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Health Care Spending and Efficiency in the U.S. Department of Veterans Affairs

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In its 2013 budget request, the Obama administration sought \$140 billion for the U.S. Department of Veterans Affairs (VA), 54 percent of which would provide mandatory benefits, such as direct compensation and pensions, and 40 percent of which is discretionary spending, earmarked for medical benefits under the Veterans Health Administration (VHA). Unlike Medicare, which provides financing for care when its beneficiaries use providers throughout the U.S. health care system, the VHA is a government-run, parallel system that is primarily intended for care provision of veterans. The VHA hires its own doctors and has its own hospital network infrastructure. Although the VHA provides quality services to veterans, it does not preclude veterans from utilizing other forms of care outside of the VHA network—in fact, the majority of veterans' care is received external to the VHA because of location and other system limitations. Veterans typically use other private and public health insurance coverage (for example, Medicare, Medicaid) for external care, and many use both systems in a given year (dual use). Overlapping system use creates the potential for duplicative, uncoordinated, and inefficient use. We find some suggestive evidence of such inefficient use, particularly in the area of inpatient care. Coordination management and quality of care received by veterans across both VHA and private sector systems can be optimized (for example, in the area of mental illness, which benefits from an integrated approach across multiple providers and sectors), capitalizing on the best that each system has to offer, without increasing costs.

Introduction

Background

The United States' commitment to its military veterans dates back as far as the Revolutionary War, when pensions were guaranteed for soldiers by the Continental Congress as an enticement to enlist. Formal health care benefits began in the 19th century, and in 1930, three federal bureaus consolidated to create a unified Department of Veterans Administration. Previously independent, the Veterans Bureau, Bureau of Pensions, and the National Homes for Disabled Volunteer Soldiers all became arms of the Veterans Administration. The partnership was designed

to enhance coordination of and responsibility for the health care system serving war veterans. This was especially pertinent during a time of economic hardships and with over 5 million veterans returning from World War I. The Veterans Administration was later changed to the Department of Veterans Affairs (VA), elevating the VA to department status in the Executive Branch. Today the department serves as the central health care and benefits system for veterans and their families.

Within the VA, the Veterans Health Administration (VHA) annually provides medical, surgical, and rehabilitative care to an estimated 6 million of the 22 million eligible veterans within 152 hospitals, 800 community-based outpatient clinics, and 126 nursing homes, staffed by doctors and nurses who are VHA employees.^{1,2} Although the VHA is the largest integrated health care system in the United States, it represents a very small portion of the broader U.S. health care system (consisting of over 5,000 hospitals). The VHA provider model also stands in contrast to the larger government-funded health care systems of Medicaid and Medicare (which cover more than 100 million Americans). Signed into law in 1965, Medicare and Medicaid fund beneficiaries' use of approved private health care providers rather than running their own system. While the VHA finances some services in the private sector when VHA services are unavailable or would pose an undue burden for the veteran to access, that care represents less than 10 percent of VHA spending.²⁹

Challenges

Health care demands of veterans and their families have developed and evolved throughout U.S. history within the scope and context of health conditions, the expansion of the health care system, and the experiences borne of modern military engagement. Researchers at the RAND Corporation estimated that 14 percent of the more than 1.5 million veterans returning from the recent wars in Afghanistan and Iraq screened positive for post-traumatic stress disorder, 14 percent for major depression, and 19 percent for a probable traumatic brain injury (TBI) during deployment (those estimates were for 2008; the number of returning servicemembers has increased considerably since).³ These symptoms and disorders

had estimated societal costs of \$5 billion to \$7 billion, factoring in mortality, morbidity, and lost productivity. Fortunately, these costs can be mediated through utilizing evidence-based treatment spanning physical and mental health care providers, counselors, and an array of other social services.

Access to care for veterans encompasses services provided through dual systems of care. Veterans can use a priority system provided by the VHA or the broader private sector health care system. Veterans who use the VHA system also tend to use non-VHA care that is funded by other public or private insurance plans. These use patterns create both opportunities and challenges. As an opportunity, the VHA has the flexibility to build programs, employ providers, and target care where needed, as reflected by recent investments and attention to mental health issues, and has been shown to provide excellent quality of care in many areas compared to non-VHA systems.^{4,5}

The VHA faces challenges, however. While relatively flexible, any system of providers and facilities can only respond so quickly to changing population needs. For example, effective treatment for the exponential rise in mental health and TBI cases among veterans requires an array of providers, including mental health professionals. Attempting to address those needs, amidst complaints over delays in treatment, the President issued an Executive Order that instructed the VA to work aggressively with all appropriate tools to hire, train, and place 1,600 mental health professionals by June 30, 2013.^{38, 39, 40} Yet even if that goal were achieved, meeting the full range of needs in this population necessarily involves both VHA and non-VHA institutions (including the Department of Defense and community-based provider organizations), despite the coordination challenges this may present.³⁶

In this brief, we combine evidence from published work by others in the literature with some original data analysis to address the following questions:

- How does the VA spend its funds, both now and in the past, particularly on health care?
- What does the veteran population look like, and who uses VHA health care?
- How many veterans have other forms of health coverage available? To what extent do veterans rely on VHA health care for their health care use?
- Do these and other analyses provide any evidence of convenience-based, strategic, inefficient, duplicative, or excessive use of care among veterans?

While the final question is by no means easy to answer definitively, we seek an objective characterization of use of care in and outside of the VHA system by veterans.

For example, evidence that veterans use more non-VHA services when they are farther from VHA facilities or when they have non-VA coverage suggests that they choose between systems, to some extent, based on convenience. This is not necessarily a problem, per se, but it implies that gains could be possible if each system were to focus on its relative strengths and act in a more

complementary manner, rather than a substitutive one. Evidence of overuse or duplicative use more directly implies opportunities for pure savings from the perspective of the VHA, though achieving such savings is not necessarily easy. Following the analyses, we provide several policy options that could help foster greater efficiency, though development of these options in greater detail would require more in-depth analysis.

