

GAO Highlights

Highlights of [GAO-22-104521](#), a report to congressional committees

Why GAO Did This Study

DOD operates one of the nation's largest health care systems providing health care to about 9.6 million beneficiaries. It relies on multiple legacy electronic health record systems to create, maintain, and manage patient health information. DOD determined that these systems, implemented over the past three decades, require modernization and replacement with a comprehensive, real-time electronic health record, MHS GENESIS.

Congress included a provision in the Joint Explanatory Statement accompanying the *Consolidated Appropriations Act, 2021* for GAO to review DOD's deployment of MHS GENESIS. This report determines the extent to which DOD's MHS GENESIS's cost estimate and program schedule are consistent with best practices. GAO reviewed documentation supporting the program's October 2020 cost estimate against best practices. In addition, GAO reviewed the program's February 2021 integrated master schedule, specifically assessing three subproject schedules. Further, GAO interviewed DOD officials within the program office to understand their practices for developing and maintaining the cost estimate and program schedule.

What GAO Recommends

GAO is making two recommendations to DOD that it develop reliable cost and schedule estimates for the MHS GENESIS program that are consistent with GAO-identified best practices. DOD concurred with GAO's recommendations.

View [GAO-22-104521](#). For more information, contact Carol C. Harris at (202) 512-4456 or harriscc@gao.gov

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ELECTRONIC HEALTH RECORDS

Additional DOD Actions Could Improve Cost and Schedule Estimating for New System

What GAO Found

The Department of Defense (DOD) began deploying Military Health System (MHS) GENESIS—a commercial electronic health record system intended to integrate inpatient and outpatient medical and dental information in 2017. MHS GENESIS's contract award totals \$5.5 billion. DOD's plans call for implementing MHS GENESIS in 24 waves or phases. The first wave was completed in October 2017 with the last wave expected to be deployed by December 2023 and additional activities planned through 2025.

DOD has not fully met the characteristics and associated best practices for developing MHS GENESIS cost and schedule estimates, as shown below.

GAO Assessment of DOD Cost and Schedule Estimates against Best Practice Characteristics			
Cost estimate characteristic	Assessment of cost estimate	Schedule estimate characteristic	Assessment of schedule estimate
Comprehensive	Substantially met	Comprehensive	Substantially met
Well-documented	Partially met	Well-constructed	Partially met
Accurate	Substantially met	Credible	Partially met
Credible	Minimally met	Controlled	Substantially met

Legend: substantially met = DOD provided evidence that satisfies a large portion of the criterion; partially met = DOD provided evidence that satisfies about one-half of the criterion; minimally met = DOD provided evidence that satisfies a small portion of the criterion

Source: GAO assessment of the Department of Defense (DOD) Military Health System GENESIS program documentation. | GAO-22-104521

MHS GENESIS's cost estimate was unreliable because it did not substantially meet all four characteristics of a reliable cost estimate, as described in GAO's cost guide. Specifically, DOD minimally met the "credible" characteristic associated with reliable cost estimates, in part, because it did not provide evidence that a sensitivity analysis, a risk and uncertainty analysis, or an independent cost estimate were conducted. Reliable cost estimates are critical for successfully delivering IT programs.

In addition, the subproject schedules did not meet all four characteristics of a high quality, reliable schedule. Because an integrated master schedule consolidates subproject schedules, errors and reliability issues in subproject schedules will be reflected in higher-level schedules. Therefore, the larger master schedule is unreliable. Specifically, the subproject schedules partially met the "well-constructed" characteristic associated with reliable schedule estimates, in part because their critical paths could not be validated or they exhibited total float values that could allow activities and milestones to slip months or years before delaying key program activities. A reliable schedule can assist with the systematic execution of a program and the means by which to gauge progress, identify and address potential problems, and promote accountability.

Because the MHS GENESIS program cost and schedule estimates were not reliable, DOD increases the risk that management will not have the information necessary for effective decision-making. Following cost and schedule best practices can help minimize the risk of cost overruns and schedule delays, and would better position DOD for successful program implementation.