FURTHER REVIEW

COLIN MULVANY/THE SPOKESMAN-REVIEW

BUGS IN THE SYSTEM

It was supposed to be a major update of 40-year-old software that keeps track of patients' medical records and allows their doctors at the Department of Veterans Affairs' roughly 1,300 clinics and hospitals to order tests, prescriptions and follow-up visits.

What's more, the new system would be compatible with a new system being installed by the U.S. military.

What it was, however, was a failure from the start. The system didn't work as it was supposed to. Care to veterans was delayed. Patients missed important medications. The system crashed repeatedly, creating more work for medical providers. Promises for fixes weren't kept. Officials were caught lying about the severity of the problems.

Two years after it was installed at Spokane's Mann-Grandstaff VA Medical Center, the Cerner Millennium software still doesn't work well..

Here's a recap of the entire Cerner Millennium saga, as covered by the Spokesman-Review's Orion Donovan-Smith, Arielle Dreher, Thomas Clouse, Kip Hill and others.

1996

An advisory committee set up by President Bill Clinton recommends the Department of Defense develop a "mechanism for computerizing medical data" and says the Pentagon and the Department of Veterans Affairs "should adopt standardized record-keeping to ensure continuity."

The VA is using an electronic health system called VistA, developed in house and launched in 1978. The DoD is using a separate system later renamed AHLTA.

2008

Congress directs the DoD and the VA to develop health record systems with "full interoperability" and to set up an office to coordinate that effort.

2013

After years of interdepartmental bickering, the effort to pursue a shared system is abandoned when the Department of Defense opts to buy a commercial health record system.

In frustration, Congress again mandates the DoD and VA come up with a system with an "integrated display of data or a single electronic health record."

2015

After an open bidding process, the Pentagon awards a $4.3 billion contract to a group of companies — including Cerner of Kansas City, Missouri — for an integrated health record system.

2017

FEBRUARY
The Department of Defense launches the Cerner Millennium health record system at Fairchild Air Force Base and then begins rolling it out to other bases in Western Washington. It isn't long before reports surface of missing information, lost referrals and system crashes.

MARCH
President Donald Trump puts his son-in-law, Jared Kushner, in charge of a new White House effort to infuse government with business ideas. One of his first projects: integrating medical records of the VA and the Department of Defense.

TRIBUNE NEWS SERVICE
Jared Kushner

JUNE 5
VA Secretary David Shulkin announces his department's electronic health record system will be replaced by one by Cerner. Trump praises the system, saying it will mean "faster, better and far better quality care" and calls it "one of the biggest wins for our veterans in decades."

The contract to replace the VA system was awarded without going through a competitive bidding process. The justification: The Cerner system is the same one the DoD is switching to.

2018

MARCH
Shulkin leaves his job, claiming Trump has ousted him for resisting efforts to privatize the VA. The next month, Trump nominates Robert Wilkie — who was overseeing the Pentagon's rollout of the Cerner system — as acting VA secretary.

MAY 1
Wilkie signs the $10 billion contract with Cerner, despite a Pentagon report in April finding the system was riddled with problems and was neither "effective" nor "suitable." The next day, Trump nominates Wilkie to serve as permanent VA secretary.

OCT. 17
During a visit to Fairchild Air Force Base, Wilkie announces the installation and testing process of the new Cerner system is to begin at Spokane's Mann-Grandstaff VA Medical Center in 2020. It will then be rolled out nationwide to all VA centers by 2028.

NOV. 29
The Department of Veterans Affairs says it will delay the opening of a 24-hour urgent-care center at Mann-Grandstaff until the system upgrade is up and running.

2020

JAN. 29
Sen. Patty Murray, who's on the Senate Veterans' Affairs Committee, urges the VA executive in charge of the system rollout to address staffing and facility concerns at Mann-Grandstaff.

FEB. 3
Wilkie announces he has dismissed VA Deputy Secretary James Byrne, who had been overseeing the system rollout, "due to loss of confidence in Mr. Byrne's ability to carry out his duties." Later that month, Wilkie takes on leading the Cerner project himself.

FEB. 12
The VA requests an 82% increase in spending in 2021 for its electronic records modernization project. The next day, the VA says it will push back the rollout of the Cerner system — which had been planned for the next month — in order to make more time for installation and training.

APRIL 27
A Government Accountability Office report reveals that three members of Donald Trump's Mar-a-Lago resort had advised on various VA projects including its contract with Cerner.

OCT. 23
The VA finally launches the Cerner Millennium system at Mann-Grandstaff. It's what developers call "capability set 1.1" — essentially, an unfinished version that doesn't include some functions needed at larger hospitals.

Staffers say later they weren't trained on some parts of the system because they weren't working yet. They said they had been assured those functions would be ready on time.

2021

FEB. 11
The Government Accountability Office recommends the VA postpone the use of the Cerner system at any other medical center until problems that are surfacing at Mann-Grandstaff have been addressed.

MARCH 19
Newly-installed VA Secretary Denis McDonough orders a "strategic review" of the Cerner system and its reported issues.

