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Improving Reserve Component Medical Readiness

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Executive Summary

All Service Members are required to meet individual medical readiness (IMR) requirements and report health issues that may affect their readiness to perform their duties. Historically, IMR rates have been lower for Reserve Components (RCs) relative to their respective Active Components (ACs). Managing IMR is believed to be a greater challenge for RCs for the following reasons: Reserve Component Service Members (RCSMs) spend less time with their units, they receive most of their healthcare outside the Military Health System (MHS), and in some cases, they lack health and/or dental insurance coverage.

While medical readiness reporting has improved, the Department of Defense (DoD) does not have a complete understanding of the nature of RC medical readiness shortfalls and their underlying causes. The full range of possible interventions to optimize RC medical readiness is also not fully understood. For instance, many options aimed at improving RCSM access to medical and dental services have been discussed (e.g., expanding RCSM access to military treatment facilities (MTFs), expanding TRICARE benefits for RCSMs, expanding the services delivered through the Reserve Health Readiness Program). However, it is unclear how these options would affect readiness and what they might cost both in dollar terms and in opportunity cost terms (e.g., increasing RCSM access to MTFs might displace the current beneficiaries and drive up purchased care costs).

To address these knowledge gaps, the Deputy Assistant Secretary of Defense for Reserve Integration in the Office of the Under Secretary of Defense for Personnel and Readiness (USD(P&R)) asked the Institute for Defense Analyses (IDA) to conduct a study to identify the extent of RC medical readiness shortfalls, potential mitigating options, and the relative magnitude of the costs and benefits.

Approach

Our first study objective was to identify the extent of medical readiness shortfalls among RCSMs. To meet this objective, we identified the current process for determining and reporting IMR. We collected aggregate quarterly data for each Service Component to analyze IMR rates over time and across Service Components by the six categories used to determine IMR. Individual-level survey data from the Periodic Health Assessment (PHA) were also collected to permit analysis of medical readiness by personal characteristics (e.g., age groups, gender, deployment history, insurance status, etc.) and medical conditions.

Our second study objective was to develop a quantitative description of the RCSM population deemed non-medically ready (NMR). To meet this objective, the IDA team used the aggregate IMR data to classify NMR RCSMs (and those who were only partially ready) into three main categories: (1) need services (i.e., immunizations, medical labs, etc.) (2) need exams (i.e., the PHA or a dental exam), or (3) need treatment/recovery (i.e., those who have a deployment-limiting condition (DLC) or require dental work). DoD has established a benchmark goal of 85 percent of service members being fully medically ready. In this study, we quantified how many services, exams, and treatments would be required to meet this 85 percent benchmark. Likewise, we also quantify how many services, exams, and treatments would be required to bring the RC up to the same medical readiness levels as the AC. In addition to this analysis, we used the individual-level data to determine which medical conditions were most prevalent among RCSMs by medical readiness status.

Our third objective was to identify potential interventions that could increase medical readiness among RCSMs. To meet this objective, the IDA team studied the different channels currently used to provide medical coverage and IMR services to RCSMs. These included the Reserve Health Readiness Program (RHRP), MTFs, medical personnel organic to reserve and guard units, and external sources (i.e., care provided in the civilian sector). When possible, we collected utilization and cost data to determine the efficiency of the care delivery channel.

Our final objective was to estimate the costs and benefits of different interventions designed to improve RCSM medical readiness, including, but not limited to, options to expand TRICARE benefits. To meet this objective, we used unit cost data to explore the cost of purchasing required IMR services through RHRP and/or the MTFs. For the TRICARE benefit analysis, we modeled the cost of expanding coverage to RCSMs under two scenarios: (1) a free or reduced premium TRICARE Reserve Select (TRS) benefit, and (2) a TRICARE for All benefit. Cost estimates were based on current user costs constructed at the rank group and family status level (i.e., single junior enlisted, junior enlisted with dependents, single senior enlisted, etc.). When considering benefits, we considered cost efficiency, the degree of readiness focus (versus providing a more general health benefit), convenience to the RCSM, impact to RCSM training, and additional human resources benefits (i.e., good for recruitment/retention, etc.).

Summary of Findings

- **Over the past decade, the Reserve Component as a whole made significant gains in total force medical readiness (TFMR) rates**. The overall RC TFMR increased from 62 to 88 percent between 2010 and 2019—a percentage improvement of nearly 40 percent. The gains were driven largely by the Army

Reserve Components—both the Army National Guard (ARNG) and the U.S. Army Reserve (USAR) saw TFMR rates improve by over 60 percent.

- **RCSM medical readiness is lower that AC medical readiness—but not by much**: The TFMR rate was 88 percent. The AC averaged 89 percent while the RC averaged 86 percent.
- **NMR RCSMs were slightly more likely to be uninsured.** The uninsured rate among the medically ready RCSM population was 7.5 percent versus 8.9 percent for the non-medically ready. This difference was small but statistically significant. In addition, RCSMs who have insurance coverage either through TRICARE or other insurance are twice as likely to report having a DLC that is under treatment relative to the uninsured (16.3 percent vs 8.4 percent).
- **Almost all DoD RCs met the current 85 percent TFMR benchmark**. As of April 2019, only the Marine Corps Reserve and Air Force Reserve, had readiness rates below the 85 percent benchmark (82 and 81 percent, respectively).
- **Relatively few RCSMs need to switch from an NMR status to meet the current TFMR benchmark of 85 percent**. We estimate approximately 3,500 RCSMs would have to change their readiness status to fully meet the current 85 percent IMR benchmark. Meeting higher benchmarks is significantly more difficult. We estimate approximately 19,000 RCSMs would need to change their readiness status to match current AC medical readiness rates of 88 percent on average (i.e., have the same TFMR as their respective AC). However, nearly 27,000 RCSMs would need to change their readiness status to meet a 90 percent benchmark.
- **To improve TFMR rates, RCSMs must complete needed exams (e.g., the PHA or dental exams) or undergo treatment (for DLCs or dental conditions)**. We estimate approximately 13,000 PHAs and 16,000 dental exams are required to bring RCSMs up to the AC benchmark in the needed exam category. Similarly, we estimate approximately 6,000 RCSMs must recover from DLCs and 12,000 must receive dental treatments to meet the AC benchmark.
- **A handful of chronic conditions disproportionately affects readiness**. Musculoskeletal pain, cardiovascular disease, and chronic conditions collectively have the biggest impact on medical readiness after adjusting for age, sex, insurance status, and multiple DLCs. Policymakers should prioritize these conditions for study and intervention.

- **Mental health may be a significant driver or byproduct of NMR status**. Using mental health referrals as a proxy, those who had mental health concerns have a disproportionate burden of DLCs. Prevalence of DLCs within this population reached 50 percent in some cases. Service members who received a mental health referral were at much higher risk for DLCs by up to a factor of 7. Policymakers should conduct in-depth analysis with the appropriate data to better understand the bi-directional relationship between mental health and physical disease.
- **There are multiple ways to improve RCSM access to IMR services and medical care in general**. These include expanding the use of the RHRP program, delivering more service in MTFs, delivering more services organically, or expanding healthcare coverage benefits. The first three options will be more cost effective as they target IMR-specific services as opposed to providing a comprehensive health benefit to both RCSMs and their dependents.
- **We estimate it would cost roughly $9 million in the RHRP program to purchase the services, exams, and dental treatments required to bring RCSM IMR rates to parity with their respective AC IMR rates (in these categories)**. These costs do not include the costs of addressing medical DLCs. RHRP does not provide treatment for medical conditions. Furthermore, average costs of treatments would be highly variable given the range of medical conditions reported by RCSMs.
- **We estimate that offering a premium-free TRS benefit would increase healthcare costs between $1 billion and $3 billion**. The range is based on take rate assumptions and whether the premium-free benefit is extended to eligible dependents. We estimate offering this benefit would generate more substitution (from civilian insurance to DoD coverage) than new coverage (from no insurance to DoD coverage). To reduce costs and to target the uninsured, DoD could offer a premium-free benefit to junior enlisted (and their dependents) only. We estimate this would cost $500 to $750 million. These estimates do not include additional overhead costs that might be necessary to grow the TRICARE network.
- **We estimate a TRICARE for All benefit would cost between $4 billion and $5 billion depending on the take rates**. However, the net cost increase would be smaller ($2 billion to $3 billion), given this benefit covers those currently covered due to activation and those currently enrolled in TRS. We do not assume any reduction in RHRP utilization under a TRICARE for All benefit. Again, this option would likely generate more substitution (from civilian insurance to DoD coverage) than new coverage (from no insurance to DoD coverage). These estimates are based on the cost of health care and do not

include additional program overhead costs that would likely be necessary to grow the TRICARE network.

Recommendations

A major finding of this study is that IMR rates among RCSMs have greatly improved over the last decade. Today, RCSMs have IMR rates only slightly below those of the AC (although there is some variation across Services and Components).

To address remaining RCSM IMR shortfalls in a cost-effective manner, the Department should utilize delivery channels that directly target the six factors that determine IMR status (PHAs, dental exams, DLCs, immunizations, medical labs, and medical equipment checks). The RHRP, unit organic medical capability, and the MTFs are examples of channels that directly address IMR shortfalls. RCs currently rely on a mix of these options and should continue to do so based on Component- and unit-specific factors (e.g., amount of organic medical capability, ease of access to MTF, etc.). To optimize the mix of delivery channels, policymakers should consider cost-effectiveness, convenience for the RCSM, and opportunity costs (i.e., loss of training time for medical exams).

Providing a "premium-free TRICARE Reserve Select" or a "TRICARE for All" benefit to inactive RCSMs would not be a cost-effective way to address medical readiness. Rather than targeting the NMR population and/or the uninsured, these options would offer a benefit to the entire RCSM population and their dependents. This approach is estimated to increase healthcare costs by several billion dollars without guaranteeing significant improvements in medical readiness. These options also fail to address dental aspects of medical readiness. While these options may offer additional recruiting and/or retention benefits, they cannot be recommended as a cost-effective way to improve RCSM medical readiness. Further study is needed to determine their impact on recruitment/retention.

Finally, methods for capturing and reporting data on RCSM medical readiness could be improved. First, an individual's IMR status does not fully determine whether they will be deemed medically deployable when they are mobilized. We learned that RCSMs with a green IMR status are sometimes disqualified from deploying (or found to require a waiver) for medical reasons. For instance, a pre-deployment medical screening might turn up a new or previously unreported injury, condition, and/or treatment regimen that prevents the RCSM from deploying. In other cases, a Combatant Command or specific Area of Responsibility might also impose a stricter medical standard. We were unable to obtain standardized data on these occurrences. We recommend the RCs adopt a standardized framework for reporting on the incidence of medical deployment disqualifications and medical waiver requirements. Second, we found the more standardized PHA presents an opportunity to move towards a population health approach to the medical management of the RC. We recommend the RCs use these data to build a medical surveillance system that

can monitor trends in DLCs, health system performance in relation to medical readiness, and administrative outcomes.

Contents

1. Introduction

A. Background

All Service Members, in both the Active Component (AC) and the Reserve Component (RC), have a responsibility to maintain their health and fitness, meet individual medical readiness (IMR) requirements, and report health issues (including mental health) that may affect their readiness to deploy or fitness to continue serving in an active status. Service Components manage the medical readiness of their members using the process for determining, tracking, and reporting IMR outlined in Department of Defense (DoD) Instruction (DoDI) 6025.19 "Individual Medical Readiness."[1]

Historically, IMR rates have been lower for RCs relative to their respective ACs. Managing IMR is believed to be a greater challenge for RCs for several reasons, including that Reserve Component Service Members (RCSMs) spend less time with their units, receive most of their healthcare outside the Military Health System (MHS), and in some cases, lack access to health or dental insurance.

While RCs may face greater challenges in managing medical readiness, ensuring their medical readiness is just as critical as ensuring medical readiness among AC service members. RC personnel make up roughly 40 percent of the total force and carry significant deployment loads. Many RC capabilities are required during the first stages of combatant command operation plans. As such, RCSMs must be medically ready prior to mobilization. Ensuring RCSM medical readiness is also vital to accomplishing the Department's strategic goal to "build a more lethal force" outlined in the 2018 National Defense Strategy.[2] It is also consistent with related department initiatives aimed at separating non-deployable Service Members. For instance, DoDI 1332.45, "Retention Determination for Non-Deployable Service Members," outlines medical causes as one of the primary reasons why Service Members may be deemed non-deployable (either temporarily or permanently).

While medical readiness reporting has improved, the Department does not currently have a complete understanding of RC medical readiness shortfalls and underlying causes. The full range of possible interventions to optimize RC medical readiness is also not fully

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[1] Department of Defense, "Individual Medical Readiness (IMR)," DoDI 6025.19 (Washington, DC: USD(P&R), 2014), https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/602519p.pdf.

[2] See the 2018 Summary of the National Defense Strategy, https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf.

understood. For instance, many options aimed at improving RCSM access to medical and dental services have been discussed (e.g., expanding RCSM access to military treatment facilities (MTFs), expanding TRICARE benefits for RCSMs, expanding the services delivered through the Reserve Health Readiness Program (RHRP)). However, it is unclear how these options would affect readiness and what they might cost in terms of both dollars and opportunity costs (e.g., increasing RCSM access to MTFs might displace the current beneficiaries and drive up purchased care costs).

To address these knowledge gaps, the Office of the Secretary of Defense for Personnel and Readiness (USD(P&R)) Reserve Integration asked the Institute for Defense Analyses (IDA) to conduct a study aimed at identifying the extent of RC medical readiness shortfalls, potential mitigating options, and the relative magnitude of the costs and benefits. Gaining a better understanding of RC readiness shortfalls and potential mitigating options may be especially valuable during the current period of significant MHS reform. As the Defense Health Agency (DHA) assumes management of the MTFs, there may be new opportunities to offer more services to RCSMs. Similarly, the COVID-19 pandemic and resulting deployments of RC personnel has once again raised questions about the DoD healthcare benefits available to RCSMs and whether they should be expanded.

B. Study Objectives

The major objectives of this study are to identify the extent of RC medical readiness shortfalls, identify the option trade space for interventions that could improve RC medical readiness, and estimate the costs and benefits associated with such options. These are outlined in greater detail below:

- **Identify the extent of RC medical readiness shortfalls**. To carry out this objective, the IDA team was asked to identify available data sources for capturing, tracking, and reporting on RCSM medical readiness, health status, and access to health care. The team was also asked to identify current metrics used to identify medical readiness.
- **Develop a detailed quantitative description of the RCSM population that are deemed non-medically ready (NMR)**. The IDA team was asked to perform a deep dive analysis into the RCSM population identified as NMR. The goal was to categorize the population by underlying NMR causes (e.g., medical issue, dental issue, administrative issue, etc.) and when possible, to examine more detailed medical causes (e.g., acute injury versus chronic condition, physical versus mental health conditions, etc.) Demographic characteristics and insurance status of the NMR population were also identified as variables of interest. The purpose of this investigation was to better understand how easily NMR subpopulations could be made medically ready/deployable.

- **Identify interventions that could increase medical readiness among RCSMs**. The IDA team was asked to study the programs used to deliver RCSM medical readiness services for effectiveness and cost efficiency. RCSMs have several different options available for delivery of medical services, each with different features of availability, accessibility, and cost to support the varied readiness needs of the RC.
- **Estimate the costs and benefits of potential RC medical readiness interventions including options to expand TRICARE access**. The IDA team was asked to explore the costs and benefits associated with different models for delivering medical readiness. The team was also asked to explore the costs and benefits of expanding these programs. USD(P&R) Reserve Integration specifically requested the team include options for expanding RCSM TRICARE access, including lowering TRICARE Reserve Select (TRS) premiums for some or all users and offering a TRICARE-for-All benefit that would extend TRICARE coverage to non-activated RCSMs.

2. Reserve Component

The RCs of the U.S. Armed Forces are an essential part of the nation's defense. Today there are seven unique RCs—six DoD Components (falling under the military departments) and one Department of Homeland Security Component (falling under the Coast Guard (USCG)). These Components include the Army National Guard (ARNG), the Army Reserve (USAR), the Navy Reserve (USNR), the Marine Corps Reserve (USMCR), the Air National Guard (ANG), the Air Force Reserve (USAFR), and the Coast Guard Reserve (USCGR). According to Title 42 of the U.S. Code (U.S.C.) §10192, the purpose of each RC is to:

> provide trained units and qualified persons available for active duty in the armed forces, in time of war or national emergency, and at such other times as the national security may require, to fill the needs of the armed forces whenever more units and persons are needed than are in the regular Components.

In addition to having these federal responsibilities, the ARNG and ANG operate under the authority of state governors in response to natural or man-made disasters (e.g., pandemics, flooding, hurricanes, and wildfires) and civil disorder.[3]

All Reserve and Guard members are further categorized into three general categories of reserves. These include (1) the Ready Reserve, (2) the Standby Reserve, and (3) the Retired Reserve. The Ready Reserve has the highest end strength (just over 1 million in Fiscal Year (FY) 2019) and represents the primary manpower pool of the RCs. Its members will generally be called to active duty before other categories of reservists. The Ready Reserve is further split into three sub-categories: (1) the Selected Reserve (SELRES), (2) the Inactive Ready Reserve (IRR) and the (3) Inactive National Guard. Table 1 provides further detail on each reserve category and sub-category.

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[3] Lawrence Kapp and Barbara Salazar Torreon, "Reserve Component Personnel Issues: Questions and Answers," CRS Report RL30802 (Washington, DC: Congressional Research Service (CRS), 2020), https://fas.org/sgp/crs/natsec/RL30802.pdf.

Table 1. Major Reserve Categories

The Ready Reserve	The Ready Reserve has the highest end strength and constitutes the RC's primary manpower pool. Members of the Ready Reserve are generally called to Active Duty (AD) before other categories of reservists. The Ready Reserve is composed of: • The Selected Reserve (SELRES): units and individuals designated essential to the wartime missions. Training for selected reservists is prioritized. Selected reservists generally attend one weekend of training a month (inactive duty for training) and two full weeks of training each year (annual training with full pay and benefits). Approximately 80 percent of the Ready Reserve is in the Selected Reserve. • The Inactive Ready Reserve (IRR): individuals who have previously received military training (while in the AC or SELRES). They are not required to train but can volunteer for training and can be involuntarily ordered to AD. • The Inactive National Guard: same as the IRR but for Guard members.
The Standby Reserve	The Standby Reserve includes individuals who are maintaining their military affiliation without being in the Ready Reserve. They are either designated as key civilian employees or have a temporary hardship or disability. They are not required to train but may be mobilized as needed to fill manpower needs in specific skills. The Standby Reserve is small (just over 11,000 individuals).
The Retired Reserve	The Retired Reserve includes reservists who are receiving retired pay and reservists who transfer into the Retired Reserve after qualifying for reserve retirement (but before they meet the age threshold to receive benefits).

Source: DoDI 1215.06.

A. Size and Characteristics of the Reserve Components

As of October 2018, there were approximately 1 million individuals in the Ready Reserve and just over 800,000 in the SELRES. Table 2 shows end strength for each RC. The ARNG and USAR are by far the largest Components, accounting for approximately 42 and 24 percent of the SELRES, respectively.

Table 2. Reserve Component End Strength, October 2018

	Ready Reserve			Other		
	Selected	Inactive	Total	Standby	Retired	Total
Army National Guard	334,279	1,994	336,273		-	-
Army Reserve	188,931	100,045	288,976	1,129	101,466	102,595
Navy Reserve	107,066	-	107,066		-	-
Marine Corps Reserve	68,573	28,791	97,364	3,082	65,014	68,096
Air National Guard	57,983	40,765	98,748	7,192	31,739	38,931
Air Force Reserve	38,764	64,456	103,220	714	5,518	6,232
Coast Guard Reserve	6,125	1,632	7,757	243	2,268	2,511
Total	801,721	237,683	1,039,404	12,360	206,005	218,365

Source: DMDC, October 2018.

For the remainder of this analysis, we will focus on the SELRES, those who are actively drilling and most likely to deploy. Table 3 shows AC and SELRES end strength, of which the SELRES constitutes 37 percent of total end strength. However, the reservist share of end strength varies by service. For instances, RCSMs make up over 50 percent of Army end strength but less than 20 percent of Navy and Marine Corps end strength. This high share of RCSMs in the Army implies that RC medical readiness may be particularly important for the Army.

Table 3. Reserve End Strength to Total End Strength, FY 2018

	Active Component	SELRES		SELRES Share of Total End Strength
		Guard	Reserve	
Army	468,553	334,279	188,931	53%
Navy	325,356		57,983	15%
Marine Corps	185,114		38,764	17%
Air Force	319,888	107,066	68,573	35%
Coast Guard	41,347		6,125	13%
Total	1,340,258	441,345	360,376	37%

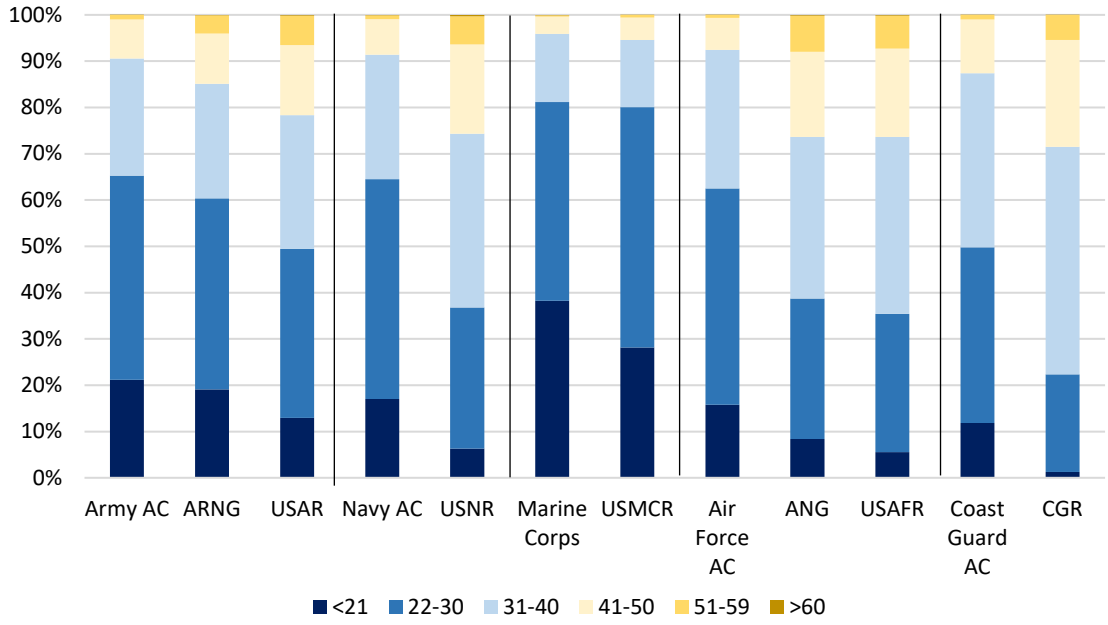
Source: DMDC, October 2018.

Compared to the AC, RCSMs differ in terms of several demographic characteristics, including age, gender, and family size. These characteristics may affect medical readiness and healthcare utilization and costs.

1. Age Distribution

RCSMs are older, on average, relative to Active Duty Service Members. Figure 1 shows the age distribution by Service and Component. In general, AC members within a

Service are younger than Reserve/Guard Components members within the same Service. The Marine Corps has the youngest distribution among the Services and its RC is only slightly older than its AC. Among the other Services, the difference in the AC/RC age distribution is more pronounced. This difference in age distributions could affect RC medical readiness if older soldiers are less likely to be medically ready. In Chapter 4, we explore medical readiness status by age and other demographic factors.



Note: Darker bars reflect younger distributions.

Figure 1. Age Distribution

2. Gender Distribution

Gender also varies by Service and Component. Figure 2 shows the gender make-up by Component across the Services. The USMCR has the lowest share of female members, while the USAFR has the highest. By Component, all Services except the Marine Corps have a higher share of female members in their RC relative to their AC. The gender distribution could also affect RC medical readiness if there are significant variations in medical readiness across genders. Chapter 4 will explore medical readiness status by gender.

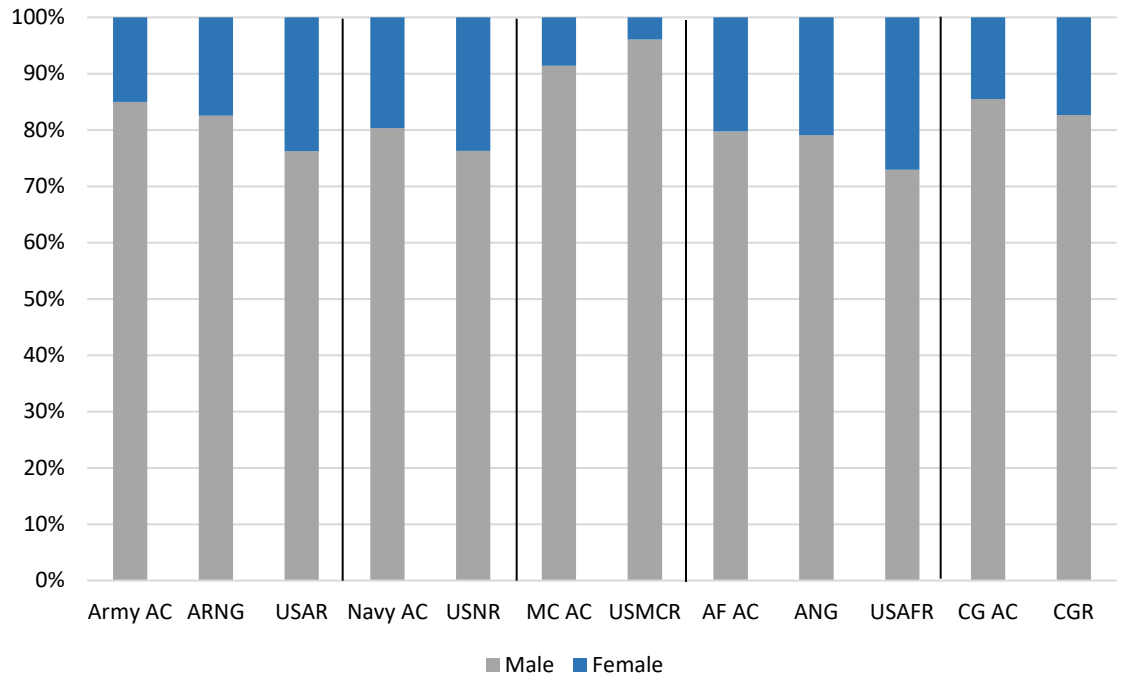


Figure 2. End Strength by Service/Component and Gender, FY 2018

3. Family Composition

Relative to the ACs, RCSMs have similar family structures in terms of marital status and number of dependents. Figure 3 shows marital status by Component across the Services. For the Army and Marine Corps, marital rates appear slightly lower among RCSMs relative to their respective ACs. For the other Services, RCSMs appear to have slightly higher marital rates.[4]

[4] The other category includes those who are divorced, separated, widowed, and so on.

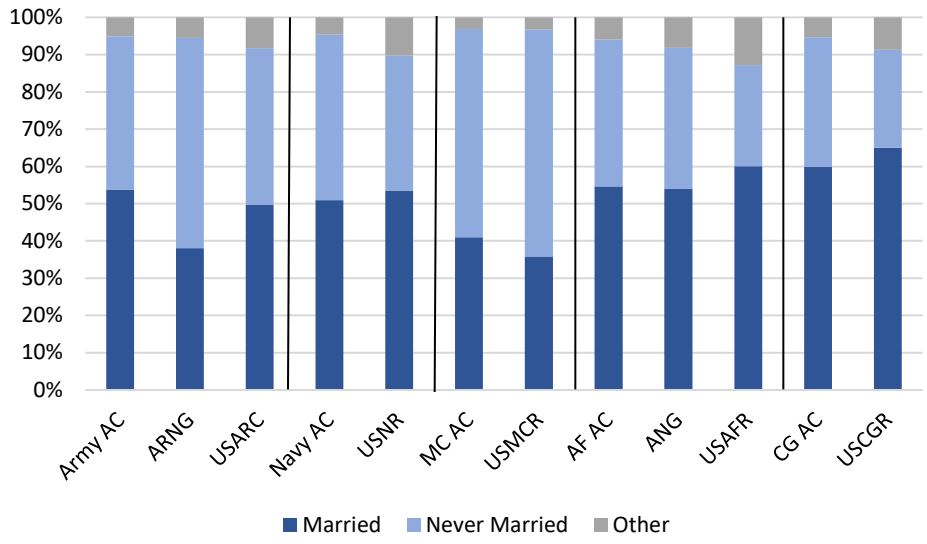


Figure 3. Marital Status by Service and Component, FY 2018

Figure 4 shows number of dependents (spouses plus children) by Component across the Services. Family sizes appears to vary by Service and Component.

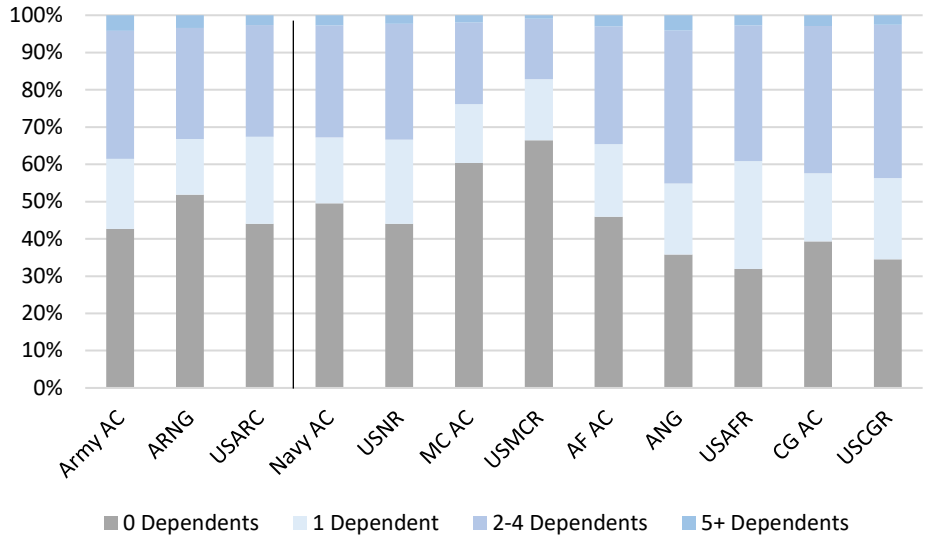


Figure 4. Family Composition by number of Dependents, FY 2018

Family composition and size is an important factor to consider when it comes to healthcare coverage and the costs of providing health benefits to reservists. This will be discussed in greater detail in Chapter 3.

