STATE OF VERMONT
GREEN MOUNTAIN CARE BOARD

In re: University of Vermont Medical Center	)	
Expansion of Electronic Health Record	)	GMCB-001-17con
To Two Additional New York Hospitals	)	
	)	
	)	

STATEMENT OF DECISION AND ORDER APPROVING EXPANSION OF ELECTRONIC HEALTH RECORD SYSTEM TO ALICE HYDE MEDICAL CENTER AND ELIZABETHTOWN COMMUNITY HOSPITAL

Introduction

In January 2018, we issued a certificate of need (CON) to the University of Vermont Medical Center (UVMMC or the "Applicant") that allowed UVMMC to replace the electronic health record and related health information technology systems at four University of Vermont Health Network (UVMHN) affiliate hospitals with a unified platform to be purchased from Epic Systems Corporation. In this Decision and Order, we review UVMMC's request to amend the CON to expand implementation of the Epic system to the remaining two UVMHN affiliate hospitals in New York, Alice Hyde Medical Center and Elizabethtown Community Hospital. For the reasons set forth below, we approve the request and issue a revised CON.

Jurisdiction

The Board has jurisdiction over this matter pursuant to 18 V.S.A. §§ 9434(b)(1) and 9444(b)(1).

Findings of Fact

1. The University of Vermont Health Network (UVMHN) is an integrated health care system that includes three affiliate hospitals in Vermont—the University of Vermont Medical Center (UVMMC), Central Vermont Medical Center (CVMC), and Porter Medical Center (PMC)—and three affiliate hospitals in New York—Champlain Valley Physicians Hospital (CVPH), Elizabethtown Community Hospital (ECH), and Alice Hyde Medical Center (AHMC). UVMHN also includes a Vermont home health agency, UVMHN Home Health & Hospice, formerly known as VNA of Chittenden & Grand Isle Counties.

2. On February 23, 2017, UVMMC applied for a certificate of need (CON) to replace the existing electronic health record (EHR) and related health information technology systems at four UVMHN hospitals—UVMMC, CVMC, CVPH, and PMC—with a unified platform to be

purchased from Epic Systems Corporation.[1] The Board approved UVMMC's application and issued a CON for the project on January 5, 2018. Statement of Decision and Order (SOD).

3. The total cost of ownership (TCO) for the four UVMHN affiliate hospitals was to be approximately $151.7 million over a six-year period. The TCO includes $109,254,817 in capital costs: $99,430,071 for software and hardware, internal and external staffing, and network- and Epic-related technology, including infrastructure upgrades and new interfaces, and a contingency of $9,824,746 (9.9%). SOD, Findings, ¶ 26.

4. In addition to capital costs, the TCO includes net operating expenses of $34,630,246 for items such as ongoing maintenance of the software, hardware, and technology, internal and external training and associated costs, offsets of -$12,434,933 for legacy systems that will be replaced by Epic, and -$31,016,221 for staffing offsets. With a 10% contingency (before offsets) of $7,808,140, total operating expenses for the project were $42,438,386. SOD, Findings, ¶ 27.