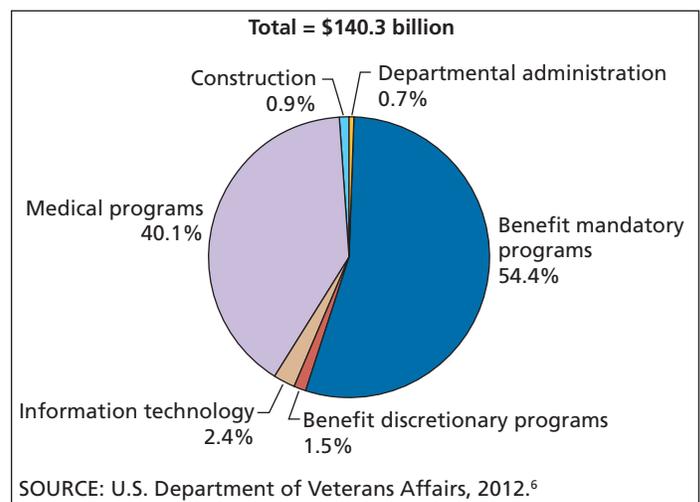
How Does the VA Spend Its Funds, Both Now and in the Past, Particularly on Health Care?

The VA is financed through annual congressional appropriations. The administration requested \$140.3 billion for the 2013 fiscal year, with over \$76 billion (54.4 percent) in mandatory funding to run the Veterans Benefits Administration (VBA) and \$64 billion (45.6 percent) in discretionary resources to run the other programs, primarily the VHA (Figure 1).⁶

A majority of the mandatory funds requested (\$57 billion) are aimed toward disability compensation, in the form of direct monthly payments made in recognition of lost earnings capacity stemming from disabilities that resulted from active military service. The second-largest segment of mandatory funding (\$11.5 billion) consists of education benefits under the GI Bill. The third largest (\$4 billion) was requested for pension benefits and vocational rehabilitation and employment mandatory benefits totaling just over \$1 billion. Medical care spending represented \$57 billion of the 2013 budget request, including \$45 billion for medical services and \$11 billion for administrative and other support activities.

Reducing homelessness among veterans is a key priority for the VA, with an estimated \$4.4 billion of health care spending incurred by homeless veterans and \$1.4 billion in other direct initiatives that are spread across the above budget categories and include case management for veterans receiving Section 8 housing, residential rehabilitation programs, and support for community-based services to homeless veterans.

Figure 1. Breakdown of Department of Veterans Affairs 2013 Budget Request



Trends in spending over the last several years are shown in Figure 2.

The 2013 budget request represents an 11-percent (\$13 billion) increase over estimated 2012 spending and a 72-percent increase from 2007 spending (despite a 10-percent decrease in the number of veterans between 2007 and 2013). Spending on medical programs grew 42 percent between 2007 and 2011, while spending on disability and pensions grew 37 percent. An increase in eligibility for mandatory education benefits from 2009 to 2010 is responsible for much of the growth in that category.

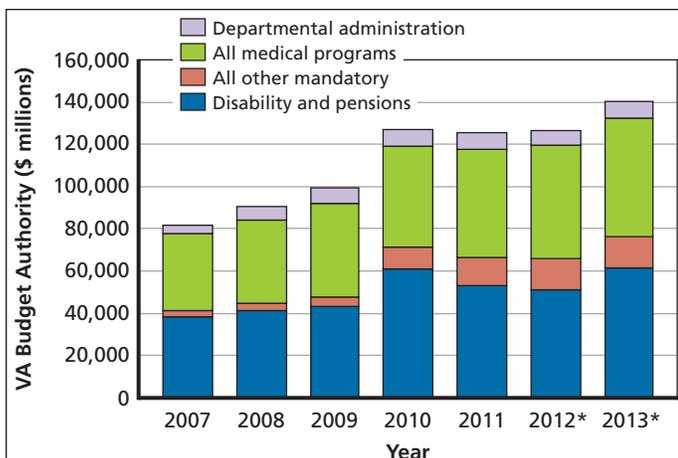
We next provide additional detail on VA health care spending (the focus of this paper) and patients served at VHA facilities over the last few decades. Figure 3 shows the number of veterans and nonveterans served as inpatients and outpatients between 1970 and 2011.

Of over 22 million eligible veterans, 8 million veterans were enrolled in VA health care in 2011, and roughly 6 million veterans received health care services that fiscal year. The number of outpatients has roughly doubled since the 1990s, reflecting several factors, including a shift in general health care provision toward outpatient settings and a shift in VA budgeting practices: The VA moved to a capitated budgeting system, which increased the financial incentive to reach and enroll veterans, and outpatient clinics helped serve that role.

Figure 4 shows the trends in VA health care spending over the same time period.

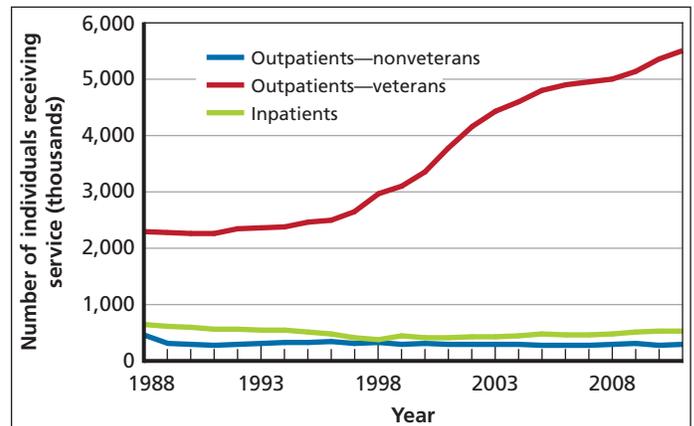
Figure 4 shows that over the last four decades, medical care spending has increased dramatically, as has health care spending in the United States overall. Between 2000 and 2011, VHA spending per enrolled veteran increased 64 percent, comparable to the 78-percent increase in national health care spending per U.S. resident (although those figures are only somewhat comparable because of differing populations and the fact that the VHA

Figure 2. VA Spending (nominal dollars) Between 2007 and 2011, with Estimated Spending for 2012 and Budget Request for 2013



SOURCE: U.S. Department of Veterans Affairs, 2007, 2008, 2009, 2010, 2011, and 2012.^{6, 30, 31, 32, 33, 34}
 NOTE: Fiscal years 2012 and 2013 are current budget estimates.

