



DEPARTMENT OF VETERANS AFFAIRS  
**OFFICE OF INSPECTOR GENERAL**

*Office of Healthcare Inspections*

VETERANS HEALTH ADMINISTRATION

Deficits with Metrics  
Following Implementation of  
the New Electronic Health  
Record at the Mann-  
Grandstaff VA Medical  
Center in Spokane,  
Washington



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## Executive Summary

The Office of Inspector General (OIG) evaluated the availability and utilization of metrics more than a year after the Mann-Grandstaff VA Medical Center in Spokane, Washington, (facility) became the first Veterans Health Administration (VHA) medical center to implement the new electronic health record (new EHR) system. An integral component of health care operations, EHRs enable healthcare organization to generate metrics to “inform their clinical practice patterns and to improve care and reduce safety risks.”

Throughout the inspection, the OIG found facility leaders and staff encountered challenges with the new EHR but remained undeterred and dedicated to serving patients, despite the added burden of COVID-19 pandemic stressors. The OIG recognized the hard work of facility, Veterans Integrated Service Network (VISN), and VHA staff, and the challenges associated with implementing the new EHR for the largest integrated healthcare system in the United States.<sup>1</sup>

Highlighting the importance of data, VA published a strategic data plan in January 2021, which identified data as both “a strategic asset” and “critical resource.”<sup>2</sup> With VA’s transition to the new EHR, metrics were created by syndicating new EHR data to the existing VA data repository (Corporate Data Warehouse) and by using the new EHR’s functionality.<sup>3</sup>

The OIG found that facility gaps in available metrics due to the new EHR transition impaired the facility’s ability to measure and act on issues of

- organizational performance,
- quality and patient safety, and
- access to care.

The OIG also identified factors that affected the availability of new EHR metrics and VHA metrics that use new EHR data.

Facility, VISN, and VHA staff did not provide the OIG with a definitive set of required metrics for the facility to monitor and utilize for managing organizational performance, quality and patient safety, and access to care. The OIG determined that, one year after go-live, gaps existed between required metrics and those that were available using new EHR data. These gaps impeded assessment and action to address organizational performance, quality and patient safety, and access to care at the facility.

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<sup>1</sup> “About VHA,” VHA, accessed January 23, 2020, <https://www.va.gov/health/aboutvha.asp>.

<sup>2</sup> VA Enterprise, *Data Strategy: A Vision for the Future*, January 2021.

<sup>3</sup> A VHA leader stated that VA utilizes the term data syndication to denote daily delivery of new EHR data to the existing VA data repository. The VHA leader also stated that no metrics were syndicated from Cerner to VA.

The OIG found that following go-live, facility staff utilized workarounds to mitigate the post go-live metrics gap.<sup>4</sup> Facility staff shared with the OIG that the workarounds created a “tremendous” increase in additional workload, at times requiring numerous hours or days to prepare just one metrics report. Despite time-intensive workarounds and concerns with metrics accuracy, a facility leader shared that facility service chiefs had been forced at times to “provide their best estimates” to inform decisions because of the gaps in metrics.

EHR metrics of organizational performance provide a “reliable reflection” of the state of healthcare organizations.<sup>5</sup> VA utilizes a collection of organizational performance metrics, the Strategic Analytics for Improvement and Learning (SAIL) model, to facilitate internal and external benchmarking, identify strengths and areas of improvement, and facilitate the sharing of strong practices across VA healthcare systems.

However, the OIG learned from a leader in VHA’s Office of Performance Measurement that of 103 metrics necessary to populate the facility’s SAIL metrics, only 13 were available to the facility, and 90 were partially or not available. The OIG accessed VHA’s public website and found that in fiscal year 2021, no SAIL metrics were provided for the facility. The OIG is concerned that the lack of organizational performance metrics precludes an understanding of actual performance and data-driven decision-making at the facility.

EHR metrics of quality and patient safety enable the assessment of timely, effective, safe and veteran-centered care at VA facilities, which allow for comparison to private sector care.

However, the OIG determined that many quality and patient safety metrics were unavailable for the facility. One year after go-live, the VA’s MISSION Act Quality Community Comparison website listed only 4 of 12 effective care measures for the facility.<sup>6</sup> Further, VHA did not publish data that compares the facility’s quality outcomes to established quality benchmarks.<sup>7</sup> The OIG was told, one year after go-live, that VHA’s Office of Analytics and Performance Integration was working with Cerner to provide certified National Committee for Quality Assurance’s Healthcare Effectiveness Data and Information Set (HEDIS) measures for the facility.<sup>8</sup> A leader

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<sup>4</sup> Vincent Blijleven et al., “Workarounds Emerging from Electronic Health Record System Usage: Consequences for Patient Safety, Effectiveness of Care, and Efficiency of Care,” *Journal of Medical Internet Research Human Factors* 4, no. 4 (October 2017): e27.

<sup>5</sup> David Blumenthal, Elizabeth Malphrus and J. Michael McGinnis, *Vital Signs: Core Metrics for Health and Health Care Progress*, (Institute of Medicine of the National Academies, 2015), page 9, accessed July 29, 2021, <https://www.ncbi.nlm.nih.gov/books/NBK316125/>.

<sup>6</sup> MISSION Act Quality Measure Community Comparison for Spokane, WA, Health Care System is published at <https://www.accesstocare.va.gov/Healthcare/MissionActQualityStandardForStation/668>. VHA data are available on the VA’s MISSION Act Quality Community Comparison website for safe, effective, and veteran-centered care.

<sup>7</sup> “MISSION Act Quality Measure Community Comparison for Spokane, WA Health Care System,” is published at <https://www.accesstocare.va.gov/Healthcare/MissionActQualityStandardForStation/668>.

<sup>8</sup> HEDIS is a “widely used set of outpatient performance measures,” which allows patients to compare healthcare performance.

in VHA's Office of Performance Measurement informed the OIG that 17 metrics needed for hospital accreditation by The Joint Commission were unavailable at the facility. Another VHA leader told the OIG "absolutely not" when asked about the facility's readiness for an upcoming accreditation survey by The Joint Commission. The OIG is concerned that missing quality and patient safety metrics thwart accurate and timely patient safety monitoring and could impede identification of opportunities for quality improvement.

As is required, VA measures access and publishes wait times for care at VA facilities. The website-published access metrics allows the public to search wait times at individual VHA facilities.<sup>9</sup>

However, the OIG found that access metrics for the facility were largely unavailable. The OIG determined that VHA's inability to monitor availability and timeliness of care impedes the ability to prevent delays in care which could lead to patient harm.

The OIG remains concerned that, despite the concerted efforts of facility staff to use workarounds to manage gaps in the new EHR's metrics, deficits in new EHR metrics may negatively affect organizational performance, quality and patient safety, and access to care.

The OIG identified multiple factors contributing to the significant gap in metrics available to the facility following go-live. Challenges with the new EHR's metrics included the following factors:

- Cerner's failure to deliver metrics reports,
- New EHR's metrics could not be assessed prior to go-live,
- New EHR's metrics utility was impaired, and
- Training deficits with new EHR metrics.

VHA-generated metrics using new EHR data also created challenges:

- VHA resources were insufficient for generating new EHR metrics,
- VHA metrics using new EHR data were not validated and unavailable, and
- VHA changed metrics required from the facility.

The OIG determined that deficiencies related to the new EHR's metrics and challenges with VHA-generated metrics using new EHR data impaired the facility's access to and utilization of metrics.

The OIG is concerned that further deployment of the new EHR in VHA without addressing the gap in metrics available to the facility will affect the facility and future sites' ability to utilize

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<sup>9</sup> "Average Wait Times at Individual Facilities," VA, accessed January 26, 2022, [www.accesstocare.va.gov/](http://www.accesstocare.va.gov/). Wait times at individual facilities are available on the "How Quickly Can My VA Facility See Me," option.

metrics effectively. Accordingly, to address the gaps in metrics available to the facility and future sites, VA must resolve the factors identified by the OIG that affect the availability of metrics.

The OIG made two recommendations to the Deputy Secretary related to evaluating gaps in new EHR metrics and the factors affecting the availability of metrics and taking action as warranted.

## **Comments**

The Deputy Secretary concurred with the recommendations and provided acceptable action plans. (See Appendix E for the Deputy Secretary's response as well as the OIG's response.) The OIG will follow up on the planned actions until they are completed.



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## Abbreviations

CMS	Centers for Medicare and Medicaid Services
DoD	Department of Defense
EHR	electronic health record
EHRM	Electronic Health Record Modernization
HEDIS	Healthcare Effectiveness Data and Information Set
OEHRM	Office of Electronic Health Record Modernization
OIG	Office of Inspector General
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Network
VistA	Veterans Health Information Systems and Technology Architecture
VSSC	Veterans Health Administration Support Service Center



## Introduction

On October 24, 2020, the Mann-Grandstaff VA Medical Center in Spokane, Washington, (facility) was the first Veterans Health Administration (VHA) medical center to implement the new VA Electronic Health Record (new EHR) system. The purpose of this inspection is to evaluate the gap in metrics available to the facility following transition to the new EHR and the facility's ability to use metrics for quality and patient safety, access, and organizational performance. The inspection also addressed factors that affected the availability of metrics at the facility.

Throughout the inspection, the Office of Inspector General (OIG) found that facility leaders and staff encountered challenges with the new EHR but remained undeterred and dedicated to serving patients, despite the added burden of COVID-19 pandemic stressors. The OIG recognized the hard work of facility, Veterans Integrated Service Network (VISN), and VHA staff, and the challenges associated with implementing the new EHR for the largest integrated healthcare system in the United States.<sup>1</sup>

## Facility Background

The facility, part of VISN 20, includes four community clinics located in three states.<sup>2</sup> The facility operates 24 hospital and 34 community living center beds.<sup>3</sup> Patient referrals for tertiary care are coordinated with the VA Puget Sound Health Care System and the VA Portland Health Care System. From October 1, 2020, through September 30, 2021, the facility served over 35,000 patients. VHA classifies the facility as the least complex type of facility.<sup>4</sup>

## VA Electronic Health Record Modernization Program

In June 2017, the VA began the process of acquiring a new EHR. The course of the acquisition and deployment of the new EHR, known as the VA Electronic Health Record Modernization

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<sup>1</sup> "About VHA," VHA, accessed January 23, 2020, <https://www.va.gov/health/aboutvha.asp>.

<sup>2</sup> The community clinics are in Wenatchee, Washington; Libby, Montana; and Ponderay and Coeur d'Alene, Idaho.

<sup>3</sup> VHA Handbook 1142.01, *Criteria and Standards for VA Community Living Centers (CLC)*, August 13, 2008. A VA community living center was formerly known as a nursing home care unit. A community living center provides a skilled nursing environment for patients needing short and long stay services.

<sup>4</sup> VHA Office of Productivity, Efficiency and Staffing, Facility Complexity Model, "Facility Complexity Model Fact Sheet." The VHA Facility Complexity Model categorizes medical facilities by complexity level based on patient population, clinical services offered, and educational and research missions. Complexity Levels include 1a, 1b, 1c, 2, or 3. Level 1a facilities are considered the most complex. Level 3 facilities are the least complex.

