Congressional Budget Office
Washington, D.C.

Cost-Estimating Methodology and Additional Analysis of an Option to Replace TRICARE With Private Insurance: Supplemental Material for *Approaches to Changing Military Health Care*

October 2017

In this document, the Congressional Budget Office highlights some of the key aspects of the methodology it used to estimate the budgetary effects of replacing the Department of Defense's TRICARE health benefit with private insurance—Option 2 in the report titled *Approaches to Changing Military Health Care*.[1] Because of the complexity of Option 2, estimates of its budgetary effects are subject to a large degree of uncertainty. For that reason, CBO has chosen to provide additional details about its cost-estimating methodology for that option.

[1] Congressional Budget Office, *Approaches to Changing Military Health Care* (October 2017), www.cbo.gov/publication/53137.

The Department of Defense (DoD) provides health care through its Military Health System (MHS), an organization that oversees the delivery of health care at home and abroad through a program known as TRICARE. The MHS provides direct care through its own system of clinics and hospitals (military treatment facilities, or MTFs)—both in combat settings and at military installations that can be visited by TRICARE beneficiaries. It also purchases care from civilian providers by means of regional contracts.

Although some smaller TRICARE plans are available to select subgroups, most military users receive their health care through one of three major plans: TRICARE Prime, TRICARE Extra, or TRICARE Standard. TRICARE Prime resembles a health maintenance organization (HMO), in which patients pay lower out of pocket costs, but their use of health care services is overseen by a primary care manager. TRICARE Extra and Standard (combined) are similar to a preferred provider organization (PPO), in which patients see any provider. They pay lower out-of-pocket costs for an in-network provider (under Extra) and higher costs for an out-of-network provider (under Standard.)[2]

The estimating specifications used for Option 2 are based on Recommendation 6 from the Military Compensation and Retirement Modernization Commission (MCRMC, or "the Commission"), which would alter the health care benefit for working-age military retirees, active-duty family members, and some reservists. Specifically, instead of choosing from the current TRICARE health plans, those beneficiaries would choose their health care coverage from a selection of private insurance plans—similar to the health insurance plans offered to federal civilian employees through the Federal Employees Health Benefits (FEHB) program—with the government subsidizing a large portion of the premiums.[3] Active-duty members with families would receive a new basic allowance for health care to cover the beneficiary's share of the premiums for the new health plans (based on the cost of the median-priced plan) plus an amount to cover average out-of-pocket costs for deductibles and copayments. The Commission also recommended requiring most military treatment facilities to become in-network providers in commercial health plans and to be reimbursed for care. The current TRICARE pharmacy benefit would remain unchanged and would continue to be separate from the services covered by the new private insurance plans.

Estimating the cost to the government and to beneficiaries of implementing Option 2 is difficult and comes with significant uncertainty. For its analysis, CBO first converted current health

[2] Beginning January 1, 2018, the Extra and Standard plans will be combined into a new PPO-like plan called Select.

[3] See Alphonso Maldon Jr. and others, *Final Report of the Military Compensation and Retirement Modernization Commission* (January 2015), www.dtic.mil/docs/citations/ADA625626. The link contains the final report and other supporting documents, such as proposed legislative changes. CBO did alter the specifications in the final report in several ways to assist in comparing estimates and help with ease of understanding. For instance, the Commission suggested that the beneficiary's share of the premium for working-age retirees be phased in over a period of 15 years. CBO did not assume any phase-in of the premiums so that annual steady-state costs and savings would appear sooner. The Commission also recommended that health funding for working-age retirees and their families be converted to a mandatory account funded through annual accrual payments. The accounting associated with accrual funding would obfuscate the overall change in spending associated with Option 2. Therefore, CBO's estimates reflect the assumption that funding for the health benefits of working-age retirees and their families would continue to be paid from discretionary appropriations to the Defense Health Program account.

spending on TRICARE beneficiaries into estimates of the cost of private health insurance premiums for that group. Once the premiums were calculated, they were multiplied by the affected population to estimate the annual budgetary effects of Option 2 on DoD. CBO then examined the possible cost effects on other parts of the federal budget. Finally, CBO compared its estimates with those of the Commission.

Converting the Per-Family Cost of the Current Health Care Benefit Into a Private Insurance Premium

In its analysis of Option 2, CBO used data from DoD to estimate the cost of providing the current health care benefit to working-age retirees (retirees who are not yet eligible for Medicare) and their dependents and survivors, active-duty family members, and members of the selected reserve who are enrolled in TRICARE Reserve Select.[4] CBO then made several adjustments to that data to estimate what the private insurance premiums would be for those groups. The discussion below focuses on costs for working-age retirees and active-duty family members who are currently enrolled in TRICARE as "family" (in other words, the household has more than one beneficiary) and who rely on the military health care benefit for 100 percent of their care. Such households include over 70 percent of the beneficiaries that would be affected by Option 2. The remaining households consist mostly of those enrolled as "self-only" and, to a lesser extent, those households that use TRICARE in combination with other insurance. For working-age retirees enrolled as "family," the typical household consists of about three beneficiaries, including the sponsor. For active-duty households enrolled as "family," the household also consists of about three beneficiaries but does not include the sponsor. (Under Option 2, active-duty members would continue to have all of their health care provided or coordinated by the direct care system—MTFs owned and operated by DoD—and Medicare-eligible beneficiaries would continue to enroll in TRICARE for Life.)

All dollar amounts in this document represent costs in 2031, deflated to 2017 dollars. CBO chose to display costs for 2031 because the agency estimates that is the first year Option 2 would be fully implemented and achieve steady-state costs or savings. By converting the costs to 2017 dollars, CBO removed the effects of any economywide price inflation, although the effects of inflation-adjusted growth in medical prices and usage between now and 2031 remain.[5]

To convert the cost of care provided through TRICARE into an equivalent private insurance premium, CBO used the fact that, under current law, payments by TRICARE to physicians and hospitals are tied to payments made by Medicare. CBO then used the information from studies that compare Medicare payment rates to rates paid to doctors and hospitals by private insurance to estimate what it would cost private insurers to provide approximately the same level of care,

[4] Under TRICARE Reserve Select, most part-time members of the National Guard and Reserves can purchase PPO coverage for themselves and their families for a premium. The premium is designed to cover 28 percent of the estimated cost of the program. In 2016, more than 340,000 people were covered by the TRS program. See Department of Defense, *Evaluation of the TRICARE Program: Access, Cost, and Quality, Fiscal Year 2017 Report to Congress* (May 2017), p. 5, https://go.usa.gov/x9hDN.

