Maricopa County Special Health Care District
Board of Directors Bond Advisory Committee Meeting
Maricopa Medical Center
Auditoriums 1 and 2
July 8, 2013
2:30 p.m.

Voting Members Present:	Bill Post, Chairman Lattie Coor, Ph.D., Vice Chairman Tony Astorga – *arrived at 2:46 p.m.* Paul Charlton Kote Chundu, M.D. Nita Francis – *participated telephonically* Merwin Grant Doug Hirano Diane McCarthy Rick Naimark – *participated telephonically* Brian Spicker – *arrived at 2:38 p.m.* Ted Williams
Absent:	Frank Fairbanks Terence McMahon, Ex-officio, Director, District 5 Joey Ridenour
Others/Guest Presenters:	Jared Averbuch, Kurt Salmon Larry Sterle, Kurt Salmon Rob Farr, Kurt Salmon Betsey Bayless, MIHS, President & CEO Susan Doria, MIHS, Vice President of Strategic Planning Warren Whitney, MIHS, Chief External Affairs Officer
Recorded by:	Patricia Schultheis, MIHS, Assistant Clerk of the Board Melanie Talbot, MIHS, Executive Director of Board Operations

Call to Order

Chairman Post called the meeting to order at 2:36 p.m.

Roll Call

Ms. Talbot called roll. Following roll call, it was noted that ten of the fourteen voting members of the Maricopa County Special Health Care District Bond Advisory Committee were present, which represents a quorum. Ms. Francis and Mr. Naimark participated telephonically. Mr. Astorga and Mr. Spicker arrived shortly after roll call.

Ms. Talbot announced who was participating telephonically and who was present in the room.

Call to the Public

Chairman Post called for public comment. Ms. Talbot indicated no speaker slips were submitted.

General Session Presentation, Discussion and Action:

1. Update on Bond Advisory Committee's Project Process, Deliverables and Timeline

Mr. Averbuch recapped the last few Committee meetings involved setting the context of what is happening in healthcare and what is happening in the environment in order to lay the foundation moving forward. The meeting today will focus on transitioning into the assessment component, or Phase II. Kurt Salmon staff toured the Maricopa Integrated Health System owned facilities and completed a facilities condition assessment on the current condition and functionality of those facilities.

The timeline consists of two projects in parallel, working together. One is focused on the facilities condition assessment and the other is the strategic planning process that is feeding input into the Bond Advisory Committee's process.

Chairman Post asked how the Committee would arrive at determining the proper amount of capital and the criteria for capital, meaning what criteria will be used when determining the right amount.

Mr. Averbuch stated the foundation would be laid out when the Committee looks at what the current state of the facilities and what potential future needs are. The strategy will then start to develop as questions are arising: how much volume is needed; what services will be offered and at which locations i.e. at the Family Health Centers or at Maricopa Medical Center. These components will be pieced together to understand what the facility picture will look like going forward and then a capital dollar amount will be associated with it.

Mr. Sterle added that they would begin with a gap analysis. Once the foundation is laid they will identify where the gaps form and why and then a projection will be formed relative to the gap. As a strategy is formed and future volume projections are made they will apply more contemporary planning models and test those against existing assets. At this point they will attach some scale and numbers around what it would take to serve the future.

Chairman Post questioned how restrictions to capital would be balanced around how much was enough.

Mr. Sterle added that one way to approach the question was to apply scale and theory of what is needed in the future to serve the public and whether MIHS can afford to do it. For instance, can MIHS cash flow what is going to happen with health care reform and scale it accordingly. Decisions will have to be made and prioritized. That will come from the strategic planning process.

Chairman Post asked when future facility needs projections would be reviewed by the Committee.

Mr. Averbuch stated the Committee's primarily focus in August will be on the strategic component assuming a strategic plan has been approved by the Board of Directors by then. The Committee can then begin to weigh options from a facility perspective in September.

Chairman Post stated it is important for the Committee to be given the criteria and how the criteria will be benchmarked against other projects throughout the country in terms of where MIHS fits in terms of how much if can afford.

Mr. Averbuch stated one of the results of the current discussion would be whether or not there are assets that can be leveraged moving forward, or whether or not some assets are no longer of use. Those discussions will feed into the capital discussions.

2. Future Healthcare Environment and Special Health Care District Facilities Condition Assessment

Mr. Sterle outlined changes that have occurred in the last 40 years, since Maricopa Medical Center (MMC) was built, that have impacted the facility.

