STATE OF MARYLAND

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MARYLAND HEALTH CARE COMMISSION

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MEMORANDUM

TO: Commissioners, Maryland Health Care Commission

Washington Adventist Hospital, Inc.
Holy Cross Hospital of Silver Spring
Laurel Regional Hospital
MedStar Montgomery Medical Center
City of Takoma Park
Montgomery County Department of Health and Human Services

FROM: Commissioner Barbara Gill McLean
Reviewer

RE: Recommended Decision in the Matter of the
Proposed Relocation of Washington Adventist Hospital, Docket No. 09-15-2295

DATE: September 4, 2012

Enclosed is my Recommended Decision in the review of the proposed relocation of Washington Adventist Hospital, currently located in Takoma Park (Montgomery County) to a site in the White Oak area of Montgomery County. Having conducted site visits at the existing hospital and the proposed site, and having considered the entire record in this review, I recommend that the application of Washington Adventist Hospital, Inc. for a Certificate of Need to relocate Washington Adventist Hospital and replace it on a new site with a 249-bed general acute care hospital be denied.

I regretfully recommend that the Commission deny this CON application even though a replacement and relocation of Washington Adventist Hospital ("WAH") may very well offer the best solution for revitalizing the hospital's performance and prospects for the future. At its core, I am recommending denial because the applicant has not shown that the project is financially feasible and will be viable in the future. The applicant took the position in this review that the service area population served by the hospital will not change if the hospital is relocated from Takoma Park to White Oak. It may well be that, if the applicant considers viability using a

realistic view of the service area population at the White Oak location, a relocated hospital may be viable.

SUMMARY OF THE RECOMMENDED DECISION

Applicant, Interested Parties, and Participating Entities

Adventist HealthCare, Inc. ("AHC") formed and is the sole member of a new not-for-profit corporation, Washington Adventist Hospital, Inc. ("WAHI"), which is the applicant for a Certificate of Need ("CON") to build a hospital to replace and relocate AHC's Washington Adventist Hospital from Takoma Park to a new site in White Oak, both in Montgomery County. AHC operates three general hospitals, two of which are located in Maryland, WAH located in Takoma Park and Shady Grove Adventist Hospital located in Rockville, both in Montgomery County.

The interested parties in this review are Holy Cross Hospital of Silver Spring, Laurel Regional Hospital, and MedStar Montgomery Medical Center. The City of Takoma Park and the Montgomery County Department of Health and Human Services are participating entities in this review.

Brief Description of the Proposed Project

The CON application proposes relocation and replacement of all of the acute inpatient and outpatient services currently provided in the general hospital facilities at the WAH campus in Takoma Park. The new site proposed in a 48.8 acre campus located at 12100 Plum Orchard Drive. The proposed replacement general hospital would have 249 beds and contain 565,983 square feet of building space distributed over six above grade levels, with basement. It would offer the same medical/surgical, obstetric, and acute psychiatric services as WAH. The replacement hospital project, which includes construction of a parking garage, is estimated to cost $397,705,000. The project is planned to be financed with taxable debt securities, FHA mortgage insured bonds, raising $285.6 million. The budget estimate anticipates $61.2 million in cash contributions from AHC. An additional $25 million is anticipated to come from contributed gifts and $25.9 million in contributed land and equipment from AHC. WAHI did not project approval from the Health Services Cost Review Commission ("HSCRC") of a new rate structure to support the project but reserved the right to revisit that issue.

The Adventist Rehabilitation Hospital of Maryland, a 24-bed specialty hospital providing acute rehabilitation, will remain at the WAH Takoma Park Campus. AHC proposes to redevelop the Takoma Park campus as a "Village of Education, Health, and Well-Being" ("the Village") after the replacement hospital is completed. The Village is proposed to contain prenatal services, an urgent care service, primary care services, outpatient behavioral health services, dialysis services, sleep lab services, integrative medicine, and outpatient rehabilitation. This redevelopment project is estimated to cost $20 million, provided from cash reserves of AHC.

Review Criteria and Standards

I am recommending that this Certificate of Need application be denied, although I believe that Washington Adventist Hospital has an old physical plant that requires replacement or substantial investment to improve functionality and efficiency. However, WAHI has failed to demonstrate that the proposed project is financially feasible and viable. Unsuccessful implementation of this project or failure to sustain the hospital once built would have profound negative implications for the health care delivery system in Montgomery and Prince George's Counties.

I have identified other problems that the WAHI application presents. These include the demonstration of need for the obstetric bed and emergency department treatment capacity proposed for the replacement hospital, the adequacy of the applicant's response to the requirement that applicants consider and project the impact of their proposed projects, and the completeness of the applicant's analysis of the cost effectiveness of alternatives for modernizing the existing WAH facilities. These problems are secondary to my recommendation, in that they are not insurmountable barriers to approval of a plan to replace and relocate WAH. I have found that the likely impact on other hospitals of the proposed project would not constitute a basis for denial of the project. Furthermore, while I have doubts as to whether WAHI has presented the Commission with the best available alternative to replacement and relocation of the hospital, I have concluded, based on the weight of the evidence, that replacement is likely to be a more cost-effective alternative than replacement and renovation of the existing WAH facilities. Capacity issues can be addressed through the review process. Thus, the primary basis for my recommendation lies in my strong doubts with respect to the financial feasibility and viability of the specific proposal that has been presented to the Commission. I hope that AHC and WAH will seriously and constructively consider the issues raised in my Recommended Decision and promptly move to develop a new plan to achieve the important objectives addressed in this application so that the future of both WAH and AHC can be assured.

REVIEW SCHEDULE AND FURTHER PROCEEDINGS

This matter will be placed on the agenda for a meeting of the Maryland Health Care Commission on October 18, 2012, beginning at 1:00 p.m. at 4160 Patterson Avenue. The Commission will issue a final decision based on the record of the proceeding.

As provided under COMAR 10.24.01.09B, the applicants and interested parties may submit written exceptions to the enclosed Recommended Decision and Order. Exceptions must be filed no later than Wednesday, September 26, 2012 at 4:30 p.m. Written exceptions and argument must identify specifically those findings or conclusions to which exception is taken, citing the portions of the record on which each exception is based. Applicants and interested parties must submit 30 copies of their written exceptions and responses to exceptions. Responses to exceptions must be filed no later than Tuesday, October 9, 2012 at 4:30 p.m. Copies of exceptions and responses should also be sent to parties by email.

Oral argument during the exceptions hearing before the Commission will be limited to 15 minutes for the applicant and 10 minutes per interested party, unless extended by the Chair or the Chair's designated presiding officer. The schedule for the submission of exceptions and responses is as follows:

Submission of exceptions	September 26, 2012 No later than 4:30 p.m.
Submission of responses	October 9, 2012 No later than 4:30 p.m.
Exceptions hearing	October 18, 2012 1:00 p.m.

IN THE MATTER OF	*	**BEFORE THE**
	*	
WASHINGTON ADVENTIST HOSPITAL, INC.	*	**MARYLAND HEALTH**
	*	
	*	**CARE COMMISSION**
Docket No. 09-15-2295	*	
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Reviewer's Recommended Decision

October 18, 2012

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I. INTRODUCTION

A. Background

Washington Adventist Hospital ("WAH") is an acute general hospital located in Takoma Park, Maryland (Montgomery County) at 7600 Carroll Avenue. WAH is currently licensed for 252 acute care beds, including 191 medical/surgical/gynecology/addictions ("MSGA") beds, 21 obstetric beds, and 40 acute psychiatric beds. WAH is owned and operated by Adventist Healthcare ("AHC"). Adventist HealthCare, Inc. traces its beginnings to 1903, when leaders of the General Conference of Seventh-Day Adventists founded a "sanitarium" in Takoma Park, a development associated with the relocation of the Seventh-Day Adventist Church headquarters from Michigan to Takoma Park. Adventist HealthCare currently operates three general hospitals, including two Maryland hospitals, WAH and Shady Grove Adventist Hospital ("SGAH"), located in Rockville (also in Montgomery County). SGAH, which was established in 1979, is currently licensed for 331 acute care beds.

In Maryland, AHC also operates:

- Hospitals for acute psychiatric care, Adventist Behavioral Health, in Rockville and Cambridge (Dorchester County);
- Residential treatment centers, The Ridge Schools, in Rockville and Cambridge;
- Hospitals for acute rehabilitation, Adventist Rehabilitation Hospital of Maryland, in Rockville and Takoma Park. Operationally, this latter facility is integrated with the general hospital on the WAH campus;
- A home health agency, Adventist Home Care Services, serving Montgomery and surrounding counties;
- A freestanding medical facility, providing emergency medical services as a satellite of the SGAH Emergency Department, the Shady Grove Adventist Emergency Center at Germantown; and
- Other outpatient diagnostic and treatment centers.

The other general hospital operated by AHC is located in New Jersey.

B. The Applicant and the Project

AHC is now proposing to replace and relocate all of the acute inpatient and outpatient services currently provided in its general hospital at the WAH campus in Takoma Park to a new 48.8 acre general hospital campus site in the White Oak area of Silver Spring (Montgomery County), located at 12100 Plum Orchard Drive. This site was purchased by AHC in 2007 and is reported to be approximately 6.6 miles from the existing WAH campus. It is located near the headquarters campus of the Food and Drug Administration.

In order to accomplish this relocation, AHC formed - and is the sole member of - a new corporation Washington Adventist Hospital, Inc. ("WAHI" or "the replacement hospital") that is applying for a Certificate of Need ("CON") to build a replacement hospital,. AHC's creation of this separate corporate entity relates to the project's proposed financing plan, which will be described later in this Recommended Decision. WAHI anticipates that the two AHC limited liability corporations that own the land parcels comprising the White Oak site will transfer ownership of the land to WAHI.

The WAHI campus is the site for the proposed 249-bed general acute care hospital, containing 565,983 square feet ("SF") with basement and six levels above grade. The replacement hospital will offer the same three inpatient services currently offered by WAH and an array of outpatient diagnostic and treatment services similar to those currently provided by WAH, except for acute rehabilitation services. As proposed, the replacement hospital will have a physical capacity for 182 medical/surgical/ gynecological/addictions ("MSGA") beds (150 general medical/surgical and 32 intensive care/critical care beds), 30 obstetric beds, and 37 acute psychiatric beds. WAHI proposes finishing approximately 95% of the building space and leaving five percent as shell space. The applicant plans 20,224 SF of shell space in the replacement hospital, on the fourth floor, that would accommodate an additional 36 beds (based on the proposed nursing unit design for general medical/surgical beds) at some future date and a total of 7,575 additional SF of shell space at five other locations: the cellar (radiation oncology – 785 SF); first floor (emergency services/ observation – 1,250 SF; second floor (cardiac catheterization suite – 1,090 SF;, second floor (five operating rooms – 3,250 SF); and third floor (two labor/delivery/recovery rooms and caesarean-section room – 1,200 SF).

The replacement hospital is proposed to include a 35-treatment bay emergency department (the current WAH has 26 treatment bays) and seven operating rooms, along with shell space noted above for emergency services expansion and five more operating rooms. WAH's most recent inventory report to MHCC identified 10 operating rooms at WAH.

WAHI plans on developing the initial hospital development at the White Oak campus in conjunction with construction of a connected, five-story medical office building and a parking garage. Construction is described as a single phase requiring 31 to 33 months.

AHC proposes to redevelop the WAH Takoma Park campus as a "Village of Education, Health, and Well-Being" ("the Village") after the replacement hospital is completed. In addition to the Adventist Rehabilitation Hospital of Maryland, a 24-bed acute rehabilitation hospital, the existing campus is proposed to incorporate prenatal services, an urgent care service, primary care services, outpatient behavioral health services, dialysis services, sleep lab services, integrative medicine, and outpatient rehabilitation.

The replacement hospital project, which includes construction of a parking garage, is estimated to cost $397,705,000. WAHI has provided the following budget estimate detail.

Table 1: Washington Adventist Hospital, Inc. Estimated Uses and Sources of Funds Replacement and Relocation of the General Hospital Facilities of WAH

Uses of Funds			
	Hospital	Garage	Total
New Construction	$190,836,000	$ 21,793,000	$212,629,000
Major and Minor Equipment	34,649,000	-	34,649,000
Contingencies	20,063,000	1,084,000	21,147,000
Other Capital Costs	42,180,000	150,000	42,330,000
Capitalized Construction Interest	13,311,000	1,067,000	14,378,000
Inflation	12,607,000	1,047,000	13,654,000
Total Capital Costs	**$313,646,000**	**$25,141,000**	**$338,787,000**
Financing and Other Cash Requirements			$22,278,000
Working Capital			36,640,000
Total Uses of Funds			**$397,705,000**
Sources of Funds			
Cash			$27,205,000
Gifts			25,000,000
Taxable FHA / GNMA Debt			285,620,000
Working Capital			34,000,000
Transfer of Land & Equipment from AHC			25,880,000
Total Source of Funds			**$397,705,000**

Source: WAHI March 28, 2011 Updated CON Application (DI #131, Vol. 1, pp. 18-19)

AHC redevelopment of the Takoma Park site, which would follow completion of the replacement hospital, is estimated to cost $20 million and is anticipated to be a cash expenditure.

