

Health-Related Quality of Life for TRICARE Beneficiaries

Health Care Survey of DoD Beneficiaries (HCSDB)

Topical Issue Brief, 10 November 2021

Health-Related Quality of Life (HRQOL)

In this brief, we examine trends and relationships with Health-Related Quality of Life (HRQOL) in TRICARE beneficiaries. We used the CDC's HRQOL-4 tool, which includes questions about general health, the number of physically and mentally unhealthy days in the last 30 days, and functional impairment. The HRQOL-4 has been adopted into many different health surveys, such as the Behavioral Risk Factor Surveillance System (BRFSS) and has been a part of the Health Care Survey of Department of Defense Beneficiaries (HCSDB) for several years. This report focuses on the number of physically and mentally unhealthy days beneficiaries experienced out of the prior 30 days.¹

Our first analysis explores the average number of physically and mentally unhealthy days reported by TRICARE beneficiaries in the HCSDB from 2017 to 2021. This is reported both overall and by beneficiary category, including active duty/reservists, family members of AD/reservists, and retirees and their dependents.

The second analysis explores five aspects of Consumer Assessment of Healthcare Providers and Systems (CAHPS) patient experience by whether beneficiaries had mostly healthy days, or unhealthy days (14 or more of the last 30 days). This was explored by physically healthy days, mentally healthy days, and combined healthy days.²

Key Overall Results:

- Physically unhealthy days decreased overall since 2020, from 4.8 to 3.9 per 30 days.
- Mentally unhealthy days increased for AD/reservist family members since 2020, from 4.3 to 4.9 per 30 days.
- Patients with more unhealthy days were far more likely to give lower patient experience ratings. Patients with 14 or more mentally unhealthy days per 30 were three times more likely to give a low rating to their personal doctor. Patients with 14 or more physically unhealthy days per 30 were twice as likely to give a low rating to their personal doctor.

¹ Physically unhealthy days is defined as indicated 14 or more days to the HCSDB question: "Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?"

Mentally unhealthy days is defined as indicated 14 or more days to the HCSDB question: "Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?"

² Combined unhealthy days is defined as indicated 14 or more days to the HCSDB question:

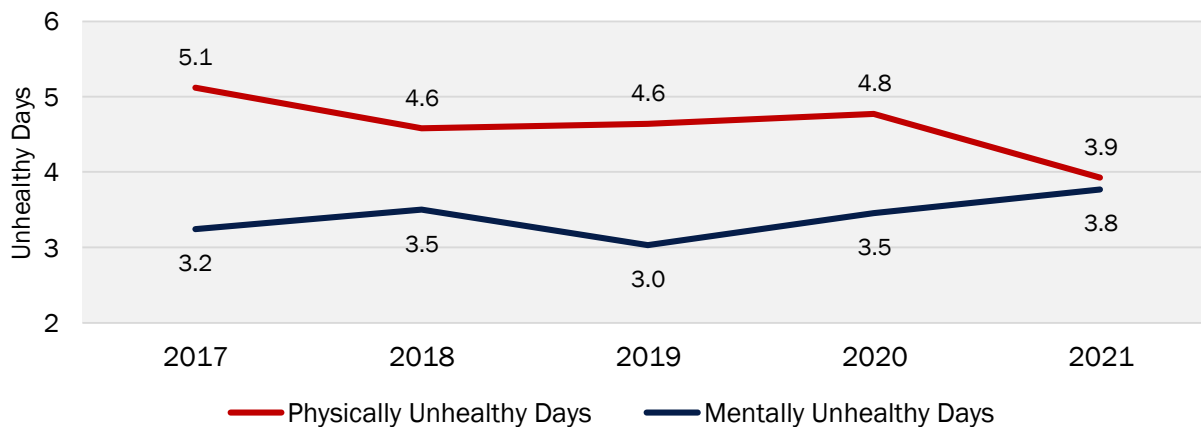
"During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?"