General Session Presentation, Discussion and Action (cont.):

2. Future Healthcare Environment and Special Health Care District Facilities Condition Assessment (cont.):

MMC was built in 1970 and much has changed. There have been changes in medical technologies, such as imaging: MRI, CT, PET scan, and electronic health records. Those did not exist when MMC was built. How information is used and moved has changed drastically, along with its impact on the environment. Additionally, legislative factors (HIPAA/privacy, Americans with Disabilities Act, health care reform) and new clinical factors (diseases such as HIV/AIDS, drug resistant infections, MRSA) have come into play during this time. Length of hospital stays has been shortened; the ability to extend life and intervene earlier has increased; quality of life has improved with implants. All of these items are recent trends.

Private rooms have become very much the norm and even semi-private rooms are being phased out. Building codes do not really have a semi-private room option. The mantra is to build a private room unless you can prove a demand or a specific clinical need for a semi-private room. There is a lot more medical equipment around the patients; more complex patients present more challenges, one being fall risks. This is tough to manage in a multi-bed environment and much easier to arrange for in a private room with handrails to the toilet and all the support structures.

At UCLA Westwood, all of the ORs, Cath labs, and diagnostic suites, were organized around a single prep recovery platform. The space and same staff can be used more efficiently for prep and post recovery. This same model was implemented two years ago in Denver at St. Anthony Hospital. There is a lot of adaptability from an efficiency standpoint in terms of staffing and evolution of the hospital.

There are a couple of models applied when working with conversion of spaces. An example is being able to convert a general acute room into an ICU room, without having to rebuild the floor. A few rooms have to be eliminated since you need space for staff and equipment however, for the most part, the rooms stay in place and can be converted from one to the other.

Mr. Sterle reviewed examples of environmental responses to building infrastructure. For example higher HVAC loads, wireless friendly, greater electrical capacity, and technology cabling. An intelligent building would have an automated pharmacy, mater-controlled energy systems to be environmentally friendly (“green”) and have virtual clinicians.

MMC and CHC have good structures but do not include all of these items.

Maricopa Medical Center’s floor-to-floor heights are good however there is more demand. When you factor in more equipment, more technology and complexity into the equation you need buildings that can handle it. Buildings need to be run more efficiently. Healthcare industry firms are starting to outsource building operations, such as bulk purchasing of energy. Buildings built in the 1970s, like MMC, were not built for this. It was a much different environment.

Amenities have also been an environmental response and are increasingly important for healing, patient satisfaction, and family involvement. Amenities include access to internet, room services, designed family spaces, etc. When a patient gives a hospital high HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) scores it can affect reimbursement. Amenities mean more than just nice space. It has a clinical and potential reimbursement effect.

Mr. Sterle indicated in order to determine what type of planning standards to use going forward, Kurt Salmon will evaluate MIHS facilities’ current state against planning standards for future state.

General Session Presentation, Discussion and Action (cont.):

2. Future Healthcare Environment and Special Health Care District Facilities Condition Assessment (cont.):

He gave a few examples from a space standpoint:

- MMC's Surgery Department is at about 2,500 Department Gross Square Feet (DGSF) per operating room (OR). The Department includes the OR, prep/recovery beds, nursing space, anesthesia space, everything that goes on within the department, corridors and walls. The entire department is divided by the number of ORs which results in just under 2,500 DGSF per OR. Today's standards range from 3,200 to 3,500 DGSF due to more equipment, surgeries that are more complex which takes more staff, and the shift to ambulatory care which requires more patient prep and recovery so patients can go home the same day.

- MMC's ICUs are currently at 250-300 DGSF per bed. They should be at 800 to 900 DGSF per bed. It is crowded, tight and very difficult to serve the patients and this creates a risk. The ICUs are the most deficient of all the services in the facility, both inpatient and outpatient.

- The Pediatric Clinic located the in the Comprehensive Health Center (CHC) is at 415 DGSF per exam room versus the 600 to 650 DGSF standard range. It is common for pediatric rooms to be built small for small patients, however, family members come with the patient so more space is needed to accommodate them.

Mr. Spicker commented he understood the difference in terms of space and the needs today. He questioned if numbers would be provided to the Committee to represent what is needed for the future.

Mr. Sterle stated that would be provided after the strategic plan is approved and Kurt Salmon has had time to assess it. One item that will be shown is an evaluation of the throughput – how much the space is being utilized.

Mr. Farr stated MIHS staff has been very involved and engaged while Kurt Salmon toured the facilities. This resulted in a collaborative process and the teamwork will make for a stronger product and results.

He and Mr. Sterle toured the facilities in early spring with MIHS staff. Surveys were filled out by the MIHS facilities staff. The surveys were compiled, analyzed, assessed and reviewed with the facilities staff, other MIHS staff and the Board and now it is being reviewed with the Bond Advisory Committee.

