities of Priority Categories 7 and 8 and Annual Enrollment Level Decision, 38 CFR 17 (2003).

Frank, M. (2000, March 31). Engineering systems thinking and systems thinking. *Systems Engineering, 3*(3)*,* 163–168.

Gallup. (2014, June 9-10). [Website] Retrieved from: http://www.gallup.com/poll/171596/prioritize-improving-veterans-health.aspx

Institute for Healthcare Improvement. (2014). Reduce scheduling complexity. Primary Care Clinic Profile Standardization Guide.

Institute of Medicine. (2001). *Crossing the Quality Chasm: A New Health System for the 21st Century*, Committee on Quality of Health Care in America. Washington, D.C.: National Academies Press.

J.D. Power (2014, September 25). J.D. Power 2014 U.S. Pharmacy Study.

The Joint Commission. (2014). America's hospitals: Improving quality and safety. Retrieved from http://www.jointcommission.org/assets/1/18/TJC_Annual_Report_2014_FINAL.pdf

The Joint Commission. Special Focused Surveys September 2014 – March 2015 Update for the Interim Undersecretary for Health Veterans Health Administration.

Kaiser Permanente. (n.d.). Pharmacy: Strong pharmacy management connected to caregivers reduces overall costs. Retrieved from http://businesshealth.kaiserpermanente.org/manage-costs/pharmacy/

Kaplan, G. et al. (2013, July 10). Bringing a systems approach to health. Retrieved from http://nam.edu/wp-content/uploads/2015/06/systemsapproaches

Keller, S. & Price, C. (2011). *Beyond Performance: How Great Organizations Build Ultimate Competitive Advantage.* Hoboken, N.J.: Wiley.

Kizer, K.W. (2012). Commentary 12-1: Lessons learned in transforming the Veterans Health System. In Levy, B. S. & Gaufin, J. R. (Eds.), *Mastering public health: Essential skills for effective practice*. Oxford University Press.

Kizer, K.W. & Jha, A.K. (2014, July 24). Restoring trust in VA health care. *New England Journal of Medicine, 371*, 295-297 doi: 10.1056/NEJMp1406852

Kotter, J.P. & Cohen, D.S. (2002, November 26). The heart of change. *Harvard Business Review*.

Lincoln, A. (1865, March 4). Second inaugural address. Washington, D.C. Retrieved from http://www.va.gov/opa/publications/celebrate/vamotto.pdf

Marshall, D.A. et al. (2015, January). Applying dynamic simulation modeling methods in health care delivery research—The SIMULATE checklist: Report of the ISPOR Simulation Modeling Emerging Good Practices Task Force. *Value Health 18*(1):5-16. doi: 10.1016/j.jval.2014.12.001

McCarthy, D., & Mueller, K. (October 2008). The Commonwealth Fund: Commission on a High Performing Health System. The New York City Health and Hospitals Corporation: Transforming a Public Safety Net Delivery System to Achieve Higher Performance. Issues Research, Inc.

McDonald, R. (2015, April 21). Statement before the Senate Committee on Appropriations, Subcommittee on Military Construction, Veterans Affairs, and Related Agencies. Retrieved from http://www.appropriations.senate.gov/sites/default/files/hearings/042115%20Secretary%20McDonald%20Testimony%20-%20MilCon-VA.pdf

McMillan, A. (n.d.). Participative management. [Website]. Reference for Business. Retrieved from http://www.referenceforbusiness.com/management/Or-Pr/Participative-Management.html

Medicare Payment Advisory Commission. (2013, March). Report to the Congress: Medicare payment policy. Retrieved from http://www.medpac.gov/documents/reports/mar13_ch03.pdf?sfvrsn=0

Moran, J. (2015, February 24). News release. Focus should be on veterans' struggles, flawed implementation of Choice Act. Retrieved from http://www.moran.senate.gov/public/index.cfm/news-releases?ID=1ce6862d-a482-4646-a82d-d7379ca0c291

National Academy of Engineering and Institute of Medicine of the National Academies. (2005). *Building a Better Delivery System: A New Engineering/Health Care Partnership*. Washington, D.C.: The National Academies Press. Retrieved from http://www.nap.edu/catalog/11378.html