B. How is the Reserve Component Utilized?

In this section we discuss RCSMs' mobilization types, recent deployment trends, and differences in certain types of reservists (i.e., those classified as active Guard/Reserve or military technicians).

1. Reserve Mobilization Types

Reservists may be mobilized (or activated) on several types of orders stemming from different authorities. The type of reservist that may be activated, the number of reservists that may be activated, and the deployment length all depend on the mobilization type. Table 4 summarizes different mobilization types and authorities. Importantly, mobilization length affects whether the RCSM and their dependents will have access to the TRICARE health benefit. We discuss this topic further in Chapter 3.

Table 4. Reserve Mobilization Types

Mobilization Type and Authority:	Reserve Category	Reservist Volume Limit	Deployment Length Limit	Recent Examples
Full Mobilization Section 102301(a) of Title 10	Any member of the Reserve Component	No limit	Reservist may be kept on AD for length of war plus 6 months	
Partial Mobilization Section 102301(a) of Title 10	Members of the Ready Reserve	Up to 1,000,000	Reservist may be kept on AD up to 24 consecutive months	Gulf War, Operations Noble Eagle, Enduring Freedom, Iraqi Freedom, New Dawn, COVID-19
Presidential Reserve Call-Up	Members of the SELRES and the IRR	Up to 200,000	Reservist may be kept on AD up to 365 consecutive days	Persian Gulf War (1990–1991), Bosnian Peacekeeping Mission (1995–2004), during the low-intensity conflict with Iraq (1998–2003)
Combatant Command Support Action 10 U.S.C. 12304b	SELRES Units	Up to 60,000	Reservist may be kept on AD up to 365 consecutive days	The Services use this authority to support counter terrorism missions in USAFRICOM, counter terrorism missions in USSOUTHCOM, and more.
Disaster Response Activation 10 U.S.C. 12304a; 14 U.S.C. 712	Members of the Army Reserve, Navy Reserve, Marine Corps Reserve, and Air Force Reserve	Not specified	Reservist may be kept on AD up to 120 consecutive days	COVID-19 (limited use)
Activation by State Governor Title 32 U.S.C.	Members of the ARNG and ANG	Not specified		COVID-19 response

Source: https://fas.org/sgp/crs/natsec/RL30802.pdf.

2. Deployment Trends for RCSMs

Figure 5 shows deployment trends for each Component over the period corresponding to Operation Enduring Freedom/Operation Iraqi Freedom operations. Deployment is measured using the share of member days deployed (e.g., the total days all personnel are deployed over the total days they served). In general, the AC (or regular) deployment load is highest, followed by the National Guard Components and then the RCs.

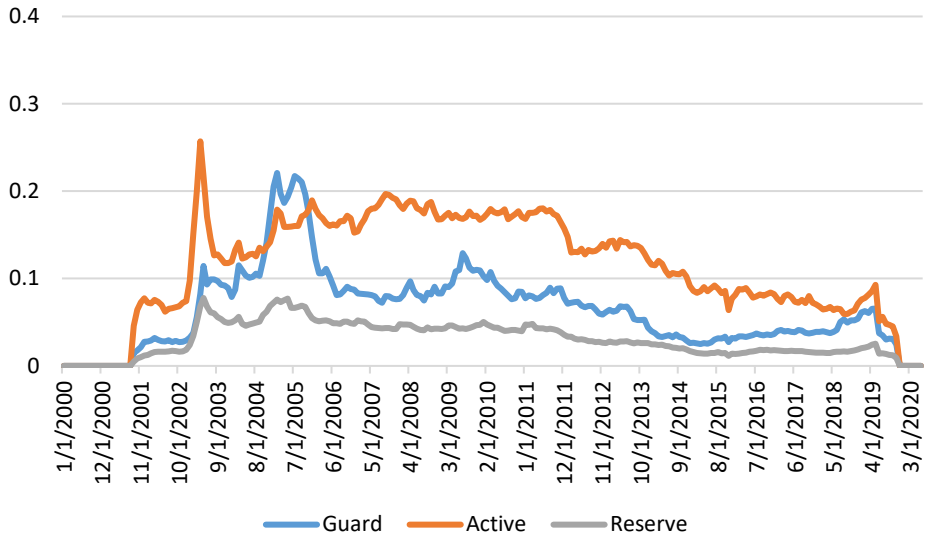


Figure 5. Deployment Load by Component, 2000 to 2020

Deployment loads also vary significantly by Service. Table 5 shows the mean deployment load over the total OEF/OIF period by Service and Component.

Table 5. Mean Deployment Load by Service and Component

Service	Component	Mean Share Deployed (%)
Army	Active	15.2%
	Guard	7.2%
	Reserve	3.6%
Navy	Active	11.6%
	Reserve	3.1%
Marines	Active	12.0%
	Reserve	4.6%
Air Force	Active	11.3%
	Guard	6.9%
	Reserve	2.8%
Coast Guard	Active	0.5%
	Reserve	0.7%

Source: DMDC for FY 2000 to FY 2020.

Deployment loads vary across Components and over time. Appendix A contains Service- and Component-level deployment trends for the OEF/OIF period.

3. Types of Reservists and Full-Time Support Personnel

Reserve units are largely composed of "traditional" reservists—members of the SELRES who drill one weekend a month and attend one longer two-week training per year. However, most units also have one or more "full-time support (FTS)" personnel.[5] Today there are several categories of FTS personnel. These include

- **Active Guard/Reserve (AGR)**. RCSMs who are placed on AD or full-time National Guard duty orders for a period of 180 or more consecutive days for the purpose of "organizing, administering, recruiting, instructing, or training the Reserve Components."[6]
- **Military Technicians (Mil Techs).** Federal civilian employees who provide support to reserve units, either in the "organizing, administering, instructing or training of the Selected Reserve" or by maintaining and repairing Reserve Component equipment and supplies. Membership in the SELRES is generally a condition of a mil tech's employment. Mil techs with this requirement are

[5] Kapp and Salazar Torreon, "Reserve Component Personnel Issues: Questions and Answers."

[6] Kapp and Salazar Torreon, "Reserve Component Personnel Issues"; 10 U.S.C. §101(d)(6)(A); Department of Defense, "Full-Time Support (FTS) To the Reserve Components," DoDI 1205.18 (2020), https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/120518p.pdf?ver=2020-06-05-095821-867.

referred to as "dual status." They are required to attend weekend drills and annual training with their reserve unit, which is usually the one that employs them as civilians during the week. They may be ordered to AD service. There are also non-dual-status mil techs who are not members of the selective reserve and who cannot be ordered to AD service.[7] Non-dual status mil techs are the minority—there are just over 2500 (under 5 percent of total mil techs). Until recently, mil techs were barred form utilizing the TRS benefit that will be discussed in the following chapter.

- **Active (ACT)**. AC personnel who are assigned or attached to an RC organization or unit by their Service. These individuals may serve as liaisons, managers, or administrators, provide training and other support, etc. They are formally members of the AC, but they may deploy with the reserve unit to which they are assigned.
- **Civilian (Civ)**. Federal civilian employees who work for RCs performing administrative duties and other support roles. They cannot be involuntarily ordered to AD.

Table 6 contains counts of FTS personnel. Active duty and civilians FTS personnel are not RCSMs. However, the AGR and mil techs are. We will discuss how TRICARE healthcare coverage varies for these populations relative to traditional reservists in the following chapter.

Table 6. Number of Full-Time Support Personnel, FY 2018

	AGR	MIL Tech	ACT	Civ	Total FTS	Share of End Strength
ARNG	30,587	26,817	110	1,255	58,769	18%
USAR	16,634	5,854	66	4,207	26,761	14%
USNR	10,114	0	1,199	800	12,113	21%
USMCR	2,299	0	3,779	220	6,298	16%
ANG	15,953	21,529	38	2,243	39,763	58%
USAFR	3,386	7,474	165	3,677	14,702	14%
Total	**78,973**	**61,674**	**5,357**	**12,402**	**158,406**	

Source: FTS data is from Service Budget Books, FY 2018

[7] Kapp and Salazar Torreon, "Reserve Component Personnel Issues."

3. Understanding Healthcare Coverage for Members of the Reserve Component

In the United States, individuals (and their eligible dependents) often receive healthcare coverage through their employers.[8] Like many large employers, DoD follows this model and provides a health benefit known as TRICARE to Service Members on active duty. While TRICARE coverage for the AC is relatively straightforward, TRICARE coverage for the RC can be complicated. The complications arise from the fact that RCSMs are only temporarily employed by DoD. When RCSMs are in an inactive status (i.e., working in their civilian occupation), they do not qualify for the primary TRICARE benefit.[9] The result is that most RCSMs transition back and forth between civilian-provided insurance coverage and the TRICARE program. Some may also choose to go uninsured.

This chapter begins with an analysis of RCSM use of DoD-provided healthcare. We report the number of enrolled RCSMs, the total cost of covering this population, the different eligibility and enrollment options for RCSMs, and user costs. We then present a short analysis of RCSM use of non-DoD-provided healthcare. Finally, we discuss recent calls and proposals to expand TRICARE access for RCSMs.

It should be noted that healthcare coverage alone is not sufficient to ensure RCSM medical readiness. RCSMs with healthcare coverage (from DoD or civilian sources) may be deemed NMR due to chronic conditions, illness, injuries, dental issues, missing records, etc. What coverage does provide is access to medical services that may be required to obtain and/or maintain medical readiness.

A. RCSM Use of DoD-Provided Healthcare

As previously discussed, DoD operates a large health benefit program known as TRICARE. Today, there are numerous categories of eligible TRICARE beneficiaries and many differentiated TRICARE plans serving them.

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8 Eligible dependents generally include spouses and children.

9 While they do not qualify for the primary benefit, they may qualify for transitional assistance programs or opt to purchase a premium-based TRICARE plan available to inactive RCSMs. These plans will be discussed in greater detail later in this chapter (Sections 3.A.2 and 3.A.3).

1. RCSMs as a Share of the Total TRICARE Population

To illustrate the contribution of the RC to the total TRICARE population, we begin by aggregating all TRICARE beneficiaries into five main groups:

- **Active**. This group includes Active Duty Service Members (ADSMs) and Active Duty Family Members (ADFMs). The Service Members belong to the AC. Activated Guard/Reservists are not included.
- **Guard/Reserve**. This group includes mobilized National Guard and Reserve Forces referred to as Reserve Component Service Members (RCSMs) and Family Members (RCFMs) eligible for TRICARE.
- **Inactive Guard/Reserve**. This group includes members of National Guard and Reserve Forces (IRCSMs) and family members (IRCFMs) eligible for TRICARE in a temporary status due to pre/post-mobilization or those RCSMs enrolled in the premium-based TRS.
- **Retirees**. This group includes military retirees (RET)—those with 20 years or more of service—and retiree family members (RETFM).
- **Other (OTH)**. This group includes all other TRICARE beneficiaries, including dependent survivors, along with a collection of multiple smaller programs.

Table 7 shows the Enrolled TRICARE population for FY 2018 by these beneficiary groups. We distinguish between Service Members (or plan sponsors) and dependents. The data indicate that RCSMs and their dependents account for just under 10 percent of the enrolled population; RCSMs are roughly 4 percent, while their dependents are 6 percent.

Table 7. Enrolled MHS Population by Beneficiary Category, FY 2018

Beneficiary Category	Sponsors	Dependents	Total	% MHS Total
Active Duty	1,367,327	1,699,725	3,067,052	32.4%
Guard/Reserve	165,635	276,281	441,916	4.7%
Inactive Guard/Reserve	184,956	299,374	484,330	5.1%
Retirees	2,206,068	2,624,755	4,830,823	51.0%
Others/Dep Surv	38,368	603,847	642,215	6.8%
Total	**3,962,354**	**5,503,982**	**9,466,336**	**100.0%**

Source: M2 DEERs.

The healthcare consumed by these beneficiaries is delivered in two distinct but intertwined healthcare systems: (1) purchased care (PC)—civilian providers who participate in the TRICARE network, and (2) direct care (DC)—a network of DoD-owned and -operated hospitals and clinics referred to as MTFs.

The total government cost of this care is constructed by aggregating the largest components of the PC and DC systems:

- PC (TRICARE claims)
  - Non-Institutional or Ambulatory claims include amounts paid for outpatient care, medical equipment, or professional fees associated with inpatient care.
  - Institutional claims include amounts paid for inpatient hospital stays, long-term rehabilitation, or inpatient mental health services.
- DC (MTFs)
  - Ambulatory or outpatient care includes the full cost of professional encounters delivered in MTFs, including allocation of proportional ancillary support expenses.
  - Institutional or inpatient care includes the full cost of inpatient admissions to MTFs, including allocation of proportional ancillary expenses.
- Pharmacy
  - This includes the full cost of prescriptions filled in retail pharmacies or through the TRICARE Mail Order Program (TMOP). Direct care prescription costs have been excluded due to expense allocation into the ambulatory and institutional costs above.

Table 8 shows total TRICARE costs across PC and DC by beneficiary category. Average costs per beneficiary are also shown. The data indicate that RCSMs account for roughly 3 percent of total healthcare costs (while their dependents account for another 4 percent). Activated RCSMs are slightly less costly on average than ADSMs. Inactive RCSMs are significantly less costly. The lower cost observed for inactive RCSMs can be explained by lower utilization rates (potentially due to higher out-of-pocket costs), greater use of purchased care, and differences in the populations demographics.

Table 8. TRICARE Costs by Beneficiary Category (in Millions)

Beneficiary Category	Purchased Care	Direct Care	Pharmacy	Total	Cost Per (in 1000s)
AD	$1,194	$4,640	$88	$5,923	**$4,332**
ADFM	$3,133	$3,014	$359	$6,506	**$3,828**
RCSM	$252	$386	$39	$678	**$4,093**
RCFM	$475	$116	$96	$687	**$2,488**
IRCSM	$245	$57	$49	$351	**$1,897**
IRCFM	$638	$21	$138	$797	**$2,664**
RET	$3,791	$2,018	$2,854	$8,663	**$3,927**
RETFM	$4,625	$1,947	$2,849	$9,422	**$3,590**
Other	$1,129	$1,036	$1,046	$3,211	**$5,004**
Total	**$15,482**	**$13,237**	**$7,520**	**$36,239**	**$3,828**

Source: M2.

Notes: Total costs are based on the total cost of care paid by DoD. They do not reflect out-of-pocket costs paid by the user.

Table 7 showed approximately 350,000 RCSMs are currently enrolled in some form of TRICARE plan (166,000 activated RCSMs and 185,000 inactive RCSMs). In the following section we take a more in-depth look at these users by activation status and plan enrollment.

2. RCSM TRICARE Eligibility and Enrollment Options

The RCSMs identified as TRICARE enrollees in the previous section are covered through several different benefit plan options. Eligibility for these options depends on activation status. For the purpose of this analysis, we classify enrollment into three types: (1) Active Duty, (2) Transitional, and (3) Premium-Based TRICARE Reserve Select (TRS).

- **Active Duty**. Reservists become eligible for the TRICARE benefit when they are activated on orders of 30 days or more. Eligibility begins on the date the RCSM's orders are issued or 180 days before they report to AD (whichever is later).[10] The eligibility extends to the RCSM's eligible dependents. Coverage ends when the reservist deactivates.
- **Transitional Programs**. Several health benefit programs exist to ease RCSMs' transition to and from AD service. Some RCSMs may qualify for a pre-activation benefit known as Early Alert. Post-activation, some RCSMs are eligible for the Traditional Assistance Management Program (TAMP), which

[10] See "Pre-Activation Benefits," TRICARE, https://www.tricare.mil/Plans/Eligibility/NGRMandFamilies/Activated/PreActBenefits for more details about eligibility criteria.

extends premium-free TRICARE coverage for 180 days.[11] There is also a short-term premium-based coverage option (18–36 months) called the Continued Health Care Benefit Program (CHCBP) which can act as a bridge for the RCSM between military coverage and a new civilian plan.[12]

- **Premium-Based TRICARE Reserve Select (TRS)**. When RCSMs are ineligible for the TRICARE benefit, they still have the option of purchasing TRS, a premium-based plan offered to non-active members of the SELRES. The premium for the TRS benefit is currently $46 a month for the member only and $221 per month for the member and family.

Currently, the size of the activated and inactive enrolled populations are similar—with the inactive population being slightly larger. Of the inactive Guard/Reserve force, most TRICARE participation appears to come from the premium-based TRS program (78%), followed by TAMP, forces eligible due to Early Alert mobilization notification anticipated to be deployed in excess of 30 days, and Other (various programs). Detailed enrollment counts are available in Appendix B.

Figure 6 shows the average monthly cost to the DoD for RCSMs (and ADSMs) over the last 3 years. For 2019, we break out the inactive RCSM costs by their specific enrollment type (TRS, TAMP, and Early Alert). The higher cost for Early Alert beneficiaries may be consistent with individuals waiting to address medical issues until they have access to TRICARE. Appendix B contains annual average cost estimates for inactive RCSMs broken out by more detailed categories (i.e., purchased care, direct care, pharmacy, and so on).

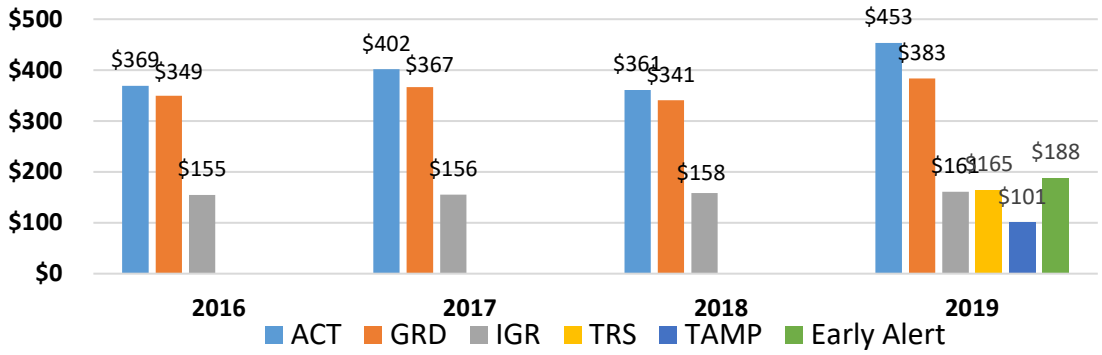

Figure 6. Average Total Healthcare Costs Per Month

[11] TAMP eligibility applies if the RCSM was activated in support of a contingency operation.

[12] CHCBP parallels the Consolidated Omnibus Budget Reconciliation Act (COBRA) insurance program that temporarily extends health coverage to civilians following a job loss.

In addition to understanding the costs associated with the RCSM (or sponsor), we must also understand the costs associated with covering their dependents. Table 8 contained average costs for the dependents of both activated and inactive RCSMs. Appendix B contains more detailed breakouts by the specific program (i.e., TAMP, TRS, etc.).

3. TRICARE Reserve Select (TRS)

As previously discussed, when reservists are ineligible for the TRICARE benefit, they still have the option of purchasing TRS, a premium-based plan offered to non-active members of the SELRES. Here we discuss the costs of this program relative to other civilian options, current program enrollment, and user characteristics and costs to DoD.

The premium for the TRS benefit in 2019 was $43 a month for the member only and $218 per month for the member and family.[13] This plan is relatively inexpensive compared with most civilian insurance options. For instance, according to the Kaiser Family Foundation's 2019 Employer Health Benefits Survey, the average annual premiums are $7,188 for single coverage and $20,576 for family coverage. The employee's share of these premiums averaged around $1,200 annually (or $100 monthly) for single coverage and $6,000 annually (or $500 monthly) for family coverage.[14] For individuals and families buying plans on the state exchanges, rates vary significantly based on income level (individuals with income below 400 percent of the federal poverty line are eligible for tax credit subsidies that significantly reduce premiums). In 2019, the average premium for an individual buying an unsubsidized plan was $448 a month. The average premium for a family was $1154 a month.[15] Subsidized plan costs vary significantly but are on average closer to rates faced by employees contributing to employer sponsored plans ($100 per individual or $500 a family per month). Table 9 lists premiums for TRS and several civilian options. The data indicate it is roughly 60 percent less expensive to purchase TRS relative to the average employer-sponsored plan and as much as 80 percent less expensive than buying an unsubsidized plan on state exchanges.

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[13] Policy Memorandum to Establish 2019 Monthly Premium Rates for TRICARE Reserve Select, TRICARE Retired Reserve, and TRICARE Young Adult, https://health.mil/Reference-Center/Policies/2018/08/29/2019-Monthly-Premium-Rates-for-TRS-TRR-and-TYA.

[14] Gary Claxton et al., "Employer Health Benefits: 2019 Annual Survey," Kaiser Family Foundation, 2019, https://www.kff.org/health-costs/report/2019-employer-health-benefits-survey/.

[15] These are the unsubsidized rates. Individuals in lower income groups are eligible for subsidies. https://news.ehealthinsurance.com/_ir/68/20205/eHealth_2020_ACA_Index_Report_Unsubsidized_Consumers.pdf.

Table 9. 2019 TRS Premiums Relative to Civilian Options, Annual Costs

Employee's Share of Premium	Self	Family
TRS	$514	$2,616
National average for employer-sponsored plans	$1,200	$6,000
Select FEHB Plans*		
FEHB BCBS Basic (mid-tier)	$1,917	$4,435
FEHB BCBS Standard (high-tier)	$2,918	$6,974
FEHB GEHA (low-tier)	$1,528	$3,286
Exchange (unsubsidized)	$5,376	$13,848

Notes: *FEHB offers self, self plus one, and family plan options. BCBS – Blue Cross Blue Shield; FEHB - Federal Employees Health Benefits; GEHA – Government Employees Health Association.

Table 10 shows enrollment trends in TRS over the last 5 years. As of the end of FY 2018, approximately 139,000 RCSMs were enrolled in TRS. Many also enrolled family members, bringing total enrollment to approximately 377,000.

Table 10. TRS Enrollment, FY 2014–FY 2018

Year	Inactive RCSM	Family Members	Grand Total
2014	121,189	202,908	324,097
2015	132,537	222,460	354,997
2016	139,196	232,222	371,418
2017	144,160	241,140	385,300
2018	138,728	237,898	376,626
5-Year Growth	14%	17%	16%

Source: DEERs; Totals represent enrollment at the end of each fiscal year.

Age and income are two important factors that influence an individual's healthcare utilization, costs, and coverage enrollment decisions. Family status (e.g., whether the RCSM is single or has dependents) is another important factor. In Table 11, we further break out the 2018 TRS enrollment data by rank group (a proxy for age and income) and family status. The data indicate that enlisted RCSMs and their families make up 73 percent of TRS enrollment. Among the enlisted, there are more senior enlisted users. As one would expect, junior rank groups are more likely to be single and have smaller families, on average, than senior rank groups.

Table 11. TRS Enrollment by Family Status and Rank Group, FY 2018

Service Member Category	Single RCSMs	RCSMs with Dependents	Dependents	Total Enrolled	Average Family Size	Share Single
JE	23,710	16,071	38,069	77,851	2.37	60%
SE	19,412	47,388	130,331	197,131	2.75	29%
JO	6,038	9,887	28,689	44,614	2.90	38%
SO	2,581	12,386	38,651	53,618	3.12	17%
WO	391	1,483	4,380	6,253	2.95	21%
Total	**52,133**	**87,214**	**240,120**	**379,467**	**2.74**	

Source: DEERs.

Note: JE – junior enlisted; SE – senior enlisted, JO – junior officer; SO – senior officer; WO – warrant officer. Table includes Service Members and dependents.

One may also be interested in take rates (i.e., the share of the eligible RCSMs that opt to enroll in TRS) across rank groups and family status. To construct the take rates, we obtained data on the total eligible population (inactive RCSMs) by rank group and family status from DMDC. We estimated the overall take rate among single RCSMs to be 18 percent, while the family take rate was approximately 26 percent. Table 12 shows take rates by rank group. While enrollment totals are greatest for enlisted personnel, take rates (the proportion using the benefit) are higher among officers.

Table 12. Estimated TRS User Take Rates, FY 2018

Current TRS Users by Rank Group	Take Rates	
	Single Take Rate	Family Take Rate
JE	12%	25%
SE	28%	25%
JO	33%	35%
SO	45%	31%
WO	28%	18%
Total	**18%**	**26%**

Source: TRS enrollment data are from the M2 DEERs database. Data on the eligible population are from DMDC.

Table 13 shows average annual costs for those utilizing TRS. The table includes both costs to the beneficiaries (premiums and average out-of-pocket (OOP) costs) and costs to DoD. The costs to DoD include the total cost of care and the total cost of care less premiums. Costs are presented by plan type (single or family), given that this enrollment dimension determines premiums. We used data on the family size distribution for TRS

users to estimate the average cost per family.[16] On average, we estimate it costs the Department $1,300 to cover a single Reservist and $6,900 to cover a Reservist with dependents. Costs by rank group are found in Appendix B.

Table 13. Estimated Average TRS Costs, FY 2018

	Cost to Beneficiary		Cost to DoD	
Plan Type	TRS Annual Premium	Average OOP	Average Care Cost	Cost Net of Premium
Single Plan (member only)	$565	$190	$1,888	$1,323
Family Plan	$2,657	$727	$9,563	$6,907

B. RCSM Use of Non-DoD Healthcare

As previously discussed, inactive RCSMs are not eligible for the primary TRICARE plan. Those who do not choose to purchase the TRS benefit utilize healthcare benefits purchased through their civilian employer (or a spouse's employer), through the state exchanges created by the Affordable Care Act, or through Medicaid. Some Reservists are also eligible Veterans Affairs (VA) users.

To obtain data on these users, specifically whether they have some form of health coverage, we rely on the Periodic Health Assessment (PHA), a medical screening exam used to assess the overall health and readiness status of a Service Member.

The PHA asks three "yes/no" questions specific to health coverage:

- Covered under a health insurance policy: TRICARE (yes/no)
- Covered under a health insurance policy: Other (yes/no)
- Covered under a health insurance policy: None (yes/no)

Table 14 shows the summary data. Among those who answered, the data indicate roughly 8.2 percent of RCSMs lack health insurance coverage.

[16] The average number of dependents per family is 2.74 (based on current user data).

Table 14. Health Insurance Coverage for RCSM, 2018

PHA Question Response	TRICARE	Other	None
Yes	155,803	166,982	29,612
No	230,663	218,169	356,854
Not Answered	17,109	18,424	17,109
Answered Yes/Total Answered	40.3%	43.4%	8.2%

Source: PHA 2018 data.

Insurance status shows some variation by Service, Component, and rank group. Table 15 shows uninsured rates by these categories. The data indicate Army and Marine RCs are more likely to be uninsured relative to the Air Force and Navy. Junior enlisted Service Members are uniformly more likely to be uninsured relative to other rank groups irrespective of service. The uninsured rate varies among junior enlisted from roughly 5 percent in the Coast Guard Reserve to nearly 20 percent in the Army National Guard.

Table 15. Uninsured Rate by Service, Component, and Rank Group

		Enlisted		Officer		Warrant Officer
Service Component	All Ranks	Junior (E1–E4)	Senior (E5–E9)	Junior (01–05)	Senior (O6–O10)	All (W1–W5)
Army National Guard	12.6%	19.1%	7.9%	3.2%	0.3%	1.7%
Army Reserve	10.9%	18.4%	7.3%	2.9%	1.7%	1.3%
Navy Reserve	6.6%	15.7%	5.4%	1.5%	0.4%	0.0%
Marine Corps Reserve	14.3%	18.4%	7.0%	1.4%	1.3%	1.9%
Air National Guard	3.9%	7.4%	2.9%	1.4%	0.6%	0.0%
Air Force Reserve	4.2%	10.3%	3.0%	1.3%	0.9%	0.0%
Coast Guard Reserve	2.5%	4.8%	2.3%	1.9%	0.0%	0.0%
Total	**7.7%**	**15.3%**	**4.3%**	**1.8%**	**0.6%**	**1.0%**

Source: PHA.

Insurance status also varies by demographics and other member characteristics. Table 16 shows the uninsured population is more likely to be male and younger on average relative to the insured population. The uninsured are also less likely to have deployed and have fewer deployments on average (although this is also associated with age). The uninsured are less likely to report a VA disability rating, but among RCSMs reporting a VA disability rating, the uninsured report higher ratings on average.[17]

[17] RCSMs with prior service may have VA disability ratings. The VA provides care to eligible veterans enrolled to its facilities—typically for service-connected disabilities. Being eligible for care in the VA is not the same as having a comprehensive health insurance plan.

Table 16. Summary Statistics by Insurance Status, 2018

	Insured	Uninsured	Missing
Demographics			
Male	80.51%	84.39%	78.41%
Age	33.2 (9.7)	27.1 (7.7)	37.6 (8.3)
Deployment-Limiting Conditions			
Has any DLC	57.49%	59.23%	43.11%
Average number of DLCs	0.77 (1.52)	0.53 (1.34)	0.88 (1.55)
Deployment History			
Share Never Deployed	69.75%	81.81%	59.13%
Average Number of Deployments	0.45 (.83)	0.25 (.64)	0.67 (1.09)
VA Disability			
Share with VA Disability	26.40%	8.05%	2.69%
Average VA Disability Rating (%)	17.18 (26.21)	35.46 (29.68)	32.17 (23.90)
IMR Status			
Fully Medically Ready	76.71%	73.51%	65.02%
Partially Medically Ready	15.76%	18.83%	21.74%
Not Medically Ready	5.71%	5.54%	2.22%
Indeterminate	1.77%	2.08%	1.07%
N/A	0.05%	0.05%	0.01%
Sample Data			
Unique Individuals	356,854	29,612	17,109
Unique Individuals %	88.40%	7.30%	4.20%

We note that it is difficult to study healthcare coverage, utilization, and costs for RCSMs when they are not using DoD-provided care in the MHS. For these users, we generally must rely on survey data such as the PHA, but the PHA currently does not ask for detailed information about insurance. For instance, we cannot learn if the RCSM utilizes an employer-sponsored plan or a spouse's employer-sponsored plan, purchases care from the state exchanges, or relies on Medicaid. We also have no information about the volume or type of care they utilize. Conversely, detailed cost and utilization data is available for RCSMs when they are enrolled TRICARE users.