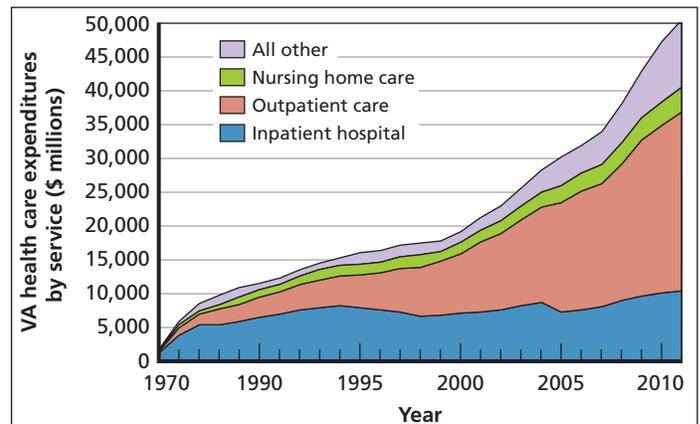
Figure 3. Number of Patients Served at VHA Facilities Between 1970 and 2011



SOURCE: National Center for Health Statistics, 2012.²⁴

NOTE: A small number of nonveterans use VHA services, primarily for services such as family therapy, which can include spouses and significant others. Most of this service use is for outpatient care—a tiny number of nonveteran inpatient users is not shown in the figure. Individuals receiving services with multiple discharges or visits are only counted once in either the inpatient or outpatient category.

Figure 4. Trends in VA Health Care Spending (in nominal dollars) from 1970 to 2011



SOURCE: National Center for Health Statistics, 2012.²⁴

NOTE: Other spending includes miscellaneous benefits and services; contract hospitals; education and training; subsidies to state veterans' hospitals, nursing homes, and residential rehabilitation treatment programs; and the Civilian Health and Medical Program of the VA.

only pays for a portion of veterans' health care—a portion that varies over time). Spending on outpatient care (which includes pharmaceutical spending, emergency room care, and hospital outpatient care) as a proportion of the VHA spending has grown markedly: from \$2.9 billion in 1990 to \$26.6 billion in 2011 (from 25 percent to 53 percent of medical spending during that period). This trend is again in accordance with the VHA's shift from inpatient-based care to outpatient care, as noted above and as reflected in Figure 3. Inpatient hospital spending has declined

as a proportion of all spending but grown in nominal dollars from \$6.6 billion in 1990 to \$10.4 billion by 2011.

What Does the Veteran Population Look Like, and Who Uses VHA Health Care?

The composition of the veteran population varies with the U.S. war efforts, resulting in a constantly shifting population with, presumably, changing health care needs. Figure 5 presents snapshots of this population in 2007, 2011, and 2015 (projected).

The overall number of veterans in the United States is declining, from 23.8 million in 2007 to 22.7 million in 2011 and to a projected 21.2 million in 2015. While the largest cohort is currently the Vietnam-era veterans, that group is projected to be overtaken by Gulf War-era veterans by 2016. World War II-era veterans are rapidly declining in number as they age. To the extent that there are health problems associated with a given cohort of veterans, those needs are expected to shift accordingly.

As noted above, only a minority of veterans enrolls in (and fewer still use, in any given year) VHA health care services. The VHA uses the concept of “priority groups” to manage veterans’ enrollment in—and, effectively, demand of—health benefits in accordance with annual congressional funding limits. Veterans must first apply for enrollment and have their program eligibility verified. Veterans are subsequently grouped, from priority group 1 to 8, based on the individual’s eligibility status (see Appendix Table A.1 for a detailed description). The groups are defined by such factors as the war in which the veteran served, the presence and extent of a disability that is related to military service, and the veteran’s income. Disabled and low-income veterans are given a higher priority (the lower the number, the higher the priority), and veterans who have higher income and do not have a service-connected disability receive a lower priority. Only veterans in groups 1–3 tend to have service-connected disability. Those with a lower priority status often pay copayments or may receive fewer VA benefits. For example, copayments (\$15 for primary care

visits, \$50 for specialty care visits, and \$9 for a 30-day supply of medication in 2010) apply to veterans in groups 7 and 8 for care that is not related to a service-connected condition and may also apply to veterans in groups 2–6. Additional copayments for inpatient and other services may also apply. New enrollment in VHA health care was suspended for group 8 veterans in 2003 and resumed on a limited basis again in 2009.

In 2009, approximately 35 percent of enrollees were in groups 1–3, 28 percent were in group 5, 28 percent were in groups 7 and 8, and the remaining 9 percent were in groups 4 and 6.⁷

How Many Veterans Have Other Forms of Health Coverage Available? To What Extent Do Veterans Rely on VHA Health Care for Their Health Care Use?

Table 1 shows a breakdown of a representative sample (more than 240,000 veterans) of the full U.S. veteran population (not merely enrolled veterans) by disability status and whether they have sources of coverage available to them other than VHA coverage. The data are derived from our analysis of the American Community Survey (more details on the survey and its use in analysis of veterans is provided in the methods section at the end of this report). Reported numbers of veterans (for example, in the first row of the table) apply sampling weights derived by the Census and, as such, represent roughly 20 million veterans—close to the total number of veterans reported by the VA.

The table shows that nearly all elderly (age 65+) veterans have Medicare coverage, and a majority of younger veterans (more than 75 percent) also have coverage options other than the VHA system. Those percentages are expected to rise further still with the coverage expansions under the Affordable Care Act (ACA). Veterans with medium or high disability ratings, who are mostly in priority groups 1–3, comprise roughly 10 percent of veterans in each age category and have similar coverage alternatives as other veterans (though a higher proportion are eligible for Medicare via their disabilities). Analysis of alternative coverage options of the subset of veterans who are enrolled in the VHA (roughly 8 million) by the Congressional Budget Office also found a majority (79 percent) with non-VHA coverage options.⁷

Table 2 shows the patterns of health care utilization and use of the VHA among veterans using a different data source—the Medical Expenditure Panel Survey (MEPS), maintained by the U.S. Department of Health and Human Services. The survey samples roughly 30,000 Americans each year with respect to their health care use and source of payment for care. Although the survey ceased identifying veterans in 2005, pooled data from 1996 to 2004 have been used effectively to characterize veterans’ health care use in the past.⁸ Though certainly some aspects of care use are different today, we use the survey merely to obtain a rough sense of how patterns of use and reliance of the VHA varies with the availability of other coverage. In the table, “no other coverage” identifies veterans who were uninsured (other than the

