

THE
University of Vermont
HEALTH NETWORK

To: The Honorable Kevin Mullin, Chair, Green Mountain Care Board

From: John Brumsted, CEO University of Vermont Medical Center/President and Chief Executive Officer, University of Vermont Health Network

Date: October 15, 2018

Subject: UVM Health Network quarterly report on inpatient mental health capacity

Please accept this memorandum as the UVM Health Network's second quarterly status report on the planning of new inpatient psychiatric capacity on its Central Vermont Medical Center (CVMC) campus. As described in detail below and in the attached presentation, the UVM Health Network has devoted the last three months to designing, performing, and collaborating with stakeholders on an intensive, data-driven analysis of the scope of the unmet need for adult inpatient psychiatric services in Vermont. As a result, this status report focuses on the GMCB reporting milestones that are relevant to this phase of the planning process. Based on our conversations with your staff, we will address the other reporting milestones in future quarterly reports, as they correspond to our planning efforts. We look forward to discussing this report, and our analysis of Vermont's unmet need, at your public hearing on November 28, 2018.

The discussion below describes the methodology and results of our analysis of the scope of the unmet need for adult inpatient psychiatric services in Vermont and addresses the following GMCB milestones:

- Identify the existing analyses and data sources that will be drawn from to determine need
- Summarize results of needs assessment
- Describe any activities related to determining the appropriate number and type of additional inpatient beds needed statewide
- Identify stakeholders from whom UVMHN will seek input, and how those stakeholders will be engaged
- Describe the funds flow from the \$21 million FY 2017 net patient revenue overage
- Describe additional analyses to be conducted

We look forward to describing this comprehensive analysis in more detail, and addressing your questions, when we meet next month.

Identifying the Appropriate Number of Additional Beds

Current State Analysis

Using sources including the 2017 Vermont Uniform Hospital Discharge Data (VUHDDS), DMH reports, the recent VAHHS Mental Health report, and summarized inpatient mental health data for the period Sept. 2017 – Feb. 2018 (the time period with complete data for all psychiatric beds in the state), and UVM Health Network data for the period 5/1/17-4/30/18, we were able to identify key information which shaped our approach to an estimate of additional adult inpatient psychiatric bed need.

- At present, Vermont has 138 adult inpatient psychiatry beds available to serve the needs of high-acuity mental health adult patients, located in six facilities around the state. Over 80% of these beds (114) are subject to the IMD reimbursement rules and current waiver.
- Our current adult inpatient psychiatry beds are effectively at 100% capacity. Aggregate patient discharges for the UVMHC, CVMC, Rutland, and Springfield Psychiatry units have remained essentially level, while aggregate patient days have risen slightly. This increase in patient length of stay is being driven by an increase in patient acuity.
- The VAHHS report highlighted a higher statewide average length of stay for psychiatric patients around the state—23 days—but also reported on length of stay for patients who were not discharged during the study period; the average length of stay for those patients was 151 days.
- 2017 Midnight census data for EDs at Rutland, Springfield, CVMC, UVMHC, and Brattleboro indicate that these EDs are functioning as the primary front door to the inpatient psychiatry units at those hospitals, plus the Brattleboro Retreat.
- All EDs around the state are impacted by the growth in need for higher acuity mental health care: even at our smaller hospitals, there are consistently one or more patients with a primary mental health diagnosis present in the ED at midnight.
- Based on UVMHC data for May 2017 – April 2018, the ED was the source of 80% of inpatient Psychiatry admissions at UVMHC during this time period. Another 10% of inpatient Psychiatry patients were transferred from a medical/surgical bed within UVMHC, with 10% of admissions coming directly from the community. CVMC reports a similar breakdown of their inpatient admissions.

A Deeper Look at Inpatient Psychiatry Admission Sources

We focused the next phase of our analysis on understanding the issues for patients coming from the three sources identified above: hospital EDs, transfers from an inpatient medical/surgical bed, and direct admissions from the community.

In hospital EDs, we identified two types of problems: First, for those patients who ultimately received inpatient Psychiatry care, some waited a long time in the ED before an inpatient Psychiatry bed was available. Second, other ED patients remained in the ED for lengthy periods, receiving treatment while waiting for an inpatient psychiatry bed to be available, and were sufficiently stabilized during that time that they were discharged from the ED.

The patients in Medical/Surgical units, i.e., patients who would have been transferred to an inpatient psychiatry bed had one been available, were also in one of two groups: the first group included patients who were eventually transferred to an inpatient psychiatry bed, but waited in their medical/surgical bed for an inpatient psychiatry bed to become available. The second group involved similar patients for whom an inpatient psychiatry bed was not available, and like their counterparts in the ED, received some psychiatric care on the medical/surgical unit setting and were eventually discharged.

In order to identify these patients in the first group, we looked for patients who were discharged to an inpatient psychiatry bed and compared their length of stay to the average length of stay for patients with the same primary diagnosis. For the second group, we identified patients who received psychiatric consults while on medical/surgical units. This review resulted in a small number of patients in both of these groups. Work will continue to ensure that we are not underestimating the impact of this group of patients, but for the present time only a very small portion of this cohort of patients was included in the estimate of additional inpatient psychiatry bed need.

We have not yet been able to establish a reliable estimate of the number of patients needing inpatient care who are currently waiting in the community for an inpatient bed. While we are working with the Designated Agencies to refine this analysis, these patients are currently not included in our analysis of the number of additional adult inpatient psychiatry beds needed.

Based on the discovery work in these areas, we organized the next step of our analysis into three areas, concentrating our analysis on the 80% of patients who enter inpatient psychiatry through hospital emergency departments:

1. Estimating the number of additional beds needed to reduce delays in the ED for those patients who ultimately received inpatient psychiatric care, either at the same facility or at another facility
2. Estimating the number of additional beds needed to meet the needs of those patients who were treated in the ED while waiting for an available inpatient Psychiatry bed, but were able to be stabilized and discharged from the ED before a bed became available
3. Estimating the number of additional beds needed for forecasted 10 year growth in demand for adult inpatient psychiatric care

The total of these three categories of need constitutes our estimate of the number of new adult inpatient beds needed in Vermont.

Additional Beds Needed to Reduce Delays

In order to calculate the number of additional beds necessary to substantially reduce delays for ED patients who currently ultimately receive inpatient psychiatric care after waiting for more than 8 hours, we divided our analysis into two parts: estimating the number of additional beds needed to reduce delays for those patients who wait longer than 8 hours for admission to an inpatient psychiatry bed in their own facility, and a separate estimation for the additional beds needed to reduce delays beyond 8 hours for those patients who received inpatient psychiatric care at another facility. In both cases, we assumed that a patient's actual inpatient length of stay would have been the same had the patient been admitted without a delay. Therefore, the analysis focused on the number of additional beds needed to ensure that a bed was available for each of these patients at the right time. The model was run using actual patient arrival dates and actual inpatient length of stay where possible.

The results of the model are shown in the table below:

	Additional Beds to Reduce Delays:
Delays for Admit to Inpatient Psychiatry in Same Facility	
UVMHC	1 – 3 beds
CVMC	.5 bed
Rutland (estimate)	.5 bed
Springfield (estimate)	.5 bed
Total	3 -4 beds
Delays for Transfer to Another Inpatient Psychiatry Facility	
Total for all VT Hospitals	2 – 5 beds
Additional Beds to Reduce Delays	5 – 9 beds

Additional Beds for Unmet Need

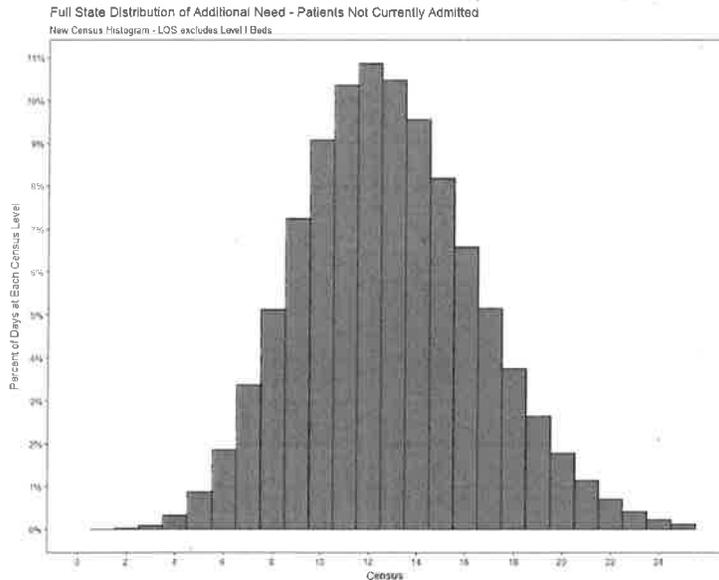
Our work to estimate the number of additional beds needed to meet the needs of those patients who stayed in the ED and received some treatment while waiting for an available inpatient psychiatry bed, but were ultimately discharged before being admitted to an inpatient psychiatry bed, involved the following approach:

1. From the population of patients discharged from the ED, identify the population of patients who actually would have been admitted to an inpatient psychiatry bed, had one been available
2. Estimate the length of stay for these patients
3. Model the additional bed need using actual arrival dates and estimated length of stay for these patients over the 12 month period

The goal of this part of our analysis was to determine a reasonable approach to identify the sub-group of patients who come to the ED with a mental health diagnosis who would have been admitted to an inpatient psychiatry bed had one been available, and to exclude those patients who come to the ED with an emergent acute mental health need that can be treated appropriately in the ED and/or through referral to community-based treatment programs throughout Vermont.