C. Transitional Challenges

RCSMs and their families often report challenges related to transitioning back and forth between the active duty TRICARE benefit and the coverage they depend on while inactive (i.e., their civilian plan or TRS). These challenges were highlighted by the 2015 *Final Report of the Military Retirement and Compensation Modernization Commission*

(MCRMC).[18] The Commission found that transitions can be costly for RCSMs and their families and disruptive to their healthcare coverage—especially for RCSMs who are mobilized in support of a mission that is not a contingency operation (and thus not eligible for certain transition benefits).[19]

Examples of the challenges faced by RCSMs and their families were numerous. For those using health plans provided through a civilian employer, there were often challenges with continuity of care upon switching to TRICARE (e.g., the spouse's primary care provider or a child's pediatrician were not in the TRICARE network). If the RCSM opted to keep their employer-provided plan for their dependents, they would have the financial cost of paying the employee's share of the premium. In cases in which the employer stops paying the employer's share of the premium, the RCSM would have to pay the full cost (typically four or five times the employee's share) if they wanted to continue the coverage. To address these challenges, the Commission discussed two possible solutions: (1) a DoD-sponsored commercial plan and (2) providing RCSMs a subsidy to remain on their employer-sponsored plan.

There have also been challenges associated with coverage lapses for RCSMs who transition between the TRS benefit and the active duty TRICARE benefit. This issue was raised in the FY 2021 NDAA. Specifically, Section 750J, "Report on Lapses in TRICARE Coverage for Members of the National Guard and Reserve Components," called for a study to quantify this problem, determine its causes, and to examine its impact on healthcare delivery, medical readiness, and retention.[20]

D. Dental Coverage

This chapter has focused on healthcare coverage for medical services. Insurance coverage for dental services is generally not included in these plans and must be purchased separately. DoD operates two dental benefit programs: the TRICARE Active Duty Dental Program (ADDP) and the TRICARE Dental Program (TDP). The ADDP covers ADSMs and RCSMs on active duty orders. The TDP is a premium-based program serving family members and inactive RCSMs. Enrollment premiums depend on the beneficiary category and family size, while coinsurance rates vary by service and member's pay grade.

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[18] Military Compensation and Retirement Modernization Commission, *Final Report of the Military Compensation and Retirement Modernization Commission* (Washington, DC: January 2015), https://usmclife.com/wp-content/uploads/2015/01/MCRMC-FinalReport-29JAN15-LO.pdf.

[19] RCSMs mobilized in support of contingency operations are eligible for the pre-mobilization benefit "Early Alert" up to 180 days before their active service begins. They are also eligible for the post-mobilization TAMP benefit (180 days post-mobilization). RCSMs who are not mobilized in support of a contingency operation are not eligible for these benefits.

[20] FY 2021 NDAA.

Table 17 shows the monthly premium for active duty and RCSMs by activation status and family composition. Appendix B contains data on coinsurance rates for different services.

Table 17. TRICARE Dental Program Premiums

	Monthly Premium			
Service Member Category	**Sponsor Only**	**Single**	**Family**	**Sponsor and Family**
Active Duty	N/A	$11.60	$30.15	N/A
Selected Reserve and IRR (Mobilization Only)	$11.60	$28.99	$75.37	$86.97
IRR (Non-Mobilization)	$28.99	$28.99	$75.37	$103.36

Source: https://www.tricare.mil/Costs/DentalCosts/TDP

The IDA team was unable to obtain enrollment or user cost data for the ADDP or TDP. Survey data on RCSM use of civilian dental insurance programs was also unavailable.

E. Calls for Expanding RCSM TRICARE Benefits

Over the past 20 years, RCSMs have seen their eligibility for DoD-provided health benefits greatly increase. The most significant policy changes have been (1) the introduction of the TRS program, (2) the expansion of the Early Alert benefit from 90 days to 180 days, and (3) the expansion of TRS to military technicians. Table 18 provides data on the years and specific legislation that expanded RCSM benefits.

Table 18. Policy Changes Expanding RCSM TRICARE Benefits

Policy	Description
Introduction of TRICARE Reserve Select (2005)	• Section 701 of the FY 2005 NDAA (P.L. 108-375) established the TRS program. Initially, TRS eligibility was limited to certain Reservists who had served on continuous active duty in support of a contingency operation and signed a military service obligation agreement. • Section 706 of the FY 2007 NDAA (P.L. 109-364) revised TRS by removing certain restrictions and expanding eligibility. The law also added a prohibition on members of the SELRES and their family members from being eligible for TRS if they are also eligible for the FEHB program. • Section 705 of the FY 2010 NDAA (P.L. 111-84) established TRR (TRICARE Retired Reserve), which also prohibits retired reservists and their families from participating, if they are also eligible for the FEHB program. Both reserve plans mirror the benefits and cost sharing requirements established for TRICARE Select, a health plan option available to family members of ADSMs and certain military retirees.
2010 Early Alert	• The FY 2010 NDAA extended TRICARE eligibility to reserve members for 180 days prior to active duty, which helps members become medically and dentally ready.
Military Technicians	• Since the creation of these programs, the Congress has considered various proposals to remove the statutory prohibitions on TRS or TRR eligibility. Section 701 of the FY 2020 NDAA (P.L. 116-92) removed the statutory prohibition for TRS eligibility and is to take effect on January 1, 2030.

While benefits have increased, calls for further health benefit expansions for members of the National Guard and RCs continue. Expanding health benefits is often presented as a way to improve not only RCSM medical readiness, but also recruiting and retention.

4. Understanding Reserve Component Medical Readiness

In this chapter, we discuss how RCSM medical readiness is determined and the different programs relied upon by the RCs to support RCSM medical readiness.

A. Determining Medical Readiness

The medical readiness of Service Members is determined by several factors. DoDI 6025.19 outlines the process and elements for determining Individual Medical Readiness (IMR). While IMR is the primary determinant for medical readiness, other factors such as theater entry standards can result in a Service Member being deemed non-deployable for medical reasons. We discuss each of these determinations in the following section.

1. Individual Medical Readiness

As previously mentioned, IMR is governed by DoDI 6025.19 under "Individual Medical Readiness." This instruction defines six elements that the military departments must use to track the IMR of Service Members (both active and reserve). The IMR elements are (1) periodic health exam, (2) deployment-limiting medical and dental conditions, (3) dental assessments, (4) immunization status, (5) medical readiness and laboratory studies, and (6) individual medical equipment. We summarize each element in Table 19.

Table 19. Six Elements of IMR Determination

IMR Element	Requirement/Description/DoD Reference
Periodic Health Assessment (PHA)	**Requirement**: Service Members must complete a PHA annually **Description:** PHAs are medical screening exams used to assess the overall health and readiness status of a Service Member. PHAs are conducted annually and consist of several elements, including a self-reported health assessment, a physical exam with a provider, and a review of the individual's medical history/records. A PHA will not be considered complete until the individual completes the screening process and undergoes any required treatments ordered by the provider. In recent years, DoD standardized the PHA across all Services and Components. **DoD References:** DoDI 6200.06, DoDI 6025.19, and DD Form 3024
Deployment-Limiting Conditions (DLCs)	**Requirement:** Service Members must be free of any DLCs **Description:** DLCs include any physical or psychological conditions that might interfere with the Service Member's ability to perform duties when deployed. DLCs are defined in DoDI 6490.07 as well as in Military Department-specific policies. **DoD References:** DoDI 6200.06, DoDI 6025.19
Dental Assessment	**Requirement:** Service Members must have a dental readiness classification (DRC) of 1 or 2 **Description:** The DRC categories are: • DRC 1: exam current; no dental treatment or reevaluation required • DRC 2: exam current; requires non-urgent dental treatment or reevaluation for a condition unlikely to result in emergencies within 12 months • DRC 3: exam current; requires urgent or emergent dental treatment • DRC 4: exam is not current; classification undetermined **DoD Reference:** DoDI 6200.06
Immunization Status	**Requirement:** Service Member is current for all required vaccines **DoD Reference:** DoDI 6200.06
Medical Lab Tests	**Requirement:** Service Member must have a current HIV test and a deoxyribonucleic acid (DNA) sample on file **DoD Reference:** DoDI 6200.06
Medical Equipment Check	**Requirement:** The core requirement is one pair of gas mask inserts for all deployable assets needing visual correction. Service- and occupation-specific requirements may also exist. **DoD Reference:** DoDI 6200.06

Note: HIV – Human Immunodeficiency Virus.

The Services track IMR for all Service Members and are required to provide quarterly summary reports for the following categories:[21]

- **Fully Medically Ready (FMR)**. Service Members are considered FMR if they meet each requirement outlined in Table 19.
- **Partially Medically Ready (PMR)**. Service Members are considered PMR if they meet the first three requirements outlined in Table 19 (i.e., complete PHA, no DLCs, and DRC of 1 or 2) but do not meet one of the remaining requirements (e.g., lacking an immunization, medical test, or required medical equipment).
- **Non-Medically Ready (NMR)**. Service Members with DLCs and/or requiring dental treatment (DRC 3).
- **Medical Readiness Indeterminate (MRI)**. Service Members with an overdue PHA and/or overdue dental exam (DRC 4).

Using these categories, the Services report the following metrics stratified by ACs and RCs:

- Total Force Medically Ready (TFMR) = FMR+PMR/Total Service Members
- Non-Medically Ready = NRM/Total Service Members
- Medically Indeterminate = MRI/Total Service Members

The current DoD-wide goal for the TFMR rate is 85 percent. Table 20 shows the different IMR metrics by Service and Component. In general, we observe higher TFMR rates among the ACs. The TFMR rate for the entire AC is 89 percent versus 86 percent for the RC. However, there is notable variation at the Service-Component level. While the overall RC meets the 85 percent threshold, the USMCR, the USAFR, and USCGR fall short, with TFMR rates of 82, 81, and 77 percent, respectively. We also note variations in the composition of the TFMR rates (i.e., the share of FMR versus PMR individuals) across Services and Components. For instance, the ARNG, USAR, and USMCR appear to have PMR rates higher than their respective ACs (and the other RCs).

[21] These categories are outlined in Enclosure 4 of DoDI 6025.19.

Table 20. Total Force IMR, April 2019

Service	Component	Total Strength	FMR	PMR	MRI	NMR	TFMR
	Active	389,311	85%	3%	4%	7%	89%
	Guard	271,577	66%	21%	5%	8%	87%
Army	Reserve	151,303	62%	25%	5%	8%	87%
	Total	812,191	74%	13%	4%	8%	88%
	Guard + Res	422,880	64%	23%	5%	8%	87%
	Active	176,272	81%	9%	4%	6%	90%
Navy	Reserve	48,552	77%	9%	5%	9%	86%
	Total	224,824	80%	9%	4%	7%	89%
	Active	130,979	87%	5%	3%	5%	92%
Marines	Reserve	32,487	65%	17%	9%	9%	82%
	Total	163,466	82%	8%	4%	6%	90%
	Active	247,484	81%	7%	4%	8%	88%
	Guard	87,530	79%	7%	7%	7%	86%
Air Force	Reserve	52,338	76%	5%	9%	10%	81%
	Total	387,352	80%	7%	5%	8%	87%
	Guard +Res	139,868	78%	6%	8%	8%	84%
	Active	42,173	62%	15%	23%	1%	77%
Coast Guard	Reserve	6,156	66%	11%	22%	1%	77%
	Total	48,329	62%	15%	22%	1%	77%
Total Force		**1,636,162**	**77%**	**11%**	**5%**	**7%**	**88%**
Total Active		**986,219**	**83%**	**6%**	**5%**	**7%**	**89%**
Total Guard + Res		**649,943**	**68%**	**18%**	**6%**	**8%**	**86%**

Source: Final IMR data provided by DHA.

Note: End strengths reported in Table 2 and Table 3 are from DMDC. The IMR population totals are smaller than total end strength, given data are not collected for all members.

The IDA team obtained quarterly IMR data from the third quarter (Q3) of 2010 through the first quarter (Q1) of 2019. Table 21 reports TFMR rates for the first and final period of the data along with the changes by Service and Component. The data indicate TFMR rates for the total force improved by nearly 20 percent over this period. The gain was greater for the Reserve and Guard Components—an improvement of nearly 40 percent versus the 10 percent gain observed for the ACs. It should be noted that there was significant variation across the different Services and Components. The ARNG and USAR had by far the largest gains in TFMR—over 60 percent. The Navy Reserve and Air Force Reserve, conversely, saw TFMR rates fall by 3 and 8 percent, respectively.

Table 21. IMR Trend Analysis, Q3 2010 to Q1 2019

		Q3 2010	Q1 2019	Difference	Percent Change
Army	Active	78%	89%	11%	14%
	Guard	53%	87%	34%	64%
	Reserve	53%	87%	34%	64%
Navy	Active	85%	90%	5%	6%
	Reserve	89%	86%	-3%	-3%
Marine	Active	82%	92%	10%	12%
	Reserve	75%	82%	7%	9%
Air Force	Active	87%	88%	1%	1%
	Guard	85%	86%	1%	1%
	Reserve	88%	81%	-7%	-8%
Coast Guard	Active	71%	77%	6%	8%
	Reserve	78%	77%	-1%	-1%
Total Force		**74%**	**88%**	**14%**	**19%**
Total Active		**82%**	**89%**	**7%**	**9%**
Total Guard+Reserve		**62%**	**86%**	**24%**	**39%**

Source: Final IMR data provided by DHA.

Appendix B contains more detailed trend analysis by Service and Component for IMR rates.

While IMR requirements are the same for most Service Members, there are additional requirements imposed on Members belonging to certain occupations. These requirements may involve additional occupational health medical screenings (e.g., for pilots and divers) or additional medical equipment requirements (e.g., occupations that address chemical, biological, radiological, nuclear, and high yield explosives response may require additional safety equipment). The IDA team was unable to obtain IMR rates by occupation.

2. Non-Deployable for Medical Reasons

An individual's IMR status is central to determining whether they will be deemed medically ready, but it is not the sole consideration. It is possible for individuals classified as medically ready (by IMR) to be ruled non-deployable for medical reasons when the time comes for them to deploy. A combatant command may impose additional medical requirements that exclude certain individuals who are otherwise IMR. For example, they may ban individuals with certain medical conditions or who are taking certain medications. Modification Fourteen covers United States Central Command (USCENTCOM)'s individual protection and individual/unit deployment policy. Tab A, "Amplification of the

Minimal Standards of Fitness for Deployment to CENTCOM AOR [area of responsibility]," enumerates additional medical condition restrictions.[22] It notes

> Individuals possessing a disqualifying medical condition must obtain an exception to policy in the form of a medical waiver prior to being medically cleared for deployment. The list of deployment-limiting conditions is not comprehensive; there are many other conditions that may result in denial of medical clearance for deployment based upon the totality of individual medical conditions and the medical capabilities present at that individual's deployed location.

It also states

> The final authority of who may deploy to the CENTCOM AOR rests with the CENTCOM Surgeon and/or the Service Component Surgeons' waiver authority, not the individual's medical evaluating entity, deploying platform, or Commander.

Finally, DoDI 1332.45 covers "Retention Determination for Non-Deployable Service Members." It outlines both temporary and permanent categories for non-deployable individuals. Table 22 summarizes the medical categories. (The other included categories are administrative and legal issues.) Note that IMR deficits are not included in the table. DoDI 1332.45 states that Service Members who are IMR deficient for the reasons below will not be considered non-deployable. Components are expected to immediately correct all IMR deficits to ensure Service Members are medically ready to deploy. These deficits include:

- Partially medically ready due to lack of required immunizations, tests, or equipment,
- Medically indeterminant due to overdue PHAs or dental exams, and
- Not medically ready due to required dental treatment.

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[22] "Amplification of the Minimal Standards of Fitness for Deployment to the CENTCOM AOR," MOD14-Tab A (To Accompany MOD Fourteen to USCENTCOM Individual Protection and Individual/Unit Deployment Policy, USCENTCOM, 2019), https://www.tam.usace.army.mil/Portals/77/docs/MOD14%20Tab%20A-Final.pdf.

Table 22. Non-Deployable Medical Categories

Temporary	
Patient	In accordance with DoDI 1120.11, Service Members who are hospitalized and are projected to heal, recover, and return to full duty in less than 12 months are temporarily non-deployable.
Medical Condition that Limits Full Duty	Service Members who have temporary profiles or are in limited duty status are counted as temporarily non-deployable. Light duty will not be reported as non-deployable unless the duration exceeds 30 days, with discretion given to the medical officer to extend light duty status for up to 60 days, making light duty no longer than 90 days for conditions expected to recover or stabilize within that time.
Pregnancy (including post-partum)	Service Members who are pregnant or in the post-partum phase are temporarily non-deployable. The post-partum phase ranges from 6 to 12 months after childbirth for female Service Members and is determined by individual Service policy.
Permanent	
Permanent Limited Duty	Service Members with a medical condition that permanently prevents deployment are non-deployable. This includes Service Members processed through the Disability Evaluation System (DES) who are not deployable and were retained in the Military Service. In accordance with Section 1214a of Title 10, U.S.C., Service Members cannot be involuntarily administratively separated or denied reenlistment due to unsuitability based solely on the medical condition considered in the evaluation unless the request to separate the Service Member is approved by the Secretary of Defense.
Enrolled in DES	In accordance with DoDI 1332.18, Service Members currently enrolled in the DES process are non-deployable. That includes those pending separation or retirement after receiving a “not fit for duty” determination through the DES.
Permanent Profile Non-Duty-Related Action Needed (RC)	Those RC Service Members who have a permanent profile and are pending a decision on a line of duty determination are non-deployable.

B. Medical Readiness Deployment Disqualifications

In some instances, an RCSM who was deemed medically ready based on IMR will be found to be NMR when mobilized. This could occur under various circumstances. For instance, the RCSM could report a new injury, a new medical diagnosis, or a recent change in medication that affects their deployability.

In many cases, minor or low-risk conditions may not disqualify an RCSM from mobilization if the condition does not conflict with the physical or psychological standards put forward by the combatant command (COCOM) for the mobilization area of responsibility (AOR). As deployment environments can be both physically and emotionally demanding of Service Members, many chronic conditions that require continuing care or medical procedures, such as cardiovascular, respiratory, orthopedic, and

psychological conditions, can be problematic, risky, or impossible to treat in a deployed environment. In such cases, the RCSM may require some sort of medical intervention to address the condition. They may also need to request a waiver from the COCOM surgeon for the mobilization AOR.

Discussions with staff familiar with mobilization processing centers' practices for the Army and Navy provided important perspective on the complexity of RCSM mobilization. Each military branch has different medical eligibility requirements for continued service after initial entry screening. PHAs with annual medical screenings are used to identify new or ongoing medical conditions Service Members may experience while on active duty or mobilized. Minimum medical standards across DoD are established in DoDI 6490.07 (Deployment-Limiting Medical Conditions for Service Members and DoD Civilian Employees); however, Service-specific medical readiness requirements are more stringent and varied due to the broad range of different operating environments where forces are deployed. Each COCOM sets additional criteria for medical eligibility specific to the AOR concerned. This complexity may create greater challenges for the RCs (relative to ACs), given that they have fewer assets to support unit medical readiness and reduced visibility of ongoing or emerging medical issues in the civilian lives of drilling reservists.

The varied definitions of medial readiness described above and the difficulties associated with providing care to part-time civilian members create challenges to mobilizing RCSMs. RCSMs showing as "medically ready" according to annual PHA screenings or unit reporting metrics may actually be experiencing medical issues that preclude them from specific COCOM AOR medical eligibility requirements. The lack of standardized medical mobilization processing data makes ongoing medical surveillance of "non-deployable" RCSMs particularly difficult. Ideally, Service Members who reported as medically ready, but were found non-deployable during mobilization processing, would have medical conditions and disposition documented through standardized and discrete ICD code-based categorizations. The IDA team recommends Component mobilization units develop a standardized reporting framework for the medical readiness and deployability status of RCSMs to capture consistently the medical conditions that preclude members from activation.

C. Programs Supporting Reserve Component Medical Readiness

We identified four primary channels through which RCSMs receive medical and dental services and treatments required to maintain their medical readiness. These are the Reserve Health Readiness Program (RHRP), RC organic medical/dental capability, the MTFs, and external civilian care (typically covered by a civilian or TRS insurance benefit).

1. RHRP

The RHRP began in 2007 to supplement the RC's health readiness mission.[23] The program provides IMR medical and dental services as well as other deployment-related requirements though a large multi-year support contract. The program is currently managed by the Deployment Health Branch of the Defense Health Agency (DHA). Logistics Health Inc. (LHI), a subsidiary of Optum and UnitedHealth Group, was the holder of the RHRP contract at the start of this study. The RHRP program has grown in size and scope over the last decade. Today it also supports the six DoD RCs as well as several other user groups including AD enrolled in TRICARE Prime Remote, the USCG, and re-deploying DoD civilians.

It should be noted that RHRP funding primarily comes from Service Components. Only a small part of the program is funded through the Defense Health Program. Table 23 reports utilization rates for each of the DoD RCs and other user groups referenced above. The data indicate there is wide variation in utilization rates across the Services.

Table 23. RHRP User Rates, FY 2018

	Authorized	Used RHRP	Percent
DoD Reserve Components			
USAR	199,500	175,938	88%
ANG	106,600	60,831	57%
USNR	59,000	13,184	22%
USMCR	38,500	24,441	63%
AFRC	69,800	32,204	46%
ARNG	343,500	128,570	37%
Total DoD RC	**816,900**	**435,168**	**53%**
Other User Groups			
USCG/USCGR	51,500	10,992	21%
AC Army TPR	483,500	9,205	2%
DoD Civilians*	193,800	97	0.1%
Total Other User Groups	**728,800**	**20,294**	**3%**

Source: Data obtained from RHRP program office. Spreadsheet titled "FY18 RHRP Utilization Summary by Invoiced Quantity and Cost."

* DoD civilians included employees of the U.S. Army Corps of Engineers and U.S. Army Intelligence and Security Command.

[23] The program grew out of a predecessor program known as the Federal Strategic Health Alliance (FEDS_HEAL) which began in 2001 under HHS.

The medical services provided to users of the RHRP are numerous. The RHRP program office provided IDA with a list of over 700 different services. Data on the cost and quantity of services was also provided at an aggregated level. Specifically, IDA obtained data on the cost and quantity of 15 categories of invoiced services provided over the last 5 years (FY 2014–FY 2018). IDA was unable to obtain cost and quantity data at the individual service level but we did obtain price and quantity breakouts for broad categories of services at the year and Component level. We further aggregated the services into four different categories. These are summarized in Table 24.

Table 24. RHRP Service Categories

Category	Sub-Category
IMR Services: Services required to determine a RCSM's IMR status. Treatment of medical or dental conditions affecting IMR are not considered IMR services.	• Periodic Health Assessments • Immunizations • Laboratory Services • Dental Assessments
Deployment Services: Additional pre and post deployment related services. See DoDI 6490.03 (Deployment Health) and DoDI 6490.12 DoD (Mental Health Assessments) for more details.	• Mental Health Exam (MHA); DD Form 2978 • Pre-deployment health assessment (Pre-DHA); DD Form 2795 • Post-deployment health re-assessment (PDHRA); DD Form 2900 • Audio services • Vision services
Other Medical/Dental Services: Other medical/dental services include Behavioral Health (BH) screenings, dental treatments (e.g., extractions, fillings, crowns, etc.) and other miscellaneous medical services (e.g., breast exams, chest x-rays, EKGs, etc.).	• BH Specialist • Dental treatment services • Miscellaneous medical services • Physical exam • Record review-Maintenance/Miscellaneous
Invoices for Service Cancellations and No-Shows	• Admin Fees-Cancel • Admin Fees-No Show

The services listed above are provided through several channels. These include:

- **On-Location**. Contractor provides care to a large number of Service Members at the same location on a set date—often referred to as "group events" or "health readiness events." This is currently the most common delivery channel.
- **In-Clinic**. Service member visits a network provider within a given radius of their home or work.
- **Call Center**. Some medical screenings and record reviews may be carried out over the phone.

- **LHI Owned Facility**. In some instances, RCSMs may receive services at contractor-owned facilities.

Table 25–Table 27 report summary data on the quantity, total cost, and unit cost for each category of RHRP services for FY 2014–FY 2018. We note there are variations in the quantity of services utilized across Components and in service unit price. Many services are provided at group events where unit cost will be partially determined by volume.

From Table 25, we observe that the total number of RHRP services has grown significantly over the past 5 years. Growth was highest for the Other Services category. Within this category, growth was largest for dental treatment services and record review maintenance.

Table 25. Summary of RHRP Service Quantity, FY 2014 to FY 2018

Fiscal Year	IMR Service	Deployment Services	Other Services	Cancel/ No-Show Invoices	Total Services Invoiced
FY 2014	1,240,752	533,961	163,235	336,335	2,274,283
FY 2015	1,621,930	847,353	199,896	428,359	3,097,538
FY 2016	1,479,239	967,951	177,951	377,171	3,002,312
FY 2017	1,367,277	1,042,294	202,944	308,057	2,920,572
FY 2018	1,480,783	1,353,366	1,093,793	455,586	4,383,528

Source: RHRP FY 2012–2018 Utilization Summary Cost and Quantity.

In Table 26, we observe the total annual RHRP costs have also grown significantly over the past 5 years. The total spending percentage increase for the period was just over 40 percent. Spending growth was lowest for IMR services and highest for deployment services. Spending on cancellations and no-show fees has also grown over time and was nearing $10 million in FY 2018.

Table 26. Summary of Total RHRP Service Costs, FY 2014 to FY 2018 (in Millions)

Fiscal Year	IMR Service Cost	Deploy Services Cost	Other Services Cost	Cancel/ No-Show Invoices Cost	Travel/ Shipping Cost	Total Cost
FY 2014	$61	$17	$22	$6	$12	$118
FY 2015	$76	$24	$27	$8	$18	$153
FY 2016	$70	$29	$25	$7	$16	$148
FY 2017	$69	$32	$29	$6	$15	$150
FY 2018	$76	$31	$33	$9	$19	$168

Table 27 contains estimated average unit costs for a select set of IMR services. The unit costs are constructed from data on total service volume and total cost. Differences are believed to be driven primarily by volume-based pricing at group events.

Table 27. Average Cost of IMR and Dental Services, FY 2018

RHRP Service Category	USAR	ARNG	USNR	USMCR	ANG	AFRC	USCG	Weighted Average
PHA	$104	$86	$83	$77	N/A	N/A	$122	$95
Immunizations	$26	$23	$45	$20	N/A	N/A	$67	$27
Lab Services	$30	$24	$44	$37	$37	N/A	$29	$30
Dental Exam	$63	$55	$53	$57	$62	$62	$66	$60
Dental Treatment	$218	$476	N/A	N/A	N/A	N/A	N/A	$327

Source: Data provided by DHA "FY2014-2018 RHRP Utilization Summary and Cost".

2. Organic Capability

Another channel used by RCs to deliver IMR services to RCSMs is the unit's organic medical capability. Medical providers within the unit such as physicians, dentists, physician's assistants, and nurse specialists may spend part of their drill weekends providing medical exams, record reviews, and other required medical services to RCSMs.

IDA was unable to obtain data on the number of RCSM medical personnel that actually delivered IMR services to their units (or how much time they spent performing this function). Discussions with RC medical leadership revealed that each Service and Component uses their organic medical capability differently. For example, several headquarters staff indicated that the Air Force consistently relies on its own organic dental and medical capabilities to support readiness services within the Air Force Reserve. On the other hand, the Army National Guard more frequently chose to use dental and medical readiness services offered on the RHRP contract, thereby allowing their drilling medical staff opportunities to more fully engage in training activities during drill periods. Additionally, within the different RCs, there was substantial variation in how organic capabilities were used based on the geographic dispersion of RC units relative to the availability of facilities co-located in AC force concentration areas.

The team was able collect data on the number of organic medical personnel in each RC. Figure 7 reports the number of medical personnel (per 1000 RCSMs) by provider type and Service/Component. The data indicate the Navy Reserve has the highest number of physicians, dentists, and nurses per member, followed by the Air Force and Army Reserve. The ARNG has noticeably fewer providers per 1000 members. While we do not observe the intensity at which the Components utilize their medical providers to deliver IMR

services, we note Components with higher provider rates per 1000 tend to have lower RHRP utilization.[24]

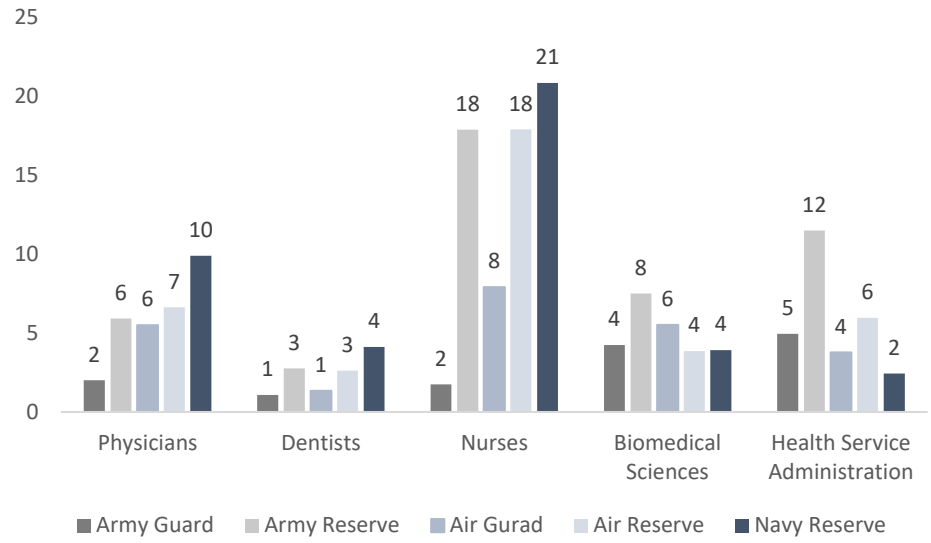

Figure 7. Medical Personnel per 1000 RCSMs, FY 2018 (Officers Only)

Survey data from the PHA also identified whether the provider delivering the PHA was an RCSM, contractor, or full-time provider (i.e., DoD civilian, active duty provider, or FTS RCSM). While this information is focused on the PHA, it is also useful for understanding the extent to which Service Components may be relying on organic capabilities versus programs like RHRP. Table 28 reports the share of PHAs delivered by Reservist or Guard members versus several other personnel categories: full-time DoD civilians and active duty providers (and full-time AGR), or contractors. As expected, the data indicate the Navy and Air Force had a higher share of PHAs delivered by Reserve/Guard personnel.