Northern Virginia Technology Council. (2014, October 29). Opportunities to improve the scheduling of medical exams for America's veterans: A report based on a review of VA's scheduling practices by the Northern Virginia Technology Council (NVTC). Retrieved from http://www.va.gov/opa/choiceact/documents/NVTCFinalReporttoVA-revised3.pdf

Porter, M. (2010). What Is Value in Health Care? *New England Journal of Medicine*, 2477-2481. Retrieved from http://www.nejm.org/doi/full/10.1056/NEJMp1011024

President's Council of Advisors on Science and Technology. (2014, May). *Better Health Care and Lower Costs: Accelerating Improvement Through Systems Engineering*. Washington, D.C. Retrieved from https://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/pcast_systems_engineering_in_healthcare_-_may_2014.pdf

Rainey, H. & Thompson, J. (2006, July–August). Leadership and the Transformation of a Major Institution: Charles Rossotti and the Internal Revenue Service. *Public Administration Review*.

Reddy, V. Seenu & Johnston, B. (2012). Surgeon productivity: are RVUs the end all, be all? The Society of Thoracic Surgeons. Retrieved from http://www.sts.org/news/practice-management-pearls-surgeon-productivity-are-rvus-end-all-be-all

Robeznieks, A. (2015, January 27). Hospitals saw fewer admissions, more outpatients in 2013. *Modern Healthcare*. Retrieved from http://www.modernhealthcare.com/article/20150127/NEWS/301279903

Rodak, S. (2013, August 8). Cleveland Clinic's call center improves care access. *Becker's Hospital Review*. Retrieved from http://www.beckershospitalreview.com/capacity-management/cleveland-clinic-s-call-center-improves-care-access.html

Serbu, J. (2015, March 6). VA calls for its own BRAC process to close outdated facilities. Federal News Radio. Retrieved from http://federalnewsradio.com/congress/2015/03/va-calls-for-its-own-brac-process-to-close-outdated-facilities/

Shane, L. (2015, March 4) Choice Card confusion frustrates veterans, Congress. *Military Times*. Retrieved from http://www.militarytimes.com/story/military/benefits/veterans/2015/03/04/va-choice-card-confusion/24374337/

Taylor, M.J., et al. (2013, August 12). Systematic Review of the Application of the Plan-Do-Study-Act Method to Improve Quality in Healthcare. BMJ Qual Saf 0:1-9. doi:10.1136/bmjqs-2013-001862United States. Congress. H.R. 3118. Bill Summary and Status, 104th Congress 1995–1996, Veterans' Health Care Eligibility and Reform Act of 1996. Retrieved from http://thomas.loc.gov/cgi-bin/bdquery/z?d104:H.R.3118

United States. Congress. (2011) Veterans' Benefits and the Servicemembers Civil Relief Act, 38 U.S.C. § (Pub. L. No.112-7), Chapter 73, Subchapter 1, Section 7301.

United States. Congress. (2014) Veterans Access, Choice, Accountability, and Transparency Act, 38 U.S.C. § 1701 (Pub. L. No.113–146, 128 Stat. 1754).

U.S. Department of Veterans' Affairs. (2010, September). Health Services Research & Development Service. Comparison of quality of care in VA and non-VA settings: A systematic review. Retrieved from http://www.hsrd.research.va.gov/publications/esp/quality.pdf

U.S. Department of Veterans Affairs. (2014, September 21). *Blueprint for Excellence: Veterans Health Administration*. Retrieved from http://www.va.gov/HEALTH/docs/VHA_Blueprint_for_Excellence.pdf

U.S. Department of Veterans Affairs. (2014, November). Center for Innovation. *Voices of Veterans: Introducing personas to better understand our customers - Findings report*. Retrieved from http://www.innovation.va.gov/docs/Voices_Of_Veterans_11_12_4.pdf

U.S. Department of Veterans Affairs. Office of Inspector General. (2014). Part II: Performance section. Major management priorities and challenges. Retrieved from http://www.va.gov/oig/pubs/VAOIG-2014%20MMC.pdf

U.S. Department of Veterans Affairs. (2015, February 3). Office of Budget: President's Budget Request Fiscal Year 2016. [Website]. Retrieved from: http://www.va.gov/budget/products.asp

U.S. Department of Veterans Affairs (2015, February 28). Task Force on Improving Effectiveness of VHA Governance: Report to the VHA Under Secretary for Health.