5. UVMMC provided the following breakdown of the TCO by component and by year:

Cost Estimate	FY17	FY18	FY19	FY20	FY21	FY22	TOTAL
Epic Software Costs	$ -	$ 3,985,426	$ 4,314,267	$ 6,061,808	$ -	$ -	$ 14,361,500
Epic Implementation and Travel Costs	$ -	$ 7,608,174	$ 4,221,394	$ 2,351,950	$ 1,060,102	$ -	$ 15,241,619
Required 3rd Party Software	$ -	$ 2,661,746	$ -	$ -	$ -	$ -	$ 2,661,746
RCM Bolt On Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -
UVMHN Internal Staffing	$ -	$ 4,641,375	$ 3,800,834	$ 2,767,777	$ 590,655	$ -	$ 11,800,641
External Staffing	$ -	$ 11,456,900	$ 11,708,700	$ 10,229,375	$ 2,990,125	$ -	$ 36,385,100
**Epic Related Technology Costs (Hardware,	$ -	$ 4,196,259	$ 3,925,000	$ 2,942,500	$ 83,333	$ -	$ 11,147,093
**Network Related Technology Costs	$ -	$ 3,516,900	$ 836,756	$ 805,390	$ -	$ -	$ 5,159,047
Facilities, Communications and Travel	$ -	$ 1,073,055	$ 142,090	$ -	$ -	$ -	$ 1,215,145
Pre-Implementation - External Staffing	$ 1,458,180						$ 1,458,180
	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Capital Costs	**$ 1,458,180**	**$ 39,139,835**	**$ 28,949,040**	**$ 25,158,799**	**$ 4,724,216**	**$ -**	**$ 99,430,071**
**Contingency 9.9%	$ 144,084	$ 3,867,431	$ 2,860,472	$ 2,485,956	$ 466,803	$ -	$ 9,824,746
Grand Total Capital Costs	**$ 1,602,264**	**$ 43,007,266**	**$ 31,809,512**	**$ 27,644,756**	**$ 5,191,018**	**$ -**	**$ 109,254,817**
Epic Software Costs	$ -	$ -	$ 683,179	$ 1,627,951	$ 2,660,771	$ 3,014,232	$ 7,986,133
Required 3rd Party Software	$ -	$ -	$ 355,885	$ 734,759	$ 758,552	$ 783,178	$ 2,632,375
RCM Bolt On Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -
UVMHN Internal Staffing	$ -	$ 1,074,502	$ 3,567,717	$ 5,921,991	$ 8,524,945	$ 7,719,765	$ 26,808,920
External Staffing	$ -	$ 377,700	$ 1,101,625	$ 818,350	$ 535,075	$ -	$ 2,832,750
Epic Related Technology Costs (Hardware,	$ -	$ 1,411,960	$ 1,481,234	$ 1,500,488	$ 1,520,705	$ 1,541,932	$ 7,456,320
Network Related Technology Costs	$ -	$ 5,793,362	$ 5,576,969	$ 5,038,769	$ 5,650,481	$ 5,913,781	$ 27,973,361
Facilities, Communications and Travel	$ -	$ 265,938	$ 773,128	$ 788,120	$ 564,358	$ -	$ 2,391,543
UVMHN Staffing Offsets	$ -	$ (2,943,311)	$ (3,175,380)	$ (5,771,109)	$ (8,649,597)	$ (10,476,824)	$ (31,016,221)
UVMHN Legacy System Offsets	$ -	$ -	$ -	$ (2,069,706)	$ (4,167,904)	$ (6,197,324)	$ (12,434,933)
	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total OpEx	**$ -**	**$ 5,980,150**	**$ 10,364,357**	**$ 8,589,613**	**$ 7,397,386**	**$ 2,298,740**	**$ 34,630,246**
Contingency 10%	$ -	$ 892,346	$ 1,353,974	$ 1,643,043	$ 2,021,489	$ 1,897,289	$ 7,808,140
Grand Total OpEx	**$ -**	**$ 6,872,496**	**$ 11,718,331**	**$ 10,232,655**	**$ 9,418,875**	**$ 4,196,029**	**$ 42,438,386**
Total Project Cost	**$ 1,602,264**	**$ 49,879,762**	**$ 43,527,843**	**$ 37,877,411**	**$ 14,609,893**	**$ 4,196,029**	**$ 151,693,203**

SOD, Findings, ¶ 28.

[1] In a prior application dated January 3, 2017, UVMMC had proposed including ECH, not PMC, in the project. UVMMC explains that ECH was removed after it was determined that (a) PMC could no longer wait to replace its obsolete EHR system; and (b) the costs of including PMC, which is similar in size to ECH, would be roughly the same as the costs of including ECH. UVMMC explains that AHMC was in the early stages of joining the UVMHN when the CON application was filed and could not be added to the project without restarting the planning process. Addendum to the Amended and Restated Certificate of Need Application (Dec. 13, 2019), 5.

6. The TCO for the approved project does not include approximately $3.1 million in capitalized interest during the implementation period. SOD, Findings, ¶ 30.

7. UVMMC holds the Epic license, owns the project's capital assets, and claims all depreciation, which will be expensed over a five-year period. Annual subscription fees for the use of Epic were to be proportionately allocated to UVMMC, CVMC, PMC and CVPH based on patient volumes. SOD, Findings, ¶ 31.

8. To maximize efficiencies and reduce risks, the project is being completed in three waves. Wave 1, which involves implementing the Epic system at UVMMC, "went live" on November 9, 2019. Implementation Report 4 (Jan. 31, 2020) at 2. Due to the COVID-19 pandemic, Wave 2, which involves implementation at CVMC and PMC, will be delayed from October 2020 to March 2021, and Wave 3, which affects CVPH, will be delayed from July 2021 to November 2021. Email from John R. Brumsted, MD (Mar. 16, 2020). As of now it is unclear what impact the delays due to COVID-19 will have on the TCO.

9. In 2019, UVMMC performed a feasibility assessment to determine its future options for implementing the Epic system at the two remaining UVMHN hospitals, AHMC and ECH, and at UVMHN Home Health and Hospice. The assessment concluded that adding AHMC and ECH to Wave 3 would allow UVMHN to take advantage of personnel and processes already engaged and developed for other network hospitals. The assessment found that while adding UVMHN Home Health and Hospice to Wave 3 did not hold the promise of similar efficiencies, advancing the AHMC and ECH implementations would expedite an eventual implementation at UVMHN Home Health and Hospice. Addendum to the Amended and Restated Certificate of Need Application (Addendum) (Dec. 13, 2019), 5.

10. On August 1, 2019, UVMMC asked the Board to amend the CON to allow Epic to be implemented at AHMC and ECH. Request to Amend the Certificate of Need (Aug. 1, 2019). On August 13, 2019, the Board advised UVMMC that the proposed expansion of Epic to AHMC and ECH constituted a material change to the approved project. Letter from D. Jerry to UVMMC (Aug. 13, 2019) 1. On September 9, 2019, the Board instructed UVMMC to file an application for the expansion. Letter from D. Jerry to UVMMC (Sept. 9, 2019). UVMMC submitted its application on December 13, 2019. *See* Addendum.

