By Electronic Mail & U.S. Mail

February 27, 2024

Ms. Donna Jerry
Senior Health Policy Analyst
Green Mountain Care Board
144 State Street
Montpelier, VT 05602
Donna.Jerry@vermont.gov

Re: Docket No. GMCB-004-23con, Development of Outpatient Surgery Center on Tilley Drive, Project Cost: $129,640,703
Response to Q.009

Dear Ms. Jerry:

The University of Vermont Medical Center Inc. ("UVM Medical Center") hereby responds to the Green Mountain Care Board's ("Board") Requests for Additional Information Q.009, dated January 25, 2024, regarding the above-referenced project.

1. **Explain the methodology behind the Sg2 inputs that were incorporated into UVMMC's demand model, including the list of impact factors and how each affects the demand forecast for this particular project.**

Response:

Sg2 Impact of Change® Model Methodology

As described in the CON Application, UVM Medical Center modeled growth in surgical demand based on three different sets of assumptions (Scenarios 1-3). Scenarios 1 and 3 were generated using a Sg2 forecast application called the Impact of Change® model, which predicts changes in utilization based on six "impact factors."

Sg2 is a subsidiary of Vizient, Inc. Sg2's Impact of Change® model is in widespread use by UVM Medical Center's peer institutions; according to Sg2, over 250 health systems and other organizations nationwide use Impact of Change® to inform strategic and facility planning.

UVM Medical Center has used the Impact of Change® model in its facilities planning process since 2018, and the Board has accepted use of this model to project demand for UVM Medical Center's services in support of multiple other Certificate of Need applications. See e.g. Certificate of Need Application, New Philips Ingenia Elition 3.0 T X MRI, Docket No. GMCB-010-21con (May 25, 2021).

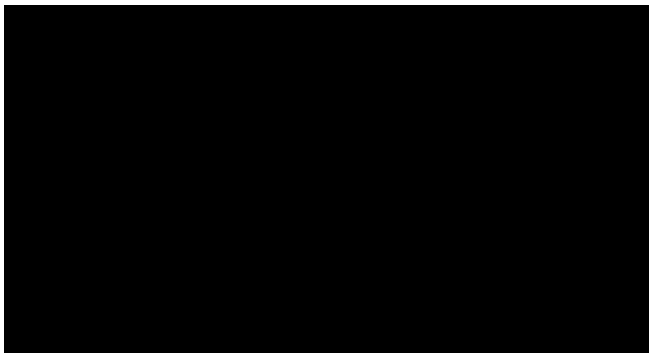
UVM Medical Center submitted an explanation of the Impact of Change® model methodology in response to the Board's Requests for Additional Information Q.002. See UVM Medical Center's Response to Q.002 (June 15, 2023), Exhibit 2. In response to the Board's second request for this information, Sg2 has produced a second more detailed report on the model methodology, which includes proprietary information Sg2 takes reasonable steps to keep secret and which it believes gives it a business advantage over those who do not know or use it. Sg2 has authorized UVM Medical Center to submit this second report to the Board provided it is not subject to public disclosure. UVM Medical Center is therefore submitting a request for confidential treatment of Sg2's second report herewith.

Impact of Change® Model Application

The below tables state the overall impact of each of the Sg2 Impact of Change® factors with respect to all IP and OP major procedures in the Chittenden County, Vermont market based on Sg2's approximation of the case mix in that market. Sg2 has authorized UVM Medical Center to submit these tables to the Board provided they are not subject to public disclosure, and the request for confidentiality submitted herewith therefore also covers this information.

The information contained in the below tables provides an overall indication of the Sg2 Impact of Change® forecast based on Sg2's estimate of the case mix in the Chittenden County Market, and an overall indication of how the Sg2 Impact of Change® factors impacted UVM Medical Center's demand model. It is important to note, however, that UVM Medical Center's demand model did not simply rely on the overall rates of growth (or contraction) shown in the below tables. Instead, UVM Medical Center applied Sg2 projected rates of change for each individual service line to its actual baseline 2019 case volumes by service line. There may be small variations between UVM Medical Center's actual case mix and Sg2's Chittenden County market case mix due to actual utilization and share of market by service line.

The Impact of Change® model used in UVM Medical Center's demand model Scenario 1 incorporates the Claritas 2021 population forecast. In UVM Medical Center's demand model Scenario 3, the Impact of Change® model was modified in consultation with Sg2 to substitute the Public Opinion Strategies population forecast. Growth rates due to Impact of Change® factors other than "population" are the same in Scenario 3 as in Scenario 1.



Source:

Impact of Change®; Claritas Pop-Facts® Sg2 Market Demand Forecast Version: 2020v2

Sg2 Analytics Version 2021: Proprietary Sg2 All-Payer Claims Data Set, 2018; The following 2018 CMS Limited Data Sets (LDS): Carrier, Denominator, Home Health Agency, Hospice, Outpatient, Skilled Nursing Facility; Claritas Health Insurance Estimates Derived for Sg2, 2021

Sg2 Analytics Version 2020v2: Proprietary Sg2 All-Payer Claims Data Set, 2018; The following 2018 CMS Limited Data Sets (LDS): Carrier, Denominator, Home Health Agency, Hospice, Outpatient, Skilled Nursing Facility; Claritas Health Insurance Estimates Derived for Sg2, 2020

Inpatient: Sg2 Impact of Change forecast utilizes calendar year 2019 baseline data therefore all COVID-19 volumes are excluded as COVID-specific codes did not go into effect until 2020 (including ICD-10 diagnosis codes U07.1 and U07.2).

Outpatient: Sg2 Impact of Change forecast utilizes calendar year 2019 baseline data therefore all COVID-19 volumes are excluded as COVID-specific codes did not go into effect until 2020 (including ICD-10 diagnosis codes U07.1 and U07.2).

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2. Fill in the table below with Chittenden County resident population actuals/projections. Highlight in yellow all projections.

	Under 65				65+ and Older			
CY	Claritas 2021	Claritas 2024	POS	VT DOH Population Estimates (Fall 2023 update)	Claritas 2021	Claritas 2024	POS	VT DOH Population Estimate (Fall 2023 update)
2019			**138,839**	**138,293**			**23,807**	**25,481**
2020			138,326	**141,991**			25,145	**26,298**
2021	**134,991**		137,813	**141,573**	**27,105**		26,482	**27,292**
2022	134,509		137,300	**140,569**	28,054		27,820	**28,732**
2023	134,026		136,787		29,002		29,158	
2024	133,544	**135,989**	136,274		29,951	**31,049**	30,495	
2025	133,061	135,791	135,762		30,899	32,059	31,833	
2026	**132,579**	135,593	135,249		**31,848**	33,069	33,170	
2027		135,394	134,736			34,080	34,508	
2028		135,196	134,223			35,090	35,846	
2029		**134,998**	133,710			**36,100**	37,183	
2030			**133,197**				**38,521**	

Sources: Claritas Pop Facts® accessed via Sg2 Analytics on 6/21/21 and 2/15/24. Public Opinion Strategies Presentation Deck July 2021. Vermont Department of Heath website, Vermont Population Estimates (HSI-STAT-POP-Vermont-population-by-county-age-and-sex-2020-2022.xlsx (live.com) , HSI-STAT-POP-Vermont-population-by-county-age-and-sex-2000-2019.xls (live.com))

We have provided the Claritas 2021 forecast that was used in UVM Medical Center's demand model Scenario 1, the most recent Claritas 2024 forecast, the Public Opinion Strategies (POS) forecast used in UVM Medical Center's demand model Scenarios 2 and 3, and the Vermont Department of Health Population Data for 2019-2022 as updated in Fall 2023. As we have previously noted, when UVM Medical Center first created and filed its demand model, Claritas had not yet updated its forecast to take account of recent observed growth in the relevant populations. In order to address that timing gap, we supplemented the Claritas data with a more recently updated forecast from POS. We now have the benefit of updated Claritas 2024 data and have therefore included it here. That Claritas 2024 data provides a more current and robust available forecast of the relevant populations than the POS forecast. As shown in the above table, the Claritas 2024 forecast is significantly higher than the Claritas 2021 forecast, and more closely matches the POS data, forecasting slightly higher population for 2029 in the under-65 population and slightly lower population in the over-65 population than the POS forecast.

The Claritas forecasts provide estimates for the starting year and Year 5, shown in bold in the Claritas columns of the above table. The interim population estimates, shown in gray, are calculated assuming straight-line growth from starting year value to Year 5 value. POS provided data for 2019 and 2030, indicated in bold in the POS column of the above table, with similar straight-line growth estimated between these years and indicated in gray.

To calculate 5- and 10-year population growth for the two age cohorts, Under-65 and 65-and-Older, for use in responding to Question 3, below, we merged the Claritas forecasts. Claritas 2021 forecast numbers were used for population estimates for 2021-2023, and updated Claritas 2024 population estimates were used for 2024-2029 and extrapolated to 2031. The resulting 5- and 10-year growth assumptions shown in the table below were used to recalculate growth in

inpatient and outpatient volumes by service line to update the 'Enter Inputs Here' tab in the Q.3 Workbook.

Merged Claritas Forecast				
Under 65	65+	Total Population	Under 65 5- and 10-yr Growth	65 & Older 5- and 10-yr Growth
134,991	**27,105**	**162,096**		
134,509	28,054	162,562		
134,026	29,002	163,028		
135,989	**31,049**	**167,038**		
135,791	32,059	167,850		
135,593	33,069	168,662	*0.4%*	*22.0%*
135,394	34,080	169,474		
135,196	35,090	170,286		
134,998	**36,100**	**171,098**		
134,800	37,110	171,910		
134,602	38,120	172,722	*-0.3%*	*40.6%*

3. **Revise the attached Excel Workbook ["20231116_UVMMC SURGICAL CASE CAPACITY AND VOLUME PROJECTIONS MODEL final"] from Q.006, question 2 as follows:**
    a. **Align the inpatient and outpatient surgical case counts in Table 2 with Claritas population estimates from question 1 above.**
    b. **Refine the input "Number of Rooms" in Table 1a and Table 3 to reflect year-to-year changes in the number of available rooms.**
    c. **Adjust the following inputs in Table 1a and Table 3 to reflect productivity changes, if any, after the OSC becomes operational: Turnover Time (OP) in Hours, Turnover Time (IP) in Hours, Average Length of Surgery (OP) in Hours, and Average Length of Surgery (IP) in Hours.**

NOTE: Use the revised workbook in responding to all remaining questions below, where applicable.