U.S. Department of Veterans Affairs. (2015, April 14-15). MyVA Advisory Committee: Inaugural meeting [PowerPoint slides].

U.S. Department of Veterans Affairs. (2015). About the Huntington VA Medical Center. Retrieved from http://www.huntington.va.gov/about/index.asp

U.S. Department of Veterans Affairs. Veterans Health Administration. Job Announcement: Health System Administrator (Medical Center Director) (VA Job Announcement Number: VASES151407823LR). Retrieved from https://www.usajobs.gov/GetJob/ViewDetails/403947600

U.S. Department of Veterans Affairs. Veterans Health Administration. VHA Strategic Plan FY 2013-2018, pg. 1. Retrieved from http://www.va.gov/health/docs/VHA_STRATEGIC_PLAN_FY2013-2018.pdf

U. S. Department of Veterans Affairs. Volume II: Medical programs and information technology programs; Congressional submission, FY 2016 funding and FY 2017 advance appropriations, pg. VHA-3. Retrieved from http://www.va.gov/budget/docs/summary/Fy2016-VolumeII-MedicalProgramsAndInformationTechnology.pdf

U.S. Government Accountability Office. (2015, February 11). *High-risk series: An update*. *(GAO Publication No. 15-290).* Washington, D.C.: U.S. Government Publishing Office. Retrieved from http://www.gao.gov/assets/670/668415.pdf

Voorhees, J. (2014, November 12). Less firing, more hiring. Slate.com. Retrieved from http://www.slate.com/articles/news_and_politics/politics/2014/11/veterans_affairs_overhaul_the_va_should_worry_less_about_cleaning_house.html

Wagner, D. (2015, June 21). VA to outsource care for 180,000 vets with hepatitis C. *USA Today*. Retrieved from http://www.usatoday.com/story/news/nation/2015/06/21/va-outsource-care-vets-hepatitis/29059755/

Walters, H. et al. (2009, December). *Commission on the Future for America's Veterans: Preparing for the Next Generation*. Commission on the Future for America's Veterans.

Woster, K. (2011, December 13). VA proposes Hot Springs medical center closures. *Rapid City Journal*. Retrieved from http://rapidcityjournal.com/news/local/communities/hot-springs/va-proposes-hot-springs-medical-center-closures/article_56b5a98e-2545-11e1-a04d-001871e3ce6c.html

Appendix O Acronyms

ACAP	Access and Clinic Administration Program
APP	Advanced Practice Providers
ASA	Average Speed of Answer
BRAC	Base Realignment and Closure
CAMH	CMS Alliance to Modernize Healthcare
CBO	Congressional Budget Office
CBOC	Community-Based Outpatient Clinic
CIO	Chief Information Officer
CMOP	Consolidated Mail Order Pharmacies
CMS	Centers for Medicare & Medicaid Services
COTS	Commercial Off-the-Shelf
CPAC	Consolidated Patient Account Center
CPRS	Computerized Patient Record System
CPT	Current Procedural Technology
DoD	U.S. Department of Defense
EHR	Electronic Health Record
EWL	Electronic Wait List
FBCS	Fee Basis Claims System
FFS	Fee for Service
FITARA	Federal Information Technology Reform Act
FTE	Full-Time Equivalent
FY	Fiscal Year
GAO	General Accountability Office
HCPS	Health Care Payment System
HEDIS®	Healthcare Effectiveness Data and Information Set
HHC	New York City Health and Hospitals Corporation
HMO	Health Maintenance Organization
HR	Human Resources
IOM	Institute of Medicine of the National Academies
IRS	Internal Revenue Service

IT	Information Technology
MASS	Medical Appointment Scheduling System
MSVP	Medical/Surgical Prime Vendors
NLC	National Leadership Council
O&M	Operations and Maintenance
OI&T	Office of Information & Technology
OIG	Office of the Inspector General
OMB	Office of Management and Budget
OPES	Office of Productivity, Efficiency, and Staffing
PCC	Patient-Centered Community Care
PMAS	Project Management Accountability System
PPV	Pharmaceutical Prime Vendor
PTSD	Post-Traumatic Stress Disorder
SAIL	Strategic Analytics for Improvement and Learning
SCIP	Strategic Capital Investment Plan
SES	Senior Executive Service
SLA	Service-Level Agreement
U.S.	United States
VA	U.S. Department of Veterans Affairs
VACO	VA Central Office
VAMC	Veterans Affairs Medical Center
VHA	Veterans Health Administration
VHACO	Veterans Health Administration Central Office
VISN	Veterans Integrated Service Network
VistA	Veterans Health Information Systems and Technology Architecture
VSO	Veterans Service Organizations
wRVU	Work Relative Value Unit

Appendix P Section 201 of the Veterans Choice Act

Section 201: Independent Assessment of the Health Care Delivery Systems and Management Processes of the Department of Veterans Affairs.