11. AHMC is nonprofit community hospital located in Malone, NY, that consists of a 76-bed acute care facility, a 135-bed long-term care facility, and a 30-bed assisted living facility. AHMC also has a walk-in clinic, a primary care practice that includes offices on the Malone campus, and four health centers delivering primary and preventive services in the community. Additionally, AHMC offers specialty care, including women's health services, a family maternity center, cancer center, orthopedic rehabilitation center, dental center, general surgery and cardiology. AHMC joined the UVMHN as an affiliate on May 1, 2016. Addendum, 2.

12. ECH is a New York licensed nonprofit critical access hospital with campuses in Elizabethtown and Ticonderoga, New York. ECH operates the only federally designated critical

access hospital (a 25-bed facility) north of Albany and east of Lake Ontario. ECH also provides services through two 24-hour emergency departments; an inpatient and outpatient rehabilitation therapy program; radiology, laboratory and chemotherapy infusion programs; and six health centers that provide care throughout Essex County. ECH joined the UVMHN as an affiliate on January 1, 2013. *Id*.

13. Patients from AHMC and ECH receive a substantial amount of specialty care from other UVMHN providers, equating to approximately 80,000 patient encounters annually. Patients from AHMC's service area have approximately 25,000 specialty care visits annually at UVMMC and approximately 20,000 visits at CVPH. Patients from ECH's service area have approximately 2,800 specialty care visits at PMC, 20,000 specialty care visits at UVMMC, and 13,000 visits at CVPH. *Id.* Below is a table showing patient encounters at different facilities within the UMVHN.

Patient encounters for those who reside in either the Malone, NY (AHMC) or Elizabethtown/Ticonderoga, NY (ECH) Health Service Areas and received care at a Network Hospital outside their community HSA Hospital

Malone HSA Patient Encounters at Network Affiliates		
	FY17	FY18
UVMMC	25,059	24,660
CVPH	19,045	21,165
ECH	57	65
CVMC	42	47
PMC	2	8

Elizabethtown /Ticonderoga HSA Patient Encounters at Network Affiliates		
	FY17	FY18
UVMMC	19,449	20,484
CVPH	12,949	13,275
PMC	2,754	2,673
AHMC	45	37
CVMC	41	6

Id. at 3.

14. AHMC and ECH currently use several different administrative and clinical software systems that do not interface in a way that meet today's standards for integrated patient care. *Id* at 5, 8. Rather than updating these legacy systems without addressing this deficiency, UVMHN decided that it makes the most business and clinical sense to implement a unified EHR system across all six network hospitals. *Id*. at 8.

15. Implementing a unified EHR system at all UVMHN hospitals will enhance the ability of UVMHN providers to provide high-quality, coordinated care to the thousands of patients whose home hospital is AHMC or ECH but who receive care at another UVHMN affiliate hospital in Vermont or New York. *Id*. at 2, 6-7.

16. UVMHN and its affiliates have been active participants in health care payment and delivery system reform initiatives in Vermont and New York. *Id*. at 6.

17. Implementing a unified EHR system at all UVMHN affiliate hospitals will support the network's transition to population health management. It will allow providers to share an up-to-date, comprehensive record for each patient; enable providers and researchers to track patients, monitor care trends across the region, and more effectively coordinate care for at-risk populations; and allow providers to measure outcomes, redesign care protocols, and reduce care variations. *Id*. at 6-7; SOD, Findings, ¶¶ 16-17.

18. A unified EHR system will reduce administrative burden for providers and lessen the risk of medical errors. It will also allow patients to more easily navigate the health care system; once implementation is complete, patients will have access to a single patient portal where they can view their medical information, communicate with their providers, schedule appointments, and view and pay bills. Addendum, 4, 10.

19. Creating a unified EHR system at all UVMHN affiliate hospitals is consistent with the goals of the Vermont Health Information Technology Plan,[2] which are to (a) support optimal care delivery and coordination by ensuring access to complete and accurate health records, (b) enrich health care operations through data collection and analysis to support quality improvement and reporting, and (c) bolster the health system's ability to learn and improve by using accurate, comprehensive data to guide investment of time, labor and capital, and inform policy and program development. *Id*. at 10-11.

20. The use of one EHR platform at all UVMHN affiliate hospitals will enable improved communication with the Vermont Health Information Exchange (VHIE) and the New York State Health Information Exchange (HIXNY). While many New York residents travel to Burlington for tertiary care services at UVMMC, HIXNY and the VHIE do not currently connect with each other. Thus, having all the New York hospitals on the same EHR system as UVMMC will, in the interim, help facilitate the meaningful exchange of health information. *Id*. at 10.

21. Maintaining multiple EHR systems creates potential security issues and consolidating to a single system will further the UVMHN's goal of maintaining national standards for privacy, security, and information transmission protocols. A single, integrated EHR system will also enhance the ability of the network to maintain federal standards for billing and reporting on clinical trials. *Id*.