[5] The effects of nominal inflation were removed by using the Congressional Budget Office's projection of the gross domestic product price index.

with adjustments to account for the higher out-of-pocket costs that beneficiaries would pay under Option 2. CBO also made adjustments to account for the possibility that many beneficiaries would decrease their use of the MTFs in favor of private providers, which could increase DoD's costs, depending on how well the department was able to adjust the footprint of the direct care system to accommodate changes in demand. For ease of understanding, CBO has arranged its methodology for converting the cost of the current TRICARE health benefit into a private insurance premium in nine steps. Those steps are discussed in detail below and illustrated in Table 1.

Step 1. Estimate the Cost of the Current TRICARE Benefit

The first step in estimating the budgetary effects of Option 2 involved taking cost data from the current TRICARE benefit, creating an average cost per family, and then rearranging those costs into a format that made sense for estimating and comparison purposes. Based on data from DoD, CBO estimates that, under current laws and regulations, health care costs for a typical retiree family would total about $26,040 in 2031 and total costs for an active-duty family would be about $24,550.[6] Table 1 shows the cost of health care for a typical retiree family and active-duty family, as well as estimates of their out-of-pocket costs. The dollar amounts represent a weighted average of families who use the current TRICARE Prime, Extra, and Standard plans.

The data provided to CBO for the cost of direct care included only those costs directly attributable to the provision of health-care-related goods and services. Additional overhead costs—including those for base operations, management activities, procurement, and military construction—are not captured in the data. Because rates paid to private doctors and hospitals account for those types of activities, CBO has increased the cost of direct care by a factor to help provide a better comparison between the cost of operating the TRICARE system and a system that relies on private insurers and private payment rates. By examining budget data from DoD, and after attempting to strip out costs related to medical and operational readiness and other unique military requirements, CBO estimated that the factor is between 30 percent and 55 percent.[7] The amount of additional overhead that is variable and that can be easily reduced if DoD relies on private insurers to pay for care is subject to considerable uncertainty, as discussed below.

Step 2. Estimate the Cost of the Current Benefit by Point of Service

To begin the process of transforming current TRICARE costs into spending for a private health insurance premium, CBO arranged the costs into the following categories: private network care, purchased administration, direct care, and pharmacy. CBO included pharmacy expenditures because Option 2 would leave the TRICARE pharmacy benefit unchanged. However, CBO needed to keep track of pharmacy costs so that it could count all savings to DoD related to

[6] Those costs reflect the total allowable charges under TRICARE's purchased care network, plus costs for care received at military treatment facilities, a prorated share of purchased care administration, and a prorated share of additional overhead and administration associated with the direct care system. Note that none of the dollar amounts in this document include the costs of dental care.

[7] Medical readiness indicates that service members are healthy enough to deploy, and operational readiness means that military clinicians and other providers are adequately trained to care for personnel during both peacetime and wartime.

beneficiaries who might choose to leave the MHS if Option 2 were enacted. CBO also tracked total out-of-pocket costs, which include pharmacy copayments. CBO separated the costs of purchased administration—the amounts that TRICARE pays its regional contractors to administer the purchased care network and process claims—so that the agency could focus on transforming the actual costs of health-care-related goods and services and then apply a separate methodology for administrative costs at the end. It should be noted that a significant amount of program administration is also included in the line for direct care (step 2, row 9 of Table 1), although those costs are removed in step 3.

Step 3. Price current TRICARE Spending at Medicare Rates

The third step transformed the current TRICARE costs per household into equivalent cost at Medicare rates. That was done to form a basis for determining the difference in rates paid to providers by TRICARE (which are similar to Medicare rates for most services) to those rates that would be paid by commercial insurers. There is very little literature that compares the costs incurred by TRICARE to rates paid by commercial insurance plans. However, some studies have examined the differences between rates paid by private insurers and Medicare.

The adjustment in this step is different for private-network care and direct care. In the current system, TRICARE payment rates to providers in the private network are generally based on Medicare rates by statute.[8] Therefore, CBO applied no adjustment to those costs. Converting direct care expenditures into Medicare-equivalent costs is more problematic. A recent study by the Institute for Defense Analyses (IDA) evaluated the workload at military treatment facilities and then priced out that workload using the rates paid to TRICARE network providers for the same procedures. The study found that TRICARE network providers could perform the same workload at a cost that was about one-third lower than what DoD was spending to provide the care in its MTFs.[9] That study did the comparison using the reported cost of care at the MTFs, which is more analogous to the data CBO received without the additional administrative and overhead costs added to the direct care figures discussed in step 1. Therefore, to get to the equivalent Medicare cost, those added costs applied to direct care in step 1 must be removed before the findings of the IDA study could be applied to the costs reflected in Table 1. This implies that if the services currently performed by the direct care system were instead performed by the private network at Medicare rates, the costs would be less than half those shown in the table in step 2 (not including pharmacy costs).

Step 4. Convert Medicare Payment Rates to Private Insurance Payment Rates

In the fourth step, CBO converted the cost of care at Medicare payment rates to rates that would be paid by commercial health insurance plans. CBO estimated that under Option 2, the new commercial insurance plans would pay rates that are about 25 percent greater than rates paid by Medicare for outpatient care and about 75 percent greater for inpatient care.[10] Applying those

[8] 10 U.S.C. 1079(h) requires that, to the extent practicable, the Secretary of Defense must use Medicare rates when paying TRICARE network providers.