APRIL 14
Mann-Grandstaff officials say employees have raised 247 patient safety concerns related to the new system. Primary care productivity had declined by 38% at one point after the launch, officials say. VA officials tell a House subcommittee it would delay using the system elsewhere in the U.S.

JUNE
Congress approves another $2.6 billion for the Cerner rollout. New estimates are that the new system will cost a total of $21 billion — original estimates had been $16 billion.

JULY 14
Following a 90-day review, McDonough tells a Senate Committee he's halting further hospitals from adopting the new system. He says the problems have been caused by bad management and planning and not by the software itself.

NOV. 2
"The Cerner system works," VA Deputy Secretary Donald Remy tells a House subcommittee. "And I believe we've properly positioned it for success."

An hour later, the system at Mann-Grandstaff crashes and doesn't come back up for 80 minutes.

VA employees of Mann-Grandstaff have made 576 reports of patient safety issues related to the new system. Two-thirds of the staff at Mann-Grandstaff say they are exhausted, burned-out and are considering quitting.

Despite McDonough's earlier promise to not roll out the system to other VA hospitals until issues at Mann-Grandstaff had been fixed, the VA confirms it plans to begin using the system in Columbus, Ohio, in February. After that, the system will be brought to Walla Walla and its affiliated clinics.

DECEMBER
In a Spokesman-Review report, veterans and current VA employees describe a system that slows treatment and threatens patient safety, despite VA officials calling the transition "flawless."

DEC. 20
Austin, Texas-based software giant Oracle announces it will acquire Cerner for about $28.3 billion.

COLIN MULVANY/THE SPOKESMAN-REVIEW
Donald Remy

2022

JAN. 14
The VA announces it will delay further deployment of the Cerner system in Columbus until the end of April due to a surge of COVID-19 cases there.

FEB. 3
Rep. Cathy McMorris Rodgers asks the VA to delay rollout of the Cerner system in Walla Walla until the ongoing problems have been addressed.

MARCH 3
Work halts at Mann-Grandstaff when "a code defect" in an update to the Cerner system corrupts data for more than 200 patients. Admissions are halted and medications, lab tests and imaging requests are limited. Employees are told to "assume all electronic data is corrupted/inaccurate" and to write down information to enter into the system later.

The system is restored 20½ hours later although some records remain inaccessible throughout the next day. VA officials later say all patient data was restored by the end of the following week.

MARCH 15
After a veteran is admitted to Mann-Grandstaff for heart failure, staffers discover a prescription for heart medication that had been prescribed before the launch of the Cerner system had expired but wasn't shown in the system. Reports released two days later cite 21 different medication-related problems reported by employees.

MARCH 22
Remy says the VA will go on with launching the Cerner system in Walla Walla later that week. He says the number of patients seen each day at Walla Walla and its affiliated clinics will drop but would return to normal in about three months.

APRIL 25
McDonough says the Department of Veterans Affairs will not need to request more money from Congress to complete the rollout of the Cerner system. This comes after an Inspector General's report that the new system would cost an additional $2 billion for each year the rollout runs behind schedule.

McDonough tells The Spokesman-Review he's not aware of any other cases — besides the heart failure patient at Mann-Grandstaff — in which a veteran has been harmed in connection to the Cerner system.

APRIL 26
Remy visits Mann-Grandstaff. During his visit, the Cerner system crashes and remains down for about 45 minutes. It crashes again the next day during a House VA subcommittee hearing about the system.

MAY 8
The VA confirms the Cerner system has had 42 "unplanned degradations" and eight "unplanned outages" — for a total of 30 hours and 33 minutes — since its launch in 2020, not counting the two outages on April 26 and 27. Six such outages have taken place in just the past two months, the VA says.

MAY 27
Mann-Grandstaff announces that construction over the weekend would likely cause a 12-hour outage of the Cerner system. The hospital says the outage won't affect patient care.

JUNE 1
A watchdog report reveals Mann-Grandstaff has failed to collect and report data needed to maintain the hospital's accreditation since launching the Cerner system 20 months before. Of 103 performance metrics monitored by the VA, only 13 are available from the Cerner system, the report says.

JUNE 9
Oracle's acquisition of Cerner is finalized. Oracle founder Larry Ellison promises to modernize the Cerner Millennium system and to "make it much easier to use."

JUNE 17
VA officials say the scheduled rollout of the Cerner system in Seattle and elsewhere in the Puget Sound region, scheduled for August, will be pushed back until March 2023. Four days later, the VA says it'll delay the rollout in Boise, planned for the following weekend, until July.

JUNE 18
The Spokesman-Review reports that a VA draft report says the Cerner system has failed to deliver more than 11,000 orders for specialty care, lab work and other services and has caused harm to at least 148 veterans in the region.

This is after McDonough said he was not aware of harm to patients caused by the system and would halt its rollout to other centers if it was determined it increased risk to veterans. The report further says Remy had been informed of specific cases of harm in November 2021 and was told the problems were not fixed.

Four days later, McDonough announces his confidence in the Cerner system has been shaken.

JULY 19
The VA Office of Inspector General releases its report of an internal investigation of the Cerner system rollout The Spokesman-Review had revealed the previous month. A second report shows VA leaders in charge of training had misled investigators about how many employees had passed readiness tests before the system launched.