Through a combination of statistical analysis, in-depth reviews of a sample of 200 actual patient chart analysis of crisis clinician reports, and analysis of statewide actual lengths of stay for adult psychiatry inpatients, we created a simulation model that produced a synthetic patient daily census. The model was run 1000 times, with each run producing different results due to the model's statistically designed selection of different patients and different lengths of stay. Summing the results over 1000 runs of the simulation model produced the graph below. While most of the time, the additional census of this Unmet Need population ran between 10 and 16, there were times when 24 or more additional patients needed an inpatient psychiatry bed. From a cumulative perspective, 20 additional beds for this population would

mean a bed is available 97% of the time. Based on this analysis, our estimate of the additional need for the Unmet Need group is 18-20 beds.



Interim Estimate of Additional Bed Needs

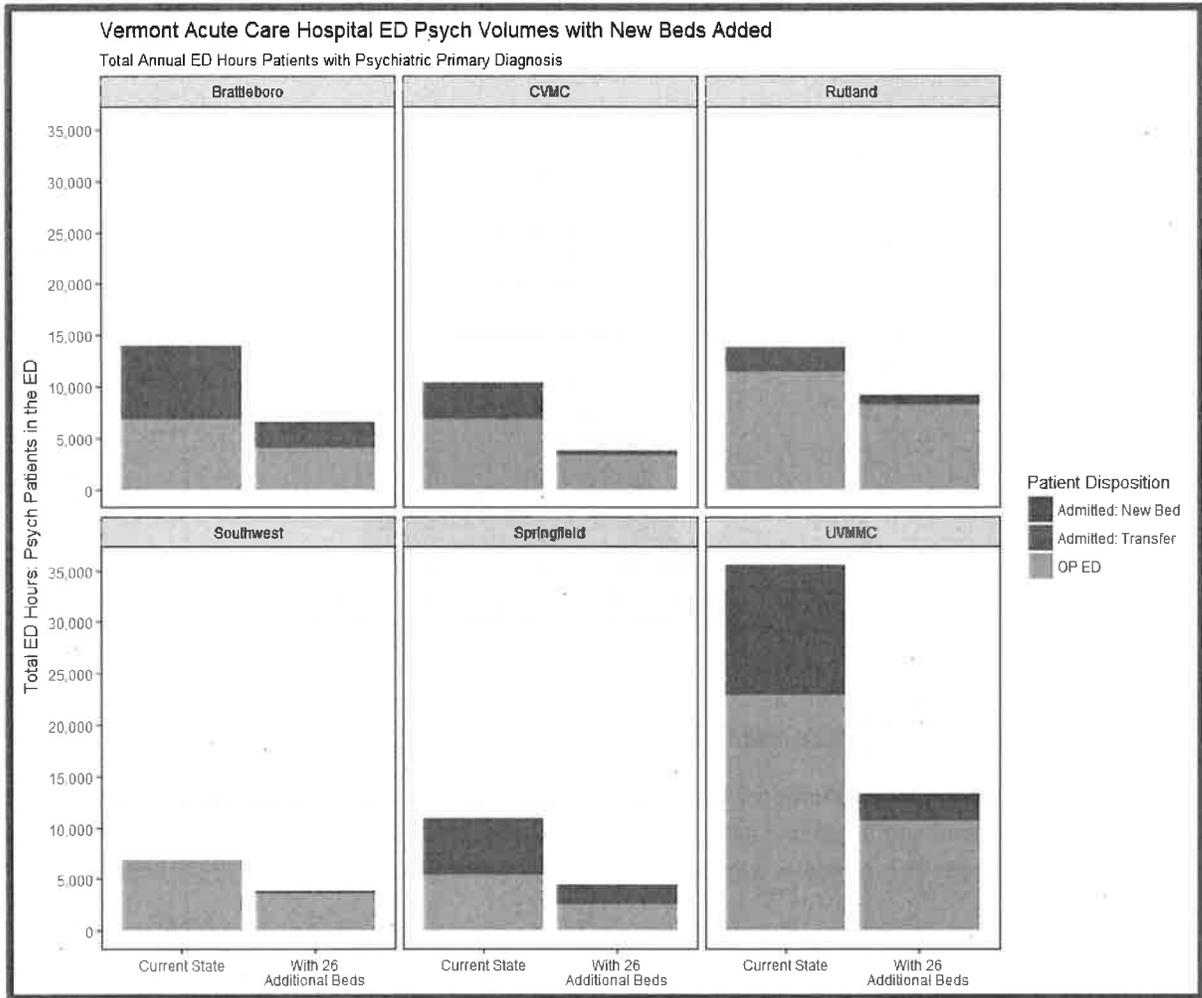
Combining our estimated additional bed need to reduce delays for those who did receive inpatient care with our estimated additional bed need for patients who should have received inpatient care but instead were treated in the ED, produces a combined additional bed need in the range of 23-29 beds:



Impact of Additional Beds for Mental Health Patients Needing Inpatient Psychiatric Care

Before estimating future needs for adult inpatient psychiatric care, we examined the impact of these additional 23-29 beds. Our model results for 26 additional beds showed the following:

- 98% of the those patients identified above would no longer wait for an inpatient bed
- Total ED patient hours for patients with a psychiatric primary diagnosis would be reduced by 55% statewide. Selected hospital expected results are shown below.
- There remain a significant number of mental health patients who still currently require care in the ED, but do not require inpatient admission. As a result, even once new inpatient capacity is built, it will remain imperative that Vermont explore alternative care settings, including enhanced community-based care settings, for some of these patients.



- For UVM Health Network hospitals where additional data is available on time in the ED prior to admission for those patients who are admitted to an inpatient psychiatry bed in the same facility, we are able to estimate the full impact of the additional adult inpatient Psychiatry beds on the EDs at UVMHC and CVMC: a 58% reduction in total CVMC ED patient hours for these mental health patients, and a 64% reduction at UVMHC. For UVMHC and CVMC combined, we estimate that the additional 26 beds in the system would have impacted 1,300 patients and resulted in a reduction of 53,000 ED patient hours over the 12 month model period.

- Estimate of system-wide occupancy rate with 26 additional beds: 88.3%

	ADC	Existing Beds	New Beds	Total Future Beds	Occupancy
Unmet Need	12.8	0	19	19	67.2%
Existing Patients	132	138	7	145	91.0%
Total	144.8	138	26	164	88.3%

Forecasted 10-year Growth

UVM Health Network partners with a healthcare forecasting and intelligence consulting group known as Sg2. Sg2's current forecast for adult inpatient Psychiatry growth for Vermont is a 4% increase in patient days over the next 10 years. Sg2's forecast factors in demographic changes for our region, as well as changes in care delivery for Psychiatry, expected future innovations and other improvements in treatments, as well as shifts in care settings, and the impact of economic, regulatory and policy changes. It is important to note that Sg2 has forecasted significantly larger 10-year growth rates for other care settings; the 10-year forecast for mental health ED visits is 19%, with 9% growth forecast for outpatient mental health visits, as healthcare organizations continue to work on effective alternative delivery models for mental health care.

Applying the 4% forecasted growth to both current and additional beds, we estimate the need for six additional beds to meet expected future growth.

Total Additional Inpatient Psychiatry Bed Need Estimate: 29-35 beds



Summing together our estimated bed needs to reduce delays, address current Unmet Need, and to address forecasted growth, we estimate that the total number of additional adult inpatient Psychiatry beds needed lies in the range of 29 to 35 beds. Further, we assume that these beds are provided in a private room setting to maximize their availability.

It is important to reiterate that any possible decreases in the current supply of adult inpatient Psychiatry beds would require a further addition to the estimate above. A discussion of the IMD situation and other factors related to the current supply will be covered in the next step of this project. Also included in that step will be recommendations regarding bed programming.

Stakeholder Engagement to Date

The University of Vermont Health Network remains committed to gaining input from key constituents across the State of Vermont, throughout the duration of this project. The planning committee has assembled a Psychiatric Inpatient Planning Stakeholder (PIPS) committee, which is comprised of clinicians, policymakers, advocates, law enforcement, designated agencies, legislators, and other community members based in Central Vermont. This committee will meet quarterly at CVMC throughout the planning and implementation process.

The following table reflects the additional key constituents/forums that have been engaged in the PIC planning process to date. The excellent input offered by stakeholders at these meetings to-date has been

incorporated into our analysis, resulting in a more robust and accurate model of the need for new adult inpatient psychiatry capacity in Vermont. We will continue to engage each of these forums as key project milestones move through the planning process.