(EHRM) Program, is detailed in [appendix A](#).<sup>5</sup> The OIG’s 12 published reports on VA’s implementation of the new EHR are listed below.<sup>6</sup>

1. *Medication Management Deficiencies after the New Electronic Health Record Go-Live at the Mann-Grandstaff VA Medical Center in Spokane, Washington.*
2. *Care Coordination Deficiencies after the New Electronic Health Record Go-Live at the Mann-Grandstaff VA Medical Center in Spokane, Washington.*
3. *Ticket Process Concerns and Underlying Factors Contributing to Deficiencies after the New Electronic Health Record Go-Live at the Mann-Grandstaff VA Medical Center in Spokane, Washington.*
4. *New Patient Scheduling System Needs Improvement as VA Expands Its Implementation.*
5. *Training Deficiencies with VA’s New Electronic Health Record System at the Mann-Grandstaff VA Medical Center in Spokane, Washington.*
6. *Unreliable Information Technology Infrastructure Cost Estimates for the Electronic Health Record Modernization Program.*
7. *Deficiencies in Reporting Reliable Physical Infrastructure Cost Estimates for the Electronic Health Record Modernization Program.*
8. *Deficiencies in Infrastructure Readiness for Deploying VA’s New Electronic Health Record System.*
9. *Review of Access to Care and Capabilities during VA’s Transition to a New Electronic Health Record System at the Mann-Grandstaff VA Medical Center in Spokane, Washington.*
10. *Review of Staffing and Access Concerns at the Mann-Grandstaff VA Medical Center Spokane, Washington.*
11. *The Electronic Health Record Modernization Program Did Not Fully meet the Standards for a High-Quality, Reliable Schedule.*
12. *Joint Audit of the Department of Defense and the Department of Veterans Affairs Efforts to Achieve Electronic Health Record System Interoperability.*

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<sup>5</sup> Underlined terms are hyperlinks; to return to the text, press and hold the “alt” and “left arrow” keys together.

<sup>6</sup> Links to the 12 VA OIG reports and the status of recommendations are provided at the [VA OIG site](#), which is a link to the VA OIG reports website that has been filtered to listed reports.

## VA Data Strategy

In January 2021, VA published a strategic data plan, identifying VA data as both “a strategic asset” and “a critical resource.”<sup>7</sup> The strategic data plan estimates that approximately 10,000 individuals participate in the generation, reporting, and analysis of data.<sup>8</sup>

VA’s data strategy includes leveraging data as an asset; as such, VA reports substantial investment in the collection and analysis of data to provide critical services and benefits to veterans.<sup>9</sup> VA’s strategy includes using data to support “data-driven policies and decisions to improve VA’s services and value to all Veterans.”

VA’s data strategy works to improve

- analytics to drive evidence based decision-making and policy making,
- technology that provides a secure infrastructure for data management, information sharing and data analytics,
- a workforce that is data centered,
- governance that uses data to drive decisions, and
- advancing data stewardship to ensure the effective use of data and accountability.<sup>10</sup>

In alignment with these goals, VA’s Strategic Plan states that “reliable, accessible, comprehensive, and up-to-date data is critical.”<sup>11</sup>

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<sup>7</sup> VA Enterprise, *Data Strategy: A Vision for the Future*, January 2021. VA defines Strategic Asset, as an “asset that is required by an entity for it to maintain its ability to achieve future outcomes.”

<sup>8</sup> VA Enterprise, *Data Strategy: A Vision for the Future*, January 2021.

<sup>9</sup> “National Center for Veterans Analysis and Statistics,” VA, accessed August 3, 2021, <https://www.va.gov/vetdata/>. VA Directive 0900, *VA Enterprise Data Management (VADM)*, December 8, 2020; VA, *Enterprise Data Strategy: A Vision for the Future*.

<sup>10</sup> VA, *Enterprise Data Strategy: A Vision for the Future*.

<sup>11</sup> VA, *FY [fiscal year] 2018-2024 Strategic Plan*, Refreshed May 31, 2019.

## Legacy EHR Metrics

Data gathered through EHRs (known as metrics, reports, registries, or measures) are used to assess organizational performance, support quality and patient safety, and track access to care.<sup>12</sup> Numerous groups in VHA utilize data from the legacy EHR to generate metrics.<sup>13</sup> VHA Reporting and Analytics Field Training course materials acknowledge that while “VHA data is rich,” knowing where to find metrics can be “overwhelming and confusing.”<sup>14</sup> The number and complexity of the data resources used by VHA are illustrated by VHA’s training materials (see figure 1).



**Figure 1.** VHA training materials illustrate the multiple sources for metrics. Source: “Getting Started in Finding VHA Data,” VHA Office of Analytics and Performance Integration, 2020.

<sup>12</sup> “Glossary of Key Report Terms,” Agency for Healthcare Research and Quality, accessed August 4, 2021, <https://www.ahrq.gov/patient-safety/settings/long-term-care/resource/hcbs/report/gloss.html>. Measures and metrics are numbers assigned to assess related characteristics, or are assigned to objects or events, according to a rule. Sonal Parasrampur and Jawanna Henry, Office of the National Coordinator for Health Information Technology, “Hospitals’ Use of Electronic Health Records Data, 2015-2017,” ONC Data Brief No. 46, April 2019. The report presented the ten processes used by facilities but did not provide definitions of each process. “Patient Safety,” World Health Organization, accessed August 4, 2021, <https://www.who.int/news-room/fact-sheets/detail/patient-safety>. Patient safety is a discipline that “aims to prevent and reduce risks, errors and harm that occur to patients during provision of healthcare.” The OIG considers EHR data metrics, reports, and measures as synonymous. For consistency, the OIG uses the term EHR metrics.

<sup>13</sup> “History of IT at VA,” DigitalVA, accessed January 31, 2020, <https://www.oit.va.gov/about/history.cfm>. Veterans Health Administration, Office of Information and Technology, Enterprise Program Management Office, & Office of Information & Analytics, *VA Monograph*, January 13, 2017. Within the context of this report, the Veterans Health Information Systems and Technology Architecture (Vista) system is referred to as the legacy EHR.

<sup>14</sup> “Getting Started in Finding VHA Data,” VHA Office of Analytics and Performance Integration, April 10, 2018.

A VHA leader shared with the OIG, “I don’t know if you know anything about VA, everybody loves to have their own metrics.” The VHA Reporting and Analytics Field Training user guide identifies 15 internal VHA data offices, each with their own focus area:

- Allocation Resource Center
- Compliance and Business Integrity
- Inpatient Evaluation Center
- Managerial Cost Accounting Office, formerly the Decision Support Office
- National Center for Patient Safety
- National Data Systems
- National Surgery Office
- Office of Productivity, Efficiency and Staffing
- Office of Quality, Safety and Value
- Office of Policy & Planning
- Performance Measurement Team
- Planning System Support Group
- VA Informatics and Computing Infrastructure
- VA Information Resource Center
- VHA Support Service Center

Prior to implementation of the new EHR, facility staff could utilize metrics from these 15 VHA offices, external data resources, as well as a business intelligence software tool to enable review of metrics at the facility.<sup>15</sup>

## **New EHR Metrics**

VA’s transition to the new EHR required preparation for the use of the new EHR’s data for metrics. Metrics using new EHR data consist of two sources:

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<sup>15</sup> “*Getting Started in Finding VHA Data*,” (user guide), VHA Office of Analytics and Performance Integration, April 10, 2018. In addition to metrics from the 15 internal VHA offices, the user guide identifies use of 18 external sources, and also identifies a business intelligence product used by VHA staff to generate metrics.

- Metrics created through syndication of new EHR data to the existing VA data repository (Corporate Data Warehouse)<sup>16</sup>
- Metrics using the new EHR's functionality

The preparation for new EHR metrics was led through the Reports and Registries workgroup of one of the EHRM's clinical councils, the Quality, Safety and Value Council.<sup>17</sup> The Quality, Safety and Value Council's Reports and Registries workgroup was charged with overseeing the transition of VA data, analytics, reporting, and registries to Cerner.<sup>18</sup> A VHA leader told the OIG the Reports and Registries workgroup facilitated the clinical council's review of area-specific metrics. According to the VHA leader, this work included coordination with Cerner to decide how best to meet the reporting needs of each council and its VHA stakeholders.

In preparation for deployment of the new EHR, the VHA Office of Reporting, Analytics, Performance Improvement and Deployment compiled a list of over 8,000 enterprise wide, regional, and local metrics.<sup>19</sup> The EHRM Reporting and Registry workgroup, in coordination with the EHRM Functional Councils, identified 2,369 of these metrics as either in active use or mandated for VA operations. Upon further review, the councils determined that 2,029 of these metrics were critical and required preservation due to legislative, regulatory, accreditation, patient safety, and other reporting requirements. The majority of these reports (1,342) needed to be rebuilt by, or within, 12 months of go-live at the facility. A subset of 1,204 reports required Cerner data be imported to the VA Corporate Data Warehouse and pooled with data coming from non-Cerner VA facilities for syndication.<sup>20</sup> The OIG learned from a VHA leader, the

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<sup>16</sup> A VHA leader stated that VA utilizes the term data syndication to denote daily delivery of new EHR data to the existing data repository. The VHA leader also stated that no metrics were syndicated from Cerner to VA.

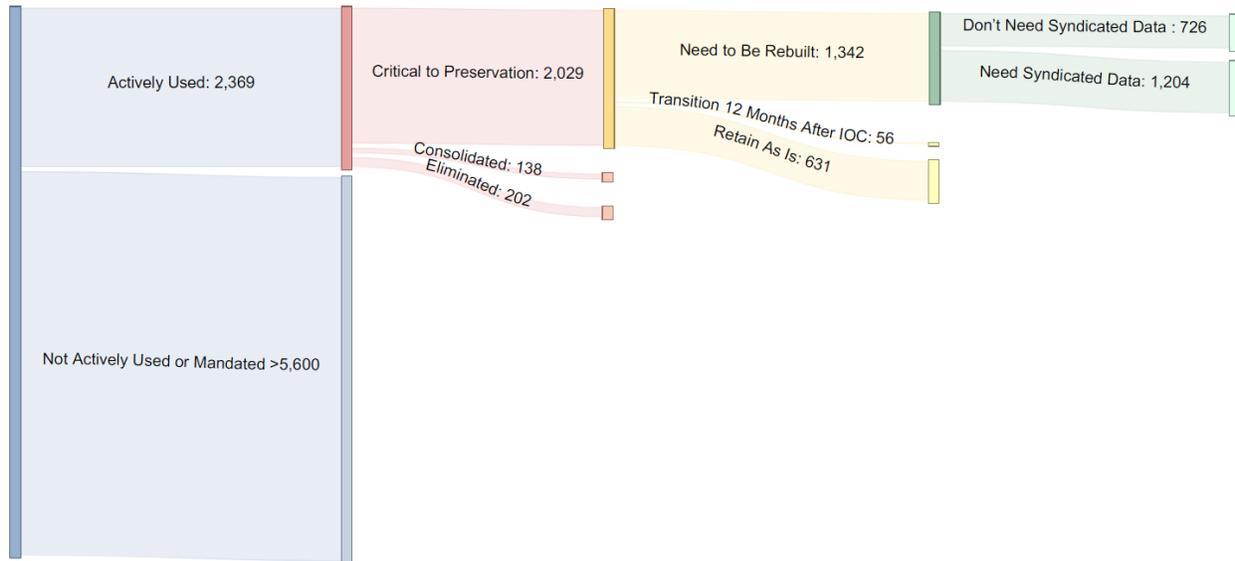
<sup>17</sup> The Electronic Health Record Modernization project included 18 clinical councils formed of subject matter experts from VA, VHA, and Cerner who determined what functions needed to be further developed to meet VHA's clinical and administrative requirements. According to the EHRM Council Charter, the Quality, Safety and Value Council is responsible for "evaluation of the strategy to provide value-added performance, quality and safety initiatives that create safe, effective, patient-centered, timely, efficient, and equitable care; reduce risk and harm, and create a just culture." The Quality, Safety and Value Council is organized into a number of workgroups, one of which is the Reports and Registries workgroup.