[24] We note that the Marine Corps does not have organic medical capability. It relies on the Navy for medical providers. Some Navy RC providers may be assigned to Marine Corps reserve units.

Table 28. Personnel Type Providing PHA Exam for RCSMs

PHA Completed by	Reserve/ Guard	Military/ Civilian/AGR	Contractor/ Other	Missing
ARNG	51%	14%	11%	24%
USAR	40%	25%	17%	19%
USNR	75%	15%	10%	0%
USMCR	25%	16%	60%	0%
ANG	76%	23%	1%	0%
USAFR	82%	13%	5%	0%
USCGR	0%	13%	87%	0%

Note: The missing column reflects that some PHA data did not contain information on the status of the provider completing it.

3. MTFs

Historically, the MHS MTF access model has been predicated on TRICARE eligibility. Providing IMR services to non-activated RCSMs for DoD-mandated health readiness was therefore not often prioritized by the system (as these individuals were not TRICARE-eligible). RCSMs' access to the MTFs occurred through Service-level policy on an ad hoc basis. For instance, in early 2017, the Office of the Surgeon General and U.S. Army Medical Command instituted a policy to open the doors of Army MTFs to RC soldiers not on active duty orders. However, a case study conducted by the Office of the Chief of Army Reserve in February 2018 found access was very poor.[25]

During the case study, an RCSM (not on active orders) tried to establish a PHA appointment at multiple sites across the National Capital Region, including Fort Belvoir Community Hospital, the Fort Belvoir Community Hospital Occupational Health Clinic, the Dumfries Clinic, and the Fort Belvoir Community Hospital Readiness Center. In each case, they were turn away. The case study highlights a need for improved coordination on providing readiness services for the total force. The creation of a single DoD-wide PHA and the DHA takeover of the MTFs (through the ongoing 702 transitions) may present an opportunity to improve RCSM access to MTFs for IMR services. Additional policy guidance and DoD/DHA instructions will likely be required in this area.

The study team also examined the number of readiness services delivered in MTFs over the FY 2018 period. The services examined included:

- The PHA (DD form 3024),
- The Pre-Deployment Assessment (DD form 2795),

[25] COL Jacqueline Krogulski, "Total Force Readiness Access at MTFs," DAAR-MD, 2018.

- The Post Deployment Assessment (DD form 2796),
- The Post-Deployment Mental Health Assessment (DD form 2978), and
- The Post-Deployment Health Re-Assessment (DD form 2900).

Table 29 shows the volume of these services delivered in MTFs for ADSMs, activated RCSMs, and inactive RCSMs. The data indicate nearly 90 percent of these services are delivered to ADSMs, with inactive Service Members receiving only 3 percent of the Service volume.

Table 29. FY 2018 Volume of Readiness Services Delivered in MTFs

	ADSMs		Activated RCSMs		Inactive RCSMs		Total
Assessment	Volume	Pct	Volume	Pct	Volume	Pct	Volume
DD 3024	1,016,122	91%	75,686	7%	30,079	3%	1,121,887
DD 2795	197,437	81%	37,906	15%	9,623	4%	244,966
DD 2796	61,053	66%	30,228	33%	1,024	1%	92,305
DD 2978	50,756	97%	1,108	2%	684	1%	52,548
DD 2900	53,060	96%	1,020	2%	1,102	2%	55,182
Total	1,378,428	88%	145,948	9%	42,512	3%	1,566,888

Source: M2.

Table 30 shows the cost of these services. The dollar amounts spent on these services follow the same distribution as the service volume (e.g., active duty account for nearly 90 percent of the costs, while activated RCSMs account for roughly 10 percent and inactive roughly 3 percent).

Table 30. FY 2018 Cost of Readiness Services Delivered in MTFs

	ADSMs		Activated RCSMs		Inactive RCSMs		Total
Assessment	Cost	Pct	Cost	Pct	Cost	Pct	Cost
DD 3024	$161,069,639	91%	$13,054,491	7%	$2,546,920	1%	$176,671,050
DD 2795	$37,486,207	83%	$6,044,394	13%	$1,402,108	3%	$44,932,709
DD 2796	$7,965,544	78%	$2,174,666	21%	$55,669	1%	$10,195,879
DD 2978	$5,869,204	96%	$207,488	3%	$52,357	1%	$6,129,049
DD 2900	$6,479,266	97%	$162,219	2%	$53,866	1%	$6,695,351
Total	$218,869,860	89%	$21,643,258	9%	$4,110,920	2%	$244,624,038

Source: M2.

Table 31 presents the estimated average unit costs for ADSMs and active and inactive RCSMs. We also report the costs as a percentage of the overall average unit cost. We note

the unit cost of the PHA includes medical labs and any immunizations provided during the exam visit. We were unable to break these costs out separately.

Table 31. FY 2018 Unit Cost of Readiness Services Delivered in MTFs

	ADSMs		Activated RCSMs		Inactive RCSMs		Unit
Assessment	Unit Cost	Pct	Unit Cost	Pct	Unit Cost	Pct	Cost
DD 3024	$159	101%	$172	110%	$85	54%	$157
DD 2795	$190	104%	$159	87%	$146	79%	$183
DD 2796	$130	118%	$72	65%	$54	49%	$110
DD 2978	$116	99%	$187	161%	$77	66%	$117
DD 2900	$122	101%	$159	131%	$49	40%	$121
Total	$159	102%	$148	95%	$97	62%	$156

Source: M2.

To better understand the cause of lower unit costs for inactive RCSMs, we examined the total cost of these services across military Service. While inactive RCSMs accounted for relatively 2 percent of total costs across Services, we found the volume of services delivered by the Air Force was significantly higher—accounting for nearly 70 percent of all workload delivered to inactive RCSMs in MTFs. The Air Force also appears to show a lower overall unit cost for readiness services. The high volume of Air Force inactive RCSM services combined with the lower overall unit cost of these services appear to be the driving force for the lower overall unit cost for these services across the MHS. Appendix C contains this data analysis.

Due to the varied approaches for delivering dental services across the RCs, along with inconsistent capture of dental workload within the central medical reporting systems, we were unable to derive reliably the average cost of dental exams and dental treatments for RCSMs in MTFs. Additionally, the medical services reported above should be used with caution in that the Air Force is reporting a disproportionately larger volume of MTF workload relative to the Army Reserve/National Guard, which could indicate that those services may be under-reported in the central workload systems or offered more frequently in venues outside of the MTF (e.g., RHRP contract support).

4. External Sources

External services include medical services provided outside of DoD-run programs and facilities—essentially any care delivered by civilian sector providers. Recall that roughly 43 percent of RCSMs have healthcare coverage through non-DoD programs (e.g., employer-sponsored plans or a spouse's employer-sponsored plan). Another 8 percent are uninsured.

These individuals may receive IMR services through RHRP and/or the unit's organic capability. However, if they require treatment of some sort, they may be required to seek care from their civilian provider and provide documentation of the care for their medical readiness records. This could include civilian medical documentation provided for profiling/limited duty decisions, civilian medical documentation provided to inform the Integrated Disability Evaluation System or non-duty Physical Evaluation Board processes, or a DoD Dental Examination (DD2813) from a civilian dental provider (dental readiness).[26]

While care provided externally does not have a direct cost to DoD, there are costs associated with capturing the records.

[26] COL Peder Swanson, "Military Health System (MHS) Support to Reserve Component (RC) Service Members: Concept Plan to Operationalize a Responsive, Common Level of Support Through MHS Transformation" (OASD(HA), 2018).

5. Analysis of the Non-medically Ready Population

In this chapter we take a more in-depth look at the NMR population as well as the PMR and MRI populations. The analysis contains two parts:

- **An Aggregate Data Analysis Using Service-Component IMR Data.** This analysis identifies the volume of Reservists who are only PMR, MRI, or NMR by the main cause (e.g., they have a DLC, they require dental treatment, they require immunizations). A benefit of this data source is that it captures the entire reserve force and provides a strong indication of what type of services the Reservist needs to move into the FMR category (e.g., dental treatment, a PHA exam, immunizations). This information allows us to estimate the cost of closing IMR gaps. Disadvantages include (1) we cannot observe the exact medical condition (e.g., whether the DLC is a musculoskeletal issue, a chronic condition, a mental health issue), (2) we do not observe characteristics of the NMR (e.g., gender, rank, insurance status), and (3) individuals may be NMR in multiple categories (e.g., need immunizations and lab work) but we cannot observe this.
- **An Individual-Level Data Analysis Using PHA Data**. The PHA data provide detailed information on Reservists' medical conditions (physical and mental) as well as self-reported nutrition and exercise. One limitation of the data is that they do not constitute a 100 percent sample. The main sample used by the study team contains 808,184 individuals and 850, 929 total observations. A further breakout of the observations by Component is presented in Section B.1 of this chapter.

A. Aggregate Data Analysis

In Table 20, we presented data on the share of RCSMs falling into each IMR category (FMR, PMR, MRI, and NMR) and the overall TFMR rate by Service and Component. Here we begin by conducting a simple excursion to determine the number of RCSMs that would need to shift medical readiness categories in order to meet three benchmarks: the current 85 percent TFMR benchmark, a 90 percent TFMR benchmark, and the current AC TFMR rate (by Service). We then perform a deeper dive into the actual services and treatment types required by RCSMs who are not fully medically ready.

1. Readiness Benchmark Analysis

Individuals are deemed TFMR if they are FMR or PMR. Therefore, the RCs must shift individuals in the MRI or NMR categories to affect their TFMR rates. Here we explore the number of RCSMs that would need to change these categories to achieve different readiness benchmarks. Results are shown in Table 32. They indicate that a total of 3,433 RCSMs would need to shift from MRI/NMR status to meet the 85 percent benchmark. This number grows to nearly 27,000 to meet a 90 percent benchmark.[27] However, we note in most cases, the 90 percent benchmark is higher than the AC's observed medical readiness rate (or the AC benchmark). A total of roughly 19,000 RCSMs would need to shift from MRI/NMR status to mirror their respective Service's AC benchmark. Assuming we do not expect IMR rates to ever be 100 percent (e.g., there will always be some share of individuals with injuries/recovering, some share with administrative issues, etc.), the AC benchmark may represent a good target (or upper bound) for RC IMR benchmarks. This is because we expect AC service members to have better access to IMR services.

Table 32. Volume of RCSMs That Must Change IMR Status to Achieve Benchmarks

Service Component	85 Percent Benchmark	90 Percent Benchmark	AC Benchmark
Army National Guard	-	8,819	5,514
Army Reserve	-	4,635	2,793
Navy Reserve	-	1,991	2,105
Marine Corps Reserve	1,021	2,645	3,280
Air National Guard	-	3,380	1,738
Air Force Reserve	1,912	4,529	3,548
Coast Guard Reserve	500	807	(13)
Total	**3,433**	**26,807**	**18,965**

Source: Data is for April 2019.

2. Aggregate Analysis of the Non-FMR Population (PMR, MRI, and NMR)

As previously discussed, the aggregate Service-Component data also provide more detail on the readiness of RCSMs by categories such as PHA completion, immunizations, lab work, medical equipment, DLCs, and dental. Using these data, we construct estimates of the number of:

- **Needed Services**. For each Service-Component, we observe the number of RCSMs ready in each service category (immunizations, lab work, and medical

[27] At the time of this study, there was discussion of increasing the IMR benchmark to 90 percent. To our knowledge, this had not happened.

equipment). From these data we can infer how many still require one of these services. A challenge is that we cannot observe the number of services a unique individual requires. For instance, we know 34,693 ARNG members need immunizations and 23,289 need lab work, but we cannot tell how many of the individuals who need immunizations also need lab work.

- **Needed Exams**. For each Service-Component, we observe the number of RCSMs who have completed their PHAs. We can therefore infer how many still require a PHA. Similarly, we observe how many RCSMs do not have a current dental exam (DRC = 4). From this information we can determine the approximate number of PHAs and dental exams needed to shift Reservists from MRI to FMR or PMR status. Again, we can determine only the number of exams—not unique individuals.
- **Needed Treatments (or recovery time)**. For each Service-Component, we observe the number of RCSMs who are cleared of DLCs and that meet dental readiness standards (category 1 or 2). This allows us to determine the number of RCSMs who have a DLC (or multiple DLCs) and the number of Reservists who require urgent or emergent dental treatment (DRC = 3).

Table 33 totals the number of services, exams, and treatments needed across all RCs to (1) fully close the IMR gap (i.e., to have all RCSMs ready in each category), and (2) meet the AC benchmark.[28] The AC benchmark is category- and Service-specific (e.g., the Army AC has an immunization IMR rate of 98 percent and a PHA IMR rate of 97 percent). The category- and Service-specific benchmarks are used to calculate the number of RCSMs who would need to become ready in each category (by Component) to meet the AC benchmarks. The policy analysis presented in Chapter 6 will use the data in Table 33 to estimate the cost of improving IMR rates in different categories under different interventions.

[28] We exclude the provision of medical equipment from this analysis due to lack of data on Service- and occupation-specific equipment requirements and data on costs associated with providing medical equipment.

Table 33. Services, Exams, and Treatments Required to Meet Benchmarks

Service Component	Services: Delivery Will Not Impact TFMR		Exams: Delivery Will Impact TFMR		Treatment/Recovery: Delivery Will Impact TFMR	
	Close Gap	AC Benchmark	Close Gap	AC Benchmark	Close Gap	AC Benchmark
	Immunizations		PHA Exams		DLCs	
ARNG	34,693	27,930	10,615	2,543	23,202	2,748
USAR	21,167	17,399	6,730	2,233	12,027	632
USNR	4,986	1,916	3,719	2,194	2,913	882
USMCR	6,286	4,944	2,162	1,367	2,453	1,574
ANG	4,215	2,181	4,229	1,393	5,821	(764)
USAFR	3,828	2,612	4,709	3,013	4,607	670
USCGR	683	221	1,016	136	80	25
Total	**75,858**	**57,203**	**33,180**	**12,878**	**51,103**	**5,766**
	Medical Labs		Dental Exams		Dental Treatment	
ARNG	23,289	18,101	9,967	5,994	8,693	6,636
USAR	10,670	7,780	4,721	2,507	5,092	3,946
USNR	2,441	(483)	1,408	338	825	(86)
USMCR	2,726	1,722	2,255	1,825	1,629	883
ANG	1,553	993	3,811	2,401	924	202
USAFR	2,071	1,736	4,130	3,287	768	336
USCGR	560	6	558	11	98	69
Total	**43,310**	**29,854**	**26,850**	**16,362**	**18,029**	**11,986**

B. Individual-Level Data Analysis (PHA Data)

The previous section used aggregate administrative IMR data to summarize readiness at the Service and Component levels by general categories. A disadvantage of this data source was that we could not stratify by an individual's characteristics (i.e., age, gender, deployment history, or insurance status) or health status (e.g., what are the most common DLCs, how many do most NMR RCSMs have, and so on). These individual-level PHA data would allow more detailed analysis to advance our understanding of readiness.

1. PHA Sample Summary Statistics and IMR Rates

As the PHA sample data are panel survey data, we first present sample descriptive statistics. We also present summary level IMR rates, which are compared against aggregate administrative data. This helps determine how representative the individual-level PHA data is of the RC. It also serves as a verification of IMR rates reported from aggregate administrative data.

IDA received PHA data covering a three-year period. Some individuals had multiple observations both within a year and over the three-year period. For determining an individual's readiness status, IDA took their status from their last PHA for the year. Table 34 reports the number of total and unique observations for each data year. To avoid censorship of observation, IDA selected FY 2018 as the principal year for our analysis. In some instances, we use multiple years of data (and note accordingly).

Table 34. PHA Sample

	Observations		Unique Person Years	
Fiscal Year	**Count**	**Percent**	**Count**	**Percent**
2017	49,940	5.9%	49,907	6.2%
2018	429,759	50.5%	403,575	49.9%
2019	371,230	43.6%	354,702	43.9%
Total	850,929	100.0%	808,184	100.0%

Table 35 shows the total number of unique observations in the PHA data for FY 2018 by Service and Component. We compare the number of observations from the individual-level PHA data to the end strength reported in the administrative PHA data to understand the generalizability of the sample. The sample rate is above 50 percent for all Components with the notable exception of the Army Reserve, which is significantly underrepresented. Air Force RCSMs had the best representation in the individual PHA data.

Table 35. FY 2018 Sample

		PHA Sample		Administrative Sample	
Service	**Component**	**Unique Obs.**	**Percent**	**Unique Obs.**	**Sample Rate**
Army	AGR	44,250	11.0%	N/A	N/A
	Guard	136,408	33.8%	271,577	50.2%
	Reserve	20,808	5.2%	151,303	13.8%
Coast Guard	AGR	126	0.0%	N/A	N/A
	Reserve	3,948	1.0%	6,156	64.1%
Air Force	AGR	16,935	4.2%	N/A	N/A
	Guard	67,573	16.7%	87,530	77.2%
	Reserve	49,567	12.3%	52,338	94.7%
Marine Corps	AGR	683	0.2%	N/A	N/A
	Reserve	19,897	4.9%	32,487	61.2%
Navy	AGR	5,876	1.5%	N/A	N/A
	Reserve	37,504	9.3%	48,552	77.2%
Total		403,575	100.0%	649,943	62.1%

Next, we use the individual-level data to construct IMR rates to compare with the administrative data. Table 36 is broken out into three panels: Panel A shows IMR rates by Service and Component based on the individual-level PHA data, Panel B shows the IMR rates from the administrative data (previously reported in Table 20), and Panel C shows the differences between the individual and administrative IMR rates. The delta between the two samples ranges from 1 to 46 percent. While this is significant variation, the estimates of the non-ready rate are relatively consistent across all Components. This suggests that a binary comparison between ready and non-ready should be consistent across Services and Components. Overall, Navy and Marine Corps IMR rates are the most consistent across both data sources.

Table 36. Comparison of IMR Rates (2018)

Panel A – Individual-Level PHA Sample

Service	Component	Fully	Partial	Not Ready	Indeterminate
Army	AGR	77.7%	8.6%	6.7%	0.8%
	Guard	78.9%	8.0%	7.2%	0.7%
	Reserve	77.9%	9.2%	6.8%	0.9%
Coast Guard	AGR	66.7%	25.4%	6.3%	1.6%
	Reserve	30.3%	56.6%	4.3%	8.5%
Air Force	AGR	72.3%	24.0%	2.5%	1.2%
	Guard	65.3%	30.8%	2.5%	1.3%
	Reserve	68.4%	28.1%	2.5%	1.0%
Marine Corps	AGR	75.5%	12.7%	5.0%	5.3%
	Reserve	57.8%	23.6%	5.8%	12.1%
Navy	AGR	80.2%	9.8%	5.3%	2.1%
	Reserve	74.4%	13.3%	6.0%	3.5%
Total		**72.9%**	**16.9%**	**5.3%**	**1.8%**

Panel B – Administrative PHA Sample

Service	Component	Fully	Partial	Not Ready	Indeterminate
Army	AGR	N/A	N/A	N/A	N/A
	Guard	65.7%	21.1%	8.5%	4.8%
	Reserve	61.8%	25.2%	7.8%	5.3%
Coast Guard	AGR	N/A	N/A	N/A	N/A
	Reserve	66.0%	10.9%	1.1%	22.0%
Air Force	AGR	N/A	N/A	N/A	N/A
	Guard	78.9%	7.2%	7.1%	6.8%
	Reserve	76.1%	5.3%	9.5%	9.1%
Marine Corps	AGR	N/A	N/A	N/A	N/A
	Reserve	64.6%	17.3%	9.1%	9.0%
Navy	AGR	N/A	N/A	N/A	N/A
	Reserve	76.9%	9.0%	8.7%	5.4%
Total	**Guard and Reserve**	**68.2%**	**17.7%**	**8.2%**	**5.9%**

Panel C – Difference

Service	Component	Fully	Partial	Not Ready	Indeterminate
Army	AGR	N/A	N/A	N/A	N/A
	Guard	13.2%	-13.1%	-1.3%	-4.1%
	Reserve	16.1%	-16.0%	-1.0%	-4.4%
Coast Guard	AGR	N/A	N/A	N/A	N/A
	Reserve	-35.7%	45.7%	3.2%	-13.5%
Air Force	AGR	N/A	N/A	N/A	N/A
	Guard	-13.6%	23.6%	-4.6%	-5.5%
	Reserve	-7.7%	22.8%	-7.0%	-8.1%
Marine Corps	AGR	N/A	N/A	N/A	N/A
	Reserve	-6.8%	6.3%	-3.3%	3.1%
Navy	AGR	N/A	N/A	N/A	N/A
	Reserve	-2.5%	4.3%	-2.7%	-1.9%
Total	**Guard and Reserve**	**4.7%**	**-0.8%**	**-2.9%**	**-4.1%**

2. IMR Status by Characteristics

In this section, IDA takes a deeper dive into the characteristics of RCSMs stratifying by readiness status. To determine readiness status, IDA used the last-observed PHA for 2018. In subsequent analyses, IDA examines individuals who experience a change in status. We use a dichotomous definition of readiness: (1) "medically ready" if a Service Member is fully medically ready or partially medically ready, or (2) "non-ready" if a Service Member is not medically ready or medically indeterminate. Table 37 provides the demographic characteristics of our 2018 sample stratified by readiness status.

Table 37. Demographics of Individual-Level PHA Sample (2018)

	Ready		Not Ready		Total	
	Count	**%**	**Count**	**%**	**Count**	**%**
Age Categories						
18-24	83,986	89.9%	9,415	10.1%	93,401	23.1%
25-29	70,144	90.0%	7,789	10.0%	77,933	19.3%
30-34	64,231	90.3%	6,926	9.7%	71,157	17.6%
35-39	56,724	90.2%	6,147	9.8%	62,871	15.6%
40-44	34,729	89.9%	3,916	10.1%	38,645	9.6%
45-50	26,944	88.8%	3,417	11.3%	30,361	7.5%
50+	25,703	88.0%	3,504	12.0%	29,207	7.2%
Total	**362,461**	**89.8%**	**41,114**	**10.2%**	**403,575**	**100%**
Gender						
Male	293,541	90.1%	32,174	9.9%	325,715	80.7%
Female	68,920	88.5%	8,940	11.5%	77,860	19.3%
Total	**362,461**	**89.8%**	**41,114**	**10.2%**	**403,575**	**100%**
Pay Grade						
E1-E4	121,921	89.0%	15,137	11.0%	137,058	34.0%
E5-E9	172,184	89.6%	20,013	10.4%	192,197	47.6%
O1-O5	57,878	92.3%	4,806	7.7%	62,684	15.5%
O6-O10	4,155	93.2%	304	6.8%	4,459	1.1%
W1-W5	6,323	88.1%	854	11.9%	7,177	1.8%
Total	**362,461**	**89.8%**	**41,114**	**10.2%**	**403,575**	**100%**
Service						
Army	174,880	86.8%	26,586	13.2%	201,466	49.9%
Coast Guard	3,547	87.1%	527	12.9%	4,074	1.0%
Air Force	129,045	96.3%	5,030	3.8%	134,075	33.2%
Marines	16,794	81.6%	3,786	18.4%	20,580	5.1%
Navy	38,195	88.1%	5,185	12.0%	43,380	10.7%
Total	**362,461**	**89.8%**	**41,114**	**10.2%**	**403,575**	**100%**
Status						
Activated Guard or Reserve	60,520	89.2%	7,350	10.8%	67,870	16.8%
Guard	183,472	90.0%	20,509	10.1%	203,981	50.5%
Reserve	118,469	89.9%	13,255	10.1%	131,724	32.6%
Total	**362,461**	**89.8%**	**41,114**	**10.2%**	**403,575**	**100%**
Uninsured Rate	26,055	7.53%	3,557	8.89%	29,612	7.66%
Number of Deployments	Mean	SD	Mean	SD	Mean	SD
	.44	.84	.4	.79	.44	.83

Table 38 highlights differences between medically ready and non-ready populations. Older age, female gender, and lower pay grade are associated with a higher likelihood of a non-ready determination. An Air Force affiliation was associated with a much lower likelihood of being medically unready. Medically ready RCSMs had a slightly lower uninsured rate and were more likely to have deployed over the previous 5 years.

Table 38. Service and Component by Readiness Status

		Medically Ready		Non-Ready		Total
Service	**Component**	**Count**	**Percent**	**Count**	**Percent**	
Army	AGR	38,204	86.3%	6,046	13.7%	44,250
	Guard	118,542	86.9%	17,866	13.1%	136,408
	Reserve	18,134	87.1%	2,674	12.9%	20,808
Coast Guard	AGR	116	92.1%	10	7.9%	126
	Reserve	3,431	86.9%	517	13.1%	3,948
Air Force	AGR	16,310	96.3%	625	3.7%	16,935
	Guard	64,930	96.1%	2,643	3.9%	67,573
	Reserve	47,805	96.4%	1,762	3.6%	49,567
Marine Corps	AGR	603	88.3%	80	11.7%	683
	Reserve	16,191	81.4%	3,706	18.6%	19,897
Navy	AGR	5,287	90.0%	589	10.0%	5,876
	Reserve	32,908	87.7%	4,596	12.3%	37,504
Total		**362,461**	**89.8%**	**41,114**	**10.2%**	**403,575**

In Table 38, IDA presents readiness status stratified by Service and Component. The Air Force has the lowest percentage of medically non-ready RCSMs. The other Services have unready rates slightly higher than 10 percent. Overall, 10 percent of individuals were medically unready in this 2018 sample. While not presented here, these rates are largely consistent for 2019 as well.

3. DLC Analysis

Part IV "Medical Conditions (DLCs)" of the PHA exam asks the RCSM a series of questions about different medical conditions. The questions cover whether they have experienced certain conditions, whether the conditions have required care or affected their duty performance, or whether the conditions have resulted in a profile, etc. Below, we provide descriptive analysis from this portion of the PHA.

The first series of questions asks the Service Member about 26 different medical conditions. Specifically, for each condition the survey asks:

> Since your last PHA, have you experienced any of the following health conditions, and if so, what is your status:
>
> - NO/Does not apply to me
> - YES, but did NOT get medical care
> - YES, got medical care, but NO LONGER under treatment /follow-up
> - YES, and NOW under treatment /follow-up

Table 39 shows the frequency at which RCSMs answered "yes" to each condition (by status). Musculoskeletal problems, hearing problems, chronic headache, and hypertension have the highest prevalence overall. For the most part, conditions are distributed equally by status, but some conditions exhibit a higher prevalence among activated Guard or Reserve members. These include chest pain, high cholesterol, headache, hypertension, musculoskeletal pain, hearing problems, gastrointestinal problems, and dental disorders.

Table 39. Deployment-Limiting Conditions by Status (2018)

	Activated Guard or Reserve		Guard		Reserve		Total	
	Count	Prevalence	Count	Prevalence	Count	Prevalence	Count	Prevalence
Asthma	1,335	2.0%	2,546	1.3%	1,622	1.2%	5,503	1.4%
Blood Problems	324	0.5%	421	0.2%	359	0.3%	1,104	0.3%
Cancer	1,154	1.7%	1,647	0.8%	1,435	1.1%	4,236	1.0%
Chest Pain/Angina	2,439	3.6%	3,651	1.8%	2,346	1.8%	8,436	2.1%
Congestive Heart Failure	63	0.1%	101	0.1%	61	0.1%	225	0.1%
High Cholesterol	4,527	6.7%	6,721	3.3%	4,863	3.7%	16,111	4.0%
Diabetes	655	1.0%	985	0.5%	638	0.5%	2,278	0.6%
Dizziness, Fainting, or Loss of Consciousness	2,409	3.6%	3,938	1.9%	2,489	1.9%	8,836	2.2%
Chronic Headache or Migraine	7,030	10.4%	10,812	5.3%	7,242	5.5%	25,084	6.2%
Hearing Loss Impacting Duty	1,977	2.9%	4,263	2.1%	2,415	1.8%	8,655	2.1%
Cardiac Dysrhythmia or Arrhythmia	1,346	2.0%	1,989	1.0%	1,425	1.1%	4,760	1.2%
Hypertension	6,750	10.0%	10,990	5.4%	6,835	5.2%	24,575	6.1%
Immune System Dysfunction	249	0.4%	398	0.2%	306	0.2%	953	0.2%
Kidney Dysfunction	1,236	1.8%	1,899	0.93%	1,205	0.91%	4,340	1.1%
Liver Disease	251	0.4%	371	0.2%	285	0.2%	907	0.2%
Pulmonary Dysfunction	1,231	1.8%	2,328	1.1%	1,402	1.1%	4,961	1.2%
Chronic Muscle, Joint, or Low Back Pain	20,732	30.6%	34,674	17.0%	22,474	17.1%	77,880	19.3%
Neurological Problems	592	0.9%	853	0.4%	499	0.4%	1,944	0.5%
Tinnitus or Hearing Problems	10,211	15.0%	20,043	9.8%	12,687	9.6%	42,941	10.6%
Dermatologic Condition	3,347	4.9%	4,150	2.0%	3,190	2.4%	10,687	2.6%
Gastrointestinal Problems	5,378	7.9%	7,916	3.9%	5,109	3.9%	18,403	4.6%
Tuberculosis	326	0.5%	601	0.3%	699	0.5%	1,626	0.4%
Traumatic Brain Injury	1,346	2.0%	3,007	1.5%	1,735	1.3%	6,088	1.5%

	Activated Guard or Reserve		Guard		Reserve		Total	
	Count	Prevalence	Count	Prevalence	Count	Prevalence	Count	Prevalence
Tooth or Gum Disease	3,327	4.9%	5,914	2.9%	3,608	2.7%	12,849	3.2%
Vision Loss Impacting Duty	1,134	1.7%	1,420	0.7%	1,585	1.2%	4,139	1.0%
Wheezing or Shortness of Breath	2,320	3.4%	4,485	2.2%	2,564	2.0%	9,369	2.3%

RCSMs may report conditions in this section that have not been classified as DLCs in their IMR status. To further explore this possibility, we report the frequency that RCSMs answered "yes" to each question by whether the RCSM is classified as ready or not ready. These results are presented in Table 40.