Date	Committee/Forum	Content	Action	Presenter
9/6/18	Internal Sub-group preliminary	PIC modeling analysis	Approval	Hoar
9/6/18	Community Collaborative	PIC Overview	Update	Miller
9/7/18	Full internal group review	PIC modeling analysis	Approval	Hoar
9/17/18	PIC Steering Committee	PIC modeling analysis	Approval	Hoar
9/18/18	BOT Planning	PIC Overview	Review	Miller
9/19/18	THRIVE: Barre	PIC modeling analysis	Review	Noonan/ Hoar
9/24/18	DMH	PIC modeling analysis	Review	Hoar
9/26/18	Network Board Planning	PIC modeling analysis	Review	Miller
9/27/18	PIPS-CVMC	PIC /modeling analysis	Review/input	Noonan
10/4/18	Community Collaborative	PIC Update	Review	Miller
10/5/18	GMCB Staff	PIC modeling analysis	Review	Hoar
10/12/18	VAHHS Board meeting	PIC/modeling analysis	Review	Noonan
10/12/18	VAHHS CMO Meeting	PIC modeling analysis	Review	Hoar
10/15/18	GMCB	Written report due	Update	N/A
10/16/18	CVMC Town Hall	PIC Overview	Review	Noonan
10/16/18	Program Quality Meeting	PIC overview	Review	Hoar
TBD	AHS	PIC modeling analysis	Update	Noonan/Hoar
11/28/18	GMCB	PIC verbal update	Update	Brumsted/Noonan/Hoar
11/16/18	Community Leader Breakfast Briefing	PIC Update	Update	Brumsted/Pierattini

Allocated funds to Date:

To date, UVM Health Network has expended \$44,759.64 of the \$21 million FY2017 net patient revenue overage. The below table reflects the breakdown of funds allocated to date.

Time Period	Description of Transaction	Amount of Expenditure	Amount of Revenue	Balance
7/3/18	Halsa Consulting	\$19,588.72	\$21M	\$20,980,411.28
9/13/18	Halsa Consulting	\$25,170.92	\$20,980,411.28	\$20,955,240.36
			\$20,955,240.36	

Next Steps

With the identification of the new capacity discussed above, we are now beginning the analysis of IMD restrictions at Central Vermont Medical Center, along with the impact the new capacity will have on existing capacity at VPCH and Brattleboro Retreat. The outcome of both of these analyses will be incorporated into our work, which will in turn be shared with stakeholders. We will draw on the expertise of State and legal officials to participate in these discussions and analyses.

In conjunction with the work described above, we are also in the process of identifying the type and level of beds that will occupy the new bed capacity at CVMC. We will engage psychiatrists from both the inpatient and outpatient arena, nursing leadership, Analytics, Business Planning, and Halsa Consultants to conduct this analysis.

We will continue to socialize the anticipated capacity needed to significantly improve access to inpatient mental health services, along with the type and level of beds needed, and will remain open to stakeholder input and refine the model as appropriate.

Lastly, as we near the end of Phase I, we will begin to incorporate the new planned capacity with the master facility plan at CVMC.

Conclusion

We remain committed to this exciting and important project and look forward to the progress that we will make this coming quarter.

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UVMHealth.org

University of Vermont Health Network

Psychiatric Inpatient Capacity Demand Analysis

PIC Quarterly Update 10-15-18

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UVM Health Network
Psychiatric Inpatient Capacity (PIC)
Planning Aim

“Provide the analysis, engagement, and planning necessary to design and create a UVM Health Network inpatient psychiatric facility/unit that will substantially improve access to inpatient mental health care as part of an integrated system of care in Vermont.”

Analysis Scope

Objective:

Estimate the number of additional beds needed for adult inpatient psychiatry, focusing particularly on the problem of psychiatric patients waiting in EDs statewide for bed placement

Key Assumption:

Currently existing adult inpatient bed capacity across the state remains in place (i.e., IMD issue for VPCCH, Brattleboro Retreat is set aside while quantifying the incremental bed requirement issue)

Adult IP Psych Capacity: Current State



- 138 Adult IP Psych Beds today:
 - 45 Level One
 - 93 General IP Psych
 - 6 Locations: VPCH, Brattleboro Retreat, Rutland, Springfield, CVMC, UVMMMC
- 95% or higher occupancy, 100% for Level 1 Beds (DMH reports, June 2018)
- Increase in patient acuity driving longer average length of stay (ALOS)
- Constrained to meet mental health needs for additional patients

83% (114 beds) under
IMD reimbursement

Hospital	Discharges			Total Patient Days			ALOS		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
CVMC	379	370	408	4,013	3,979	4,572	10.6	10.8	11.2
Rutland	583	486	523	7,381	6,340	6,239	12.7	13.0	11.9
Springfield	357	329	322	2,383	2,700	2,349	6.7	8.2	7.3
UVMMMC	502	497	530	8,599	8,859	10,750	17.1	17.8	20.3
Total	1,821	1,682	1,783	22,376	21,878	23,910	12.3	13.0	13.4

VAHHS Mental
Health Data:
ALOS = 23 days for
discharged patients,
151 days for non-
discharged patients

ED: Significant increase in mental health patients needing beyond-emergent care



- 42% increase in number of long stay ED patients
- ED volumes and wait times increase to critical levels
- VAHHS: ED days increasing by 29% per yr, excess days driving change at 47% per yr
CY 2015 – CY 2017

Hospital	Total Outpatient ED Discharges		Long Stays (2+ Midnights)			Average Midnight Census		
	2016	2017	2016	2017	Change	2016	2017	Change
Brattleboro	1,040	1,160	59	72	22%	1.8	1.9	6%
CVMC	1,199	1,199	63	107	70%	1.5	2.0	33%
Rutland	1,738	1,667	95	91	-4%	2.4	2.3	-4%
Southwest	972	1,007	93	110	18%	1.7	2.2	34%
Springfield	735	803	49	66	35%	1.2	1.5	24%
UVMHC	3,438	3,551	149	277	86%	3.9	5.6	45%
Total	9,122	9,387	508	723	42%	12.5	15.6	25%

Hospital	Number of ED Patients Waiting		Avg. Wait Time	
	12-28 Hours	28+ Hours	for Admission	for Transfer
Porter	18	9	41 hours	
CVMC	120	112	14 hours	72 hours
UVMHC	579	598	49 hours	71 hours