(a) INDEPENDENT ASSESSMENT.—

(1) ASSESSMENT.—Not later than 90 days after the date of the enactment of this Act, the Secretary of Veterans Affairs shall enter into one or more contracts with a private sector entity or entities described in subsection (b) to conduct an independent assessment of the hospital care, medical services, and other health care furnished in medical facilities of the Department. Such assessment shall address each of the following:

(A) Current and projected demographics and unique health care needs of the patient population served by the Department.

(B) Current and projected health care capabilities and resources of the Department, including hospital care, medical services, and other health care furnished by non-Department facilities under contract with the Department, to provide timely and accessible care to veterans.

(C) The authorities and mechanisms under which the Secretary may furnish hospital care, medical services, and other health care at non-Department facilities, including whether the Secretary should have the authority to furnish such care and services at such facilities through the completion of episodes of care.

(D) The appropriate system-wide access standard applicable to hospital care, medical services, and other health care furnished by and through the Department, including an identification of appropriate access standards for each individual specialty and post-care rehabilitation.

(E) The workflow process at each medical facility of the Department for scheduling appointments for veterans to receive hospital care, medical services, or other health care from the Department.

(F) The organization, workflow processes, and tools used by the Department to support clinical staffing, access to care, effective length-of-stay management and care transitions, positive patient experience, accurate documentation, and subsequent coding of inpatient services.

(G) The staffing level at each medical facility of the Department and the productivity of each health care provider at such medical facility, compared with health care industry performance metrics, which may include an assessment of any of the following:

(i) The case load of, and number of patients treated by, each health care provider at such medical facility during an average week.

(ii) The time spent by such health care provider on matters other than the case load of such health care provider, including time spent by such health care provider as follows:

(I) At a medical facility that is affiliated with the Department.

(II) Conducting research.

(III) Training or supervising other health care professionals of the Department.

(H) The information technology strategies of the Department with respect to furnishing and managing health care, including an identification of any weaknesses and opportunities with respect to the technology used by the Department, especially those strategies with respect to clinical documentation of episodes of hospital care, medical services, and other health care, including any clinical images and associated textual reports, furnished by the Department in Department or non-Department facilities.

(I) Business processes of the Veterans Health Administration, including processes relating to furnishing non- Department health care, insurance identification, third-party revenue collection, and vendor reimbursement, including an identification of mechanisms as follows:

(i) To avoid the payment of penalties to vendors.

(ii) To increase the collection of amounts owed to the Department for hospital care, medical services, or other health care provided by the Department for which reimbursement from a third party is authorized and to ensure that such amounts collected are accurate.

(iii) To increase the collection of any other amounts owed to the Department with respect to hospital care, medical services, and other health care and to ensure that such amounts collected are accurate.

(iv) To increase the accuracy and timeliness of Department payments to vendors and providers.

(J) The purchasing, distribution, and use of pharmaceuticals, medical and surgical supplies, medical devices, and health care related services by the Department, including the following:

(i) The prices paid for, standardization of, and use by the Department of the following:

(I) Pharmaceuticals.

(II) Medical and surgical supplies.

(III) Medical devices.

(ii) The use by the Department of group purchasing arrangements to purchase pharmaceuticals, medical and surgical supplies, medical devices, and health care related services.

(iii) The strategy and systems used by the Department to distribute pharmaceuticals, medical and surgical supplies, medical devices, and health care related services to Veterans Integrated Service Networks and medical facilities of the Department.

(K) The process of the Department for carrying out construction and maintenance projects at medical facilities of the Department and the medical facility leasing program of the Department.

(L) The competency of leadership with respect to culture, accountability, reform readiness, leadership development, physician alignment, employee engagement, succession planning, and performance management.