Table 40. Deployment Limiting Conditions and Readiness Status

	Ready		Not Ready	
Condition	**Count**	**Percent**	**Count**	**Percent**
Asthma	4,151	1.15%	1,352	3.29%
Blood Problems	767	0.21%	337	0.82%
Cancer	3,389	0.93%	847	2.06%
Chest Pain/Angina	6,178	1.70%	2,258	5.49%
Congestive Heart Failure	123	0.03%	102	0.25%
High Cholesterol	13,256	3.66%	2,855	6.94%
Diabetes	1,519	0.42%	759	1.85%
Dizziness, Fainting, or Loss of Consciousness	6,155	1.70%	2,681	6.52%
Chronic Headache or Migraine	19,133	5.28%	5,951	14.47%
Hearing Loss Impacting Duty	6,390	1.76%	2,265	5.51%
Cardiac Dysrhythmia or Arrhythmia	3,519	0.97%	1,241	3.02%
Hypertension	19,891	5.49%	4,684	11.39%
Immune System Dysfunction	596	0.16%	357	0.87%
Kidney Dysfunction	3,399	0.94%	941	2.29%
Liver Disease	623	0.17%	284	0.69%
Pulmonary Dysfunction	3,755	1.04%	1,206	2.93%
Chronic Muscle, Joint, or Low Back Pain	63,584	17.54%	14,296	34.77%
Neurological Problems	1,106	0.31%	838	2.04%
Tinnitus or Hearing Problems	34,882	9.62%	8,059	19.60%
Dermatologic Condition	8,699	2.40%	1,988	4.84%
Gastrointestinal Problems	14,416	3.98%	3,987	9.70%
Tuberculosis	1,383	0.38%	243	0.59%
Traumatic Brain Injury	4,362	1.20%	1,726	4.20%
Tooth or Gum Disease	10,370	2.86%	2,479	6.03%
Vision Loss Impacting Duty	3,365	0.93%	774	1.88%
Wheezing or Shortness of Breath	6,879	1.90%	2,490	6.06%

Next, we focus specifically on the population of RCSMs classified as non-ready. Among these 41,114 personnel, we summarize the mean number of deployment-limiting

conditions by their statuses in Table 41. Activated Guard and Reserve have the most DLCs on average, while Guard has slightly more than Reserve.

Table 41. Mean Number of Conditions among the Non-ready

	Mean	SD	Individuals
Activated Guard and Reserve	2.11	2.69	7,350
Guard	1.61	2.35	20,503
Reserve	1.24	2.04	13,255
Total	1.58	2.34	41,114

Interestingly, RCSMs who have insurance coverage either through TRICARE or other insurance are twice as likely to report having a DLC that is under treatment relative to the uninsured (16.3 percent vs 8.4 percent). DLC treatment rates are similar between TRICARE and other insurance (16.2 percent and 16.3 percent, respectively). We note, however, that these are unadjusted rates that do not account for the differences between the insured and uninsured populations highlighted in Table 16.

An important question is to understand which conditions are most strongly associated with a non-ready determination. This can help illuminate which conditions are the biggest contributors to non-ready determinations. To achieve this aim, we use a logistic regression model of readiness, with the outcome being a non-ready determination. We also control for age, sex, insurance status, and year as covariates in this model. Table 42 presents the adjusted odds ratios (ORs) for each of the 26 DLCs with accompanying 95 percent confidence intervals. An adjusted OR is a measure of association between an exposure and an outcome that controls for suspected confounders.

Table 42. Logistic Regression Readiness Model (2018)

Condition	Odds Ratio	Confidence Interval	
		Lower Bound	Upper Bound
Asthma	1.46	1.36	1.57
Blood Problems	1.52	1.31	1.76
Cancer	1.40	1.29	1.53
Chest Pain/Angina	1.28	1.20	1.36
Congestive Heart Failure	1.34	0.95	1.89
High Cholesterol	1.10	1.04	1.15
Diabetes	2.71	2.46	3.00
Dizziness, Fainting, or Loss of Consciousness	1.36	1.28	1.44
Chronic Headache or Migraine	1.35	1.29	1.40
Hearing Loss Impacting Duty	1.28	1.20	1.35
Cardiac Dysrhythmia or Arrhythmia	1.29	1.20	1.40
Hypertension	1.48	1.42	1.54
Immune System Dysfunction	2.39	2.05	2.80
Kidney Dysfunction	1.25	1.15	1.36
Liver Disease	1.31	1.11	1.55
Pulmonary Dysfunction	1.10	1.02	1.19
Chronic Muscle, Joint, or Low Back Pain	1.83	1.78	1.88
Neurological Problems	2.45	2.20	2.72
Tinnitus or Hearing Problems	1.21	1.17	1.25
Dermatologic Condition	0.95	0.89	1.00
Gastrointestinal Problems	1.19	1.14	1.25
Tuberculosis	0.90	0.77	1.05
Traumatic Brain Injury	1.43	1.33	1.52
Tooth or Gum Disease	1.17	1.11	1.23
Vision Loss Impacting Duty	0.85	0.78	0.93
Wheezing or Shortness of Breath	1.25	1.18	1.33

Based on this model, diabetes, immune system dysfunction, neurological problems, and chronic musculoskeletal pain have the greatest association with medical non-readiness. For example, reporting chronic muscle, joint, or low back pain has 1.79 times the odds of a non-ready determination relative to those without musculoskeletal pain. These conditions could become targets for clinical intervention to improve readiness.

Policymakers are primarily concerned with conditions associated with failing to meet readiness requirements. One way to better understand these conditions is by examining RCSMs who experience a change in status. This can help illuminate which conditions are the biggest threats to maintaining readiness or which conditions are most easily fixed. To test this question, we restrict the sample to individuals who had two PHAs within four quarters over our study period. We then run two separate logistic regressions modeling

readiness controlling for age, sex, insurance status, and year to calculate the odds ratios of each condition. One regression models a loss of readiness among the population of RCSMs who went from ready to non-ready. The other regression is run on the population of RCSMs who went from non-ready to ready. To expand the sample, we use all years available for this analysis (resulting in a sample of 299,725 individuals with two PHAs within four quarters). Figure 8 provides an intuitive depiction of the switching analysis and the sample sizes of switchers. In this sample, 6.6 percent of ready individuals became non-ready within four quarters. Similarly, nearly 80 percent of non-ready individuals were returned to a ready state within four quarters.

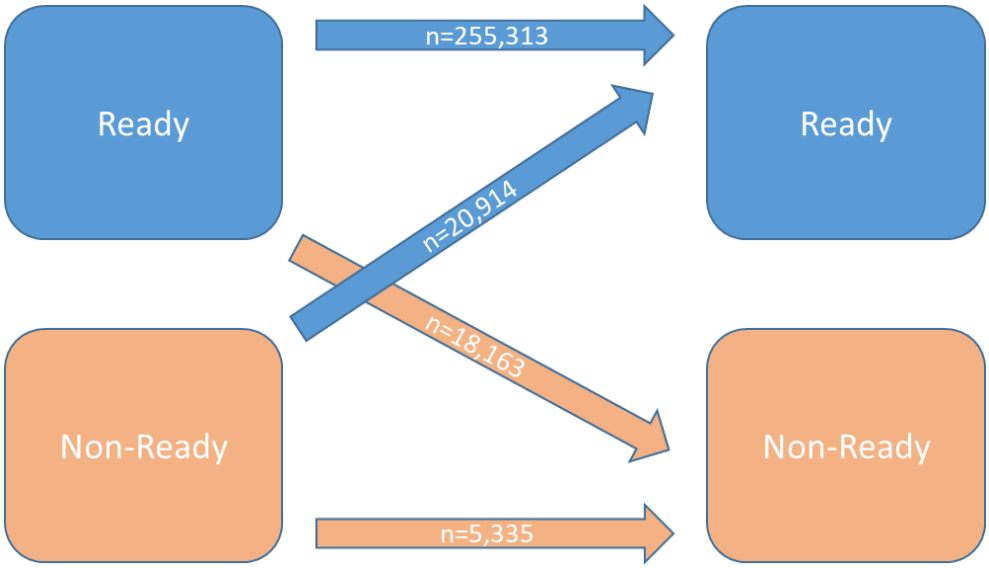

Figure 8. Overview of Switching Analysis

Odds ratios and accompanying 95 percent confidence intervals are presented in Table 43. We present both regressions in a single table for easy comparison.

Table 43. Logistic Readiness – Switching Analysis

	Ready to Non-Ready			Non-Ready to Ready		
		Confidence Interval			Confidence Interval	
	Odds Ratio	Lower Bound	Upper Bound	Odds Ratio	Lower Bound	Upper Bound
Asthma	1.5	1.33	1.69	0.80	0.67	0.96
Blood Problems	1.14	0.87	1.49	0.95	0.67	1.35
Cancer	.97	0.83	1.14	0.95	0.76	1.19
Cardiac Dysrhythmia or Arrhythmia	1.12	0..96	1.27	0.93	0.77	1.13
Chest Pain/Angina	1.12	1.00	1.25	0.77	0.67	0.90
Chronic Headache or Migraine	1.39	1.30	1.48	0.78	0.71	0.87
Chronic Muscle, Joint, or Low Back Pain	1.54	1.47	1.60	0.62	0.57	0.66
Congestive Heart Failure	0.35	0.15	0.82	0.44	0.21	0.91
Dermatologic Condition	1.05	0.96	1.15	0.99	0.85	1.16
Diabetes	1.87	1.55	2.25	0.49	0.39	0.62
Dizziness, Fainting, or Loss of Consciousness	1.12	1	1.24	0.84	0.73	0.98
Gastrointestinal Problems	1.23	1.15	1.32	0.80	0.72	0.90
Hearing Loss Impacting Duty	1.25	1.12	1.39	0.86	0.74	1.01
High Cholesterol	1.15	1.06	1.24	0.85	0.75	0.98
Hypertension	1.48	1.39	1.57	0.78	0.70	0.87
Immune System Dysfunction	1.65	1.23	2.21	0.36	0.26	0.51
Kidney Dysfunction	1.14	.99	1.31	1.06	0.85	1.32
Liver Disease	0.93	0.66	1.29	0.92	0.62	1.38
Neurological Problems	1.44	1.15	1.80	0.45	0.36	0.58
Pulmonary Dysfunction	.98	0.85	1.13	0.93	0.76	1.14
Tinnitus or Hearing Problems	1.19	1.13	1.26	0.78	0.71	0.85
Tooth or Gum Disease	1.17	1.08	1.27	0.93	0.81	1.06
Traumatic Brain Injury	1.25	1.11	1.41	0.75	0.63	0.89
Tuberculosis	0.90	0.71	1.14	1.19	0.79	1.77
Vision Loss Impacting Duty	0.95	0.82	1.10	1.06	0.85	1.32
Wheezing or Shortness of Breath	1.21	1.09	1.35	0.8	0.69	0.93

For the ready to non-ready regression, conditions with higher odds ratios are more likely to have a non-ready determination in the following PHA. For example, among those who went from ready to non-ready within a year, those with a diagnosis of diabetes in the first PHA had 1.87 times the odds of being non-ready in their next PHA. For this regression, diabetes, musculoskeletal problems, immune system dysfunction, and asthma had the greatest impact to readiness.

For the non-ready to ready regression, conditions with higher odds ratios are more likely to have a ready determination in the following PHA. Based on intuition, these are conditions that should more easily be remediated or clinically managed within a year's time. For example, among those who went from non-ready to ready within a year, those with tuberculosis in their first PHA had 1.19 times the odds of being ready by their next PHA. For this regression, tuberculosis, vision loss, and kidney dysfunction had the highest odds ratios, although they were not statistically significant. Alternatively, congestive heart failure, immune system dysfunction, and neurological problems had some of the lowest odds ratios, which follows intuition, as these are chronic conditions.

4. Mental Health and IMR Status

Mental health is a priority topic for policymakers. With the structure of the Reserve Corps, it can be challenging to follow Service Members through the continuum of behavioral healthcare services. However, the PHA is a valuable screening tool to identify at-risk individuals for intervention. Providers ask Service Members a battery of screening questions that inform a decision for a referral to behavioral or mental healthcare providers. Based on the totality of the screening questions, a provider determines if a referral is warranted. IDA uses these referrals as a surrogate for individual screening questions which may be affected by small and inconsistent sample sizes. An individual is counted if they were referred for follow-up care at any point during 2018. Care should be exercised when scrutinizing the relative percentage of referrals. Missing data makes control totals and accurately estimating percentages challenging. Nevertheless, this analysis could generate important hypotheses for future analyses.

In Table 44, we present results summarizing the number of provider referrals for each mental health concern stratified by readiness status.

Table 44. Provider Referrals for Mental Health (2018)

	Ready		Not Ready	
Condition	**Count**	**Percent**	**Count**	**Percent**
Mental Health	2,618	1.93%	1,466	20.99%
PTSD	2,024	1.50%	1,255	18.34%
Depression	1,694	1.26%	1,198	17.78%
Alcohol Use	874	0.65%	364	5.93%
Self-Harm Risk	122	0.09%	180	2.95%
Violence Risk	42	0.03%	49	0.82%

All mental health disorders or risk factors exhibit a higher prevalence (as measured through the proxy of referrals) among the medically non-ready. The non-ready population had over 10 times the percentage of referrals for mental health, post-traumatic stress disorder (PTSD), and depression. Collectively, these results suggest that mental health is a priority area for future analysis and policy development. Mental health and depression exhibit a strong bi-directional relationship with other chronic illnesses. An individual with depression has a higher risk for developing other medical conditions, and individuals with other medical conditions are at higher risk for depression.[29] We explore these relationships in Table 45. First, we create an indicator for any mental health-related referral in 2018. An individual who received a referral for mental health, PTSD, depression, alcohol use, self-harm risk, or violence was considered to have received "Any Mental Health Referral." In 2018, 6,562 individuals received at least one mental health referral out of the 403,575 individuals in our sample.

[29] National Institute for Mental Health, "Chronic Illness and Mental Health," https://www.nimh.nih.gov/health/publications/chronic-illness-mental-health/index.shtml.

Table 45. Mental Health Referrals and DLC Prevalence

	No Mental Health Referral		Any Mental Health Referral	
Condition	**Count**	**Prevalence**	**Count**	**Prevalence**
Asthma	5,199	1.31%	304	4.63%
Blood Problems	1,033	0.26%	71	1.08%
Cancer	4,098	1.03%	138	2.10%
Chest Pain/Angina	7,694	1.94%	742	11.31%
Congestive Heart Failure	208	0.05%	15	0.26%
High Cholesterol	15,470	3.90%	641	9.77%
Diabetes	2,175	0.55%	103	1.57%
Dizziness, Fainting, or Loss of Consciousness	7,904	1.99%	932	14.20%
Chronic Headache or Migraine	23,168	5.84%	1,916	29.20%
Hearing Loss Impacting Duty	7,868	1.98%	787	11.99%
Cardiac Dysrhythmia or Arrhythmia	4,411	1.11%	349	5.32%
Hypertension	23,559	5.93%	1,016	15.48%
Immune System Dysfunction	903	0.23%	50	0.76%
Kidney Dysfunction	4,129	1.04%	211	3.22%
Liver Disease	825	0.21%	82	1.25%
Pulmonary Dysfunction	4,614	1.16%	347	5.29%
Chronic Muscle, Joint, or Low Back Pain	74,455	18.75%	3,425	52.19%
Neurological Problems	1,770	0.45%	174	2.65%
Tinnitus or Hearing Problems	40,559	10.23%	2,342	35.69%
Dermatologic Condition	10,032	2.35%	655	9.98%
Gastrointestinal Problems	17,220	4.34%	1,183	18.03%
Tuberculosis	1,577	0.40%	49	0.75%
Traumatic Brain Injury	5,613	1.41%	475	7.24%
Tooth or Gum Disease	12,197	3.07%	652	9.94%
Vision Loss Impacting Duty	3,759	0.95%	380	5.79%
Wheezing or Shortness of Breath	8,575	2.16%	794	12.10%

Among those who received a mental health referral, the prevalence of DLCs is universally higher. Some conditions such as congestive heart failure, immune system dysfunction, and tuberculosis exhibit similar rates irrespective of receiving a referral. Other conditions are more worrisome. Over 50 percent of individuals who received a mental health referral are experiencing chronic musculoskeletal pain. Over 30 percent of individuals have hearing problems or suffer from chronic headaches. Other conditions exhibit prevalence rates over five times higher among those who received a mental health referral. These conditions include chest pain, dizziness or fainting, and shortness of breath. While these data are only cross-sectional, the magnitude of the effects warrants further examination by policymakers.

5. Using the PHA for RCSM Medical Surveillance

One objective of this study was to gain a deeper understanding of the medical conditions, particularly the DLCs, present among the non-medically ready population. While the analysis presented in Sections B.3 and B.4 of this chapter made progress in this area, the overly broad DLC categories made this difficult. For instance, we were unable to group DLCs into categories such as "acute injury" versus "chronic medical condition." We were also unable to determine the likely severity of medical conditions in categories such as "Blood Problems" or "Neurological Problems." More detailed data with standardized diagnostic codes would improve the Department's ability to monitor the health and medical readiness of RCSMs.

Standardized and validated data fields extracted from PHA exams would facilitate a population health approach to the medical surveillance of RCSMs. With a centralized database of RCSM PHA data and minimal effort from an analyst, a medical surveillance system could monitor trends in DLCs (e.g., incidence of disease, disease burden, prospective identification of high-risk individuals), health system performance in relation to RCSM readiness (e.g., time to referral, cost, conversion percentage from non-ready to ready), and administrative outcomes (e.g., IMR rate, number of required services in the next 30 days). At higher levels of command, a population health approach could provide early warning of future readiness challenges for the force. At lower levels of command, the medical surveillance of individuals would provide early identification of those at high risk of a non-ready determination for proactive intervention. Through a system of automated and centralized data capture, a dashboard for senior and unit leadership could provide a concise and actionable picture of Service Member health and readiness. This dashboard should ideally have cascading metrics that tie unit-level metrics and measures of health to population measures at higher echelons of command. Without such a system, monitoring the population health and medical readiness of RCSMs will remain a challenge.

While the PHA provides a valuable source of data on service member medical readiness, we also recommend that IMR status data be added to the administrative DMDC personnel data records.[30] Including IMR data in DMDC personnel records would allow for more detailed analysis of medical readiness by personnel characteristics, military profession, unit details, and more. DMDC personnel records can also be linked to health data available in Military Health System data repository.

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[30] A 2012 study by RAND also made this recommendation. Marygail K. Brauner, Timothy Jackson, and Elizabeth Gayton, "Medical Readiness of the Reserve Component," Santa Monica, CA: RAND Corporation, 2012, https://www.rand.org/pubs/monographs/MG1105.html.

6. Policy Analysis

We considered two broad categories of interventions for addressing RCSM medical readiness: (1) improving access to care (both medical and dental), (2) and administrative/management reform options.

A. Improving Access to Care

RCSMs who are not fully medically ready generally require IMR services, an IMR exam (either medical or dental), treatment (medical treatment if they have a DLC or dental treatment if they are dental class 3), or some combination of these things (see analysis in Chapter 4).

Access to care can be improved by expanding RCSMs' access to programs and/or facilities where they can receive needed IMR services (e.g., expanding RHRP, making it easier for RCSMs to get services in MTFs, having more organic medical capability available to deliver exams). These sorts of interventions will have the most direct impact on RCSM readiness because they specifically target IMR services. Another possible intervention is expanding access to general healthcare through expanded insurance coverage (i.e., reducing costs of TRS, incentivizing uninsured members to take up civilian insurance, etc.). This type of intervention may help uninsured (or underinsured) Reservists obtain care for DLCs requiring treatment (if lack of coverage or high costs were preventing them from seeking this care). However, general healthcare coverage will not improve access to certain IMR services that must be delivered within DoD. It will also not address dental issues—separate dental plans are typically required for dental coverage.

In the following policy option cost and benefit discussions, we will consider what it might cost to close these IMR gaps or meet the AC benchmark under different policy options. The estimates should be viewed as illustrative—providing a rough order of magnitude (ROM) or probable cost range. We will discuss limitations associated with policy-specific estimates further in their respective sections.

1. Expand RHRP

RHRP delivers IMR services, IMR exams (the PHA, dental exams, and several other deployment-related exams), and dental treatments. Treatment for medical conditions is not delivered via this program.

Expansion of RHRP could take several forms. The Components could choose to increase the annual number of RHRP group events, expand the services provided though

the program (i.e., the Army appears to be the only Service using RHRP for dental work), or replace IMR services provided by the unit's organic capability with services provided by RHRP contractors. The costs and benefits of this type of expansion are explored further below.

a. Costs of Expanding RHRP

To assess the costs associated with this type of expansion, we produce rough estimates of what it would cost to meet the AC benchmark identified in Table 27. We note the estimates should be viewed as providing a ROM, and not exact cost calculations.[31]

For the purpose of this analysis, we construct weighted average unit costs for the provision of PHA exams, immunizations, lab services, and dental treatments through RHRP.[32] Estimated unit costs and the total costs required are shown in Table 46. Estimates indicate that at current RHRP unit costs, the services required to meet the AC readiness benchmark could be purchased for under $10 million. We note there is no total cost estimate for medical treatments. This is because medical treatments are not delivered through RHRP (and average unit costs are therefore not available).

Table 46. Estimated Cost of Purchasing IMR Services through RHRP

IMR Service	Weighted Average Unit Cost	AC Benchmark
PHA	$95	$1,229,040
Immunization	$27	$1,531,275
Lab	$30	$891,376
Dental Exam	$60	$979,185
Dental Treatment*	$327	$3,918,945
Total		**$8,549,821**

*Only Army RCs use RHRP to provide dental treatments.

b. Benefits of Expanding RHRP

A primary benefit of the RHRP program is that it directly addresses IMR by providing IMR-specific services (PHAs, immunizations, dental exams, etc.). Additional benefits of expanding RHRP are cost effectiveness and convenience for RCSMs. Increasing RHRP

[31] Program utilization and unit costs were based on data collected over the 2014 to 2018 period when LHI administered the RHRP contract. A new contractor was awarded the RHRP contract in 2020.

[32] Average service unit RHRP costs vary by Service and Component due primarily to differences in service volume. Costs were based on data provided covering the FY 2014 to 2018 period.

utilization may also free up training time for medical RCSM personnel who were previously used to deliver IMR services on drill weekends.

2. Expand Access to MTFs

MTFs are also capable of delivering the IMR services required by RCSMs as well as dental and medical treatment. However, as previously discussed, MTF access has historically been based on TRICARE eligibility. Inactive Reservists have therefore not traditionally sought IMR services from the MTFs. This could change under ongoing MHS reforms that seek to increase the role of MTFs as readiness platforms.

When exploring how MTFs could be used to reduce medical readiness gaps, we must consider not only cost but capacity and convenience. MTFs treat a large TRICARE beneficiary population, which includes ADSMs, their family members, and the eligible retiree population. If MTFs were to increase the volume of services provided to RCSMs while holding their capacity constant, care to other beneficiary groups would have to be transferred to the purchased care network. Convenience-wise, Reservists may not live close to an MTF. We estimate that approximately 51 percent of Reservists live in ZIP codes located within 40 miles of a hospital or clinic MTF (if we exclude clinics, only 20 percent are within 40 miles).

a. Costs of Expanding MTF Access

In Chapter 4, we reported the average cost of a PHA exam (DoD 3024) delivered in an MTF. The average total cost, which included required lab work and immunizations, was estimated to be roughly $160. In RHRP, on the other hand, these items were costed separately ($95 for exam, $27 for labs, and $30 for immunizations—$152 total). This suggests the costs of providing IMR services through MTFs are likely similar to RHRP costs (at least when capacity is available).

b. Benefits of Expanding MTF Access

Expanding RCSM access to MTFs would increase the options available for obtaining IMR services available (at least for those residing within a reasonable distance of an MTF). If RCSMs only booked appointments on a space-available basis (i.e., utilizing excess capacity at facility), the cost effectiveness of this option would be high. If appointments were scheduled outside of drill weekends, training time would not be interrupted as it is with organic provision of care of group RHRP events.

To further facilitate RCSM use of MTFs for IMR services, the DHA should ensure RCSMs will not be turned away from facilities due to confusion over their eligibility for care. A new patient category may be required (i.e., inactive Reservists eligible for PHA and other IMR services only) to ensure these individuals are not turned away. Information on facility capacity to treat RCSMs and their priority should also be determined.

3. Expand TRICARE Benefits for RCSMs

In Chapter 3, we covered RCSM use of different TRICARE benefits, including the active duty benefit available to activated RCSMs, transitional benefits, and the premium-based TRS program offered to inactive members of the SELRES. The discussion focused largely on eligibility, enrollment, and user costs. Here we consider two policy options that would expand this coverage: (1) a free or reduced-premium TRS benefit, and (2) a TRICARE for All benefit. The details of these options are further developed below.

To model the potential costs of expanding TRICARE access, we require three key factors: (1) the size and composition of the eligible user population, (2) take rates (the share of the eligible population expected to take the benefit), (3) and estimated user costs. These factors will vary based on the policy option.

a. Free or Reduced-Premium TRS Scenarios

For the TRS policy option, we consider two simplistic scenarios. These scenarios are illustrative and meant to provide ROM cost estimates for different policies. In scenario 1, TRS is offered to RCSMs premium-free, but family members will face a premium equal to the current family premium less the single plan premium. In scenario 2, TRS is offered to RCSMs and their families premium-free. For both scenarios, the current coinsurance rates still apply.[33] Data on the eligible user population and user costs are presented in Appendix B.[34] To estimate the cost of these scenarios, we must make assumptions about the take rates.

Take rates will be a function of the premium or enrollment fee and coinsurance rates—if the cost is zero, take rates would be expected to increase dramatically. RCSMs using other civilian insurance coverage through employers or spouses will likely switch to TRICARE to avoid the higher premium and out-of-pocket costs. While many would likely switch, some will still prefer to stay with the higher cost civilian options due to non-price plan attributes (provider networks, perceived quality or access differences, etc.) Because it is difficult to estimate take rates when the RCSM's alternative healthcare options and family income level is unknown, we will consider a range of take-rate scenarios that will provide upper and lower bounds.

There are also two implicit assumptions behind this analysis. First, we are assuming that the average user costs for new takers will be the same as the average costs incurred by the current users by beneficiary type (RCSM or dependent) and rank group (e.g., a new junior enlisted member will cost the same on average as junior enlisted members currently

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[33] Changing co-pays and coinsurance rates affect utilization, which affects total user costs. If these OOP costs were reduced, we would expect utilization to rise along with total user costs.

[34] More specifically, we use inactive population totals reported in Table B-5.

using the benefit). Second, we are assuming the average family size for new takers will be the same as the family size of the using populations within rank groups (e.g., family sizes for junior enlisted members will be the same on average as junior enlisted families currently using the benefit).

Table 47 shows the cost estimates for scenarios 1 and 2. We also present status quo costs for the TRS program. We report the total costs (user costs less premium revenue) for ease of presentation. For scenario 1, our baseline estimate finds it would cost approximately $2 billion to extend TRS premium-free to all RCSMs while continuing to charge dependents. This represents a net cost increase from the status quo of approximately $1.4 billion (recall DoD was already covering nearly 140,000 RCSMs). Baseline estimates are based on a 75 percent take rate. The upper bound estimate (100 percent take rate) shows a net cost increase of $2 billion, while the lower bound (50 percent take rate) is $700 million. For scenario 2, we estimate it would cost approximately $2.5 billion to extend premium-free TRS to all RCSMs and dependents (a net cost increase from the status quo of approximately $2 billion). These cost estimates do not account for potential increases in TRICARE program overhead. If a large number of new beneficiaries took up the TRS benefit, program overhead costs would be expected to increase. Additional overhead expense would cover management of the larger beneficiary population and expanding the TRICARE network of providers. Appendix D contains more details on the calculations including the number of RCSMs, family size assumptions, and cost elements.

Table 47. TRS Scenarios (in Millions)

Status Quo	Total Cost to DoD		
RCSMs	$186		
Dependents	$441		
Total	**$627**		
Scenario 1: No premium for RCSM; family pays premium			
	Baseline (75% take-rate)	**Lower (50% take-rate)**	**Upper (100% take-rate)**
RCSMs	$882	$588	$1,176
Dependents	$1,149	$766	$1,532
Total	**$2,031**	**$1,354**	**$2,709**
Change from Status Quo	**$1,404**	**$727**	**$2,082**
Scenario 2: No premium for RCSM or family			
	Baseline (75% Take-rate)	**Lower (50% Take-rate)**	**Upper (100% Take Rate)**
RCSMs	$882	$588	$1,176
Dependents	$1,670	$1,114	$2,227
Total	**$2,553**	**$1,702**	**$3,403**
Change from Status Quo	**$1,926**	**$1,075**	**$2,776**

Note: We report the total cost to DoD (the user cost less any premium revenue). OOP costs are not included.