Table 2: Adventist HealthCare, Inc. Estimated Uses and Sources of Funds Redevelopment of the former WAH Campus

Uses of Funds	
Site Preparation/Land Improvements	$5,000,000
Building Demolition	2,000,000
Building Renovations	11,956,772
Contingencies	947,839
Other Capital Costs	95,390
Total Capital Costs and Uses of Funds	**$20,000,000**
Source of Funds	
Cash	$20,000,000

Source: WAHI March 28, 2011 Updated CON Application (DI #131, Vol. 2, Exh. 8)

Funding the Project

As shown in the budget estimate, the WAHI project is planned to be financed with taxable debt securities, FHA mortgage insured bonds, raising $285.6 million. The budget

estimate anticipates $61.2 million in cash contributions from AHC. An additional $25 million is anticipated to come from contributed gifts and $25.9 million in contributed land and equipment from AHC. The total AHC equity contribution implied by this project, including real asset transfers, can be valued at approximately $107 million, if one includes the $20 million estimated to be needed to implement the redevelopment plan in Takoma Park after the general hospital moves. WAHI did not project approval from the Health Services Cost Review Commission ("HSCRC") of a new rate structure to support the project but reserved the right to revisit this issue.

The Review Process

In 2005, WAH filed a Certificate of Need application proposing the modernization and expansion of its existing campus through a combination of new construction and renovation estimated to cost $133 million. That CON application was withdrawn from review less than 60 days after docketing. The 2005 plan is discussed in this Recommended Decision as part of the review of COMAR 10.24.10.04B(5), a project review standard in the State Health Plan ("SHP") that addresses the cost and effectiveness of alternative ways in which a hospital project can meet needs.

In April, 2009, WAHI filed this CON application to replace and relocate WAH. The application went through a lengthy completeness review process, was docketed in September, 2009, and was subsequently modified in October 2009, with substantial modifications to the project and project cost estimates and financial projections during this period. The application review was held in abeyance in 2010, pending the completion of a competitive review of two new proposed hospital projects, involving an evidentiary hearing with two of the same parties in this review, and a simultaneous review of a third major hospital expansion and renovation project in Montgomery County. In early 2011, active review of this application was reinitiated and Commissioner Randall Worthington, the initial appointed Reviewer in this case, determined that an evidentiary hearing, requested by all parties, would be convened as part of the review process. Commissioner Worthington, asked WAHI for an update of the application, with final changes in the project and the relevant supporting material. That updated application was filed by WAHI in March 2011 and is the most current iteration of this proposal. As such, it is the application that serves as a basis for this review.

The evidentiary hearing was convened in August, 2011 and completed in October, 2011, with the parties' filing of closing arguments and proposed findings of fact and conclusions of law. Tragically, Commissioner Worthington died in February 2012 and I agreed to complete this review. In June 2012, I asked WAHI to file a supplemental/revised version of its financial projections for the project, with specific instructions with respect to revenue assumptions. That supplemental filing and the comments of the interested parties were the last submissions considered prefatory to the issuance of this Recommended Decision.

C. Reviewer's Recommendation

I regret that I must recommend that the Maryland Health Care Commission ("MHCC") deny this Certificate of Need application. While Washington Adventist Hospital has an old physical plant that requires replacement or substantial investment to improve functionality and

efficiency, WAHI has failed to demonstrate that the proposed project is financially feasible and viable. These are fundamental issues in the review of CON applications and, in this case, have profound implications for the health care delivery system in Montgomery and Prince George's Counties.

Additionally, I have identified other problems that the WAHI CON application has presented with respect to the need for the proposed obstetric and emergency department capacity, the adequacy of its response to the requirement that an applicant consider and project the impact of its proposed project, and its analysis of the cost effectiveness of alternatives for modernizing the existing WAH facilities. These problems are secondary to my recommendation in that they are not insurmountable barriers to approval of a plan to replace and relocate WAH. I have found that the likely impact on other hospitals of the proposed project would not constitute a basis, in and of itself, for denial of the project. Furthermore, I have doubts as to whether WAHI has presented the Commission with an analysis of alternatives for addressing the problem of modernizing WAH's facilities that represents the best available alternative to replacement and relocation of the hospital, in compliance with the applicable SHP standard and review criterion. Although the weight of the evidence suggests that replacement is likely to be a more cost-effective alternative than replacement and renovation of the existing WAH facilities, more information is needed to make a firm and final determination. Capacity issues can be addressed through the review process. Thus, the primary basis for my recommendation is the doubtful financial feasibility and viability of the specific proposal being presented.

II. PROCEDURAL HISTORY

A. Review of the Record

A procedural history for this project is included as Appendix A.

B. Interested Parties and Participating Entities in the Review

Three general hospitals, Holy Cross Hospital of Silver Spring ("HCH"), Laurel Regional Hospital ("LRH"), and MedStar Montgomery Medical Center ("MMMC"), formerly operated as Montgomery General Hospital, are interested parties in this review. All three oppose the project.

The City of Takoma Park ("CTP") is a participating entity in this review. It has indicated that it can support the project if adequate provision and commitment is made by AHC to the redevelopment of the Takoma Park WAH campus after the hospital is relocated, with facilities and services needed by the local community.

Montgomery County's Department of Health and Human Services ("MCDHHS") corresponded with MHCC early in this review and is considered a participating entity as well. MCDHHS stated its "concern that the relocation of WAH will have a negative impact on the geographic accessibility of the WAH prenatal care program for low-income pregnant women in the County-funded Maternity Partnership Program." MCDHHS stated that, in fiscal year 2009, 38 percent (900) of the women who received services through this program were seen at WAH. It expressed concern that relocation of the Maternity Partnership Program to the White Oak site

"may pose significant geographic barriers to care for this vulnerable population." MCDHHS pointed out that WAHI stated, in its response to the Commission staff's completeness question about its proposed employee shuttle, that the "'New White Oak site [is] currently underserved by existing public transportation and bus routes…. Montgomery County Ride-On does not currently serve this area.'" MCDHHS strongly urged the Commission to consider the impact of the relocation of WAH on the residents who use the Maternity Partnership Program.

C. Local Government Review and Comment

As noted above, the City of Takoma Park is a participating entity that provided detailed comments in this review; CTP's comments are summarized in the sections regarding particular standards and criteria to which they apply. The Montgomery County Department of Health and Human Services, another participating entity, provided the comments noted above. Local government elected officials are among those who provided letters supporting this project.

D. Community Support

The Maryland Health Care Commission received many written expressions of support for the WAH relocation project from various individuals and organizations. A summary description of the filings, attempting to adjust for duplications, follows. I have attempted to categorize correspondents in order to provide useful information to the Commission on the nature and character of the expressions of support.

More than 70 letters were filed that supported the WAH relocation and appear to be individually-prepared communications. Over 1,750 additional communications were submitted that can be categorized as pro forma expressions of support, consisting of either "form" letters or e-mails apparently prepared by the applicant for signature and submission.

Of the individual communications, all but one expressed support for the WAH project. Of these letters, approximately 49 were from physicians or other health care practitioners and 6 letters were from persons with no particular or self-identified political or organizational connection. Fifteen letters were from elected officials, including: two members of the Maryland delegation to the U.S. House of Representatives, four members of the Maryland Senate (two signed separate letters) and nine members of the Maryland House of Delegates (six Delegates from the 14th and 20th Legislative Districts, with the remaining three Delegates submitting individual letters); the Montgomery County Executive, the Chairs of the Montgomery and Prince George's County Councils; eight other members of the Montgomery County Council; and one other member of the Prince George's County Council.

Letters from two civic organizations representing areas near the proposed site were received: the first was from the East County Citizens Advisory Board and the other from the Tamarack Triangle Civic Association. Riderwood Village, a retirement community near the proposed site, submitted two letters, which expressed support from both the Board of Directors and the Executive Director. The advocacy group CHI Centers Inc., representing the population with developmental disabilities, and CASA de Maryland, which provides resources and opportunities for low-income immigrant families, both support this project. Separate letters of

support from the Food and Drug Administration, and the Public Buildings Service at the U.S. General Services Administration were received. Percontee Incorporated, a developer of property near the WAHI site submitted letters of support for this project on two separate occasions. The president of Washington Adventist University and The Next Century Health Leadership Council, an organization with a relationship to Adventist HealthCare, submitted letters supporting development of the proposed project.

The only letter that did not support the project was from an individual who was a former patient who was not satisfied with the level of care provided at WAH.

As previously noted, the City of Takoma Park is a participating entity in this review and its comments will be discussed under appropriate sections of this Recommended Decision. Takoma Park has focused on AHC's plans for the existing hospital campus if the general acute care hospital facility relocates to White Oak. The City has outlined its views on what facilities and services should be available on this campus, when redeveloped by AHC, and has stated the view that the project should not be approved unless conditions attached to the approval require that AHC's plan meets the requirements of the City for this campus and a commitment of sufficient resources to implement the plan.

III. Background

A. Population Change, Race, and Income

WAH and the proposed WAHI replacement hospital site are both located near the border of Montgomery and Prince George's Counties and WAHI will rely on these two jurisdictions as the source for most of its patients. These counties are the two most populous jurisdictions in Maryland. At 494.6 and 486.4 square miles respectively, Montgomery and Prince George's are the fifth and sixth largest jurisdictions as measured by land area[1]. As shown in the following tables, Montgomery County's population is growing at a rate slightly higher than that projected for the State overall; Prince George's County is projected to be slightly lagging overall state growth in population. Both counties are aging faster than the State as a whole.

[1] As reported by the Maryland Office of Planning. Available at: http://www.mdkidspage.org/counties/Density.htm#area.

Table 3: Population Change, Montgomery County 2000 to 2040

Montgomery County Population by Age Group, 2010 - 2040						
	0-14	**15-44**	**45-64**	**65-74**	**75+**	**Total**
2010	192,695	386,851	272,462	62,541	57,228	971,777
2015	198,426	388,770	284,314	82,484	61,804	1,015,798
2020	204,178	402,139	284,994	102,482	71,810	1,065,603
2025	209,538	415,780	278,567	117,152	88,864	1,109,901
2030	214,531	431,076	275,559	125,073	107,958	1,154,197
2035	218,350	446,310	272,713	122,261	126,065	1,185,699
2040	219,176	453,046	277,345	116,017	138,517	1,204,101
Projected Change, Montgomery County Population by Age Group, 2010 - 2040						
Year	**0-14**	**15-44**	**45-64**	**65-74**	**75+**	**Total**
2010-2015	2.97%	0.50%	4.35%	31.89%	8.00%	4.53%
2015-2020	2.90%	3.44%	0.24%	24.24%	16.19%	4.90%
2020-2025	2.63%	3.39%	-2.26%	14.31%	23.75%	4.16%
2025-2030	2.38%	3.68%	-1.08%	6.76%	21.49%	3.99%
2030-2035	1.78%	3.53%	-1.03%	-2.25%	16.77%	2.73%
2035-2040	0.38%	1.51%	1.70%	-5.11%	9.88%	1.55%
2010-2020	5.96%	3.95%	4.60%	63.86%	25.48%	9.66%
2020-2030	5.07%	7.20%	-3.31%	22.04%	50.34%	8.31%
2030-2040	2.17%	5.10%	0.65%	-7.24%	28.31%	4.32%
2010-2040	13.74%	17.11%	1.79%	85.51%	142.04%	23.91%

Source: Maryland Department of Planning, 2012 Total Population Projections by Age, Sex and Race

Table 4: Population Change, Prince George's County 2000 to 2040

Prince George's County Population by Age Group, 2010 - 2040						
	0-14	**15-44**	**45-64**	**65-74**	**75+**	**Total**
2010	168,969	387,755	225,183	50,100	31,413	863,420
2015	168,517	376,864	232,867	66,503	37,448	882,199
2020	168,313	372,614	232,374	81,919	47,280	902,500
2025	163,373	375,928	226,765	92,595	62,986	921,647
2030	161,668	374,274	223,640	100,610	79,358	939,550
2035	161,280	370,994	224,545	100,747	95,084	952,650
2040	161,537	366,168	230,507	96,153	108,486	962,851
Projected Change, Prince George's County Population by Age Group, 2010 – 2040						
Year	**0-14**	**15-44**	**45-64**	**65-74**	**75+**	**Total**
2010-2015	-0.27%	-2.81%	3.41%	32.74%	19.21%	2.17%
2015-2020	-0.12%	-1.13%	-0.21%	23.18%	26.26%	2.30%
2020-2025	-2.94%	0.89%	-2.41%	13.03%	33.22%	2.12%
2025-2030	-1.04%	-0.44%	-1.38%	8.66%	25.99%	1.94%
2030-2035	-0.24%	-0.88%	0.40%	0.14%	19.82%	1.39%
2035-2040	0.16%	-1.30%	2.66%	-4.56%	14.09%	1.07%
2010-2020	-0.39%	-3.90%	3.19%	63.51%	50.51%	4.53%
2020-2030	-3.95%	0.45%	-3.76%	22.82%	67.85%	4.11%
2030-2040	-0.08%	-2.17%	3.07%	-4.43%	36.70%	2.48%
2010-2040	-4.40%	-5.57%	2.36%	91.92%	245.35%	11.52%