<sup>18</sup> "Population Health Management," Cerner, accessed February 2, 2022, <https://www.cerner.com/solutions/population-health-management>. Registries are intended to "identify, attribute, measure, and monitor people and providers at an individual or population level."

<sup>19</sup> VA Functional Organization Manual, "Description of Organization Structure, Missions, Functions, Tasks, and Authorities," 2020, Version 6, page 154, accessed January 19, 2022, <https://www.va.gov/VA-Functional-Organization-Manual-2020-4.pdf>. The VHA Office of Reporting, Analytics, Performance, Improvement and Deployment (RAPID), within the Office of Quality and Patient Safety provides "VHA with data reports, analysis and insights that drive action and improvement." White Paper: Electronic Health Record Modernization Impact on Quality Reporting and SAIL [Strategic Analytics for Improvement and Learning], June 19, 2019.

<sup>20</sup> "Corporate Data Warehouse," VHA Health Services Research and Development, accessed December 22, 2021, [https://www.hsrd.research.va.gov/for\\_researchers/vinci/cdw.cfm](https://www.hsrd.research.va.gov/for_researchers/vinci/cdw.cfm). The Corporate Data Warehouse is a large-scale data warehouse, collecting real-time health care data from VHA's EHR system, used to create industry benchmarks to improve patient care.

councils further determined that a number of new reports would be built from “whole cloth” from within the Cerner system. Figure 2 illustrates the process to identify new EHR metrics.



**Figure 2.** Diagram of the Process to Identify New EHR Metrics.

Source: VHA White Paper: *Electronic Health Record Modernization Impact on Quality Reporting and SAIL [Strategic Analytics for Improvement and Learning]*, June 19, 2019.<sup>21</sup>

As of October 15, 2021, nearly one year post go-live, the Reporting and Registry workgroup update indicated that 33 percent of newly requested Cerner reports were completed. The workgroup also indicated that between 72 and 73 percent of the reports requiring syndication back to the VA Corporate Data Warehouse, previously identified as “critical,” were designated as “complete.”<sup>22</sup>

## Rationale for Review

EHR metrics enable healthcare organizations to “inform their clinical practice patterns and to improve care and reduce safety risks.” A 2019 report indicates that 94 percent of hospitals use EHR metrics in at least one way. The three most common ways are measuring organizational performance, supporting quality improvement, and monitoring patient safety.<sup>23</sup>

<sup>21</sup> “VHA White Paper: Electronic Health Record Modernization Impact on Quality Reporting and SAIL [Strategic Analytics for Improvement and Learning], June 19, 2019. The numeric breakdown reflects analyses completed through June 15, 2019. The numbers are dynamic, reflecting the EHRM council’s ongoing review of functionality.

<sup>22</sup> The Quality, Safety and Value Council, Reporting and Registry Workgroup update provided further clarification that the designation of “complete” could indicate that the product has been subsequently deemed as no longer needed or that the data on which the VA report is based were unavailable in the new system.

<sup>23</sup> Sonal Parasrampurria and Jawanna Henry, Office of the National Coordinator for Health Information Technology, “Hospitals’ Use of Electronic Health Records Data, 2015-2017,” ONC Data Brief No. 46, April 2019.

The OIG initiated this inspection to evaluate the availability and utilization of metrics at the facility following the transition to the new EHR. The OIG conducted an additional analysis to better understand the availability of key VA metrics in the new EHR. The analysis also assessed key metrics that are either organizationally or congressionally required and contain components of organizational performance, quality and patient safety, and access to care.<sup>24</sup>

## Scope and Methodology

The OIG initiated the inspection on July 7, 2021. The OIG interviewed and submitted written questions to VHA, VISN, and facility staff. The OIG also sent requests for information to facility staff and leaders, as well as VISN and VHA leaders to identify required metrics, as well as their availability in the new EHR.<sup>25</sup>

The information requests included four main questions:

- 1) What baseline quality and operational metrics are facilities required to monitor?
- 2) Of these quality and operational metrics, which are required to ensure patient safety?
- 3) Which of the baseline quality and operational metrics outlined above are currently available at the facility?
- 4) What data were your office told would be available within the new EHR at the Mann-Grandstaff VA Medical Center at go-live? If there is written documentation, please provide. If not, who told you this and when?

The inspection also included review of relevant VA and VHA policies as well as an examination of data and documents from August through October 2021. The OIG also reviewed congressional testimony, external standards and guidelines, and public law.

The OIG did not independently validate all statements made during interviews or in response to information requests.

In the absence of current VA or VHA policy, the OIG considered previous guidance to be in effect until superseded by an updated or recertified directive, handbook, or other policy document on the same or similar issue(s).

Oversight authority to review the programs and operations of VA medical facilities is authorized by the Inspector General Act of 1978, Pub. L. No. 95-452, 92 Stat. 1101, as amended (codified at 5 U.S.C. App. 3). The OIG reviews available evidence within a specified scope and methodology

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<sup>24</sup> Within the context of this report, the OIG identified *facility leader* in a broad context for confidentiality purposes. The term, *facility leader*, is used to include the following roles: department chiefs, supervisors, and EHR modernization leads.

<sup>25</sup> The OIG sent information requests to facility and VISN staff as well as the National Center for Patient Safety, the Office of Quality and Patient Safety, and the Office of Veterans Access to Care.

and makes recommendations to VA leaders, if warranted. Findings and recommendations do not define a standard of care or establish legal liability.

The OIG conducted the inspection in accordance with *Quality Standards for Inspection and Evaluation* published by the Council of the Inspectors General on Integrity and Efficiency.

## Inspection Results

The inspection found gaps in metrics available to the facility following go-live and the negative affect of the gaps on the facility's ability to measure and act on issues of

- organizational performance,
- quality and patient safety, and
- access to care.

The OIG also identified factors that affected the availability of new EHR metrics and VHA metrics that use new EHR data.

The OIG is concerned that further deployment of the new EHR in VHA without addressing the gap in metrics available to the facility will affect the facility and future sites' ability to utilize metrics effectively. Accordingly, to address the gaps in metrics available to the facility and future sites, VA must resolve the factors identified by the OIG that affect the availability of metrics.

### 1. Gaps in Metrics Post Go-Live

The OIG determined that, one year after go-live, gaps existed between required metrics and those that were available in the new EHR. Specifically, the OIG identified gaps in metrics available to measure organizational performance, quality and patient safety, and access to care. The facility was further disadvantaged by a lack of clarity regarding which metrics were required and the necessity to develop workarounds. Gaps in metrics impeded the facility's ability to measure, track and report organizational performance, quality and patient safety, and access to care.

### Challenges in Identifying Required Metrics

In addition to using metrics to guide operational decisions, VHA facilities report a variety of quality and patient safety, access, and organizational performance metrics at the local, VISN, and national levels as well as to the public.

Facility, VISN, and VHA staff could not provide the OIG with a defined set of metrics the facility was required to monitor and utilize to manage organizational performance, quality and patient safety, and access to care. Facility staff provided lists of hundreds of various quality and operational metrics monitored at the facility but upon review the OIG determined that the lists were incomplete. A VISN 20 leader explained that "VHA has an extensive list of quality and

operational metrics available through established systems” but providing an all-encompassing list could be an endless task. A VHA leader told the OIG that the Office of Performance Measurement, which is aligned with the Office of Analytics and Performance Integration, “does not dictate required measures for monitoring, but works to collect and report metrics for a variety of organizational requirements.”<sup>26</sup> The bottom line was apparent: there is no defined set of metrics that the facility is required to monitor and utilize.

## Workarounds Due to Gaps in Metrics

Even though there is no defined set of metrics, the metrics that were developed had gaps that needed to be filled to ensure they could be confidently used. The OIG found that staff at Mann-Grandstaff had developed workarounds, otherwise known as mitigation strategies, to address the post go-live metrics gap.<sup>27</sup> Staff reported concerns with the accuracy of data captured using these workarounds.

A facility leader explained that “inability to measure what we do accurately has a negative outcome to metrics, but not necessarily to care.” The facility leader provided an example to the OIG explaining that one metric measuring patient discharge data in the new EHR showed a performance level of 74 percent for a single month; however, when facility staff reviewed the discharge data from the same month, a performance level of 98 percent was found.

Staff also shared that these workarounds had created additional workload. One facility employee told the OIG, “By having to audit every patient admitted during a time frame to see if they are applicable to my data needs, many hours have been added to workload.”

Another employee shared that workarounds “have created a tremendous [amount] of additional workload!” The employee elaborated,

...at times I have worked weekends and nights until 10 PM, 12 midnight, or one time I didn't even go to sleep to provide a needed report by the next morning for our leadership or for a suspense [due date]. Please note this is NOT due to poor time management, it is due to it taking numerous hours or days for just one report or project.

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<sup>26</sup> “VHA Office of Quality and Patient Safety, Analytics and Performance Integration,” VHA Office of Analytics and Performance Integration. The VHA Office of Analytics and Performance Integration describes its activities as bringing together “under one program office, seven functional areas that support data analytics and the quality of care within the VHA healthcare system. By combining expertise in data management, measurement, and improvement, API [Analytics and Performance Integration] enables the entire VHA health system to use data to drive high-value and Veteran-centric care.”

<sup>27</sup> Vincent Blijleven et al., “Workarounds Emerging from Electronic Health Record System Usage: Consequences for Patient Safety, Effectiveness of Care, and Efficiency of Care,” *Journal of Medical Internet Research Human Factors* 4, no. 4 (October 2017): e27. Workarounds are informal practices healthcare providers use to handle exceptions to regular workflow forced by an EHR. Workarounds are considered potential risks to patient safety, efficiency, and effective care.

The facility employee further explained that post go-live, responses to data requests “initially took eight people spending a combination of 24-hours a week; now we have it down to about 6-8 hours a week.” The staff member shared that facilities using the legacy EHR have one dashboard from which they receive their metrics and report on action plans to make facility improvements. The staff member contrasted the legacy EHR experience with the new EHR experience by describing that the new EHR requires facility staff pull data from five different reports, export the data to a software program, manipulate the data, review the data for errors, create needed charts, and forward before the deadline. The staff member noted that the work requires coordination with multiple groups to gather the needed information. The staff member added that facility staff face multiple deadlines requesting similar information with the same accompanying difficulties.

Staff also reported concerns with the accuracy of data obtained from workarounds. A VISN leader told the OIG that “there is concern for any data/reports that require manual validation or tabulation for the risk of human error and person dependent tasks in generating data.”