[9] See Philip M. Lurie, *Comparing the Costs of Military Treatment Facilities With Private-Sector Care*, IDA Paper NS P-5262 (Institute for Defense Analyses, February 2016), http://tinyurl.com/zpunu5k (PDF, 504 KB).

[10] The 25 percent increase for outpatient care is based on recent information from the Medicare Payment Advisory Commission on differences in physician payments. See Medicare Payment Advisory Commission, *Report to the*

increases to the costs in step 3 would result in a weighted-average increase of over 40 percent. The overall increase is different for retiree families and active-duty families because they typically use a different mix of inpatient and outpatient care. (Those splits are included in CBO's cost model, but for the sake of brevity and clarity they are not displayed in Table 1.)

Step 5. Estimate New Demand After Higher Cost Sharing

TRICARE beneficiaries who convert to commercial insurance plans would most likely have higher cost sharing for medical services and procedures. This higher cost sharing would promote more efficient use of medical services and would lower overall costs. Based on surveys, commercial insurance plans incur cost sharing, including copayments, deductibles, and coinsurance, of about 15 percent on average.[11] By contrast, cost sharing in the current TRICARE benefit is only about 5 percent for working-age military retirees and less than 1 percent for active-duty family members.

The effect of higher cost sharing on the overall use of services would depend on the overall plan design and which services and procedures would see the highest increases in out-of-pocket costs. For the cost sharing in this estimate, CBO consulted the fee schedule of one of the more popular FEHB plans. When CBO applied those copayments and other cost sharing to its estimate of costs per service, as adjusted in step 4, the agency ended up with overall cost sharing equal to about 15 percent of total payments to health care providers. After consulting several studies, CBO estimated that increasing the cost sharing in that manner would lower overall demand for services by about 10 percent for military retiree households and about 18 percent for active-duty family members.[12] The change in usage would be larger for active-duty families because they currently have such low cost sharing.

Congress: Medicare Payment Policy (March 2017), p. 90 and pp. 117–119, https://go.usa.gov/xnx6j (PDF, 3.27 MB). The 75 percent increase for inpatient care is largely based on a recent study by Thomas M. Selden and others, "The Growing Difference Between Public and Private Payment Rates for Inpatient Hospital Care," *Health Affairs*, vol. 34, no. 12 (December 2015), pp. 2147–2150, http://doi.org/10.1377/hlthaff.2015.0706. A recent CBO working paper described analysis that produced similar results. See Jared Lane Maeda and Lyle Nelson, *An Analysis of Private-Sector Prices for Hospital Admissions*, Working Paper 2017-02 (Congressional Budget Office, April 2017), www.cbo.gov/publication/52567. Applying the 25 percent increase to outpatient care and 75 percent to inpatient care has some limitations. For example, the data for outpatient care includes some outpatient hospital charges that would probably differ from the 25 percent differential calculated for physicians. Similarly, the 75 percent increase CBO used for inpatient care does not factor in the costs of certain encounters, such as maternity care, that are more common among military beneficiaries but excluded from studies that compare Medicare and commercial payment rates for inpatient care. Despite those limitations, however, CBO used this approach because the data and studies available to the agency do not provide enough information for a more detailed analysis.

[11] For instance, see Frank McArdle and others, *How Does the Benefit Value of Medicare Compare to the Benefit Value of Typical Large Employer Plans? A 2012 Update* (Kaiser Family Foundation, April 2012), http://tinyurl.com/y84kggwf (PDF, 516 KB).

[12] In particular, CBO relied on observations from the RAND Health Insurance Experiment as modeled by the Congressional Research Service. See Joseph P. Newhouse and the Insurance Experiment Group, *Free or All?: Lessons From the RAND Health Insurance Experiment* (Harvard University Press, 1996). Also see Chris L. Peterson, *Alternatives for Modeling Results from the RAND Health Insurance Experiment*, Report for Congress RL33296 (Congressional Research Service, March 6, 2006).

The Commission's recommendations suggest that the MTFs, at least to some extent, would be incorporated into the networks of the new private insurance plans. They also indicated that DoD and the new insurance plans could promote the use of the MTFs by offering incentives to encourage their use for at least some procedures, in an effort to promote the operational readiness of DoD medical personnel. Because it is not clear what those incentives might be, or how limited they would be, CBO used reimbursement rates paid to the MTFs and beneficiary cost sharing amounts at the MTFs equal to the rates paid to private-provider networks.

Rows 22 through 25 in Table 1 represent the total cost of health care services under Option 2, including both the costs to the beneficiaries and the third-party payer. CBO's estimates included pharmacy costs, although they should generally be unchanged by this option. Rows 27 through 30 show the estimate of the average annual copayments and deductibles families would incur under Option 2. The new cost sharing would represent a significant increase when compared to the current copayments and deductibles shown in rows 3 and 4 of step 1.

Step 6. Estimate Movement of Demand From the Direct Care System to Purchased Care

As alluded to in step 5, one of the uncertainties associated with Option 2 is the extent to which MTFs would become network providers within the new insurance plans and the extent to which private insurers would use incentives to maintain the current caseload within the direct care system. The current TRICARE program maintains caseload at the MTFs by essentially giving them the right of first refusal for patients enrolled in TRICARE Prime. Without this mechanism, many beneficiaries might choose to use private-network providers, and there is no guarantee that private insurers in Option 2 would steer patients toward the MTFs or otherwise encourage their use. Also, MTFs that become part of the provider networks under Option 2 would most likely have to accept payment rates at levels similar to those paid to private providers, which, on average, CBO estimates would not cover their cost to provide most services.

As discussed below, all of those factors could have significant cost implications for DoD. The ability of the department to adapt to the change in demand for care at the MTFs and the facilities' ability to adjust their overhead accordingly would determine whether Option 2 ultimately cost more or less than the current TRICARE program. Given the large uncertainty about how Option 2 would be implemented, the amount of care that would leave the MTFs could be anywhere from zero to 100 percent. When this level of uncertainty exists, CBO frequently uses the midpoint of the range (50 percent) for its point estimate—the estimate used for the purpose of Congressional budget enforcement. In Table 1, this is shown in rows 32 and 34, which reflect a movement of half of the costs from row 24 into row 22. There is a corresponding movement in cost sharing in rows 37 and 39.[13]

Step 7. Estimate Premiums for Commercial Insurance

In the next step, CBO converted the estimated cost of health-care-related goods and services into a commercial health insurance premium. This should represent the insurers' cost of paying providers, net of any beneficiary cost sharing, plus the insurers' cost of administration and profit.