2017 Data: Adult Psych Patients in EDs a Challenge for All VT Hospitals

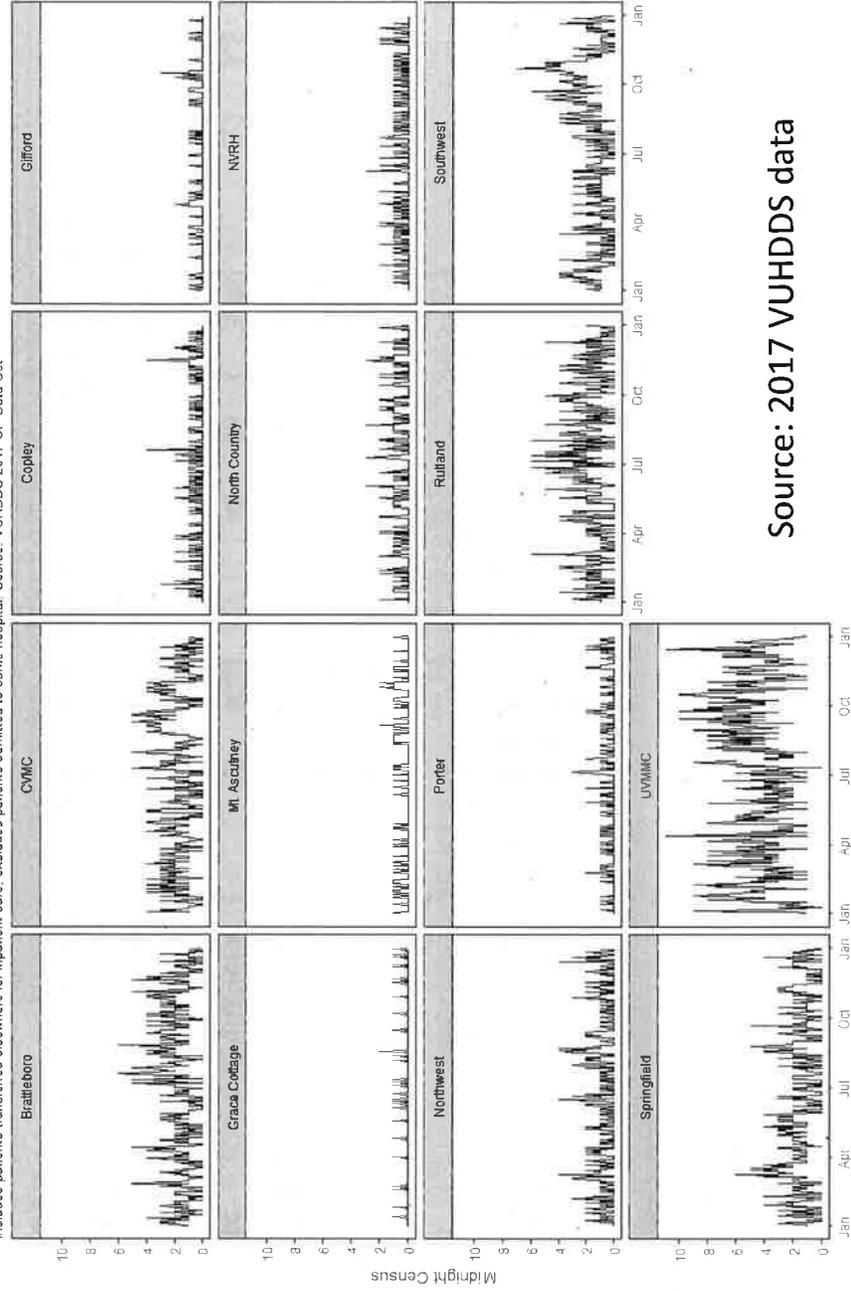


- Often at least one psych patient at any ED around VT at midnight

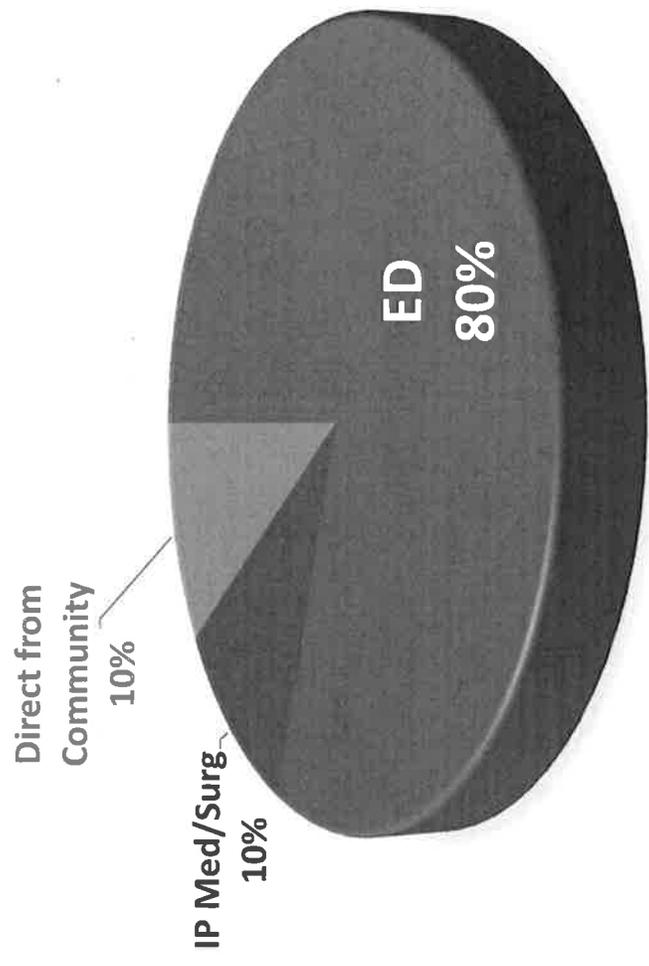
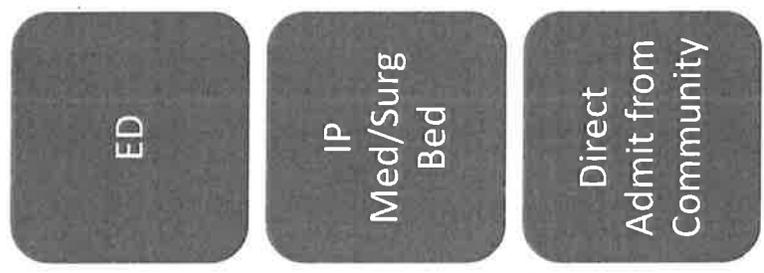
Important Note: because outpatient ED data excludes those admitted to inpatient psych at same hospital, these graphs understate the reality at Rutland, Springfield, CVMC, UVM/MC

Outpatient ED – Patients with a Primary Mental Health Diagnosis Present at Midnight

Includes patients transferred elsewhere for inpatient care, excludes patients admitted to same hospital. Source: VUHDDS 2017 OP Data Set



Adult Inpatient Psychiatric Patients: Sources

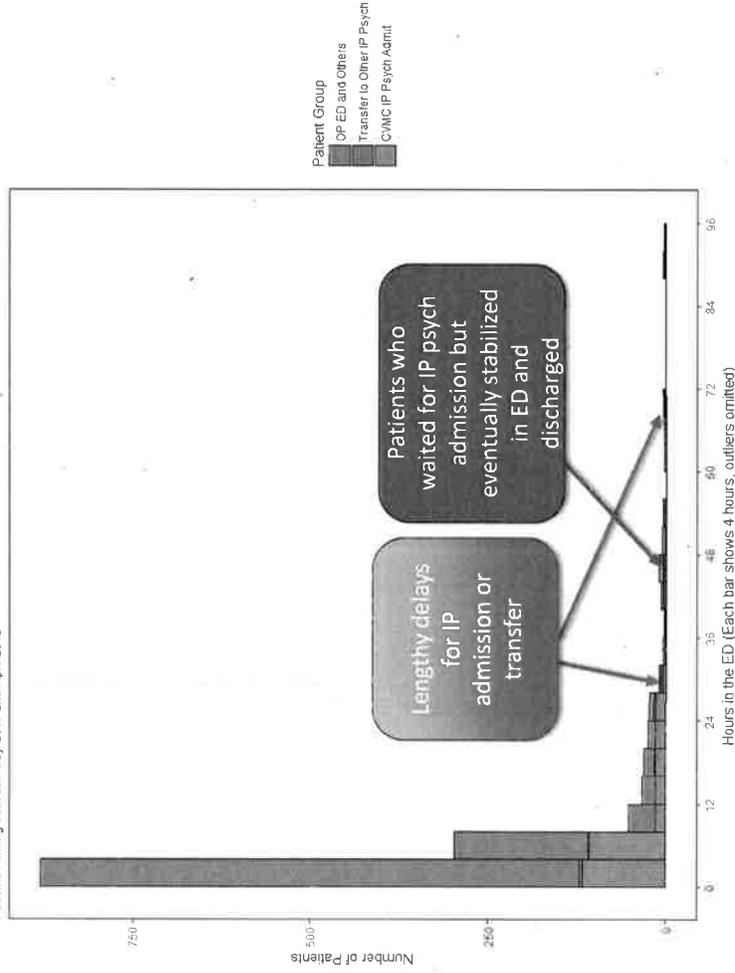


UVMHC Adult IP Psych Patients May 2017-April 2018

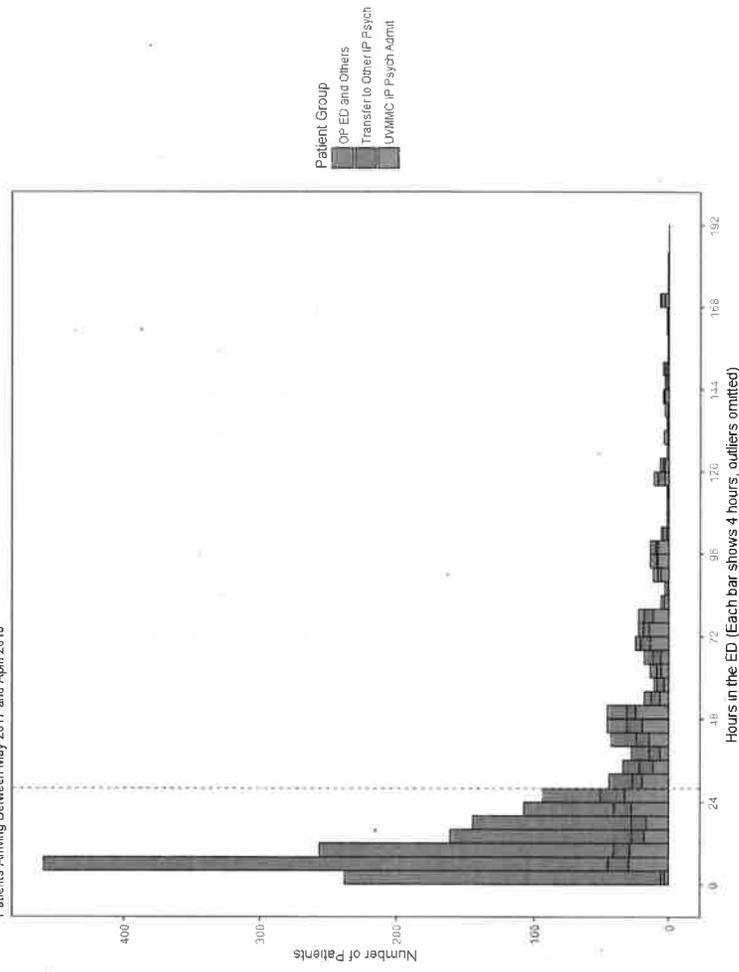
ED Psych Patient Volumes High, Significant Number of Longer Stays



CVMC Adult Psych Patient Wait Times in the ED
Patients Arriving between May 2017 and April 2018



UVMC Adult Psych Patient Wait Times in the ED
Patients Arriving Between May 2017 and April 2018