Further, a Mann-Grandstaff leader shared,

In the absence of report we have had service chiefs at times provide their best estimates of provider productivity to make decisions. Because we have been very diligent about both creating the reports gradually over time and having our chiefs provide their best estimates, I don’t believe this has been a direct patient safety issue. But it clearly is an efficiency issue and **ultimately accurate data is needed to make best decisions** [emphasis added by OIG]. An example is that we have had service chiefs provide their best estimates of how many additional staff are needed to return productivity to precerner/pre covid [*sic*] productivity levels. We are using [this] information to hire additional staff to increase access and capacity for care.

## Evaluation of Organizational Performance Metrics

The OIG found that gaps in organizational performance metrics, more than a year after go-live, hindered the facility’s ability to measure performance, conduct oversight, and identify opportunities for quality improvement. Specifically, due to gaps in new EHR metrics, the facility did not have access to an important, comprehensive data analysis tool—the Strategic Analytics for Improvement and Learning (SAIL).

EHR metrics can measure organizational performance and may offer a “reliable reflection” of the state of healthcare organizations.<sup>28</sup> Transparency supports the comparison of outcomes and increases accountability among facility providers and management, both of which allow for the identification and implementation of performance improvements to care.<sup>29</sup> VA facilities, consistent with VA’s commitment “to using data for process and performance improvement,” collect, monitor, and use a large number of performance measures.<sup>30</sup>

In July 2012, VA deployed the SAIL model to facilitate internal and external benchmarking, identify strengths and areas of improvement, and facilitate the sharing of strong practices across VA healthcare systems.<sup>31</sup> SAIL was developed from existing metrics prepared by program offices and VA national databases.

SAIL metrics are “divided into 10 domains, with 9 domains representing healthcare Quality and one domain representing healthcare Efficiency and Capacity.”<sup>32</sup> There are more than 60 SAIL metrics, including the following:

- Acute Care Mortality
- Patient Safety Indicators
- Healthcare associated infections
- Care Transition
- Patient Experience
- Employee Satisfaction
- Healthcare Effectiveness Data and Information Set (HEDIS)<sup>33</sup>

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<sup>28</sup> David Blumenthal, Elizabeth Malphrus and J. Michael McGinnis, *Vital Signs: Core Metrics for Health and Health Care Progress*, (Institute of Medicine of the National Academies, 2015), page 9, accessed July 29, 2021, <https://www.ncbi.nlm.nih.gov/books/NBK316125/>.

<sup>29</sup> Mark Chassin et al., “Sounding Board: Accountability Measures – Using Measurement to Promote Quality Improvement,” *New England Journal of Medicine*, 363:683-688, accessed July 29, 2021, [https://www.nejm.org/doi/10.1056/NEJMs1002320?url\\_ver=Z39.88-2003&rft\\_id=ori%3Arid%3Acrossref.org&rft\\_dat=cr\\_pub++0pubmed](https://www.nejm.org/doi/10.1056/NEJMs1002320?url_ver=Z39.88-2003&rft_id=ori%3Arid%3Acrossref.org&rft_dat=cr_pub++0pubmed). Gregg S. Meyer et al., “More quality measures versus measuring what matters: a call for balance and parsimony,” *BMJ Quality & Safety*, (2012) 21:964-968.

<sup>30</sup> VA, *FY 2018-2024 Strategic Plan*, Refreshed May 31, 2019.

<sup>31</sup> “What is a Data Model,” Princeton University, Center for Data Analytics and Reporting, accessed February 15, 2022, <https://cedar.princeton.edu/understanding-data/what-data-model>. Data models organize “data elements and standardizes how the data elements relate to one another.”

<sup>32</sup> Strategic Analytics for Improvement and Learning (SAIL),” VHA Support Service Center (VSSC).

<sup>33</sup> HEDIS is a “widely used set of outpatient performance measures,” which allows patients to compare healthcare performance. “Centers for Medicare and Medicaid Services,” accessed February 9, 2022, <https://www.usa.gov/federal-agencies/centers-for-medicare-and-medicaid-services>.

- ORYX<sup>34</sup>
- Access to Care
- Mental Health<sup>35</sup>

Participation in SAIL allows for internal (VHA) and external (private sector) benchmarking. Further, participation in SAIL assists VHA facilities by highlighting organizational performance strengths and weaknesses and facilitates the sharing of best practices. As an indication of the importance of SAIL metrics to measuring facility performance, a subset of those metrics are included in the performance plans of all VHA facility directors.<sup>36</sup> SAIL metrics are made available to the public via a comprehensive, publicly accessible website that allows users to view data for all VHA facilities.<sup>37</sup>

### *Unavailable Organizational Performance Metrics*

Unavailability of SAIL metrics made facility performance measurement difficult to understand. The OIG evaluated the availability of organizational performance metrics through facility, VISN, and VHA staff report as well as through accessing SAIL metrics published by VA (see [appendix B](#)). The OIG found that access to a majority of facility SAIL metrics was lost after go-live.

Facility leaders told the OIG that they were unable to access SAIL metrics and that the date when they may be available was unknown.<sup>38</sup> The OIG learned from a leader in VHA's Office of Performance Measurement that as of October 19, 2021, out of 103 metrics necessary to populate the facility's SAIL metrics only 13 were available for the facility, and 90 were partially or not

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<sup>34</sup> "ORYX Overview: HAP [Hospital Accreditation Program] & CAH [Critical Access Hospital] Facilities ORYX Data Submission Requirements," The Joint Commission, accessed July 26, 2021, <https://www.jointcommission.org/-/media/tjc/documents/measurement/oryx/cy2021-oryx-reporting-requirements-oct2020.pdf>. ORYX is a data analysis tool that supports accredited organizations' quality improvement.

<sup>35</sup> "Quality of Care: Strategic Analytics for Improvement and Learning (SAIL) Value Model Measure Definitions," VA, accessed December 2, 2021, [www.va.gov/QUALITYOFCARE/measure-up/SAIL\\_definitions](http://www.va.gov/QUALITYOFCARE/measure-up/SAIL_definitions).

<sup>36</sup> National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Health Care Services; Committee to Evaluate the Department of Veterans Affairs Mental Health Services. Evaluation of the Department of Veterans Affairs Mental Health Services. Washington (DC): National Academies Press (US); 2018 Jan 31. 15, Quality Management. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK499488/>.

<sup>37</sup> SAIL data for individual facilities are available at <https://www.data.va.gov/browse?q=SAIL>. SAIL FY2021 Hospital Performance – All Facilities, accessed December 2, 2021, <https://www.data.va.gov/dataset/SAIL-FY2021-Hospital-Performance-All-Facilities/y9x8-349i>. On December 2, 2021, the OIG reviewed this data to determine if facility SAIL metrics were available. Information contained on the SAIL Model Methodology Updates page indicated that "Some of the measure results are not yet available for Mann-Grandstaff VAMC (Spokane, WA) due to the Cerner transition that began in late October of 2020. Therefore, Spokane VA will not be reported on SAIL until program offices have the ability to collect and report Cerner data. Spokane data will be excluded from VISN aggregates where possible."

<sup>38</sup> The OIG considered metrics marked as "partially available" to be unavailable.

available. The OIG accessed VHA’s public website and found that in fiscal year 2021, no SAIL metrics were provided for the facility.<sup>39</sup>

Figure 3 is a screenshot taken of the facility’s publicly available SAIL data as of February 8, 2022. The Spokane column, where the facility’s SAIL data would appear, is blank for all metrics.

SAIL		Strategic Analytics for Improvement and Learning (SAIL)				VSSC
Spokane - FY2021Q4						
Measure	Measure Unit	Preferred Direction	Spokane	Best 10%	10th   50th   90th ptile	
<b>Acute Care Mortality</b>						
Acute care 30-day Standardized Mortality Ratio (SMR30)	o/e	↓		0.749	0.749   1.002   1.259	
<b>Annual CMS Risk Standardized Mortality Rates (RSMR)</b>						
CMS RSMR for AMI	%	↓		10.8	10.8   11.55   12.5	
CMS RSMR for COPD	%	↓		6.4	6.4   7.4   8.8	
CMS RSMR for HF	%	↓		7.0	7.0   9.4   10.8	
CMS RSMR for Pneumonia	%	↓		10.7	10.7   12.4   14.8	
<b>Avoidable Adverse Events</b>						
<b>Healthcare associated infections (HAI)</b>						
C. difficile infection	inf/10k bed days	↓		0.0	0.0   2.853   7.862	
Catheter associated urinary tract infection	inf/1k device days	↓		0.0	0.0   0.594   1.524	
Central line associated bloodstream infection	inf/1k device days	↓		0.0	0.0   0.829   2.793	
Methicillin-resistant Staphylococcus aureus (MRSA) infection	inf/1k bed days	↓		0.0	0.0   0.055   0.353	
Ventilator associated events (IVAC Plus)	events/1k device days	↓		0.0	0.0   1.712   6.494	
Patient safety indicator (PSI90)	o/e	↓		0.797	0.797   0.986   1.319	
<b>Performance Measures</b>						
<b>Inpatient Measures</b>						
Global Measures Composite - EPRP (GM90_1)	%	↑		85.701	56.848   69.867   85.701	
<b>Outpatient Measures</b>						
Behavioral Health Screening - EPRP (BH90)	wct %	↑		95.917	86.67   91.994   95.917	
Diabetes Composite - eQM (DMG90_ec)	%	↑		78.543	69.649   74.129   78.543	
Influenza Immunization Composite - eQM (FLU90_ec)	%	↑		47.407	31.832   40.467   47.407	
Ischemic Heart Composite - eQM (IHD90_ec)	%	↑		67.728	49.668   59.306   67.728	
Prevention Composite - EPRP (PRV90_2)	wct %	↑		84.242	75.774   80.551   84.242	
Tobacco Use and Cessation - EPRP (SMG90_1)	wct %	↑		96.988	88.218   93.477   96.988	

**Figure 3.** SAIL data for the facility.

Source: Screenshot of facility SAIL report downloaded from <https://www.data.va.gov/dataset/SAIL-FY2021-Hospital-Performance-All-Facilities/y9x8-349i>, February 8, 2022.

Note: Figure shows select Mann-Grandstaff VA SAIL measures. Facility data are missing all published SAIL metrics.

The OIG determined that failure to capture and report key organizational performance metrics may impede oversight and transparency. Further, a lack of access to SAIL measures further inhibits the ability to measure organizational performance, conduct internal and external benchmarking, and identify opportunities for quality improvement. The OIG is concerned that the lack of organizational performance metrics limits an understanding of actual performance and data-driven decision-making at the facility.

<sup>39</sup> SAIL data for individual facilities are available at <https://www.data.va.gov/browse?q=SAIL>.

## Evaluation of Quality and Patient Safety Metrics

The OIG found that gaps in available quality and patient safety metrics, more than a year after go-live, hindered publication of quality and patient safety metrics as legislatively required. The OIG also found that facility staff's lack of access to critical metrics impeded continuous readiness for reaccreditation, which may compromise the facility's future hospital accreditation status.