A key consideration for this analysis is distinguishing between new healthcare coverage versus the substitution it would create (the volume of RCSMs who would drop civilian-provided insurance and opt into TRS). Under the status quo, there are approximately 620,000 RCSMs eligible for TRS (e.g., inactive RCSMs). Approximately 140,000 RCSMs (or 22 percent) currently chose to enroll in the program. The remainder of the eligible population are either covered by civilian insurance or uninsured. Based on the 8 percent uninsured rate from the PHA survey data, we estimate there are nearly 50,000 uninsured Reservists. If the 50,000 uninsured RCSMs all took up the benefit, another 275,000 RCSMs would also need to enroll (i.e., switch from civilian coverage) to attain the 75 percent take rate. This suggests that offering a premium-free TRS option would generate more substitution (from civilian insurance to DoD insurance) relative to new coverage (uninsured becoming insured). It would also result in the loss of premium revenue from the 140,000 RCSMs that were already purchasing the benefit.

Given that the uninsured are highly concentrated among the junior enlisted, a more targeted approach might be to waive premiums only for junior enlisted and their families. We estimate this would increase costs by roughly $500 million at a 75 percent take rate or

about $750 million at a full 100 percent take rate.[35] Waiving premiums for all enlisted RCSMs and their dependents is estimated to increase costs by approximately $1.5 billion (at a 75 percent take rate) or $2.2 billion (at a 100 percent take rate).[36]

It should be noted that a premium-free TRS benefit for RCSMs would still require members to face some OOP costs. Under the current program, TRS users also face an annual deductible and co-pays and/or coinsurance rates for different types of services (i.e., outpatient, urgent care, emergency, mental health, etc.).[37] The 2019 catastrophic cap was $1044 per family.

b. TRICARE for All

Under the TRICARE for All scenario, RCSMs would be eligible for the TRICARE benefit regardless of their activation status. Family members would also be eligible for the benefit. No premiums or enrollment fees are required and OOP costs are very limited (same as current TRICARE benefit for active duty and activated RCSMs).

To estimate the costs associated with this policy option, we again require estimates of the eligible user population and average user costs. These data are found in Appendix B.[38] We also require take rate assumptions and the same implicit user cost and family size assumptions.

Table 48 shows the cost estimates for the TRICARE for All scenario. We report the total costs for ease of presentation. The status quo for this scenario is the cost of covering the total current RCSM user population (and their dependents). This includes both active RCSMs and inactive RCSMs, including the TRS population. Because the benefit is more generous and the population includes both active and inactive RCSMs, we expect higher take rates than we would in the TRS scenarios. We use 75 percent as the lower bound, 85 as the baseline, and 100 percent as the upper bound.

Our baseline estimate finds it would cost roughly $4.3 billion to offer TRICARE to all RCSMs and their dependents. This represents a net cost increase from the status quo of approximately $2.1 billion (recall DoD was already covering approximately 160,000 activated RCSMs and their eligible dependents plus several inactive user groups—TAMP/Early/TRS). These individuals would now all be eligible for the TRICARE for All benefit. Baseline estimates are based on a 85 percent take rate. The upper bound estimate

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[35] The take rates are applied only to junior enlisted for this calculation – we assume status quo take rates for the other rank groups.

[36] Take rates are applied only to junior and senior enlisted for this calculation – we assume status quo take rates for other rank groups.

[37] See "Copayments & Cost-Shares," TRICARE, https://www.tricare.mil/Costs/HealthPlanCosts/TRS for deductibles and coinsurance rates by product line.

[38] More specifically, we use data on the total RCSM population contained in Table B-5.

(100 percent take rate) shows a net cost increase of nearly $3 billion while the lower bound (75 percent take rate) is $1.6 billion.

Table 48. TRICARE for All (in Millions)

Status Quo	Total Cost to DoD		
Active	$1,365		
TRS (net premiums)	$627		
Other IGR	$212		
Total	**$2,204**		
Scenario 1: TRICARE for All RCSMs and Dependents			
	Baseline (85% Take Rate)	**Lower (75% Take Rate)**	**Upper (100% Take Rate)**
RCSMs	$2,600	$2,294	$3,059
Dependents	$1,737	$1,532	$2,043
Total	**$4,337**	**$3,827**	**$5,102**
Change from Status Quo	**$2,133**	**$1,623**	**$2,898**

4. Discussion of Policy Options

We considered four primary policy options. The first two options, expanding RHRP and expanding RCSM access to MTFs for IMR services, focus on providing RCSMs with the necessary IMR services to meet medical readiness requirements (e.g., exams, medical services, and dental treatments). As these are more tailored options, they are expected to cost much less. We note that these options are not mutually exclusive. The Department could not only purchase additional IMR services through RHRP, but also expand RCSM access to MTFs where excess capacity exists. The second two options are expected to cost significantly more than the first (up to 300 times costlier). These options provide RCSMs (and their dependents) with a comprehensive health benefit rather than just IMR services. While RCSM access to DoD-provided healthcare would improve, it is unclear if these options would result in significant improvements to readiness. IDA's analysis of PHA data did not show large differences in medical readiness rates between the insured and uninsured populations. The costs and benefits of the four policy options are summarized in Table 49.

Table 49. Summary of Benefits and Costs of Policy Options

Option	Benefits	Cons/Costs
Expand RHRP	• Targets IMR/readiness services • Program is easily scalable to meet needs • Convenient for RCSMs • Cost-effective	• Low cost – $9M to match AC IMR rates • Does not currently provide treatment for DLCs
Expand RCSM MTF Access for IMR Services	• Targets IMR/readiness services • Convenient for RCSMs who live near MTF • Cost effective if excess capacity in MTFs • Easier referrals for needed care	• Low cost – similar to RHRP • MTF capacity constraints may limit volume of IMR services available through this channel • Could displace other MTF beneficiary care • Some RCSMs may have to travel significant distances to MTF
Premium-Free TRS	• Provides comprehensive health benefit • Potential recruitment/retention benefits • Expected to reduce uninsured • Improved continuity of care	• High cost – $1.5B to $4B • Would require larger TRICARE network – increased admin/overhead costs • Does not guarantee readiness
TRICARE for All	• Potential benefits for health surveillance • Potential recruitment/retention benefits • Expected to reduce uninsured • Largely removes the need for RCSM to transition back and forth between health plans • Improved continuity of care	• High cost – $4B to $5B • Would require larger TRICARE network – increased admin/overhead costs • Does not guarantee readiness

B. Minor Administrative/Management Reform Options

In this section, we discuss several minor administrative and management reform items that were highlighted in discussion with RC leadership and/or observed during the course of this study.

1. Access to Joint Legacy Viewers

As many RCSMs may have served on AD prior to coming to the RC, these Service Members may already have a robust history of prior or ongoing medical conditions treated in the MHS or VHA. A recognized best practice in the AF Reserve/National Guard was use of the Joint Legacy Viewer (JLV) to review medical histories during PHAs to ensure

full screening for medical conditions that may limit RSCM deployability. Broadening use of the JLV for medical personnel in the other RCs would provide an additional source of medical information to ensure RCSMs do not have prior medical conditions that could preclude them from deployment not revealed during routine PHA screenings. And while some deployment processing centers have JLV access, this capability should also be broadly available for advance screening of RCSMs before reporting for duty to prevent unplanned losses due to unrecognized medical limitations.

2. Strong Medical Screening

RC units span a broad range of personnel, organizational structures, and medical support capabilities. Medical screening of RCSMs across this diverse landscape can be challenging for units with little organic medical support or located in geographically remote areas. Even in areas where organic or commercial medical services are available, inconsistent medical screening practices of RCSMs can lead to instances of Service Members failing to meet deployment eligibility criteria due to a previously unidentified medical condition. While the RC has made enormous improvements in medical readiness reporting, sustained and reliable enforcement of medical screening requirements along with enhanced verification tools will be required to ensure personnel reporting for deployment are, in fact, truly medically deployable without formerly overlooked or undisclosed medical conditions.

3. Standardize Medical Mobilization Processing Data

The medical challenges associated with mobilization processing of RCSMs cannot be understated, as discussed in Chapter 4. Varied and evolving COCOM medical eligibility criteria along with the multiple sources of medical readiness services discussed in Chapter 3 present unique challenges to mobilization processing centers charged with preparing RCSMs for deployment. To provide sound feedback to RC units and to better measure mobilization processing performance of RCSMs, standardized data should be centrally collected and made available to better identify and track DLCs identified during mobilization. Standardized diagnosis, treatment, and disposition data generated within and across mobilization processing centers could provide RC leaders with important foundational health information to support delivery of targeted readiness services that could prevent or identify DLCs in advance of mobilization. Such data could also support development of tailored unit screening or treatment services to address health conditions that may not have been otherwise evident until mobilization processing. Over time, reliable standardized reporting and RC actions to systematically address issues identified should reduce mobilization-processing failures or reduce the need for medical waivers with COCOMs.

7. Summary of Findings and Recommendations

A. Summary of Findings

Below we summarize findings in several key areas. These include (1) findings on RCSM healthcare coverage and RCSM use of TRICARE programs, (2) findings on IMR rates for RCSMs, (3) findings on the NMR RCSM population, and (4) findings on policy options for addressing medical readiness shortfalls.

1. RCSM Healthcare Coverage and Use of TRICARE Programs

- **RCSMs transition back and forth between civilian healthcare coverage and TRICARE as their eligibility changes.** The eligibility of RCSMs and their families for DoD-provided healthcare (i.e., TRICARE) is tied to their activation status (or their decision to purchase the premium-based TRS coverage when inactive).
- **RCSMs currently make up a relatively small share of the enrolled TRICARE beneficiary population.** Specifically, we estimate RCSMs account for only about 4 percent of TRICARE enrollees, while their dependents account for another 6 percent. Approximately half of the RCSMs enrolled in a TRICARE benefit are activated. The other half are in an inactive status—primarily using the premium-based TRS.
- **RCSMs also account for a relatively small share of TRICARE costs.** Specifically, RCSMs account for about 3 percent of total healthcare spending, while their dependents account for another 4 percent.
- **We estimate it costs DoD approximately $1,300 annually to provide the TRS benefit to an RCSM and $6,900 to provide the TRS benefit to an RCSM's family.** These costs are net of estimated premium revenues. They are based on the cost of care delivered to TRS beneficiaries in the MTFs and in the purchased care network. They do not include program overhead.
- **We estimate it costs DoD approximately $4,000 annually to provide the TRICARE benefit to activated RCSMs (and $9,000 to provide it to an RCSM's family).** Activated RCSMs do not pay premiums. OOP costs are very limited (less than TRS program).

- **The premium-based TRS benefit is very affordable relative to other civilian options available to inactive RCSMs.** Specifically, purchasing TRS is roughly 60 percent less expensive than the cost of enrolling in the average employer-sponsored health benefit and up to 80 percent less expensive than the cost of purchasing an unsubsidized plan on the state-run health insurance exchanges. The plan is also much less expensive on average than the plans offered to federal employees (including Mil Techs) through FEHB.
- **Some RCSMs are uninsured.** Data from the PHA survey indicated roughly 8 percent of RCSMs are uninsured. If we translate this rate to the total inactive SELRES population, we estimate there are approximately 50,000 uninsured RCSMs. The uninsured are heavily concentrated among the junior enlisted. They are also more likely to serve in the Army or Marine Corps.
- **NMR RCSMs were slightly more likely to be uninsured.** The uninsured rate among the medically ready RCSM population was 7.5 percent versus 8.9 percent for the non-medically ready. This difference was small but statistically significant. In addition, RCSMs who have insurance coverage either through TRICARE or other insurance are twice as likely to report having a DLC that is under treatment relative to the uninsured (16.3 percent vs 8.4 percent).
- **RCSM TRICARE eligibility and benefits have increased multiple times over the last 20 years.** Major expansions include the introduction of the TRS program in 2005, the expansion of TRS eligibility in 2007, and the introduction of the TRR program (for retired members of the SELRES), extending the early eligibility benefit to 180 days (from 90 days), and removing the ban on Mil Techs from the TRS program.

2. Individual Medical Readiness Findings

- **Over the past decade, the RC as a whole made significant gains in TFMR rates.** The overall RC TFMR increased from 62 percent to 88 percent between 2010 and 2019—a percentage improvement of nearly 40 percent. The gains were driven largely by the Army Reserve Components—both the ARNG and the USAR saw TFMR rates improve by over 60 percent. TFMR rates for the USMCR and ANG also increased (by 10 percent and 1 percent, respectively). TFMR rates for the Navy, Air Force, and Coast Guard Reserve decreased over this period.
- **Almost all RCs met the current 85 percent TFMR benchmark.** As of April 2019, only the Marine Corps Reserve, Air Force Reserve, and Coast Guard Reserve had readiness rates below the 85 percent benchmark (82, 81, and 77 percent, respectively).

- **RCSM medical readiness is lower that AC medical readiness—but not by much.** The TFMR rate was 88 percent. The AC averaged 89 percent, while the RC averaged 86 percent.
- **Multiple avenues are used to deliver IMR services to RCSMs.** RCSMs receive the IMR services through four primary channels. These include having medical personnel organic to one's unit deliver services, receiving services from the contractor-run RHRP program, receiving services in the MTFs, and receiving care externally (from civilian providers). Within and across Services, Reserve and Guard units appear to rely on differentiated mixes of organic and RHRP care. The data indicate the Navy and Air Force have more medical providers organic to their Reserve/Guard units and are more likely to use them to deliver IMR services like PHA exams.
- **Access to the MTFs is generally predicated on TRICARE eligibility.** Inactive Reservists face challenges receiving medical readiness services in MTFs, even though Service policies have provided ad hoc access. Currently, the volume of IMR services delivered to activated and inactive RCSMs in the MTFs is low. For instance, we estimate over 90 percent of PHAs delivered in the MTFs were for AC Service Members. Active RCSMs accounted for 7 percent of PHAs and inactive RCSMs only 1 percent.
- **RHRP has grown over time and continues to do so.** Between FY 2014 and FY 2018, the RHRP program grew both in terms of the volume of services it provided and total cost. The biggest growth areas were in deployment service (i.e., pre- and post-deployment examinations and mental health examinations, audio and visual exams, etc.) and the Other Services category, which includes dental treatments. We estimate spending on the program increased by roughly 40 percent over the period of study (from $118 million in 2014 to nearly $170 million in 2018). Inclusive in these costs were no-show/cancellation fees, which ranged from $6 million to $9 million a year. A new $1 billion RHRP contract was awarded in 2020 to provide services through 2025 (or roughly $200 million per year).[39] This program is primarily line-funded (outside of the DHP).

[39] "Contracts for March 26, 2020," Department of Defense, https://www.defense.gov/Newsroom/Contracts/Contract/Article/2127392/#QTC032620.

- **IMR does not fully capture whether an RCSM will be deemed medically ready to deploy.**

3. **Non-medically Ready RCSM Findings**
   - **Relatively few RCSMs need to switch from a non-medically ready status to meet the current TFMR benchmark of 85 percent.** We estimate approximately 3,500 RCSMs would have to change their readiness status to fully meet the current 85 percent IMR benchmark.
   - **Meeting a 90 percent TFMR benchmark would be more difficult than meeting the current AC readiness level.** We estimate approximately 19,000 RCSMs would need to change their readiness status to meet the current AC medical readiness rates. However, nearly 27,000 RCSMs would need to change their readiness status to meet a 90 percent benchmark.
   - **To improve TFMR rates, RCSMs must complete needed exams (e.g., the PHA or dental exams) or undergo treatment (for DLCs or dental conditions).** We estimate approximately 13,000 PHAs and 16,000 dental exams are required to bring RCSMs up to the AC benchmark in the needed exam category. Similarly, we estimate approximately 6,000 RCSMs must recover from DLCs and 12,000 must receive dental treatments to meet the AC benchmarks in the needed treatment categories.
   - **A handful of chronic conditions disproportionately affects readiness.** Musculoskeletal pain, cardiovascular disease, and chronic conditions collectively have the biggest impact on medical readiness after adjusting for age, sex, and multiple DLCs. These categories of conditions should be prioritized for intervention by policymakers.
   - **Mental health may be a significant driver or byproduct of non-medical readiness.** Using mental health referrals as a proxy, those who had mental health concerns have a disproportionate burden of DLCs. Prevalence of DLCs within this population reached 50 percent in some cases. Service Members who received a mental health referral were at much higher risk for DLCs up to a factor of seven. Policymakers should conduct in-depth analysis with the appropriate data to better understand the bi-directional relationship between mental health and physical disease. The effectiveness of interventions would benefit from a better understanding of whether mental health disorders are a byproduct or cause of physical diseases affecting readiness.

4. Policy Options Findings

- **There are multiple ways to improve RCSM access to IMR services and medical care in general.** These include expanding the use of the RHRP program, delivering more service in MTFs, delivering more services organically, and expanding healthcare coverage benefits. The first three options will be more cost effective as they target IMR-specific services as opposed to providing a comprehensive health benefit to both RCSMs and their dependents.
- **We estimate it would cost roughly $9 million in the RHRP program to purchase the services, exams, and dental treatments required to bring RCSM IMR rates to parity with their respective AC IMR rates (for these categories).** These costs do not include the costs of addressing medical DLCs. RHRP does not provide treatment for medical conditions. Furthermore, average costs of treatments would be highly variable given the range of medical conditions reported by RCSMs.
- **Providing IMR services in MTFs may be cost effective and convenient for RCSMs when facilities have excess capacity available.** The Department should consider creating a new patient eligibility category (i.e., inactive RCSM eligible for IMR services) to ensure RCSMs are not incorrectly prevented from scheduling services due to eligibility barriers.
- **We estimate that offering a premium-free TRS benefit would increase costs between $1 billion and $3 billion.** The range is based on take rate assumptions and whether the premium-free benefit is extended to eligible dependents. We suspect that offering this benefit would generate more substitution (from civilian insurance to DoD coverage) than new coverage (from no insurance to DoD coverage). To reduce costs and target the uninsured, DoD could offer a premium-free benefit to junior enlisted (and their dependents) only. We estimate this would cost $500 million to $750 million.
- **We estimate a TRICARE-for-All benefit would cost between $4 billion and $5 billion, depending on take rate.** However, the net cost increase would be smaller ($2 billion to $3 billion), given this benefit would cover those currently covered due to activation and those currently enrolled in TRS. We do not assume any reduction in RHRP utilization under a TRICARE-for-All benefit. Again, this option would generate more substitution (from civilian insurance to DoD coverage) than new coverage (from no insurance to DoD coverage).

- **The cost of extending TRICARE coverage is based on current average care costs and does not reflect potential increases in overhead costs.** The TRICARE network is sized to serve the current beneficiary population. Large increases in the enrolled user population would likely require changes to the network. This would likely require time and additional overhead expense.

B. Recommendations

A major finding of this study is that IMR rates among RCSMs have greatly improved over the last decade. Today, RCSMs have IMR rates only slightly below those of the AC (although there is some variation across Services and Components). Reporting on RCSM medical readiness has also improved. The adoption of a standardized PHA and the quarterly IMR rate reporting has enabled easier IMR monitoring and cross Service-Component comparison. To further improve IMR analysis, we recommend that IMR data be incorporated into the DMDC personnel data. Including IMR data in DMDC personnel records would allow for more detailed analysis of medical readiness by personnel characteristics, military profession, unit details, and more. DMDC personnel records can also be linked to health data available in the MHS data repository. We were able to use the PHA to study medical readiness by certain personnel characteristics, but DMDC data with IMR status would allow for a more thorough investigation.

To address remaining RCSM IMR shortfalls in a cost-effective manner, the Department should utilize delivery channels that directly target the six factors that determine IMR status (PHAs, dental exams, DLCs, immunizations, medical labs, and medical equipment checks). The RHRP, unit organic medical capability, and the MTFs are examples of channels that directly address IMR shortfalls. RCs currently rely on a mix of these options and should continue to do so based on Component- and unit-specific factors (e.g., amount of organic medical capability, ease of access to MTF, etc.). To optimize the mix of delivery channels, policymakers should consider cost-effectiveness, convenience for the RCSM, and opportunity costs (i.e., loss of training time for medical exams).

Providing a "premium-free TRICARE Reserve Select" or a "TRICARE for All" benefit to inactive RCSMs would not be a cost-effective way to address medical readiness. Rather than targeting the NMR population and/or the uninsured, these options would offer a benefit to the entire RCSM population and their dependents. This is estimated to increase healthcare costs by several billion dollars without guaranteeing improvements in medical readiness. While these options may offer additional recruiting and/or retention benefits, they cannot be recommended as a cost-effective way to improve RCSM medical readiness. Further study is needed to determine their impact on recruitment/retention.

Finally, there is area for improvement in capturing and reporting data on RCSM medical readiness. First, an individual's IMR status does not fully determine whether they will be deemed medically deployable when they are mobilized. We learned that RCSMs

with a green IMR status are sometimes disqualified from deploying (or found to require a waiver) for medical reasons. For instance, a pre-deployment medical screening might turn up a new or previously unreported injury, condition, and/or treatment regimen that prevents the RCSM from deploying. In other cases, a COCOM or specific AOR might also impose a stricter medical standard. We were unable to obtain standardized data on these occurrences. We recommend the RCs adopt a standardized framework for reporting on the incidence of medical deployment disqualifications and medical waiver requirements. Second, we found the more standardized PHA presents an opportunity to move towards a population health approach to the medical management of the RC. We recommend the RCs use these data to build a medical surveillance system that can monitor trends in DLCs, health system performance in relation to medical readiness, and administrative outcomes.

Appendix A.
Reserve Component Background

This appendix contains deployment data supplementing the analysis presented in Chapter 2. Chapter 2 contained data on deployment load at the Component level. Figure A-1 through Figure A-4 show deployment load trends by Component for each Service over the last 20 years.

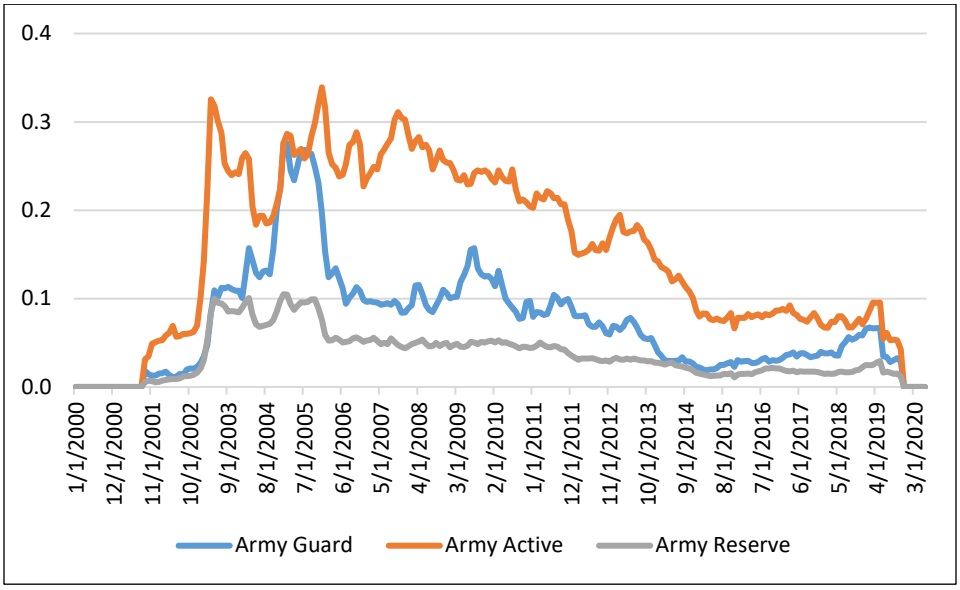


Figure A-1. Army Deployment Load by Component, 2000 to 2021

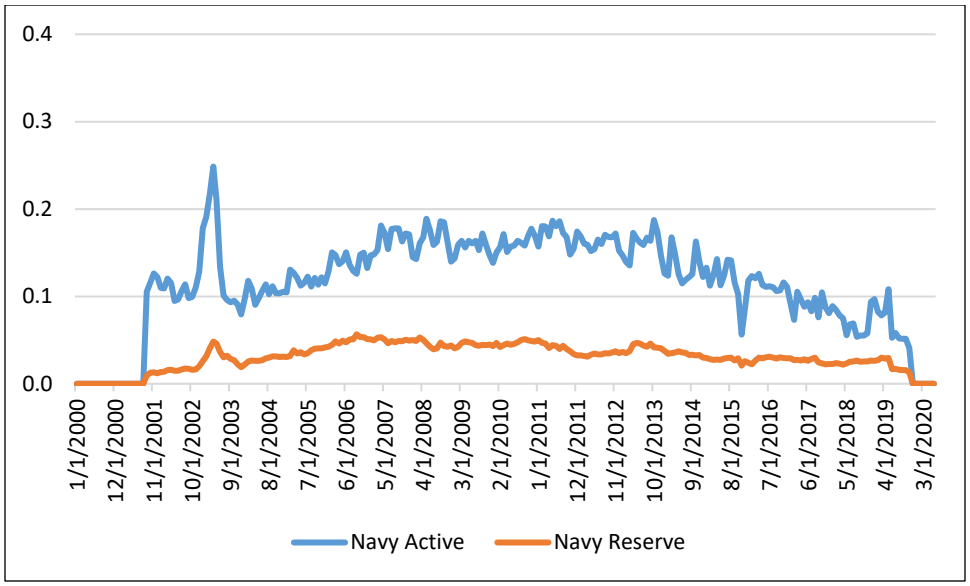


Figure A-2. Navy Deployment Load by Component, 2000 to 2020

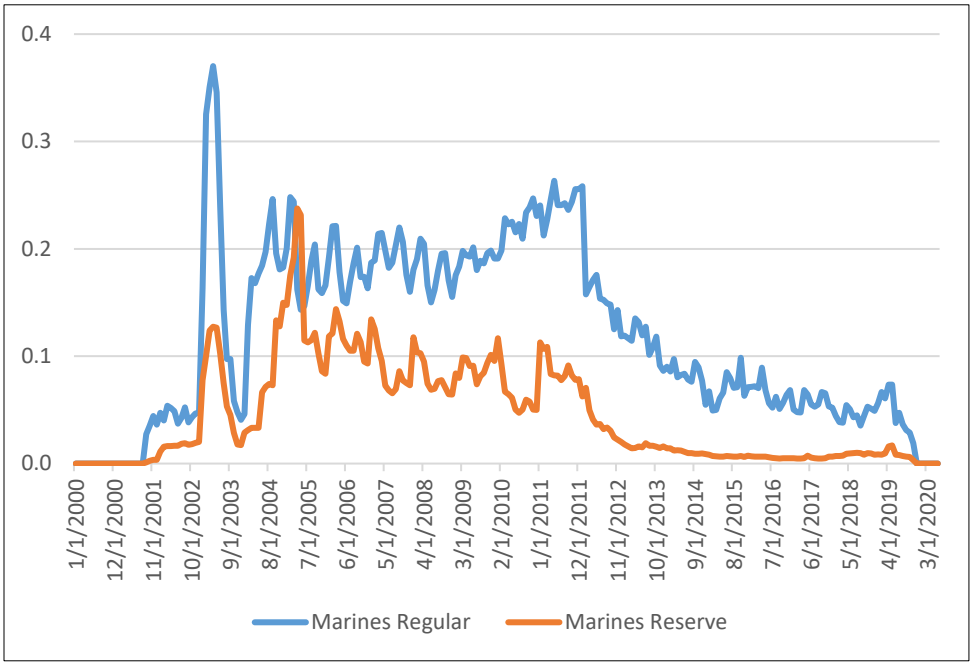


Figure A-3. Marine Deployment Load by Component, 2000 to 2020

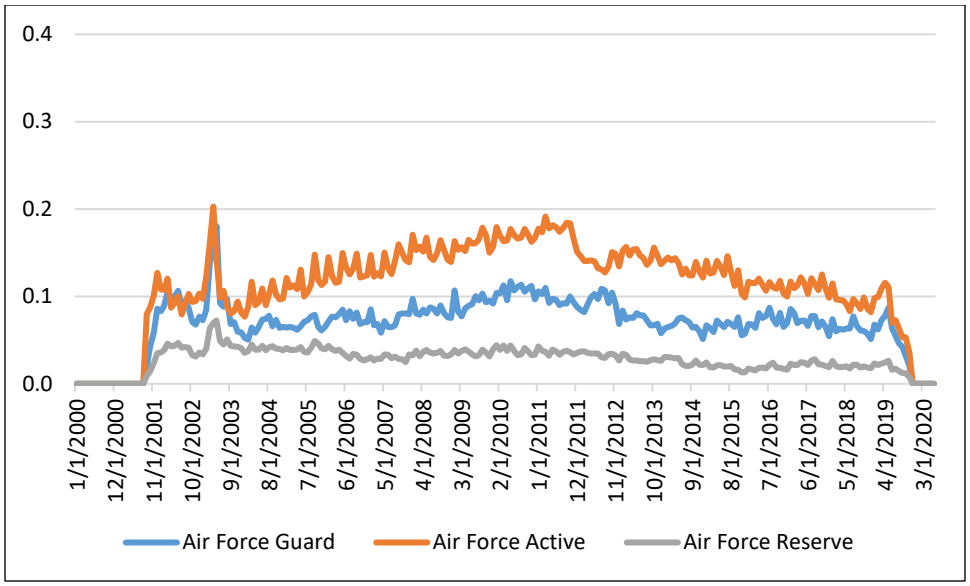


Figure A-4. Air Force Deployment Load by Component, 2000 to 2020

Appendix B.
Understanding RCSM Healthcare Coverage

This appendix contains data supporting the analyses presented in Chapter 3.

RCSM TRICARE Enrollment

Table B-1 summarizes enrollment for RCSMs participating in a TRICARE benefit in FY 2018.

Table B-1. RCSM MHS Eligible Population in FY 2018

Beneficiary Category	Sponsors	Dependents	Total	% Total
Guard/Reserve	165,635	276,281	441,916	47.7%
Inactive Guard/Reserve	184,956	299,374	484,330	52.3%
Total	**350,591**	**575,655**	**926,246**	
Inactive Guard/Reserve Beneficiaries by Program				
Early Alert	15,579	4,731	20,310	4.2%
TAMP	25,688	35,367	61,055	12.6%
TRS	139,347	240,122	379,469	78.3%
Other	4,342	19,154	23,496	4.9%
Total	**184,956**	**299,374**	**484,330**	

Source: M2 DEERs.

