THE UNIVERSITY OF CHICAGO HOSPITALS

CAPITAL BUDGET AND CONTROL

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July 29, 2014

Mr. Michael Constantino
Health Facilities and Services Review Board - 2nd Floor
525 West Jefferson Street
Springfield, Il. 62761

In Re: Correction to Project Number in Letter Dated July 25, 2014

Dear Mr. Constantino:

We noticed an error we made in identifying the project number for a communication related to Project #14-013 Relocation of Beds to CCD. We indicated Project #14-031 which is for our project for modernizing our LDR. The correct project number for the letter of July 25, 2014 (first page attached for your reference) is 14-013.

Please let us know if you need anything further.

Sincerely,

John R. Beberman
Director, Capital Budget & Control

THE UNIVERSITY OF CHICAGO MEDICINE

Sharon O'Keefe
President

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July 25, 2014

Via Overnight Carrier

Ms. Courtney Avery
Illinois Health facilities and Services Review Board
525 West Jefferson, 2nd Floor
Springfield, Illinois 62761-1146

Re: University of Chicago Medical Center
Supplemented Information
Project No. 14-031 (the "Project") Should be 14-013

Dear Ms. Avery:

We would like to take this opportunity to supplement our application to respond to board questions that arose about our Project at the meeting on July 14, 2014. While we at UCMC see the profound benefit this Project will bring in the care that we provide, our 4-2-3 Intent-to-Deny vote, although close, shows we did not convey the importance of this Project as well as we would have hoped.

By this supplemented material we hope to address questions raised during the Board discussion at the July meeting, including the fact that, like almost all other hospitals, our historical utilization has been less than 88%.

We have a pressing need to modernize our medical-surgical beds currently located in the Bernard Mitchell Hospital ("Mitchell") building. The questions raised by the Board seemed to focus on two matters (i) why the beds would need to be modernized and relocated to shell space in our nearby Center for Care & Discovery ("CCD") building, and (ii) while not adding any medical-surgical beds, whether we retain the correct number of beds based upon historical utilization. In addition, we also want to provide information to address other questions raised by the Board.

A. Why the Beds Must Be Modernized

Our Mitchell Hospital building is 31 years old. Even if we do not build out shelled space in the CCD as proposed in this Project, we would have to modernize a substantial portion of Mitchell for its long-term use for patient care. Minimally, we would need to make the patient rooms larger to comfortably house the modern technology necessary for patient care, the number of providers who all work at the bedside in a teaching hospital, and the patients' families and other visitors. In addition, wide-spread improvements to the building's infrastructure would be necessary to maintain a large and long-term, patient-care footprint in Mitchell, including upgrades to the communication, vacuum, electric, and HVAC systems.

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The cost to renovate Mitchell, including enhancements to the building's aging infrastructure, would be $224 million. Due to the intensity of the renovations, UCMC would have to vacate all floors of each of the four wings during the construction, which would result in the loss of at least 60 beds at a time over a four (4) year period. We knew we had to evaluate other options because of the cost and disruption to patient care associated with a large-scale modernization in Mitchell.

B. Why the Proposed Beds should be Located in the CCD

Seven years ago, this Board approved our application for the CCD. In recently occupying the CCD building we moved the core of our hospital services from Mitchell to CCD, although hospital functions continue in Mitchell. As part of the CCD project, the Board approved shell space on the third and fourth floors with the future intent to serve as clinical space. We continue to believe that the use of the shell space for this Project is superior, both from the financial and clinical perspectives, than any of the other options considered.

1. CCD is the Best Location Clinically for the Modernized Beds

With the opening of the CCD, we currently operate our adult hospital in two primary buildings, with approximates 2/3 of the beds in CCD and 1/3 in Mitchell. In considering the best alternatives for modernizing these beds, we carefully evaluated the costs and benefits of Mitchell vs. CCD. At the July meeting, one board member complimented our application for its thorough discussion of alternatives to the Project, including careful consideration of the renovation of Mitchell. As part of this analysis, we found that a large-scale modernization in Mitchell would be more costly and disruptive to patient care.