Quality metrics measure healthcare processes, outcomes, and patient perceptions of care. These metrics facilitate patient safety by improving the effectiveness of health care and helping hospitals learn how to avoid patient harm.<sup>40</sup> VA is legislatively mandated to measure, track, and publish quality and patient safety metrics at VA facilities. VA must ensure that data reported to the public are "clear, useful, and timely" so that patients are able to make "informed decisions regarding their healthcare."<sup>41</sup> VA reports that their quality measures closely mirror the National Committee for Quality Assurance's HEDIS metrics.<sup>42</sup> Comparative data are obtained primarily from Centers for Medicare and Medicaid Services (CMS) and the National Committee for Quality Assurance.<sup>43</sup> VA facility data are available for comparison to other VA facilities and non-VA facilities through VA and CMS public websites.<sup>44</sup>

Additionally, VA facilities are required to seek reaccreditation through The Joint Commission, which includes on-site evaluation, periodic performance reviews, and submission of quarterly performance measurement data via ORYX.<sup>45</sup>

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<sup>40</sup> "Six Domains of Health Care Quality," Agency for Healthcare Research and Quality, accessed August 11, 2021, [https://www.ahrq.gov/talkingquality/measures/six-domains.html#\\_ftnref1](https://www.ahrq.gov/talkingquality/measures/six-domains.html#_ftnref1).

<sup>41</sup> The Maintaining Systems and Strengthening Integrated Outside Networks (MISSION) Act of 2018, Pub. L. No. 115-182, § 104 (2018). Congress established the VA MISSION Act of 2018, in part, to improve veterans' quality of care.

<sup>42</sup> "Quality of Care," VA, accessed December 2, 2021, [https://www.va.gov/QUALITYOFCARE/measure-up/SAIL\\_definitions.asp](https://www.va.gov/QUALITYOFCARE/measure-up/SAIL_definitions.asp).

<sup>43</sup> CMS is a federal agency that "provides health coverage to more than 100 million people through Medicare, Medicaid, the Children's Health Insurance Program, and the Health Insurance Marketplace." "MISSION Act Quality Standards," VA, accessed October 26, 2021, [www.accesstocare.va.gov/Healthcare/MissionActQualityStandards](http://www.accesstocare.va.gov/Healthcare/MissionActQualityStandards). According to VA, MISSION Act quality standards also align with quality measures from the Consumer and Hospital Assessments of Healthcare Providers and Systems, which measure patient experiences and veteran-centered inpatient care. The CMS Care Compare public website can be found at [www.medicare.gov/care-compare/](http://www.medicare.gov/care-compare/).

<sup>44</sup> The VA's Care Comparison website is <https://www.accesstocare.va.gov/Healthcare/QualityofCare>.

<sup>45</sup> VHA Directive 1100.16.

### *Unavailable Quality and Patient Safety Metrics*

The OIG determined that many of the required quality and patient safety metrics were unavailable for the facility and consequently were not available for publication or quarterly reports to The Joint Commission.

The OIG evaluated the availability of metrics through accessing VA published quality and patient safety metrics (see summary in [appendix C](#)) and through staff report at the facility, VISN, and VHA.

The OIG found that, one year after go-live, the VA's MISSION Act Quality Community Comparison website listed only 4 of 12 effective care measures. The OIG also found that VHA did not publish data that compare the facility's quality outcomes to National Committee for Quality Assurance HEDIS benchmarks.<sup>46</sup> The OIG was told that the Office of Analytics and Performance Integration was working with Cerner to provide certified HEDIS measures for the facility.

Figure 4 is a screenshot taken of the facility's publicly available MISSION Act Quality Community Comparison data on October 28, 2021. The column where the facility's data would appear, "VA Hospital Results," is missing all but four metrics.

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<sup>46</sup> MISSION Act Quality Measure Community Comparison for Spokane, WA, Health Care System is published at <https://www.accesstocare.va.gov/Healthcare/MissionActQualityStandardForStation/668>. VHA data are available on the VA's MISSION Act Quality Community Comparison website for safe, effective, and veteran-centered care. VISN 20 told the OIG that HEDIS data are collected by the External Peer Review Program, and is reported to VA Central Office, but are not published. Although only 7 measures are reported on the VA MISSION Act Quality Community Comparison website, during document reviews the OIG learned that VA tracks at least 52 National Committee for Quality Assurance HEDIS measures. The Office of Performance Measurement staff told the OIG that they expect 29 of those measures to be available in November 2021, and 23 are "under development."

**MISSION Act Quality Measure Community Comparison for Spokane, WA Health Care System**  
Last Updated: 08/2021

Measure	Measure Direction	VA Hospital Results	Community Benchmark	VA vs. Community
<b>Effective Care</b>				
Adequate Control of High Blood Pressure	Higher is better	*	59.60% (2)	BETTER
Blood Pressure Control for Diabetics	Higher is better	*	66.30% (2)	WORSE
Death rate for Congestive Heart Failure	Lower is better	8.8	11.2 (1)	SAME
Death rate for COPD	Lower is better	7.2	8.1 (1)	SAME
Death rate for Heart Attack	Lower is better	N/A	12.3	Not Available
Death rate for Pneumonia	Lower is better	12.3	15.3 (1)	SAME
Flu Shots for Adults Ages 19-65	Higher is better	*	56.90% (2)	N/A
Poor Blood Glucose Control Among Diabetics	Lower is better	*	33.00% (2)	BETTER
Proper Therapy After Heart Attack - Beta Blockers	Higher is better	*	86.30%	Not Available
Screening for Breast Cancer	Higher is better	*	70.50% (2)	BETTER
Screening for Cervical Cancer	Higher is better	*	73.50% (2)	WORSE
Smoking and Tobacco Cessation - Advise Smokers to Quit	Higher is better	*	73.10% (2)	BETTER

**Figure 4.** Screenshot of facility’s publicly available MISSION Act metrics.

Source: Screenshot of MISSION Act Quality Measure Community Comparison for Spokane, WA Health Care System, accessed at <https://www.accesstocare.va.gov/Healthcare/MissionActQualityStandardForStation/668>, 9:30 a.m., PST, October 28, 2021.

Note: Figure compares Mann-Grandstaff VA effective care measures with community effective care measures. Facility data are missing for 8 of 12 metrics that compare VA data to effective care measures.

The OIG learned from a leader in VHA’s Office of Performance Measurement that 17 metrics needed for The Joint Commission accreditation were unavailable at the facility.<sup>47</sup> The OIG found

<sup>47</sup> VHA’s Office of Performance Measurement is a program in the Office of Analytics and Performance Integration whose mission is to provide VHA staff “with tools and intelligence for gauging and improving care for Veterans by strengthening accountability, efficiency, transparency and benchmarking.” VHA, “VHA Office of Quality and Patient Safety, Performance Measurement.”

that there were various plans for future reporting of those 17 measures, and that 6 of the needed metrics were partially available at the facility as of one year post go-live.<sup>48</sup>

Facility and VISN staff told the OIG that The Joint Commission last surveyed the facility on September 17, 2019, and the facility was within the window for a reaccreditation survey during the time of this review.<sup>49</sup> The OIG interviewed a leader from the VISN who expressed concerns about the facility's ability to provide data needed for reaccreditation. The leader told the OIG that The Joint Commission will want to see data as well as evidence that data are used to make decisions, including evidence from meeting minutes that show discussion of data points. Furthermore, the leader reported that VISN leaders anticipated that, when The Joint Commission inspectors interview facility staff, The Joint Commission will receive concerning feedback.

When asked about the facility's ability to manage The Joint Commission concerns, a VHA leader replied,

Well, are they ready to face Joint Commission now? Absolutely not. I think that they're getting better, but I will tell you...that...every week those workflows are changing, meaning the way they do work, what they enter is changing every week. It's hard to keep up.

I know that there's things that they [The Joint Commission] generally look for and hospitals do them without sophisticated EHR systems. So I do think that it's going to require work [to be ready for The Joint Commission] and they probably do need to have somebody who's a Cerner Hospital System [specialist] come in and help them...I don't know that Cerner is always the right group because they're very siloed.

The OIG is concerned that missing clinical metrics, including quality and patient safety metrics, may not allow for accurate and timely patient safety monitoring and could impede identification of opportunities for quality improvement. Further, the OIG determined the lack of publicly reported quality metrics impairs the ability of patients to make informed choices about VA care and how the quality of VA care compares to that provided in the private sector.

The OIG determined that the sudden loss of metrics required by The Joint Commission following go-live could impede the facility's upcoming reaccreditation. Failure to maintain The Joint Commission accreditation may affect patient's trust in the facility and can also hinder the facility's ability to recruit quality staff who may prefer to work for an accredited facility.

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<sup>48</sup> The Joint Commission Measures that were unavailable included measures related to use of physical restraint, seclusion, alcohol and drug treatment, tobacco treatment, admission time to the Emergency Department, and others related to specific medical conditions and medications.

<sup>49</sup> A VISN leader told the OIG The Joint Commission uses a triennial survey cycle, and facilities are subject to survey anytime between 18 to 36 months of the cycle. The survey window for the facility is March 2021 through September 2022.

## Evaluation of Available Access Metrics

The OIG found that gaps in available access metrics, more than a year after go-live, hindered the measurement and publication of access to care metrics at the facility.

VHA's past challenges with managing access to care led to legislative requirements for VHA to measure and publish access to care.<sup>50</sup> In direct response to VHA's widespread problem with inappropriate scheduling practices, the Veterans Access, Choice, and Accountability Act of 2014 was passed, which emphasized the need to monitor and improve timely access to care.<sup>51</sup> The MISSION Act of 2018 further emphasized access to care and expanded patient choice between VA and private sector care.<sup>52</sup>

VA is required to measure access and publish wait times for care at VA facilities.<sup>53</sup> VA publishes access metrics on a website that allows the public to search wait times at individual VHA facilities.<sup>54</sup>

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<sup>50</sup> Deborah Gurewich et al., "Did Access to Care Improve Since Passage of the Veterans Choice Act?," *Medical Care*: June 2021 - Volume 59 - Issue 6 - p S270-S278. Veterans Access, Choice, and Accountability Act of 2014. Pub. L. No. 113-146, 128 Stat 1754. (2014). VA OIG, [Review of Alleged Patient Deaths, Patient Wait Times, and Scheduling Practices at the Phoenix VA Health Care System](#), Report No. 14-02603-267, August 26, 2014. VHA received national attention in 2014 following allegations that staff and leaders at the Phoenix VA Health Care System manipulated patient wait times, kept unofficial waiting lists, and delayed patient care leading to negative impacts. The OIG found that beyond the deficiencies at the Phoenix VA Health Care System, inappropriate scheduling practices to mask access to care challenges were endemic in VHA.

<sup>51</sup> Deborah Gurewich et al., "Did Access to Care Improve Since Passage of the Veterans Choice Act?," *Medical Care*: June 2021 - Volume 59 - Issue 6 - p S270-S278. Veterans Access, Choice, and Accountability Act of 2014. Pub. L. No. 113-146, 128 Stat 1754. (2014). VA OIG, [Review of Alleged Patient Deaths, Patient Wait Times, and Scheduling Practices](#).