TRICARE Costs for Inactive RCSMs

Within the inactive population, costs also appear to vary significantly by enrollment category as determined by grouped Health Care Delivery Program (HCDP) code. Table B-2 shows the average cost of covering the inactive population by enrollment program (Early Alert, Other, TAMP, and TRS). As 2018 was the first year of the TAMP program, some program participation may have been unevenly collected between the TAMP and Early Alert categories.

Table B-2. Inactive Guard/Reserve Healthcare Costs by Program in FY 2018

	FY 2018			
	Beneficiary Category IGR			
HCDP – Enrolled+	**Early Alert**	**Other**	**TAMP**	**TRS**
PC Ambulatory	$16,633,489	$5,340,817	$10,245,308	$163,016,616
PC Institutional	$5,210,846	$1,381,531	$2,886,807	$40,186,519
DC Ambulatory	$23,484,366	$5,638,791	$6,301,678	$14,761,594
DC Inpatient	$3,016,493	$424,718	$596,747	$2,949,274
Pharmacy – DC, PC, TMOP	$2,959,256	$1,320,876	$1,667,355	$43,144,529
Total Cost	$51,304,450	$14,106,733	$21,697,893	$264,058,533
Population Count	22,001	4,342	25,688	139,347
Cost Per Beneficiary	**$2,332**	**$3,249**	**$845**	**$1,895**

RCSM Dependent TRICARE Costs

Table B-3 displays the dependent costs of active, RCSM, and inactive RCSM family members.

Table B-3. Family Member Healthcare Costs in FY 2018

	FY 2018		
	Beneficiary Categories		
HCDP	**ADFM**	**RCFM**	**IRCFM**
PC Ambulatory	$2,283,027,603	$369,562,074	$474,109,862
PC Institutional	$849,940,885	$105,673,662	$163,715,518
DC Ambulatory	$2,242,557,792	$92,071,707	$14,210,445
DC Inpatient	$771,526,658	$24,329,656	$7,069,200
Pharmacy – DC, PC, TMOP	$359,081,690	$95,697,155	$138,361,786
Total Cost	**$6,506,134,628**	**$687,334,255**	**$797,466,810**
Population Count	1,699,725	276,281	299,374
Cost Per Beneficiary	**$3,828**	**$2,488**	**$2,664**

Table B-4 shows the dependent cost for inactive RCSMs by their enrollment plan. Dependents enrolled in TRS appear to be costlier on average than those covered by transitional Early Alert or TAMP programs.

Table B-4. Inactive Family Member Healthcare Costs by Program in FY 2018

	FY 2018			
	Beneficiary Category IDG			
HCDP - Enrolled+	Early Alert	Other	TAMP	TRS
PC Ambulatory	$16,026,673	$15,705,199	$26,697,631	$415,680,360
PC Institutional	$12,581,160	$4,707,646	$8,239,066	$138,187,646
DC Ambulatory	$1,848,355	$2,486,761	$3,003,842	$6,871,486
DC Inpatient	$1,562,973	$676,918	$1,139,474	$3,689,835
Pharmacy - DC, PC, TMOP	$4,204,548	$5,540,250	$7,546,953	$121,070,034
Total Cost	**$36,223,709**	**$29,116,774**	**$46,626,966**	**$685,499,360**
Population Count	13,573	19,154	35,367	240,122
Cost Per Beneficiary	**$2,669**	**$1,520**	**$1,318**	**$2,855**

Eligible User Populations

The eligible user population for the TRS benefit and the premium-free or reduced premium TRS is all inactive RCSMs and their families. The eligible user population for the TRICARE for All benefit would be all RCSMs and their families. Table B-5 shows the estimated number of RCSMs in each eligible population by family status.

Table B-5. Estimated Eligible User Population

	TRS Benefits		TRICARE for All Benefit	
	Inactive RCSMs		All RCSMs	
Eligible Users	Single	Family	Single	Family
JE	194,587	63,918	252,059	82,796
SE	69,340	189,558	89,820	245,545
JO	18,050	28,012	23,381	36,286
SO	5,697	40,400	7,379	52,332
WO	1,400	8,374	1,813	10,847
Total	**289,073**	**330,262**	**374,452**	**427,806**

Source: Data on the eligible user population comes from DMDC. We use October 2018.

Average User Costs by Rank Group

To better understand the cost of expanding TRICARE benefits, we examined the cost of covering the current populations using the TRS and TRICARE benefits. We construct the average costs to DoD of covering RCSMs and RCSM dependents from M2 data by summing up the total cost of care and pharmaceuticals delivered to these users. (They do

not include cost-shares paid by beneficiaries.) These DoD costs are shown in Table B-6. We show the average costs paid by the beneficiaries in the final column.

We find the average cost of care delivered to an RCSM is roughly $1,900 annually, while the average cost for a dependent is $2,800. Costs vary by the RCSM's rank group.

Table B-6. TRS User Costs, FY 2018

Cost Category	Total Cost	Users	Cost per User	OOP per User
Member Cost	**$263,113,926**	**139,347**	**$1,888**	**$190**
JE	$77,089,367	39,782	1,938	$179
SE	$124,398,520	66,800	1,862	$197
JO	$27,246,302	15,925	1,711	$190
SO	$30,428,200	14,967	2,033	$194
WO	$3,951,537	1,873	2,109	$189
Dependent Cost	**$672,617,413**	**240,120**	**$2,801**	**$196**
JE	$123,370,498	38,069	$3,241	$190
SE	$363,157,252	130,331	$2,786	$200
JO	$78,827,347	28,689	$2,748	$194
SO	$95,343,755	38,651	$2,467	$189
WO	$11,918,562	4,380	$2,721	$200
Total	**$935,731,339**	**379,467**	**$2,466**	**$194**

The costs for the activated RCSM population are shown in Table B-7. We find the average cost of care delivered to an RCSM is roughly $4,000 annually while the average cost of a dependent is $2,000. Costs vary by the RCSM's rank group—especially between junior and senior cohorts among enlisted and junior and senior cohorts among officers.

Table B-7. Activated RCSM User Costs, FY 2018

Cost Category	Total Cost	Users	Cost per User	OOP per User
Member Cost	**$674,276,922**	**165,616**	**$4,071**	**$1**
JE	$129,165,345	44,065	$2,931	$0
SE	$390,073,254	87,134	$4,477	$1
JO	$41,809,574	12,602	$3,318	$1
SO	$94,894,475	17,433	$5,443	$1
WO	$18,334,273	4,382	$4,184	$1
Dependent Cost	**$553,662,437**	**276,276**	**$2,004**	**$92**
JE	$35,835,659	19,541	$1,834	$91
SE	$368,004,504	182,157	$2,020	$89
JO	$40,676,736	20,265	$2,007	$105
SO	$89,531,790	44,348	$2,019	$98
WO	$19,613,749	9,965	$1,968	$96
Total	**$1,227,939,359**	**441,892**	**$2,779**	**$58**

Dental Coinsurance Rates

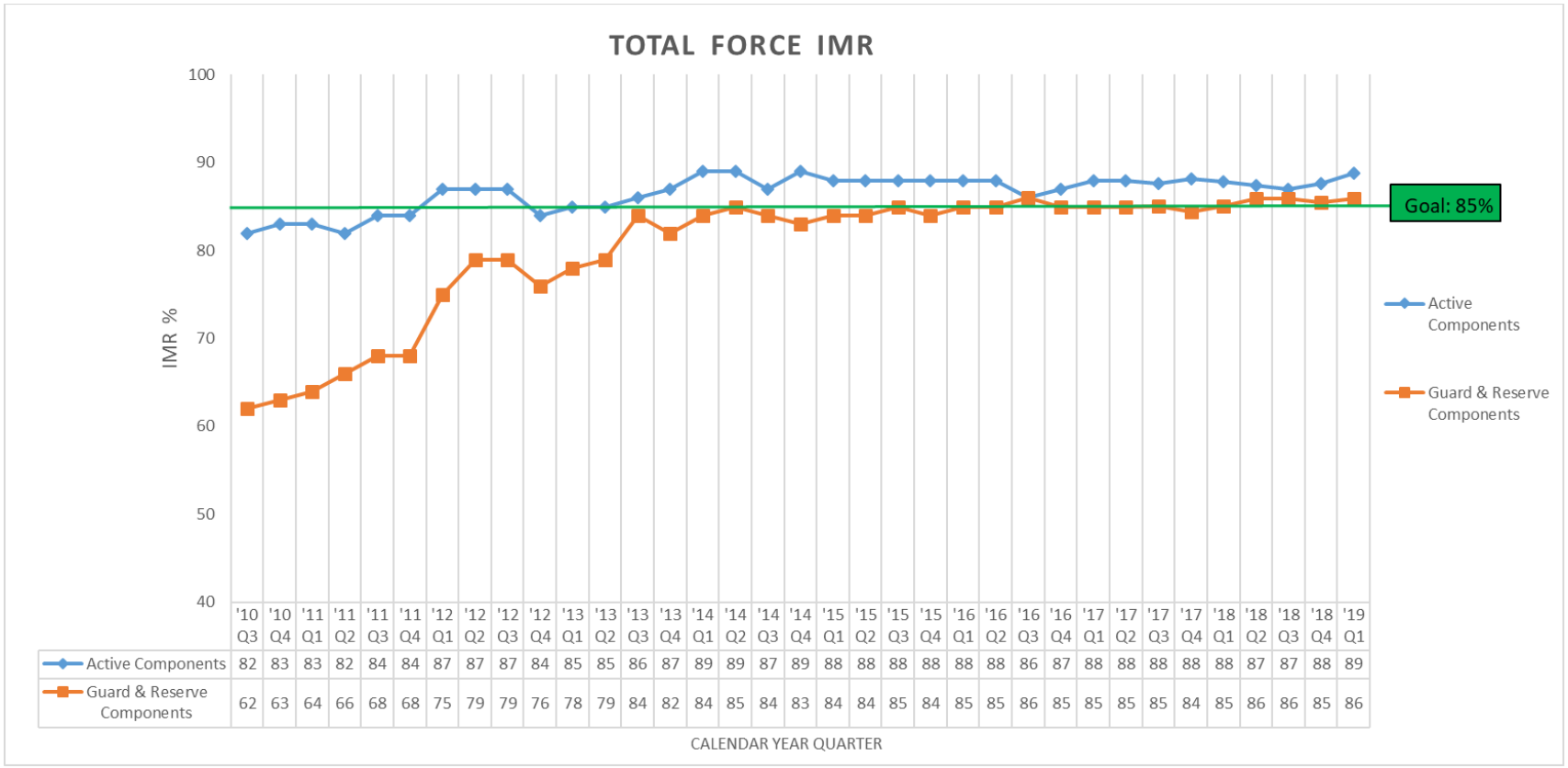
Chapter 3 contained data on TRICARE dental plan premiums. The coinsurance rates, which vary by rank group, are shown in Table B-8.

Table B-8. TRICARE Dental Program Cost Shares

Dental Category	Cost Share for E1–E4	Cost Share for E5 and Above
Covered Services		
Diagnostic	0%	0%
Preventive	0%	0%
Emergency Services	0%	0%
Sealants	0%	0%
Basic Restorative	20%	20%
Endodontic	30%	40%
Periodontics	30%	40%
Oral Surgery	30%	40%
Miscellaneous Services	50%	50%
Other Restorative	50%	50%
Implant Services	50%	50%
Prosthodontic	50%	50%
Orthodontic	50%	50%

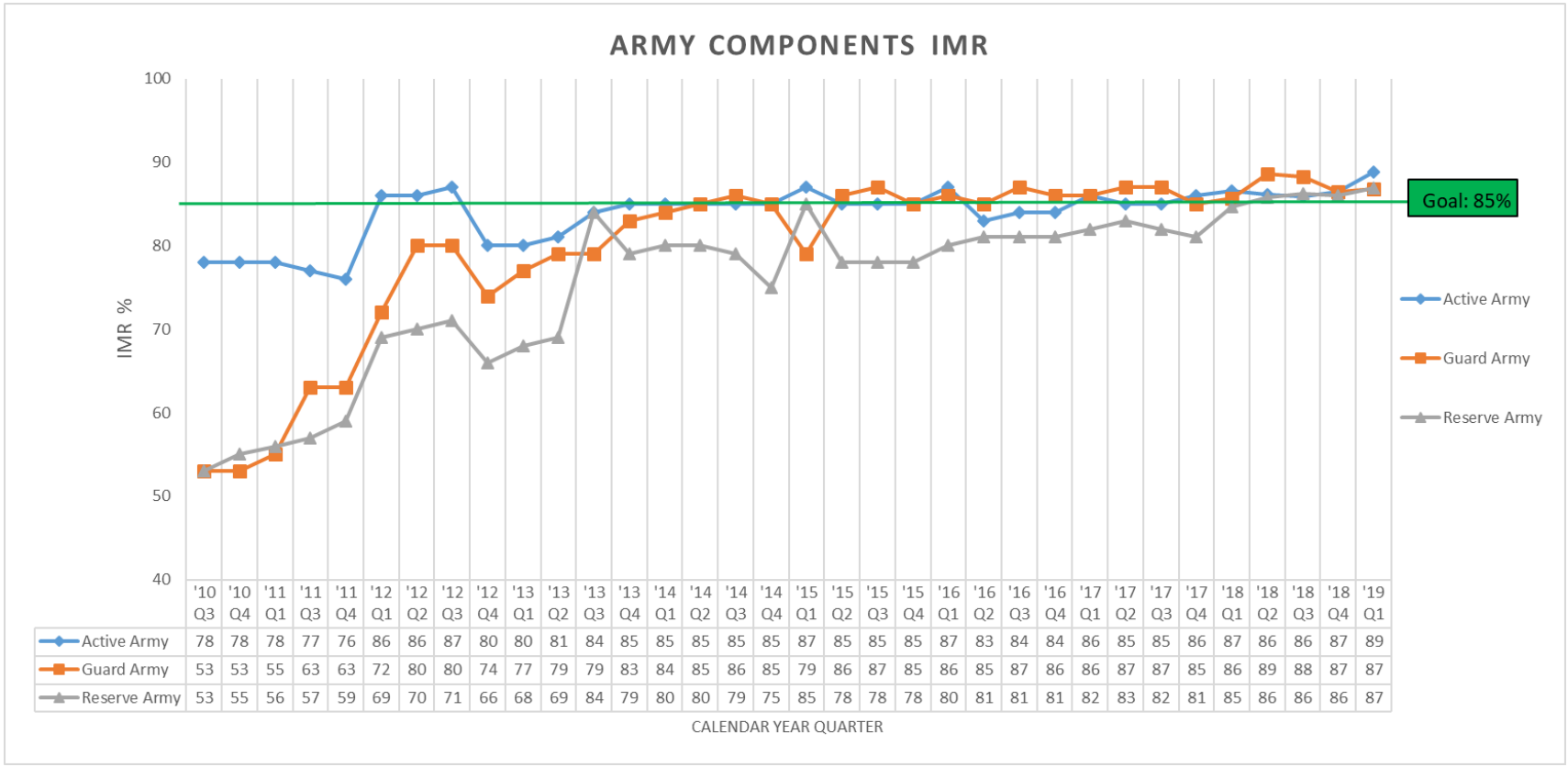
Appendix C.
Understanding RCSM Medical Readiness

This appendix contains IMR trend analyses that supplement the analysis presented in Chapter 4.



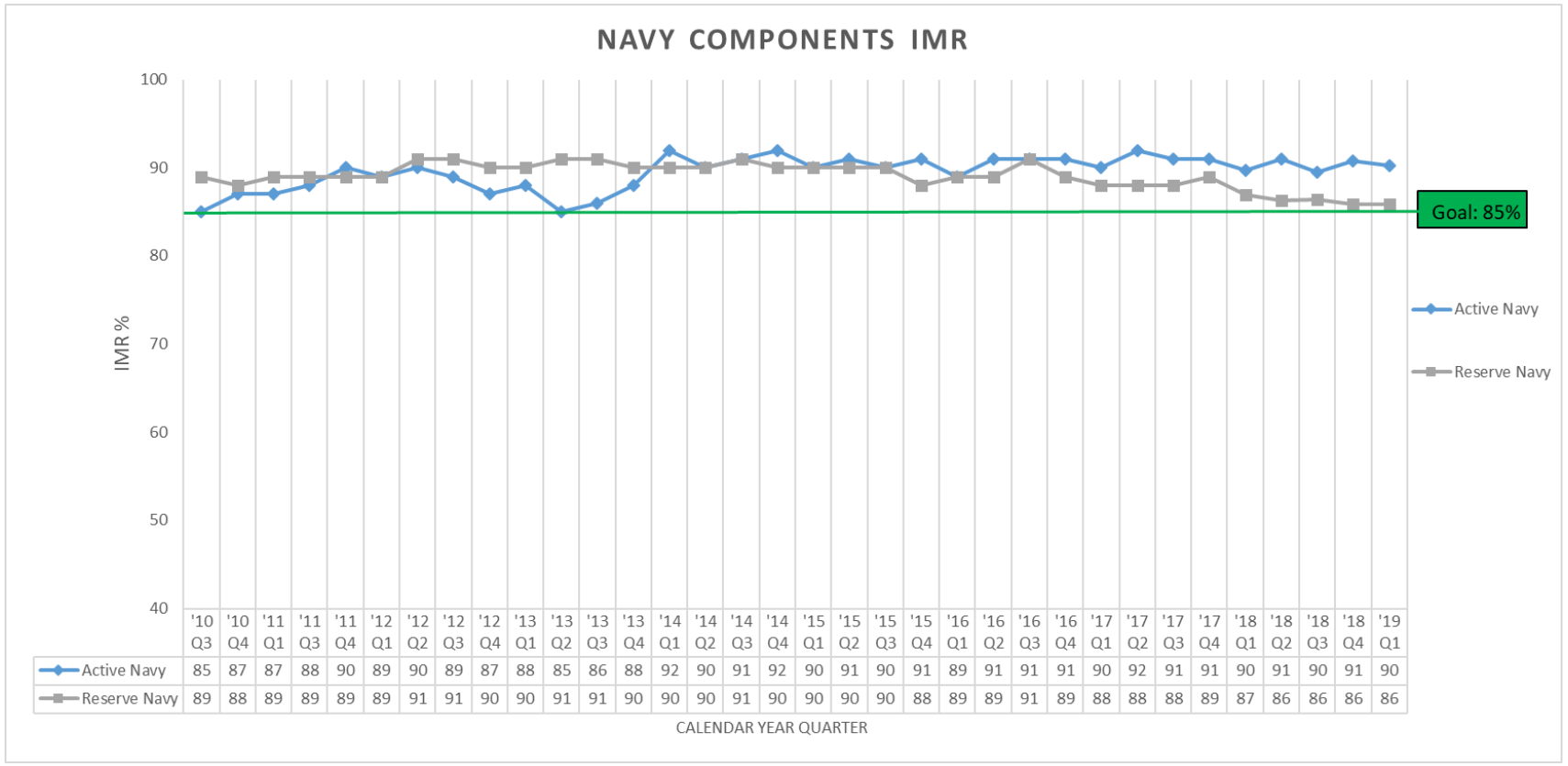
	'10 Q3	'10 Q4	'11 Q1	'11 Q2	'11 Q3	'11 Q4	'12 Q1	'12 Q2	'12 Q3	'12 Q4	'13 Q1	'13 Q2	'13 Q3	'13 Q4	'14 Q1	'14 Q2	'14 Q3	'14 Q4	'15 Q1	'15 Q2	'15 Q3	'15 Q4	'16 Q1	'16 Q2	'16 Q3	'16 Q4	'17 Q1	'17 Q2	'17 Q3	'17 Q4	'18 Q1	'18 Q2	'18 Q3	'18 Q4	'19 Q1
Active Components	82	83	83	82	84	84	87	87	87	84	85	85	86	87	89	89	87	89	88	88	88	88	88	88	86	87	88	88	88	88	88	87	87	88	89
Guard & Reserve Components	62	63	64	66	68	68	75	79	79	76	78	79	84	82	84	85	84	83	84	84	85	84	85	85	86	85	85	85	85	84	85	86	86	85	86

Figure C-1. Total Force IMR Percentage, 2010–2019



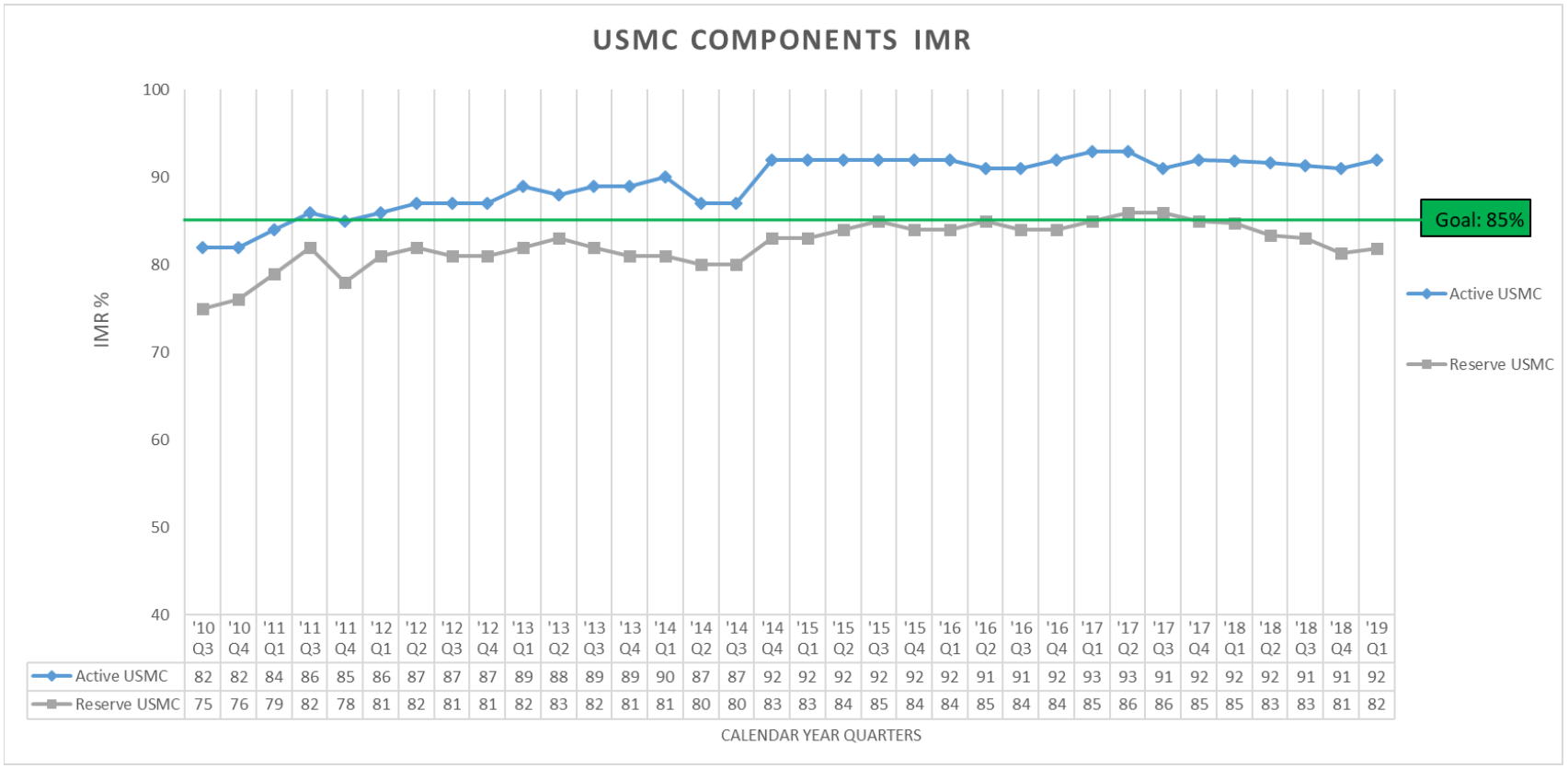
	'10 Q3	'10 Q4	'11 Q1	'11 Q3	'11 Q4	'12 Q1	'12 Q2	'12 Q3	'12 Q4	'13 Q1	'13 Q2	'13 Q3	'13 Q4	'14 Q1	'14 Q2	'14 Q3	'14 Q4	'15 Q1	'15 Q2	'15 Q3	'15 Q4	'16 Q1	'16 Q2	'16 Q3	'16 Q4	'17 Q1	'17 Q2	'17 Q3	'17 Q4	'18 Q1	'18 Q2	'18 Q3	'18 Q4	'19 Q1
Active Army	78	78	78	77	76	86	86	87	80	80	81	84	85	85	85	85	85	87	85	85	85	87	83	84	84	86	85	85	86	87	86	86	87	89
Guard Army	53	53	55	63	63	72	80	80	74	77	79	79	83	84	85	86	85	79	86	87	85	86	85	87	86	86	87	87	85	86	89	88	87	87
Reserve Army	53	55	56	57	59	69	70	71	66	68	69	84	79	80	80	79	75	85	78	78	78	80	81	81	81	82	83	82	81	85	86	86	86	87

Figure C-2. Army Components IMR Percentage, 2010–2019



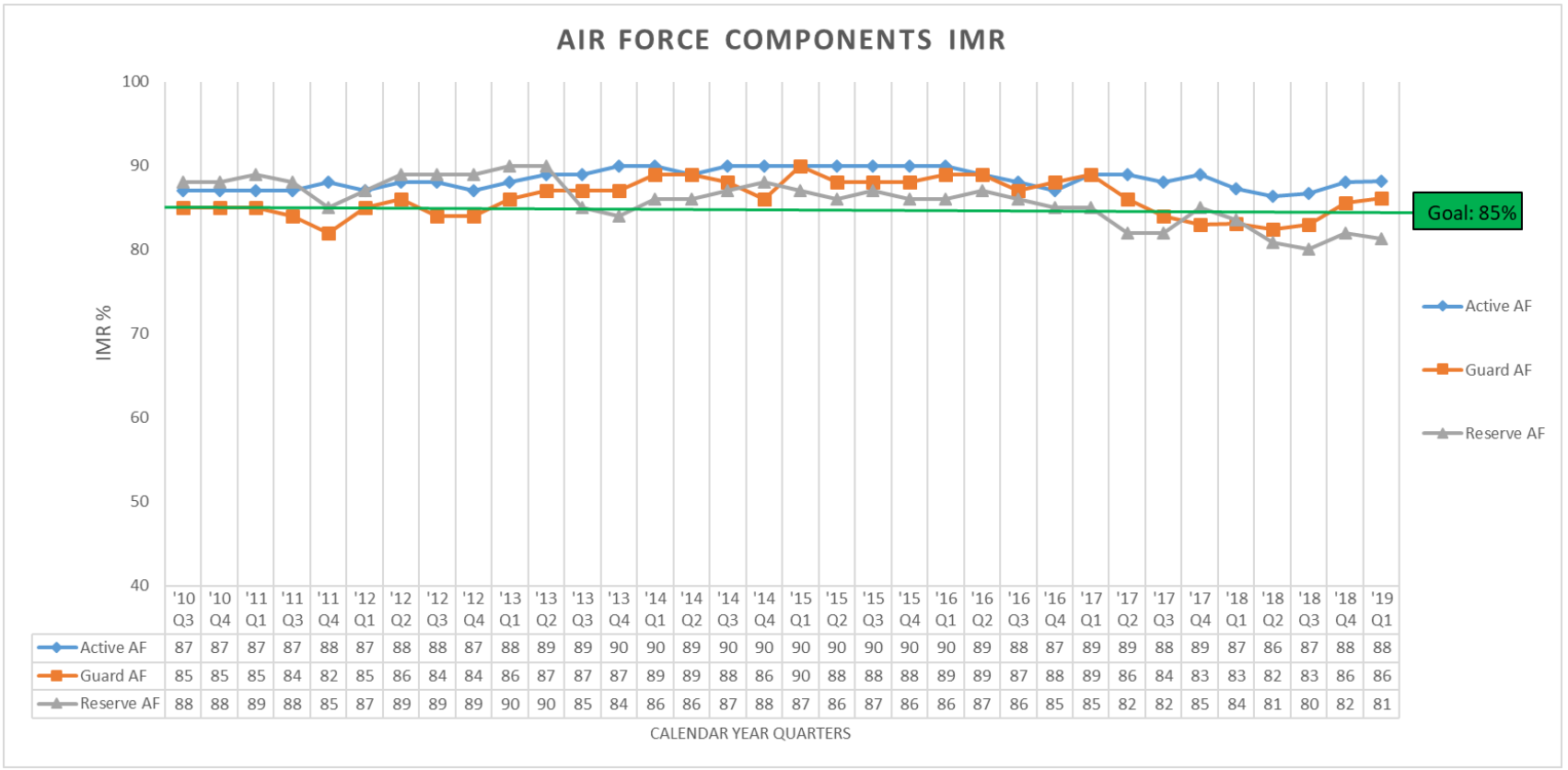
	'10 Q3	'10 Q4	'11 Q1	'11 Q3	'11 Q4	'12 Q1	'12 Q2	'12 Q3	'12 Q4	'13 Q1	'13 Q2	'13 Q3	'13 Q4	'14 Q1	'14 Q2	'14 Q3	'14 Q4	'15 Q1	'15 Q2	'15 Q3	'15 Q4	'16 Q1	'16 Q2	'16 Q3	'16 Q4	'17 Q1	'17 Q2	'17 Q3	'17 Q4	'18 Q1	'18 Q2	'18 Q3	'18 Q4	'19 Q1
Active Navy	85	87	87	88	90	89	90	89	87	88	85	86	88	92	90	91	92	90	91	90	91	89	91	91	91	90	92	91	91	90	91	90	91	90
Reserve Navy	89	88	89	89	89	89	91	91	90	90	91	91	90	90	90	91	90	90	90	90	88	89	89	91	89	88	88	88	89	87	86	86	86	86