Source: Maryland Department of Planning, 2012 Total Population Projections by Age, Sex and Race

Table 5: Population Change, Maryland 2000 to 2040

Maryland Population by Age Group, 2010 - 2040						
	0-14	**15-44**	**45-64**	**65-74**	**75+**	**Total**
2010	1,110,385	2,357,553	1,597,972	386,357	321,285	5,773,552
2015	1,122,814	2,347,542	1,651,143	495,246	345,269	5,962,014
2020	1,155,943	2,422,097	1,637,289	595,699	405,128	6,216,156
2025	1,181,707	2,498,911	1,571,965	676,017	499,639	6,428,239
2030	1,202,172	2,546,503	1,534,792	733,032	595,400	6,611,899
2035	1,214,762	2,579,179	1,554,675	711,552	692,827	6,752,995
2040	1,221,401	2,600,804	1,621,054	648,839	769,799	6,861,897
Projected Change, Maryland Population by Age Group, 2010 - 2040						
Year	**0-14**	**15-44**	**45-64**	**65-74**	**75+**	**Total**
2010-2015	1.12%	-0.42%	3.33%	28.18%	7.47%	3.26%
2015-2020	2.95%	3.18%	-0.84%	20.28%	17.34%	4.26%
2020-2025	2.23%	3.17%	-3.99%	13.48%	23.33%	3.41%
2025-2030	1.73%	1.90%	-2.36%	8.43%	19.17%	2.86%
2030-2035	1.05%	1.28%	1.30%	-2.93%	16.36%	2.13%
2035-2040	0.55%	0.84%	4.27%	-8.81%	11.11%	1.61%
2010-2020	4.10%	2.74%	2.46%	54.18%	26.10%	7.67%
2020-2030	4.00%	5.14%	-6.26%	23.05%	46.97%	6.37%
2030-2040	1.60%	2.13%	5.62%	11.49%	29.29%	3.78%
2010-2040	10.00%	10.32%	1.44%	67.94%	139.60%	18.85%

Source: Maryland Department of Planning, 2012 Total Population Projections by Age, Sex and Race

Racially, Montgomery County's population is majority white (57.4%), with African Americans (17.2%) and Asian Americans (13.9%) comprising most of the remaining population. Prince George's County has a large African American population (64.5%) with the white population (19.2%) following as the second largest racial group. The Maryland Department of Planning estimates that while 8.2% of the State's total population is Hispanic, this group constitutes a substantially larger proportion of the populations residing in Montgomery County (17.0%) and Prince George's County (14.9%).[2]

[2] Maryland Department of Planning. Available at: http://planning.maryland.gov/pdf/redistricting/2010data/md2011_congressional_summary_report_nh_by_raceoct2011.pdf.

Table 6: Population by Race
Montgomery and Prince George's Counties and Maryland, 2011

Jurisdiction	White	Black or African American	Asian	Other*	Two or More Races
Montgomery	57.4%	17.2%	13.9%	7.4%	4.0%
Prince George's	19.2%	64.5%	0.5%	12.6%	3.2%
Maryland	58.2%	29.4%	5.5%	4.0%	2.9%

Source: 2010 U.S. Census of Population
Note: All racial categories, with the exception of "two or more," reported as "alone."
*Other includes American Indian and Alaskan Native, Native Hawaiian and other Pacific Islander, and other races.

Montgomery County is one of the most affluent jurisdictions in the State, with an estimated median household income in 2010 of $88,559[3], second only to Howard County at $100,992. Montgomery's income level is about 28.5% higher than the state median. Prince George's County's estimated median household income is around $69,524[4], which is just under ($409) the state median. According to the 2011 census, Prince George's County is the wealthiest African American-majority county in the United States.[5]

In 2010, the U.S. Bureau of the Census reported that 9.9% of Maryland residents are poor, based on the Federal Department of Health and Human Services Poverty Guidelines. The following are the poverty rates for various segments of the population in Montgomery and Prince George's Counties. Both counties are in the middle of the rank amongst the 24 state jurisdictions and below the state average regarding the percentage of residents living in poverty; Montgomery is tied for ninth place among the state's 24 jurisdictions for the lowest poverty rate level, whereas Prince George's is 12th. For the population under age 18, Montgomery has the 8th lowest and Prince George's the 12th lowest proportion of residents under the poverty level among Maryland jurisdictions.

Table 7: Proportion (%) of Total Residents Living in Poverty, 2010*

	Montgomery	Prince George's	Maryland[6]
Residents living in poverty	7.5	9.4	9.9
Under age 18 in Poverty	9.4	12.3	13.1
Ages 5-17 in impoverished families	9.1	11.8	11.8
Under age 5 in Poverty	n/a	n/a	15.6
Median Household Income ($)	88,559	69,524	68,933

*Based on Federal Poverty Guidelines.

[3] Available at: http://www.census.gov/cgi-bin/saipe/saipe.cgi.
[4] *Ibid*.
[5] Howell, Tom Jr. (2006-04-18). "Census 2000 Special Report. *Maryland Newsline*, Census: Md. Economy Supports Black-Owned Businesses". University of Maryland. Philip Merrill College of Journalism. http://www.newsline.umd.edu/business/specialreports/census/blackbusiness041806.htm. and Chappell, Kevin (November 2006). "America's Wealthiest Black County". Ebony. http://findarticles.com/p/articles/mi_m1077/is_1_62/ai_n16807718. Retrieved 2007-02-14.
[6] Available at: http://www.census.gov/cgi-bin/saipe/saipe.cgi.

B. General Acute Care Hospitals and Their Service Areas

Both Montgomery and Prince George's County have five general acute care hospitals. A sixth has been approved for Montgomery County.

Table 8: Montgomery County General Acute Care Hospitals and Acute Care Bed Inventories, FY 2013 (effective July 1, 2012)

General Hospitals	Location	Licensed Acute Care Beds - FY 2013					Reported Physical Acute Care Bed Capacity
		MSGA	Obstetric	Pediatric	Psychiatric	Total	
Holy Cross	Silver Spring	282	88	26	0	396	379
MedStar Montgomery	Olney	100	11	2	25	138	207
Shady Grove Adventist	Rockville	250	56	25	0	331	336
Suburban	Bethesda	199	0	6	24	229	247
Washington Adventist	Takoma Park	191	21	0	40	252	304
Total		**1,022**	**176**	**59**	**89**	**1,346**	**1,473**

Source: Maryland Health Care Commission

Table 9: Prince George's County General Acute Care Hospitals and Acute Care Bed Inventories, July 1, 2012

General Hospitals	Location	Licensed Acute Care Beds - FY 2013					Reported Physical Acute Care Bed Capacity
		MSGA	Obstetric	Pediatric	Psychiatric	Total	
Doctors' Community	Lanham	207	0	0	0	207	220
Fort Washington	Fort Washington	31	0	0	0	31	37
Laurel Regional	Laurel	53	10	0	14	77	171
Prince George's	Cheverly	152	36	8	28	224	367
Southern Maryland	Clinton	180	30	4	25	239	324
Total		**623**	**76**	**12**	**67**	**778**	**1,119**

Source: Maryland Health Care Commission

C. Hospital Utilization Trends

The following tables profile recent demand for acute hospital services located in both Montgomery and Prince George's Counties. In general, demand for acute care hospital beds in Maryland rose from 1998 to 2008, after approximately 20 years of decline. This demand was led

by MSGA bed demand, which accounts for 80% of the hospital bed inventory in the State. Total acute care average daily census at Montgomery County's five general hospitals rose from 892 patients in 1998 to 985 patients in 2008. In Prince George's County, its five hospitals saw a much more modest increase over this period from a total acute care ADC of 582 patients in 1998 to 590 in 2008. A slowing pace in the long-term trend of declining average length of stay ("ALOS") played a role in the 1998-2008 trend. Indeed, MSGA ALOS has actually increased at WAH and in Montgomery County hospitals as a whole since 2006.

Beginning in 2008-2009, bed demand has broadly retreated across Maryland and this deflection in the ten-year general growth trend can be seen in both Montgomery and Prince George's County hospitals. Acute care ADC declined in Montgomery County hospitals from 985 in 2008 to 963 in 2011. In Prince George's County hospitals, acute care ADC has fallen from 590 in 2008 to 560 in 2011.

A review of the most recent five years for MSGA (see the following table), which is the largest part of the inpatient population, shows that two Montgomery County hospitals have grown MSGA volume over this period, Holy Cross and Shady Grove Adventist Hospital. Two other hospitals, MedStar Montgomery and Suburban, saw their MSGA census settle back by 2011 to volume levels close to their 2006 performance, and one hospital, WAH, has seen a substantial decline in case volume. Overall, Suburban has seen growth in acute care service volume due to increases in acute psychiatric cases. In Prince George's County, only Doctors Community has seen appreciable growth in patient census over this recent period.

Table 10: MSGA Discharges, Discharge Days, and Average Length of Stay
Montgomery and Prince George's County Hospitals, CY 2006 - 2011

MEDICAL/SURGICAL/GYNECOLOGICAL/ADDICTIONS (MSGA) DISCHARGES						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	15,592	15,929	15,835	17,172	17,780	17,464
MEDSTAR MONTGOMERY	7,348	7,879	8,098	7,751	7,789	7,144
SHADY GROVE ADVENTIST	12,732	13,580	14,300	14,987	15,267	14,767
SUBURBAN	12,759	13,445	13,815	12,956	12,616	12,519
WASHINGTON ADVENTIST	13,417	13,324	13,257	13,170	12,100	10,615
Total	**61,848**	**64,157**	**65,305**	**66,036**	**65,552**	**62,509**
Prince George's County General Hospitals						
DOCTORS COMMUNITY	11,428	11,851	11,517	12,069	13,041	12,393
FORT WASHINGTON	2,742	2,899	2,918	3,012	2,990	2,240
LAUREL REGIONAL	4,806	4,752	4,852	4,436	3,849	3,178
PRINCE GEORGE'S	10,625	9,445	10,010	9,641	9,186	8,015
SOUTHERN MARYLAND	13,716	13,592	13,981	13,471	13,230	12,605
Total	**43,317**	**42,539**	**43,278**	**42,629**	**42,296**	**38,431**
All Maryland Hospitals	**534,663**	**539,085**	**552,155**	**554,941**	**531,986**	**504,206**

Source: HSCRC Discharge Database.

Table 10: MSGA Discharges, Discharge Days, and Average Length of Stay
Montgomery and Prince George's County Hospitals, CY 2006 - 2011 (CONTINUED)

MSGA DISCHARGE DAYS						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	71,738	74,016	73,496	74,699	75,004	77,084
MEDSTAR MONTGOMERY	29,811	33,720	35,723	33,273	33,164	28,722
SHADY GROVE ADVENTIST	51,138	56,321	61,559	67,550	67,581	68,401
SUBURBAN	50,535	55,685	56,921	53,368	52,081	51,480
WASHINGTON ADVENTIST	59,266	59,689	59,664	57,833	55,906	52,198
Total	**262,488**	**279,431**	**287,363**	**286,723**	**283,736**	**277,885**
Prince George's County General Hospitals						
DOCTORS COMMUNITY	48,546	50,655	49,260	48,722	55,215	53,937
FORT WASHINGTON	10,760	11,098	11,237	10,941	10,859	8,708
LAUREL REGIONAL	19,844	19,742	20,009	18,560	16,739	13,892
PRINCE GEORGE'S	55,284	47,689	51,964	47,274	47,966	42,943
SOUTHERN MARYLAND	54,456	52,712	51,722	49,727	48,869	50,084
Total	**188,890**	**181,896**	**184,192**	**175,224**	**179,648**	**169,564**
All Maryland Hospitals	**2,268,232**	**2,296,192**	**2,351,881**	**2,321,283**	**2,240,812**	**2,219,129**

Source: HSCRC Discharge Database.