Figure 5. Number of Veterans by Conflict in 2007, 2011, and 2015

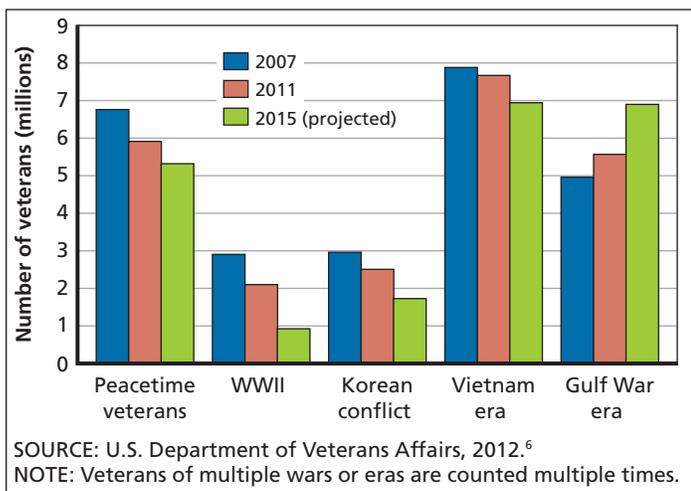


Table 1. Characteristics of Veterans According to Age, Disability Status, and Other Sources of Health Care Coverage, 2011

Age	18–44		45–64		65+	
Disability Status	No/Low Disability	Medium/High Disability	No/Low Disability	Medium/High Disability	No/Low Disability	Medium/High Disability
Total number (in thousands)	3,001	295	6,829	818	8,416	552
Insurance Status (% of column)						
No other coverage [95% confidence intervals shown]	22.2% [21.6–22.8]	24.3% [22.3–26.3]	16.9% [16.6–17.2]	18.6% [17.6–19.6]	0.4% [0.4–0.4]	0.9% [0.6–1.2]
Other coverage	78.8%	75.7%	83.1%	81.4%	99.6%	99.1%
– Private	73.2	70.0	75.2	69.6	*	*
– Medicare	1.1	5.1	7.5	20.3	97.7	97.2
– Medicaid	5.5	7.4	6.9	9.7	9.7	11.6

SOURCE: Authors' analysis of data from U.S. Census Bureau, American Community Survey, 2011.²⁵
 NOTES: Coverage percentages may sum to greater than 100 percent because of simultaneous multiple coverage. "No/low disability" includes veterans with no reported disability, a zero disability rating, an unspecified rating, or a rating of less than 30 percent. "Medium/high disability" includes veterans with a disability rating between 30 percent and 100 percent (corresponding roughly with priority groups 1 and 2). TRICARE coverage is considered private.
 * Private coverage among those over 65 was not distinguishable from Medicare supplemental coverage and is thus not reported.

Table 2. Veterans' Utilization of Care and Percentage of Reliance on the VHA for Care

Category of Care Use	18–44		45–64		65+
	Other Coverage	No Other Coverage	Other Coverage	No Other Coverage	Other Coverage
Annual hospital inpatient discharges	0.05	0.03	0.13	0.15	0.31
VA percentage of hospital inpatient expenditures	4.8%	30.5%	6.1%	37.6%	5.9%
Annual office-based physician visits	2.23	0.95	3.92	2.72	7.05
VA percentage of office-based physician expenditures	5.6%	19.9%	7.0%	32.4%	6.7%
Annual outpatient department physician visits	0.14	0.09	0.35	0.43	0.63
VA percentage of outpatient physician expenditures	11.4%	41.2%	14.4%	48.4%	13.1%
Annual emergency room visits	0.18	0.17	0.16	0.16	0.25
VA percentage of emergency room expenditures	4.9%	22.0%	7.0%	37.3%	5.0%
Annual prescription meds, including refills	4.47	2.34	12.43	10.84	20.88
VA percentage of prescription expenditures	5.9%	25.2%	7.5%	38.3%	18.6%

SOURCE: Authors' analysis of Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, 1996–2004.²⁶
 NOTES: All utilization figures represent uses per veteran per year. Coverage includes all non-VA public and private sources. All differences between the "no other coverage" and the "other coverage" groups for the VA percentage of expenditures are statistically significant at $p < 0.0001$.

availability of VHA care) for at least six months of the year. The rows in gray indicate the percentage of care for each category of veterans and type of utilization that was provided by the VHA.

Rates of use of care are either similar or slightly higher for veterans with alternative coverage—though those groups of veterans may differ for several reasons and differences in care use cannot necessarily be attributed to coverage differences. Those with less access to other coverage, not surprisingly, relied much more heavily on the VHA for health care services. For example, among veterans age 45–64 with no source of coverage other than the VHA for more than six months of the year, 32 percent of expenditures for office-based physician visits were paid for by the VHA (39 percent was paid out of pocket). That figure compares to 7 percent for veterans with alternative sources of coverage. Those results are typical for most categories of care (one exception being a somewhat higher reliance on the VHA for outpatient department physician visits).

We also created an alternative version of Table 2 (not shown) that restricted the sample to the roughly one-third of veterans who used at least some VHA care during the year (to test whether the results in Table 2 were largely driven by veterans with other coverage who do not use the VHA at all). The patterns were similar; the group with no other coverage still relied on the VHA more heavily (to a statistically significant degree), but VHA reliance was higher among all groups, not surprisingly. For example, for office-based physician visits among 45–64-year-olds, those with less access to other coverage used the VHA for 53 percent of visits, compared to 28 percent for those with other coverage.

Do These and Other Analyses Provide Any Evidence of Convenience-Based, Uncoordinated, Inefficient, Duplicative, or Excessive Use of Care Among Veterans?

The descriptive data presented thus far hint at possibility of some degree of convenience-based use. Most veterans have non-VHA coverage (including those who are highly disabled); those who do tend to use the VHA for a much smaller portion of their care than those who do not. This point is reinforced by prior work, which found that younger veterans (less likely to have non-VHA coverage) obtain about 25–33 percent of their inpatient care through the VHA system, while older veterans obtain only about 10 percent of their inpatient care through the VHA system.⁹ That finding suggests some degree of substitution between VHA care and non-VHA care—and suggests that VHA utilization may decline somewhat in the future, as additional younger veterans will be covered as a result of the ACA.