The Project would enable us to locate 92% of UCMC's adult beds in the CCD, excluding obstetric beds, which means that our patients requiring the most acute care will be in close proximity to the advanced diagnostic, treatment and ancillary services in the CCD. In addition to these important clinical adjacencies, the Project would reduce the inefficiency of large-scale operations in two separate buildings. In contrast, even with a more costly renovation, the results in Mitchell would be suboptimal. A renovation in Mitchell would not be able to overcome the challenges of operating adult inpatient beds in buildings separated by 1500 feet and two elevator rides, which means long travel times for physicians and long transport times for patients travelling to and from the operating rooms, invasive cardiology laboratories, and GI procedure rooms. The proposed Project would reduce these transport times from patient rooms to the operating rooms from more than 15 minutes to approximately five (5) minutes. *See Figure 1.*

2. Constructing the Modernized Beds at CCD Rather than Mitchell is a Lower Cost and Better Construction Value Project

The proposed Project to develop shelled space in the CCD would cost $123 million, significantly less than the total project cost for Mitchell. While the absolute number may seem high, the costs are necessary to develop the shelled space for patient care. The shelled space is truly a vacant "shell" with no improvements except for code-required fire safety. *See Figure 2.*

There are no interior room walls, no ceilings and even the bare unfinished flat floor will require an additional two-inch top coat. There is no electrical distribution system, chiller plant or hot water capacity, air handling units. All data, communications, nurse call, fire alarm systems, and temperature control systems will need to be extended to the floors and two new elevators would need to be added to handle the additional building occupants.

C. Why We Need to Retain all the Beds Proposed

Our Project does not propose to add any additional medical-surgical beds. One year ago we came before you and received approval to reactivate 38 beds previously closed in the Mitchell building. This was an interim step, involving a minimal capital expenditure, and we were open with the Board that we needed a long-term solution. At the time of that approval, we demonstrated to you that we needed those beds to overcome critical capacity constraints in our medical-surgical beds and in our Emergency Department ("ED"). Because of these bed shortages, our ED was forced to go on by-pass ("diversion") more than we, the community, IDPH or the EMS system desired. The record over the last year has shown that your approval of the new beds and our full utilization of them has remedied the diversion problem.

At the July meeting, questions were raised by some Board members about whether the current number of 338 medical-surgical beds was justified, in large part because the State Agency Report ("SAR") indicated our utilization of this bed category over the past two years only justifies 304 such beds. We wish to address these questions.

1. UCMC Utilization Exceeds Average Hospital Utilization.

The State's utilization standard for medical-surgical beds is quite high. A survey of the most recent available data shows that of the 37 Illinois hospitals with 200 or more medical-surgical beds, only two meet this historic standard. Within this same category, UCMC had the 9th highest occupancy rate of hospitals in Illinois for CY2012. While we, like most hospitals, did not meet the State's historic utilization standard, our utilization has been robust and is growing. Since our last meeting, we have been able to compute more recent utilization data, which shows that the average occupancy of medical-surgical beds for all of FY2014 was 84% based upon the 6 am census, our peak census of the day. In addition, from the time when UCMC fully activated the medical-surgical beds on March 31, 2014, through June 30, 2014, the bed category has been at 89% occupancy based upon a 6 AM daily census. *See Figure 3.*

2. Because of Utilization Growth the SAR Had a Positive Finding on Projected Utilization

Importantly, under CON standards, the justification of beds is determined not just by historic utilization but also projected utilization, for which we had a positive staff finding in the SAR. Over the past four years, our medical-surgical bed days have grown strongly by an average of 6.3% per year. We expect a continuation of this trend to produce a utilization rate of the required 88% by September 19, 2017, the projected completion date of the Project. The Board's regulations require that our application include a letter from the CEO providing

assurance that the Project "would meet target utilization by two years after the Project completion date." We expect to achieve this utilization rate two years sooner than is required under the CON rules and, in fact, have been achieving this rate in recent months.