(2) PARTICULAR ELEMENTS OF CERTAIN ASSESSMENTS.—

(A) SCHEDULING ASSESSMENT.—In carrying out the assessment required by paragraph (1)(E), the private sector entity or entities shall do the following:

(i) Review all training materials pertaining to scheduling of appointments at each medical facility of the Department.

(ii) Assess whether all employees of the Department conducting tasks related to scheduling are properly trained for conducting such tasks.

(iii) Assess whether changes in the technology or system used in scheduling appointments are necessary to limit access to the system to only those employees that have been properly trained in conducting such tasks.

(iv) Assess whether health care providers of the Department are making changes to their schedules that hinder the ability of employees conducting such tasks to perform such tasks.

(v) Assess whether the establishment of a centralized call center throughout the Department for scheduling appointments at medical facilities of the Department would improve the process of scheduling such appointments.

(vi) Assess whether booking templates for each medical facility or clinic of the Department would improve the process of scheduling such appointments.

(vii) Assess any interim technology changes or attempts by Department to internally develop a long-term scheduling solutions with respect to the feasibility and cost effectiveness of such internally developed solutions compared to commercially available solutions.

(viii) Recommend actions, if any, to be taken by the Department to improve the process for scheduling such appointments, including the following:

(I) Changes in training materials provided to employees of the Department with respect to conducting tasks related to scheduling such appointments.

(II) Changes in monitoring and assessment conducted by the Department of wait times of veterans for such appointments.

(III) Changes in the system used to schedule such appointments, including changes to improve how the Department—

(aa) measures wait times of veterans for such appointments;

(bb) monitors the availability of health care providers of the Department; and

(cc) provides veterans the ability to schedule such appointments.

(IV) Such other actions as the private sector entity or entities considers appropriate.

(B) MEDICAL CONSTRUCTION AND MAINTENANCE PROJECT AND LEASING PROGRAM ASSESSMENT.—In carrying out the assessment required by paragraph (1)(K), the private sector entity or entities shall do the following:

(i) Review the process of the Department for identifying and designing proposals for construction and maintenance projects at medical facilities of the Department and leases for medical facilities of the Department.

(ii) Assess the process through which the Department determines the following:

(I) That a construction or maintenance project or lease is necessary with respect to a medical facility or proposed medical facility of the Department.

(II) The proper size of such medical facility or proposed medical facility with respect to treating veterans in the catchment area of such medical facility or proposed medical facility.

(iii) Assess the management processes of the Department with respect to the capital management programs of the Department, including processes relating to the methodology for construction and design of medical facilities of the Department, the management of projects relating to the construction and design of such facilities, and the activation of such facilities.

(iv) Assess the medical facility leasing program of the Department.

(3) TIMING.—The private sector entity or entities carrying out the assessment required by paragraph (1) shall complete such assessment not later than 240 days after entering into the contract described in such paragraph.

(b) PRIVATE SECTOR ENTITIES DESCRIBED.—A private entity described in this subsection is a private entity that—

(1) has experience and proven outcomes in optimizing the performance of the health care delivery systems of the Veterans Health Administration and the private sector and in health care management; and

(2) specializes in implementing large-scale organizational and cultural transformations, especially with respect to health care delivery systems.

(c) PROGRAM INTEGRATOR.—

(1) IN GENERAL.—If the Secretary enters into contracts with more than one private sector entity under subsection (a), the Secretary shall designate one such entity that is predominately a health care organization as the program integrator.

(2) RESPONSIBILITIES.—The program integrator designated pursuant to paragraph (1) shall be responsible for coordinating the outcomes of the assessments conducted by the private entities pursuant to such contracts.

(d) REPORT ON ASSESSMENT.—

(1) IN GENERAL.—Not later than 60 days after completing the assessment required by subsection (a), the private sector entity or entities carrying out such assessment shall submit to the Secretary of Veterans Affairs, the Committee on Veterans' Affairs of the Senate, the Committee on Veterans' Affairs of the House of Representatives, and the Commission on Care established under section 202 a report on the findings and recommendations of the private sector entity or entities with respect to such assessment.

(2) PUBLICATION.—Not later than 30 days after receiving the report under paragraph (1), the Secretary shall publish such report in the Federal Register and on an Internet website of the Department of Veterans Affairs that is accessible to the public.