Response:

Two versions of the completed workbook are attached:

- Version A is the GMCB original workbook which excludes turnaround time from the capacity calculations.[1] This is a major variance from UVM Medical Center's demand model that did appropriately include turnover time in utilization. See UVM Medical Center's Response to Q.006, Q.3 (November 16, 2023). Seventy-five percent (75%) or above OR capacity utilization, inclusive of turnover time, is a valid benchmark for high performing health systems. Id.

[1] Though turnaround time is requested on the Enter Inputs Here tab and shown in the Total Output tab, it is not included in the calculation of total average case time on the Total Output tab – note the reference in Version A row 15 to values in rows 9 and 12.

- Version B includes turnover time in case time.

Additional Notes:

1. For ease of comparison to previously submitted models, and because of the confusion that results when calculating partial day closures across 25 ORs, we opted to keep the number of ORs at the current 25 OR inventory and note only full days of closure in the Days Closed row. Days Closed includes only those days when the Fanny Allen Campus ORs were closed due to air quality issues and issue remediation, or full closure due to COVID-19.
2. Volume projections in UVM Medical Center's demand Scenario 3 were generated using the Sg2 Impact of Change® model, which projects a shift in the case mix for some service lines from inpatient to outpatient, resulting in a reduction in the average total case time for some service lines over the model period. See Response to Q.006, Q.3 (November 16, 2023).
3. In accordance with the Board's Q.3 instructions, and as explained in the above response to Q.2, we calculated case volumes entered into the Q.3 workbook model based exclusively on the Claritas population forecasts. Per this approach, the mix between inpatient and outpatient cases remains nearly constant over the model period, and total weighted IP + OP average case time *increases* slightly given the greater number of incremental inpatient cases.
4. UVM Medical Center's demand model assumes a 37-minute turnaround time in the Main Campus ORs (IP and OP cases); and a 25-minute turnaround time in MPUs 1 and 2 at the Main Campus (IP or OP), in the Fanny Allen ORs, and at the OSC.
5. Due to the structure of the Q.3 workbook model, which does not permit the entry of turnaround time by site of service, we use weighted average IP and OP turnaround times of 37 min or .62 hr. (IP) and 31.8 min or .53 hr. (OP) in the Q.3 workbook.
6. Finally, we note that in the Version A model, turnover time has no impact on the number of rooms needed given that the calculations in Row 15 do not include turnover time in the average case length, as noted above.

4. **Given the data provided in response to Q.008, question 5, explain in more detail whether there are further efficiencies, reductions in turnover time, improved scheduling, etc. that would result in accommodating more surgeries with the existing ORs.**

Response:

We believe that the data in the Q.008, Q5 table demonstrate UVM Medical Center's work to date in keeping its ORs fully productive. The UVM Medical Center PeriOp Leadership Team is continuously looking to improve OR room usage and productivity without compromising quality or patient care experience, and in alignment with our nursing union contract. One example of this work is the use of MPU5 for bronchoscopies beginning in September 2021. In CY23, 539 bronchoscopies were performed in this room. UVM Medical Center does not expect, however, to achieve more than marginal additional efficiency improvements due to limitations inherent in

the variation in the size of the Main Campus ORs and procedure rooms. UVM Medical Center does not expect that any additional marginal efficiency improvements in existing ORs will have a material effect on the need for additional ORs at the OSC.

5. **Identify the current share of total cases that are emergent and explain whether UVMMC expects the share of the total cases that are emergent to change between 2025 and 2029.**

Response:

Emergent cases, which we define in response to this question as patients who presented in the Emergency Department and had a procedure conducted in the OR as part of that encounter, vary significantly in their acuity and mode of presentation. Every day at 1:00 pm, the UVM Medical Center OR scheduling team meets with providers and clinic staff to triage urgent additions to the OR schedule. Some of these cases are added to the schedule same-day, some next-day, some later, depending on the clinical acuity of the patient and readiness of the patient for surgery, and the availability of ORs with appropriate space and equipment. Every effort is made to fit patients into the existing OR schedule. When that is not possible, the UVM Medical Center team will utilize OR11 to accommodate the emergent case that cannot fit elsewhere on the schedule, avoiding displacement of patients and surgical teams.

In 2022-2024 YTD, 17.97-18.46% of patients in UVMMC Main Campus ORs were admitted through the Emergency Department. This ratio was consistent 2022-2024 and we do not expect it to change significantly going forward.

6. **For each year from 2019 through the present, describe the history of opening and closing the five ORs at Fanny Allen. If all five ORs are not being used now, explain why not.**

Response:

2019

a. Air Quality Issue: all Fanny Allen ORs closed 12/2/19 – 1/27/20
b. ORs 1-2 re-opened 1/28/20
c. OR 3 re-opened 2/3, OR 4 re-opened 2/10, OR 5 re-opened 2/21

2020

a. Cyberattack impact: reduced volumes 10/28-10/30
b. COVID-related closures:
    i. All Fanny Allen ORs closed 3/19/20 – 5/12/20
    ii. Fanny Allen ORs 1-4 reopened 5/13/20
c. 2020 Air Quality / Deferred Maintenance Issue: all Fanny Allen ORs closed 11/17/20 – 2/13/22

2021: All 5 Fanny Allen ORs closed for air quality/deferred maintenance remediation work

2022
a. ORs 1-2 opened 2/14/22
b. ORs 3-4 opened 3/14/22

2023: Fanny Allen OR 5 re-opened 11/1/23, and all Fanny Allen ORs are open now

7. **With existing high inpatient occupancy rates, explain how UVMMC will be able to ensure the availability of inpatient beds needed to accommodate the increased volume of inpatients before and after surgery. Detail how UVMMC will ensure its ability to accommodate the number of surgical inpatients and whether UVMMC plans to block off beds for the volume of inpatient surgeries projected. Additionally, explain whether there is sufficient pre- and post-op space in the 20 ORs on the main campus to accommodate the increase in projected inpatient volumes. Explain how UVMMC will ensure that the pre-and post-op spaces will be sufficient.**

Response:
As we stated in our answer to Question 1 in Q.006, the number of inpatient beds necessary to support the projected growth in inpatient surgeries in UVM Medical Center's demand model Scenario 3 is estimated at 5.6 beds in FY26, increasing to 8.1 beds by FY29. Building an OSC with 23-hour stay capacity is key to moving cases from the inpatient to the outpatient setting, utilizing our inpatient beds most productively. Please refer to our response to Question 1 in Q.006 for additional information about how UVM Medical Center's Operations Team manages bed availability on a daily basis.

The current pre-op and post-op space for the twenty (20) Main Campus ORs is sufficient even with the forecasted increase in inpatient surgeries, because those additional inpatient surgeries will occupy space vacated by outpatient surgeries that transition to the OSC.

8. **Given UVMMC's projections for increases in surgeries, please specify the daily increase in the number of surgeries that will be performed in both the inpatient setting on UVMMC's main campus and at the proposed outpatient surgery center. Please show calculations.**

Response:

See the table below. Given the fluctuations in demand for services inherent in serving as both a tertiary and community hospital, we expect that on any given day surgical volumes will vary from the averages shown below. UVM Medical Center's main campus currently provides and will continue to provide both inpatient and outpatient surgical services. While we intend to provide overnight observation capabilities at the OSC for patients who cannot go home same-day, we do not plan to conduct inpatient cases at the proposed outpatient surgery center.

Q009 Model	2019 Baseline	2022 Actual	2023 Actual	*2024 Projected Demand*	*2025 Projected Demand*	*2026 Projected Demand*	*2027 Projected Demand*	*2028 Projected Demand*	*2029 Projected Demand*
Total IP Surgeries	5,948	5,012	5,423	6,657	6,741	6,825	6,910	6,994	7,078
Increase from Baseline		(936)	(525)	709	793	877	962	1,046	1,130
Est Avg Daily Increase in IP Surgeries[1]		(3.7)	(2.1)	2.8	3.2	3.5	3.8	4.2	4.5
Total OP Surgeries[2]	13,052	12,431	14,109	14,183	14,306	14,429	14,552	14,675	14,798
Increase from Baseline		(621)	1,057	1,131	1,254	1,377	1,500	1,623	1,746
Est Avg Daily Increase in OP Surgeries[1]		(2.5)	4.2	4.5	5.0	5.5	6.0	6.5	7.0
OP Surgeries Projected for OSC[3]					7,768	8,029	8,291	8,552	8,813
Increase from Baseline						261	523	784	1,045
Est Avg Daily Increase in OSC OP Surgeries[4]						1.0	2.1	3.1	4.2

[1] Total surgeries divided by 250 days/year

[2] All outpatient surgeries done at Main Campus or OSC

[3] 2025 projected OSC volumes are annualized for this table

[4] 2025 Annualized Volumes used as baseline

9. In response to Q.002, question 11, UVMMC discussed a facility fee reimbursement reduction of 60% for Medicare patients to reflect a shift away from HOPD billing. Was a similar facility fee reimbursement adjustment made for other payers? If yes, describe the adjustment made for each payer and provide the adjustment amount by payer. If no, describe in detail why UVMMC did not apply a reduction for other payers.

Response:

Yes. Our reimbursement model for the project's business plan included four payer categories: Medicare, Medicaid, Commercial, and Other. In response to Q.002, Q.11 (June 15, 2023), we previously described how we applied the adjustment to commercial payers generally. We did not attempt to apply that adjustment at the individual commercial payer level. That adjustment resulted in a 7%-10% reduction (depending on the year) in average OSC commercial category case reimbursement, before applying assumptions for reimbursement and cost increases as requested by the GMCB for the CON table submission. This fee reimbursement adjustment does not affect Medicaid and Other (e.g., workers' compensation, other public agency payers, etc.) payers.