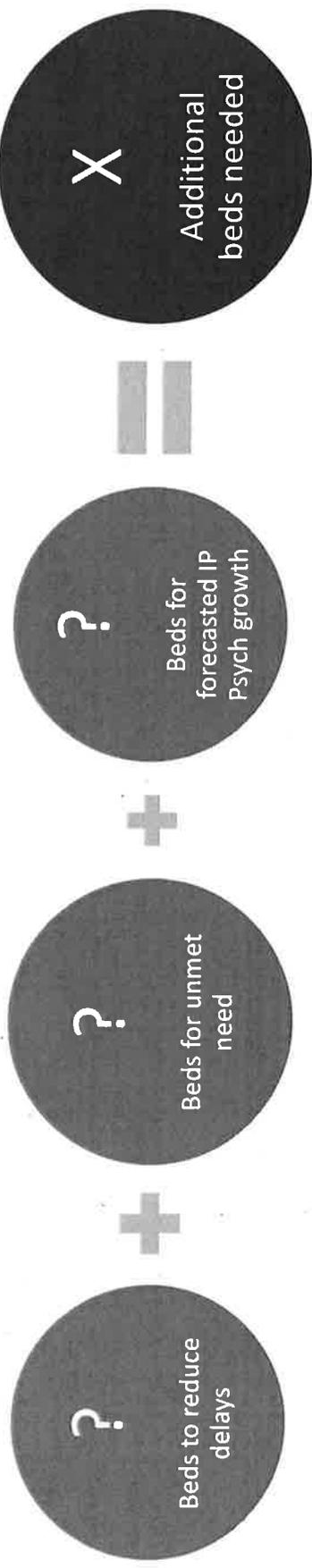


Note: while outliers are not shown on the graphs above for improved readability, models and simulations include all patients, including outliers.

Additional Adult IP Psych Bed Need: Our Approach

What is the number of additional beds to address the needs of adult patients needing IP psychiatric care?

- Timely placement in IP Psych bed
- Include impact of forecasted growth for next 5-10 yrs



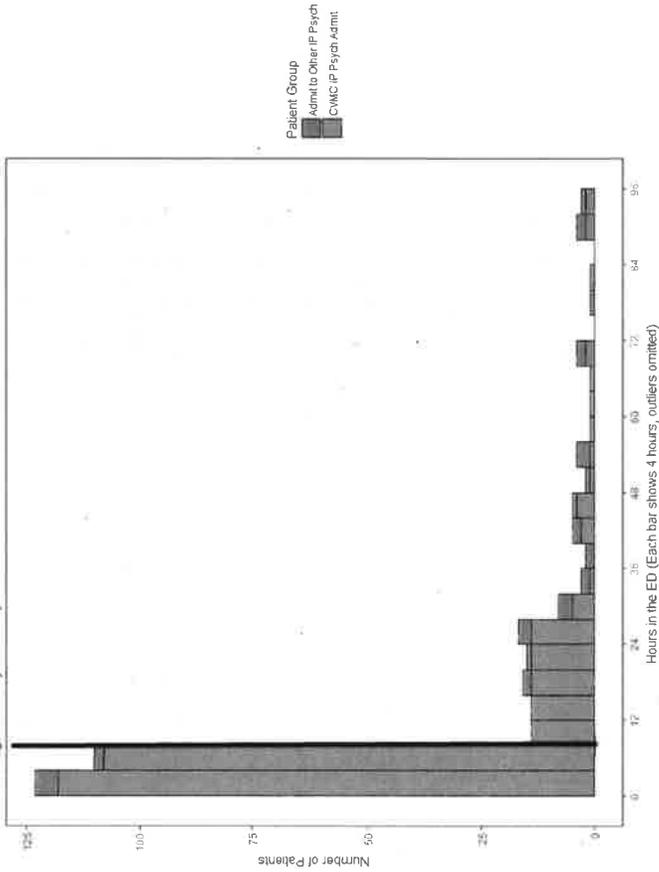
UVMMC and CVMC Data:

Many patients who were admitted had to wait days in the ED first

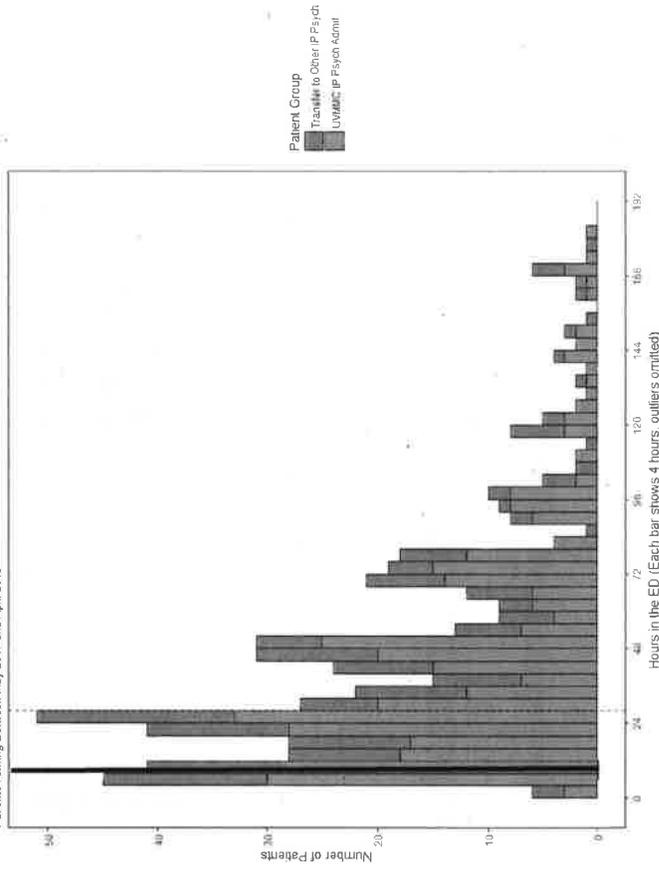


- Use internal UVMMC and CVMC data to connect ED stay with IP Psych stay
- Use to develop delay models for same-hospital admit delays, transfer delays

CVMC Adult Psych Patient Wait Times in the ED
Patients Arriving between May, 2017 and April 2018



UVMMC Adult Psych Patient Wait Times in the ED
Patients Arriving Between May 2017 and April 2018



How many additional beds to reduce delays?



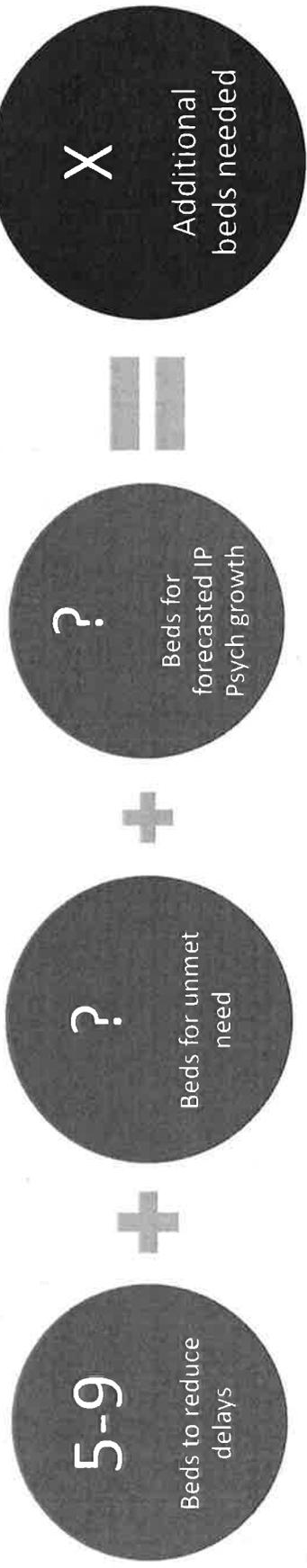
Example: Patient arrived at ED on 7/3, was admitted to IP psych on 7/5, discharged from IP psych on 7/17

- Patient received 12 inpatient psychiatric bed days
- Without wait time, patient would have been admitted on 7/3, discharged on 7/15 – still 12 days
- Patient discharges from IP Psych two days sooner, so bed now available two days earlier for next waiting patient



Planning Assumption: Actual patient IP LOS should not be adjusted to include ED wait time when we model patient IP stay beginning at ED arrival. We assume total IP psych bed days needed does not change because patient is not receiving fully effective treatment in the ED.