Chairman Post asked if Kurt Salmon interacted with the individuals that actually use the facilities every day.

Mr. Farr stated when he and Mr. Sterle toured each facility, they did not always look into every room because they were being used by patient. However interaction with staff was favorable. Staff was very willing and able to share information and answer many questions.

Mr. Sterle added that there were two components to the tours. One was the building assessment itself. Second was gathering the functional and number data. This was a collaboration of the MIHS maintenance and engineering staff, along with the clinical staff and leadership.

Mr. Farr reiterated that they toured MIHS owned facilities and not the leased or rented facilities. The survey is a high-level observational survey. It is not a substitute for a detailed engineering study. They did not measure loads of the HVAC systems, etc. It is broad in its scope, with eight categories and 54 subcategories, each being looked at as slices in time. They are looking at the current use as well as the continued investment in current buildings. Questions about the future will be addressed later and the present review relates to the current state.

The survey includes eight elements: functional-structural; vertical circulation; electrical; life safety; ADA; IT; mechanical and exterior. The eight elements include a series of data points covering 80 broad categories and 54 sub-categories, represented with a rating scale of one to three.

General Session Presentation, Discussion and Action (cont.):

2. Future Healthcare Environment and Special Health Care District Facilities Condition Assessment (cont.):

A red-green-yellow scoring system was used: red meaning the building is not suited for continued current use; yellow means it is sufficient for continued investment in current use; and green meaning the building is a strong asset for the long-term investment, and/or has multiple uses. Facilities were given a numeric score as well.

Mr. Hirano asked if there was a time span associated to the designation of "not suited for continued current use."

Mr. Farr replied that there is no definite time associated to this, however, the building is certainly within five years of being obsolete.

Mr. Hirano asked if it was a potential liability, for instance, if the air conditioning fails and a patient does not have air conditioning.

Mr. Sterle stated the survey does not identify where legal liability stands. However, when operating a red building, it suggests there are things that have deficiencies and that may create liabilities. There could also be inherent liabilities in green buildings too. The survey does not provide the detail necessary to answer those questions.

Mr. Farr said that MIHS has four main facilities, three of which are located on the main campus (2601 East Roosevelt Street, Phoenix): the Main Tower, the Comprehensive Health Center (CHC) and the 2619 Building. Desert Vista, the fourth main facility, is located in Mesa. The main campus also includes the Administration building, the Laundry/Maintenance Building, the Hogan Building, and the 2611 Warehouse.

The majority of the four main facilities are yellow which is typical. It is very hard to have a green or red building so yellow buildings are the norm. The Hogan building, a small building located on the main campus, is yellow and red. The majority of the buildings are suitable for current use. Many times it is very difficult to score at the lowest or highest point on the scale so a yellow campus is quite typical.

The CHC ranked a 2.10. Although it was built in 1982, it was not until 1994 when it was finally maximized and every floor was used. Since the actual building has been in existence for 30 years, electrical, mechanical and other systems are coming up on their life cycle. Floor- to-floor height is an issue since it would be difficult to move the imaging equipment.

Vice Chairman Coor stated he was surprised at the yellow rating of the CHC building. When you walk through the space it looks like a very attractive, solid, effective, current state building.

Mr. Farr stated one of the components of the low rating is the electrical system which is almost thirty years old. Other systems in the building are reaching their life cycle capacity and need to be replaced.

The Main Tower is a 1970s building and its electrical is rated very high since it has been well maintained.

Vice Chairman Coor asked how they would be able to discern these types of things in the specific recommendations.

Mr. Farr explained the eight categories are all weighted the same. Functional, structural and vertical circulation accounts for two fifths of the equation. These are things are not easily changed and require a significant investment to change. It is very hard to add an elevator shaft to a building or change structural spaces.

The CHC ranks well and mechanical, electrical, IT and communication are easier to replace. It is a well-laid out building; the column spacing is sufficient; it can adapt and has, especially in terms of the waiting rooms and common areas which have been filled in as programs have been added.

General Session Presentation, Discussion and Action (cont.):

2. Future Healthcare Environment and Special Health Care District Facilities Condition Assessment (cont.):

The Main Tower is a well-maintained building. A very positive attribute in a 1970s building is to have an upgraded electrical system. Vertical circulation is the only place where the building does not perform well and this is due to approximately 40 years of elevator use. However, one component of the vertical circulation that ranks high is the designated access points for patient access and shared access.

Mr. Sterle added that the CHC is a well-structured building. Invested can be made for future use and as the process moves forward, they will quantify these categories and look at the capital needs.