[13] For additional discussion of the complications associated with reimbursement mechanisms for the MTFs and the possibility that care would migrate out of the MTFs, see Congressional Budget Office, *Approaches to Changing Military Health Care* (October 2017), pp. 29–31, www.cbo.gov/publication/53137.

In this estimate, the insurers payments would equal the total estimated cost of care (rows 32 and 34 in Table 1) minus beneficiary cost sharing (rows 37 and 39). CBO did not include any pharmacy-related costs in the calculation because, under Option 2, the TRICARE pharmacy benefit would remain separate and would not be included in the cost of premiums paid to commercial insurers.

In addition to the cost of paying benefits, commercial insurers would incur costs for administration and would also need to show a profit (in the case of for-profit insurers). The administrative costs for purchased care for the current TRICARE program (as shown in row 8 of Table 1) understate the administrative costs a commercial insurance firm would incur under Option 2 because those costs do not include some functions currently performed by DoD headquarters activities. Such activities include advertising, outreach, and various activities related to the compilation of data and actuarial functions.[14] Some of those functions performed by DoD could disappear under Option 2 and would instead have to be carried out by the commercial insurers. The 2010 Patient Protection and Affordable Care Act of 2010 (Public Law 111-148) requires that commercial health insurers have medical loss ratios (the amount of insurance premiums paid out in benefits) of at least 80 percent for small group plans and 85 percent for large group plans.[15] For this estimate, CBO used a loss ratio of about 85 percent because the commercial plans that would participate under Option 2 would be large group plans, which means that administration and profit combined would be about 15 percent of the total premium cost. That cost was added to the cost of paying providers to arrive at the total premium cost shown in row 41, which CBO estimates would be $19,130 for families of working-age retirees and $17,850 for households of active-duty family members.[16]

Step 8. Identify the Portion of Premiums Paid by Government and Beneficiaries

In step 8, CBO divided the cost of the commercial premium between the government and the beneficiaries. Because Option 2 is based on a proposal from the MCRMC, CBO followed their specifications, in which retirees would pay 20 percent of the premium shown in row 41 of Table 1 and active-duty families would pay 28 percent of the premium, with DoD paying the balance. The results of this split between the government and the beneficiary can be seen in rows 46 through 48.

Step 9. Calculate the Costs per Family by Source of Funds

In the final step, CBO combined the calculations from the prior steps to arrive at the new estimated cost per family for health care and the portion of that cost that would be paid for by the government. As can be seen in row 49 of Table 1, CBO estimated that the total cost of care for a

[14] CBO attempted to account for the cost of those additional DoD administrative functions with the factor discussed in step 1.

[15] Suzanne M. Kirchhoff, *Medical Loss Ratio Requirements Under the Patient Protection and Affordable Care Act (ACA): Issues for Congress*, Report for Congress R42735 (Congressional Research Service, August 26, 2014).

[16] The legislative proposal submitted by the Commission does not state whether there would be separate sets of premiums for retirees and active-duty families. In theory, DoD could have one weighted-average premium for the entire population affected by the proposal. However, because of the way in which the new basic allowance for health care would be calculated, it makes more sense, at least from a government cost standpoint, to have separate premiums, which is what CBO assumed for its estimates.

retiree family in 2031 under Option 2 would be $28,520 and that the cost for an active-duty family would be $22,720. Compared to the projection of costs under the current program in row 1, the overall costs for retiree families would be more than $2,000 higher, and the cost for active-duty families would be almost $2,000 lower.

The actual cost to the government for Option 2 would depend to a large extent on the increase in out-of-pocket costs for beneficiaries and the ability of DoD to extract savings from the direct care system. Option 2 would increase out-of-pocket costs for beneficiaries, although in the case of active-duty families, they would receive an allowance equal to the average out-of-pocket costs experienced by that population (the sum of rows 50 through 52 in Table 1).[17] Working-age retiree families would see their out-of-pocket costs increase by a factor of four, from $1,910 under the current program (rows 2 through 4) to $7,490 under Option 2 (rows 50 through 52), mainly because the beneficiary's share of the premium would be higher than the projected enrollment fees for the current TRICARE plans.

The effect of Option 2 on DoD's budget would also depend on the department's ability to extract savings from the direct care system. As noted above, there is evidence that MTFs do not operate as efficiently as private health networks. Much of that inefficiency is related to DoD's need to fund sufficient overhead and capacity to maintain medical and operational readiness, while some of the inefficiencies may be related to maintaining facilities in locations with low user demand.[18]

Implementing Option 2 would represent a significant challenge for the MTFs. Because there is so much uncertainty about how the MTFs would eventually be incorporated into the new private health care plans, CBO projected that about half of the care currently performed by MTFs for the beneficiaries in this estimate would eventually migrate to the private sector in its central estimate; the range could be anywhere from 0 to 100 percent. And if MTFs were forced to rely on payments from private insurers to fund most of their operations, they could face significant funding shortfalls if they were unable to adjust the size of their footprint to compensate for the new lower demand or if the reimbursements from private insurers did not cover their cost of providing individual services.

If DoD was unable to adjust to the lower demand at the MTFs, the facilities would require subsidies to make up for any financial shortfalls and to cover the cost of their operations. Rows 9 and 34 of Table 1 illustrate the difference in the amount per family the direct care system receives under the current TRICARE program and CBO's point estimate of what the system would receive under Option 2. As shown in row 55, the difference would be as much as $4,920

[17] The legislative language submitted by the Commission could be interpreted as excluding pharmacy copayments from the calculation of the new basic allowance for health care. However, CBO included pharmacy copayments in the calculation because they are a significant expense for some families and it is not clear if excluding them was the intent of the Commission. In any event, the inclusion of pharmacy copayments in the calculation does not have a large effect on the cost estimates.