Documents obtained by The Spokesman-Review reveal the Cerner system has crashed much more often than had been previously reported by the VA. The system had been degraded, suffered "downtown" or had full or partial outages more than 180 times just since the previous September.

An Oracle official says she's confident the VA system will become "the standard bearer for the industry" and that "nothing we have discovered" since buying Cerner "has caused us to waver from that conviction."

A day later, the VA announces it will again delay rollout of the Cerner system in Boise.

In a Senate hearing the next day, it's revealed an analysis shows the system rollout — which was supposed to cost $16.1 billion over 10 years — is now expected to cost $33.6 billion over 13 years and then $50.8 billion to sustain over 28 years.

SEPT. 21
Remy admits to the Senate Appropriations Committee that the Cerner system "needs major improvements."

An Oracle executive tells the committee that Oracle will rewrite the Cerner system as a new, cloud-based application that will address many of the problems with which providers at Mann-Grandstaff have struggled. He says a beta version of the new system will be delivered as a "cost-free upgrade" to the VA and would be available in 2023.

SEPT. 28
VA Undersecretary for Health Shereef Elnahal says that budget shortfalls resulting from the Cerner rollout will not result in cuts to service at Mann-Grandstaff or other hospitals using the Cerner system.

OCT. 13
The VA announces it will again postpone rollout of the Oracle Cerner system at other hospitals.

NOV. 22
The National Oceanic and Atmospheric Administration announces it will join the joint Oracle Cerner system in the summer of 2023.

DEC. 9
A VA official says the VA will hire 1,000 new IT workers to help with the rollout of the Oracle Cerner system.

TRIBUNE NEWS SERVICE
Denis McDonough

Sources: Compiled from original reports by Spokesman-Review staff reporters Orion Donovan-Smith, Kip Hill, Arielle Dreher and Thomas Clouse. Find the paper's coverage collected here: spokesman.com/sections/veterans-affairs-investigation/
Other sources: Propublica, Becker's Hospital Review, Healthcare Innovation, FedScoop
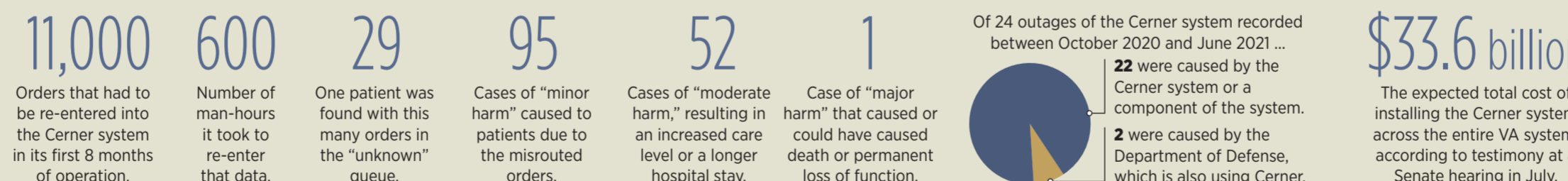Compiled by Charles Apple

PART OF THE PROBLEM WITH THE CERNER SYSTEM

The Cerner Millennium system was designed to keep track of patient information and to allow medical caregivers to send orders requesting X-rays, blood tests, appointments with specialists and prescriptions.

But here's what happened instead...

1. A medical provider wants to send an order for imaging, tests or a prescription. The doctor accesses the Cerner system and finds what he wants via a drop-down list.

2. Some of the options in the drop-down menu, though, didn't send the request to another provider and instead routed it to an unmonitored holding area that came to be known as the "unknown queue."

3. The problem was that the system didn't alert the provider that the request hadn't gone through. Instead, it appeared the order was successfully sent.

4. Many providers didn't catch the problem for days, weeks or even months, delaying veterans' care. Thousands of orders piled up in the "unknown queue."

5. Similarly, a provider may send a prescription for a particular patient. But the main Cerner system doesn't always communicate with its pharmacy module.

6. A result might be that the provider sees one refill remaining but the pharmacist sees no refills are available for that patient. The provider has no way to detect the discrepancy.

7. A patient might access the system to see why a test hasn't been scheduled or a prescription hasn't been filled. Staffers are already overloaded answering follow-up phone calls from concerned patients.

THE CERNER SYSTEM AT MANN-GRANDSTAFF

11,000 Orders that had to be re-entered into the Cerner system in its first 8 months of operation.

600 Number of man-hours it took to re-enter that data.

29 One patient was found with this many orders in the "unknown" queue.

95 Cases of "minor harm" caused to patients due to the misrouted orders.

52 Cases of "moderate harm," resulting in an increased care level or a longer hospital stay.

1 Case of "major harm" that caused or could have caused death or permanent loss of function.

Of 24 outages of the Cerner system recorded between October 2020 and June 2021 ...
22 were caused by the Cerner system or a component of the system.
2 were caused by the Department of Defense, which is also using Cerner.

$33.6 billion The expected total cost of installing the Cerner system across the entire VA system, according to testimony at a Senate hearing in July.