3. Reducing Beds Would Increase ED Diversion

Because of the Board's discussion about the number of our medical-surgical beds, we reviewed the implications of reducing these beds from 338 to 304, and the impact for our patients and our community would be considerable. Unlike many hospitals, all of our licensed medical-surgical beds are staffed, and we have no reserve beds. If we had only 304 medical-surgical beds, UCMC would have had an average utilization of 93% for FY2014 based upon our 6 AM census. Based upon an analysis of our recent UCMC data, our Adult ED is three (3) times more likely to go on diversion when medical-surgical beds start the day at 88% utilization or higher. In fact, a shortage of beds is a primary reason to go on ED diversion or bypass. When medical-surgical beds are not readily available to receive admissions, patients need to wait in the ED until a bed is available, which creates a 'bottleneck' that effectively reduces our ED capacity.

With the 338 medical-surgical beds that the Board approved, we have been able to manage diversion and have maintained a diversion rate of about 1% since they were put into use. In fact, the Board recognized this achievement at the July meeting and one Board member praised our operational effort that went alongside the additional beds to achieve this outcome. Based on volumes of the most recent 12 months, with 304 medical-surgical beds, UCMC would have been on diversion between 15% - 17% of the time, an unacceptably high number for our community, our peer hospitals, and the EMS providers that support our region. Diversion means reduced access to the patients we serve. Over 77% of the Adult ED's patients are from the South Side community. *See Figure 4.* Forty eight percent of these patients are medically indigent based on coverage by Medicaid or self-pay status. Additionally, of the patients admitted through the Adult ED as inpatients to UCMC, sixty nine percent are from the South Side. Clearly, a reduction in medical-surgical beds and additional time on diversion would negatively impact our South Side community. The great improvements in reducing our diversion have been very important to the regional EMS System as well.

4. Recent Utilization Shows UCMC often at Capacity

Despite opening 38 medical-surgical beds this past Spring, UCMC frequently faces bed shortages due to continued growth and demand for highly specialized services. In fact, on July 14, 2014, the day of the last hearing, UCMC had to go on diversion because of the influx of ED patients and the lack of available beds. Additionally, although we generally find lower volumes in July, the recent week ending July 19th found Medical/Surgical utilization at 93% based upon the 6 am census. *See Figure 5.* A reduction in our medical-surgical bed inventory to 304 beds would significantly exacerbate these capacity issues.

5. SAR Recognizes High ICU Utilization and Planning Need

With this Project, we also propose to expand out licensed number of ICU beds by 12 to handle high patient use in this bed category. Planning Area A-03, the Chicago South Side, has experienced a calculated shortage of ICU beds since 2008, now numbering 9 beds. We propose an increase to mitigate this deficiency and to accommodate future growth and have the historic utilization to justify this increase. For our fiscal year that just ended June 30th, average occupancy of UCMC ICU beds was 75 percent based upon the 6 AM census, which well surpasses the State standard of 60 percent and optimal clinical efficiency. *See Figure 6.*

D. Response to Other Board Questions

Several members had questions which appeared informational rather than relating directly to the approval of the project. We are including additional information regarding these questions.

1. *How closely located are the Mitchell and CCD Building and what is the travel time between the two buildings?* Both buildings are located on our campus approximately 1500 feet apart, The attachment shows the patient transport time of approximately 15 minutes (to move the patient) between the two buildings. We have included a map of our medical campus, identifying the location of these buildings, for the Board's review. *See Figure 1.*

2. *What is the condition of the shelled space in the CCD?* We have included a photo of the shell space for the Board's review. As can be seen, there is no ceiling, flooring, electrical, plumbing, or heating. *See Figure 2.*

3. *How will it be decided which patients go into the new CCD and which patients will to Mitchell*? As stated earlier in this letter, the development of the shelled space in the CCD would enable us to accommodate 92% of all of our adult patients, which would represent our most acutely ill patients who require ready access to the ancillary resources available in CCD. Patient room assignments would be based on clinical and operational conditions such as specialty staffing and acuity and would not be based in any way on payor source.