Trends in Physically and Mentally Unhealthy Days, 2017 to 2021

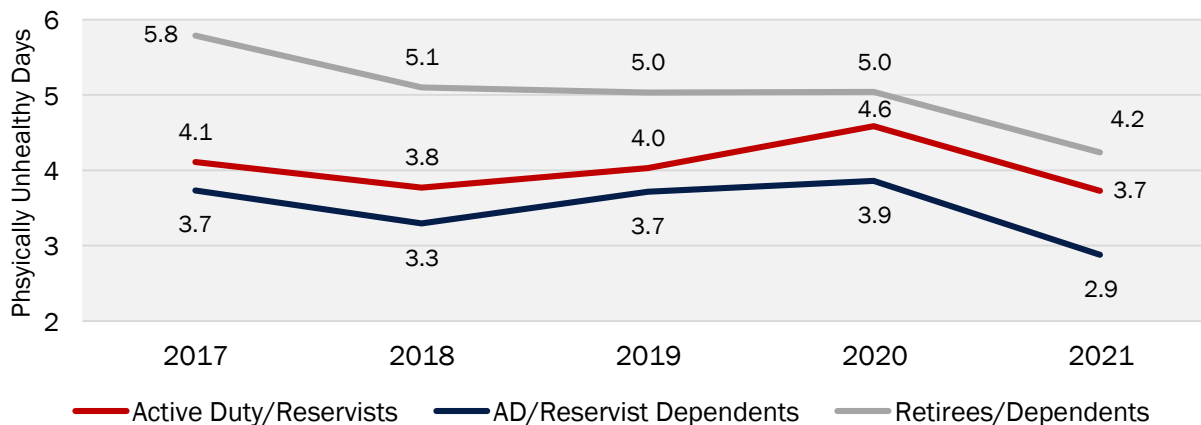
For several years, the HCSDB asked about the number of physically and mentally unhealthy days beneficiaries have recently experienced allowing for trend tracking over time. For TRICARE beneficiaries overall, physically unhealthy days in the last 30 days were 5.1 in 2017, 4.8 in 2020, and down to 3.9 in 2021. Active duty/reservists ($p = .03$) and AD/reservist dependents ($p = .002$) experienced decreases from 2020 to 2021 in physically unhealthy days. Mentally unhealthy days in the last 30 days were 3.2 in 2017, 3.5 in 2020, and 3.8 in 2021. The increase in mentally unhealthy days in 2021 compared to the previous year was largest among AD/reservist family members, who increased from 4.3 to 4.9 ($p < .05$). These trends over time are shown in the trendlines below.

These changes in mean unhealthy days from 2020 to 2021 were not all statistically significant, in part because of fewer responses in 2020 than 2021; HRQOL questions were fielded in one quarter of 2020 and three quarters of 2021.

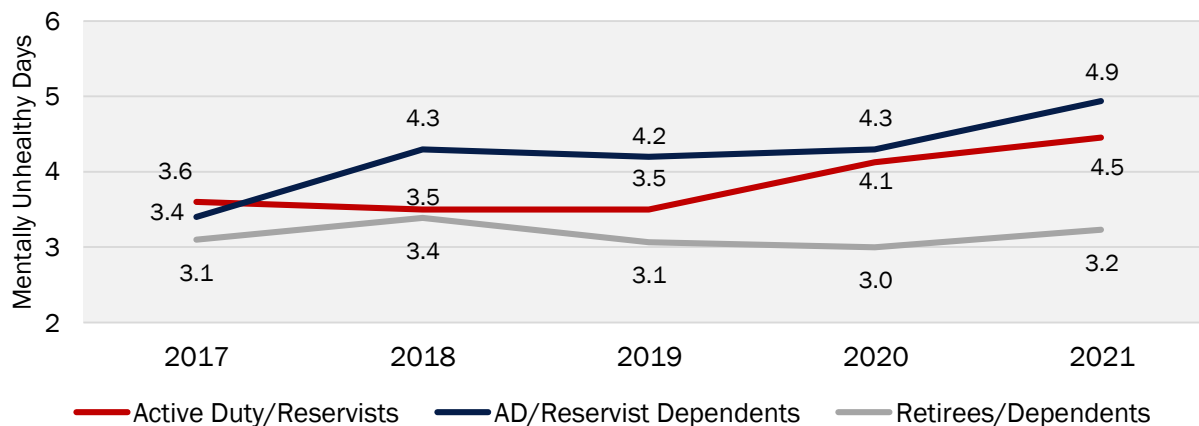
Unhealthy Days for TRICARE Beneficiaries, 2017 - 2021



Physically Unhealthy Days for TRICARE Beneficiaries, 2017 - 2021



Mentally Unhealthy Days for TRICARE Beneficiaries, 2017 – 2021



Note: Unhealthy days are measured from 0 to 30 out of the last 30 days.