22. A standalone implementation at AHMC and ECH would cost approximately $30 million. Implementing Epic at AHMC and ECH as part of Wave 3 will avoid approximately $9.5 million (33%) in costs when compared to the cost of a stand-alone Epic implementation at these hospitals. *Id*. at 1, Exhibit A.

23. Expanding Epic implementation to AHMC and ECH will increase the project's total authorized capital expenditures by $16 million (including capitalized interest). *Id*. at 1. Only UVMMC will incur increased capital costs as a result of the expansion because UVMMC holds

[2] While 18 V.S.A. § 9351 calls for a Health Information Technology Plan, the plan is called the Health Information Exchange Strategic Plan. *See* State Health Information Exchange Strategic Plan 2019-2020 (Version 3), *available at* https://gmcboard.vermont.gov/sites/gmcb/files/HIE/DVHA_HIE%20Plan_ResubmissionVersion3_2.6.20.pdf.

the Epic license, owns the project's capital assets, and claims all depreciation. *Id*. at 16. The $16 million in additional capital expenditures will be funded by UVMMC with available operating capital and without long-term borrowing or rate increases. *Id*. at 7-9. UVMMC included the capital investment for the project's expansion in its FY20 budget submission. *Id*. at 7.

24. After accounting for approximately -$2.3 million in system and staffing offsets, the expansion will result in a $4.1 million increase in the project's net operating expenditures. *Id*. at 1, 13. UVMMC, which will incur these operating costs, will charge each hospital, including AHMC and ECH, a subscription fee based on patient visits. *Id*. at 7-8, 13. The operating costs will decrease after implementation, which will be reflected in reduced subscription fees across the hospitals beginning in FY 22. *Id*. at 16.

25. Expanding Epic implementation to AHMC and ECH will increase costs for the three UVMHN affiliate hospitals in Vermont by $17.1 million. CVPH in New York will incur $0.6 million in increased costs, and AHMC will incur $1.2 million and ECH $0.6 million in total costs through FY2023 as shown in the table below:

Revised Costs by Entity as a result of Proposed Expansion[3]

Combined Cost Estimate = Approved CON 01/05/2018 + CON Amendment 08/01/2019 Increase / (Decrease) of Expense							
	FY18	FY19	FY20	FY21	FY22	FY23	TOTAL
Capital Expense (UVMMC holds all expense)							
UVMMC	$ -	$ -	$ -	$ 15,732,386	$ -	$ -	$ 15,732,386
CVMC	$ -	$ -	$ -	$ -	$ -	$ -	$ -
PMC	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CVPH	$ -	$ -	$ -	$ -	$ -	$ -	$ -
ECH	$ -	$ -	$ -	$ -	$ -	$ -	$ -
AHMC	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ -**	**$ -**	**$ -**	**$15,732,386**	**$ -**	**$ -**	**$15,732,386**
Operating Expense (staffing and legacy system offsets)							
UVMMC	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CVMC	$ -	$ -	$ -	$ -	$ -	$ -	$ -
PMC	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CVPH	$ -	$ -	$ -	$ -	$ -	$ -	$ -
ECH	$ -	$ -	$ -	$ (60,067)	$ (457,621)	$ (285,839)	$ (803,527)
AHMC	$ -	$ -	$ -	$ (120,133)	$ (922,081)	$ (495,598)	$ (1,537,812)
Total	**$ -**	**$ -**	**$ -**	**$ (180,200)**	**$ (1,379,702)**	**$ (781,437)**	**$ (2,341,339)**
Operating Expense Subscription Fees (allocated on volume)							
UVMMC (net operating expense after subscription fees)	$ -	$ -	$ -	$ 1,316,477	$ (174,441)	$ (74,397)	$ 1,067,639
CVMC	$ -	$ -	$ -	$ 303,080	$ (79,526)	$ (35,975)	$ 187,579
PMC	$ -	$ -	$ -	$ 124,857	$ (41,997)	$ (19,242)	$ 63,619
CVPH	$ -	$ -	$ -	$ 554,606	$ (31,723)	$ (11,346)	$ 511,536
ECH	$ -	$ -	$ -	$ 663,533	$ 507,782	$ 247,703	$ 1,419,018
AHMC	$ -	$ -	$ -	$ 1,477,911	$ 1,131,002	$ 551,719	$ 3,160,632
Total	**$ -**	**$ -**	**$ -**	**$ 4,440,463**	**$ 1,311,097**	**$ 658,463**	**$ 6,410,023**
Total Capital and Operating Expense							
UVMMC (net operating expense after subscription fees)	$ -	$ -	$ -	$ 17,048,863	$ (174,441)	$ (74,397)	$ 16,800,024
CVMC	$ -	$ -	$ -	$ 303,080	$ (79,526)	$ (35,975)	$ 187,579
PMC	$ -	$ -	$ -	$ 124,857	$ (41,997)	$ (19,242)	$ 63,619
CVPH	$ -	$ -	$ -	$ 554,606	$ (31,723)	$ (11,346)	$ 511,536
ECH	$ -	$ -	$ -	$ 603,466	$ 50,161	$ (38,136)	$ 615,491
AHMC	$ -	$ -	$ -	$ 1,357,778	$ 208,921	$ 56,121	$ 1,622,820
Total	**$ -**	**$ -**	**$ -**	**$19,992,649**	**$ (68,605)**	**$ (122,974)**	**$19,801,070**

Id. at 17.