The SAR also noted that the square footage for the medical-surgical beds is slightly over the state standard. Three patient-care factors explain this variance: (1) We provide two isolation rooms per patient care unit, where one per unit would be standard, and these isolation rooms require more space than a regular room; (2) each medical-surgical room also has a shower, which is not required by code: and (3) we added a nurse work alcove outside the patient room to respect patient privacy, which is included in the room square footage. We have included a photo of a medical-surgical room in the CCD for the Board's review. *See Figure 7.*

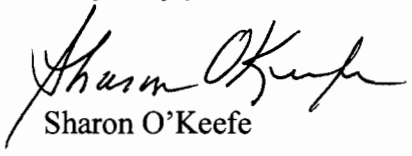
E. The Project is Essential to UCMC's South Side Community

Our capacity constraints and need for modern facilities come at a precarious time in health care delivery in Chicago's south side, which has seen its hospital inventory contract by more than half over the past 25 years.

The request to build out the shelled space in the CCD is an essential next step in a multi-year plan to transform or, as appropriate, transition from, existing space in a manner that is cost effective and least disruptive to the delivery of patient care and to best match the use of our medical campus to existing demand for health care in the community. We have already demonstrated that operating 338 medical-surgical beds has been a critical factor in reducing diversion and improving the performance of our Adult ED. With this Project, we strive to build upon these early successes not just through the continued use of our medical-surgical beds, but also with the addition of ICU beds to alleviate the planning area's shortage and the operation of dedicated observation units.

Thank you for the opportunity to more fully and clearly present our project. We have tried to respond quickly and thoroughly to questions received at the July Board meeting with the hope that the Board can consider our project again at its August 27 meeting. We look forward to working with you to fulfill our mission.