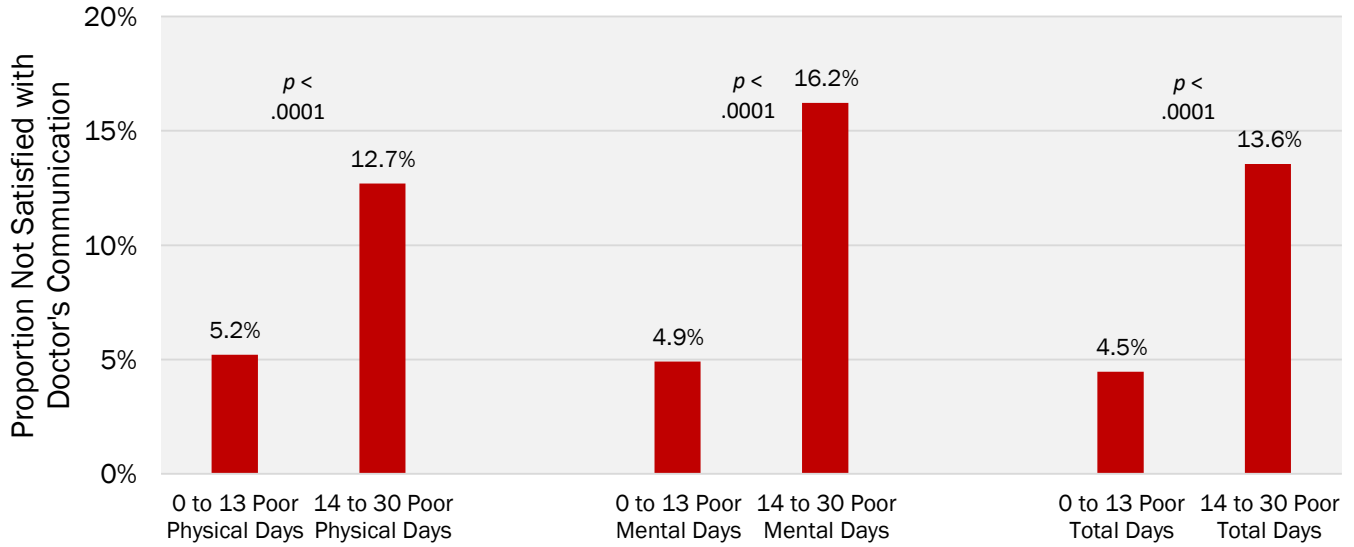
Health-Related Quality of Life (HRQOL) and Patient Experience

To investigate the relationship between patient experience and HRQOL, we compared the patient experience ratings of beneficiaries with mostly healthy days (0 to 13 unhealthy days) and those with more unhealthy days (14 or more unhealthy days) out of the last 30 days. This was done with physical, mental, and combined unhealthy days. About 11.6% of beneficiaries reported 14+ physically unhealthy days, 11.4% reported 14+ mentally unhealthy days, and 18.1% reported 14+ combined unhealthy days.