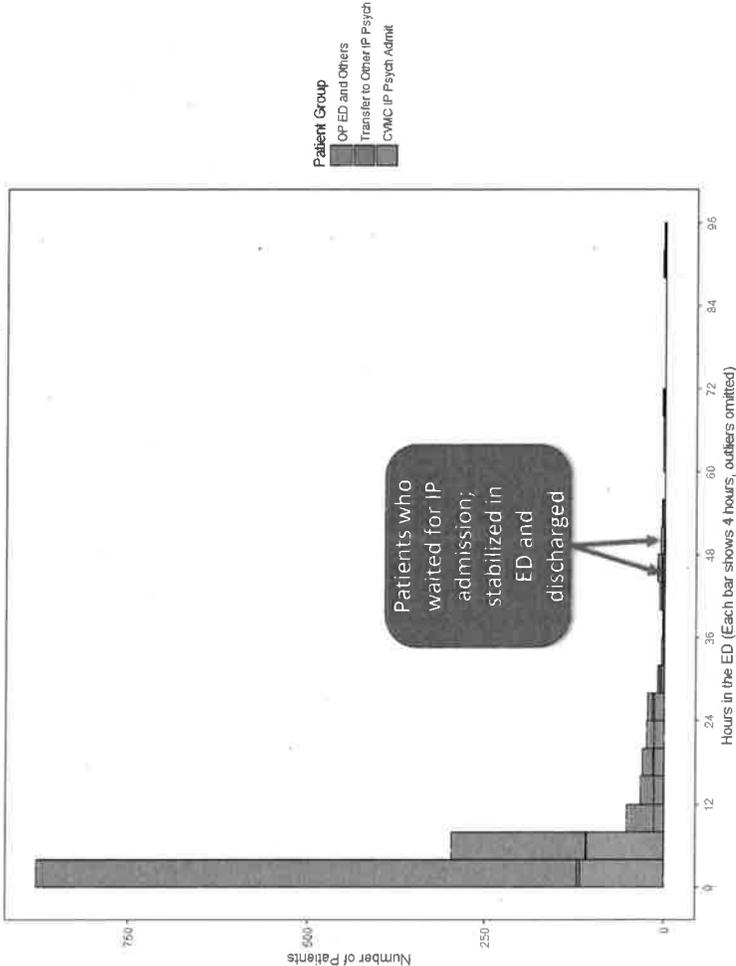
5-9 Beds Needed to Address Delays for Patients Admitted or Transferred



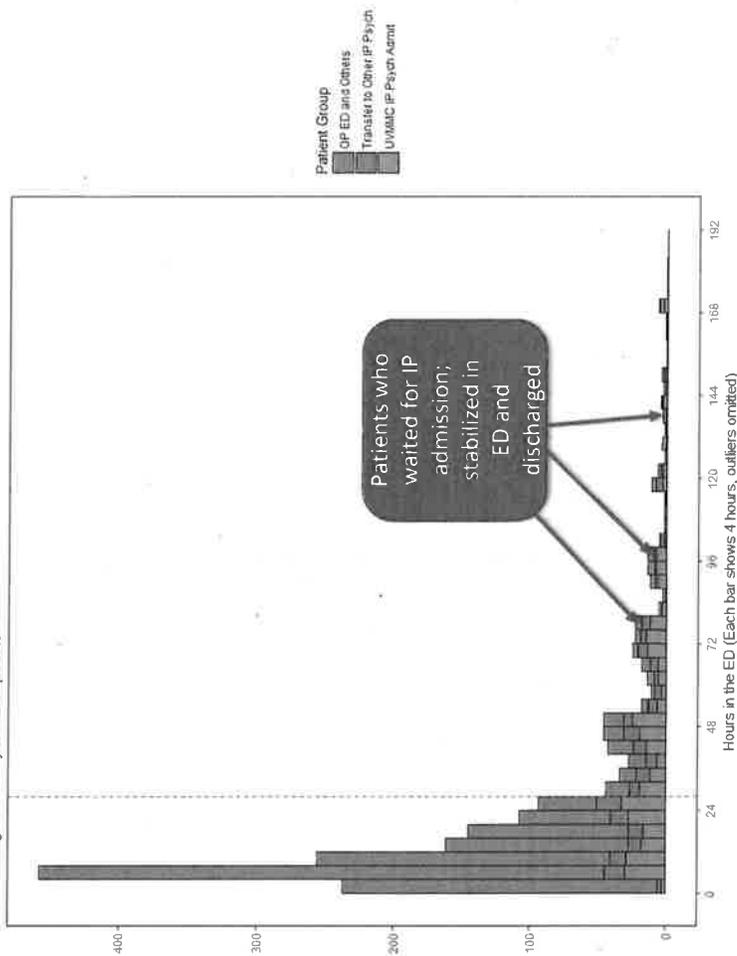
ED Psych Patient Volumes High, Significant Number of Longer Stays



CVMC Adult Psych Patient Wait Times in the ED
Patients Arriving between May 2017 and April 2018



UVMC Adult Psych Patient Wait Times in the ED
Patients Arriving Between May 2017 and April 2018



617 Additional IP Psych Patients from EDs across VT in 12 month period



Hospital	Data Source	ED Wait Time		Total
		28 + Hours ¹	12-28 Hours ²	
UVM/MC	Internal Data - May	160	59	219
CVMC	2017-April 2018	33	8	41
Porter		9	3	12
Brattleboro	VUHHDS 2017	38	19	57
Rutland	Outpatient Data	55	51	106
Southwest	(Data collected by	47	17	64
Springfield	VAHHS)	36	13	49
Other VT Hospita		46	23	69
Total		424	193	617

¹ 100% of all patients waiting 28 hrs or more

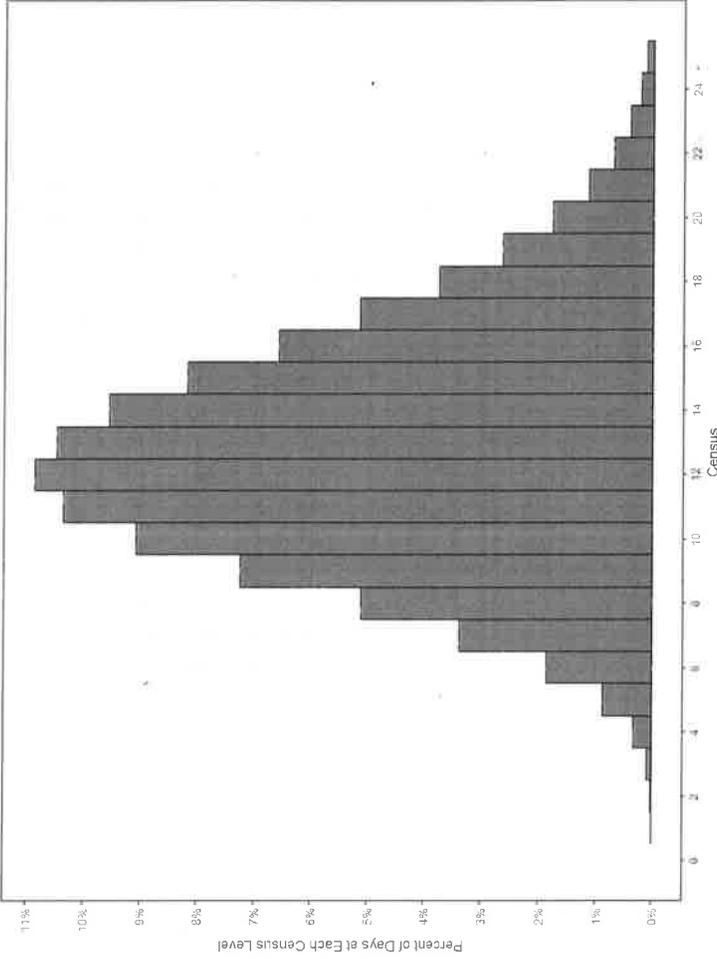
² Approximately 20% of all ED psych patients who waited in the 12-28 hr range

Additional Census Distribution: 1000 Simulations



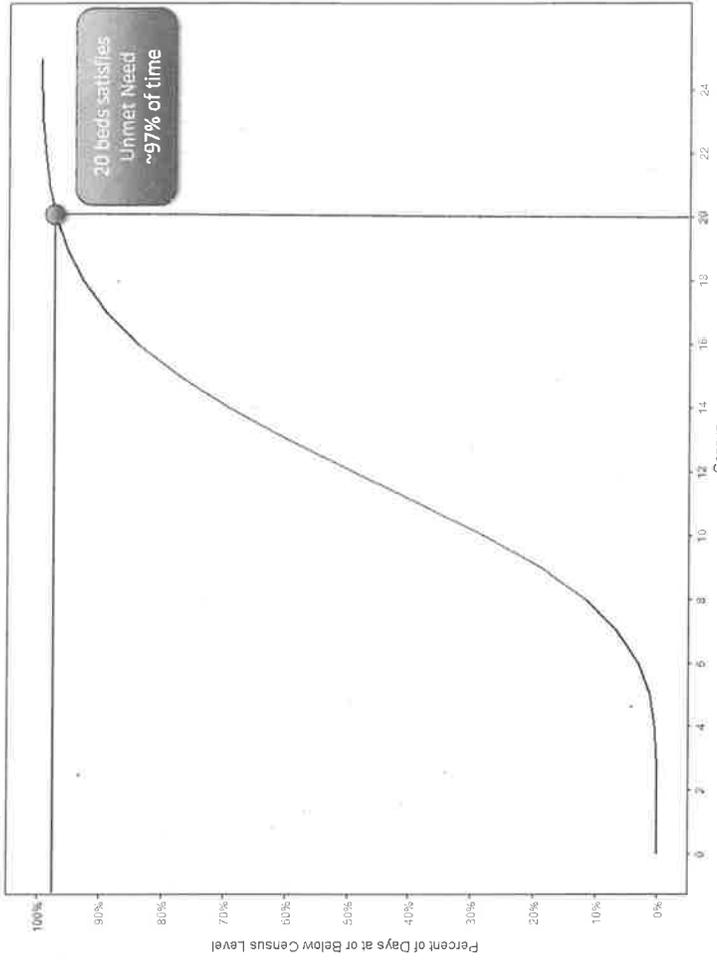
Full State Distribution of Additional Need - Patients Not Currently Admitted