Table 10: MSGA Discharges, Discharge Days, and Average Length of Stay
Montgomery and Prince George's County Hospitals, CY 2006 - 2011 (CONTINUED)

MSGA AVERAGE LENGTH OF STAY (ALOS) (DAYS)						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	4.60	4.65	4.64	4.35	4.22	4.41
MEDSTAR MONTGOMERY	4.06	4.28	4.41	4.29	4.26	4.02
SHADY GROVE ADVENTIST	4.02	4.15	4.30	4.51	4.43	4.63
SUBURBAN	3.96	4.14	4.12	4.12	4.13	4.11
WASHINGTON ADVENTIST	4.42	4.48	4.50	4.39	4.62	4.92
Total	**4.24**	**4.36**	**4.40**	**4.34**	**4.33**	**4.45**
Prince George's County General Hospitals						
DOCTORS COMMUNITY	4.25	4.27	4.28	4.04	4.23	4.35
FORT WASHINGTON	3.92	3.83	3.85	3.63	3.63	3.89
LAUREL REGIONAL	4.13	4.15	4.12	4.18	4.35	4.37
PRINCE GEORGE'S	5.20	5.05	5.19	4.90	5.22	5.36
SOUTHERN MARYLAND	3.97	3.88	3.70	3.69	3.69	3.97
Total	**4.36**	**4.28**	**4.26**	**4.11**	**4.25**	**4.41**
All Maryland Hospitals	**4.24**	**4.26**	**4.26**	**4.18**	**4.21**	**4.40**

Source: HSCRC Discharge Database

Table 11: Obstetric Discharges, Discharge Days, and Average Length of Stay
Montgomery and Prince George's County Hospitals, CY 2006 - 2011

OBSTETRIC ("OB") DISCHARGES						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	10,417	9,834	9,706	9,372	9,463	9,257
MEDSTAR MONTGOMERY	713	815	995	872	767	742
SHADY GROVE ADVENTIST	4,741	4,923	5,048	5,336	5,238	5,268
SUBURBAN *	13	23	12	14	12	17
WASHINGTON ADVENTIST	2,155	2,608	2,292	2,466	2,234	1,987
Total	**18,039**	**18,203**	**18,053**	**18,060**	**17,714**	**17,271**
Prince George's County General Hospitals						
DOCTORS COMMUNITY *	40	51	53	56	74	80
FORT WASHINGTON *	21	19	16	19	14	17
LAUREL REGIONAL	767	665	669	755	926	1,075
PRINCE GEORGE'S	3,006	2,823	2,760	2,712	2,760	2,428
SOUTHERN MARYLAND	2,069	2,113	2,160	1,959	2,081	2,386
Total	**5,903**	**5,671**	**5,658**	**5,501**	**5,855**	**5,986**
All Maryland Hospitals	**78,559**	**79,571**	**79,243**	**77,215**	**76,156**	**75,161**

Source: HSCRC Discharge Database.
*Hospital does not operate an organized obstetric service or have licensed OB beds.

Table 11: Obstetric Discharges, Discharge Days, and Average Length of Stay
Montgomery and Prince George's County Hospitals, CY 2006 – 2011 (CONTINUED)

OB DISCHARGE DAYS						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	30,835	28,459	28,757	27,399	27,577	24,724
MEDSTAR MONTGOMERY	1,956	2,166	2,709	2,389	1,982	1,869
SHADY GROVE ADVENTIST	13,453	14,123	14,609	15,706	15,152	15,569
SUBURBAN *	34	58	25	33	33	33
WASHINGTON ADVENTIST	6,261	7,551	6,494	6,976	6,224	5,109
Total	**52,539**	**52,357**	**52,594**	**52,503**	**50,968**	**47,304**
Prince George's County General Hospitals						
DOCTORS COMMUNITY *	83	106	109	106	151	127
FORT WASHINGTON *	41	30	28	28	16	30
LAUREL REGIONAL	1,914	1,590	1,542	1,819	2,360	2,689
PRINCE GEORGE'S	8,247	7,758	8,094	8,042	8,041	7,108
SOUTHERN MARYLAND	5,558	5,548	5,718	5,093	5,445	6,323
Total	**15,843**	**15,032**	**15,491**	**15,088**	**16,013**	**16,277**
All Maryland Hospitals	**221,080**	**222,857**	**224,097**	**218,684**	**211,275**	**206,237**

Source: HSCRC Discharge Database.
* Hospital does not operate an organized obstetric service or have licensed OB beds.
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Table 11: Obstetric Discharges, Discharge Days, and Average Length of Stay Montgomery and Prince George's County Hospitals, CY 2006 – 2011 (CONTINUED)

OB ALOS (DAYS)						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	2.96	2.89	2.96	2.92	2.91	2.67
MEDSTAR MONTGOMERY	2.74	2.66	2.72	2.74	2.58	2.52
SHADY GROVE ADVENTIST	2.84	2.87	2.89	2.94	2.89	2.96
SUBURBAN *	2.62	2.52	2.08	2.36	2.75	1.94
WASHINGTON ADVENTIST	2.91	2.90	2.83	2.83	2.79	2.57
Total	**2.91**	**2.88**	**2.91**	**2.91**	**2.88**	**2.74**
Prince George's County General Hospitals						
DOCTORS COMMUNITY *	2.08	2.08	2.06	1.89	2.04	1.59
FORT WASHINGTON *	1.95	1.58	1.75	1.47	1.14	1.76
LAUREL REGIONAL	2.50	2.39	2.30	2.41	2.55	2.50
PRINCE GEORGE'S	2.74	2.75	2.93	2.97	2.91	2.93
SOUTHERN MARYLAND	2.69	2.63	2.65	2.60	2.62	2.65
Total	**2.68**	**2.65**	**2.74**	**2.74**	**2.73**	**2.72**
All Maryland Hospitals	**2.81**	**2.80**	**2.83**	**2.83**	**2.77**	**2.74**

Source: HSCRC Discharge Database.
* Hospital does not operate an organized obstetric service or have licensed OB beds.

Table 12: Pediatric Discharges, Discharge Days, and Average Length of Stay Montgomery and Prince George's County Hospitals, CY 2006 - 2011

PEDIATRIC DISCHARGES						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	1,032	987	969	998	866	818
MEDSTAR MONTGOMERY	66	59	42	32	47	57
SHADY GROVE ADVENTIST	1,608	1,739	1,606	1,643	1,215	832
SUBURBAN	130	109	76	117	112	90
WASHINGTON ADVENTIST *	9	21	2	3	4	1
Total	**2,845**	**2,915**	**2,695**	**2,793**	**2,244**	**1,798**
Prince George's County General Hospitals						
DOCTORS COMMUNITY *	6	2	5	0	4	0
FORT WASHINGTON *	0	0	0	0	0	0
LAUREL REGIONAL *	6	1	0	3	3	0
PRINCE GEORGE'S	161	141	109	201	75	44
SOUTHERN MARYLAND	266	260	188	187	152	93
Total	**439**	**404**	**302**	**391**	**234**	**137**
All Maryland Hospitals	**23,820**	**23,864**	**22,793**	**24,774**	**21,077**	**19,493**

Source: HSCRC Discharge Database.
* Hospital does not operate an organized pediatric service or have a licensed pediatric bed.

Table 12: Pediatric Discharges, Discharge Days, and Average Length of Stay
Montgomery and Prince George's County Hospitals, CY 2006 - 2011 (CONTINUED)

PEDIATRIC DISCHARGE DAYS						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	2,285	2,095	2,099	2,209	1,783	1,690
MEDSTAR MONTGOMERY	151	100	79	70	75	101
SHADY GROVE ADVENTIST	4,159	4,167	4,137	3,967	2,585	2,067
SUBURBAN	191	168	135	179	160	139
WASHINGTON ADVENTIST *	20	60	3	4	11	1
Total	**6,806**	**6,590**	**6,453**	**6,429**	**4,614**	**3,998**
Prince George's County General Hospitals						
DOCTORS COMMUNITY *	12	3	14	0	9	0
FORT WASHINGTON *	0	0	0	0	0	0
LAUREL REGIONAL *	0	3	0	10	2	0
PRINCE GEORGE'S	401	342	236	1,008	511	103
SOUTHERN MARYLAND	511	544	446	378	367	234
Total	**924**	**892**	**696**	**1,396**	**889**	**337**
All Maryland Hospitals	**74,701**	**76,504**	**72,011**	**81,883**	**73,971**	**64,463**

Source: HSCRC Discharge Database.
* Hospital does not operate an organized pediatric service or have a licensed pediatric bed.

Table 12: Pediatric Discharges, Discharge Days, and Average Length of Stay
Montgomery and Prince George's County Hospitals, CY 2006 - 2011 (CONTINUED)

PEDIATRIC ALOS (DAYS)						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	2.21	2.12	2.17	2.21	2.06	2.07
MEDSTAR MONTGOMERY .	2.29	1.69	1.88	2.19	1.60	1.77
SHADY GROVE ADVENTIST	2.59	2.40	2.58	2.41	2.13	2.48
SUBURBAN	1.47	1.54	1.78	1.53	1.43	1.54
WASHINGTON ADVENTIST *	2.22	2.86	1.50	1.33	2.75	1.00
Total	**2.39**	**2.26**	**2.39**	**2.30**	**2.06**	**2.22**
Prince George's County General Hospitals						
DOCTORS COMMUNITY *	2.00	1.50	2.80	NA	2.25	NA
FORT WASHINGTON *	NA	NA	NA	NA	NA	NA
LAUREL REGIONAL *	0.00	3.00	NA	3.33	0.67	NA
PRINCE GEORGE'S	2.49	2.43	2.17	5.01	6.81	2.34
SOUTHERN MARYLAND	1.92	2.09	2.37	2.02	2.41	2.52
Total	**2.10**	**2.21**	**2.30**	**3.57**	**3.80**	**2.46**
All Maryland Hospitals	**3.14**	**3.21**	**3.16**	**3.31**	**3.51**	**3.31**

Source: HSCRC Discharge Database.
* Hospital does not operate an organized pediatric service or have a licensed pediatric bed.

Table 13: Psychiatric Discharges, Discharge Days, and Average Length of Stay Montgomery and Prince George's County Hospitals, CY 2006 - 2011

ACUTE PSYCHIATRIC DISCHARGES						
	2006	2007	2008	2009	2010	2011
Montgomery County Hospitals						
HOLY CROSS	55	40	49	42	91	137
MEDSTAR MONTGOMERY	1,127	1,110	1,177	1,256	1,279	1,283
SHADY GROVE ADVENTIST	30	41	57	40	44	35
SUBURBAN	933	997	916	1,078	1,195	1,407
WASHINGTON ADVENTIST	2,067	2,006	1,798	1,972	1,756	1,726
Total	**4,212**	**4,194**	**3,997**	**4,388**	**4,365**	**4,588**
Prince George's County Hospitals						
DOCTORS COMMUNITY	32	35	14	15	17	25
FORT WASHINGTON	9	7	7	7	6	13
LAUREL REGIONAL	600	580	646	765	800	897
PRINCE GEORGE'S	1,139	1,148	918	1,266	1,340	1,420
SOUTHERN MARYLAND	1,454	1,315	1,330	1,312	1,333	1,278
Total	**3,234**	**3,085**	**2,915**	**3,365**	**3,496**	**3,633**
All Maryland Hospitals	**30,922**	**31,302**	**31,573**	**33,531**	**34,143**	**36,135**

Source: HSCRC Discharge Database.
*Holy Cross Hospital, Shady Grove Adventist Hospital, Doctors Community Hospital, and Fort Washington Hospital do not operate an organized psychiatric service or have a licensed psychiatric bed. Adventist Behavioral Care Center is a freestanding acute psychiatric hospital operated by AHC and located in Rockville near the Shady Grove Adventist Hospital campus.

Table 13: Psychiatric Discharges, Discharge Days, and Average Length of Stay Montgomery and Prince George's County Hospitals, CY 2006 – 2011 (CONTINUED)

ACUTE PSYCHIATRIC DISCHARGE DAYS						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	231	167	280	192	274	568
MEDSTAR MONTGOMERY	5,440	5,204	6,160	6,276	5,885	5,687
SHADY GROVE ADVENTIST	80	125	135	158	143	112
SUBURBAN	5,997	5,607	5,292	5,725	6,285	6,948
WASHINGTON ADVENTIST	9,686	10,130	9,477	9,733	8,997	8,944
Total	**21,434**	**21,233**	**21,344**	**22,084**	**21,584**	**22,259**
Prince George's County General Hospitals						
DOCTORS COMMUNITY	91	134	47	48	38	81
FORT WASHINGTON	44	11	16	15	15	39
LAUREL REGIONAL	3,093	2,804	3,831	3,066	2,523	3,649
PRINCE GEORGE'S	7,514	6,616	5,308	6,973	7,871	7,866
SOUTHERN MARYLAND	6,868	6,512	6,317	6,374	5,888	6,446
Total	**17,610**	**16,077**	**15,519**	**16,476**	**16,335**	**18,081**
All Maryland Hospitals	**180,497**	**181,476**	**180,398**	**186,478**	**191,825**	**205,334**

Source: HSCRC Discharge Database.
*Holy Cross Hospital, Shady Grove Adventist Hospital, Doctors Community Hospital, and Fort Washington Hospital do not operate an organized psychiatric service or have a licensed psychiatric bed. Adventist Behavioral Care Center is a freestanding acute psychiatric hospital operated by AHC and located in Rockville near the Shady Grove Adventist Hospital campus.

Table 13: Psychiatric Discharges, Discharge Days, and Average Length of Stay Montgomery and Prince George's County Hospitals, CY 2006 – 2011 (CONTINUED)

ACUTE PSYCHIATRIC ALOS (DAYS)						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	4.20	4.18	5.71	4.57	3.01	4.15
MEDSTAR MONTGOMERY	4.83	4.69	5.23	5.00	4.60	4.43
SHADY GROVE ADVENTIST	2.67	3.05	2.37	3.95	3.25	3.20
SUBURBAN	6.43	5.62	5.78	5.31	5.26	4.94
WASHINGTON ADVENTIST	4.69	5.05	5.27	4.94	5.12	5.18
Total	5.09	5.06	5.34	5.03	4.94	4.85
Prince George's County General Hospitals						
DOCTORS COMMUNITY	2.84	3.83	3.36	3.20	2.24	3.24
FORT WASHINGTON	4.89	1.57	2.29	2.14	2.50	3.00
LAUREL REGIONAL	5.16	4.83	5.93	4.01	3.15	4.07
PRINCE GEORGE'S	6.60	5.76	5.78	5.51	5.87	5.54
SOUTHERN MARYLAND	4.72	4.95	4.75	4.86	4.42	5.04
Total	5.45	5.21	5.32	4.90	4.67	4.98
All Maryland Hospitals	5.84	5.80	5.71	5.56	5.62	5.68

Source: HSCRC Discharge Database.