[18] See Congressional Budget Office, *Approaches to Changing Military Health Care* (October 2017), pp. 14–15, www.cbo.gov/publication/53137. As discussed in CBO's report, DoD acknowledges that the cost of providing care is typically higher at the MTFs than through the TRICARE private network. However, the department maintains that much of the costs of operating the MTFs represent "sunk costs," and it is therefore in DoD's interest, from both a financial and operational readiness standpoint, to keep the MTFs at capacity.

less for the average retiree family and $8,700 less for active-duty families. (Because active-duty families use the MTFs for a larger portion of their care, the MTFs stand to lose more under the option if those families leave the direct care system.) As it frequently does when a large amount of uncertainty surrounds an estimate, CBO chose the midpoint from the range of possible outcomes for its point estimate. Implicitly, CBO's estimate suggests that about half of the MTFs' lost funding would be made up in the form of savings related to downsizing infrastructure and reducing operating costs, and the rest would have to be made up in the form of a direct subsidy from DoD.

This factor has large consequences and is the greatest source of uncertainty in the cost estimate. As can be seen in row 56 of Table 1, depending on how one expects DoD would adjust to the new demand for services at the MTFs, the cost to DoD for each family could range anywhere from $21,030 to $25,950 for a retiree family and anywhere from $22,720 to $31,420 for an active-duty family. When compared with the government's cost per family under the current program (row 5), this indicates the effect on DoD could range anywhere from an annual savings of $3,100 to a cost of $1,820 per retiree family (row 57). Similarly, the range for an active-duty family could be anywhere from a net savings of $1,570 to a cost of $7,130 per year. Using the midpoint of the range of possible outcomes, CBO estimates Option 2 would result in an annual net savings to DoD of $640 per retiree family and a net cost of $2,780 per active-duty family.

If DoD and the private insurance plans were successful in keeping care at the MTFs, it would lower the required subsidy to the direct care system. However, depending on the mechanism used to encourage use of the MTFs, it would not necessarily change the overall costs or savings of Option 2. In a variation of the cost estimate, CBO set the copayments for services provided at the MTFs to zero, as they are currently, and significantly reduced the amount of demand that would migrate from the MTFs to the private network. Although the cost of the potential subsidy to the MTFs would decrease, because they would maintain more care in house, there would also be a reduction in savings related to having no cost sharing at the MTFs, which would increase overall demand for services. The net result of those two offsetting effects is almost zero, CBO estimates.

Estimating Total Annual Costs or Savings

To estimate the total annual budgetary effects of Option 2, the methodology above was applied to all of the households that currently use the Military Health System. Based on data from DoD, CBO estimates that about 1.1 million working-age retiree households, covering about 2.5 million beneficiaries, actively participate in the TRICARE benefit. Likewise, about 750,000 active-duty members have dependents who participate in the TRICARE benefit, and those households contain about 1.8 million family members.[19] The numbers in Table 1 and the accompanying

[19] Those population numbers may differ from numbers discussed in other places in this report or in other documents. For instance, the latest TRICARE report to Congress shows 2.5 million active-duty family members and 3.2 million working-age retirees and their family members. The difference has mainly to do with the fact that the numbers in the above paragraph exclude those enrolled in the TRICARE Reserve Select benefit, which are included in CBO's estimates, but treated as a separate cohort, and also those who are eligible for TRICARE but prefer to use other health insurance for all of their health care. See Department of Defense, *Evaluation of the TRICARE Program:*

discussion apply only to those households and beneficiaries who use TRICARE for 100 percent of their health care and who are registered as a "family". Those households comprise over 70 percent of the beneficiaries who use TRICARE for their health care. A similar methodology was applied to those households consisting of only one beneficiary, and, with the necessary adjustments, to households that currently split their health care between TRICARE and some other health insurance.

Table 2 summarizes CBO's estimate of the total annual budgetary effects of Option 2 in 2031. As illustrated in the first row, the net cost to the government for health care spending related to TRICARE beneficiaries would decrease by about $7.6 billion per year. (In Table 1, this would be the difference between rows 5 and 53.) That is primarily because of the higher out-of-pocket costs for beneficiaries and more efficient use of services. Those savings are offset, however, by the cost of the new allowance for active-duty families to help them pay for their health insurance premiums and out-of-pocket expenses ($4.6 billion) and CBO's estimated cost of financial support to the MTFs ($4.4 billion).

In addition, CBO estimates that significant savings from Option 2 would result from households' not enrolling in the new private plans and forgoing any DoD-subsidized health care benefits. Many military members retire while they are still young enough to start second careers. Studies show that over 75 percent of those working-age retirees have access to other health insurance, either through an employer or professional association.[20] Therefore, any significant increase in out-of-pocket costs for the military health benefit would cause some households to stop using those benefits and instead rely on some other health care coverage. Based on an analysis of survey data and the proportion of eligible beneficiaries who presently use the current TRICARE plans, CBO estimates that about 14 percent of working-age retiree households that currently use TRICARE would not use the new benefit under Option 2 and would instead use some other health care coverage.[21] This would result in savings of about $2.3 billion per year. CBO estimates that any effects associated with active-duty families switching between the new DoD health care benefit and other health insurance would not be significant.[22]

Fiscal Year 2017 Report to Congress—Access, Cost, and Quality Data Through Fiscal Year 2016 (June 2017), p. 13, https://go.usa.gov/x9hDe.

[20] For instance, see Louis T. Mariano and others, *Civilian Health Insurance Options of Military Retirees* (RAND Corporation, 2007), www.rand.org/pubs/monographs/MG583.html.