Nevertheless, the fact that financial or other reasons may influence veterans' choice of where to get their care does not necessarily imply inefficiency. We next describe three analyses that provide hints of potential inefficient use of care. Two studies analyze inpatient care for veterans both in and outside of the VHA for (1) hospital admissions data from New York covering 1997–2000 and (2) inpatient data from seven states (Iowa, Louisiana, Florida, Ari-

zona, South Carolina, Pennsylvania, and New York) for care provided to enrolled veterans in VHA and non-VHA settings between 2004 and 2007 (not yet published).^{10, 35} The third published study asked physicians in the non-VHA system about experiences serving veterans who used both the VHA and non-VHA systems.

1. Analysis of Hospital Admissions in New York

In an analysis of hospital admissions from New York veterans, the authors found results consistent with the MEPS analysis above—for example, greater reliance on the VA among younger veterans and veterans in lower-income areas (likely reflecting more limited access to non-VA coverage). They also found that rural veterans (who typically live further from VHA hospitals) were *less* likely to use VHA hospitals.

In further analysis of mental illness–related admissions, lengths of stay averaged 22 days in VHA hospitals versus 13 days in non-VHA hospitals for younger veterans and 26 versus 15 days for older veterans (differences were statistically significant), despite the fact that morbidity scores were no different for veterans admitted to VHA or non-VHA hospitals. This finding was consistent across all types of admissions. Generally, lengths of stay, adjusting for slightly different definitions of a hospital stay in the VHA compared to non-VHA hospitals, were roughly 50 percent longer in VHA hospitals, though VHA inpatients were slightly younger and healthier, on average. Also, reliance on the VHA for inpatient care was particularly high for conditions that are often treated on an outpatient basis in the private sector (for example, eye, ear, nose, and throat disorders).

2. Analyses of Hospital Admissions of VHA Enrollees in Seven States

Table 3 shows data on hospitalizations among veterans in seven states from 2004 to 2007 by the same age grouping shown earlier.

Most veterans with at least one hospitalization over four years used either the VHA exclusively or the non-VHA exclusively. Yet 27 percent of hospitalizations among veterans age 18–44, 30 percent of those among veterans age 45–64, and 12 percent among veterans age 65 or older were for veterans who used both the VHA and non-VHA systems. Combined admission rates for dual users were always greater than those for users of just a single system (for example, 5.1 admissions per four years for patients age 45–64 with more than one hospitalization, compared to 3.4 and 3.2 for those using VHA or non-VHA hospitals only—respectively, $p < 0.001$). It is possible that dual users are merely sicker than their single-system-user counterparts and therefore have needs from both systems. As shown in the table, dual users did have more comorbidities than those using the non-VHA alone (2.2 versus 1.6). Yet dual users did not have a greater number of comorbidities than those using only the VHA but still had 50 percent more total hospitalizations (5.1 versus 3.4). Finally, in all cases, hospitalizations for dual users were roughly evenly divided between the VHA and non-VHA systems. Further analysis from the same dataset of the condi-

Table 3. Counts of Patients and Hospitalizations in VHA and Non-VHA Hospitals, with Percentages of Totals, for Each of Three Age Ranges

Age Range	Patients with Only One Hospitalization in Four Years		Patients with More Than One Hospitalization in Four Years				
	Users of VHA	Users of Non-VHA	Users of VHA Only	Users of Non-VHA Only	Dual Users		
					VHA	Non-VHA	Total
18 to 44 Years Old							
Unique patients	8,143 (18.2%)	19,380 (43.2%)	3,433 (7.7%)	8,591 (19.2%)	5,279 (11.8%)		
Hospitalizations	8,143 (9.5%)	19,380 (22.5%)	10,436 (12.1%)	24,740 (28.8%)	11,738 (13.6%)	11,598 (13.5%)	23,336 (27.1%)
Admissions/unique	1.0	1.0	3.0	2.9	2.2	2.2	4.4
45 to 64 Years Old							
Unique patients	37,506 (16.2%)	79,244 (34.2%)	24,387 (10.5%)	59,478 (25.2%)	32,216 (13.9%)		
Hospitalizations	37,506 (6.7%)	79,244 (14.2%)	78,265 (14.1%)	196,150 (35.2%)	84,490 (15.2%)	81,335 (14.6%)	165,825 (29.8%)
Admissions/unique	1.0	1.0	3.2	3.4	2.6	2.5	5.1
<i>Elixhauser comorbidities</i>	1.8	1.3	2.3	1.6			2.2
<i>Driving time to nearest VHA (in minutes)</i>	47.8	63.5	42.0	62.6			50.8
65 Years or Older							
Unique patients	24,029 (5.4%)	162,817 (36.7%)	20,431 (4.6%)	207,344 (46.8%)	28,611 (6.5%)		
Hospitalizations	24,029 (2.1%)	162,817 (14.5%)	67,186 (6.0%)	730,491 (65.1%)	65,155 (5.8%)	72,269 (6.4%)	137,424 (12.2%)
Admissions/unique	1.0	1.0	3.3	3.5	2.3	2.5	4.8
SOURCE: Authors' analysis of admissions data from seven states (unpublished). Methodological details are described in Appendix B.							

tions for which veterans were hospitalized found that for veterans age 18–44, mental illness–related conditions were, by far, the dominant reason for admission, with dual users having four times the combined admission rate for those conditions as those who exclusively used the VHA or non-VHA.

Table 3 also shows a potential influence of distance to VHA hospitals on choice of hospital. Those using VHA hospitals alone lived about one-third closer to VHA hospitals than those using non-VHA hospitals exclusively. Those results persisted when using multiple regression techniques controlling for other factors—for example, those living more than an hour from a VHA hospital were more than four times as likely to use non-VHA hospitals.

3. Physicians' Experiences with Veteran Dual Users

Researchers fielded a survey among physicians in Nebraska in 2010 asking about their experiences serving veterans who used both the VHA and non-VHA care systems. Though the response rate was somewhat low (383 of roughly 2,000 physicians) and the results are not necessarily generalizable to the rest of the United

States, their responses are suggestive of coordination difficulties across the two systems. A summary of their results is provided in Table 4.