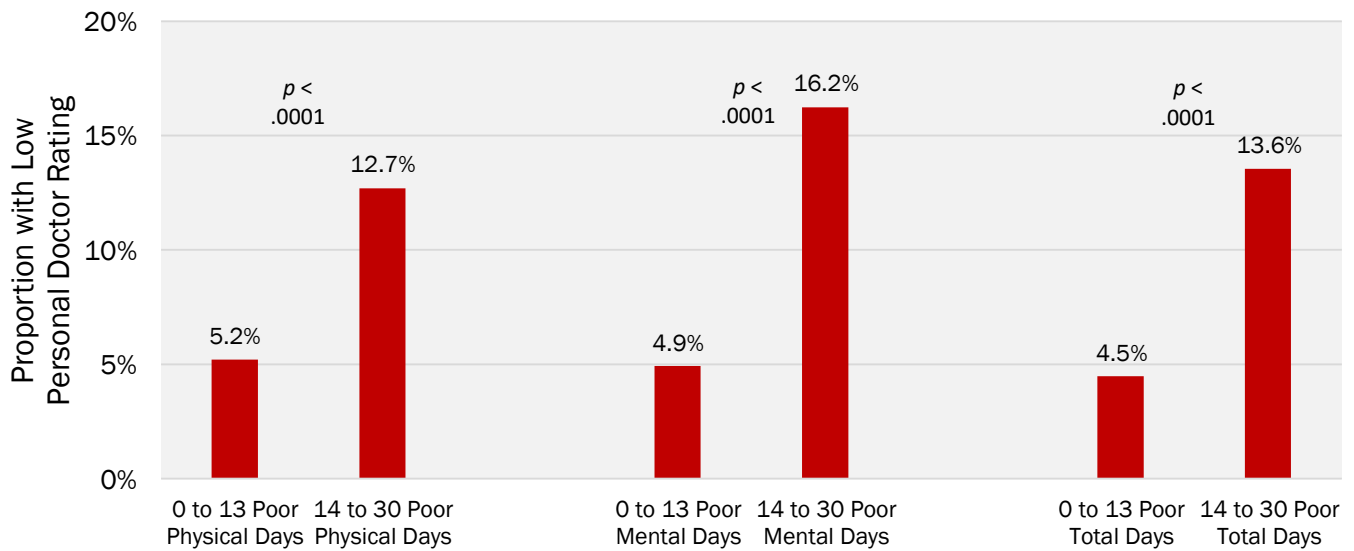
The patient experience ratings are from the CAHPS Health Plan survey and include the Doctor's Communication composite and the global ratings for Personal Doctor, Specialist, Health Care, and Health Plan. All 15 comparisons we examined were extremely significant ($p < .0001$), showing that patients with more unhealthy days, whether physical, mental, or combined, reported a poorer patient experience for all five aspects of care examined.

These results show patients who are experiencing more unhealthy days are more likely to report a poor patient experience for all aspects of care, including with their personal doctor, specialist, health care overall, and health plan. However, these are correlations, and do not show the root cause of these experiences; they do not show a poor patient experience directly leads to unhealthy days or that unhealthy days directly lead to a poor patient experience, though both of these relationships could occur.

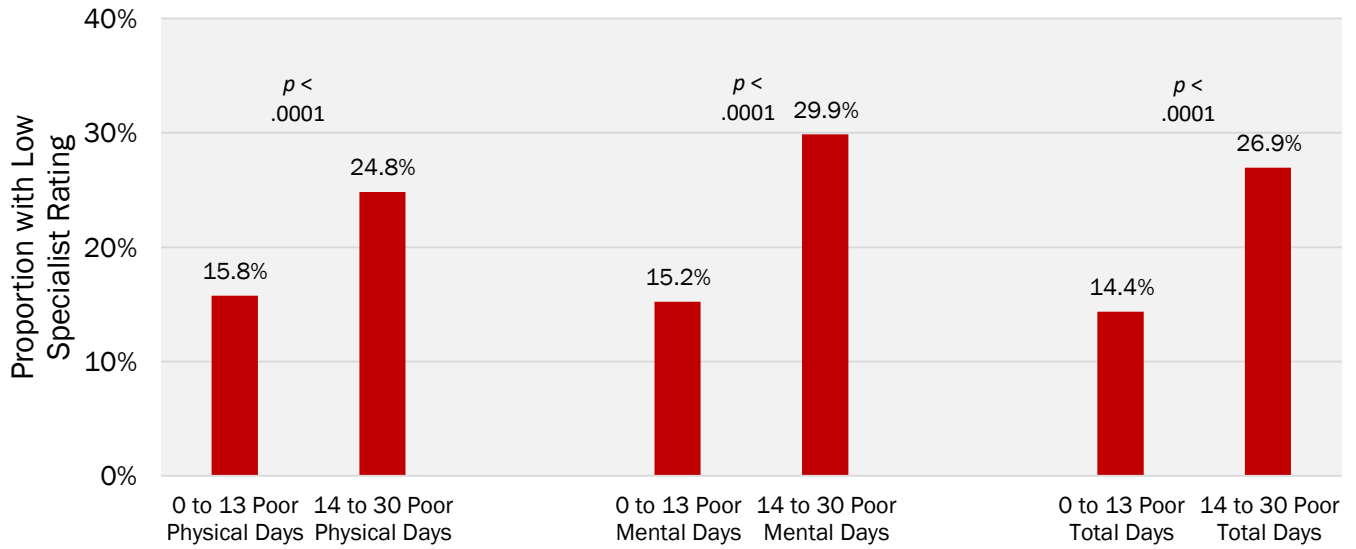
Proportion Not Satisfied with Doctors' Communication Composite by Healthy Days