[21] Specifically, CBO estimated that the working-age retirees' decision point to partake in the new benefit under Option 2 has an arc-price elasticity of demand of about -0.15. As the combination of the higher premiums and other out-of-pocket costs increase relative to their current out-of-pocket costs, more would choose to no longer participate in the military health benefit. CBO adjusts the population to account for the decision point of retirees who are eligible for both military health benefits and federal civilian benefits under the FEHB program. Because the new benefit under Option 2 would be very similar to FEHB and have lower premiums, it is unlikely that beneficiaries who are eligible for both programs would stop using the military health benefit in favor of FEHB. In reality, those who are eligible for both programs and currently use FEHB may find it more appealing to switch to the new DoD-sponsored plans.

[22] There would actually be two small but offsetting effects related to the proportion of active-duty families who choose to use, or not use, the new benefit. For those active-duty households who currently rely on some other health insurance instead of TRICARE, Option 2 would result in a cost for the government because those households currently cost the government nothing, but now they would get the new allowance. However, a small number of

Option 2 would also affect the costs of the TRICARE Reserve Select benefit (TRS). The current TRS benefit allows members of the selected reserve to enroll in TRICARE with an annual enrollment fee equal to 28 percent of the cost of care to DoD. Most of the gross savings in Option 2 for the households of working-age retirees and active-duty families would be related to higher out-of-pocket costs and the movement of care out of the relatively inefficient MTFs. However, because those enrolled in TRS already have higher out-of-pocket costs than other TRICARE beneficiaries and they rely on MTFs for only a small portion of their care, any efficiency savings from moving TRS beneficiaries to private insurance plans would not be enough to offset the higher rates private insurers pay to providers, and hence, the government's share of the new premiums under Option 2 would exceed the cost of providing care to TRS beneficiaries through the current TRICARE benefit.[23] CBO estimates that added cost would be about $0.4 billion per year.

As noted above in the discussion of premiums, a lot of uncertainty surrounds CBO's estimate for Option 2. The largest source of uncertainty is the amount of care that would leave the MTFs and the ability of DoD to adjust the infrastructure and operational costs of the MTFs to reflect the lower levels of demand for their services while still maintaining operational readiness for future conflicts and training for military medical personnel. Other significant sources of uncertainty include the overhead factor for direct care discussed in step 1, the factor for converting DoD costs into equivalent Medicare costs in step 3, the conversion factor for private insurance payment rates discussed in step 4, and the number of households that would choose to use other health insurance instead of the new health care benefit. CBO estimated ranges around each of those variables, as well as around other variables with smaller effects. The numbers in Table 2 reflect the midpoint of those ranges, which produce a net savings to DoD of about $0.4 billion per year (the net savings to the government would be about half that, as discussed below). However, given the large distributions around some of the input variables, the effects on DoD and other agencies could realistically be anywhere from a net savings of about $3.9 billion per year to a net cost of about $3.5 billion per year.[24]

An examination of Table 2 reveals the effects of various factors underlying the estimate of the overall costs or savings of Option 2. For instance, if the care provided by the MTFs was nearly 100 percent variable and expenses and infrastructure could be easily adjusted to meet new demand, then the $4.4 billion in costs related to subsidies to the MTFs would be greatly reduced, and the savings to DoD from Option 2 would be even larger than CBO's estimate. Likewise, if almost none of the expenses for the MTFs were variable and CBO's estimate of 50 percent was incorrect, then the additional subsidies to the MTFs to maintain the current infrastructure and

---

households who currently use TRICARE may choose to use the allowance on some other nongovernment sponsored health benefit. That latter effect would create a savings for the government.

[23] The higher cost of Option 2 relative to the current TRICARE PPO benefit holds for the other populations as well. However, most working-age retiree and active-duty family households are currently enrolled in TRICARE Prime, which has relatively low out-of-pocket costs and high usage, which creates more opportunities for potential savings from Option 2.

[24] On a probability distribution graph, that range of roughly -$3.9 billion to $3.5 billion reflects the middle two-thirds of the distribution of possible outcomes, which were generated using simulation software.

capacity would be greater than shown in Table 2, and Option 2 would end up costing DoD more than the current TRICARE benefit.

In any event, the probability of achieving savings under Option 2 would be greatly enhanced if the new benefit was limited only to working-age retirees and their families. Although their out-of-pocket costs would increase relative to the current benefit, they would not get the benefit of the new allowance. If many chose not to use the new health care benefit and instead used other health insurance, as CBO estimates, then this proposal would produce savings even if the subsidy to the direct care system ended up being larger than CBO estimates.

Other Effects on the Federal Budget

In addition to the effects on DoD's discretionary budget, Table 2 also displays CBO's estimates of other effects Option 2 would have on the federal budget, including discretionary effects on other agencies, mandatory spending, and revenues. Because of the higher out-of-pocket costs, some working-age retirees would rely less on DoD's health care benefit and instead rely more on the Veterans Health Administration (VHA), which would increase discretionary costs for that program. There would also be higher costs for health care for the families of active members of the other uniformed services (as well as members of the Coast Guard and the commissioned corps of the National Oceanic and Atmospheric Administration and Public Health Service) because those beneficiaries are also eligible for TRICARE. The total increase in discretionary budget authority for VHA and the other uniformed services would be about $0.2 billion per year.

CBO estimates that Option 2 would also affect mandatory outlays. There would be some mandatory savings related to the lower costs for retirees of the other uniformed services, whose health benefits are paid for with mandatory appropriations. Those savings would be offset by the additional cost of a small number of beneficiaries relying more on Medicaid and other mandatory government health programs. The net change in mandatory spending from those two effects would be negligible.

The effect of Option 2 on revenues stems from the assumption that some households currently using TRICARE would choose not to enroll in the new government-subsidized insurance plans and instead use some other health insurance, such as health insurance provided through an employer. In cases where sufficiently large numbers of beneficiaries migrated from government-subsidized health care to employment-based insurance, CBO estimates, a larger portion of overall private-sector compensation would move from taxable wages to nontaxable fringe benefits (such as health care benefits). CBO and the staff of the Joint Committee on Taxation estimate that because of those effects, Option 2 would lower revenues by about $0.9 billion per year.