Very truly yours,

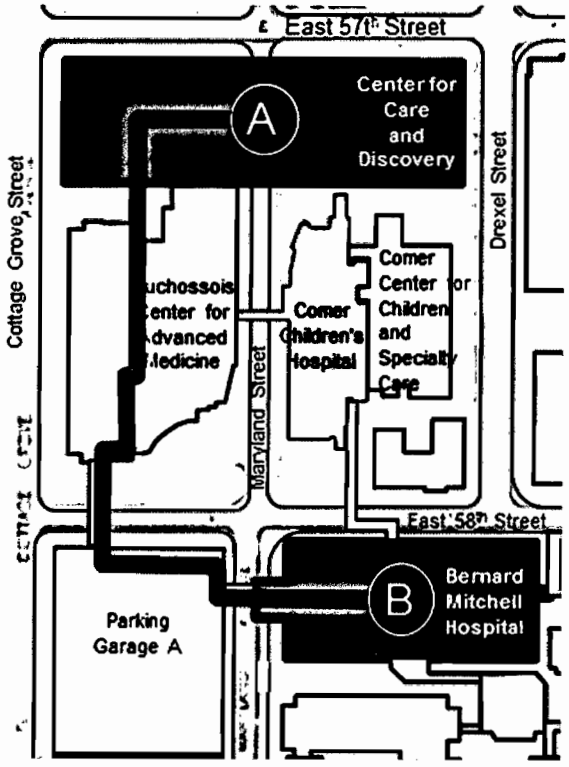


Sharon O'Keefe

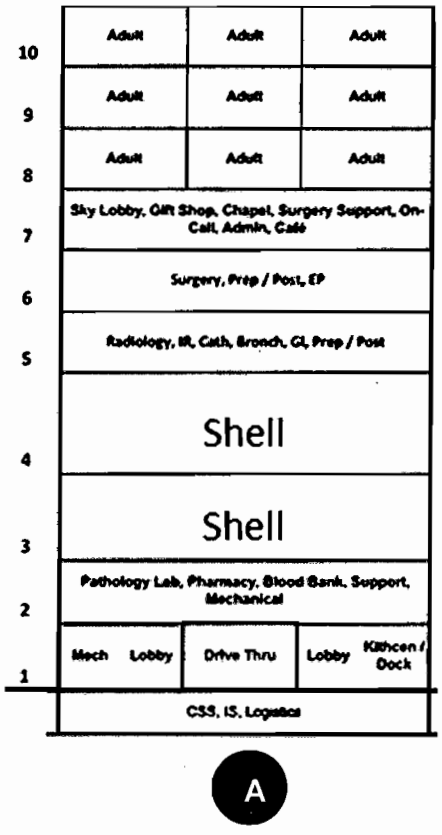
President

Figure 1

Current layout of the medical center results in over 15 min. travel times from Mitchell beds to ORs and procedure rooms in CCD



Relocating beds to shell space in CCD would reduce travel time to ORs and procedure rooms to less than 5 minutes



A **Center for Care and Discovery:**
Constructed 2013
Adult IP, ICU, OR Platform

B **Bernard Mitchell Hospital:**
Constructed 1983
Adult IP, ICU

Path of Travel

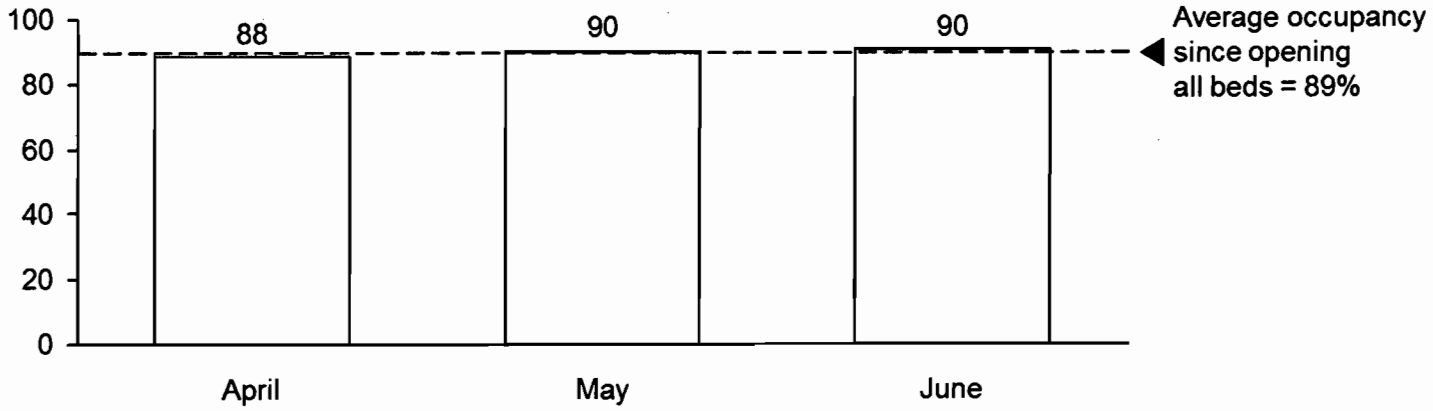
Figure 2

Shell Space in CCD

Figure 3

Since new Med/Surg beds were activated in April, Med/Surg beds have been at 89% occupancy