10. Provide revenue-by-payer assumptions broken down by setting (inpatient, outpatient, professional, other) and revenue driver (rate, utilization, payer mix) using the attached worksheet. ["24112 CON_RevenueBreakdown"].

Response:

The completed worksheet is attached. As shown in the worksheet, the incremental positive revenue associated with the project is driven by the increased volume of patients that UVM Medical Center will be able to serve (and which the table labels "utilization"), improving access to necessary care and reducing wait times for surgeries. In contrast, the incremental revenue attributable to rates is negative. As we previously stated in our answer to Q.005, Q.12 (August 15, 2023), we have not modeled a change in payer mix as part of the project planning, because we do not believe that it would contribute meaningfully to the accuracy of the model. As a

result, the table does not assign any revenue changes to payer mix. As instructed, we used the revised volumes from question 3, above, in our response to this question. Please note that because the GMCB's question requires us to use different inputs and different categories than those used in our CON submission, this worksheet will not correspond to prior submissions.

11. If UVMMC's current outpatient surgical cases from Franklin County were performed in the open capacity of operating rooms at Northwestern Medical Center (NMC), explain the extent to which that would reduce the number of new operating rooms required with this project.

Response:

The CON Application details the methodology and data UVM Medical Center used to model growth in demand for surgeries at UVM Medical Center based on growth and demographic change in the population that currently receives care at UVM Medical Center, as well as certain other factors expected to influence that population's need for surgeries. See CON Application at 8-17. As stated in the CON Application, approximately nine percent (9%) of UVM Medical Center's outpatient surgery patients in FY19 (the baseline year in UVM Medical Center's demand model) resided in Franklin County. CON Application at 9, Figure 1.3. UVM Medical Center is unable to determine based on the information available to UVM Medical Center whether NMC has the facilities or employs the healthcare providers necessary to provide the outpatient surgery services this patient population received from UVM Medical Center.

We are currently unaware of any barriers that would prevent patients from Franklin County from choosing to receive their surgical care at NWC, if it indeed does have open capacity. UVM Medical Center nonetheless has a long and growing list of patients who are waiting for outpatient surgery at UVM Medical Center, as detailed in our answer to Q.006, Q.4 (November 16, 2023).

Further, we are concerned that any current available capacity at NMC will largely be utilized by Franklin County patients in the future due to the significant growth in demand for OP surgeries also projected for Franklin County. Sg2 forecasts that OP surgical volumes in Franklin County will increase by 10% from 2022-2027, and by 19% from 2022- 2032.[2] Population growth projections for Franklin County are similar to those for Chittenden County: the 65 & Older cohort is expected to grow by 17.35% over the next 5 years; the Under-65 cohort will see a slight decline of 0.7% in that same 5-year time period. We would hope that, like UVM Medical Center, other Vermont hospitals are engaged in planning now to serve our patients future needs.

12. Please confirm that UVMMC does not have a strategic intention to draw any additional surgery volume away from Copley or NMC, whether that be in orthopedics, general surgery, urology, ophthalmology, podiatry, etc.

[2] Sg2 IOC Forecast for OP Major Procedures accessed on 2/15/24 for St. Albans, VT HSA: Impact of Change®; Claritas Pop-Facts® Sg2 Market Demand Forecast Version: 2022. Outpatient: Sg2 Analytics Version 2022: Proprietary Sg2 All-Payer Claims Data Set, 2019; The following 2019 CMS Limited Data Sets (LDS): Carrier, Denominator, Home Health Agency, Hospice, Outpatient, Skilled Nursing Facility.

Response:

Confirmed. The proposed project focuses on improving access and reducing wait times for services for UVM Medical Center's current patients. UVM Medical Center is not seeking to attract additional outpatient surgery patients from other hospitals' catchment areas and has no plans or need to do so. Rather, UVM Medical Center's demand model supporting its CON application assumes that neighboring hospitals will have adequate capacity to accommodate forecasted growth in demand for outpatient surgeries in their own service areas. We hope and expect that they, too, are planning for the future.

13. In a table format, provide the total operating room capacity, capacity used, and excess capacity broken out by inpatient and outpatient for each facility in UVMHN's system (including Vermont and New York network hospitals) for FY 2019, 2020, 2021, 2022, and 2023. Describe in detail the manner in which the Network seeks to maximize the use of available ORs at its Network hospitals.

Response:

Please see the attached table showing utilization of staffed hours, utilization of theoretical hours, remaining available staffed capacity at seventy-five percent (75%) utilization, and remaining available theoretical capacity at seventy-five percent (75%) utilization for Central Vermont Medical Center ("CVMC") in Berlin, Vermont, Porter Medical Center ("PMC") in Middlebury, Vermont, Champlain Valley Physicians Hospital ("CVPH") (Main Campus and Plaza) in Plattsburgh, New York, and Alice Hyde Medical Center ("AHMC") in Malone, New York. Please also see the attached Notes to the table.

UVMHN intends to utilize all ORs to provide high quality care for patients close to home. That said, fractional capacity is available at CVMC, PMC, CVPH, and AHMC, but UVM Medical Center is unable to use this capacity to meet its patients' need for the OSC project at its proposed scale for several reasons:

a. It is logistically difficult to utilize fractional capacity. The ORs are not freely interchangeable in the current state; some ORs are too small or otherwise inadequate to host some surgeries. Much of the available OR time is in aged and small rooms which cannot accommodate contemporary surgery performed by larger teams using larger equipment. These space constraints limit UVMHN's operational flexibility.[3] Our goal is to increase standardization of OR size, specifications, and equipment across our OR environments over time, all in alignment with contemporary national standards, to increase interoperability, efficiency, and resultant access to high quality care. The proposed OSC is the critical next step in that process.

[3] As noted in the CON Application, inadequate facilities are also an obstacle to UVMHN's recruitment of physicians who train at top national programs and require contemporary ORs and equipment to provide advanced, high quality care.

b. Achieving high utilization of theoretical OR capacity requires alignment of surgeon, surgical team, anesthesiology, and equipment capacity with space capacity and patient demand at a procedure-specific level. UVMHN makes every effort to allocate OR time to specific services in recurring, whole-day blocks, minimizing team and equipment turnover between services in a single room on a given day. Half-day blocks are allocated and operationalized as needed. It is very challenging to move teams and equipment efficiently to accommodate smaller than half-day available time windows in the physical OR schedule. Challenges are magnified significantly when teams and equipment are moving between hospital sites. Due to these challenges, interinstitutional blocks are allocated only in whole-day increments at this time.

c. AHMC is 2 hours and 15 minutes or more from Burlington, depending on route and driving conditions. At this distance, AHMC is not considered a viable surgical site for Chittenden County, Vermont patients. CVPH is at least 1 hour and 15 minutes away from Burlington. We anticipate that relatively few patients residing in the Burlington area will choose to drive to CVPH for elective, outpatient care.

d. UVMHN seeks to maximize access Network-wide while preferentially offering patients access to treatment close to home, and aims to use available capacity at CVMC, PMC, and CVPH primarily to meet projected increased demand for surgeries from patients in these hospitals' home communities. As shown in the attached table, there will be less than one (1) OR of theoretical capacity available within 5 years at CVMC, PMC, and CVPH's Main Campus.

Describe in detail the manner in which the Network seeks to maximize the use of available ORs at its Network hospitals.

While use of available fractional capacity at University of Vermont Health Network ("UVMHN") hospitals other than UVM Medical Center cannot substitute for development of the proposed OSC, UVMHN is engaged in multiple initiatives to coordinate and integrate OR operations network-wide in order to expand surgical access for patients across our region as much as possible consistent with the above limitations, including the following:

a. Perioperative and clinic teams from across the network connect weekly to discuss opportunities to move patients from backlogs into available OR capacity, and to allocate additional OR time to services with large patient backlogs.

b. UVMHN has created a Network Periop Leadership team with dedicated time from surgeon, anesthesiologist, nursing, and administrative leaders to continue integrating our perioperative operations, share and adopt best practices, and increase access.

c. UVMHN has increased the number of surgeons and physician assistants privileged to operate at multiple UVMHN facilities.

d. CVMC OR capacity has been made available to reduce UVM Medical Center backlogs in General Surgery, ENT, Plastic Surgery, and Vascular Surgery. Equipment,

instrumentation, and implantable devices in these clinical areas have been purchased at CVMC to minimize the required transport of items between UVM Medical Center and CVMC.

e. PMC OR capacity has been made available to reduce UVM Medical Center backlogs in General Surgery, ENT, Gynecologic Surgery, and Orthopedic Surgery. We plan to expand on these opportunities to increase surgical access for patients able to travel to PMC.

f. To date, few UVM Medical Center scheduled cases have been moved to New York institutions.

e. Going forward, UVMHN intends to build on successes to date with interinstitutional operations in Vermont, continuing to provide patients with the option for earlier surgical appointments at available UVMHN Vermont sites.

f. UVMHN is committed to an aggressive recruitment strategy for Orthopedics, Urology, General Surgery and Anesthesiology providers in New York as necessary to increase New York patients' access to surgical services close to home. With more providers, UVMHN anticipates increasing utilization of both the CVPH Main campus and Plaza.

Thank you for your attention to UVM Medical Center's application.