* Holy Cross Hospital, Shady Grove Adventist Hospital, Doctors Community Hospital, and Fort Washington Hospital do not operate an organized psychiatric service or have a licensed psychiatric bed. Adventist Behavioral Care Center is a freestanding acute psychiatric hospital operated by AHC and located in Rockville near the Shady Grove Adventist Hospital campus.

Table 14: Total Acute Care Discharges, Discharge Days, and Average Length of Stay Montgomery and Prince George's County Hospitals, CY 2006 - 2011

TOTAL ACUTE CARE DISCHARGES						
	2006	2007	2008	2009	2010	2011
Montgomery County Hospitals						
HOLY CROSS	27,096	26,790	26,559	27,584	28,200	27,676
MEDSTAR MONTGOMERY	9,254	9,863	10,312	9,911	9,882	9,226
SHADY GROVE ADVENTIST	19,111	20,283	21,011	22,006	21,764	20,902
SUBURBAN	13,835	14,574	14,819	14,165	13,935	14,033
WASHINGTON ADVENTIST	17,648	17,959	17,349	17,611	16,094	14,329
Total	86,944	89,469	90,050	91,277	89,875	86,166
Prince George's County Hospitals						
DOCTORS COMMUNITY	11,506	11,939	11,589	12,140	13,136	12,498
FORT WASHINGTON	2,772	2,925	2,941	3,038	3,010	2,270
LAUREL REGIONAL	6,179	5,998	6,167	5,959	5,578	5,150
PRINCE GEORGE'S	14,931	13,557	13,797	13,820	13,361	11,907
SOUTHERN MARYLAND	17,505	17,280	17,659	16,929	16,796	16,362
Total	52,893	51,699	52,153	51,886	51,881	48,187
All Maryland Hospitals	667,964	673,822	685,764	690,461	663,362	634,995

Source: HSCRC Discharge Database.

Table 14: Total Acute Care Discharges, Discharge Days, and Average Length of Stay Montgomery and Prince George's County Hospitals, CY 2006 – 2011 (CONTINUED)

TOTAL ACUTE CARE DISCHARGE DAYS						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	105,089	104,737	104,632	104,499	104,638	104,066
MEDSTAR MONTGOMERY	37,358	41,190	44,671	42,008	41,106	36,379
SHADY GROVE ADVENTIST	68,830	74,736	80,440	87,381	85,461	86,149
SUBURBAN	56,757	61,518	62,373	59,305	58,559	58,600
WASHINGTON ADVENTIST	75,233	77,430	75,638	74,546	71,138	66,252
Total	**343,267**	**359,611**	**367,754**	**367,739**	**360,902**	**351,446**
Prince George's County General Hospitals						
DOCTORS COMMUNITY	48,732	50,898	49,430	48,876	55,413	54,145
FORT WASHINGTON	10,845	11,139	11,281	10,984	10,890	8,777
LAUREL REGIONAL	24,851	24,139	25,382	23,455	21,624	20,230
PRINCE GEORGE'S	71,446	62,405	65,602	63,297	64,389	58,020
SOUTHERN MARYLAND	67,393	65,316	64,203	61,572	60,569	63,087
Total	**223,267**	**213,897**	**215,898**	**208,184**	**212,885**	**204,259**
All Maryland Hospitals	**2,744,510**	**2,777,029**	**2,828,387**	**2,808,328**	**2,717,883**	**2,695,163**

Source: HSCRC Discharge Database.

Table 14: Total Acute Care Discharges, Discharge Days, and Average Length of Stay Montgomery and Prince George's County Hospitals, CY 2006 – 2011 (CONTINUED)

TOTAL ACUTE CARE ALOS (DAYS)						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	3.88	3.91	3.94	3.79	3.71	3.76
MEDSTAR MONTGOMERY	4.04	4.18	4.33	4.24	4.16	3.94
SHADY GROVE ADVENTIST	3.60	3.68	3.83	3.97	3.93	4.12
SUBURBAN	4.10	4.22	4.21	4.19	4.20	4.18
WASHINGTON ADVENTIST	4.26	4.31	4.36	4.23	4.42	4.62
Total	**3.95**	**4.02**	**4.08**	**4.03**	**4.02**	**4.08**
Prince George's County General Hospitals						
DOCTORS COMMUNITY	4.24	4.26	4.27	4.03	4.22	4.33
FORT WASHINGTON	3.91	3.81	3.84	3.62	3.62	3.87
LAUREL REGIONAL	4.02	4.02	4.12	3.94	3.88	3.93
PRINCE GEORGE'S	4.79	4.60	4.75	4.58	4.82	4.87
SOUTHERN MARYLAND	3.85	3.78	3.64	3.64	3.61	3.86
Total	**4.22**	**4.14**	**4.14**	**4.01**	**4.10**	**4.24**
All Maryland Hospitals	**4.11**	**4.12**	**4.12**	**4.07**	**4.10**	**4.24**

Source: HSCRC Discharge Database

IV. REVIEW AND ANALYSIS

The Commission is required to make its decisions in accordance with the general CON review criteria at COMAR 10.24.01.08G(3)(a) through (f). The first of these six general criteria require the Commission to consider and evaluate this application according to all relevant State Health Plan ("SHP") standards and policies.

A. The State Health Plan

COMAR 10.24.01.08G(3)(a) State Health Plan.
An application for a Certificate of Need shall be evaluated according to all relevant State Health Plan standards, policies, and criteria.

The relevant State Health Plan chapters are COMAR 10.24.10, Acute Inpatient Services, COMAR 10.24.12, Acute Hospital Inpatient Obstetric Services, and COMAR 10.24.07, Psychiatric Services.

COMAR 10.24.10 - State Health Plan for Facilities and Services: Acute Care Hospital Services

COMAR 10.24.10.04A — General Standards.

(1) <u>Information Regarding Charges.</u> ***Information regarding hospital charges shall be available to the public. After July 1, 2010, each hospital shall have a written policy for the provision of information to the public concerning charges for its services. At a minimum, this policy shall include:***

(a) Maintenance of a Representative List of Services and Charges that is readily available to the public in written form at the hospital and on the hospital's internet web site;
(b) Procedures for promptly responding to individual requests for current charges for specific services/procedures; and
(c) Requirements for staff training to ensure that inquiries regarding charges for its services are appropriately handled.

<u>Applicant's Response</u>

The applicant's response stated that WAH has a written policy for the provision of information to the public concerning charges for its services. The policy applies to AHC's two Maryland hospitals, WAH and SGAH. The policy stipulates that a representative list of services and charges will be made available to the public in written form at the hospital(s) and via its website, http://www.washingtonadventisthospital.com/pdf/WAH-Billing-HospitalCharges.pdf. The policy also states that "individuals or their payor representative may make a request for an estimate of charges for any scheduled or non-scheduled diagnostic test or service." (DI #131, Vol. 1, Att. C) The policy specifies that the department is responsible for ensuring that staff training is provided related to charge estimates and use of estimator tools. (DI #131, Vol.1, p.22 and Att. C).

Reviewer's Analysis and Findings

The link provided by WAH does not lead to a representative list of services and charges on its website and was apparently incorrect. When I went to WAH's website looking for the list, and entered the word "charges" into its search option, no document was returned that contained a representative list of services and charges. The standard requires that the list of services and charges be readily available to the public. I was able to locate charge information on the WAH website after following the "Pay My Bill" Quicklink on the WAH homepage. While this charge information is similar in many respects with the State Health Plan definition of "representative list of services and charges," it does not fully match this requirement. The SHP defines "representative list of services and charges" to mean, at a minimum, a list containing:

> (a) The average charge per case for the ten most frequently occurring inpatient diagnoses (determined by DRG) for discharged medical/surgical patients, and also for discharged obstetric patients, discharged pediatric patients, and discharged acute psychiatric patients, if the hospital operates an inpatient unit for any of these latter three services; and
>
> (b) The average charge per procedure for the ten most frequently occurring outpatient procedures (defined by CPT codes) in three clinical areas: diagnostic imaging; outpatient surgery; and laboratory services. This list should be updated, with respect to DRGs, CPT codes, and charges, at least quarterly.

The WAH website provides a charge range and estimated average charge for 21 "common inpatient procedures." It is not clear if this list represents charge information for the most frequently occurring inpatient diagnoses, by diagnostic-related group (DRG), called for in the standard, and it does not provide the breakout by specific inpatient service called for in the definition. The site also provides a charge range and estimated average charge for 27 "common outpatient procedures" and an average charge total for 21 "laboratory" services and 20 "radiology" services. It is not clear that these lists represent the ten most frequently occurring outpatient procedures in diagnostic imaging and laboratory services nor is it clear that the "common outpatient procedures" list represents information on outpatient surgery charges, as required by this standard.

This requirement became effective on July 1, 2010, after the filing of this CON application but well before the CON application took its final form in March, 2011 and WAHI's provision of the link noted above. Therefore, I must find that WAH is not in full compliance with this standard. If this, or similar standards, were the only problem with the WAHI application, the deficiencies would have been resolved through a project status conference procedure, because they should be easily correctable. However, there are more fundamental problems with this application that cannot be cured through this process.

(2) Charity Care Policy ***Each hospital shall have a written policy for the provision of charity care for indigent patients to ensure access to services regardless of an individual's ability to pay.***

(a) The policy shall provide:

(i) Determination of Probable Eligibility. Within two business days following a patient's request for charity care services, application for medical assistance, or both, the hospital must make a determination of probable eligibility.

(ii) Minimum Required Notice of Charity Care Policy.

1. ***Public notice of information regarding the hospital's charity care policy shall be distributed through methods designed to best reach the target population and in a format understandable by the target population on an annual basis;***
2. ***Notices regarding the hospital's charity care policy shall be posted in the admissions office, business office, and emergency department areas within the hospital; and***
3. ***Individual notice regarding the hospital's charity care policy shall be provided at the time of preadmission or admission to each person who seeks services in the hospital.***

(b) A hospital with a level of charity care, defined as the percentage of total operating expenses that falls within the bottom quartile of all hospitals, as reported in the most recent Health Service Cost Review Commission Community Benefit Report, shall demonstrate that its level of charity care is appropriate to the needs of its service area population.

Applicant's Response

In responding to part (a) of this standard, the applicant stated that WAH's charity care policy provides for a determination of probable eligibility by the Manager of Collections and Customer Service (or designee) within two business days following the patient's request accompanied by a complete application. The applicant stated that WAH provides public notice of its charity care policy to patients through posted written notices at all access points including the emergency department, the cashier, and patient accounting offices, as well as giving individual notice of the policy to each person who seeks service in the hospital at the time of preadmission or admission. Adventist HealthCare d.b.a. WAH also publishes annual notices regarding its charity care policy each July in all Montgomery County editions of the Gazette and the College Park/Greenbelt, Hyattsville, and Laurel editions of the Gazette. (DI #131, Vol.1, pp. 26-27 and Att. D)

In response to part (b), the applicant reported that WAH's charity care for CY 2009 and FY 2010 (year end June 2010) equaled 3.2% of its total charges compared to a statewide average of 2.4%. The applicant also stated that WAH had the fourth highest charity care as percent of total operating expenses (4%) in FY 2007. (DI #131, Vol. 1, pp. 24 and 27)

Interested Party and Participating Entity Comments

CTP

In its April 11, 2011 comments, the City of Takoma Park ("CTP") stated that the historical charity and bad debts that WAHI claims credit for in responding to this standard are rooted in its current location in Takoma Park. CTP noted that SGAH, which is in a higher socioeconomic region ranked lower than WAH in terms of charity care as a percent of total charges in 2009. Thus, CTP believed that the charity profile of WAHI will be lower than WAH as a result of the move to the higher income area of White Oak. CTP expressed concern that the White Oak location will be significantly less accessible to sizeable sector of its residents. (DI

#146, p. 14) Related to this, CTP stated that it believes any favorable action on this application should include a condition that, "WAHI/Adventist HealthCare must provide documentation that the charity care policy for all services at the Takoma Park location will be identical or equivalent to the charity care policy at WAHI White Oak." (DI #146, p.7)

Reviewer's Analysis and Findings

WAH's charity care policy provides that the Manager of Collections and Customer Service (or designee) shall "determine probable eligibility within two business days following the patient's request accompanied by a *complete* application." (emphasis added; DI #131, Att. D) This policy is not in compliance with part (a) of this standard, because the policy requires a patient to have a *complete* application before the Manager of Collections and Customer Service will make a determination of *probable* eligibility. The purpose of this standard is to give a potential patient seeking charity care an idea fairly quickly as to whether the patient will be able to obtain services. The standard's required two-day turnaround for a determination of *probable* eligibility permits a patient to know their likely eligibility for charity care, if the underlying required documentation bears out what the patient represented in a request for charity care or application for medical assistance. It can take a patient days or weeks to get all the required documentation needed for a *complete* application. This standard requires a determination of probable eligibility; a final determination of eligibility can be made after the application is complete and has required supporting documentation.