Average Occupancy of Med/Surg Beds



	April	May	June
Med/surg bed base	338	338	338

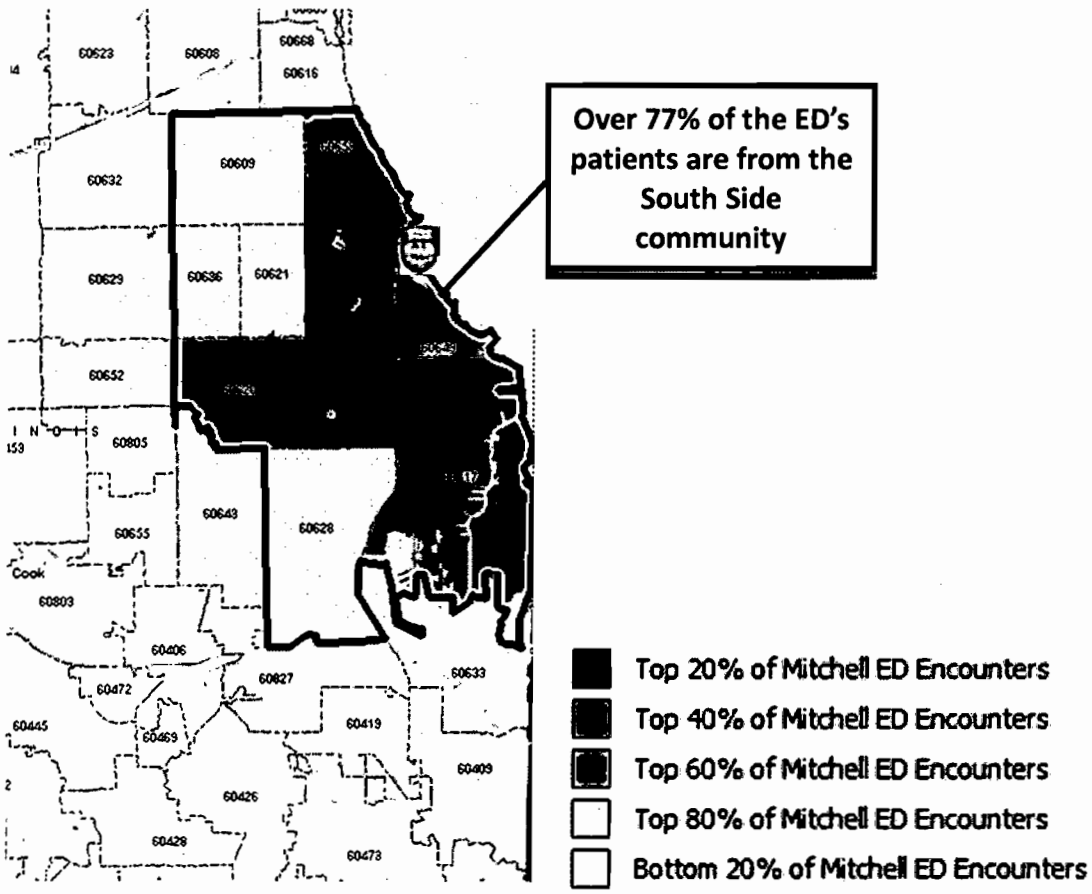
Despite not having all 338 beds open, average occupancy of Med/Surg beds for all of FY14 was 84%

Note: Based on 6AM bed census daily
Source: UCM Admissions, Discharges, and Transfers data

Figure 4

UCMC's adult ED primarily serves the South Side community

Adult ED Patient Origin (FY14)



- Time on diversion negatively impacts the South Side community
- In FY14, the adult ED had over 51,000 visits with an average daily volume of 140 patients
- Over the week of July 14th, 162 patients were seen per day in the adult ED, with the peak being 184 patients

Source: UCM Patient Billing Data (FY14)

Figure 5

Despite adding 38 beds in 2014, UCM frequently faces bed shortages due to continued growth and demand for highly specialized services

Snapshot of a recent week: Percent occupancy across UCM IP units

Weekly average occupancy	Week of 7/13 – 7/19 @ 19:00
CCD ICU	95%
CCD Med/Surg	95%
Mitchell ICU	88%
Mitchell Med/Surg	91%
Total ICU	78%
Total Adult Med/Surg	93%