While these results are subjective responses of a sample of physicians, and we do not have other systems to which to benchmark results, they are suggestive of care coordination problems. Most non-VHA physicians report difficulties accessing the appropriate level of care for their patients within the VHA system and feel that patients experience care delays, unclear roles and responsibilities, and lack of management plans for patients who use both systems. The possibility of care delays in the area of mental health care is also described in recent reports noting the rapid increase in the number of recent veterans with mental health needs and potential barriers to their receiving appropriate care in the VHA system.^{37, 41}

4. Analysis of Certain High-Mortality Heart and Cancer Procedures for Medicare-Eligible Veterans

Finally, in a study conducted of elderly veterans hospitalized in 2000 and 2001 for a set of cardiovascular procedures (such

Table 4. Nebraska Physician Responses to Questions About Veterans' Care Coordination

Question	Percentage [95% confidence interval]
For patients seeking care from both VA and non-VA providers, how often does the clinic try to develop a co-management plan with the VA provider?	"Rarely/never": 52.6% [44.4, 60.7]
Do you find it difficult to refer veteran patients seen in your clinic to VA health care providers, including specialists?	"Yes": 63.0% [54.3, 71.8]
How often do you encounter difficulties transferring sick veteran patients to the appropriate setting for care?	"Always/most of the time/ sometimes": 57.6% [47.5, 67.6]
How often do you encounter difficulties getting authorization to transfer a sick or unstable veteran patient to an appropriate setting for care?	"Always/most of the time/ sometimes": 61.0% [50.4, 71.7]
Do you feel that veteran patients experience delays in care as a result of the VA's process of scheduling visits?	"Yes": 91.3% [86.2, 96.4]
Do you feel that there is clarity of roles and responsibilities regarding care provided to veterans, between VA and non-VA providers?	"No": 81.8% [74.7, 88.8]
SOURCE: Nayar et al., 2012. ¹⁴	

as coronary artery bypass graft surgery) and cancer procedures (such as pancreatectomy), authors assessed whether veterans were choosing high-quality hospitals (with low historical mortality rates) for the procedures.¹¹ The authors found that 14 percent of procedures were obtained in VHA hospitals, and for 13 of the 14 procedures, mortality rates were lower in the private sector than in the VHA. Most VHA hospitals had lower volumes of the procedures performed, and the authors found that mortality rates among veterans experiencing the conditions could be reduced by 10 percent if referred optimally to the best hospitals. These findings are echoed in broader analyses of low-volume procedures and surgeries performed in VHA hospitals.¹¹

Conclusions

It is exceedingly difficult to document inefficiency in health care—given the personal and idiosyncratic nature of individuals' health conditions and physicians' and other providers' interpretation of those needs and the recommended course of action—particularly when there is such a large degree of uncertainty in best and appropriate practices in much of health care.¹² In this brief, we merely highlight data and facts suggesting that there could be room for coordination and improvement in rationalization of care across the VHA and the rest of the U.S. health care system—improvements that could allow for better quality and/or reductions in cost that could allow the VA to better achieve its goals. The evidence described above is summarized by category below.

Strategic or Convenience-Based Use

For example, we find evidence of use of the VHA or non-VHA systems for reasons of convenience. 45–64-year-old veterans using only VHA hospitals for inpatient care lived closer to VHA hospitals (by a distance of about one-third) than veterans using only non-VHA hospitals (Table 3). Those differences remained

when controlling for other factors. Also, veterans with sources of coverage (Table 2, evidence from New York study) other than the VHA were more likely to use non-VHA facilities. While providing convenient access to care is surely an important goal of the VHA, there may be a trade-off whereby some convenience could be sacrificed in favor of better access to high-quality care. For example, veterans could receive VHA care for the aspects of care in which the VHA particularly excels and non-VHA care for areas in which that sector excels.

Overuse and Inefficient Use of VHA Care

The above studies of hospitalization rates suggest that there may be inefficiency in care provided in VHA hospitals. Lengths of stays in VHA hospitals were 63-percent longer for younger veterans and 27-percent longer for older veterans (> age 65), though veterans admitted to VHA hospitals were younger and had fewer comorbidities on average. Anecdotal accounts suggest that difficulty in arranging post-discharge options could be a factor in those longer stays. The fact that users of both VHA and non-VHA hospitals also had 50-percent higher admission rates than those using only one system (Table 3) could also be an indicator of inefficient or uncoordinated use (though it could also be explained by other factors). Other studies have found that dual users experience increased mortality risk (controlling for other factors) and uncoordinated care.^{13, 14, 42} The latter study, as noted above in Table 4, found most physicians perceiving poor coordination of care across the two systems, leading to delays in appropriate care. One noted that his patient “primarily goes to the VA the minimum number of visits to get [his] meds paid for. They come to me for ongoing management of their health issues.” We described a study above in which authors found that many VHA hospitals have low volumes of many high-risk procedures, which could explain higher mortality rates and could also result in high unit costs if economies of scale are present. Finally, we

note a recently published study that found substantial duplication of services provided to veterans who obtain care from both the VHA and the private sector via the Medicare Advantage program.¹⁵ The authors found that the VHA provided services potentially valued at over \$13 billion for care between 2004 and 2009 for VHA users who were concurrently enrolled in Medicare Advantage plans—that is, plans that had already been paid by Medicare to provide essentially that same care to these enrollees.

Options

With the understanding that the VHA is already investing significant resources toward patient-centered, coordinated care and partnerships and relationships with private sector and other providers, we suggest several options that may help to improve the VHA's efficiency.¹⁶ If, indeed, savings can be achieved without significantly harming quality or access to care (potentially improving quality through better coordination), those savings could be redirected toward areas of growing need, such as addressing mental illness and TBI, which are present in large numbers of veterans returning from the wars in Iraq and Afghanistan.

We note that these options are aimed either toward replacing unnecessary care with more valuable care or toward net cost savings to the VHA through elimination of some unnecessary care. However, practically speaking, reductions in care provided to veterans via the VHA would not necessarily translate to immediate cost savings as they would for a purchaser of care such as Medicare. The VHA is both provider and payer, and thus many of its costs are the fixed costs of the providers it employs and the facilities it builds. To realize cost savings, ultimately, the VHA would have to reduce capacity to some extent, which could be achieved via direct reductions in capacity or attrition (nonreplacement).

1. Reduce Dual Use

First, VHA enrollees—particularly those who are concurrently enrolled in Medicare or other federally sponsored insurance schemes—might be incentivized to adhere to a single federal benefit. By providing appropriate incentives—for instance, waiving either the initial annual co-payment requirement or the monthly subscription fees for Medicare Part B—taxpayers might achieve overall cost savings because use of a single system of care should eliminate some of the duplication of services that appears to be occurring when both systems are used. In addition to avoiding some literal duplication of services, having a patient remain in a single system gives providers insight into the patient's full use of services and would likely foster improved control over referral patterns and care follow-up—thus allowing some of the benefits of integrated and coordinated care as fostered by accountable care organizations (ACOs) or medical homes to truly come to fruition. Veterans might be incentivized to use VHA or non-VHA care exclusively by either reducing the attractiveness of the VHA benefit or increasing the attractiveness of Medicare. Although it

might prove difficult to strictly limit veterans to one system in practice, approaching this goal, with appropriate exceptions, may still yield benefits of better care management.