I recognize CTP's concern that its population continue to have access to affordable health care and that part of this access concern includes access to charity care for all services at the Takoma Park Village of Health, Education, and Well Being that is comparable to what will be available at WAHI White Oak. I share CTP's concern as it relates to all the population of WAH's current primary service area ("PSA") and particularly the indigent and uninsured. I address this concern later in this Recommended Decision when I discuss the Adverse Impact standard, COMAR 10.24.10.04B(3).

As for part (b), the applicant's reference to WAH's charity care as a percentage of total charges is not responsive to the specific language of this standard, and the reference to FY 2007 data is dated. However, my review of the charity care data as reported in the most recent HSCRC Community Benefit Report (for FY 2011) found that WAH's level of charity care as a percentage of total operating expenses is in the second quartile of Maryland hospitals. Specifically, WAH's charity care as a percent of total operating expenses was 4.30% for FY 2011 compared to a statewide median of 2.96%. It ranked 12th out of 46 Maryland hospitals. AHC's record at SGAH suggests that the relocation of WAH to White Oak will not necessarily cause a significant change in WAH's relative position with respect to the level of charity care it provides. SGAH is located in an area with a somewhat better socioeconomic profile and its charity care level for FY 2011 was 3.8% of its total operating expenses. This ranked SGAH 17th in Maryland and also put it in the second quartile.

I find that WAH does not comply with this standard and that WAHI's application cannot be viewed as consistent with this standard because the policy provided requires a complete application for a timely determination of probable eligibility. If this, or similar standards, were

the only concern with the WAHI application, the deficiencies would have been resolved through a status conference procedure, because they should be easily correctable. However, there are more fundamental problems with this application that cannot be cured through this process.

(3) Quality of Care

An acute care hospital shall provide high quality care.
(a) Each hospital shall document that it is:
- ***(i) Licensed, in good standing, by the Maryland Department of Health and Mental Hygiene;***
- ***(ii) Accredited by the Joint Commission; and***
- ***(iii) In compliance with the conditions of participation of the Medicare and Medicaid programs.***

(b) A hospital with a measure value for a Quality Measure included in the most recent update of the Maryland Hospital Performance Evaluation Guide that falls within the bottom quartile of all hospitals' reported performance measured for that Quality Measure and also falls below a 90% level of compliance with the Quality Measure, shall document each action it is taking to improve performance for that Quality Measure.

Applicant's Response

The applicant stated that WAH is licensed and in good standing with the Maryland Department of Health and Mental Hygiene and in compliance with all Medicaid and Medicare conditions of participation. The applicant also stated that WAH is accredited by the Joint Commission and submitted documentation of accreditation effective October 2, 2010. Such accreditation is customarily valid for 39 months. (DI #131, Vol. 1, p. 28 and Att. E)

Regarding part (b), the applicant reported that WAH had values for four Quality Measures that were in the bottom quartile with scores below 90% on the Maryland Hospital Performance Evaluation Guide for the period from July 2009 through June 2010. The four Quality Measures were: (1) heart failure-discharge instructions; (2) pneumonia-pneumococcal vaccination; (3) surgical care improvement project-cardiac patients with controlled 6 a.m. postoperative blood glucose; and (4) surgical care improvement project-surgery patients who received the appropriate beta-blocker during the perioperative period.

WAHI reported the actions that WAH took to address each of these quality measures. With respect to heart failure discharge instructions, WAH had a score of 77% compared to a State average of 86%. The applicant identified WAH's documentation problems and inconsistencies between discharge instructions and discharge summary. WAH's actions reported by WAHI included changes in the forms, changes in the timing and procedures for completing the forms, posting of reminder notices, and re-education of physicians and nurses. In the most recent Quality Measures data reported on MHCC's Hospital Performance Evaluation Guide, for CY 2011, WAH's performance was 88% compared to a statewide average of 91%.

With respect to the Quality Measure "Giving Vaccination Against Pneumonia", WAH had a score of 81% compared to a statewide average of 92%. The applicant identified WAH's

problems with completion and consistency of the forms and actual performance. WAH implemented a concurrent review process by its Quality Department with reviews of open charts and prompts to staff/managers to complete the form and/or provide the vaccine as indicated. WAHI reported WAH's improvement to 93% compliance through December 2010. In the most recent Quality Measures data reported on MHCC's Hospital Performance Evaluation Guide, for CY 2011, WAH's performance on this quality measure was 96%, which is the same level as the statewide average.

With the respect to the Quality Measure "Cardiac Surgery Patients with Controlled 6 am Postoperative Blood Glucose", the applicant reported that WAH had a score of 86% compared to a statewide average of 91%. In addition to very close monitoring of blood glucose and tightly managed insulin administration for post cardiac surgery patients, the applicant noted that WAH is purchasing a software program that determines the optimal titration of insulin for each patient. In the most recent Quality Measures data reported on MHCC's Hospital Performance Evaluation Guide, for CY 2011, WAH's performance on this quality measure was 89%, compared to a statewide average of 94%.

With the respect to the Quality Measure "Surgery Patients who receive the Appropriate Beta-Blocker during the Perioperative Period", WAHI reported that WAH had a score of 79% compared to a statewide average of 90%. The applicant indicated that WAH has added both a beta-blocker assessment to the anesthesia intake form and a prompt that directs a provider to indicate whether a patient is on a beta-blocker. In the most recent Quality Measures data reported on MHCC's Hospital Performance Evaluation Guide, for CY 2011, WAH's performance on this quality measure was 91%, compared to a statewide average of 95%.

Reviewer's Analysis and Findings

Washington Adventist Hospital has submitted the necessary documentation to comply with part (a) of this standard. With respect to part (b) of the standard, MHCC's website currently reports CY 2011 performance on the quality measures and WAH's performance relative to the state average for all other reporting hospitals is shown in the following Table 15 One can see that WAH's performance has improved to a score above 90% on two of the four quality measures flagged by this standard when it was addressed by WAH; giving vaccination against pneumonia and surgery patient receiving appropriate beta-blocker during the perioperative period. WAH continues to fall just below the 90% performance level on the other two measures, an improvement over the performance levels at the time that this application was finalized. This still places them within the bottom quartile of all hospitals' reported performance measured for those two Quality Measures.

Table 15: Clinical Quality Performance Measures –WAH – January, 2011 through December 2011

Quality Measure	WAH (%*)	State Average (%*)	Bottom Quartile Threshold (equal to or below this percentage)	Number of Hospitals Reported for this Measure (n)
Heart Attack (AMI)				
1. Aspirin at arrival	100	99	99	45
2. Aspirin prescribed at discharge	100	99	98	45
3. ACE inhibitor for LVSD	100	97	97	40
4. Adult smoking cessation advice/counseling	100	99	100	42
5. Beta blocker prescribed at discharge	100	99	99	45
Heart Failure (CHF)				
1. Discharge instructions	88	91	89	45
2. LVF assessment	98	99	99	45
3. ACEI for LVSD	99	96	95	45
4. Adult smoking cessation advice/counseling	98	99	100	45
Pneumonia**				
2. Pneumococcal Vaccination	96	96	95	45
3. Blood Tests	99	95	93	45
4. Adult smoking cessation advice/counseling	97	99	99	45
5. Antibiotics within 6 hours	99	95	94	45
6. Appropriate Initial Antibiotics	98	96	94	45
7.During Flu Season Patients Assessed & Given Vaccination	100	94	89	45
Surgical Care Improvement Project (Colon, Knee and Hip)				
1. Prophylactic antibiotic received within 1 hour prior to surgical incision	98	97	97	46
2. Prophylactic antibiotic selection for surgical patients	98	98	97	46
3. Prophylactic antibiotic discontinued within 24 hours after surgery end time	97	97	94	46
4. Cardiac surgery patients with controlled 6 a.m. post-operative blood glucose	89	94	90	10
5. Surgery patients with appropriate hair removal prior to surgery	100	100	100	46
6. Surgery patients who receive the appropriate beta-blocker during the peri-operative period	91	95	92	46
7. Surgery patients whose doctors ordered treatments to prevent blood clots	96	97	96	46
8. Surgery patients who received treatment at the appropriate time to help prevent blood clots	93	96	95	46
9. Urinary catheter removed post-operatively on a timely basis***	95	94	NA	NA
10. Surgery patients with perioperative temperature management***	98	100	NA	NA

Source**:** MHCC website, updated July 11, 2012

*Rounded.

**PN1 – oxygenation - is no longer reported as Maryland hospitals all reached very high levels of performance; thus, reporting data is no longer meaningful in terms of comparing performance.

***Information allowing for a quartile threshold calculation is not available for the entire twelve-month period of CY 2011 period for these two measures.

WAH has complied with this standard. While its performance on two quality measures still places it in a strata indicated by this standard to be low performance, under the most recent scores published by MHCC, it has made improvements in its scores on these measures during the course of this project review.

COMAR 10.24.10.04B-Project Review Standards

(1) Geographic Accessibility

A new acute care general hospital or an acute care general hospital being replaced on a new site shall be located to optimize accessibility in terms of travel time for its likely service area population. Optimal travel time for general medical/surgical, intensive/critical care and pediatric services shall be within 30 minutes under normal driving conditions for 90 percent of the population in its likely service area.

Applicant's Response

WAHI stated that its proposed location in the Fairland/White Oak section of Montgomery County, approximately 6.6 miles from its current location, is in the center of its service area. WAHI noted that the current location in Takoma Park is not easily accessible because the hospital is only accessible by two lane residential streets. The applicant contrasted the proposed location to the current location, pointing to the proposed location's accessibility to major roads including Cherry Hill Road, Route 29, I-95, and the Inter County Connector. WAHI also pointed out the accessibility of the proposed site to bus routes with existing service by Metrobus, the efforts by hospital representatives to work with Metrobus to enhance service connections to existing routes originating in Price George's County, and plans by Montgomery County to extend its Ride-On bus #10 to the site. WAHI further noted that the Montgomery County Special Exception and Site Plan approvals commit WAHI to an employee shuttle bus that would operate between the current campus and the new campus. (DI #131, Vol. 1, pp. 30-31 and DI #42, Att. 7)

Referencing the Commission's July 21, 2000 working paper, "Acute Inpatient Obstetric Services", the applicant also noted that all geographic areas served by WAH are within the 30 minute drive time of a Maryland acute care hospital in moderate traffic. WAHI stated that the proposed relocation will not change this drive time given the short distance between the two campuses and the close location of neighboring acute care general hospitals in Montgomery and Prince George's Counties and Washington, D.C. (DI # 131, Vol. 1, pp. 30-31)

Interested Party and Participating Entity Comments

HCH

While HCH did not comment on WAHI's response to this standard in WAHI's March 2011 update of its application, HCH did comment on WAHI's response to this standard in WAHI's original application of April 2009. HCH also submitted a brief comment on WAHI response to the standard in WAHI's October 2009 modification, stating that WAHI did not change its response to this standard other than including the information provided in its May 29, 2009 completeness responses. (DI #59, p. 2)

In commenting on the original application, HCH disagreed with WAHI's claim that the proposed location will have greater accessibility than the current location. HCH noted that the current location is far more accessible to the residents of the 16 zip codes in WAH's PSA. To illustrate this point, HCH compared PSA residents' travel times to WAH's current location with travel times to the proposed location. HCH determined that the current site is closer to the PSA residents of 10 of the zip code areas, the proposed location is closer to five zip codes and one zip code is equidistance. (DI #30, pp. 1-2)

LRH/MMMC

Laurel Regional Hospital and MMMC submitted joint comments on WAH's March 2011 update of its CON Application and responses to additional questions. Neither the joint comments nor any of the individual comments filed previously by the interested parties addressed the geographic accessibility standard.

CTP

CTP did not provide any comments specific to the requirements of this standard.

Applicant's Response to Comments

In responding to HCH's comments on the original application, WAHI stated that HCH's perspective on optimizing accessibility would not allow a hospital to relocate unless the current and proposed location were equidistant from the population served. WAHI noted that the plain and logical meaning of the standard is that a new location for an existing hospital must be accessible from a travel perspective. (DI #44, pp.11-12)

Reviewer's Analysis and Findings

This project review standard requires that an acute care general hospital being replaced on a new site be located to optimize travel time for its likely service area population. Optimal travel time for general medical/surgical, intensive /critical care and pediatric services is defined as within 30 minutes under normal driving conditions for 90 percent of the population. The part of the standard regarding pediatric services is not applicable, since the existing hospital does not offer inpatient pediatric services and WAHI is not seeking to do so at the new site.

Regarding general medical surgical and intensive/critical care services, I considered HCH's comparison of travel times to the current location and to the proposed location. (DI #30, pp. 2-3 and Ex. 1) My review indicates that, while the replacement hospital would be further from 10 of the zip code areas than the current location, none of the zip code areas will be more than 30 minutes away from the proposed site, with the longest travel time being 23 minutes. In addition, I analyzed the travel time from each zip code area in Montgomery County and Prince George's County to the nearest hospitals using Freeway 2009 drive time generator software, under somewhat congested traffic conditions from the population-weighted center of each zip code area as described in greater detail under the Impact criterion. The results indicate that all of

the Montgomery County and Prince George's County zip code areas are currently within 30 minutes of an acute care general hospital.