Sincerely,

Eric Miller
Sr. Vice President and General Counsel
The University of Vermont Health Network Inc.

cc: Interested Parties

INCREMENTAL Pro-Forma: Outpatient Surgery Center

	FY25 (Half Year)	FY26	FY27	FY28	FY29
Total Patient Revenue	**$ 30,647,134**	**$ 61,742,440**	**$ 68,056,888**	**$ 74,527,045**	**$ 85,138,320**
Inpatient					
Medicare	$ 7,910,071	$ 15,094,838	$ 16,300,296	$ 17,124,724	$ 20,570,661
Medicare Advantage	$ 2,078,289	$ 3,966,013	$ 4,282,734	$ 4,499,344	$ 5,404,729
Medicaid	$ 3,918,801	$ 7,478,272	$ 8,075,480	$ 8,483,917	$ 10,191,100
Commercial	$ 11,138,100	$ 21,254,906	$ 22,952,301	$ 24,113,170	$ 28,965,363
Other	$ 2,184,662	$ 4,169,005	$ 4,501,937	$ 4,729,633	$ 5,681,358
Total	$ 27,229,922	$ 51,963,033	$ 56,112,748	$ 58,950,787	$ 70,813,212
Outpatient					
Medicare	$ (424,249)	$ (416,834)	$ (172,489)	$ 300,938	$ 912
Medicare Advantage	$ (126,199)	$ (123,993)	$ (51,309)	$ 89,518	$ 271
Medicaid	$ 407,511	$ 1,037,863	$ 1,213,408	$ 1,497,734	$ 1,421,840
Commercial	$ 3,309,534	$ 8,644,097	$ 10,208,297	$ 12,766,977	$ 12,027,669
Other	$ 250,615	$ 638,275	$ 746,234	$ 921,091	$ 874,417
Total	$ 3,417,212	$ 9,779,407	$ 11,944,140	$ 15,576,257	$ 14,325,109

INCREMENTAL Pro-Forma: Outpatient Surgery Center

	FY25 (Half Year)	FY26	FY27	FY28	FY29
Rate	**$ (840,600)**	**$ (1,733,258)**	**$ (2,031,191)**	**$ (2,022,427)**	**$ (1,879,645)**
Inpatient					
Medicare	$ 304,233	$ 580,571	$ 551,218	$ 579,097	$ 695,626
Medicare Advantage	$ 79,934	$ 152,539	$ 144,827	$ 152,152	$ 182,769
Medicaid	$ 150,723	$ 287,626	$ 273,084	$ 286,896	$ 344,627
Commercial	$ 428,388	$ 817,496	$ 776,165	$ 815,421	$ 979,505
Other	$ 84,025	$ 160,346	$ 152,239	$ 159,939	$ 192,123
Total	$ 1,047,305	$ 1,998,578	$ 1,897,533	$ 1,993,505	$ 2,394,650
Outpatient					
Medicare	$ (1,261,414)	$ (2,548,952)	$ (2,677,279)	$ (2,790,773)	$ (2,934,134)
Medicare Advantage	$ (375,226)	$ (758,222)	$ (796,395)	$ (830,155)	$ (872,800)
Medicaid	$ 15,674	$ 39,918	$ 41,033	$ 50,648	$ 48,082
Commercial	$ (276,577)	$ (489,128)	$ (521,318)	$ (476,800)	$ (545,011)
Other	$ 9,639	$ 24,549	$ 25,235	$ 31,148	$ 29,570
Total	$ (1,887,904)	$ (3,731,836)	$ (3,928,724)	$ (4,015,932)	$ (4,274,294)

	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1													
2	**INCREMENTAL Pro-Forma: Outpatient Surgery Center**							**INCREMENTAL Pro-Forma: Outpatient Surgery Center**					
4													
5		**FY25 (Half Year)**	**FY26**	**FY27**	**FY28**	**FY29**			**FY25 (Half Year)**	**FY26**	**FY27**	**FY28**	**FY29**
6	**Utilization**	**$ 31,487,734**	**$ 63,475,698**	**$ 70,088,079**	**$ 76,549,472**	**$ 87,017,965**		**Payer Mix Shifts**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
7	Inpatient							Inpatient					
8	Medicare	$ 7,605,837	$ 14,514,267	$ 15,749,079	$ 16,545,627	$ 19,875,035		Medicare	$ -	$ -	$ -	$ -	$ -
9	Medicare Advantage	$ 1,998,355	$ 3,813,474	$ 4,137,908	$ 4,347,192	$ 5,221,960		Medicare Advantage	$ -	$ -	$ -	$ -	$ -
10	Medicaid	$ 3,768,078	$ 7,190,646	$ 7,802,396	$ 8,197,021	$ 9,846,474		Medicaid	$ -	$ -	$ -	$ -	$ -
11	Commercial	$ 10,709,711	$ 20,437,409	$ 22,176,136	$ 23,297,748	$ 27,985,858		Commercial	$ -	$ -	$ -	$ -	$ -
12	Other	$ 2,100,637	$ 4,008,658	$ 4,349,698	$ 4,569,694	$ 5,489,235		Other	$ -	$ -	$ -	$ -	$ -
13	Total	$ 26,182,618	$ 49,964,454	$ 54,215,216	$ 56,957,282	$ 68,418,562		Total	$ -	$ -	$ -	$ -	$ -
14													
15	Outpatient							Outpatient					
16	Medicare	$ 837,164	$ 2,132,118	$ 2,504,789	$ 3,091,711	$ 2,935,046		Medicare	$ -	$ -	$ -	$ -	$ -
17	Medicare Advantage	$ 249,027	$ 634,229	$ 745,085	$ 919,674	$ 873,071		Medicare Advantage	$ -	$ -	$ -	$ -	$ -
18	Medicaid	$ 391,838	$ 997,945	$ 1,172,375	$ 1,447,086	$ 1,373,758		Medicaid	$ -	$ -	$ -	$ -	$ -
19	Commercial	$ 3,586,111	$ 9,133,225	$ 10,729,615	$ 13,243,776	$ 12,572,680		Commercial	$ -	$ -	$ -	$ -	$ -
20	Other	$ 240,976	$ 613,726	$ 720,999	$ 889,943	$ 844,847		Other	$ -	$ -	$ -	$ -	$ -
21	Total	$ 5,305,116	$ 13,511,243	$ 15,872,864	$ 19,592,189	$ 18,599,403		Total	$ -	$ -	$ -	$ -	$ -

	VERMONT												NEW YORK								
	CVMC						PMC						CVPH Main			CVPH Plaza			AHMC		
Calendar Year	2019	2020	2021	**2022**	**2023**	2028	2019	2020	2021	**2022**	**2023**	2028	2022	**2023**	2028	2022	**2023**	2028	2022	**2023**	2028
ORs	5	5	5	5	5	5	3*	3*	3*	3*	3*	3*	6	6	6	3	3	3	4	4	4
CASES	3,462	2,861	3,497	4,053	4,167	4,449	2,669	2,206	2,565	2,139	2,140	2,338	3,795	4,828	5,003	953	1,707	1,799	638	707	721
IP Cases	500	422	475	468	470	471	368	365	253	204	177	179	778	898	862	-	-	-	29	24	22
IP In-Room Hours	1,308	1,045	1,068	1,034	940	943	950	904	563	332	281	284	1,721	2,080	1,996	-	-	-	40	43	40
% IP Hours	26.7%	25.8%	22.3%	19.9%	18.2%	17.2%	30.5%	32.1%	18.3%	12.6%	11.0%	10.2%	27.4%	26.0%	24.0%	-	-	-	7.5%	6.9%	6.2%
OP Cases	2,962	2,439	3,023	3,585	3,697	3,978	2,301	1,841	2,312	1,935	1,963	2,159	3,017	3,929	4,141	953	1,707	1,799	609	683	699
OP In-Room Hours	3,590	3,003	3,728	4,171	4,214	4,534	2,164	1,908	2,510	2,299	2,284	2,512	4,551	5,926	6,246	505	830	875	494	582	595
% OP Hours	73.3%	74.2%	77.7%	80.1%	81.8%	82.8%	69.5%	67.9%	81.7%	87.4%	89.0%	89.9%	72.6%	74.0%	75.0%	100%	100%	100%	92.5%	93.1%	93.3%
Total In Room Hours	4,898	4,048	4,795	5,205	5,154	5,474	3,113	2,812	3,073	2,631	2,565	2,793	6,271	8,006	8,326	505	830	875	535	625	638
Total Turn Hours	1,148	865	1,164	1,466	1,469	1,561	762	576	720	573	550	600	1,625	1,969	2,027	270	463	488	172	158	161
Total Used Time	6,045	4,914	5,960	6,671	6,622	7,034	3,875	3,389	3,793	3,203	3,115	3,392	7,896	9,983	10,374	775	1,293	1,363	707	783	799
<u>Staffed Capacity Analysis</u>																					
Avaliable Staffed Hours	7,956	7,956	7,956	7,956	7,956	7,956	5,906	5,906	5,906	5,906	5,906	5,906	9,221	12,294	12,294	1,464	1,952	1,952	1,866	2,489	2,489
Utilization of Staffed Hours	**76.0%**	**61.8%**	**74.9%**	**83.9%**	**83.2%**	**88.4%**	**65.6%**	**57.4%**	**64.2%**	**54.2%**	**52.7%**	**57.4%**	**85.6%**	**81.2%**	**84.4%**	**53.0%**	**66.3%**	**69.8%**	**37.9%**	**31.5%**	**32.1%**
Remaining Available Hours @ 75% Util.	(78)	1,053	7	(704)	(655)	(1,067)	2,030	2,517	2,112	2,702	2,791	2,514	(981)	(763)	(1,153)	323	171	101	693	1,084	1,067
Remaining Available ORs @ 75% Util.	(0.05)	0.66	0.00	(0.44)	(0.41)	(0.67)	0.28	0.53	0.32	0.62	0.67	0.53	(0.64)	(0.37)	(0.56)	0.66	0.26	0.16	1.49	1.74	1.71
<u>Theoretical (Space) Capacity Analysis</u>																					
Available Theoretical Hours	12,113	12,113	12,113	12,113	12,113	12,113	7,268	7,268	7,268	7,268	7,268	7,268	10,901	14,535	14,535	5,344	7,125	7,125	7,268	9,690	9,690
Utilization of Theoretical Hours	**49.9%**	**40.6%**	**49.2%**	**55.1%**	**54.7%**	**58.1%**	**53.3%**	**46.6%**	**52.2%**	**44.1%**	**42.9%**	**46.7%**	**72.4%**	**68.7%**	**71.4%**	**14.5%**	**18.2%**	**19.1%**	**9.7%**	**8.1%**	**8.3%**
Remaining Available Hours @ 75% Util.	3,039	4,171	3,125	2,413	2,462	2,051	1,576	2,062	1,657	2,247	2,336	2,059	280	918	528	3,233	4,051	3,981	4,744	6,485	6,468
Remaining Available ORs @ 75% Util.	1.25	1.72	1.29	1.00	1.02	0.85	0.65	0.85	0.68	0.93	0.96	0.85	0.15	0.38	0.22	1.81	1.71	1.68	2.61	2.68	2.67