26. The table below shows the updated costs for Epic implementation for the four hospitals included in the original approved CON and for AHMC and ECH. The total offset amount is $45,812,493, which includes an offset of -$32,424,584 attributed to UVMHN staffing and an offset of -$13,387,909 attributed to the UVMHN legacy system. Addendum (Dec. 13, 2019) 18.

[3] Because operating costs are proportioned on an annual basis as determined by that year's patient volume per affiliate, the actual yearly costs incurred by each affiliate will vary from the projections in the table, which are based on a "snapshot in time" of patient volumes for purposes of consistency in planning.

Updated Costs for Approved CON *plus* Proposed Expansion (as of August 2019)

Combined Cost Estimate = Approved CON 01/05/2018 + Submitted CON 08/01/2019							
	FY18	FY19	FY20	FY21	FY22	FY23	TOTAL
Epic Software Costs	$ 3,046,335	$ 3,481,524	$ 3,481,524	$ 2,828,681	$ -	$ -	$ 12,838,064
Epic Implementation and Travel Costs	$ 2,350,453	$ 6,565,649	$ 3,305,000	$ 2,638,971	$ -	$ -	$ 14,860,072
Required 3rd Party Software	$ 19,192	$ 1,462,250	$ 1,030,000	$ 1,287,844	$ -	$ -	$ 3,799,286
RCM Bolt On Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -
UVMHN Internal Staffing	$ 2,127,347	$ 5,546,625	$ 2,685,000	$ 1,199,922	$ -	$ -	$ 11,558,894
External Staffing	$ 4,595,390	$11,484,981	$11,175,000	$ 11,442,434	$ -	$ -	$ 38,697,805
Epic Related Technology Costs (Hardware, Network, Integration, Conversion)	$ 164,702	$ 9,389,327	$ 1,300,000	$ 6,786,688	$ -	$ -	$ 17,640,717
Network Related Technology Costs (Hardware, Network, Integration, Conversion)	$ 4,822,367	$ 8,391,917	$ 2,050,000	$ 1,070,331	$ -	$ -	$ 16,334,615
Facilities, Marketing, Travel, and OOPs	$ 583,871	$ 568,475	$ 197,798	$ -	$ -	$ -	$ 1,350,145
Pre-Implementation - External Staffing	$ 1,248,041	$ -	$ -	$ -	$ -	$ -	$ 1,248,041
Total Capital Costs	**$18,957,698**	**$46,890,747**	**$25,224,322**	**$ 27,254,871**	**$ -**	**$ -**	**$118,327,638**
Contingency 9.9%	$ -	$ 240,000	$ 2,875,000	$ 3,544,564	$ -	$ -	$ 6,659,564
Grand Total Capital Costs	**$18,957,698**	**$47,130,747**	**$28,099,322**	**$ 30,799,435**	**$ -**	**$ -**	**$124,987,203**
Epic Software Costs	$ -	$ 8,000	$ 1,309,000	$ 2,301,677	$ 3,454,736	$ 1,731,515	$ 8,804,929
Epic Implementation and Travel Costs	$ -	$ -	$ -	$ 71,000	$ -	$ -	$ 71,000
Required 3rd Party Software	$ 809,742	$ (507,759)	$ 730,000	$ 885,904	$ 1,044,565	$ 523,686	$ 3,486,138
RCM Bolt On Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -
UVMHN Internal Staffing	$ 429,191	$ 1,803,188	$ 6,620,000	$ 9,303,357	$ 8,086,161	$ 4,015,969	$ 30,257,867
External Staffing	$ 513,094	$ 1,391,675	$ 4,900,000	$ 3,952,651	$ -	$ -	$ 10,757,419
Epic Related Technology Costs (Hardware, Network, Integration, Conversion)	$ 119,789	$ 1,034,539	$ 1,800,000	$ 2,308,053	$ 2,144,071	$ 1,074,027	$ 8,480,480
Network Related Technology Costs	$ 412,319	$ 4,013,184	$ 3,820,000	$ 3,500,000	$ 3,000,000	$ 1,497,438	$ 16,242,942
Facilities, Marketing, Travel, and OOPs	$ 252,887	$ 754,020	$ 1,020,000	$ 1,951,120	$ 459,987	$ -	$ 4,438,013
UVMHN Staffing Offsets	$ (750,644)	$ (1,562,078)	$ (4,728,944)	$ (9,402,403)	$(10,545,890)	$ (5,434,625)	$ (32,424,584)
UVMHN Legacy System Offsets	$ -	$ -	$ (687,202)	$ (3,130,323)	$ (6,095,711)	$ (3,454,674)	$ (13,367,909)
Total OpEx	**$ 1,786,378**	**$ 6,934,769**	**$14,782,854**	**$ 11,741,036**	**$ 1,547,919**	**$ (46,662)**	**$ 36,746,293**
Contingency 10%	$ -	$ 220,000	$ 2,640,000	$ 2,943,678	$ 2,639,191	$ 1,317,908	$ 9,760,777
Grand Total OpEx	**$ 1,786,378**	**$ 7,154,769**	**$17,422,854**	**$ 14,684,714**	**$ 4,187,110**	**$ 1,271,246**	**$ 46,507,070**
Total Project Cost	**$20,744,076**	**$54,285,516**	**$45,522,176**	**$ 45,484,149**	**$ 4,187,110**	**$ 1,271,246**	**$171,494,273**
Capital Interest Expense	**$ 157,978**	**$ 1,740,896**	**$ 681,665**	**$ 511,442**	**$ -**	**$ -**	**$ 3,091,981**
Total Project Cost	**$20,902,054**	**$56,026,411**	**$46,203,842**	**$ 45,995,591**	**$ 4,187,110**	**$ 1,271,246**	**$174,586,254**