Based on this analysis, I conclude that WAHI's proposal to replace the hospital on a new site approximately seven miles north of its current site complies with this standard, which calls for reasonable access to hospital services, expressed in terms of travel time, for Maryland residents.

(2) Identification of Bed Need and Addition of Beds

Only medical/surgical/gynecological/addictions ("MSGA") beds and pediatric beds identified as needed and/or currently licensed shall be developed at acute care general hospitals.

(a) Minimum and maximum need for MSGA and pediatric beds are determined using the need projection methodologies in Regulation .05 of this Chapter.

(b) Projected need for trauma unit, intensive care unit, critical care unit, progressive care unit, and care for AIDS patients is included in the MSGA need projection.

(c) Additional MSGA or pediatric beds may be developed or put into operation only if:

(i) The proposed additional beds will not cause the total bed capacity of the hospital to exceed the most recent annual calculation of licensed bed capacity for the hospital made pursuant to Health-General §19-307.2; or

(ii) The proposed additional beds do not exceed the minimum jurisdictional bed need projection adopted by the Commission and calculated using the bed need projection methodology in Regulation .05 of this Chapter; or

(iii) The proposed additional beds exceed the minimum jurisdictional bed need projection but do not exceed the maximum jurisdictional bed need projection adopted by the Commission and calculated using the bed need projection methodology in Regulation .05 of this Chapter and the applicant can demonstrate need at the applicant hospital for bed capacity that exceeds the minimum jurisdictional bed need projection; or

(iv) The number of proposed additional MSGA or pediatric beds may be derived through application of the projection methodology, assumptions, and targets contained in Regulation .05 of this Chapter, as applied to the service area of the hospital.

Background

This standard requires that a proposal to increase capacity of either MSGA beds or pediatric beds must be justified in one of four ways. First, the applicant may demonstrate that the proposed bed increase will result in actual bed capacity at the hospital that is equal to or less than its current licensed acute care bed capacity. Second, a proposal may be consistent with the State Health Plan's current minimum jurisdictional bed need projection for the jurisdiction in which the hospital is located. The jurisdictional need projection consists of a range between a minimum gross bed need and a maximum gross bed need for MSGA beds and pediatric beds. The third approach is for the applicant to demonstrate that the additional beds are consistent with the maximum bed need for the jurisdiction and that there is a need for the additional beds at the applicant hospital. The final approach outlined in the standard is for the applicant to propose a service area analysis modeled on the jurisdictional bed need projection methodology.

When this application was filed, the Commission was projecting a 2016 minimum gross

MSGA bed need of 1,007 and a maximum gross MSGA bed need of 1,289. The updated MSGA bed need projections for 2018 (March, 2010) show a gross minimum of 995 beds needed by that forecast year and a maximum of 1,193 beds. The number of licensed MSGA beds in Montgomery County, effective July 1, 2012, is 1,022. In addition, on January 20, 2011, MHCC approved Holy Cross Hospital's CON application to build a new hospital in Germantown, Montgomery County, which is to include 75 MSGA beds. The number of licensed MSGA beds by hospital and the calculation of the minimum and maximum projected need for MSGA beds, (net of licensed and approved beds) are as follows:

Table 16: Licensed MSGA Beds in Montgomery County (July 1, 2012)

Hospital	Licensed MSGA Beds
Holy Cross	282
MedStar Montgomery Medical Center	100
Shady Grove	250
Suburban	199
Washington Adventist	191
Total	**1,022**

Table 17: Projected 2018 Minimum and Maximum MSGA Bed Need Montgomery County

	Gross Bed Need	Licensed & Approved* Beds	Net Bed Need
	2018	July 2012	2018
Minimum	995	1,097	-102
Maximum	1,193	1,097	96

*Including the CON approved 75 MSGA beds at Holy Cross Hospital - Germantown.

Applicant's Response

WAHI stated that it was not proposing additional MSGA beds in this project and pointed out that the proposed replacement facility will have 36 fewer general MSGA beds than the 186 general MSGA beds licensed at WAH at the time of the March 2011 updated CON application. The March 2011 update also reduced the proposed number of critical/intensive care unit beds from 34 beds to 32 beds. Thus, WAHI noted that it proposed a total physical bed capacity of 182 MSGA beds, 38 fewer beds than the total 220 MSGA beds licensed for the FY ending on June 20, 2011. As will be noted in Table 17 above, as of July 1, 2012, the number of beds allocated by WAH to MSGA has now declined to 191 beds, as the hospital's total licensed acute care bed allocation continues to decline. (DI #131; DI #134, pp. 3, 32-33)

Interested Party and Participating Entity Comments

No party submitted comments on WAHI's response to this standard.

Reviewer's Analysis and Findings

The proposed project, with 182 MSGA beds, will have a smaller physical capacity for MSGA beds than WAH currently reports, 241 beds, and a smaller physical capacity for MSGA beds than WAH currently allocates to MSGA in its total licensed bed complement (191 beds effective July 1, 2012). WAH does not have and its replacement is not proposed to have pediatric beds. Therefore, the project complies with this standard.

(3) Minimum Average Daily Census for Establishment of a Pediatric Unit

An acute care general hospital may establish a new pediatric service only if the projected average daily census of pediatric patients to be served by the hospital is at least five patients, unless:

(a) The hospital is located more than 30 minutes travel time under normal driving conditions from a hospital with a pediatric unit; or

(b) The hospital is the sole provider of acute care general hospital services in its jurisdiction.

This standard is not applicable to this project. WAH does not operate an inpatient pediatric unit and WAHI is not proposing to establish a pediatric unit.

(4) Adverse Impact

A capital project undertaken by a hospital shall not have an unwarranted adverse impact on hospital charges, availability of services, or access to services. The Commission will grant a Certificate of Need only if the hospital documents the following:

(a) If the hospital is seeking an increase in rates from the Health Services Cost Review Commission to account for the increase in capital costs associated with the proposed project and the hospital has a fully-adjusted Charge Per Case that exceeds the fully adjusted average Charge Per Case for its peer group, the hospital must document that its Debt to Capitalization ratio is below the average ratio for its peer group. In addition, if the project involves replacement of physical plant assets, the hospital must document that the age of the physical plant assets being replaced exceed the Average Age of Plant for its peer group or otherwise demonstrate why the physical plant assets require replacement in order to achieve the primary objectives of the project; and

(b) If the project reduces the potential availability or accessibility of a facility or service by eliminating, downsizing, or otherwise modifying a facility or service, the applicant shall document that each proposed change will not inappropriately diminish, for the population in the primary service area, the availability or accessibility to care, including access for the indigent and/or uninsured.

Applicant's Response

In response to part (a), WAHI stated that it did not assume a rate increase in the financial projections included in the application. However, WAHI also stated that it reserves "the right to request future rate increases based on HSCRC rate setting system methodology and criteria." (DI #42, p. 128)

In response to part (b), WAHI noted that the proposed project will not reduce the potential availability or accessibility of WAH's services, or change the availability or accessibility to care for indigent or uninsured residents in its service area. The applicant stated that the proposed project is needed, specifically to assure continued availability and accessibility to these very residents. WAHI explained that it must take measures to increase efficiency from what currently exists at the Takoma Park location in order to provide the maximum possible availability and accessibility to all the people who depend on it, including the indigent and uninsured. The applicant further noted that, without improved efficiency, WAH would no longer be a viable hospital, and would not be available nor accessible to any of its service area residents, including the indigent and uninsured. (DI #131, V. 1, pp. 34-36)

Regarding the proposed reduction in bed capacity of the hospital that will occur as a result of this project, WAHI stated that the downsizing will be more than made up for by gains in efficiency associated with all private rooms, reduced lengths of stay, and by encouraging fewer admissions. (DI #131 Vol. 1, pp. 34-35) Prior to its decision to reduce the number of beds proposed, as detailed in the March 2011 updated CON application, WAHI made the following three points to support the conclusion that there will be no adverse impact on the availability of services: (1) all of the acute care hospital services will be relocated to the "White Oak" campus; (2) The Comprehensive Inpatient Rehabilitation Service provided by the Adventist Rehabilitation Hospital will remain on the Takoma Park Campus; and (3) the Takoma Park campus will be extensively redeveloped to include integrated urgent care/primary care services, behavioral health clinic, dialysis center, and sleep lab. The urgent care/primary care services will include a Maternity Partnership Prenatal Clinic. (DI #42, pp. 27-28, DI #103, Updated App. to Att. 3, p. 1)

In its October 26, 2009 modified CON application, WAHI stated that current plans for the Village on the Takoma Park campus are for lower income patients to pay for services on the basis of a sliding scale, based on income. WAHI also noted that charity care will be available. (DI #42, p. 28) This portion of the response was explicitly stricken from the March 2011 update. (DI #131, Vol. 1, p. 36)

Interested Party and Participating Entity Comments

HCH

HCH did not submit specific comments regarding this standard in response to WAHI's March 2011 update. However, in responding to WAHI's original April 2009 application and its October 2009 modified application, HCH stated that the relocation would inappropriately diminish the availability and accessibility to care for the population of the primary service area including access for the indigent and uninsured. Holy Cross based this point in part on its comments to the geographical accessibility standard, COMAR 10.21.10.04B(1), where HCH noted that the Takoma Park campus is closer to 10 of the 16 zip code areas in WAH's current primary service area. HCH also noted certain characteristics of the population that would contribute to the adverse impact of the proposed relocation: (1) WAH's market share of the 10 zip code areas closer to the Takoma Park ("TP") campus was 39% of discharges from Maryland hospitals for FY 2009, compared to a market share of 15% for the five zip code areas that are

closer to the proposed location; (2) WAH's market share of Medicaid discharges was 45% in the 10 zip code areas that are closer to the TP campus, compared to 16% of the Medicaid discharges for the five zip code areas that are closer to the proposed campus; and, (3) WAH's market share of self-pay/charity care discharges was 60% in the 10 zip code areas that are closer to the TP campus, compared to 20% of the self-pay/charity care discharges for the five zip code areas that are closer to the proposed campus.

HCH stated that relocating the hospital from Takoma Park to White Oak/Fairland will make services provided by WAHI less convenient for the majority of the residents in WAH's current primary service area, particularly for residents who are indigent or uninsured. HCH pointed to the relocation of the emergency department and limitations of the proposed Village urgent care center in meeting the needs of area patients. (DI #30, pp. 3-6) In commenting on the changes included in WAH's October 2009 modification, HCH noted further concerns about WAH and AHC's commitment to the TP campus, pointing to the changes since the original application and questioning the involvement of WAH, the source of funds for servicing the existing debt, and the uncertain ownership and operator of programs that will remain at TP. HCH also noted the likely reduction of the level of charity care for the services that remain on the TP campus relative to what is now available to residents, and the lack of AHC's commitment to a specific level.

LRH/MMMC

LRH and MMMC submitted joint comments on WAH's March 2011 update of its CON application and responses to additional questions. LRH and MMMC stated that that WAHI's proposal does not satisfy this standard because WAHI is proposing to relocate from a location where it is able to serve a significant indigent population to an area surrounded by a much more affluent population that is already well served. In addition, LRH/MMMC noted that this indigent population will have to travel greater distances to seek care at other hospitals. (DI #144, p. 2)

In commenting on WAHI's original application, LRH stated that the average household income for the zip code areas surrounding WAH's current location ($78,107) is lower than that of the zip code areas surrounding the proposed location ($90,012). LRH also noted that the zip code areas surrounding WAH's current location have a higher percentage of admissions that are Medicaid, Charity, No Charge, or Self Pay (30.6%) than the percentage of such admissions from the zip code areas surrounding the proposed location (24%) as reported in HSCRC inpatient data. (DI #31, p. 13) Then, in its comments to WAHI's October 2009 modified application, LRH again summarized this same point, noting that the proposed relocation will move the hospital from an area of lower income and higher percentages of Medicaid recipients to a higher income area with fewer Medicaid and self-pay patients. LRH also pointed out that the more vulnerable portion of WAH's primary service area will suffer a substantial adverse impact because they will lose direct access to WAH's 24/7 full service ED, which accepts Medicaid and Medicare, is bound by federal and State antidumping laws, participates in the uncompensated care program of the HSCRC, and has a well-developed charity care policy. (DI #57, pp. 2-4)

In its comments to WAHI's original April 2009 application and October 2009 modified application, MMMC also noted that the relocation of WAH would move the hospital from an

area of lower income with a higher percentage of Medicaid recipients and self pay patients to an area of higher income and fewer Medicaid and self-pay patients. (DI #32, pp. 10-11 and DI #58, p. 2) MMMC believed the plans were ill-defined as to the services that would be established on the existing site (Village of Education, Health, and Wellbeing). Like LRH, MMMC stated that the most vulnerable portion of WAH's primary service area will suffer a substantial adverse impact because they will lose direct access to a 24/7 full service ED that accepts Medicaid and Medicare, that is bound by federal and State antidumping laws, that participates in the uncompensated care program of the HSCRC, and has a well-developed charity care policy. (DI #58, pp. 2-4)