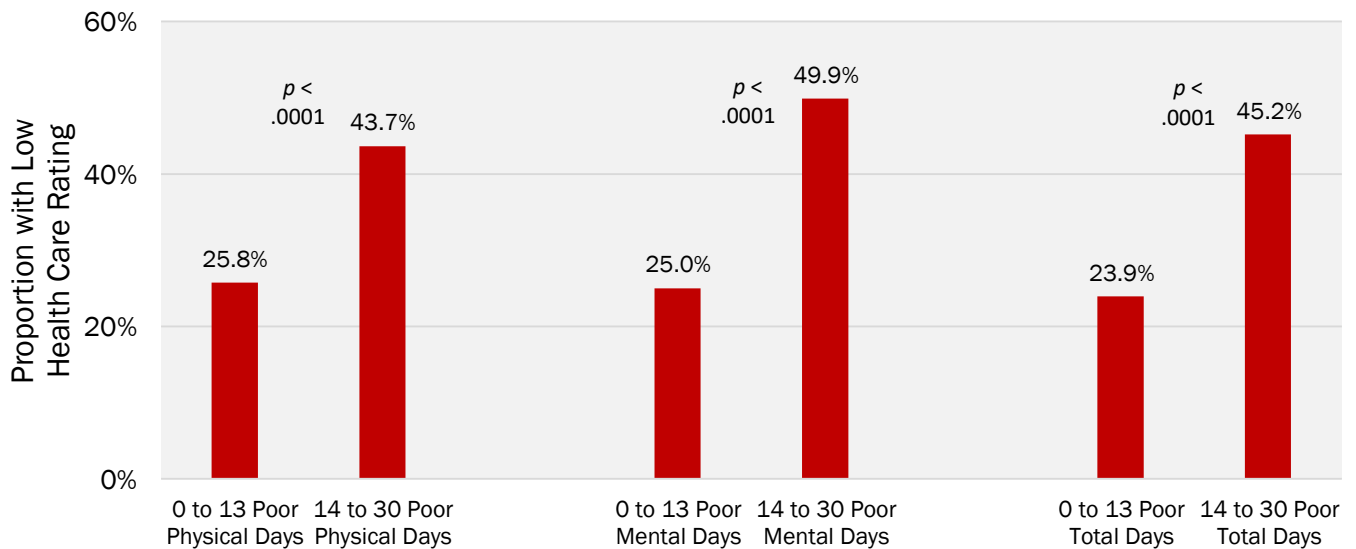
Proportion with Low Personal Doctor Rating