Question 13: Notes to Table

A. Case volumes projections were generated using Sg2's demand forecast for the Berlin, VT, Middlebury, VT, Plattsburgh, NY, and Malone, NY HSAs: Sg2 IOC 5- and 10- year forecasts for IP and OP Major Procedures accessed on 2/15/24 for Berlin, VT, Middlebury, VT, Plattsburgh, NY, Malone, NY: Impact of Change®; Claritas Pop-Facts® Sg2 Market Demand Forecast Version: 2022. Outpatient: Sg2 Analytics Version 2022: Proprietary Sg2 All-Payer Claims Data Set, 2019; The following 2019 CMS Limited Data Sets (LDS): Carrier, Denominator, Home Health Agency, Hospice, Outpatient, Skilled Nursing Facility.
B. Total Operating Room capacity
    a. Staffed Capacity is staffed time based on typical hours of operations per the block schedules at each institution at the end of FY23 as shown in Epic. The New York hospitals started using Epic in 2022, so Staffed Capacity at those hospitals in 2022 is projected from partial Epic data.
    b. Theoretical Capacity assumes all ORs at each site operate 730am-5pm every day. This is not the case today at facilities other than UVM Medical Center.
C. Capacity Used
    a. Calendar year 2023 data from Epic is provided, showing total minutes used (wheels in to wheels out and turnover) for each patient.
    b. Calendar year 2022 data from Epic is provided for CVMC and PMC. CVPH and AHMC went live on Epic in April 2022. Therefore, 2022 data for CVPH Main, CVPH Plaza, and AHMC are annualized volumes based on May-December 2022 actual volumes.
    c. 2019-2021 data is provided for CVMC and PMC, pulled from legacy systems. This data is not available for CVPH and AHMC.
    d. Total time for room turnover is calculated by multiplying average turnover time for the site by the number of cases and subtracting the final turnover of each day per room (turnover time not required after last case per room per day).
    e. Epic does not include GI/Endoscopy cases in Used Time in the ORs. PMC and AHMC sometimes conduct Endoscopy cases in the ORs to reduce backlogs, and this Used Time is not captured in 2022 (when these sites went live on Epic) or subsequently. Excess capacity is therefore overstated at these sites in those years.
D. Excess Capacity
    a. Excess capacity is calculated by subtracting used time from 75% x Available time. 75% is the nationally-benchmarked target utilization rate proposed in UVM Medical Center's CON Application. Excess Capacity is presented in ORs, calculated by multiplying the percentage of available hours by the number of ORs.
E. Facility Detail
    a. CVMC
        i. CVMC has 5 functioning ORs. OR5 is operated as a Flex room to accommodate urgent procedures without disrupting or "bumping" cases scheduled in the other ORs. Elective cases are not scheduled into the Flex

Room. 4 ORs are included in the Staffed Capacity analysis and 5 ORs are included in the Theoretical Capacity analysis.

b. PMC
    i. PMC has 2 ORs plus a Procedure Room. All 3 rooms are considered in both the Staffed Capacity and Theoretical Capacity analyses.
    ii. The PMC Procedure Room is only 285 square feet, which limits its usability as an operating room. 2018 FGI guidelines set 400 square feet as the minimum size for an OR that supports anesthesiology services and 600-650 square feet as the industry standard for contemporary ORs. See CON Application, Exhibit 5.

c. CVPH Main Campus
    i. 6 ORs were included in both the Staffed and Theoretical capacity analyses. CVPH has 9 total ORs. One of those ORs has been dedicated solely to GI/Endoscopy. One OR has been dedicated solely to Pacemaker Implantation, which is managed by the Electrophysiology team. One OR is a negative pressure room, converted to that status during COVID to manage symptomatic and/or COVID-positive patients and support aerosolizing procedures. These three special-purpose rooms were not included in Staffed Capacity or Theoretical Capacity analyses.

d. CVPH Outpatient Campus / Plaza
    i. The Plaza has 4 ORs, one of which is dedicated to GI/Endoscopy and is not included in the Staffed and Theoretical capacity analyses.
    ii. At 495 square feet each, the Plaza ORs are larger than rooms available at the Fanny Allen, but significantly smaller than the proposed OSC ORs, which are designed to support contemporary outpatient surgery. 2018 FGI guidelines set 400 square feet as the minimum size for an OR that supports anesthesiology services and 600-650 square feet as the industry standard for contemporary ORs. See CON Application, Exhibit 5.

e. Alice Hyde
    i. Alice Hyde has 4 ORs and an adjacent, dedicated Endoscopy room. The Endoscopy room is not included in the Staffed and Theoretical capacity analyses.

F. Comparison to Data Presented in Docket No. GMCB-008-21con

a. UVMHN submitted CVMC and PMC historical OR data in 2021 in Docket No. GMCB-008-21con. See Response to Requests for Information, Collaborative Surgery Center, Development of an Outpatient Surgery Center with Four Operating Rooms in Colchester, Docket No. GMCB-008-21con (October 18, 2021); Response to Requests for Information, Collaborative Surgery Center, Development of an Outpatient Surgery Center with Four Operating Rooms in Colchester, Docket No. GMCB-008-21con (December 8, 2021). The data provided in the table responsive to Q.13 differs slightly from this prior submission for the following reasons:
    i. CVMC

a. UVM Medical Center reported Staffed Capacity in 2021. Staffed Capacity in the Q.13 table is based on typical hours of operation per the FY23 block schedule. No deductions have been made for room closings, which was done in the prior analysis.
b. CVMC Theoretical Capacity, which was not reported in 2021, assumes that all 5 ORs are staffed 730am-5pm.

ii. PMC

a. PMC's OR suite has 2 ORs and 1 Procedure Room. In the 2021 data, UVMHN addressed the ORs and Procedure Room in separate analyses. Because the Procedure Room is used periodically for surgery, including eye, hand, and general surgery, which are also conducted in the main PMC ORs, we believe it is most accurate to include Procedure Room capacity in this analysis. Though the Procedure Room is only 285 square feet, and therefore has limited clinical applications, the PMC team does use the Procedure Room as part of its OR suite and UVMHN intends to maximize its utilization. Given the limited size and clinical applications of this Procedure Room, however, its capacity is not a substitute for capacity contemplated at the OSC. 2018 FGI guidelines set 400 square feet as the minimum size for an OR that supports anesthesiology services and 600-650 square feet as the industry standard for contemporary ORs. See CON Application, Exhibit 5.

INSTRUCTIONS FOR COMPLETING WORKBOOK

The workbook is pre-populated with surgical volumes, wait times, and other statistics and assumptions provided by UVMMC in its OSC application. Please confirm that these numbers are accurately reflected, and make edits as needed, in the "ENTER INPUTS HERE" (yellow) tab only.

The information entered in the "ENTER INPUTS HERE" will autofill the cells in the other two (blue) tabs.

The "ENTER INPUTS HERE" tab contains two tables.

Table 1a contains all the inputs needed to estimate surgical **capacity** at UVMMC with the currently available ORs (inpatient and outpatient). They are pre-populated with the information provided in your OSC application. Please make any necessary updates to this table to ensure it is accurate.

Table 1b includes the percentage of surgical cases expected to be transferred to the new OSC, by service line, as reported in UVMMC's application. Please review and update these percentages if necessary to ensure they are accurate.

Table 2 includes the total number of surgical cases demanded (**volume**) by department (inpatient and outpatient) and service line and year (2019-2029). Please confirm and enter the actual number of cases for years for which you have data and projected number of cases for future years. These numbers should be the same as those used for your demand projections in the application. Choose the most realistic scenario to report and indicate that in row 43. In the

The "TOTAL OUTPUT (PROTECTED)" tab contains **Table 3,** which takes the inputs UVMMC specified in Tables 1a and 2, and uses them to project total surgical volume, % of surgical capacity utilized, and number of additional rooms needed, for each year from 2019 to 2029. The entirety of this table will auto-populate; edits are not needed.

The "OSC OUTPUT (PROTECTED)" tab contains **Table 4**, which estimates the total projected surgeries that will be performed **at the OSC**. These OSC-specific volumes are calculated by taking the total number of outpatient surgeries projected in each year (Table 2), and applying the service line-specific transfer rates provided by UVMMC in its application (Table 1b). These calculations assume that the percentage of surgeries transferred to the OSC will remain

Please provide a justification for all inputs used in calculate capacity in narrative format at the bottom of Table 2.

Please indicate in the narrative which ORs are included and excluded from the calculations.