<sup>52</sup> "Understanding the Changes in Community Care for Veterans," VA, accessed February 2, 2022, [https://www.va.gov/COMMUNITYCARE/docs/pubfiles/factsheets/MISSION\\_Act\\_Information\\_Sheet.pdf](https://www.va.gov/COMMUNITYCARE/docs/pubfiles/factsheets/MISSION_Act_Information_Sheet.pdf). The VA Maintaining Internal Systems and Strengthening Integrated Outside Networks (MISSION) Act of 2018, Pub. L. No. 115-182, § 104 (2018). The VA MISSION Act of 2018 went into effect in June 2019.

<sup>53</sup> VHA Directive 1230(2), *Outpatient Scheduling Processes and Procedures*, July 15, 2016, amended January 22, 2020. VHA Directive 1230(3), *Outpatient Scheduling Processes and Procedures*, July 15, 2016, amended January 7, 2021. VHA Directive 1230(4), *Outpatient Scheduling Processes and Procedures*, July 15, 2016, amended on June 17, 2021. VHA Directive 1230(5), *Outpatient Scheduling Processes and Procedures*, July 15, 2016, amended September 24, 2021. All amended versions contain similar language about VHA patient wait times, and that VHA publishes wait times in the methods described in the Federal Register. Publication of Wait-Times for the Department of Veterans Choice Program, 79 Fed. Reg. 65,771 (November 5, 2014), accessed March 7, 2022, <https://www.federalregister.gov/articles/2014/11/05/2014-26274/publication-of-waittimes-for-the-department-for-the-veterans-choice-program>. "Whenever the wait-times for the scheduling of such an appointment change, [VA] is also required to publish the revised wait times on a publicly-accessible Internet Web site of each VA Medical Center not later than 30 days after such change, and in the **Federal Register** not later than 90 days after such change."

<sup>54</sup> "Average Wait Times at Individual Facilities," Department of Veterans Affairs, accessed January 26, 2022, [www.accesstocare.va.gov/](http://www.accesstocare.va.gov/). Wait times at individual facilities are available on the "How Quickly Can My VA Facility See Me," option.

## *Unavailable Access Metrics*

The OIG found that access metrics for the facility were largely unavailable.

The OIG evaluated the availability of metrics through facility, VISN, and VHA staff report as well as evaluating availability of access metrics published by VA (see [appendix D](#)).

A facility leader told the OIG that wait times for new and established patients were measured and tracked at the facility using metrics from the new EHR through workarounds. The resulting metrics, however, were not “the exact metrics required by VA.” The OIG found, based on information reported, that after go-live, the access metrics became unavailable for publication and were no longer reported on the VA Access to Care public website.<sup>55</sup> In particular, the OIG learned through document reviews and an information request, that although a facility leader reported the ability to generate some reports that measure access and patient wait times, the available reports did not easily align with VHA requirements and required many additional steps to generate. The OIG confirmed facility and national program office reports that access metrics were not available to the public over a year following go-live.<sup>56</sup>

VHA’s history of deficient scheduling demonstrated the need for metrics that can be accessed and monitored at the facility and beyond. The OIG determined that VHA’s inability to monitor availability and timeliness of care impedes the ability to prevent delays in care and could lead to patient harm at the facility. Further, the facility’s inability to publish wait times took away patients’ ability to compare wait times among VA facilities and hindered their ability to choose care at facilities with shorter average wait times.

In summary, the OIG identified significant gaps in new EHR metrics available for internal use in operation decisions, for publication for patient decision-making, and for reporting to accrediting bodies. The OIG remains concerned that, despite the concerted efforts of facility staff to use workarounds to manage gaps in the new EHR’s metrics, deficits in new EHR metrics may negatively affect organizational performance, quality and patient safety, and access to care.

## **2. Factors Affecting Availability of Metrics at Facility**

The OIG identified multiple factors responsible for the significant gap in metrics available to the facility following go-live. Challenges with the new EHR’s metrics included the following factors:

- Cerner’s failure to deliver metrics reports

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<sup>55</sup> A VHA leader told the OIG that, “VHA is currently working on developing definition[s] to measure wait times in Cerner.”

<sup>56</sup> An OIG search for the location “Spokane, WA,” on the “Average Wait Times at Individual Facilities” webpage results in the following message, “Sorry, location 'Spokane, WA' was found but no VA facilities matched your search criteria. Please update your search and try again.”

- New EHR's metrics could not be assessed prior to go-live
- New EHR's metrics utility was impaired
- Training deficits with new EHR metrics

VHA-generated metrics using new EHR data also created challenges:

- VHA resources were insufficient for generating new EHR metrics
- VHA metrics using new EHR data were not validated and unavailable
- VHA changed metrics required from the facility

These factors contributed to the gap in available, usable metrics at the facility.

## **Cerner Failed to Deliver Metrics Reports**

The OIG found that Cerner did not deliver metrics for the facility as planned. A facility leader reported that

Early on it was discovered that Cerner did not provide 20 reports with metrics the VA requested in the original contract. Later, we were told we could prioritize the reports we [the facility] had asked for since [go-live] to replace the 20 we didn't get. Through the approval process, I think 12 were approved, and we are still waiting on some of them to be built.

A facility nurse reported that custom metrics, which should have been ready at go-live but were not, included metrics for breast cancer screening and cervical cancer screening. A VHA leader confirmed that, at go-live, Cerner contracted metrics reports had not been completed, to include HEDIS measures. The VHA leader reported the contract task order that included the Cerner-built reports was put in place in July of 2019 and the first Cerner metrics report was delivered in March 2020. However, by December 2019, the VHA leader, stopped payment stating, "I'm not going to pay you if you're [Cerner] not delivering" and "I was very critical of Cerner. I did not pay for things I didn't get." The VHA leader provided the caveat that "the custom reports were not done, but remember, we got a thousand reports that were commercial [from Cerner]. So, this was supposed to be the, you know, the extra stuff." The OIG found that facility and VHA leaders reported that metrics reports for the new EHR were not completed by Cerner for facility use.

## **New EHR's Metrics Could Not Be Assessed Prior to Go-Live**

The OIG learned that new EHR metrics from Cerner could not be adequately assessed for their utility prior to go-live. A VHA leader stated that "we just didn't know enough about Cerner in that we didn't have access, we didn't know what the data looked like, we only knew VistA [Veterans Health Information Systems and Technology Architecture], right[?]" As a result, differences in how the legacy EHR and new EHR collected information limited utility of

available metrics. An example cited by a VHA leader was the average daily census metric, which identifies how many people are in the hospital every day.<sup>57</sup> The leader reported that the legacy EHR collects the information based on the patient's arrival time, while the new EHR uses a single midnight check. This difference in how the patient data is recorded prevented that existing metric from being used with the new EHR and some reports that used the metric were not available.

A facility nurse shared with the OIG that no "canned reports" [new EHR metrics from Cerner] were validated before go-live, that most of the new EHR metrics from Cerner did not work as intended, and that approximately 10 months later, facility staff were still working to determine which new EHR metrics from Cerner were usable.

A VHA leader reported that another challenge with use of metrics was the lack of familiarity with the Cerner data prior to go-live. The VHA leader reported that 10 days after go-live VHA received "roughly eight times the amount of data out of Cerner than we have ever gotten out of VistA [Veterans Health Information Systems and Technology Architecture]," including "over 1,200 tables and 25,000 individual data fields." The VHA leader reported that the data "fields were named differently" adding that "we have never seen the data before" and "everything is different." The OIG determined that the inability to evaluate the new EHR's metrics built by Cerner prior to go-live prevented VHA and facility leaders from identifying that the metrics lacked utility.

## **New EHR's Metrics Utility Impaired**

The OIG found that facility leaders reported significant difficulty when attempting to utilize the new EHR's metrics reporting capabilities. Those challenges included elements of the new EHR's reports being poorly defined and significant deficits in usability of the new EHR to generate metrics.

### ***New EHR's Metrics Reports Lack Documentation***

A facility leader reported that one of the most challenging aspects of generating metrics reports using the new EHR was understanding the data elements of the report. This experience contrasted with VHA's Support Service Center (VSSC) metrics reports, which include data definitions. The lack of data definitions in the new EHR reports made explaining metrics to leaders difficult. The lack of definitions for new EHR data elements also complicated the export and use of data. A facility leader stated that "The problem with exporting any data is that we do

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<sup>57</sup> VHA Support Service Center, *Operating Beds, Average Daily Census, and Occupancy Rate Using Actual Beds*, March 24, 2016. The average daily census is a hospital metric defined by the VHA Support Service Center as the cumulative bed days of care for the fiscal year to-date for a selected period divided by the number of calendar days.

not have data definitions to determine where the data comes from or what it really means. By making assumptions, we could easily make a huge error....”

The OIG was told by a facility leader that staff requested a data dictionary from Cerner in approximately March of 2021. However, according to a facility leader, a VHA leader reported that getting a data dictionary approved and created could take over a year and a half before the request was approved and the data dictionary created.<sup>58</sup>

A facility leader reported that the new EHR lacked instructions on how to use the reports or how to use the metrics for tracking or making decisions. The facility leader reported that the data sheets available on the new EHR metrics were mostly blank templates or contained insufficient information. The facility leader reported additional challenges that complicated accessing information on new EHR metrics including difficulty finding new EHR resources through searches, resources being moved without updating links, and Cerner documents frequently using terms not familiar to VA staff.

### *New EHR's Poor Usability Limits Use of Metrics*

A facility leader using the new EHR to generate metrics stated that using the new EHR's function to create metrics was a challenge and created significant additional workload.

For every one of these [new EHR metrics] reports, you must select all the required filters manually. If you select the wrong ones, you must start over. If you request too many services or too long of a date range, the data will just spin and never populate, so you must start over. Each report is different based on what it can handle. Sometimes the report will freeze and never work.

The facility leader reported that frequently data from the new EHR were unusable unless data were exported from the new EHR and manipulated with other software tools. Exporting data, however, required different methods and some reports were only viewable on the new EHR's screen. The facility leader explained that following export,

the data must be reviewed for strange outliers, such as duplications, test data, and even data in the wrong columns. This happens regularly, so it can never be trusted. If you forget even one filter or service from the manual clicking of each clinic, you must start over.

Another facility leader shared experiencing similar challenges with the new EHR's metrics:

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<sup>58</sup> “Glossary,” Centers for Medicare and Medicaid Services, accessed November 24, 2021, <https://www.cms.gov/glossary>. A data dictionary provides descriptions of data used in a system.

Parts of all the data are available but none seem available in a measure that allows for expedient use. Data is obtained by use of multiple reports, filtering relevant data from each and removing a large quantity of extraneous data.

Changes to the new EHR's metrics reports contributed to the challenge. A facility leader reported that clinic names, appointment types, names of reports, and other information changed without notice. Those changes could lead to the inability to use the new EHR for metrics reports.

A facility leader shared that beyond the usability challenges, trusting the metrics generated by the new EHR was difficult. The leader reported performing an "audit comparison for the same patient, at the same time, across four reports and none of the data matched." The facility leader concluded "it is difficult to know what to trust even when validating new reports."

## Training Deficits

Training deficiencies hampered efforts to utilize the new EHR's metrics. A VHA leader reported only being allowed to train 30 people in building reports and analyzing data. The VHA leader reported that VHA analysts did not receive "true" training and did not have access to the new EHR until go-live.

So, they [the VHA analysts] were not allowed to log onto the system [new EHR] until go-live. So that means that on the very first day, there was a thousand reports out there that they had no idea where they were, what they were called, how you would use them, what the metrics are.