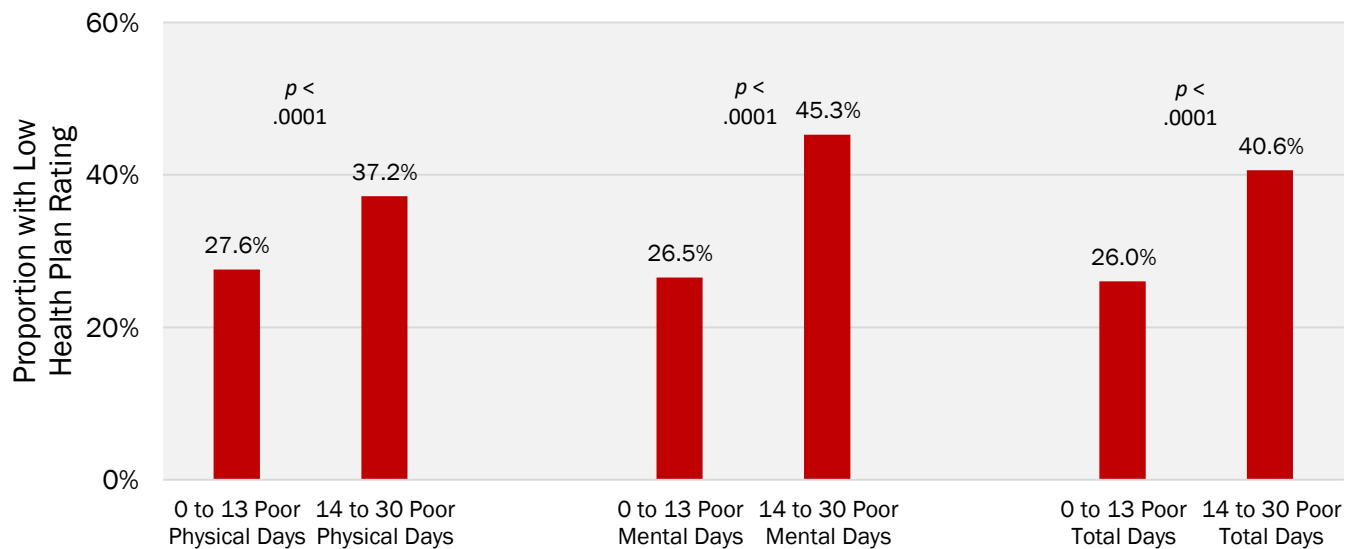
Proportion with Low Specialist Rating



Proportion with Low Health Care Rating



Proportion with Low Health Plan Rating



Discussion

This analysis found active duty/reservists and AD/reservist family members reporting fewer physically unhealthy days in 2021 than in 2020, but AD/reservist family members reporting slightly more mentally unhealthy days in 2021 than in 2020. The reason for this decline in physically unhealthy days is unknown but could be related to a reduction in cold and flu transmission as a result of protections to prevent COVID-19 transmission. The CDC estimates 38 million Americans became sick with flu during the 2019-2020 flu season, concurrent with the 2020 HCSDB, while only about 2,0 cases of flu were documented nationwide during the 2020-2021 flu season³, concurrent with the 2021 HCSDB. This reduction of more than 99.99% of flu cases between the 2020 and 2021 survey could be responsible for the increase in healthy days. This suggests health precautions like increased hand washing and social distancing when contagious could increase healthy days in future years.

Although AD/reservist family members reported fewer physically unhealthy days in 2021 compared to 2020, mentally unhealthy days increased by 0.6 unhealthy days per 30 days. The trend of increased mentally unhealthy days for both service members and their families began before the COVID-19 pandemic, with AD/reservists increasing from 3.6 mentally unhealthy days in 2017 to 4.5 in 2021, and family members increasing from 3.4 mentally unhealthy days in 2017 to 4.9 in 2021. This is consistent with other DHA patient experience surveys of active duty service members

³ <https://www.cdc.gov/flu/weekly/index.htm>

reporting increases in poor mental health. DHA researchers continue to monitor and investigate active duty mental health status overall and specifically as the global pandemic continues to evolve.

These results also show that those with more unhealthy days, either physical or mental, are much more likely to report a poor patient experience. This was true for all aspects of patient experience, including doctors' communication and ratings for personal doctors, specialists, health care, and health plan. In some cases, such as doctors' communication and personal doctor rating, those with more unhealthy days were three times more likely to report a poor patient experience. This relationship does not demonstrate direct causality between patient experience and HRQOL, but it does indicate improving the patient experience centers on the patients with the lowest health-related quality of life.

In summary, these results show:

- TRICARE beneficiaries reported a decrease in physically unhealthy days from 2020 to 2021, **decreasing from 4.8 to 3.9 unhealthy days** in the last 30 days, or about a **20% reduction in physically unhealthy days**. This was a significant change for active duty/reservists and AD/reservist family members, but not retirees and their dependents.
- Mentally unhealthy days increased for **active duty/reservist family members** from 4.3 to 4.9 in the last 30 days, or about a **15% increase in mentally unhealthy days** from 2020 to 2021.
- TRICARE beneficiaries with **lower HRQOL** (at least 14 physically or mentally unhealthy days in the last 30 days) **reported a much poorer patient experience** on all outcomes.

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