Please explain any discrepancies between the information in this workbook and the information

TABLE 1. MODEL INPUTS: PARAMETERS

Table 1a. Input variable	Value	
Number of Rooms[1]	25	
Days/Year Available[2]	250	
Days Closed[3]	-	
Daily Hours Available per Room[5]	10	
Average Length of Surgery (OP) in Hours[7]	1.75	
Turnover Time (OP) in Hours[8]	0.53	* Note: given a single input, the weighted avg turnover time for OP surgeries across all OP sites is entered.
Average Length of Surgery (IP) in Hours[9]	3.17	
Turnover Time (IP) in Hours[10]	0.62	* Note: given a single input, the weighted avg turnover time for IP surgeries is shown (37 min Main ORs, 25 min MPU).
Adjustment for end of the day turnover, in total hours per year across all rooms		

Table 1b. Percentage of cases to be transferred from main campus to new OSC	Value	***% of OR surgeries expected to move to OSC from either MC or FA***
Cardiology	0%	
Cardiothoracic	0%	
Derm		
ENT		
General		
Neurosurgery		
OB/GYN		
Ophthalmology		
Oral/Maxillofacial		
Orthopedics		
Pediatrics		
Plastics		
Pulmonary	0%	
Surg/Onc	25%	
Transplant	0%	
Urology	0%	
Vascular	35%	
All Other Outpatient Surgery	0%	

Note: Table 1b not updated as Table 4 update not requested for Q009

Table notes:

1. All rooms available for use. Please see the narrative below for more information.

2. Days/Year Available = 365 days minus 104 weekend days minus 7 holidays.

3. Days Closed based on the number of days OR would otherwise have been open but was not in use.

5. Daily Hours Available per Room based on actual total hours available for all rooms divided by Number of Rooms.

7. Average Length of Surgery OP based on actual UVMMC OP OR length of surgery.

8. Turnover Time OP based on actual UVMMC OP OR turnover time.

9. Average Length of Surgery IP based on actual UVMMC IP OR length of surgery.

10. Turnover Time IP based on actual UVMMC IP OR turnover time.

TABLE 2. MODEL INPUTS: SURGICAL CASE VOLUME BY DEPARTMENT AND PRODUCT LINE: 2019-2029											
SCENARIO USED FOR PROJECTIONS: ***Please describe scenario used here: Q009 Scenario Claritas Demographic 5/10 yr growth*** **Under 65/65+**											
Calendar Year	**2019 Actual**	**2020 Actual**	**2021 Actual**	**2022 Actual**	**2023 Actual**	***2024 Projected Demand***	***2025 Projected Demand***	***2026 Projected Demand***	***2027 Projected Demand***	***2028 Projected Demand***	***2029 Projected Demand***
Inpatient Surgeries	**5,948**	**4,879**	**4,863**	**5,012**	**5,423**	**6,657**	**6,741**	**6,825**	**6,910**	**6,994**	**7,078**
Cardiology	2	26	4	4	3	2	2	2	2	2	2
Cardiothoracic	539	480	525	594	691	597	606	615	624	633	643
Derm	-	0	0	0	0	-	-	-	-	-	-
ENT	150	129	123	116	138	159	161	162	164	165	166
General	1,419	803	1,004	756	595	1,518	1,533	1,547	1,562	1,577	1,592
Neurosurgery	621	446	440	562	581	681	690	700	709	719	728
OB/GYN	161	145	134	159	164	167	168	169	170	170	171
Ophthalmology	12	19	5	7	5	13	13	13	13	13	13
Oral/Maxillofacial	18	2	2	0	1	19	19	19	19	19	19
Orthopedics	1,784	1,402	1,224	1,157	1,226	2,092	2,124	2,155	2,187	2,218	2,249
Pediatrics	150	51	61	117	104	151	150	150	150	150	150
Plastics	166	103	55	66	125	171	172	173	173	174	174
Pulmonary	13	24	49	5	2	14	14	15	15	15	15
Surg/Onc	27	28	34	86	161	28	28	29	29	29	29
Transplant	90	52	62	60	71	94	94	95	95	96	96
Urology	326	253	215	198	192	414	419	424	429	434	439
Vascular	470	533	519	530	576	536	547	558	569	580	591
All Other Inpatient Surgery	-	383	407	595	788	-					
List categories of 'All Other Inpatient Surgery':		Trauma, GI, Dental	Trauma, GI, Dental	Trauma, GI, Dental	Trauma, GI, Dental						
Outpatient Surgeries	**13,052**	**10,489**	**11,586**	**12,431**	**14,109**	**14,183**	**14,306**	**14,429**	**14,552**	**14,675**	**14,798**
Cardiology	1	6	3	4	3	1	1	1	1	1	1
Cardiothoracic	5	10	22	28	26	5	6	6	6	6	6
Derm	44	7	7	14	11	45	45	46	46	46	46
ENT	1,670	999	785	1,111	1,413	1,724	1,730	1,736	1,742	1,748	1,754
General	1,046	1,004	1,136	1,042	1,032	1,111	1,120	1,129	1,139	1,148	1,157
Neurosurgery	328	253	455	388	349	353	356	360	364	368	371
OB/GYN	1,610	1,142	1,310	1,202	1,348	1,672	1,680	1,688	1,695	1,703	1,711
Ophthalmology	1,364	935	997	1,203	1,341	1,557	1,589	1,621	1,652	1,684	1,716
Oral/Maxillofacial	78	31	31	34	24	79	79	79	79	79	79
Orthopedics	3,431	2,744	3,329	3,270	3,923	3,626	3,646	3,666	3,687	3,707	3,728
Pediatrics	306	93	102	366	462	307	307	306	306	306	305
Plastics	410	304	305	283	330	423	424	426	427	428	430
Pulmonary	133	143	170	5	3	145	146	148	150	152	153
Surg/Onc	408	453	434	598	640	445	451	457	463	469	474
Transplant	6	10	10	53	134	7	7	7	8	8	8
Urology	1,717	1,703	1,769	1,710	1,683	2,148	2,177	2,206	2,235	2,264	2,293
Vascular	495	426	453	442	456	535	541	547	553	559	565
All Other Outpatient Surgery	-	226	268	678	931	-					

List categories of 'All Other Outpatient Surgery':		Trauma, GI, Dental	Trauma, GI, Dental	Trauma, GI, Dental	Trauma, GI, Dental						
Total Volume (cases)	**19,000**	**15,368**	**16,449**	**17,443**	**19,532**	**20,840**	**21,047**	**21,254**	**21,462**	**21,669**	**21,876**

NARRATIVE

The model includes OR volume only. The endoscopy suite, dedicated Labor & Delivery (L&D) units, and specialized OR/PRs are excluded. However, if endoscopy / GI procedure is performed in the OR rooms, the model captures it. If L&D C-sections are performed in the regular OR, the model captures it. If deliveries are non-surgical, non-procedural, they are typically conducted in an L&D suite and will not be in this volume.

- *UVMMC rooms included in count:*

- 18 Main Campus ORs and volumes in MPU1 and MPU2 including:
- OR 1 – ACS (Acute Care Surgeries) – both capacity and procedures counted
- OR 9 – Orthopedic trauma – both capacity and procedures counted
- OR 11 - ED Level 1 Trauma Center designated OR - both capacity and procedures counted
- 5 Fanny Allen ORs (closed in November 2020; re-opened in Feb. 2021)

TABLE 3. MODEL OUTPUT: SURGICAL CASE CAPACITY AND VOLUME BY DEPARTMENT: 2019-2029							
Calendar Year	**2019 Actual**	**2020 Actual**	**2021 Actual**	**2022 Actual**	**2023 Actual**	***2024 Projected Demand***	***2025 Projected Demand***
Number of Rooms[1]	25	25	25	25	25	25	25
Days/Year Available[2]	250	250	250	250	250	250	250
Days Closed[3]	95	599	1,250	410	214	-	-
Total Available Days/Year[4]	6,155	5,651	5,000	5,840	6,036	6,250	6,250
Daily Hours Available per Room[5]	10	10	10	10	10	10	10
Total Available Hours/Year[6]	61,550	56,510	50,000	58,400	60,360	62,500	62,500
Average Length of Surgery (OP) in Hours[7]	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Turnover Time (OP) in Hours[8]	0.53	0.53	0.53	0.53	0.53	0.53	0.53
Total Avg Case Time (OP) in Hours	2.28	2.28	2.28	2.28	2.28	2.28	2.28
Average Length of Surgery (IP) in Hours[9]	3.17	3.17	3.17	3.17	3.17	3.17	3.17
Turnover Time (IP) in Hours[10]	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Total Avg Case Time (IP) in Hours	3.79	3.79	3.79	3.79	3.79	3.79	3.79
Total Avg Case Time (IP+OP, weighted by caseloads) in Hours	2.19	**2.20**	**2.17**	**2.16**	**2.14**	**2.20**	**2.20**
Total Capacity (cases)[11]	21,045	19,267	17,290	20,305	21,121	21,282	21,271
Total Volume (cases)[12]	19,000	15,368	16,449	17,443	19,532	20,840	21,047
Percent Utilized (target 75%)[13]	**68%**	**60%**	**71%**	**64%**	**69%**	**73%**	**74%**
Percent Unutilized (due to turnover or non-use) (target 25%)	**32%**	**40%**	**29%**	**36%**	**31%**	**27%**	**26%**
Rooms Needed to Fulfill Caseload, assuming 75% utilization threshold	**22.57**	**19.94**	**23.78**	**21.48**	**23.12**	**24.48**	**24.74**
Additional Rooms Needed Above Current 25 (if RED) or Excess Rooms (if GREEN)	**(2.43)**	**(5.06)**	**(1.22)**	**(3.52)**	**(1.88)**	**(0.52)**	**(0.26)**

Table 1 Notes:

1. All rooms available for use. Please see the narrative below for more information.

2. Days/Year Available = 365 days minus 104 weekend days minus 7 holidays.

3. Days Closed based on the number of days OR would otherwise have been open but was not in use. Days closed represents closure of Fanny Allen ORs 2019-2023 due to 2019 Air Quality Closure, 2020 COVID, and 2020-2022 Air Quality closure and remediation. There w

4. Total Available Days/Year = (Total Days Available/Number of Rooms x Number of Rooms) minus Days Closed.

5. Daily Hours Available per Room based on actual total hours available for all rooms divided by Number of Rooms.

*6. Total Available Hours/Year = Total Available Days/Year * Total Available Hours/Day.*

7. Average Length of Surgery OP based on actual UVMMC OP OR length of surgery.

8. Turnover Time OP based on actual UVMMC OP OR turnover time.

9. Average Length of Surgery IP based on actual UVMMC IP OR length of surgery.

10. Turnover Time IP based on actual UVMMC IP OR turnover time.

11. Total Capacity (surgeries) = Total Available Hours/Year divided by Total Avg. Surgery Time.

12. Total Volume (surgeries) based on actual OR surgeries per year (see Table 2 for details).

13. Percent of Total Capacity Used reflects OR capacity.

14. CY 2019 volumes (# of surgeries) and OR time used as a baseline for projections. Projections are based on age adjusted population growth for Chittenden County VT.