(e) NON-DEPARTMENT FACILITIES DEFINED.—In this section, the term ''non-Department facilities'' has the meaning given that term in section 1701 of title 38, United States Code.

This page intentionally left blank.

Appendix Q Blue Ribbon Panel

The Blue Ribbon Panel members are listed here, along with their biographies.

Dr. Brett Giroir (Panel Chair)	
Dr. Gail Wilensky (Panel Co-Chair)	
Dr. Katrina Armstrong	Dr. Debra Barksdale
Dr. Ronald R. Blanck	Prof. W. Warner Burke
Dr. Christine Cassel	GEN(R) Peter W. Chiarelli
Mr. George Halvorson	Mr. Robert L. Mallett
Dr. Robert Margolis	Dr. George Poste
Dr. Robert C. Robbins	Dr. Mark D. Smith
Dr. Glenn D. Steele, Jr.	Dr. Beth Ann Swan

Dr. Katrina Armstrong

Katrina Armstrong, M.D., MSCE, a world-renowned investigator in the areas of medical decision-making, quality of care, and cancer prevention and outcomes, is Physician-in-Chief of the Massachusetts General Hospital Department of Medicine, and Professor of Medicine at Harvard Medical School. Focusing at the interface of genomics, cancer and social policy, she has translated genomics advances into improvements in cancer control and identified novel mechanisms underlying cancer disparities. She leads one of the premier departments of medicine in the U.S. today, and has a deep understanding of what is needed to deliver exemplary clinical care.

Dr. Debra Barksdale

Dr. Debra J. Barksdale is Professor and Director of the DNP program at the University of North Carolina at Chapel Hill (UNC-CH). She is certified as a family nurse practitioner (NP), an adult NP, and a nurse educator. She is a Fellow of the American Academy of Nurse Practitioners and the American Academy of Nursing. She has over 20 years of NP experience and has been a NP in urgent care, primary care, home care and care of the underserved. On September 23, 2010, Dr. Barksdale was one of 19 members appointed to the 21 member Board of Governors for the new Patient-Centered Outcomes Research Institute (PCORI) by the U.S. Government Accountability Office under the Obama Administration. She is the only nurse appointed to the PCORI Board.

Dr. Ronald R. Blanck

Lt. Gen. Ronald R. Blanck, D.O., USA (Ret.), was the 39th Surgeon General of the United States Army, from 1996–2000. He was president of the University of North Texas Health Science

Center at Fort Worth from 2000 to 2006. He currently serves as Chairman of the Board of Regents of the Uniformed Services University of the Health Sciences. He began his military career in 1968 as a medical officer and battalion surgeon in Vietnam. He retired 32 years later as the Surgeon General of the U.S. Army and commander of the U.S. Army Medical Command, with more than 46,000 military personnel and 26,000 civilian employees throughout the world.

Prof. W. Warner Burke

Warner Burke, Ph.D,. is the E. L. Thorndike Professor of Psychology and Education and Editor of the Journal of Applied Behavioral Science at Teachers College, Columbia University. A social-organizational psychologist (Ph.D., University of Texas, Austin), Dr. Burke is currently engaged in teaching, research, and consulting. He teaches leadership and supervision and organization change. His research focuses on leadership, multirater feedback, organization change, and learning agility. Prof. Burke co-directs the Eisenhower Leader Development Program, an MA degree for Army officers jointly sponsored by Teachers College, Columbia University and the US Military Academy at West Point. He is the former Chair of the Department of Organization and Leadership at Teachers College, Columbia University. Among his many awards is the Public Service Medal from the National Aeronautics and Space Administration.

Dr. Christine Cassel

Christine K. Cassel, M.D., President and CEO of the National Quality Forum, is a leading expert in geriatric medicine, medical ethics, and quality of care. She is one of the world's leading experts on clinical quality. Dr. Cassel previously served as President and CEO of the American Board of Internal Medicine (ABIM), the ABIM Foundation, and Dean of the School of Medicine at Oregon Health Sciences University. Dr. Cassel is one of 20 scientists (and the only M.D.) chosen by President Obama to serve on the President's Council of Advisors on Science and Technology (PCAST), which advises the President in areas where an understanding of science, technology, and innovation is key to forming responsible and effective policy. She is the co-chair and physician leader of PCAST working groups that have made recommendations to the President on issues relating to health information technology and ways to promote scientific innovation in drug development and evaluation. In addition to having chaired influential Institute of Medicine (IOM) reports on end-of-life care and public health, she served on the IOM's Comparative Effective Research Committee mandated by Congress to set priorities for the national CER effort (PCORI).