Id. at 18.

27. Below are updated seven-year UVMMC Depreciation & Capital Costs for the approved CON as well as Seven-Year UVMMC Depreciation & Capital Costs for the approved CON and the expansion to AHMC and ECH.

Seven-Year UVMMC Depreciation & Capital Costs for Approved CON

	A: Total Capital and Depreciation Costs (Approved CON 01/05/2018)											
University of Vermont Medical Center (UVMMC)	**Total**	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Capital Expense	**$109,254,817**	$18,957,698	$47,130,747	$28,099,322	$15,067,049	$0	$0	$0	$0	$0	$0	$0
Capital Interest Expense	**$2,813,465**	$157,978	$1,740,896	$681,665	$232,926	$0	$0	$0	$0	$0	$0	$0
Capital Expense Depreciation[1]	**$109,254,817**	$23,265	$92,121	$9,287,786	$14,061,564	$15,611,625	$15,611,625	$15,578,003	$15,543,829	$15,543,829	$6,345,783	$1,555,385
Capital Interest Depreciation	**$2,813,465**	$0	$0	$278,120	$376,967	$401,924	$401,924	$401,924	$401,924	$401,924	$123,804	$24,956

Footnotes:
1 Depreciation calculation based on spreading total capital costs over the useful life of the asset(s), per external auditor guidance.

Id. at 18.

Seven-Year UVMMC Depreciation & Capital Costs for Approved CON *plus* Proposed Expansion

	C: Total Capital and Depreciation Costs (Approved CON 01/05/2018 + CON Amendment 08/01/2019)											
University of Vermont Medical Center (UVMMC)	**Total**	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Capital Expense	**$124,987,203**	$18,957,698	$47,130,747	$28,099,322	$30,799,435	$0	$0	$0	$0	$0	$0	$0
Capital Interest Expense	**$3,091,981**	$157,978	$1,740,896	$681,665	$511,442	$0	$0	$0	$0	$0	$0	$0
Capital Expense Depreciation[1]	**$124,987,203**	$23,265	$92,121	$9,287,786	$14,623,435	$17,859,109	$17,859,109	$17,825,486	$17,791,313	$17,791,313	$8,593,267	$3,240,997
Capital Interest Depreciation	**$3,091,981**	$0	$0	$278,120	$386,914	$441,712	$441,712	$441,712	$441,712	$441,712	$163,592	$54,797

Footnotes:
1 Depreciation calculation based on spreading total capital costs over the useful life of the asset(s), per external auditor guidance.

Id. at 19.

28. UVMMC will fund the expansion without long-term borrowing or rate increases. Addendum (Dec. 13, 2019) 8.

Conclusions of Law

Expanding the Epic implementation to the two remaining UVMHN affiliate hospitals in New York constitutes a "material change" to the approved project. 18 V.S.A. §§ 9444(b)(1), 9432(11), 9434(a)(1); Findings of Fact (Findings), ¶ 23. Under the CON statutes, the expansion must therefore be reviewed by the Board. 18 V.S.A. § 9444(b)(1). For many of the same reasons we approved the original project, we approve the expansion.

I.

Under the first statutory criterion, an applicant must show that the project aligns with statewide health care reform goals and principles because the project takes into consideration health care payment and delivery system reform initiatives; addresses current and future community needs in a manner that balances statewide needs (if applicable); and is consistent with appropriate allocation of health care resources, including appropriate utilization of services, as identified in the Health Resources Allocation Plan (HRAP).

Expanding Epic implementation to AHMC and ECH aligns with statewide health care reform goals and principles because it takes into consideration health care payment and delivery system reform initiatives. UVMHN affiliates have been active participants in health care payment and delivery system reform initiatives in Vermont and New York. Findings, ¶ 16. Having a unified EHR system at all UVMHN hospitals will further these initiatives by allowing network providers to share an up-to-date, comprehensive record for each patient; enabling providers and researchers to track patients, monitor care trends across the region, and coordinate care for at-risk populations; and allowing providers to measure outcomes, redesign care protocols, and reduce care variations. Findings, ¶ 17.