2. Care Coordination with Financial Risk

Second, rather than restricting enrollees to a single system, the VHA could generate cost savings by assuming a patient-centered care-coordination role. Evidence to date has been somewhat mixed on the benefits and potential cost savings from care coordination—for example, when care coordinators are added within a Medicare FFS population.¹⁷ However, coordination across multiple payers when patients use a substantial amount of care that is funded by each payer (as in the dual hospital users noted above) and the potential to curtail overuse of care that is fostered by having multiple coverage sources likely offer some substantial low-hanging fruit.

While the VHA does employ care coordination personnel, the incentive and efficiency gain would likely be much stronger if a financial incentive existed as well—that is, if some portion of cost savings could be returned to the VHA as under Medicare's ACO program (which has been estimated to save Medicare roughly 1 percent per enrolled beneficiary).¹⁸ In other words, the VHA could assume the role of the ACO, responsible for all spending incurred by its members, regardless of what system or which providers the enrollees visited. (Other entities could also perform this role; for example, community health centers did so in a recent pilot program.)¹⁹ Physicians and managers would thus have the incentive to use the best and most efficient resources available to the enrollee, whether VHA or non-VHA. Education programs could also help steer patients to the best-quality services—for example, the VHA could become something of a “center of excellence” for certain kinds of care in which it excels. Although this option may require a cultural change on the part of VHA providers and administrators, it could improve coordination of federal and private benefits (which was found lacking in the Nebraska study), promote use of the best private sector care that could improve veterans' outcomes, and save federal dollars by reducing overuse of care caused by a lack of coordination.

3. Outsource Certain Types of Care

Third, in a related but more direct way, the VHA might also save substantial resources, and improve outcomes, by outsourcing surgical and other outpatient services. Cost savings could ultimately result even if the VHA finances these services in non-VHA settings, particularly if lengths of stays are indeed considerably shorter in non-VHA hospitals. Quality might also improve. In particular, instead of providing high-risk, high-mortality surgical services for which VHA hospitals often have an inadequate patient population to ensure high-quality care that results from high volume and experience, the VHA could consider focusing quality improvement efforts on the care that VHA enrollees obtain in the private sector. By engaging patients in an incentivized shared-decisionmaking process that would first confirm that

patients really want and need the proposed care, then articulates likely mortality outcomes of a variety of nearby private sector hospitals (using existing Medicare data), and then incentivizes patients to use local hospitals with the best historical outcomes, the VHA could help patients obtain high-quality care in non-VHA hospitals.^{11, 20, 21}

4. Integrate Electronic Information

Finally, providing wider access to the VHA's exceptional electronic medical records—in particular to private sector health care providers who also care for VHA enrollees—might reduce duplicative ordering of tests, radiographs, and pharmaceutical interventions, thereby reducing unnecessary and duplicative care and saving taxpayers money. Such integration might more directly make community providers aware of services within the VHA, increase care coordination across the VHA and the private sector, and reduce duplication of services (that is, if radiology or other test results were entered into the electronic record, there would be less necessity to “reorder” the tests).

These options are merely suggestions, and it is outside of the scope of this brief to provide a more thorough impact or analysis or to consider how they might be implemented. Such an analysis would have to consider many criteria in evaluation, including changes in quality of care; equity of resource allocation (for example, the extent to which VA resources are applied toward higher-priority veterans); feasibility and ease of implementation; and impacts of VA, federal, and other spending. Because of the tremendous uncertainty, we suggest that one possibility would be to conduct a pilot study incorporating some of these ideas.

Pilot Program

Such a pilot study could be conducted at, for example, one, two, or three Veterans Integrated Service Networks (VISNs) and target a subset of veterans most likely to benefit from care coordination and elimination of low-value health care services. The pilot could compare costs and outcomes, for example, for patients in priority groups 5 or 8 who are enrolled in Medicare parts A and B and who have used inpatient care in both VHA and non-VHA hospitals in the prior three years (since reaching Medicare eligibility). The four arms of the pilot study could include

1. care coordination by the VHA, along the lines articulated above
2. providing an incentive to use Medicare-funded care exclusively (in exchange for which patients enrolled in the study would have Medicare Part B monthly premiums funded by the VHA)
3. development of a pseudo-ACO, wherein non-VHA providers are provided access to the VHA's electronic medical records and VHA and non-VHA providers co-manage care
4. status quo in nonparticipating VISNs (the control groups).

Outcomes could include patient satisfaction, patient functional status, care duplication, health outcomes, and total health care costs (in both VHA and non-VHA settings). Nonparticipating VISNs would represent the control groups. The study could be conducted over three years. Results from such a study could help inform future policy and activities surrounding coordination and provision of care to veterans across the two systems.

In summary, the VA faces an enormous challenge in honoring its commitment to veterans in the United States, given current budgetary pressures. Those challenges are amplified with the additional difficulties involved in running a parallel health care system alongside the larger system in the United States, when most veterans have outside insurance coverage and get more care in the larger system. They are also brought to the forefront by the growing recognition of mental illness and related problems among current and new veterans—conditions that typically involve care across the medical spectrum. While the VA has received high marks for the overall quality of care it provides, we provide evidence suggestive of suboptimal coordination of care between the two systems and suggest options that could improve that coordination. If successful, such improvement of care could free resources to devote to key priorities.