Gen. Peter W. Chiarelli

Peter W. Chiarelli is a retired United States Army general who served as the 32nd Vice Chief of Staff of the U.S. Army from August 4, 2008 to January 31, 2012. As former vice chief of staff of the Army, Gen Chiarelli understands the needs of the Veteran, understands the issues of the hand-off from DoD care to VHA care for the Veterans, and has a deep personal interest in improving care for those Veterans who have experienced traumatic brain injury and post-traumatic stress.

Dr. Brett Giroir (Panel Chair)

Brett Giroir, M.D., is currently Senior Fellow at the Health Policy Institute of the Texas Medical Center, and former CEO of the Texas A&M Health Science Center, a premier assembly of colleges devoted to educating health professionals and advancing research in medicine, dentistry, public health, nursing, and pharmacy. He is a global authority on health care and life sciences innovation, having served diverse roles including Director of the Defense Science Office at DARPA, Principal Investigator of the DHHS Center for Innovation responsible for producing 50 million doses of vaccine against pandemic influenza, and Director of the Texas Task Force on Infectious Diseases chartered to lead the state's Ebola response and recommend policy changes within the state.

Mr. George Halvorson

Mr. George Halvorson served as chairman and chief executive officer of Kaiser Permanente from 2002–2013. Prior to serving as Kaiser Permanente CEO, Mr. Halvorson was the president and CEO of Health Partners in Minnesota for 17 years. He brings world-class leadership experience and expertise to the Panel, particularly in terms of leading a very large vertically integrated health care delivery system. He also brings connectivity to, and relationships with, many other expert health care leaders.

Mr. Halvorson currently serves as the Chair and CEO for the Institute of InterGroup Understanding and has a four year appointment to Chair the State of California Commission for Children and Families.

Mr. Robert L. Mallett

Robert L. Mallett is currently a board member and President and CEO of Accordia Global Health Foundation, an organization dedicated to health systems strengthening in Sub-Saharan Africa. For much of his professional career, Mr. Mallett has served in the health sector as a board member of health centered nonprofit organizations and at industry-leading health care companies. He is formerly Executive Vice President & General Counsel, Public and Senior Markets Group, a division of United Health Group. Immediately prior to joining United Health Group, Mr. Mallett served as Senior Vice President, Worldwide Policy & Public Affairs, Pfizer Inc. At Pfizer, among other things, he co-led the company's efforts on enhancing global access to medicines and served as President of the Pfizer Foundation. Mr. Mallett has also enjoyed a stimulating career as a chief operating officer in both federal and local government. During the Clinton Administration, he served as Acting Secretary and Deputy Secretary of the U.S. Department of Commerce, and he was City Administrator and Deputy Mayor for Operations for the District of Columbia. He has been the Peter P. Mullen Visiting Professor of Law at Georgetown University, and a Visiting Professor at the John F. Kennedy School of Government at Harvard University. Mr. Mallett is a member of the Council on Foreign Relations and an elected Fellow of the National Academy of Public Administrators.

Dr. Robert Margolis

Robert Margolis, M.D., is former Co-Chairman of the Board, DaVita HealthCare Partners and CEO Emeritus of HealthCare Partners, LLC. Dr. Margolis served as the managing partner and CEO of HealthCare Partners from the formation of the company in 1992 through February 2014. Under Dr. Margolis' leadership, HealthCare Partners became a highly respected and innovative

physician-owned and operated medical group, independent physician association, and management services organization. Dr. Margolis has been on the leading edge of the managed care industry for more than 30 years.

Dr. George Poste

Dr. George Poste is the Del E. Webb Professor of Health Innovation and Chief Scientist of the Complex Adaptive Systems Initiative (CASI) at Arizona State University (ASU). This program integrates research in genomics, synthetic biology and high performance computing to study the altered regulation of molecular networks in human diseases to develop new diagnostic tests for precision (personalized) medicine and the remote monitoring of health status using miniaturized body sensors and mobile devices. From 1992–1999, he was Chief Science and Technology Officer and President, R&D, of SmithKline Beecham (SB). During his tenure at SB, he was associated with the successful registration of multiple drug, vaccine, and diagnostic products. He has served as a member of the Defense Science Board of the U.S. Department of Defense and currently serves on advisory committees for several U.S. government agencies in defense, intelligence, national security and health care.