The Main Tower looks good and of the differences between it and the CHC is the width of the columns. The Main Tower is graded well due to the great floor-to-floor heights and the lower level has a fair structure. However, when you get to the bed tower the columns are far apart. The beds are designed around this and it would be difficult to adapt those beds to all private rooms. For this reason some aspects of the building may be good but there is a question if it can be functionally adapted. Through the process, Kurt Salmon will identify where it is believed changes can and cannot be made and where to consider replacement or expansion options, versus investing into the existing structure and bringing mechanical systems up to speed.

Mr. Astorga commented that a similar study was done at Arizona State University with a lot of red ratings and the acceptance of change is a lot easier when you see red. He agreed with Vice Chairman Coor earlier comments that the CHC seems like it should rate green and he felt the Main Tower would rate more toward red. The public's perception of the facility conditions may be an issue when presenting the issue to the voters.

Mr. Sterle stated in their experience across the country, there are very few green buildings and if they are, they are usually new. Normally these buildings are seven years or less in age. It is not a surprise that the CHC isn't green. It was a bit of a surprise that the Main Tower rated as yellow as it did. The main reason for this is that the systems have been well maintained.

Mr. Sterle agreed it is more compelling to sell changes when a rating is red. He also stated that there are other reasons the Main Tower is a much more difficult building to work with and that will be reviewed later.

Ms. Bayless stated they have invested millions of dollars into the Main Tower in the past few years and if the survey had been done in 2005 or 2006 it probably would not look as good as it does now.

Mr. Charlton questioned what the definition "sufficient for continued investment to current use" meant for the yellow rating.

Mr. Sterle stated when they do the survey they think about the organization's facility assets in terms of whether to consider if the building is moving forward. The current rating of the Main Tower demonstrates there are some reasons to consider looking at its use in its current state or an alternative state going forward. It has amazingly good bones. This doesn't mean it is good enough to meet the future needs of healthcare or that it is fully adaptable to that. Additionally, if the building is red it doesn't necessarily mean you have to tear it down but you do not want to build your future on the building.

Dr. Chundu commented that the global assessment of the functionality of what is needed is going to play a major role. For example, in order to bring the SICU or MICU up to current standards it would need to be taken from ten beds down to two beds. Two beds are not enough to run the services so that adds another layer to the equation. Layers will be added to the global tool and that will determine what is truly red, yellow or green.

Mr. Sterle agreed with Dr. Chundu's description of the current state of the process. The potential building capabilities are shown and the piece that is not fully understood yet is the adaptability of the building. This will come later as each floor is reviewed and addressed.

General Session Presentation, Discussion and Action (cont.):

2. Future Healthcare Environment and Special Health Care District Facilities Condition Assessment (cont.):

Chairman Post asked, considering the facilities side, apart from the application side, if the job is done when the mechanical and electrical systems are brought up to speed and IT becomes wireless. With the current information being shown it appears there are only mechanical and electrical problems.

Mr. Sterle stated that was a fair assessment. Some investments could be made, along with ongoing maintenance, in order to make changes to the organization of the building to keep it going.

Mr. Farr stating they also toured all of the Family Health Centers (FHCs). The majority of the FHCs were constructed in the early 80's to early 90's. The majority of the sites, minus Mesa and Guadalupe are yellow/red. Avondale is yellow and Mesa and Guadalupe are red.

Something to consider in terms of the scoring is that the spaces are considered as clinical spaces within a main campus. For this reason the mechanical and electrical are rated more toward the red since there are some things missing in a FHC that you would find on a main campus, like backup emergency power. It is good to point this out even though if the test was revamped to more of an outpatient environment it probably would not move the lever very much.

Guadalupe's functional/structural capacity is not big enough. It cannot be expanded in its current building outline to accommodate any future growth or addition. Mesa needs repair of the main structural system which rates it a red. Again, functional and structural makes up a large percentage of the ratings. Even though there is some yellow present, it is not suitable for continued current use.

Avondale is one of the newer FHCs and ranks well. Opportunities are present, however, some of the room sizes are not up to par.

Dr. Chundu asked if the capacity utilization was outlined.

Mr. Farr stated they looked at the volume and space of each exam room and that information would follow later in the presentation.

Chairman Post asked how they measured the slope of the line to go from a red to a yellow. It appeared it was a lot easier to move some of them from red to yellow than others.

Mr. Farr agreed that some of the ratings do move between red to yellow more easily then others. The current picture is a slice in time and looks at Mesa as it was in April 2013, when it was toured. Kurt Salmon will have more strategic numbers and projections in the near future regarding what Mesa may handle but it will not be able to move to a yellow rating without significant repair to its functional and structural systems.