The OIG found that facility EHR users also reported a lack of training affected their ability to utilize EHR metrics.<sup>59</sup> A facility leader reported that training on metrics in the new EHR

has focused on more change management approaches discussing the importance of reports with some demonstrations of reports that are irrelevant to outpatient practices. When questioned about the availability of other reports, trainers are unable to identify or locate such reports.<sup>60</sup>

A facility leader in a clinical department reported not having received training on how to access new EHR reports. A facility nurse leader reported that training provided at go-live only focused on metrics for providers and added further that "no one has been able to assist primary care nursing in really sitting down 1:1 [from] Cerner and explain [*sic*] these reports." Another facility leader recalled that Cerner trainers reported not knowing how to extract the data.

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<sup>59</sup> VA OIG, [Training Deficiencies with VA's New Electronic Health Record System at the Mann-Grandstaff VA Medical Center in Spokane, Washington](#), Report No. 20-01930-183, July 8, 2021. A published OIG report offers a more in-depth review of training deficiencies associated with the implementation of the new EHR.

<sup>60</sup> "What is Change Management?," Association for Project Management, accessed January 23, 2020, <https://www.apm.org.uk/body-of-knowledge/delivery/scope-management/change-management>. Change management is a coordinated approach to shifting an enterprise "from the current state to the desired future state."

## VHA Resources Insufficient for Generating new EHR Metrics

A VHA leader reported that the lack of available resources limited the creation of metrics using the new EHR's data following go-live. The VHA leader reported that, following go-live, a request for metrics reports to be created by Cerner yielded an initial estimate of 50 metrics reports at a cost of \$240,000 for each report, for a total of \$12,000,000. This amount exceeded the total budget of the VHA leader's office, a cost that led to the VHA decision to build the reports internally. The VHA leader opined that VA may not want to contract with Cerner for additional reports and added

...they've [Cerner] had lots of people leave, lots of buyouts. So sometimes you'll get somebody that has 20 years. Sometimes you'll get somebody that just came out of college. We would get stuff when we were validating [metrics reports created by Cerner] that didn't work right off the bat. Had spelling errors, you know, just simple, simple things.

Following the decision for VHA to build the reports, the VHA leader reported that despite multiple requests for staffing resources to support creation by VHA of the new EHR metrics "nobody would give us resources, nobody." The VHA leader added "we have no VA resources to build reporting. We have people trained, we have people willing, but they have not been released from their regular job."

The VHA leader explained, "VA considers data to be a strategic asset, yet virtually no VHA additional resources and FTE [staff] have been directed to [the] Analytics and Performance Improvement Office to build analytics in the new Cerner EHR or integrate the syndicated data into new analytics."<sup>61</sup>

## VHA Metrics Not Validated and Unavailable

A facility leader reported that VHA's VSSC had played an important role in creating reports for the facility stating, "We would not be where we are today without the assistance of VSSC." The facility leader added that VSSC created reports using data directly from the new EHR. However, at the time of the OIG's inspection, all VSSC reports using new EHR data were in user acceptance testing, meaning that validation had not been completed and could not be used by facility staff.<sup>62</sup> A VHA leader reported that user acceptance testing was not completed because "overwhelmed" facility staff precluded completion of testing.

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<sup>61</sup> This statement was provided by VA in a technical comment to the draft report.

<sup>62</sup> Data validation is a process designed to assess the likelihood data is correct. The process evaluates the accuracy of data and is conducted to ensure the quality of data being analyzed. A VHA leader reported that the VSSC data validation approach includes an internal evaluation of the metric, review by a VHA program office, and because it affects clinical care, generally three facilities from three different VISNs validate the metric.

## **VHA Changed Metrics Required from Facilities**

A facility leader reported that metrics creation and use were made more difficult by shifting requirements from VHA. The facility leader reported that VHA changes and adds to facility-required metrics on a weekly basis. The facility leader shared an example of a VHA program office requiring access to care metrics that must be monitored at the facility level, but by the time a report was created with Cerner data, the VHA program office changed the requirement. This change then necessitated that facility staff create a metric at the local level “which takes hours, days and sometimes weeks for one report.”

The OIG determined that deficiencies related to the new EHR’s metrics and challenges with VHA-generated metrics using new EHR data impaired the facility’s access to and utilization of metrics.

## Conclusion

The OIG determined that gaps in available metrics due to the new EHR transition impaired the facility's ability to measure and act on issues of

- organizational performance,
- quality and patient safety, and
- access to care.

The OIG also identified factors that affected the availability of new EHR metrics and VHA metrics that use new EHR data.

The OIG is concerned that further deployment of the new EHR without addressing the gap in metrics available to the facility, and the factors that affected availability of metrics, will impede the facility and future sites' ability to utilize metrics effectively.

## Recommendations 1–2

1. The Deputy Secretary completes an evaluation of gaps in new electronic health record metrics and takes action as warranted.
2. The Deputy Secretary completes an evaluation of factors affecting the availability of metrics and takes action as warranted.

The Deputy Secretary concurred with the recommendations and provided acceptable action plans. (See Appendix E for the Deputy Secretary's response as well as the OIG's response.)

## Appendix A: Electronic Health Record Modernization

In the 1980s, VA developed one of the earliest EHRs that became Veterans Health Information Systems and Technology Architecture (VistA) in 1996.<sup>63</sup> VistA is a comprehensive health information system and EHR that provides all capabilities required for VA clinical, business, and administrative processes, and serves an essential role in VA's healthcare delivery mission. In June 2017, former VA Secretary David Shulkin determined that a "substantial investment" was required in order to maintain and improve VistA's operational capability, and "keep pace with the improvements in healthcare information technology and cybersecurity." Further, after many years of attempting to achieve EHR interoperability, VA and the Department of Defense (DoD) were unable to adopt the same EHR or create a congressionally required interoperable medical record platform.

In February 2017, the DoD began deployment of its new EHR, known as Military Health System (MHS) GENESIS. At its core, Military Health System GENESIS is the commercial EHR developed by the Cerner. On June 1, 2017, former VA Secretary David Shulkin announced it to be in the public's interest to contract with Cerner to have a common EHR platform across VA and the DoD.<sup>64</sup> In this announcement, Secretary Shulkin determined that VA may issue a solicitation directly to Cerner for the acquisition of the EHR system that the DoD was deploying.

On May 17, 2018, former Acting VA Secretary, Robert Wilkie announced that the VA had signed a \$10 billion contract with Cerner to transition to a new EHR system. Since the new VA-wide EHR would share the same commercial software platform and data hosting environment as the DoD EHR, VA would further benefit from the DoD's recent early deployment experience.<sup>65</sup> DoD began the rollout of MHS GENESIS in Spokane, Washington on February 7, 2017, at Fairchild Air Force Base and continued that roll out at additional sites in the Pacific Northwest. The DoD's early EHR deployments faced multiple delays and setbacks. DoD shared lessons learned to assist and guide VA's deployment strategy.<sup>66</sup>

To oversee the VA new EHR deployment, the VA Office of Electronic Health Record Modernization (OEHRM) was established in June 2018.<sup>67</sup> VA OEHRM responsibilities include

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<sup>63</sup> "History of IT at VA," DigitalVA, accessed January 31, 2020, <https://www.oit.va.gov/about/history.cfm>. Within the context of this report, the VistA system is referred to as the legacy EHR. Office of Information and Technology, *VA Monograph*, January 13, 2017, accessed January 11, 2020, [https://www.va.gov/VISTA\\_MONOGRAPH/VA\\_Monograph.pdf](https://www.va.gov/VISTA_MONOGRAPH/VA_Monograph.pdf).

<sup>64</sup> VA, Office of the Secretary, *Determination and Findings*, June 1, 2017.

<sup>65</sup> The United States Senate confirmed Robert Wilkie as the Secretary of Veterans Affairs on July 23, 2018. Mr. Wilkie was the Acting Secretary from March 28 to May 29, 2018.

<sup>66</sup> VA OEHRM staff reported that DoD shared lessons learned to inform EHR configuration decisions.

<sup>67</sup> "VA Establishes Office of Electronic Health Record Modernization to Support Transition from Legacy Patient Data System."

management of the preparation, deployment, and maintenance of the new EHR.<sup>68</sup> VA OEHRM leadership includes an Executive Director, Chief Medical Officer, and Chief Technology Integration Officer.<sup>69</sup>

## EHRM Milestones

**March 28, 2020.** The facility was scheduled to be the first VHA medical center to implement the new EHR. However, on February 10, 2020, a VA spokesperson announced the new EHR's deployment would be postponed, six weeks prior to the intended go-live date, as the new EHR was only "75-80 percent" ready.

**April 3, 2020.** The former VA Secretary informed Congress that the COVID-19 pandemic necessitated a shift in overall priorities and directed that VA OEHRM efforts take a non-intrusive posture with VHA healthcare operations to ensure that health care at VHA facilities was not impeded. As reported by a facility staff member, when the COVID-19 pandemic caused facility priorities to shift, only a limited number of staff continued new EHR-related work.

**August 7, 2020.** VA announced that activities at the facility for an October go-live of the new EHR had resumed.<sup>70</sup> VA work not directly involving facility staff had continued during the COVID-19 pandemic delay. VA work during that time included infrastructure readiness requirements at the facility and completion of the requisite 73 interfaces for go-live, including design, build, connectivity, and technical testing requirements.<sup>71</sup>

**October 24, 2020.** Facility providers and administrators began using the new EHR for clinical and administrative work.

**March 19, 2021.** Nearly five months after the go-live of the new EHR at the facility, VA announced that an ongoing analysis of the facility's new EHR post-deployment activities had prompted a "strategic review" and "need for a schedule shift" of future go-live sites. The review was planned to last less than 12 weeks. The VA Secretary commented<sup>72</sup>

A successful EHR deployment is essential in the delivery of lifetime, world-class health care for our Veterans,...After a rigorous review of our most-recent deployment at Mann-Grandstaff VA Medical Center, it is apparent that a strategic

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<sup>68</sup> On June 25, 2018, the former Acting VA Secretary, Peter M. O'Rourke, established VA OEHRM.

<sup>69</sup> "Leadership," VA Office of Electronic Health Record Modernization, accessed January 17, 2020, <https://www.ehrm.va.gov/about/bios>.

<sup>70</sup> VA, *VA Responds to COVID-19 with Schedule Revisions to Electronic Health Record Implementation*, accessed October 22, 2020, <https://www.ehrm.va.gov/news/article/read/va-responds-to-covid-19-with-schedule-revisions-to-electronic-health-record-implementation>.

<sup>71</sup> The VA OEHRM Director of Change Management opined that, in hindsight, the lack of VA OEHRM contact during this period was a significant factor, which hindered Change Management's ability to prepare facility staff for the upcoming transition.

<sup>72</sup> "VA announces strategic review of Electronic Health Record Modernization program."

review is necessary. VA remains committed to the [Cerner] solution, and we must get this right for Veterans.

In the role of Acting Deputy Secretary, Dr. Carolyn Clancy, led the strategic review effort with frequent engagement from VA Secretary Denis McDonough.