The Applicant has also demonstrated that implementing Epic at AHMC and ECH is consistent with the only HRAP standard that is relevant,[4] HRAP Standard 3.4, which requires that the project have been included in hospital budget submissions. UVMMC included the capital investment for the Epic expansion in its FY20 budget submission. Findings, ¶ 23.

Based on the above, we conclude that the Applicant has met the first criterion.

II.

Under the second criterion, an applicant must demonstrate that the cost of the project is reasonable because the applicant's financial condition will sustain any financial burden likely to result from completion of the project, because the project will not result in an undue increase in the costs of medical care or the affordability of medical care for consumers, and because less expensive alternatives do not exist, would be unsatisfactory, or are not feasible or appropriate. In determining whether an applicant has demonstrated that the project will not result in an undue increase in the costs of medical care or the affordability of medical care for consumers, the Board must consider and weigh relevant factors, "including the financial implications of the project on hospitals and other clinical settings, including the impact on their services, expenditures and charges [and whether such impact] is outweighed by the benefit of the project to the public." 18 V.S.A. § 9437(2).

Based on the record, we conclude that UVMMC's financial condition will sustain any financial burden likely to result from the project's expansion. Expanding the unified EHR system to AHMC and ECH will increase the project's total capital expenditures by $16 million and will increase the project's net operating expenditures by $4.1 million. The $16 million in additional capital expenditures will be funded by UVMMC with available operating capital. Findings, ¶¶ 23-24. The $4.1 million in additional operating expenditures will be apportioned amongst the network hospitals, who will be charged a subscription fee based on their patient volumes. Findings, ¶ 7. The operating costs of the project will decrease following implementation, which will be reflected in reduced subscription fees for hospitals starting in FY 22. Findings, ¶ 24. In light of the recent public health crisis resulting from COVID-19 and the uncertainty it has created for hospitals' finances, we find that additional monitoring of the financing for this project is warranted. We have therefore added a reporting condition in the revised CON regarding the project's financing.

We also conclude that the expansion of the project expansion will not result in an undue increase in the costs of medical care or the affordability of medical care for consumers. UVMMC has stated that it will not increase commercial rates as a result of the project, an assurance we reasonably expect will extend to CVMC and PMC, which will see somewhat higher subscription fees due to the increase in total operating expenditures. *See* Findings, ¶¶ 23, 25, 28.

Expanding Epic implementation to AHMC and ECH will increase expenditures for the three UVMHN affiliate hospitals in Vermont. The Vermont hospitals in the UVMHN serve a

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[4] The HRAP, which was last updated in 2009, is currently being revised. Until the revision is completed, the relevant standards from the current HRAP apply.

substantial number of New York residents each year and the revenue they receive from these patient encounters helps to offset these hospitals' costs. *See* Findings, ¶ 13. Furthermore, implementing a unified EHR system at all network hospitals will substantially benefit care delivery, including care delivered by Vermont providers to patients from New York. Having a unified EHR system at all UVMHN hospitals will improve information sharing and coordination of care among providers; support transition to population health management; allow providers to reduce care variation by enabling the creation of uniform care protocols; reduce administrative burden for providers and lessen the risk of medical errors; and allow patients to more easily navigate the health care system by scheduling appointments, obtaining test results, and communicating with providers through a single patient portal. Findings, ¶¶ 13-18.

Finally, we conclude that less expensive alternatives do not exist, would be unsatisfactory, or are not feasible or appropriate. Replacing the EHR systems at AHMC and ECH on a stand-alone basis would cost approximately $9.5 million (33%) more than it costs to do so as part of Wave 3. Findings, ¶ 22. Simply updating the existing systems at ACHM and ECH would not be satisfactory or appropriate because these systems do not meet today's standards for integrated patient care. Findings, ¶ 14.

We therefore conclude that the second criterion has been met.

III

Under the third criterion, an applicant must show that "there is an identifiable, existing, or reasonably anticipated need for the proposed project that is appropriate for the applicant to provide." 18 V.S.A. § 9437(3).

As we stated in our decision to approve the project, "it is crucial that patients receiving medical services in multiple settings receive coordinated, appropriate care, based on their current health status and the most up-to-date health information and care protocols." SOD, 11. To provide this kind of coordinated, integrated care, UVMMC has demonstrated a need to replace the existing administrative and clinical software systems at AHMC and ECH with the unified system currently being implemented at the other four UVMHN affiliate hospitals in Vermont and New York. *See* Findings, ¶¶ 14-15. As the largest hospital in the UVHMN and the tertiary care facility for the region, it is appropriate for UVMMC to meet this need. We therefore conclude that this criterion has been met.

IV.

The fourth criterion requires that an applicant demonstrate that the proposed project "will improve the quality of health care in the State or provide greater access to health care for Vermont's residents, or both." 18 V.S.A. § 9437(4).