CBO estimates that DoD would not achieve annual steady-state costs or savings until about 10 years after the new benefit was introduced. That is because some of the savings would result from the downsizing and enhanced efficiencies of DoD's direct care system. Restructuring the operations and footprint of the direct care system would be an iterative process and could not begin in earnest until DoD understood what the demand for services at the MTFs would be under the new system, a process that would take several years. Therefore, CBO estimates that the direct

care system would require funding at or near current levels in the initial years after the rollout of the new health care plans. On that basis, relative to the cost of the current health care benefit, CBO estimates Option 2 would cost DoD more than $2 billion per year in the first years after implementation, although that cost would decrease over time as DoD adjusted its infrastructure to match the needs of the new benefit.

Comparison With Other Estimates

The specifications for Option 2 are based on proposals submitted by the MCRMC in 2015. The Commission estimated that its proposal would result in savings to DoD of between $2 billion and $4 billion per year. It arrived at that estimate by taking the current cost of providing the TRICARE benefit to working-age military retirees and active-duty family members, including both direct care and purchased care, and comparing that to the costs of health insurance premiums under the current FEHB program, with adjustments for the age of the population, the exclusion of pharmacy benefits, and the cost of the allowance for active-duty families.[25]

CBO's steady-state estimates differ from the MCRMC's estimate in several significant aspects. First, by taking the difference of the cost of the current program and private premiums, the Commission's estimate implicitly assumes that costs for the direct care system are 100 percent variable and that DoD would be able to immediately reduce funding for the MTFs in direct proportion to the change in demand for their services. Therefore, the subsidies to the direct care system included in CBO's estimate would not be needed. Another difference is that the Commission assumed the number of beneficiaries who rely on the military health care benefit would remain essentially unchanged if the benefit was based on a private-insurance model. CBO, on the other hand, estimated that some beneficiaries would choose to forgo benefits from the MHS in favor of other health insurance. Also, the commission focused only on the budgetary effects to DoD, whereas CBO included effects on other federal agencies and revenues.

If CBO revised its estimates to use the same parameters that the Commission used, its estimates of the budgetary effects on DoD would be very similar to the totals estimated by the MCRMC. As reflected in Table 2, removing the effects of the additional subsidies to the direct care system and the effects of households leaving the MHS produces an estimate of annual savings to DoD of $2.5 billion instead of $0.4 billion. That amount is within the $2 billion to $4 billion range estimated by the Commission.

---

[25] The MCRMC estimates discussed here are from Sarah K. Burns, Philip M. Lurie, and Stanley A. Horowitz, *Analyses of Military Healthcare Benefit Design and Delivery: Study in Support of the Military Compensation and Retirement Modernization Commission*, IDA Paper P-5213 (Institute for Defense Analysis, January 2015), www.dtic.mil/docs/citations/ADA617159. The final report of the MCRMC recommended the use of accrual budgeting for TRICARE benefits. Under that scenario, the MCRMC estimated that the annual savings to DoD would be about $6.7 billion and the net savings to the government as a whole would be about $3.2 billion annually. See Alphonso Maldon Jr. and others, *Final Report of the Military Compensation and Retirement Modernization Commission* (January 2015), pp. 261–262, www.dtic.mil/docs/citations/ADA625626. As mentioned in Footnote 3 of this supplemental document, CBO chose to display the estimates without the implementation of accrual budgeting. However, to see what CBO's cost estimates would look like with accrual budgeting and a more thorough discussion of accrual budgeting in general, see the discussion in Box 3-1 of Congressional Budget Office, *Approaches to Changing Military Health Care* (October 2017), pp. 32–33, www.cbo.gov/publication/53137.

Table 1.

Estimated Cost of Health Care for a Typical Family Using TRICARE in 2031 and the Transformation Into an Equivalent Cost for Private Insurance Plans

2017 Dollars

Row	Step 1. Estimate the Cost of the Current TRICARE Benefit	Working-Age Retiree Family[a]	Active-Duty Family[b]
1	Total Health Care Costs	26,040	24,550
2	Beneficiary enrollment fees or premiums	480	0
3	Pharmacy copayments	690	150
4	Other beneficiary cost sharing	740	110
5	Amount paid by the government	24,130	24,290
	Step 2. Estimate the Cost of the Current Benefit by Point of Service	**Working-Age Retiree Family**	**Active-Duty Family**
6	Total Health Care Costs	26,040	24,550
7	Private network care	11,990	9,550
8	Purchased administration	1,050	1,050
9	Direct care system	6,580	11,820
10	Pharmacy	6,420	2,130
	Step 3. Price Current TRICARE Spending at Medicare Rates	**Working-Age Retiree Family**	**Active-Duty Family**
11	Total Health Care Costs (Less Pharmacy and Administration)	14,990	14,940
12	Private network care	11,990	9,550
13	Purchased administration	n.a.	n.a.
14	Direct care system	3,000	5,390
15	Pharmacy	n.a.	n.a.
	Step 4. Convert Medicare Payment Rates to Private Insurance Payment Rates	**Working-Age Retiree Family**	**Active-Duty Family**
16	Total Health Care Costs (Less Pharmacy and Administration)	21,430	21,750
17	Private network care	17,240	13,980
18	Purchased administration	n.a.	n.a.
19	Direct care system	4,190	7,770
20	Pharmacy	n.a.	n.a.
	Step 5a. Estimate New Demand After Higher Cost Sharing	**Working-Age Retiree Family**	**Active-Duty Family**
21	Total Health Care Costs (Less Administration)	25,650	20,050
22	Private network care	15,910	11,690
23	Purchased administration	n.a.	n.a.
24	Direct care system	3,320	6,230
25	Pharmacy (row 10)	6,420	2,130
	Step 5b. Estimate Cost Sharing Under Private Plans for Typical Family	**Working-Age Retiree Family**	**Active-Duty Family**
26	Total Cost Sharing	3,660	2,900
27	Private network care	2,460	1,800
28	Purchased administration	n.a.	n.a.
29	Direct care system	510	950
30	Pharmacy (row 3)	690	150
	Step 6a. Estimate Movement of Demand From the Direct Care System to Purchased Care	**Working-Age Retiree Family**	**Active-Duty Family**
31	Total Health Care Costs (Less Administration)	25,650	20,050
32	Private network care (row 22 plus a portion of row 24)	17,570	14,800
33	Purchased administration	n.a.	n.a.
34	Direct care system (portion of row 24)	1,660	3,120
35	Pharmacy (row 10)	6,420	2,130