New Census Histogram - LOS excludes Level I Beds

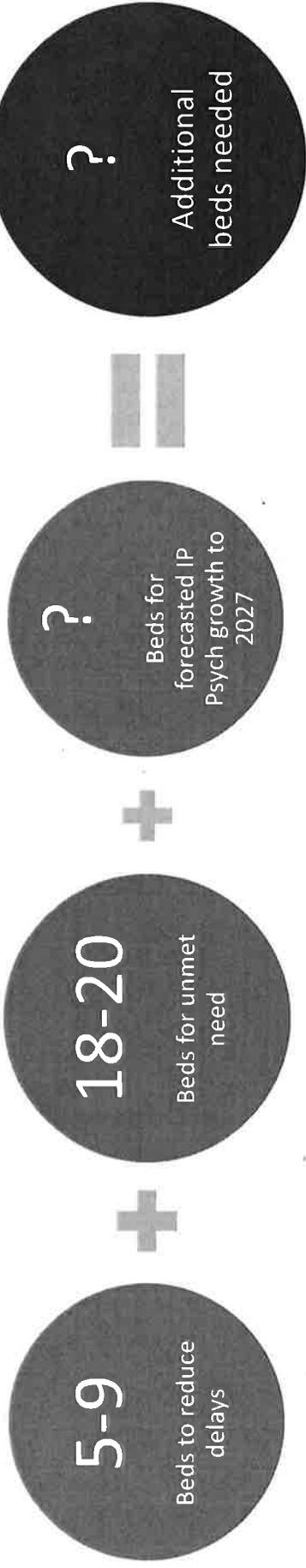


Cumulative Additional Need

Percent of Days at or Below Each Census Level - LOS excludes Level I Beds



Estimated Current Additional Bed Need: 23-29 Beds



Model Results: No Wait for IP Admission for 98%

Estimated Wait Times for Impacted Patients - Currently Waiting Prior to Admission or Never Admitted - with 26 Additional Beds

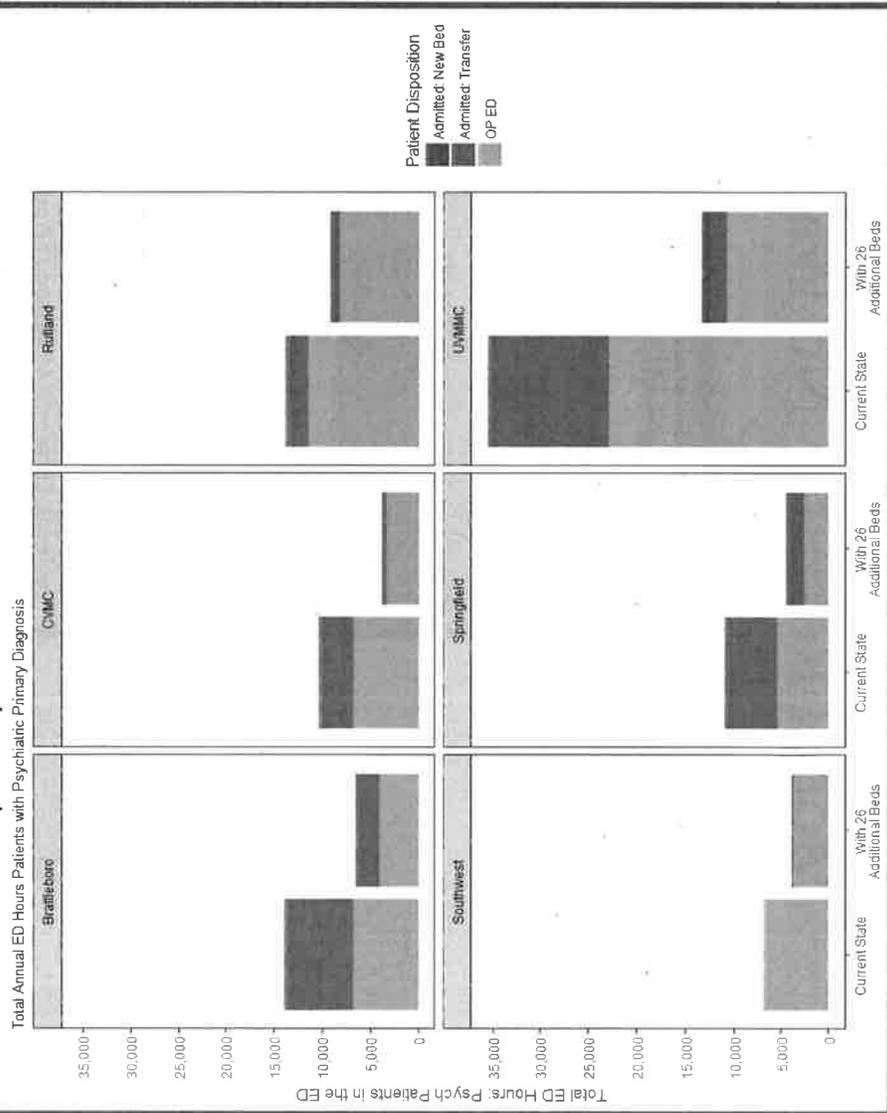
Wait Time for Admission	Patients Currently Admitted		Expected New Admissions		Percent of Total Admissions	
	Admitted	Expected	New	Total	Total	Admissions
No Wait	1,024	523	6	1,547	98%	
<= 8 Hours			21	6	0%	
8-24 Hours			8	21	1%	
24-48 Hours			1	8	1%	
48 + Hours				1	0%	

* Patients Currently Admitted includes all patients transferred to another IP Psych facility after staying more than 8 hours in a Vermont ED (697 patients), and patients waiting and ultimately admitted at UVMHC and CVMC (301 and 26 respectively). We expect that numbers for Rutland and Springfield will be similar to CVMC.

Simulation Results: +26 IP beds >55% reduction in patient hours* in EDs



Vermont Acute Care Hospital ED Psych Volumes with New Beds Added



Combined Outpatient ED Change - Brattleboro, CVMC, Rutland, Springfield, Southwest, and UVMHC

Excludes impact of patients admitted to same hospital

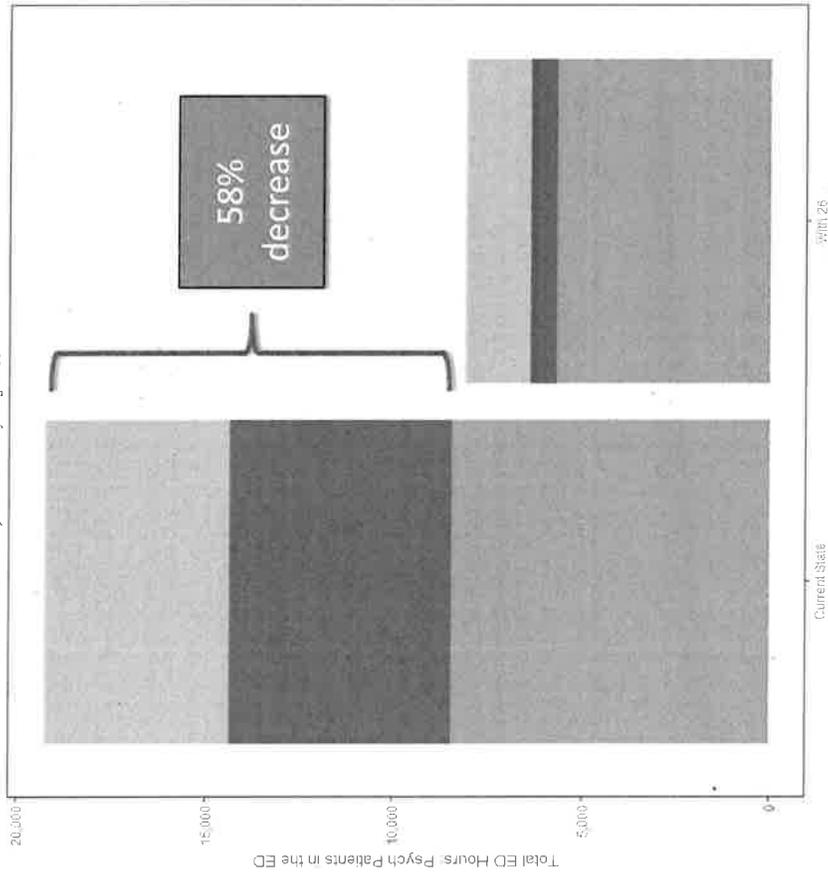
Patient Disposition	Patients Affected	Patient Hours in ED		Change
		Current State	26 Additional Beds	
Admitted: New Bed	478	31,410	2,268	-79%
Admitted: Transfer	810	59,973	6,480	-46%
OP ED	4,865	91,382	32,335	-55%
Grand Total	6,153	91,382	41,083	-55%

* Does not include reduction in wait time for patients admitted to IP bed in same facility due to data availability.