Figure C-3. Navy Components IMR Percentage, 2010–2019



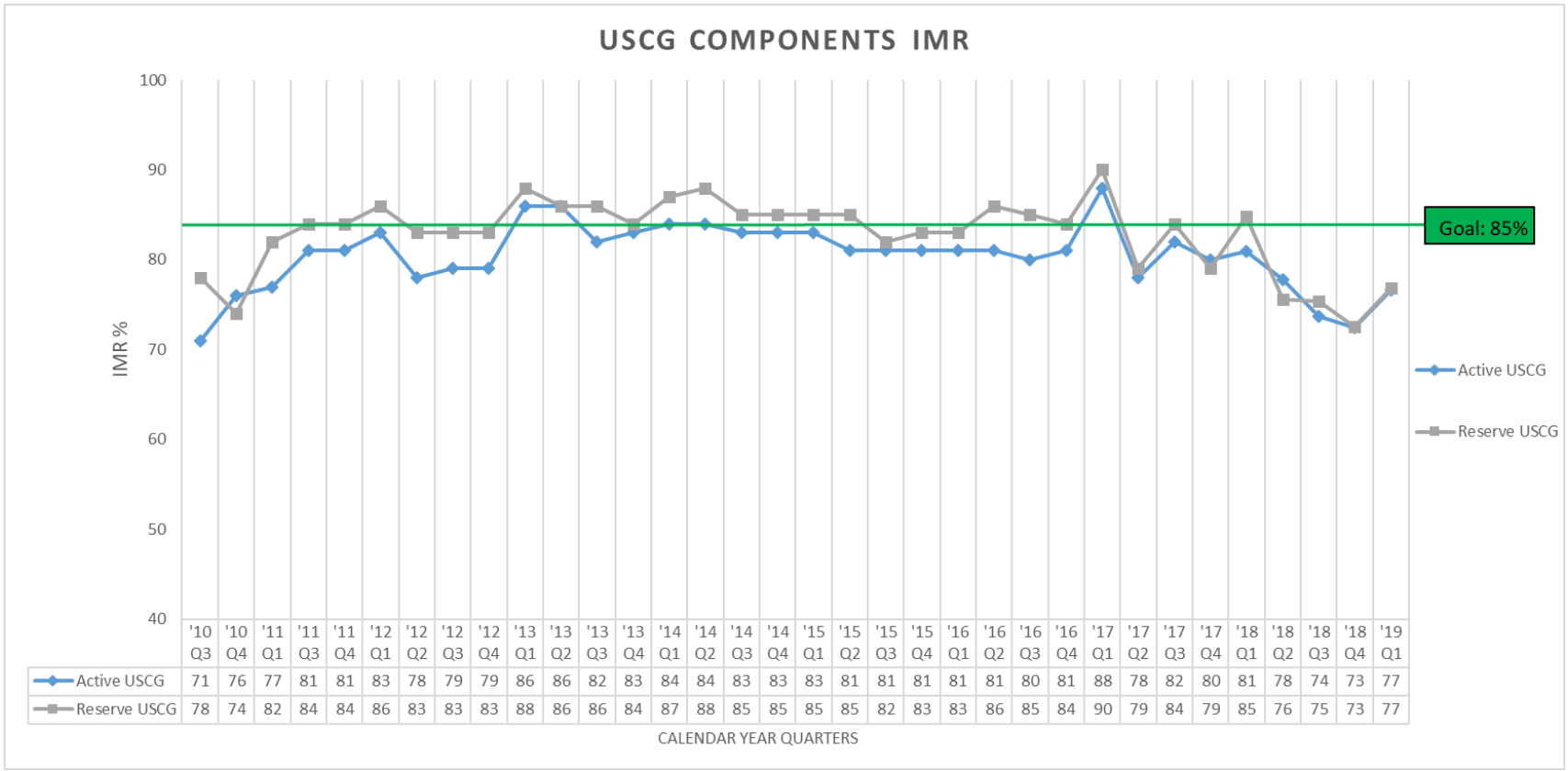
	'10 Q3	'10 Q4	'11 Q1	'11 Q3	'11 Q4	'12 Q1	'12 Q2	'12 Q3	'12 Q4	'13 Q1	'13 Q2	'13 Q3	'13 Q4	'14 Q1	'14 Q2	'14 Q3	'14 Q4	'15 Q1	'15 Q2	'15 Q3	'15 Q4	'16 Q1	'16 Q2	'16 Q3	'16 Q4	'17 Q1	'17 Q2	'17 Q3	'17 Q4	'18 Q1	'18 Q2	'18 Q3	'18 Q4	'19 Q1
Active USMC	82	82	84	86	85	86	87	87	87	89	88	89	89	90	87	87	92	92	92	92	92	92	91	91	92	93	93	91	92	92	92	91	91	92
Reserve USMC	75	76	79	82	78	81	82	81	81	82	83	82	81	81	80	80	83	83	84	85	84	84	85	84	84	85	86	86	85	85	83	83	81	82

Figure C-4. Marine Corps Components IMR Percentage, 2010–2019



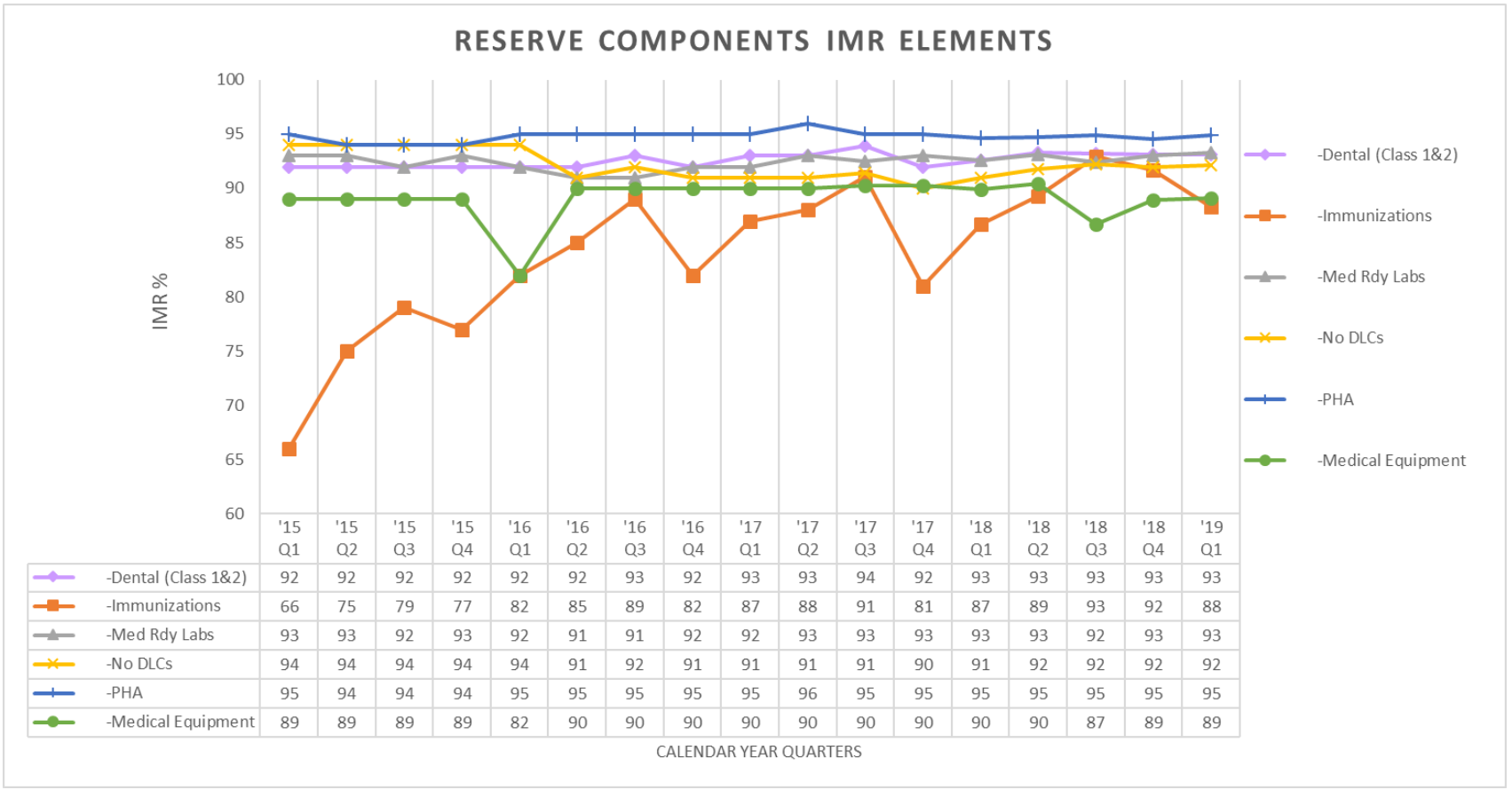
	'10 Q3	'10 Q4	'11 Q1	'11 Q3	'11 Q4	'12 Q1	'12 Q2	'12 Q3	'12 Q4	'13 Q1	'13 Q2	'13 Q3	'13 Q4	'14 Q1	'14 Q2	'14 Q3	'14 Q4	'15 Q1	'15 Q2	'15 Q3	'15 Q4	'16 Q1	'16 Q2	'16 Q3	'16 Q4	'17 Q1	'17 Q2	'17 Q3	'17 Q4	'18 Q1	'18 Q2	'18 Q3	'18 Q4	'19 Q1
Active AF	87	87	87	87	88	87	88	88	87	88	89	89	90	90	89	90	90	90	90	90	90	90	89	88	87	89	89	88	89	87	86	87	88	88
Guard AF	85	85	85	84	82	85	86	84	84	86	87	87	87	89	89	88	86	90	88	88	88	89	89	87	88	89	86	84	83	83	82	83	86	86
Reserve AF	88	88	89	88	85	87	89	89	89	90	90	85	84	86	86	87	88	87	86	87	86	86	87	86	85	85	82	82	85	84	81	80	82	81

Figure C-5. Air Force Components IMR Percentage, 2010–2019



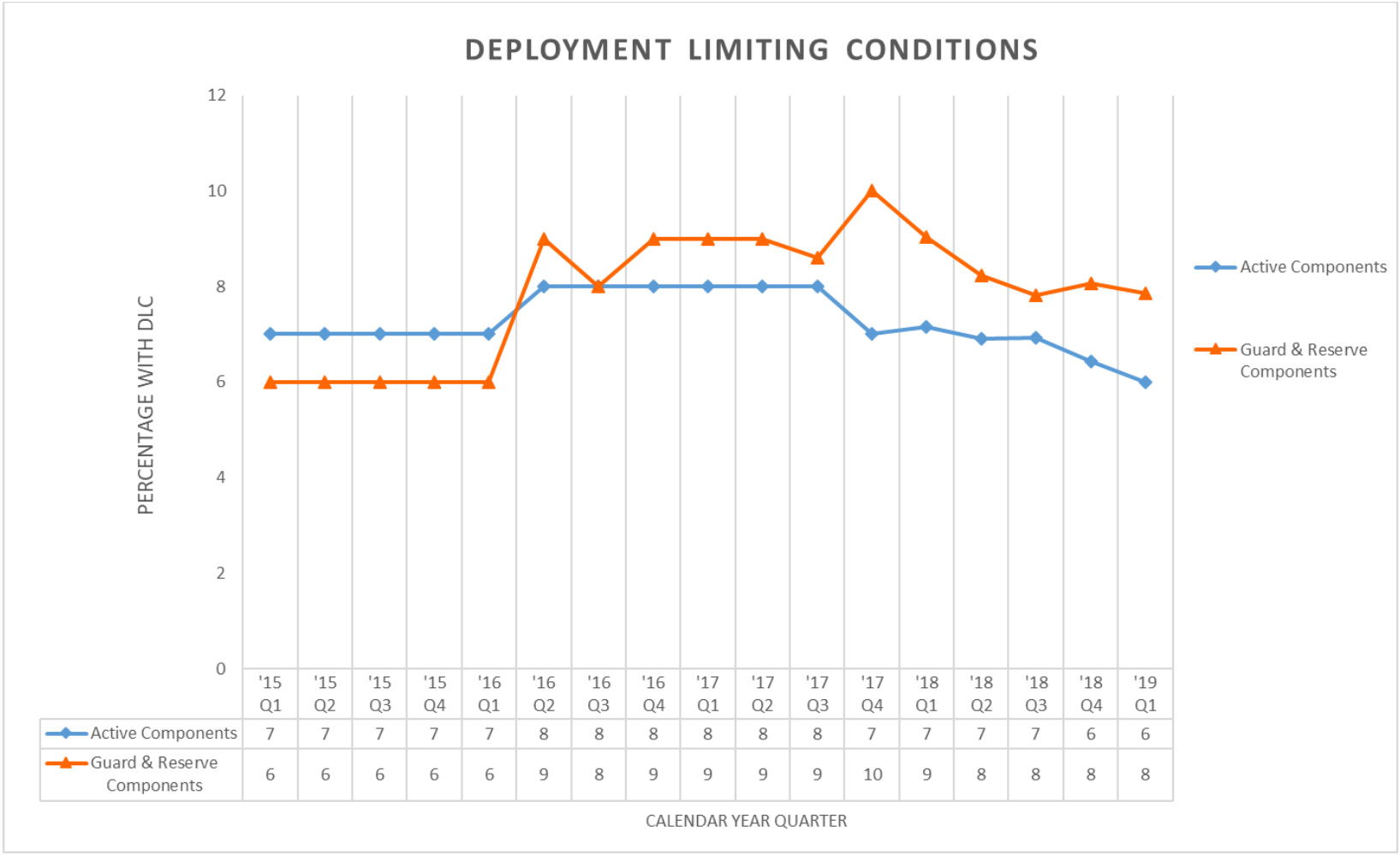
	'10 Q3	'10 Q4	'11 Q1	'11 Q3	'11 Q4	'12 Q1	'12 Q2	'12 Q3	'12 Q4	'13 Q1	'13 Q2	'13 Q3	'13 Q4	'14 Q1	'14 Q2	'14 Q3	'14 Q4	'15 Q1	'15 Q2	'15 Q3	'15 Q4	'16 Q1	'16 Q2	'16 Q3	'16 Q4	'17 Q1	'17 Q2	'17 Q3	'17 Q4	'18 Q1	'18 Q2	'18 Q3	'18 Q4	'19 Q1
Active USCG	71	76	77	81	81	83	78	79	79	86	86	82	83	84	84	83	83	83	81	81	81	81	81	80	81	88	78	82	80	81	78	74	73	77
Reserve USCG	78	74	82	84	84	86	83	83	83	88	86	86	84	87	88	85	85	85	85	82	83	83	86	85	84	90	79	84	79	85	76	75	73	77

Figure C-6. Coast Guard Components IMR Percentage, 2010–2019



	'15 Q1	'15 Q2	'15 Q3	'15 Q4	'16 Q1	'16 Q2	'16 Q3	'16 Q4	'17 Q1	'17 Q2	'17 Q3	'17 Q4	'18 Q1	'18 Q2	'18 Q3	'18 Q4	'19 Q1
-Dental (Class 1&2)	92	92	92	92	92	92	93	92	93	93	94	92	93	93	93	93	93
-Immunizations	66	75	79	77	82	85	89	82	87	88	91	81	87	89	93	92	88
-Med Rdy Labs	93	93	92	93	92	91	91	92	92	93	93	93	93	93	92	93	93
-No DLCs	94	94	94	94	94	91	92	91	91	91	91	90	91	92	92	92	92
-PHA	95	94	94	94	95	95	95	95	95	96	95	95	95	95	95	95	95
-Medical Equipment	89	89	89	89	82	90	90	90	90	90	90	90	90	90	87	89	89

Figure C-7. Reserve Components Elements of Medical Readiness, 2015–2019



	'15 Q1	'15 Q2	'15 Q3	'15 Q4	'16 Q1	'16 Q2	'16 Q3	'16 Q4	'17 Q1	'17 Q2	'17 Q3	'17 Q4	'18 Q1	'18 Q2	'18 Q3	'18 Q4	'19 Q1
Active Components	7	7	7	7	7	8	8	8	8	8	8	7	7	7	7	6	6
Guard & Reserve Components	6	6	6	6	6	9	8	9	9	9	9	10	9	8	8	8	8

Figure C-8. Total Force Deployment Limiting Conditions, 2015–2019

RHRP

Table C-1 shows the estimated average cost of RHRP services in each category. They are constructed from the RHRP service volume and total cost data presented in Chapter 4. We note these are averages across several different Services and that unit cost often varies with volume due to the pricing of group events.

Table C-1. Summary of Average RHRP Unit Costs, FY 2014 to FY 2018

	IMR Service	Deployment Services	Other Services	Cancel/No-Show Invoices
FY 2014	$49	$32	$134	$18
FY 2015	$47	$28	$137	$18
FY 2016	$47	$30	$139	$19
FY 2017	$51	$30	$141	$19
FY 2018	$51	$23	$30	$19
Growth Rate	5%	-29%	-78%	7%

MTF IMR Costs

Table C-2 shows the total cost of all readiness services by Military Component. Inactive RCSMs appear to account for roughly 2 percent of the costs, which appears relatively consistent across Services.

Table C-2. FY 2018 Total Cost of Readiness Services by Component Delivered in MTFs

	ADSMs		Activated RCSMs		Inactive RCSMs		MTF Total
Service	Total Costs	Pct	Total Costs	Pct	Total Costs	Pct	Costs
Army	$90,127,283	84%	$14,863,010	14%	$1,681,694	2%	$106,671,987
Air Force	$59,332,781	95%	$2,162,438	3%	$1,023,097	2%	$62,518,316
Navy/MC	$58,626,469	93%	$2,903,093	5%	$1,254,894	2%	$62,784,456
Total	**$208,086,533**	**90%**	**$19,928,541**	**9%**	**$3,959,685**	**2%**	**$231,974,759**

Table C-3, however, shows significant volume differences between the Military Components in readiness services delivered, with the Air Force reporting 68 percent of all workload delivered to Inactive RCSMs in MTFs.

Table C-3. Inactive RCSM Volume of Readiness Services by Component, FY 2018

	Inactive RCSMs	
Service	**Volume**	**Pct Total**
Army	8,057	20%
Air Force	27,920	68%
Navy/MC	5,255	13%
Total	**41,232**	**100%**

The Air Force also appears to show a lower overall unit cost for readiness services, as displayed in Table C-4. The high volume of Air Force Inactive RCSM services, combined with the lower overall unit cost of these services, appears to be the driving force for the lower overall unit cost for these services across the MHS.

Table C-4. Unit Cost of Readiness Services by Component Delivered in MTFs, FY 2018

	ADSMs		Activated RCSMs		Inactive RCSMs		Total
Service	**Volume**	**Pct ADSM**	**Volume**	**Pct RCSM**	**Volume**	**Pct**	**Volume**
Army	$194	122%	$172	111%	$209	217%	$191
Air Force	$111	70%	$92	59%	$37	38%	$107
Navy/MC	$187	118%	$158	102%	$239	249%	$187
Total	**$159**	**100%**	**$155**	**100%**	**$96**	**100%**	**$157**

Appendix D.
TRICARE Cost Estimates

TRS Scenarios Cost Data

Table 47 reports a range of cost estimates for the premium free TRS excursions. Here we provide the detailed data required to construct these estimates. For TRS, the total eligible population is inactive RCSMs and their dependents. Active RCSMs are ineligible (they are covered by the active duty benefit).

Table D-1 contains the number of RCSM and dependent family plans that we costed for each TRS take rate scenario. It also contains the average number of dependents we used to estimate costs per family plan. We work with the number of plans required rather than covered lives because take-up decisions and premiums are determined at the plan level.

Table D-1. Total Plans and Average Number of Dependents

	Take Rate = 50%		Take Rate = 75 %		Take Rate = 100%		
	RCSM Plans	Dependent Plans	RCSM Plans	Dependent Plans	RCSM Plans	Dependent Plans	Average Dependents
EJ	129,252	31,959	193,878	47,938	258,505	63,918	1.94
ES	129,449	94,779	194,174	142,169	258,898	189,558	2.48
OJ	23,031	14,006	34,547	21,009	46,062	28,012	2.36
OS	23,048	20,200	34,572	30,300	46,096	40,400	2.77
WO	4,887	4,187	7,330	6,280	9,773	8,374	2.55
Total	309,668	165,131	464,501	247,696	619,335	330,262	

Table D-2 contains the estimated user cost per RCSM plan and the estimated user cost per dependent plan. The Cost per RCSM comes from Table B-6. The Cost per dependent plan is derived from Table B-6 and the average dependent count reported in Table D-1. The premium for RCSM plans is set to zero. The premium for dependent plans is set to $2,104 per year (in the scenario where family members must pay a premium).[1]

[1] The annual dependent plan premium is derived by subtracting the current individual plan premium (for RCSM only plans) from the family plan premium.

Table D-2. User Cost per Single TRS Plan and Family TRS Plan

	Cost per RCSM	Cost per Dependent Plan	Cost per Dependent Plan less Premium
EJ	$1,938	$6,291	$4,187
ES	$1,862	$6,907	$4,803
OJ	$1,711	$6,485	$4,381
OS	$2,033	$6,835	$4,731
WO	$2,109	$6,931	$4,827

TRICARE for All Cost Data

Table 47 reports a range of cost estimates for the TRICARE for All excursions. Here we provide the detailed data required to construct these estimates. For TRICARE for All, the total eligible population is all RCSMs and their dependents.

Table D-3 contains the number of RCSM and dependent family plans that we costed out for each TRICARE for All take rate scenario. It also contains the average number of dependents used to estimate costs per family plan. The total eligible population is all selected RCSMs and their dependents.

Table D-3. Total Plans and Average Number of Dependents

	Take Rate = 75%		Take Rate = 85 %		Take Rate = 100%		
	RCSM Plans	Dependent Plans	RCSM Plans	Dependent Plans	RCSM Plans	Dependent Plans	Average Dependents
EJ	251,141	62,097	284,627	70,377	334,855	82,796	1.94
ES	251,524	184,159	285,060	208,713	335,365	245,545	2.48
OJ	44,750	27,215	50,717	30,843	59,667	36,286	2.36
OS	44,783	39,249	50,754	44,482	59,711	52,332	2.77
WO	9,495	8,135	10,761	9,220	12,660	10,847	2.55
Total	601,694	320,855	681,919	363,635	802,258	427,806	

Table D-4 contains the estimated user cost per RCSM plan and the estimated user cost per dependent plan. The Cost per RCSM comes from Table B-7. The Cost per dependent plan is derived from Table B-7 and the average dependent count reported in Table D-3. Under these scenarios, all family members are covered premium free (thus there is no cost less premium column).

Table D-4. User Cost per Single and Family TRICARE for All Plan

	Cost per RCSM	Cost per Dependent Plan
EJ	$2,931	$3,561
ES	$4,477	$5,007
OJ	$3,318	$4,737
OS	$5,443	$5,594
WO	$4,184	$5,012

Illustrations

Figures

Tables

References

10 U.S.C. §101(d)(6)(A).

"ACA Index Report on Unsubsidized Consumers in the 2020 Open Enrollment Period." eHealth, Inc., June 2020. https://news.ehealthinsurance.com/_ir/68/20205/eHealth_2020_ACA_Index_Report_Unsubsidized_Consumers.pdf.

"Amplification of the Minimal Standards of Fitness for Deployment to the CENTCOM AOR." MOD14-Tab A. To Accompany MOD Fourteen to USCENTCOM Individual Protection and Individual/Unit Deployment Policy, USCENTCOM, November 2019. https://www.tam.usace.army.mil/Portals/77/docs/MOD14%20Tab%20A-Final.pdf.

Brauner, Marygail K., Timothy Jackson, and Elizabeth Gayton. "Medical Readiness of the Reserve Component." Santa Monica, CA: RAND Corporation, 2012. https://www.rand.org/pubs/monographs/MG1105.html.

Claxton, Gary, Matthew Rae, Anthony Damico, Gregory Young, Daniel McDermott, and Heidi Whitmore. "Employer Health Benefits: 2019 Annual Survey." Kaiser Family Foundation, September 25, 2019. https://www.kff.org/health-costs/report/2019-employer-health-benefits-survey/.

Department of Defense. "Contracts for March 26, 2020." https://www.defense.gov/Newsroom/Contracts/Contract/Article/2127392/#QTC032620.

Department of Defense. DoDI 1205.18, "Full-Time Support (FTS) To the Reserve Components." Washington, DC: USD(P&R), June 5, 2020. https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/120518p.pdf?ver=2020-06-05-095821-867.

Department of Defense. DoDI 6025.19, "Individual Medical Readiness (IMR)." Washington, DC: USD(P&R), June 9, 2014. https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/602519p.pdf.

Kapp, Lawrence, and Barbara Salazar Torreon. "Reserve Component Personnel Issues: Questions and Answers." CRS Report RL30802. Washington, DC: Congressional Research Service, June 15, 2020. https://fas.org/sgp/crs/natsec/RL30802.pdf.

Krogulski, Jacqueline (COL). "Total Force Readiness Access at MTFs." DAAR-MD, February 2, 2018.

Military Compensation and Retirement Modernization Commission. *Final Report of the Military Compensation and Retirement Modernization Commission*. Washington, DC: January 2015. https://usmclife.com/wp-content/uploads/2015/01/MCRMC-FinalReport-29JAN15-LO.pdf.

National Institute for Mental Health. “Chronic Illness and Mental Health.” https://www.nimh.nih.gov/health/publications/chronic-illness-mental-health/index.shtml.

“Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military’s Competitive Edge.” 2018. https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf

Swanson, Peder (COL). “Military Health System (MHS) Support to Reserve Component (RC) Service Members: Concept Plan to Operationalize a Responsive, Common Level of Support Through MHS Transformation.” Washington, DC: OASD(HA), October 2018.

TRICARE. “Pre-Activation Benefits.” November 22, 2017. https://www.tricare.mil/Plans/Eligibility/NGRMandFamilies/Activated/PreActBenefits.

Abbreviations

AC	Active Component
ACT	Active Component Personnel
AD	Active Duty
ADDP	Active Duty Dental Program
ADFM	Active Duty Family Member
ADSM	Active Duty Service Member
AGR	Active Guard/Reserve
ANG	Air National Guard
AOR	Area of Responsibility
ARNG	Army National Guard
BCBS	Blue Cross Blue Shield
BH	Behavioral Health
CHCBP	Continued Health Care Benefit Program
Civ	Federal Civilian Employees
COBRA	Consolidated Omnibus Budget Reconciliation Act
COCOM	Combatant Command
DC	Direct Care
DEERS	Defense Enrollment Eligibility Reporting System
DES	Disability Evaluation System
DHA	Defense Health Agency
DLC	Deployment-Limiting Condition
DMDC	Defense Manpower Data Center
DoD	Department of Defense
DoDI	Department of Defense Instruction
DRC	Dental Readiness Classification
EKG	Electrocardiogram
FEHB	Federal Employees Health Benefits
FMR	Fully Medically Ready
FTS	Full-Time Support
FY	Fiscal Year
GEHA	Government Employees Health Association
GR	Guard/Reservist
GRFM	Guard/Reserve Family Member
HCDP	Health Care Delivery Program
IDA	Institute for Defense Analyses

IMR	Individual Medical Readiness
ING	Inactive National Guard
IRCFM	Inactive Reserve Component Family Member
IRCSM	Inactive Reserve Component Service Member
JE	Junior Enlisted
JLV	Joint Legacy Viewer
JO	Junior Officer
LHI	Logistics Health Inc.
MCRMC	Military Retirement and Compensation Modernization Commission
MHA	Mental Health Assessment
MHS	Military Health System
Mil Tech	Military Technician
MRI	Medical Readiness Indeterminate
MTF	Military Treatment Facility
NDAA	National Defense Authorization Act
NMR	Non-medically Ready
NR	Not Ready
OOP	Out-of-Pocket
OR	Odds Ratio
PC	Purchased Care
PDHRA	Post-Deployment Health Re-Assessment
PHA	Periodic Health Assessment
PMR	Partially Medically Ready
Pre-DHA	Pre-Deployment Health Assessment
PTSD	Post-Traumatic Stress Disorder
RC	Reserve Component
RCFM	Reserve Component Family Member
RCSM	Reserve Component Service Member
RET	Retiree
RETFM	Retiree Family Member
RHRP	Reserve Health Readiness Program
ROM	Rough Order of Magnitude
SE	Senior Enlisted
SELRES	Selected Reserve
SO	Senior Officer
TAMP	Traditional Assistance Management Program
TDP	TRICARE Dental Plan
TFMR	Total Force Medical Readiness
TMOP	TRICARE Mail Order Pharmacy
TR	Take Rate

TRR	TRICARE Retired Reserve
TRS	TRICARE Reserve Select
USAFR	United States Air Force Reserve
USAFRICOM	United States African Command
USAR	United States Army Reserve
U.S.C.	United States Code
USCENTCOM	United States Central Command
USCG	United States Coast Guard
USCGR	United States Coast Guard Reserve
USD(P&R)	Under Secretary of Defense for Personnel and Readiness
USMCR	United States Marine Corps Reserve
USNR	United States Navy Reserve
USSOUTHCOM	United States Southern Command
VA	Veterans Affairs
WO	Warrant Officer

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14. ABSTRACT

Reserve Component Service Members (RCSMs) are required to meet individual medical readiness (IMR) standards. While medical readiness reporting has improved, the Department does not have a full understanding of the nature of RCSM IMR shortfalls and their underlying causes. The full range of possible interventions to optimize reserve component (RC) medical readiness is also not fully understood. This analysis explores RCSM IMR shortfalls and estimates the costs and benefits of several interventions. We find RCSM IMR rates have improved greatly over the last decade. Among the population with deployment-limiting conditions, we find that muscular skeletal pain, heart disease, and a few more chronic conditions disproportionately affect readiness. To address remaining RCSM medical readiness gaps, we find the RCs should focus on IMR service delivery channels that target readiness directly (i.e., the Reserve Health Readiness Program, and service delivery using medical capabilities available organically to RC units or in military treatment facilities). Expanding TRICARE health benefits to inactive RCSMs would not be a cost-effective approach for improving RCSM medical readiness, although it may offer recruitment and retention benefits.

15. SUBJECT TERMS

Individual Medical Readiness; TRICARE; TRICARE Reserve Select; Reserve Health Readiness Program

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