Appendix A. Priority Groups

Appendix Table A.1. Description of Veterans' Priority Groups

Group	Description
Priority group 1	<ul style="list-style-type: none"> • Veterans with VA service-connected disabilities rated 50 percent or more • Veterans assigned a total disability rating for compensation based on unemployability
Priority group 2	<ul style="list-style-type: none"> • Veterans with VA service-connected disabilities rated 30 percent or 40 percent
Priority group 3	<ul style="list-style-type: none"> • Veterans who are former POWs • Veterans awarded the Purple Heart Medal • Veterans awarded the Medal of Honor • Veterans whose discharge was for a disability incurred or aggravated in the line of duty • Veterans with VA service-connected disabilities rated 10 percent or 20 percent • Veterans awarded special eligibility classification under Title 38, U.S.C., § 1151, "Benefits for Individuals Disabled by Treatment or Vocational Rehabilitation"
Priority group 4	<ul style="list-style-type: none"> • Veterans receiving increased compensation or pension based on their need for regular aid and attendance or by reason of being permanently housebound • Veterans determined by VA to be catastrophically disabled
Priority group 5	<ul style="list-style-type: none"> • Nonservice-connected veterans and noncompensable service-connected veterans rated 0 percent, whose annual income and/or net worth are not greater than the VA financial thresholds • Veterans receiving VA pension benefits • Veterans eligible for Medicaid benefits
Priority group 6	<ul style="list-style-type: none"> • Compensable 0 percent service-connected veterans • Veterans exposed to ionizing radiation during atmospheric testing or during the occupation of Hiroshima and Nagasaki • Project 112/SHAD participants • Veterans who served in the Republic of Vietnam between January 9, 1962, and May 7, 1975 • Veterans who served in the Southwest Asia theater of operations from August 2, 1990, through November 11, 1998 • Veterans who served in a theater of combat operations after November 11, 1998, as follows: veterans discharged from active duty on or after January 28, 2003, for five years post-discharge
Priority group 7	<ul style="list-style-type: none"> • Veterans with incomes below the geographic means test (GMT) income thresholds and who agree to pay the applicable copayment
Priority group 8	<ul style="list-style-type: none"> • Veterans with gross household incomes above the VA national income threshold and the geographically adjusted income threshold for their resident location and who agree to pay copays <p>Veterans eligible for enrollment: Noncompensable 0 percent service-connected and</p> <ul style="list-style-type: none"> • Subpriority a: Enrolled as of January 16, 2003, and who have remained enrolled since that date and/or placed in this subpriority due to changed eligibility status • Subpriority b: Enrolled on or after June 15, 2009, whose income exceeds the current VA national income thresholds or VA national geographic income thresholds by 10 percent or less <p>Veterans eligible for enrollment: Nonservice-connected and</p> <ul style="list-style-type: none"> • Subpriority c: Enrolled as of January 16, 2003, and who remained enrolled since that date and/or placed in this subpriority due to changed eligibility status • Subpriority d: Enrolled on or after June 15, 2009, whose income exceeds the current VA national income thresholds or VA national geographic income thresholds by 10 percent or less <p>Veterans not eligible for enrollment: Veterans not meeting the criteria above:</p> <ul style="list-style-type: none"> • Subpriority e: Noncompensable 0 percent service-connected • Subpriority g: Nonservice-connected

SOURCE: U.S. Department of Veterans Affairs, 2012.²⁷

Appendix B. Methods and Data

This report draws on a variety of data sources.

Budgetary and spending data were derived from VA budgetary documents available on the VA's website.^{6, 30, 31, 32, 33, 34} Dollar figures are reported in nominal dollars and in fiscal years for the years shown.

The authors undertook original data analysis using two publicly available surveys, the American Community Survey (ACS) and the Medical Expenditure Panel Survey (MEPS).

American Community Survey

The ACS²⁵ has been used in prior analysis of veterans (for example, tables and reports can be found on the U.S. Census Bureau website²⁸) and is referenced by the VA. Given the large sample size obtained in any given year of the data, a single year is adequate for analysis. Veterans are identified using a basic screener question, "Has this person ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War," and using those who respond that have served but are not on active duty. The question identified 243,563 veterans in 2011 (the most recent year for which data were available). Using the ACS sampling weights, those individuals represented 19.9 million veterans, similar to the official number reported by the VA of 22.2 million in that year. The survey also asks about disability rating and insurance coverage—our handling and definitions of which are noted in the notes to the table in the document. Insurance obtained from an employer, purchased directly, or obtained via TRICARE was considered "private" insurance, while Medicaid, Medicare, or insurance via other government programs for low-income individuals was considered "public."

Medical Expenditure Panel Survey

Veterans are identified in the MEPS²⁶ in a manner similar to that used in the ACS, via a question about whether the respondent has ever served on active duty in the armed forces in the United States and another as to whether that individual is serving now. That question obtained 2,015 veterans in 2004, which represented roughly 25 million veterans when using the survey weights. Because the MEPS has a much smaller sample size than the ACS, data were pooled across years to obtain a large-enough sample to make inferences. We restricted the sample to male veterans (comprising the vast majority of veterans) to make our figures more comparable to the nonveteran population if readers wished to make comparisons of the utilization figures. Because the MEPS ceased identifying veterans in 2005, we pooled veterans identified in the MEPS from 1996 to 2004, obtaining a total sample of 19,040 veterans over that time period.

As for the way in which expenditures are derived and attributed to VHA and non-VHA, as described by Weeks and West (2009)⁸: "Because event-level expenditures have not been available for VA utilization, they are imputed based on similar

events paid for on a fee-for-service basis. Absolute expenditures, therefore, may have some questionable generalizability, but relative expenditures, or an individual's 'reliance,' on VA versus other care, should be quite robust. A recent RAND report found that most MEPS expenditure estimates require no adjustment and its utilization estimates 'agree quite well' with estimates from other databases."²²

We also report some preliminary data from ongoing analysis of hospitalization patterns of veterans in Iowa, Louisiana, Florida, Arizona, South Carolina, Pennsylvania, and New York between 2004 and 2007. Similar to work previously done in New York, those data were obtained through probabilistic matching of the name, date of birth, and address of veterans who were enrolled in the VHA during that time period with state discharge datasets.²³ Data from VHA inpatient use were then merged to provide a dataset of inpatient admissions for VHA enrollees across the full age spectrum. These data included information on patient characteristics (demographics, diagnoses, comorbidities, distance to VA inpatient care, and rural dwelling status), as well as characteristics of hospitalization, including length of stay, inpatient procedures, payer, and system of care used (VHA versus non-VHA).

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About This Report

This report was prepared at the request of the McCormick Foundation. RAND researchers were asked to provide an overview of the budget of the Department of Veterans Affairs and to focus particularly on health care spending and the VHA—with an eye to potential areas of improvement. The report should be of interest to policy officials and program leaders who work with veterans and the VHA. We do not, in any way, wish to detract from the vital, high-quality service provided to veterans by providers, administrators, and officials within and outside of the VHA.

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