Snapshot of a recent week: Admission, visit & transfer volumes, diversion time

	Week of 7/13 – 7/19 @ 19:00
Average previous day IP admissions (adult)	81
Average previous day discharges (adult)	85
Average previous day OR cases (adult)	55
Average previous day ED visits (adult)	162
Average previous day transfers-in (adult)	9
Average outside transfers waiting for bed (adult)	3
Average patients waiting in ED for bed (adult)	2
Total time-on-diversion (hours)	9 hours

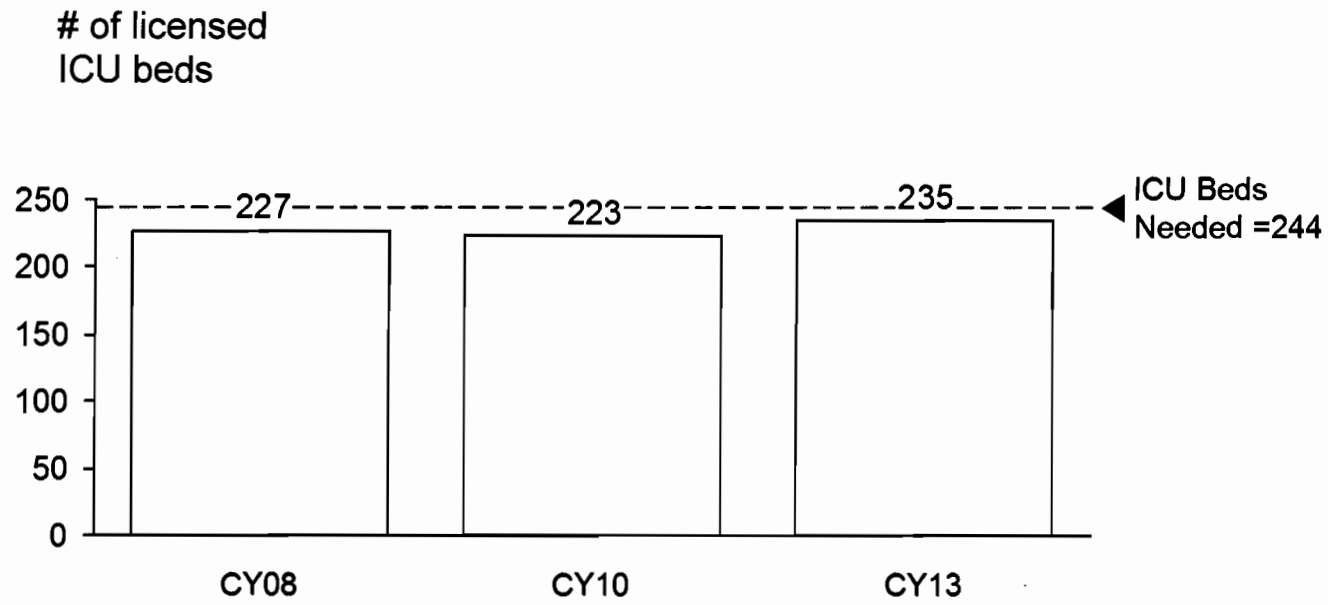
Note: UCM has only been on diversion for 1.19% of the time over the last 3 months. UCM had to go on diversion from 5pm-2am on 7/14 due to the lack of available beds and the influx of ED patients

Note: Mondays are typically low volume days at the Medical Center, on 6/11 the UCM Adult ED had to go on diversion for the fist time in 80+ days
Note: % occupancy shown includes both inpatients and observation patients that are currently in the med surg / observation beds and ICU beds shown

Figure 6

The ICU bed category is still underserved in Planning Area A-03 and UCM ICU utilization was 75% in FY14 exceeding the state standard of 60%

Licensed ICU Beds in Planning Area A-03



UCM's overall average ICU utilization was 75% in FY 14

Note: Based on 6AM bed census daily
Source: UCM Admissions, Discharges, and Transfers data, IDPH Hospital Profiles

Figure 7

Patient Room in CCD