Ms. Francis asked if a survey of the demographic traffic use at the FHCs was conducted to ensure the facilities are located properly.

Mr. Farr answered that a survey of the demographic traffic had not been conducted yet. The current survey only looks at the functional and structural capacity of the building, the mechanical, electrical, etc. Market or strategic placement is not factored into the ratings.

As stated earlier, MIHS staff has done a good job making the best use of the Main Tower through renovations and investments. The first level was not originally designed to support the shift to a greater outpatient volume. The ORs are well sized and the prep and recovery spaces are very undersized.

The MRI and CT areas are located throughout the building. There is a trailer with an MRI located by the entrance to the Emergency Department (ED), far away from the surgical space and other activities. There is not a central location for all of the imaging.

General Session Presentation, Discussion and Action (cont.):

2. Future Healthcare Environment and Special Health Care District Facilities Condition Assessment (cont.):

The bed tower is not designed to transition to high acuity patients and increased technology. The layout is limited. The ability to convert to private rooms was tested and it can be done, however, the room sizes would be under the benchmarks.

There are several complaints in terms of parking, especially on hot days. There is a sufficient amount of parking on the campus however, with the location of the main entrance to the Main Tower being right in front of a major road is a negative. When patients drop off family members they enter through the side and back of the building and it is a little disorienting. Public transportation at the front door is a good thing.

If you consider a building that is yellow in terms of its future use it may be worth investing some money into the electrical or mechanical systems. These usually can be solved in many cases with some investments. On the other hand if you do not have enough room above the ceiling you may not be able to solve that issue. The planning process will consider these issues. It is a matter of taking the science of what has been evaluated and applying the art of planning to this to know where the best places are to invest dollars and why. This will be explained further as the planning process moves forward.

Mr. Naimark asked what percentage of the overall space in the facilities is owned versus leased space.

Mr. Sterle believed the majority of MIHS facility space was owned by MIHS.

Mr. Naimark commented that there is more flexibility in thinking about proper location of facilities for those that are leased, versus owned.

Mr. Sterle stated the discussion about distribution will be included in the strategic plan. A comparison will be made relative to the current and future locations. It may be determined that some of the less than ideal facilities may be worth investing in due to their location as opposed to just their condition.

Both DGSF and NSF were considered when Kurt Salmon evaluated the physical space of a department. They want to understand some key rooms, i.e. how big is an OR; how big is a room and compare it to planning standards.

There are a couple of ways to look at the space. One is in terms of throughput. Examples of this would be to assess how often beds are occupied; what is the occupancy percentage at midnight census; how many surgical cases go through OR in a year; the number of exam room visits per room, per day; how many imaging patients are being seen every year.

Varieties of factors were reviewed and can be indicators of constraints in a facility. There may be a small DGSF or NSF and a low throughput, which indicates that you cannot use the space efficiently. Sometimes there is plenty of space but not enough patients.

An example of the difference between DGSF and NSF is found in the Endoscopy Suite which has a 4,385 DGSF. Within this are the corridors, the walls, everything up to the departmental boundaries. NSF is anything you can walk in, inside the walls and that is the basis used to look at individual rooms.

The functional assessment summary of inpatient beds was used in two ways: unit/room assessment and patient days/volume assessment. A red-green-yellow-blue scoring system was used. When the color system is applied to the unit/room assessment, red means the space is greater than ten percent below target range; yellow means the space is within 10 percent of target range; green means the space is within target; and blue means the space is greater than ten percent above target range. An example of blue would be the Imaging Department because of how it is configured.

General Session Presentation, Discussion and Action (cont.):

2. Future Healthcare Environment and Special Health Care District Facilities Condition Assessment (cont.):

When the color system is applied to patient days/volume assessment, red means capacity has exceeded target and there is insufficient capacity available for current activity. Yellow indicates capacity is within target, however, there are limited growth opportunities. Green means capacity is below target and there are opportunities for growth.

There is a lot of red in the DGSF per bed rating which is based on patients in the room, staffing areas, equipment, storage, supply storage, pharmaceuticals. All of these things have become more intense over the years since 1970.

Most areas are undersized, to varying degrees, with the exception of the Adult Burn Unit. For instance the Adult ICU is worse than some other areas. Other areas are undersized relative to current AIA building codes. The NSF for four bedroom wards that have been converted to two bedrooms looks okay until you factor in that there is no toilet. With this in mind, it does not meet the standard for NSF for a semi-private room and the rooms are undersized.