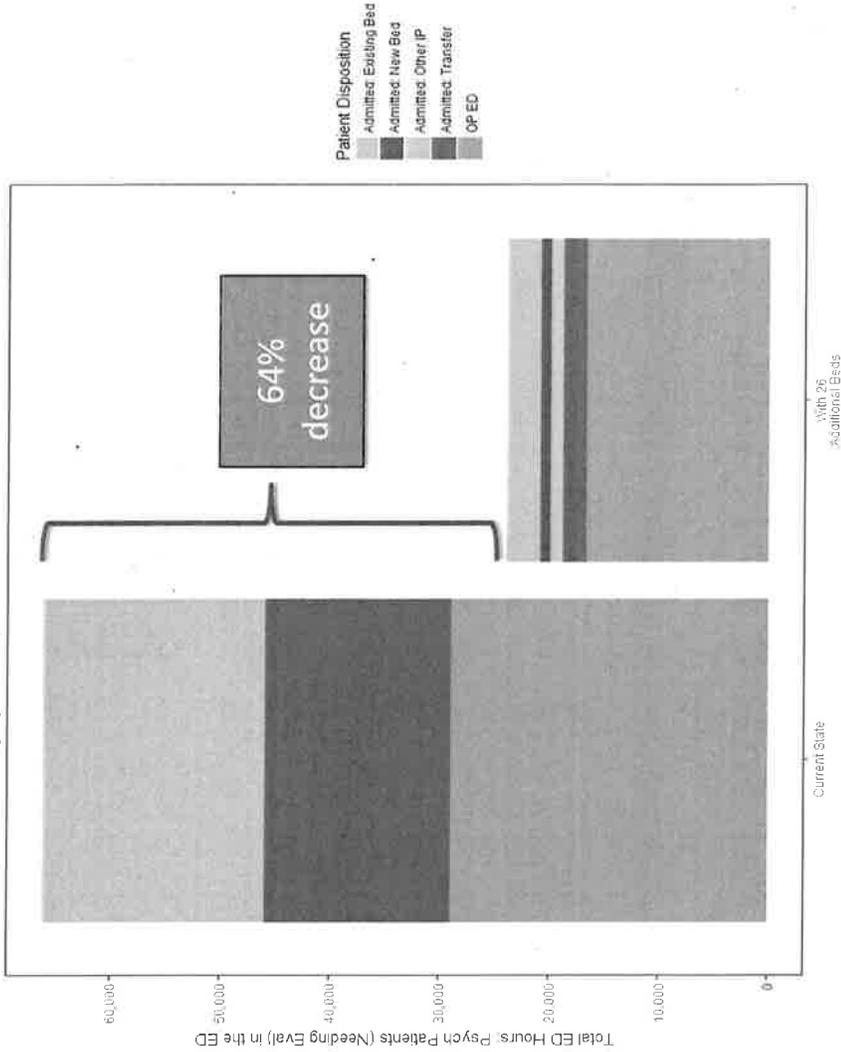
Simulation Results: +26 IP beds ED Impact – all psych ED patients at CVMC + UVMMMC



CVMC ED Psych Volumes with New Beds Added
Total Annual ED Hours For Patients with Psychiatric Primary Diagnoses

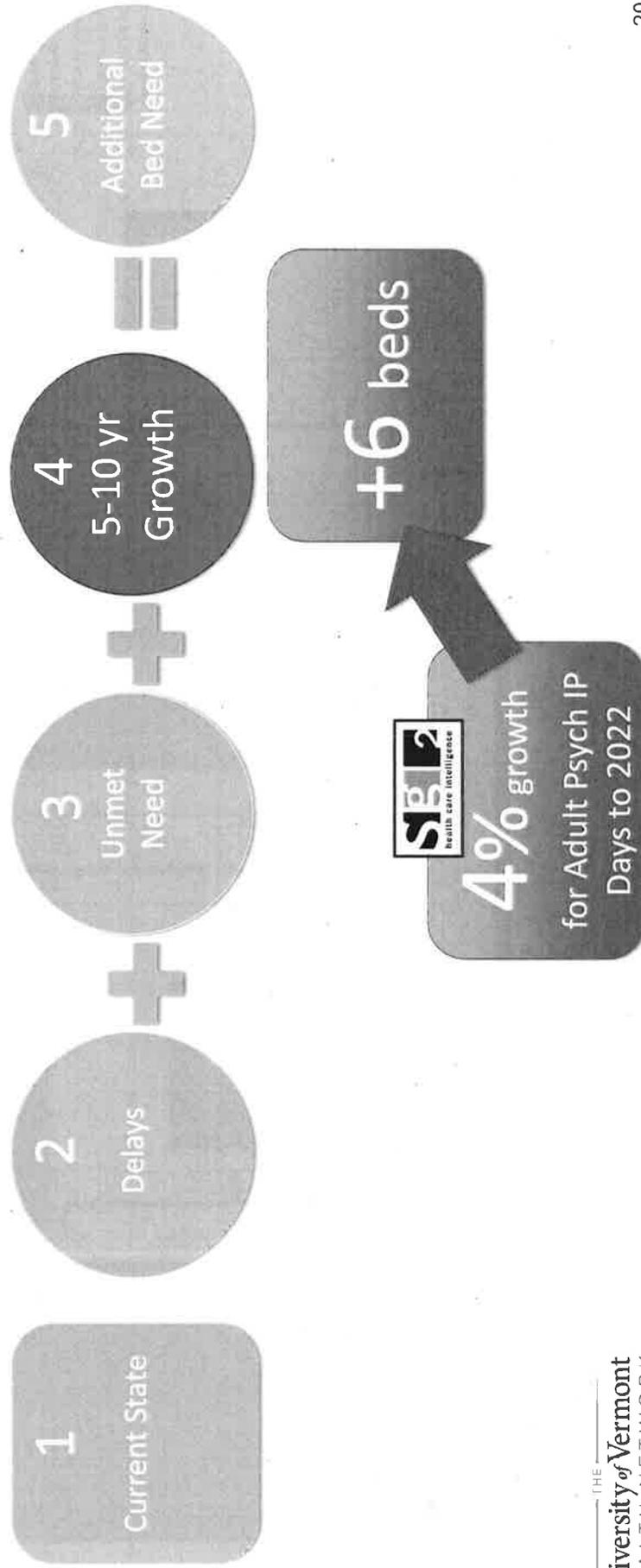


UVMMMC ED Psych Volumes with New Beds Added
Total Hours in ED for Patients Needing Psych Evaluation

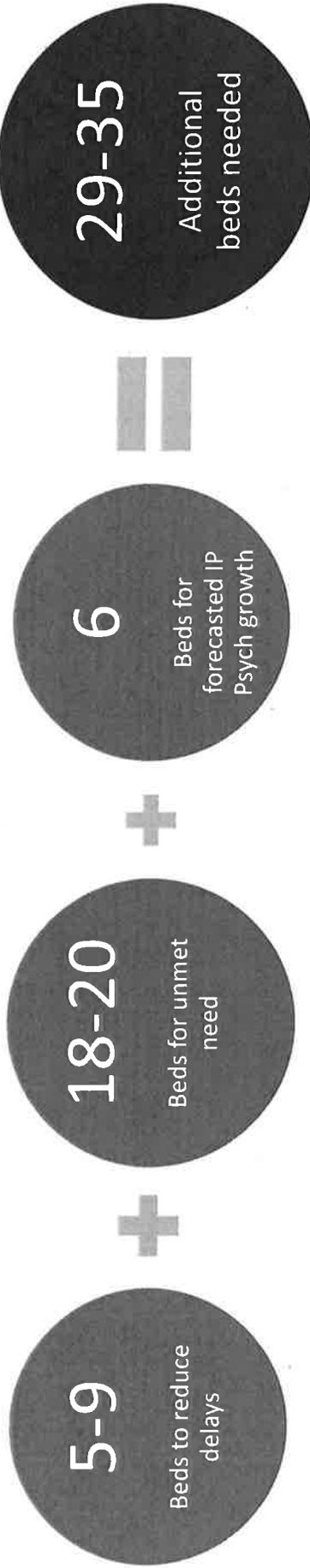


Patient Disposition
 Admitted Existing Bed
 Admitted New Bed
 Admitted Other IP
 Admitted Transfer
 OP ED

Forecasted Growth for Adult IP Psych



Estimate of Additional Bed Need



Next Steps

- **IMD Considerations**
 - VPCH and Brattleboro Retreat beds over IMD max
 - CVMC psych bed limit
- **Bed Programming/Allocation**
- **VPCH future state**
- **Facilities Planning**
 - Space/programming plan
 - Integration with CVMC Master Facilities Plan
- **Financial Impact**
 - Capital Needs
 - Operating Plan/Financials

Thank you!