	UVMMC 2019 Baseline Volumes			Chittenden U
	FY 2019		2019	20
Service Line	IP	OP	IP + OP	IP
Cardiology	2	1	3	2
Cardiothoracic	539	5	544	597
Dental	2	0	2	2
Derm	0	44	44	-
ENT	150	1,670	1,820	159
General	1,419	1,046	2,465	1,518
Neurosurgery	621	328	949	681
OB/Gyn	161	1,610	1,771	167
Ophthalmology	12	1,364	1,376	13
Oral/Maxillofacial	18	78	96	19
Orthopedics	1,895	3,470	5,365	2,092
Pediatrics	150	306	456	151
Plastics	166	410	576	171
Pulmonary	13	133	146	14
Surg/Onc	27	408	435	28
Transplant	90	6	96	94
Urology	381	1,962	2,343	414
Vascular	470	495	965	536
Total	6,116	13,336	**19,452**	6,659
			Growth from 2019	9%

Notes: Adjustments to actuals for baseline

1. Urology baseline adjusted for extraordinary waitlist.

2. Spine baseline adjusted for loss of CVPH spine surgeon.

65+

Under 65

5- and 10-year OR Volume Projections Based On:				
County, VT Pop. Growth for nder and Over 65		Chittenden County, VT Pop. Growth for Under and Over 65		
24	2024	2029		2029
OP	IP+OP	IP	OP	IP + OP
1	3	2	1	4
5	602	643	6	648
-	2	2	-	2
45	45	-	46	46
1,724	1,883	166	1,754	1,920
1,111	2,629	1,592	1,157	2,749
353	1,034	728	371	1,099
1,672	1,840	171	1,711	1,882
1,557	1,570	13	1,716	1,729
79	97	19	79	98
3,626	5,718	2,249	3,728	5,977
307	458	150	305	455
423	594	174	430	604
145	159	15	153	169
445	474	29	474	504
7	101	96	8	104
2,148	2,562	439	2,293	2,732
535	1,071	591	565	1,156
14,183	**20,842**	7,080	14,798	**21,878**
6%	7%	16%	11%	12%

Merged Claritas Pop Updates for 65+/under 65 Growth

5 yr	10 yr
22.0%	40.6%
0.4%	-0.3%

TABLE 4. TOTAL CAPACITY AND VOLUME AT NEW OSC: 2019-2029

Calendar Year	2019 Actual	2020 Actual	2021 Actual	2022 Actual	*2023 Actual*	*2024 Projected*	*2025 Projected*	*2026 Projected*	*2027 Projected*	*2028 Projected*	*2029 Projected*
Outpatient Surgeries Conducted at OS											**7,676**
Cardiology											-
Cardiothoracic											-
Derm											-
ENT											1,281
General											370
Neurosurgery											-
OB/GYN											684
Ophthalmology											1,716
Oral/Maxillofacial											-
Orthopedics											3,094
Pediatrics											-
Plastics											215
Pulmonary											-
Surg/Onc											119
Transplant											-
Urology											-
Vascular											198
All Other Outpatient Surgery											-
Number of Rooms in OSC											8
Total Capacity (in # of surgeries) of OSC											8,571
Percentage of Total Capacity Used (target											67.2%

Note: This table not updated per Q009 Question 3 instructions.

INSTRUCTIONS FOR COMPLETING WORKBOOK

The workbook is pre-populated with surgical volumes, wait times, and other statistics and assumptions provided by UVMMC in its OSC application. Please confirm that these numbers are accurately reflected, and make edits as needed, in the "ENTER INPUTS HERE" (yellow) tab only.

The information entered in the "ENTER INPUTS HERE" will autofill the cells in the other two (blue) tabs.

The "ENTER INPUTS HERE" tab contains two tables.

Table 1a contains all the inputs needed to estimate surgical **capacity** at UVMMC with the currently available ORs (inpatient and outpatient). They are pre-populated with the information provided in your OSC application. Please make any necessary updates to this table to ensure it is accurate.

Table 1b includes the percentage of surgical cases expected to be transferred to the new OSC, by service line, as reported in UVMMC's application. Please review and update these percentages if necessary to ensure they are accurate.

Table 2 includes the total number of surgical cases demanded (**volume**) by department (inpatient and outpatient) and service line and year (2019-2029). Please confirm and enter the actual number of cases for years for which you have data and projected number of cases for future years. These numbers should be the same as those used for your demand projections in the application. Choose the most realistic scenario to report and indicate that in row 43. In the

The "TOTAL OUTPUT (PROTECTED)" tab contains **Table 3,** which takes the inputs UVMMC specified in Tables 1a and 2, and uses them to project total surgical volume, % of surgical capacity utilized, and number of additional rooms needed, for each year from 2019 to 2029. The entirety of this table will auto-populate; edits are not needed.

The "OSC OUTPUT (PROTECTED)" tab contains **Table 4**, which estimates the total projected surgeries that will be performed **at the OSC**. These OSC-specific volumes are calculated by taking the total number of outpatient surgeries projected in each year (Table 2), and applying the service line-specific transfer rates provided by UVMMC in its application (Table 1b). These calculations assume that the percentage of surgeries transferred to the OSC will remain

Please provide a justification for all inputs used in calculate capacity in narrative format at the bottom of Table 2.

Please indicate in the narrative which ORs are included and excluded from the calculations.

Please explain any discrepancies between the information in this workbook and the information

TABLE 1. MODEL INPUTS: PARAMETERS

Table 1a. Input variable	Value	
Number of Rooms[1]	25	
Days/Year Available[2]	250	
Days Closed[3]	-	
Daily Hours Available per Room[5]	10	
Average Length of Surgery (OP) in Hours[7]	1.75	
Turnover Time (OP) in Hours[8]	0.53	* Note: given a single input, the weighted avg turnover time for OP surgeries across all OP sites is entered.
Average Length of Surgery (IP) in Hours[9]	3.17	
Turnover Time (IP) in Hours[10]	0.62	* Note: given a single input, the weighted avg turnover time for IP surgeries is shown (37 min Main ORs, 25 min MPU).
Adjustment for end of the day turnover, in total hours per year across all rooms		

Table 1b. Percentage of cases to be transferred from main campus to new OSC	Value
Cardiology	0%
Cardiothoracic	0%
Derm	0%
ENT	
General	
Neurosurgery	
OB/GYN	
Ophthalmology	
Oral/Maxillofacial	
Orthopedics	
Pediatrics	
Plastics	
Pulmonary	
Surg/Onc	25%
Transplant	0%
Urology	0%
Vascular	35%
All Other Outpatient Surgery	0%

**** % of OR surgeries expected to move to OSC from either MC or FA***

Note: Table 1b not updated as Table 4 update not requested for Q009

Table notes:

1. All rooms available for use. Please see the narrative below for more information.

2. Days/Year Available = 365 days minus 104 weekend days minus 7 holidays.

3. Days Closed based on the number of days OR would otherwise have been open but was not in use.

5. Daily Hours Available per Room based on actual total hours available for all rooms divided by Number of Rooms.

7. Average Length of Surgery OP based on actual UVMMC OP OR length of surgery.

8. Turnover Time OP based on actual UVMMC OP OR turnover time.

9. Average Length of Surgery IP based on actual UVMMC IP OR length of surgery.

10. Turnover Time IP based on actual UVMMC IP OR turnover time.

TABLE 2. MODEL INPUTS: SURGICAL CASE VOLUME BY DEPARTMENT AND PRODUCT LINE: 2019-2029											
SCENARIO USED FOR PROJECTIONS: ***Please describe scenario used here: Q009 Scenario Claritas Demographic 5/10 yr growth*** **Under 65/65+**											
Calendar Year	**2019 Actual**	**2020 Actual**	**2021 Actual**	**2022 Actual**	**2023 Actual**	***2024 Projected Demand***	***2025 Projected Demand***	***2026 Projected Demand***	***2027 Projected Demand***	***2028 Projected Demand***	***2029 Projected Demand***
Inpatient Surgeries	**5,948**	**4,879**	**4,863**	**5,012**	**5,423**	**6,657**	**6,741**	**6,825**	**6,910**	**6,994**	**7,078**
Cardiology	2	26	4	4	3	2	2	2	2	2	2
Cardiothoracic	539	480	525	594	691	597	606	615	624	633	643
Derm	-	0	0	0	0	-	-	-	-	-	-
ENT	150	129	123	116	138	159	161	162	164	165	166
General	1,419	803	1,004	756	595	1,518	1,533	1,547	1,562	1,577	1,592
Neurosurgery	621	446	440	562	581	681	690	700	709	719	728
OB/GYN	161	145	134	159	164	167	168	169	170	170	171
Ophthalmology	12	19	5	7	5	13	13	13	13	13	13
Oral/Maxillofacial	18	2	2	0	1	19	19	19	19	19	19
Orthopedics	1,784	1,402	1,224	1,157	1,226	2,092	2,124	2,155	2,187	2,218	2,249
Pediatrics	150	51	61	117	104	151	150	150	150	150	150
Plastics	166	103	55	66	125	171	172	173	173	174	174
Pulmonary	13	24	49	5	2	14	14	15	15	15	15
Surg/Onc	27	28	34	86	161	28	28	29	29	29	29
Transplant	90	52	62	60	71	94	94	95	95	96	96
Urology	326	253	215	198	192	414	419	424	429	434	439
Vascular	470	533	519	530	576	536	547	558	569	580	591
All Other Inpatient Surgery	-	383	407	595	788	-					
List categories of 'All Other Inpatient Surgery':		Trauma, GI, Dental	Trauma, GI, Dental	Trauma, GI, Dental	Trauma, GI, Dental						
Outpatient Surgeries	**13,052**	**10,489**	**11,586**	**12,431**	**14,109**	**14,183**	**14,306**	**14,429**	**14,552**	**14,675**	**14,798**
Cardiology	1	6	3	4	3	1	1	1	1	1	1
Cardiothoracic	5	10	22	28	26	5	6	6	6	6	6
Derm	44	7	7	14	11	45	45	46	46	46	46
ENT	1,670	999	785	1,111	1,413	1,724	1,730	1,736	1,742	1,748	1,754
General	1,046	1,004	1,136	1,042	1,032	1,111	1,120	1,129	1,139	1,148	1,157
Neurosurgery	328	253	455	388	349	353	356	360	364	368	371
OB/GYN	1,610	1,142	1,310	1,202	1,348	1,672	1,680	1,688	1,695	1,703	1,711
Ophthalmology	1,364	935	997	1,203	1,341	1,557	1,589	1,621	1,652	1,684	1,716
Oral/Maxillofacial	78	31	31	34	24	79	79	79	79	79	79
Orthopedics	3,431	2,744	3,329	3,270	3,923	3,626	3,646	3,666	3,687	3,707	3,728
Pediatrics	306	93	102	366	462	307	307	306	306	306	305
Plastics	410	304	305	283	330	423	424	426	427	428	430
Pulmonary	133	143	170	5	3	145	146	148	150	152	153
Surg/Onc	408	453	434	598	640	445	451	457	463	469	474
Transplant	6	10	10	53	134	7	7	7	8	8	8
Urology	1,717	1,703	1,769	1,710	1,683	2,148	2,177	2,206	2,235	2,264	2,293
Vascular	495	426	453	442	456	535	541	547	553	559	565
All Other Outpatient Surgery	-	226	268	678	931	-					
List categories of 'All Other Outpatient Surgery':		Trauma, GI, Dental	Trauma, GI, Dental	Trauma, GI, Dental	Trauma, GI, Dental						