It is not unusual to see occupancy ratings with a lot of green. Most all hospitals take census counts at midnight. Midnight occupancy is also used for planning percentages to account for seasonality and daytime room turnover. There are always more patients during the middle of the day versus midnight so there is some flexibility. Occupancy rates also vary depending on the type of unit.

Dr. Chundu commented that seasonality does play a part, for instance, in pediatrics. It might be green overall during the winter months when the incidence of RSV is higher. It averages out over time but needs to be considered. Another thing to consider is there may be a four-bed room that was rated green but not enough patients are filling out the patient satisfaction surveys, which brings the score down.

Mr. Sterle reviewed the percentage of private beds in the various MMC departments. The APCU was renovated but the rooms are very small, therefore, even though APCU West shows 100 percent private it does not necessarily mean it is a good thing.

Some of the patients may actually be elsewhere, in other beds, which may influence the rating. The study did not delve into the data required to understand where the patients are but the beds are being used very well, even if they are not being used in excess of 100 percent.

The SICU is rated red with no private beds. Current space is 249 DGSF per bed compared to the planning standards of 800 to 900 DGSF per bed. The NSF is also low at 219. This means on a per bed basis there is only 30 additional square feet per bed for staff, teaching, equipment and family.

The ICU is the most troubling area in relation to functional deficiencies.

Mr. Spicker questioned if the unit assessment standards were averages on a higher level in terms of industry standards.

Mr. Sterle replied no. Kurt Salmon authored a study about five years ago questioning whether healthcare was being supersized and they did see a trend this way. For this reason Kurt Salmon staff has backed away from this to ensure they do not follow the trend in making everything as big as possible. There are a lot of negative implications when you start to oversize things. For example if you make patient rooms really big it can affect walking distance for staff; operational costs to support a bigger building; and less safety if patients are too far away logistically.

Mr. Spicker asked if the standards used in the study were midpoint ranges.

Mr. Sterle stated standards are based on environments that do teaching, which MIHS currently does. For example the planning standard for and ICU bed is 800 to 900 DGSF. He has seen that go as high as 1000 DGSF. This is just too big and Kurt Salmon will not recommend going this high.

General Session Presentation, Discussion and Action (cont.):

2. Future Healthcare Environment and Special Health Care District Facilities Condition Assessment (cont.):

Chairman Post asked for clarification on how DGSF versus NSF is calculated. For example, would a good comparison be in the Burn Unit where approximately a third of the DGSF is NSF?

Mr. Sterle with regard to the Burn Unit, the room size is not quite where it should be. If it was being planned from scratch the patient room and toilet, which is what is in the 222 square feet, should be about 300 square feet - the DGSF would be pretty close to that mark. An ICU would be more in the 800 to 900 square foot range. What changes with ICUs is the amount of staff and activity around the patients so there is a need for more places to work outside of the patient's room.

Dr. Chundu suggested since it is a Burn ICU, 1000 square feet is more appropriate due to the equipment it has versus a regular ICU, such as tub rooms, extra supplies, etc. If the Burn ED is included in the square footage what would happen if you subtract this square footage as well as that for the tub rooms and all the dressing changes, etc.?

Mr. Sterle stated this would actually push the square foot number closer to 900. Generally, the ratio is about right. Currently, builders would not build a bedroom with a toilet at 222 square feet due to code requirements. There needs to be a fully accessible toilet, not just ADA accessible.

Dr. Chundu stated he knew the current presentation was regarding data only and asked if it was possible for the presenters to also comment on what the future is going to be like. Even though it is a strategic issue, it would be helpful if they could comment on how space needs are changing based on the future changes in healthcare.

Mr. Sterle stated one way to think about it is to take one part of the building and ask, "What it would be if it was rebuilt in contemporary standards today?" If you were to rebuild it from scratch with the same number and type of beds, and the same mix of ICU and general Med/Surg, it is about 30,000 square feet short, which is significant.

Dr. Chundu commented since MMC is an inner city, public teaching hospital, the types of patients that will be seen in the future will be sicker with more ICU type of patients as opposed to community hospitals' regular asthmatics. It will be important to consider this as the planning process goes forward. Where will MMC be ten to twelve years from now? The 10-bed medical ICU may need to be 40 beds and maybe there will be less floor beds. These things will be important to know, not at the present meeting, but as the planning process moves forward.

Mr. Averbuch added there is another layer which will factor into the strategic planning perspective and that is, what programs to begin to invest in; how distributed to be; where to provide services in the future. All of these things have a facility component to them.