Dr. Robert C. Robbins

Robert C. Robbins, M.D., became President and Chief Executive Officer of Texas Medical Center on November 5, 2012. Prior to that, he was professor and chairman of the Department of Cardiothoracic Surgery at Stanford University School of Medicine, where he served as a member of the faculty since 1993. He served as director of the Stanford Cardiovascular Institute, of the Heart- Lung and Lung Transplantation Programs, and of the Cardiothoracic Transplantation Laboratory. Dr. Robbins is an internationally recognized cardiac surgeon who has focused his clinical efforts on acquired cardiac diseases with a special expertise in the surgical treatment of congestive heart failure. His research work includes the investigation of stem cells for cardiac regeneration, cardiac transplant allograft vasculopathy, bioengineered blood vessels, and automated vascular anastomotic devices. As the CEO of the largest medical complex in the world, he brings world class expertise from a senior leadership perspective for all of the areas covered by the 12 assessments.

Dr. Mark D. Smith

Mark D. Smith, M.D., is founder and former President and Chief Executive Officer of the California HealthCare Foundation, an independent philanthropy in Oakland California, dedicated to improving the health of the people of California, particularly the underserved. He chaired the IOM's Committee on the Learning Healthcare System, which produced the widely publicized 2012 report Best Care at Lower Cost.

Dr. Glenn D. Steele, Jr.

Glenn D. Steele, Jr., M.D., Ph.D., is Chairman of xG Health Solutions and immediate past President and Chief Executive Officer of Geisinger Health System. Under his leadership from 2001–2015, this vertically integrated health care system has risen to be one of the most cost-effective, high quality provider organizations in the country. Prior to Geisinger, he was at the University of Chicago, where he served as Richard T. Crane Professor in the Department of

Surgery, Vice President for Medical Affairs, and Dean of the Biological Sciences Division and the Pritzker School of Medicine. Prior to that, he was the William V. McDermott Professor of Surgery at Harvard Medical School, President and Chief Executive Officer of Deaconess Professional Practice Group and Chairman of the Department of Surgery at New England Deaconess Hospital. Widely recognized for his investigations into the treatment of primary and metastatic liver cancer and colorectal cancer surgery, Dr. Steele is past Chairman of the American Board of Surgery. He serves on the editorial board of numerous prominent medical journals. His investigations have focused on the cell biology of gastrointestinal cancer and pre-cancer. Most recently, he has concentrated on innovations in health care delivery and financing.

Dr. Beth Ann Swan

Beth Ann Swan, Ph.D., CRNP, FAAN, is Dean and Professor, Jefferson College of Nursing, Thomas Jefferson University. An acknowledged leader in nursing and ambulatory care, she has deep expertise and research experience in technology applications for practice-based research; client outcomes, especially symptom distress and functional status following ambulatory surgery; post-acute care coordination and transition management; and dissemination of evidence, based on accessibility and usability of web-based evidence resources.

Dr. Gail Wilensky (Panel Co-Chair)

Gail Wilensky, Ph.D., is an economist and senior fellow at Project HOPE, an international health foundation. She directed the Medicare and Medicaid programs from 1990–1992 and served in the White House as a senior health and welfare adviser to President GHW Bush. Dr. Wilensky currently serves as a trustee of the Combined Benefits Fund of the United Mine Workers of America and the National Opinion Research Center, is on the Board of Regents of the Uniformed Services University of the Health Sciences (USUHS), the Visiting Committee of the Harvard Medical School, and the Geisinger Health System Foundation. She recently served as president of the Defense Health Board, a Federal advisory to the Secretary of Defense, was a commissioner on the World Health Organization's Commission on the Social Determinants of Health, and co-chaired the Dept. of Defense Task Force on the Future of Military Health Care. She is an elected member of the Institute of Medicine and has served two terms on its governing council. She is a former chair of the board of directors of Academy Health, a former trustee of the American Heart Association and a current or former director of numerous other non-profit organizations.

This page intentionally left blank.