Expanding Epic implementation to AHMC and ECH will enhance the ability of UVMHN providers to deliver high-quality, coordinated care to the thousands of patients whose home hospital is AHMC or ECH but who receive care at another UVHMN hospital in Vermont or New

York. Findings, ¶ 15. Implementing a unified EHR will improve quality by allowing network providers to share an up-to-date, comprehensive record for each patient; enabling providers and researchers to track patients, monitor care trends across the region, and coordinate care for at-risk populations; and allowing providers to measure outcomes, redesign care protocols, and reduce care variations. Findings, ¶ 17. Finally, a unified system will make navigating the health care system easier as patients will be able to schedule appointments, get test results and communicate with their providers through a single patient portal. Findings, ¶ 18.

We find that the Applicant has met this criterion.

V.

The fifth criterion requires that an applicant demonstrate that the project will not have an undue adverse impact on any other services it offers. 8 V.S.A. § 9737(5).

If execution goes as planned, the project expansion will not negatively impact any other hospital services; rather, it will replace the existing incompatible legacy EHR systems at AHMC and ECH with the same unified system currently being implemented at other UVMHN affiliate hospitals in Vermont and New York, which will benefit Vermont patients being seen at ECH and AHMC. In addition, for Vermont hospitals seeing New York patients, having a unified system will create system efficiencies which could have a positive impact on the availability of other services at those hospitals.

We find that this criterion has been satisfied.

VI.

The sixth criterion was repealed during the 2018 legislative session. *See* 18 V.S.A. § 9437(6) (repealed).

VII.

The seventh criterion requires that an applicant adequately consider the availability of affordable, accessible transportation services to the facility, if applicable. As the project involves the implementation of an EHR, this criterion is not applicable.

VIII.

The eighth criterion requires that applications for the purchase or lease of new Health Care Information Technology conform to the Health Information Technology Plan established under section 18 V.S.A. § 9351(8).

Implementing Epic at all UVMHN affiliate hospitals is consistent with the goals of the Vermont Health Information Technology Plan, which are to (a) support optimal care delivery and coordination by ensuring access to complete and accurate health records, (b) enrich health

care operations through data collection and analysis to support quality improvement and reporting, and (c) bolster the health system's ability to learn and improve by using accurate, comprehensive data to guide investment of time, labor and capital, and inform policy and program development. Findings, ¶ 19; *see also,* Findings, ¶¶ 15-18.

Using one EHR platform at all UVMHN affiliate hospitals will also enable improved communication with the Vermont Health Information Exchange (VHIE) and the New York State Health Information Exchange (HIXNY). While many New York residents travel to Burlington for tertiary services at UVMMC, HIXNY and the VHIE do not currently connect with each other. Thus, having all the New York hospitals on the same EHR system as UVMMC will, in the interim, help facilitate the meaningful exchange of health information. Findings, ¶ 20.

Finally, maintaining multiple EHR systems creates potential security issues and consolidating to a single system will further the network's goal of maintaining national standards for privacy, security, and information transmission protocols. Findings, ¶ 21.

We find that this criterion has been satisfied.

IX.

The ninth criterion requires that an applicant show that the project will support equal access to appropriate mental health care that meets standards of quality, access, and affordability equivalent to other components of health care as part of an integrated, holistic system of care, as appropriate. 18 V.S.A. § 9437(9).

We find this criterion has been satisfied. A unified EHR will facilitate the exchange of accurate, up-to-date patient records and will enable the delivery of high-quality, integrated, and coordinated care by providers practicing in multiple disciplines. A unified EHR will also allow patients to easily access their medical information and communicate with their providers. *See* Findings, ¶¶ 17-18. The expansion does not pose any barriers to accessing appropriate mental health treatment.

X.

Finally, an applicant must show that the project "serves the public good." This aspect of the Board's review is broad, and necessarily includes our consideration, and the applicant's satisfaction, of each of the statutory criteria.

In addition to our discussions regarding the statutory criteria, our administrative rule provides guidance on considerations for the Board when reviewing whether a project serves the public good. *See* GMCB Rule 4.000, § 4.402.3. As an example, the Board can consider whether the applicant has shown that the project furthers integration and coordination of services. In our previous decision, we found that the applicant had demonstrated that the use of a single, up-to-date patient health record reflecting all care received from UVMHN providers will improve care integration and coordination of provider services. SOD, 15. We reasoned that while the cost of

the project was substantial, the applicant has demonstrated it is reasonable, given the need for the project, its scope, and the lack of viable alternatives. *Id.* These same considerations apply to the project as revised to include AHMC and ECH.

Based on the above, and the applicant's satisfaction of all the other criteria, we conclude that the applicant has shown the project will serve the public good.

Conclusion

Based on the above, we approve the proposed expansion of the Epic system to AHMC and ECH and issue a revised CON issued to reflect the change.

SO ORDERED.

Dated: April 30, 2020 at Montpelier, Vermont.

s/ Kevin Mullin, Chair	)	
	)	GREEN MOUNTAIN
s/ Jessica Holmes	)	CARE BOARD
	)	OF VERMONT
s/ Robin Lunge	)	
	)	
s/ Tom Pelham	)	
	)	
s/ Maureen Usifer	)	

Filed: April 30, 2020
Attest: Jean Stetter, Administrative Services Director