Mr. Sterle stated regardless if you are a facility like MMC or any hospital, hospitals are seeing greater levels of acuity and more critical patients. In general, they have seen hospitals move from about seven to eight percent in ICU, to between 20 and 30 percent. Some of this depends on how the beds are used. If a hospital has an ICU, a step-down unit and general Med/Surg, more of these are going to ICU, with everything being telemetry capable. The telemetry and sicker patients are in the hospital.

Mr. Sterle reviewed the Pediatric Med/Surg, PICU, NICU, and Labor and Delivery (L&D) inpatient data. There is a low occupancy and a large part of this may be more volume-related relative to the numbers of available spaces for patients as opposed to the building limits of what can be put there. With regard to the NICU, volumes are dropping. Second, the standards used in the analysis do not include an all-private room model.

General Session Presentation, Discussion and Action (cont.):

2. Future Healthcare Environment and Special Health Care District Facilities Condition Assessment (cont.):

Another matter to consider with the NICUs is the room type. For a long time standards called for private beds. Studies are now suggesting that babies do not thrive as well as when there is a little noise so private beds may not be the best thing. These studies suggest that the environment of the NICU is quieter than it is in the womb and that children do not have any stimulus. The preferred room type is not a completely open room but more of a three or four-bed pod environment.

Mr. Hirano asked if you convert the non-private rooms to private rooms if there would be fewer rooms in the rating and the green areas would have greater occupancy.

Mr. Sterle stated this was true however other problems would result. This conversion would work in some areas and not in others.

Mr. Charlton commented that he was trying to get at this same idea in his previous question and asked for more details as to why it would not work. For instance why in pediatrics could you not convert all semi-private rooms to private rooms and increase the occupancy rate from 43 percent to 100 percent.

Mr. Farr stated there may be some confusion on the occupancy being per bed, not per room.

Mr. Charlton asked if you convert every semi-private room in the pediatrics and medical surgery area into private rooms the occupancy will increase, therefore, how is it inefficient.

Mr. Averbuch stated occupancy is based on the number of beds, not on the number of rooms.

Mr. Sterle commented that in doing the conversion you may need to reduce the number of beds in order to make it efficient.

Mr. Charlton explained his example did intend that the number of beds would be reduced to one bed per room and therefore, the occupancy rate would go up.

Mr. Sterle stated if this could actually be accomplished it would be efficient. The test is if this would actually work. Can you do this and end up with a unit that is staffed appropriately, efficient and safe? This is when other things will need to be considered such as capital availability, prioritization and the net effect of the demand.

Dr. Chundu stated that there is an issue of seasonality too. More children are sick in the winter months. From late November to late March or early April, all the beds are full. The only way to occupy the pediatric beds in the summer months is with elective surgeries. Since MIHS does not have high-end elective surgeries like orthopedic, spine and neurosurgery, there will be empty beds in the summer months. If you convert the beds to private, there will be a bottleneck in the winter months.

Mr. Sterle clarified that the data is averaged over the course of a year. Occupancy targets are set to take into account that the midnight occupancy target percentage is low enough so bottlenecks are not created through the seasons or days. Another thought to keep in mind is not to build for every possible contingency in order to avoid overbuilding. The goal to keep in mind is to build in terms of a reasonable size.

Chairman Post asked if the data had been collected over time, such as over the last ten years.

Mr. Sterle stated they did not have the data to do this, however, an analysis of this could be done presuming the data is available.

The 2619 Building was built in a different era of behavioral health. There was a time when semi-private rooms were preferred in order to facilitate an interaction with the patients. Contemporary models suggest, for clinical reasons, that an all-private bed model is the better route for clinical reasons.

General Session Presentation, Discussion and Action (cont.):

2. Future Healthcare Environment and Special Health Care District Facilities Condition Assessment (cont.):

The building was not used for behavioral health after MIHS acquired Desert Vista. Desert Vista then filled up with non-voluntary patients, three units were moved back to the 2619 Building. Because of almost 100 percent occupancy, there is no room for voluntary admissions. It is the involuntary admissions that are filling the space up. The length of stay in behavioral health is longer than it is in Med/Surg by a few days so there is less need for flexibility. Regardless, there is no room for seasonality here.

Behavioral health patients in this building also have medical needs. This has become very difficult for staff to work with due to the way the unit is designed.

Mr. Sterle spoke about the diagnostic and treatment areas in the Main Tower. In Imaging it appears there is too much space. Contemporary standards are very different from what used to be. There used to be narrow corridors; storage for film; dark rooms; different modalities. The Imaging Department has been redeployed in different ways that are not necessarily devoted to imaging in the same ways that they used to be. The space is chopped up and is not convertible, given the size of the rooms that are needed, where the columns are and where the corridors are. The department has too much space so it is underused space.