Total Volume (cases)	**19,000**	**15,368**	**16,449**	**17,443**	**19,532**	**20,840**	**21,047**	**21,254**	**21,462**	**21,669**	**21,876**

NARRATIVE

The model includes OR volume only. The endoscopy suite, dedicated Labor & Delivery (L&D) units, and specialized OR/PRs are excluded. However, if endoscopy / GI procedure is performed in the OR rooms, the model captures it. If L&D C-sections are performed in the regular OR, the model captures it. If deliveries are non-surgical, non-procedural, they are typically conducted in an L&D suite and will not be in this volume.

- *UVMMC rooms included in count:*

- 18 Main Campus ORs and volumes in MPU1 and MPU2 including:
- OR 1 – ACS (Acute Care Surgeries) – both capacity and procedures counted
- OR 9 – Orthopedic trauma – both capacity and procedures counted
- OR 11 - ED Level 1 Trauma Center designated OR - both capacity and procedures counted
- 5 Fanny Allen ORs (closed in November 2020; re-opened in Feb. 2022)

TABLE 3. MODEL OUTPUT: SURGICAL CASE CAPACITY AND VOLUME BY DEPARTMENT: 2019-2029							
Calendar Year	**2019 Actual**	**2020 Actual**	**2021 Actual**	**2022 Actual**	**2023 Actual**	***2024 Projected Demand***	***2025 Projected Demand***
Number of Rooms[1]	25	25	25	25	25	25	25
Days/Year Available[2]	250	250	250	250	250	250	250
Days Closed[3]	95	599	1,250	410	214	-	-
Total Available Days/Year[4]	6,155	5,651	5,000	5,840	6,036	6,250	6,250
Daily Hours Available per Room[5]	10	10	10	10	10	10	10
Total Available Hours/Year[6]	61,550	56,510	50,000	58,400	60,360	62,500	62,500
Average Length of Surgery (OP) in Hours[7]	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Turnover Time (OP) in Hours[8]	0.53	0.53	0.53	0.53	0.53	0.53	0.53
Total Avg Case Time (OP) in Hours	2.28	2.28	2.28	2.28	2.28	2.28	2.28
Average Length of Surgery (IP) in Hours[9]	3.17	3.17	3.17	3.17	3.17	3.17	3.17
Turnover Time (IP) in Hours[10]	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Total Avg Case Time (IP) in Hours	3.79	3.79	3.79	3.79	3.79	3.79	3.79
EOD Turnover Time Adjustment -							
*Main Campus ORs (18 ORs *250 days * .62 hrs TAT)*	2,790	2,790	2,790	2,790	2,790	2,790	2,790
*MPU + Fanny Allen ORs (7 ORs * 250 days * 25 min/60 min/hr)*	690	480	208	558	640	729	729
Annual Turnover Time Adjustment (hrs) [15]	3,480	3,270	2,998	3,348	3,430	3,519	3,519
Total Avg Case Time (IP+OP, weighted by caseloads) in Hours w/ TAT EOD adjustment[16]	2.57	2.55	2.54	2.52	2.52	2.59	2.60
Total Capacity (cases)[11]	17,972	16,649	14,745	17,374	17,945	18,082	18,061
Total Volume (cases)[12]	19,000	15,368	16,449	17,443	19,532	20,840	21,047
Percent Utilized (target 75%)[13]	**79%**	**69%**	**84%**	**75%**	**82%**	**86%**	**87%**
Percent Unutilized (due to non-use) (target 25%)	**21%**	**31%**	**16%**	**25%**	**18%**	**14%**	**13%**
Rooms Needed to Fulfill Caseload, assuming 75% utilization threshold	**26.43**	**23.08**	**27.89**	**25.10**	**27.21**	**28.81**	**29.13**
Additional Rooms Needed Above Current 25 (if RED) or Excess Rooms (if GREEN)	**1.43**	**(1.92)**	**2.89**	**0.10**	**2.21**	**3.81**	**4.13**

Table 1 Notes:

1. All rooms available for use. Please see the narrative below for more information.

2. Days/Year Available = 365 days minus 104 weekend days minus 7 holidays.

3. Days Closed based on the number of days OR would otherwise have been open but was not in use. Days closed represents closure of Fanny Allen ORs 2019-2023 due to 2019 Air Quality Closure, 2020 COVID, and 2020-2022 Air Quality closure and remediation. There were redu

4. Total Available Days/Year = (Total Days Available/Number of Rooms x Number of Rooms) minus Days Closed.

5. Daily Hours Available per Room based on actual total hours available for all rooms divided by Number of Rooms.

*6. Total Available Hours/Year = Total Available Days/Year * Total Available Hours/Day.*

7. Average Length of Surgery OP based on actual UVMMC OP OR length of surgery.

8. Turnover Time OP based on actual UVMMC OP OR turnover time.

9. Average Length of Surgery IP based on actual UVMMC IP OR length of surgery.

10. Turnover Time IP based on actual UVMMC IP OR turnover time.

11. Total Capacity (surgeries) = Total Available Hours/Year divided by Total Avg. Surgery Time. Adjusted to exclude end of the day turnover time.

12. Total Volume (surgeries) based on actual OR surgeries per year (see Table 2 for details).

13. Percent of Total Capacity Used reflects OR capacity.

14. CY 2019 volumes (# of surgeries) and OR time used as a baseline for projections. Projections are based on age adjusted population growth for Chittenden County VT.

15. Calculates adjustment for last turnover time of the day, which should be excluded from avg case time calculation, in total hours per year.

16. Weighted average case time calculation for IP and OP cases including TAT with reduction for total annual hrs for last TAT of the day across all ORs.

	UVMMC 2019 Baseline Volumes			Chittenden U
	FY 2019		2019	20
Service Line	IP	OP	IP + OP	IP
Cardiology	2	1	3	2
Cardiothoracic	539	5	544	597
Dental	2	0	2	2
Derm	0	44	44	-
ENT	150	1,670	1,820	159
General	1,419	1,046	2,465	1,518
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Ophthalmology	12	1,364	1,376	13
Oral/Maxillofacial	18	78	96	19
Orthopedics	1,895	3,470	5,365	2,092
Pediatrics	150	306	456	151
Plastics	166	410	576	171
Pulmonary	13	133	146	14
Surg/Onc	27	408	435	28
Transplant	90	6	96	94
Urology	381	1,962	2,343	414
Vascular	470	495	965	536
Total	6,116	13,336	**19,452**	6,659
			Growth from 2019	9%

Notes: Adjustments to actuals for baseline

1. Urology baseline adjusted for extraordinary waitlist.

2. Spine baseline adjusted for loss of CVPH spine surgeon.

65+

Under 65

5- and 10-year OR Volume Projections Based On:				
County, VT Pop. Growth for nder and Over 65		Chittenden County, VT Pop. Growth for Under and Over 65		
24	2024	2029		2029
OP	IP+OP	IP	OP	IP + OP
1	3	2	1	4
5	602	643	6	648
-	2	2	-	2
45	45	-	46	46
1,724	1,883	166	1,754	1,920
1,111	2,629	1,592	1,157	2,749
353	1,034	728	371	1,099
1,672	1,840	171	1,711	1,882
1,557	1,570	13	1,716	1,729
79	97	19	79	98
3,626	5,718	2,249	3,728	5,977
307	458	150	305	455
423	594	174	430	604
145	159	15	153	169
445	474	29	474	504
7	101	96	8	104
2,148	2,562	439	2,293	2,732
535	1,071	591	565	1,156
14,183	**20,842**	7,080	14,798	**21,878**
6%	7%	16%	11%	12%

Merged Claritas Pop Updates for 65+/under 65 Growth

5 yr	10 yr
22.0%	40.6%
0.4%	-0.3%

TABLE 4. TOTAL CAPACITY AND VOLUME AT NEW OSC: 2019-2029

Calendar Year	2019 Actual	2020 Actual	2021 Actual	2022 Actual	*2023 Actual*	*2024 Projected*	*2025 Projected*	*2026 Projected*	*2027 Projected*	*2028 Projected*	*2029 Projected*
Outpatient Surgeries Conducted at OS											**7,676**
Cardiology											-
Cardiothoracic											-
Derm											-
ENT											1,281
General											370
Neurosurgery											-
OB/GYN											684
Ophthalmology											1,716
Oral/Maxillofacial											-
Orthopedics											3,094
Pediatrics											-
Plastics											215
Pulmonary											-
Surg/Onc											119
Transplant											-
Urology											-
Vascular											198
All Other Outpatient Surgery											-
Number of Rooms in OSC											8
Total Capacity (in # of surgeries) of OSC											8,571
Percentage of Total Capacity Used (target											67.2%

Note: This table not updated per Q009 Question 3 instructions.