Continued

Table 1. Continued

Estimated Cost of Health Care for a Typical Family Using TRICARE in 2031 and the Transformation Into an Equivalent Cost for Private Insurance Plans

2017 Dollars

Row	Step 6b. Estimate Cost Sharing After Movement to Purchased Care	Working-Age Retiree Family	Active-Duty Family
36	Total Cost Sharing	3,660	2,900
37	Private network care (row 27 plus a portion of row 29)	2,710	2,270
38	Purchased administration	n.a.	n.a.
39	Direct care system (portion of row 29)	260	480
40	Pharmacy (row 3)	690	150
	Step 7. Estimate Premiums for Commercial Insurance	**Working-Age Retiree Family**	**Active-Duty Family**
41	Total Premium Amount	19,130	17,850
42	Private network care (row 32 minus row 37)	14,860	12,530
43	Purchased administration (15 percent of total premium)	2,870	2,680
44	Direct care system (row 34 minus row 39)	1,400	2,640
45	Pharmacy	n.a.	n.a.
	Step 8. Identify the Portion of Premiums Paid by Government and Beneficiaries	**Working-Age Retiree Family**	**Active-Duty Family**
46	Percentage of Total Paid by the Government	80 percent	72 percent
47	Premium Paid by the Government (row 41 times row 46)	15,300	12,850
48	Premium Paid by Beneficiaries (row 41 minus row 47)	3,830	4,990
	Step 9. Calculate the Costs per Family by Source of Funds	**Working-Age Retiree Family**	**Active-Duty Family**
49	Total Health Care Costs	28,520	22,720
50	Beneficiary enrollment fees or premiums (row 48)	3,830	4,990
51	Pharmacy copayments (row 3)	690	150
52	Other beneficiary cost sharing (row 37 plus row 39)	2,970	2,750
53	Cost Paid by the government (row 47 plus row 35 minus row 40)	21,030	14,830
54	New Basic Allowance for Health Care (row 50 plus row 51 plus row 52)	n.a.	$7,890
55	Possible Subsidy to Direct Care System (a portion of the difference between row 9 and row 34)	0 to 4,920	0 to 8,700
	Midpoint of the Range of Possible Outcomes	*2,460*	*4,350*
56	Total Cost to the Government Under Option 2 (row 53 plus row 54 plus row 55)	21,030 to 25,950	22,720 to 31,420
	Midpoint of the Range of Possible Outcomes	*23,490*	*27,070*
57	Incremental Cost or (Savings) to the Government of Option 2 Relative to the Current TRICARE Program (Row 56 minus Row 5)	**(3,100) to 1,820**	**(1,570) to 7,130**
	Midpoint of the Range of Possible Outcomes	*(640)*	*2,780*

Source: Congressional Budget Office.

Dollar amounts represent the costs for an average family in 2031, the first full year CBO estimates option 2 would be completely phased in, and represent a weighted average of families who use the current TRICARE Prime, Extra, and Standard HMO and PPO plans. Those amounts are expressed in 2017 dollars. (Costs in 2031 have been adjusted to account for economywide price inflation using CBO's projection of the gross domestic product price index, but they still reflect inflation-adjusted growth in medical prices and usage rates).

A family is defined as a household that relies on TRICARE for 100 percent of its health care.

Numbers may not add up to totals because of rounding.

n.a. = not applicable.

a. The average retiree family consists of about three people, including the retiree sponsor.

b. The average active-duty family consists of about three people, not including the sponsor.

Table 2.

Summary of Estimated Annual Costs and Savings From Option 2 in 2031

Billions of 2017 Dollars

	Working-Age Retiree Households	Active-Duty and Reserve Households	Total
Changes in Discretionary Budget Authority[a]			
Department of Defense			
Overall change in health care costs for affected households	-2.2	-5.3	-7.6
Cost of new basic allowance for health care	n.a.	4.6	4.6
Additional subsidies to the direct care system	2.0	2.5	4.4
Effect of households leaving the Military Health System	-2.3	*	-2.3
TRICARE Reserve Select[b]	n.a.	0.4	0.4
Subtotal	-2.6	2.2	-0.4
FEHB, VHA, and other uniformed services[c]	0.2	0.1	0.2
Net Effect on Discretionary Budget Authority	-2.4	2.2	-0.2
Other Budgetary Effects			
Change in mandatory Outlays	*	0	*
Change in Revenues	-0.9	*	-0.9

Sources: Congressional Budget Office and staff of the Joint Committee on Taxation.

Numbers may not add up to totals because of rounding.

Dollar amounts represent the costs for an average family in 2031, the first full year CBO estimates Option 2 would be completely phased in. Those amounts are expressed in 2017 dollars. (Costs in 2031 have been adjusted to account for economywide price inflation using CBO's projection of the gross domestic product price index, but they still reflect inflation-adjusted growth in medical prices and usage rates.)

All estimates are contingent on the details of the enacting legislation.

FEHB = Federal Employees Health Benefits program; VHA = Veterans Health Administration; n.a. = not applicable;
* = between -$50 million and $50 million.

a. Estimates of discretionary effects reflect the assumption that appropriation actions would be consistent with the changes displayed in the table.

b. Under TRICARE Reserve Select, most part-time members of the National Guard and Reserves can purchase PPO coverage for themselves and their families for a premium. The premium is designed to cover 28 percent of the estimated cost of the program. In 2016, more than 340,000 people were covered by the TRICARE Reserve Select program.

c. Other uniformed services consist of the Coast Guard, the Public Health Service, and the National Oceanic and Atmospheric Administration.