For Surgery, the NSF for the ORs is not bad, although, they are not what would be built today.

The Pediatric ED has been renovated recently. It looks great and functions well but it has a little room for growth. Choices were made when the department was designed for more treatment space over more staff and equipment space. When this space fills up it will be tight to work in. This is already the situation in the Adult ED. The Pediatric and Adult ED ratings are combined into one since they share some of the same DGSF.

The CHC has good structure, but from a DGSF per room standpoint is not great. The problem is more with the amount of activity being put into the building in, so it is tight on the support structure. From a throughput standpoint there may be some room to work with. Some of the DGSF shortfalls may be solved by simply having fewer extra exam rooms and correcting the space. The Eye Clinic exam rooms should be 12-foot rooms in order to have a proper focal point. They are at approximately 100 square feet and are square which makes this short of the reflective distance required.

Mr. Farr spoke about the FHCs:

- Avondale
  - Is the highest-ranking building.
  - It has a large DGSF per room rating. This is due to a lot of the FHCs having large waiting areas and medical file cabinets that were taken out and made into family educational/learning centers. This space is counted as the waiting room space.
  - It has a red rating for NSF room space. If the decision for the future is to deliver care as family centered with the group of family in the room while the person is being examined it will be hard to do in a red space.
- Sunnyslope
  - Has a very small waiting room but a relatively good-sized exam space.
  - DGSFs are in good shape
- Room assessments vary per clinic:
  - El Mirage is at capacity.
  - Dental space – with the exception of Avondale, no space was originally planned for dental. This was reconfigured. That is why some of the ratings are low for the unit assessments and the same with room assessments.

General Session Presentation, Discussion and Action (cont.):

3. Strategic Plan Overview and Update

This item was not discussed.

4. Wrap Up, Next Steps and Future Agenda Items

Mr. Averbuch stated the presentation set a foundational baseline for moving toward facility and capital recommendations. The Committee is asking some great questions: what does this mean for the future; what does this mean for MIHS; how will the Committee get to a capital solution, etc. This is predicated on the strategy as to what to do moving forward; what programs to invest in; how are things going to be distributed; are we located in the right areas?

The next couple of meetings will focus on the strategy component, the strategic plan. Mr. Eaton will walk through the process, what has been going before the Board and discussions as to where to focus future investments from a strategy perspective. At that point the information will be brought back to the Committee to understand what facility is needed to fulfill the strategic vision and how much it will cost.

Mr. Hirano mentioned that Mr. Bruno asked the Committee at its June meeting about what its responsibility was for advocating and marketing. He asked for a brief discussion.

Chairman Post asked Ms. Bayless if she had an answer to what was the Committee's role in terms of advocacy, communicating outcomes to the public, and what it would like moving forward.

Ms. Bayless stated her perception was that the Committee would deliberate as to what should happen with MIHS, would make recommendations to the Board of Directors. The Committee would then cease to exist and would not be advocating as a Committee after this. The members can advocate in their individual capacities if they desire.

Chairman Post stated the Committee's charter did not cover advocating to the public.

Ms. Gerard, Chairman of the MIHS Board of Directors, was present in the audience and stated that legally, MIHS cannot advocate for something that is going to be on the ballot. The Board's goal in selecting such an esteemed group of individuals for the Committee is to help the Board move forward as individuals in order for this to pass on the ballot.

Mr. Naimark commented that he has been a member of citizen bond committees in the past and they operate in the same manner as described by Chairman Post and Chairman Gerard. He also believes that some of the work of the Committee does involve accessibility of proposals to the voters and part of the Committee's process should be to include presenting a package that is acceptable.

Chairman Post stated that according to the Committee's charter, the Committee is to provide a recommendation by October 2013. That deadline was established based on the Committee commencing in January 2013. Since it did not start until March, the deadline would be extended accordingly. With this in mind and the fact that the process still has to come together, it may make sense to wait until September to actually put a final timeline out.

Chairman Post thanked Ms. Talbot for her hard work in providing all the meeting materials to the Committee with plenty of time prior for them to review it.

5. Approve Bond Advisory Committee Meeting Minutes dated June 10, 2013

MOTION: Mr. Spicker moved to approve the June 10, 2013 Bond Advisory Committee meeting minutes. Ms. McCarthy seconded. **Motion passed by voice vote.**

Adjourn

MOTION: Mr. Grant moved to adjourn the July 8, 2013 Bond Advisory Committee Meeting. Ms. McCarthy seconded. **Motion passed by voice vote.**

Meeting adjourned at 4:30 p.m.

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Bill Post, Chairman
Bond Advisory Committee