**July 2021.** The VA published the initial results of the strategic review through the Comprehensive Lessons Learned Report. The VA identified key areas “to ensure the success of future deployments and to prevent and reduce issues at future sites”:

- Improving the veteran experience
- Ensuring patient safety
- Providing extended training to frontline employees
- Building confidence at VA sites
- Implementing organizational and program improvements
- Improving operational efficiencies
- Making governance effective
- Centralizing data management for workers and veterans<sup>73</sup>

**December 2021.** The VA announced an updated deployment plan for the new EHR. The plan included a revised deployment schedule and outlined changes in management and governance of EHRM “to address previously identified organizational challenges with limited stakeholder inputs in decision making, accountability, and information sharing transparency.”<sup>74</sup> The future EHRM management structure announced by VA did not include VA OEHRM staff and identified a new position to lead the VA’s EHRM, the Program Executive Director for EHRM Integration, working under the Deputy Secretary.<sup>75</sup>

**January 2022.** On January 14, 2022, the EHRM Integration Office’s Executive Director announced that the go-live of the new EHR planned for the VA Central Ohio Healthcare System was delayed from March 5 to April 30, 2022, due to concerns that “adding an

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<sup>73</sup> “Electronic Health Record Comprehensive Lessons Learned Report,” VA Electronic Health Modernization, website.

<sup>74</sup> VA Office of Public and Intergovernmental Affairs “VA advances Electronic Health Record Modernization program,” news release December 1, 2021, <https://www.va.gov/opa/pressrel/pressrelease.cfm?id=5745>.

<sup>75</sup> VA Office of Public and Intergovernmental Affairs, *Electronic Health Record: Comprehensive Lessons Learned, Progress Update, November 2021*, accessed December 1, 2021, <https://www.va.gov/opa/docs/EHRM-Comprehensive-Lessons-Learned-Progress-Update-FINAL-11-29-21.pdf>. “VA Advances Electronic Health Record Modernization.”

EHR deployment during this pandemic surge would risk significant impact to health care operations at the facility and the ability of staff to adequately serve Veterans.”

## Appendix B: Staff-reported Gap in Facility, VISN, and VHA Organizational Performance Metrics

Staff-Identified Missing Metric	Facility Staff	VISN Staff	VHA Staff
<b>Operational Performance Metrics</b>			
Agency Performance Goals	-	-	X
Productivity	X	-	X
SAIL	X	X	X

*Source: OIG analysis of gap in metrics in staff-identified facility, VISN, and VHA required metrics.*

*Note: The OIG determined the categories of these metrics. The OIG determined that a metric was unavailable when staff identified that one of more components of that metric was missing during interviews, information, and document requests.*

## Appendix C: Staff-reported Gap in Facility, VISN, and VHA Quality and Patient Safety Metrics

Staff-Identified Missing Metric	Facility Staff	VISN Staff	VHA Staff
<b>Quality and Patient Safety Metrics</b>			
CMS Hospital Compare*	-	-	X
HEDIS †	X	X	X
ORYX (The Joint Commission required metrics)	-	X	X
Advanced Care Planning	X	-	-
Behavioral Health	X	X	X
Care Provided in the Community	X	-	X
Community Living Center	-	X	-
Controlled Substance Monitoring	-	X	-
Diagnostic Imaging	X	-	-
Infection Control	-	X	X
Inpatient Stays	X	X	X
Pharmacy Processes	X	X	-
Primary Care	X	-	X
Surgery	X	X	-
Telehealth Care	X	-	X

Source: *OIG analysis of gap in metrics in staff-identified facility, VISN, and VHA required metrics.*

Note: *The OIG determined the categories of these metrics. The OIG determined that a metric was unavailable when staff identified that one of more components of that metric was missing during interviews, information, and document requests.*

\**In 2020 the CMS Hospital Compare was consolidated with CMS Care Compare.*

†*A VISN leader told the OIG that HEDIS measures were collected through an External Peer Review Process and reported to VA Central Office although the measures are not published.*

## Appendix D: Staff-Reported Gap in Facility, VISN, and VHA Access Metrics

Staff-Identified Missing Metric	Facility Staff	VISN Staff	VHA Staff
<b>Access Metrics</b>			
VA Access to Care (Website)	X	-	X
Waiting Times for Primary Care, and Specialty Care	-	-	X
Facility Tracked Access Metrics	X	-	-

*Source: OIG analysis of gap in metrics in staff-identified facility, VISN, and VHA required metrics.*

*Note: The OIG determined the categories of these metrics. The OIG determined that a metric was unavailable when staff identified that one of more components of that metric was missing during interviews, information, and document requests.*

## Appendix E: Deputy Secretary Memorandum

### Department of Veterans Affairs Memorandum

Date: May 6, 2022

From: Deputy Secretary (001)

Subj: Healthcare Inspection – “Deficits with Metrics Following Implementation of the New Electronic Health Record at the Mann-Grandstaff VA Medical Center in Spokane, Washington” (Project Number 21-03020-HI-1191) (VIEWS 7301207)

To: Assistant Inspector General for Healthcare Inspections (54)

1. Thank you for the opportunity to review the Department of Veterans Affairs (VA) Office of Inspector General (OIG) draft report “Deficits with Metrics Following Implementation of the New Electronic Health Record at the Mann-Grandstaff VA Medical Center in Spokane, Washington.” The report contains two recommendations for VA.
2. During the review process for this draft report, VA staff identified substantive issues and provided clarifying general and technical comments to OIG for consideration when drafting the final report. The Electronic Health Record Modernization (EHRM) program is a multi-year transition from the Veterans Health Information Systems and Technology Architecture (VistA) to a commercial electronic health record (EHR) system built by the Cerner Corporation. The scale and scope of VA enterprise data, encompassing over 2 trillion rows of data from 13 source systems, is unmatched by any other health care system in the United States. The Cerner EHR system uses data workflows, data models and data management tools that are significantly different than the system VA currently uses, and modernization means that VA must adapt to newer technology that has already been successfully implemented at over 50% of Department of Defense (DoD) sites and U.S. Coast Guard sites and is being used in more than 27,000 private provider facilities and more than 5,900 hospitals globally.
3. VA anticipated both that it would take time to learn how to fully utilize its new EHR for measurement and analytic purposes and that VistA data and Cerner data would not be directly comparable, particularly in operational areas such as appointment scheduling. The transition is very difficult, but the Cerner system will benefit VA by providing better standardization, more real-time front-line analytics, a common system with DoD and other health systems and alignment with healthcare industry best practices.
4. I concur with both recommendations in this report and have included as an attachment to this memorandum an action plan jointly developed by the Veterans Health Administration and the Electronic Health Record Modernization Integration Office to address the recommendations.

*(Original signed by:)*

Donald M. Remy

### OIG Response

During VA’s review of an OIG draft report, it is usual practice for VA to submit comments that may disclose information that could change OIG findings in the final report. VA provided the OIG comments referenced in the Deputy Secretary memo during the draft review phase. The OIG considered and reviewed the comments and made refinements to the report in response. Based on the review, no changes were made to OIG findings in the report.

## Deputy Secretary Response

### Recommendation 1

The Deputy Secretary completes an evaluation of gaps in new electronic health record metrics and takes action as warranted.

Concur:

Transitioning VA's massive data and metric infrastructure into a commercial electronic health record (EHR) environment is enormously complex. The challenges of this undertaking were articulated in a Gap Analysis report delivered to the Veterans Health Administration (VHA) Executive in Charge in January 2021. Considerable progress has occurred since that original Gap Analysis and a reassessment, as recommended, is both timely and necessary. Since the timeframe identified in the report (July 2021 to October 2021), many of the issues identified by the Office of the Inspector General have been addressed. The VHA Office of Analytics & Performance Integration will conduct an evaluation of remaining gaps and develop action plans to resolve them.

Target Date for Completion: October 2022

### Recommendation 2

The Deputy Secretary completes an evaluation of factors affecting the availability of metrics and takes action as warranted.

Concur:

The evaluation and action plans described in the response to Recommendation 1 will include an evaluation of factors affecting the availability of metrics in the new EHR system and plans to address any findings as necessary.

Target date for completion: October 2022

## Appendix F: Under Secretary for Health Memorandum

### Department of Veterans Affairs Memorandum

Date: April 27, 2022

From: Deputy Under Secretary for Health (10), Performing the Delegable Duties of the Under Secretary for Health (10)

Subj: OIG Draft Report, Healthcare Inspection – Deficits with Metrics Following Implementation of the New Electronic Health Record at the Mann-Grandstaff VA Medical Center in Spokane, Washington (2021-03020-HI-1191) (VIEWS 7301207)

To: Office of the Assistant Inspector General for Healthcare Inspections (54)

1. Thank you for the opportunity to review and comment on the Office of Inspector General draft report, “Deficits with Metrics Following Implementation of the New Electronic Health Record at the Mann-Grandstaff VA Medical Center in Spokane, Washington”. The Veterans Health Administration concurs with the action plan developed by the Electronic Health Record Modernization Integration Office and is committed to supporting it.
2. Comments regarding the contents of this memorandum may be directed to the GAO OIG Accountability Liaison Office at [VHA10BGOALACTION@va.gov](mailto:VHA10BGOALACTION@va.gov).

*(Original signed by:)*

Steven L. Lieberman, M.D.

## Appendix G: VISN Director Memorandum

### Department of Veterans Affairs Memorandum

Date: April 14, 2022

From: Director, Northwest Network (10N20)

Subj: Deficits with Metrics Following Implementation of New EHR

To: Office of the Under Secretary for Health (10)

1. VISN 20 acknowledges receipt of the report and appreciates the opportunity to review and provide feedback.
2. Though there are no recommendations from the OIG for the Mann-Grandstaff VA Medical Center or the VISN 20 Northwest Network, VISN 20 provided general comments in response to this report. VISN 20 requested reconsideration of the OIG regarding relevant information submitted from VISN 20 to the OIG during the review that were excluded from the report. This included a request of OIG to reconsider comments and quotes from VISN 20 leaders that misrepresent the totality of responses provided to the OIG.
3. VISN 20 appreciates the ongoing dedication of the Mann-Grandstaff VA Medical Center staff to Veterans throughout modernization of the electronic health record.

*(Original signed by:)*

Teresa D. Boyd, DO

### OIG Response

During VA's review of an OIG draft report, it is usual practice for VA to submit comments that may disclose information that could change OIG findings in the final report. VHA provided the OIG comments referenced in the VISN Director memo during the draft review phase. The OIG considered and reviewed the comments and made refinements to the report in response. Based on the review, no changes were made to OIG findings in the report.

## Appendix H: Facility Director Memorandum

### Department of Veterans Affairs Memorandum

Date: April 11, 2022

From: Director, Mann-Grandstaff VAMC (668/00)

Subj: Deficits with Metrics Following Implementation of New EHR

To: Director, Northwest Network (10N20)

1. The Mann-Grandstaff VA Medical Center acknowledges receipt of the report and appreciates the review completed by the VA Office of Inspector General.
2. In review of the report, we have no additional general or technical comments and note that there were no recommendations for the Mann-Grandstaff VA Medical Center.
3. Mann-Grandstaff VA Medical Center remains committed to a safe implementation of the new electronic health record (EHR) and will support actions to effectively address the recommendations.

*(Original signed by:)*

Robert J. Fischer, MD  
Medical Center Director

## OIG Contact and Staff Acknowledgments

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