CTP

In its April 11, 2011 comments, CTP stated that the updated application still fails to meet this standard because the proposed project moves services from a lower income area to a higher income area that is not as well served by public transportation. CTP noted that the City is well served by public transportation, but not well connected to the proposed site. Specifically, CTP pointed to the presence of a MetroRail Station and nine Ride On bus routes (most with all day, frequent service), eight regional Metrobus routes, and one University of Maryland route. Five of the Ride On bus routes, four of which have all day service, directly serve the current WAH site. In contrast, CTP explained that the proposed site is served by nine bus routes, almost all of which are limited to morning/evening rush hour service going to Park and Ride lots or the Food and Drug Administration ("FDA") campus. CTP pointed to two bus routes that serve the site more directly than the TP site, but characterized their schedules as being limited during mid-day hours. CTP noted that there is no MetroRail station in the proposed relocation area. CTP disagreed with WAHI's statement that Metrobus is the best type of bus service in the region, noting that the Ride On buses are the preferred bus system in Montgomery County. CTP pointed to the greater number of annual trips on the Ride On system in Montgomery County compared to the Metro bus system. Specifically, CTP explained that to travel by bus from Takoma Park to the relocated hospital, residents would need to get to University Boulevard on north side of town (probably by Ride On bus), take the C2, C4 or J4 bus to Riggs Road in Prince George's County and transfer to the R2 or R5 bus for a 30 minute ride. CTP further noted that on weekends only the R2 bus serves the White Oak site and it operates at 70 minute intervals. (DI #146, pp. 2-3 and pp. 14-15)

CTP expressed concern with the lack of assurance that 18,000 City residents will have access by public transportation to the new site, stating that WAHI presented very little or no information about bus routes and schedules, cost of travel by bus or taxi, or other information about the accessibility of the proposed site to persons who currently use the Takoma Park location. CTP believed that driving distances of seven to nine miles from Takoma Park to the new site and severe traffic congestion would likely discourage many City residents and residents of the adjacent contiguous unincorporated communities who travel by car and taxi. (DI #146, pp. 3-4)

Finally CTP stated that relocating WAH may reduce access to care for Takoma Park and nearby residents given the applicant's lack of assurance that a certain minimum amount of primary and diagnostic health care services will remain, specifically those services related to

urgent or emergent care and an outpatient base of operations sufficient to support essential physicians, organized for a broad spectrum of incomes and payment sources. (DI #146, p. 4)

Because of CTP's belief that the application lacks adequate commitments from AHC to maintain sufficient services and facilities in Takoma Park, CTP requested that a number of conditions be required of AHC as part of any approval of the proposed relocation. As it pertained to this standard, the suggested conditions included the following related to accessibility to care, including access for the indigent and/or the uninsured: develop an organizational structure for tracking the health care service needs of the City of Takoma Park, such an Advisory Council for the Takoma Park Village that will include in its membership representatives appointed by the City; provide an operating plan and capital sources to provide continuing, broad-based primary and urgent care and related diagnostic support services at the Takoma Park location for a period of no less than 20 years; provide documentation that the charity care policy for all services at Takoma Park location will be identical or equivalent to the charity care policy at WAHI White Oak; prior to licensure, provide for an arrangement for public transportation between the FDA campus and the proposed White Oak hospital, or alternatively, directly between the Takoma Park campus and the White Oak WAHI campus; and provide to the Commission and the City of Takoma Park an annual report of operating results and any proposed changes in services for the proposed Village of Health, Education, and Wellbeing. (DI #146, pp. 5-7)

The City of Takoma Park pointed out that according to HSCRC data, 29% of WAH's emergency room visits in FY 2010 were admitted as inpatients. CTP noted that most residents who need inpatient care will go to a nearby hospital, and that an ambulance will choose the nearest hospital that can take a patient. Therefore, CTP stated that it was focusing its comments on persons needing other health care services associated with WAH. (DI #146, p. 11) CTP expressed concern with how services such as breast cancer screening, community health education, emergency services, and special initiatives for African, Latino, and Asian-Americans - all of which CTP stated will relocate to the White Oak facility - will continue to adequately serve Takoma Park. (DI #146, p. 16)

Applicant's Response to Comments

In response to the comments by HCH on its original application, WAHI stated that its proposal does not reduce accessibility, but enhances it. WAHI noted that the commitment of AHC is undiminished for ensuring availability and access to care for the indigent, the uninsured, and WAH's entire service area population. WAHI disagreed with HCH's premise that the indigent and underserved patients are best served by a closer and weaker WAH. (DI #44, pp.12-13)

In responding to the comments of the interested parties and participating entity on the October 2009 modified application, WAHI pointed out that relocating the hospital in the heart of its primary service area, while establishing the Village at WAH's current location, does not represent an unwarranted negative impact or an inappropriate diminution of the availability or accessibility of care for the population in the primary service area. WAHI stated that even without the Village initiative, the relocation project is consistent with this standard and that

AHC's commitment to a continuation of needed services to the Takoma Park community through the Village initiative will provide more than what is required for CON purposes. WAHI stated that comments contending that the modified application's more detailed description of the Village "suggest a diminution of AHC's commitment to the community or that the relocation will impair access to care for the indigent, underserved and minority members of the community are utterly false." (DI #60,p. 8). WAHI explained that a weakening WAH that is not permitted to relocate will put these services at risk for the entire community, but relocation will strengthen the services. (DI #60, pp. 7-9)

In response to CTP's comments, WAHI stated its opposition to using CON conditions to address CTP's concerns. WAHI addressed each of the five conditions requested by CTP. WAHI stated that it would establish an advisory group that would include members of the City of Takoma Park, other government entities, participants in the Village of Health and Wellbeing, and health care consumers. As a response to CTP's request for an operating plan and capital commitment to the Village, WAHI noted that AHC has made a commitment to allocate $20 million to the Village and that the Obligate Group, of which the Village will be a part, provides a substantial source of capital and an ongoing commitment to the Takoma Park campus. Regarding charity care, WAHI reiterated its commitment to the residents of Takoma Park but made no commitment that the charity care policy for all services at the Village will be identical or equivalent to those at WAHI in White Oak. In response to CTP's request for evidence of an arrangement for transportation between the Food and Drug Administration campus and WAHI or between the Takoma Park campus and WAHI, WAHI stated that it is now planning to extend availability of the employee shuttle bus to members of the community. WAHI noted that it is required to provide this transportation for 10 years under the special exception granted by the Montgomery County Board of Appeals for the development of the hospital at the White Oak site. Lastly, WAHI stated that AHC will provide an annual report to CTP that details the activities, goals and services provided at the Village. (DI #153, pp. 1-7)

Reviewer's Analysis and Findings

This standard is intended to assure that a capital project undertaken by a hospital will not have unwarranted adverse impacts on hospital charges or on availability or accessibility of services. Part (a) of this standard requires that a hospital document specific conditions if it is seeking an increase in rates from the HSCRC. Part (b) of this standard requires a hospital to provide specific documentation that unwarranted adverse impacts will not result if the project reduces the potential availability or accessibility of a facility or service by eliminating, downsizing, or otherwise modifying a facility or service. I find that part (a) does not apply, since WAHI stated that it has not assumed a rate increase in its financial projections

Whether the relocation of WAH would inappropriately diminish the availability or accessibility of care for the population in the hospital's primary service area, especially for the indigent and uninsured, has been a major concern in this review. Commissioner Worthington requested testimony regarding this impact in the evidentiary hearing, particularly for persons served by WAH who currently rely on modes of transportation other than private automobile. Specifically, he requested details regarding this population and changes in travel time and cost of transportation to the nearest health care facility. The applicant responded with survey findings

concerning the modes of transportation used to access WAH. The survey research included a sample of 620 individuals that were patients of WAH (inpatients, outpatients, and emergency room patients) during the first quarter of 2011 and asked about their last visit. WAHI's witness testified that the sample size was sufficient to permit one to conclude that the data provided were an accurate estimate of the experience of the entire population treated at WAH within plus or minus 4% at a 95% confidence level. (DI #209B, pp. 1-4)

WAHI's expert witness testified that research indicated that 73% of the survey respondents used private automobiles, 14% arrived by ambulance, 8% arrived by bus, 3% arrived by taxi, and 2% used various other means. (DI # 209O, pp.1-3) Of those that arrived by bus, 16% had access to an automobile and, of those that arrived by taxi, 37% had access to a car. It was also reported that of those who arrived by a means of transportation other than car or ambulance 74% had incomes of less than $25,000 and 14% had incomes of between $25,000 and $50,000. The racial composition of this survey population was 53% African American Non-Hispanic, 4% African American Hispanic, and 33% Hispanic Latin American or other. The highest percentage of patients arriving at WAH by bus, taxi or walking came from the Silver Spring zip code area 20903 (20%), the Hyattsville zip code area 20783 (17%), and the Takoma Park zip code area 20912 (13%). (DI #209B, p. 3) Both the Silver Spring zip code area and the Hyattsville zip code area are contiguous to WAH's current home zip code area of 20912.

WAHI's expert witness identified patients who had arrived at WAH by bus or taxi and calculated travel time to WAH and the next closest hospital. WAHI stated that in the analysis of bus travel times, it was assumed that (1) a patient would use the bus stop nearest to his or her residence, (2) the patient would take the shortest route, (3) the bus would pick up the patient without delay, and (4) if the patient needed to transfer buses, the transfer would occur without delay. The bus travel time was calculated for 43 bus riders and, of those individuals, 24 would have a longer trip by visiting the nearest hospital other than WAH, with an average increase of 17 minutes. Eighteen individuals would have a shorter trip to a hospital other than WAH, and one would have no change in travel time. For the 18 who would have a shorter trip to another hospital, the average travel time saving would be 34 minutes. Regarding the cost impact of the increases in travel time, while the cost of making a single trip will vary, based on beginning and end points and different areas and zones crossed, bus passes were available that would allow use of all routes without additional charges. (DI #209O, pp. 5-6) He stated that, of those who arrived to WAH by taxi, 11 of 19 would have a longer trip to the next closest hospital by an average of five minutes and an increase in costs of approximately five dollars per trip. Seven of those who arrived by taxi would have a shorter trip by an average of seven minutes. (DI # 209O, p. 7 and 8/9/11 T. at 511)

MMMC also commissioned an analysis of the changes in transit travel time and cost by identifying transit routings, travel times and costs for the two fastest routes from census block groups in zip code areas 20912, 20782, and 20783 to the existing WAH and the proposed location using the Washington Metropolitan Area Transit Authority trip planner. This analysis did not compare current trip times and costs to WAH with the trip times and costs to the nearest or next nearest hospital other than WAH. (DI #211)

WAHI has consistently insisted that the project is necessary to assure continued

availability and accessibility to those who depend on WAH, including the indigent and uninsured, and that WAH will not be a viable hospital unless it can relocate. The interested parties and the participating entity claim that the proposed relocation will result in a reduction in the availability and accessibility of care for the population in WAH's primary service area, including the indigent and uninsured. Each notes that the hospital would be moving to a higher income area. LRH pointed out that the percentage of hospital admissions with Medicaid, Medicaid-HMO, charity care, no charge, or self pay from the zip code areas surrounding the current location was 30.6%, while the percentage of admissions with the same payers from the proposed location was 24%. LRH and MMMC contend that the most vulnerable portion of WAH's primary service area will suffer a substantial adverse impact because they will lose direct access to a "24/7" full service emergency department that accepts Medicaid and Medicare, that is bound by federal and State anti-dumping laws, that participates in the uncompensated care program of the HSCRC, and has a well-developed charity care policy.

While I agree that some portion of WAH's primary service area population will experience a potential reduction in the accessibility of services, this population is limited to that portion of the population that accesses the Takoma Park campus by bus and is not closer to another hospital. A portion of the population that accesses the Takoma Park campus by taxi would experience a small increase in trip time and, more significantly, an increase in cost. However, this standard states that a capital project undertaken by a hospital shall not have an unwarranted adverse impact on access to services. I agree with WAHI that modernizing its facilities is necessary, in the long term, to insure the availability of services it provides to all the people it serves. I do not find that the travel time consequences of the proposed relocation, as an alternative approach to modernizing the WAH facilities, reduces accessibility of the area's population to the hospital services provided by WAH to such an extent that MHCC should find it to be an "unwarranted" adverse impact of the proposed project.

In addition, the adverse impacts identified may be minimized by the availability of the employee shuttle from the Takoma Park campus to the White Oak campus, depending on the hours and frequency of operation and the cost, if any, to use the shuttle. Adverse impacts would be further minimized by the successful establishment of an urgent care center and primary and ancillary care services on the Takoma Park campus. While it would be tempting to condition any approval on the establishment of such services, the Commission does not have an adequate enforcement mechanism to ensure the implementation of such services outside the hospital. More importantly, there are other considerations in this review that do not lend themselves to approval of this project at this time.

I find that the application is consistent with this standard.

(5) <u>Cost-Effectiveness</u>

A proposed hospital capital project should represent the most cost effective approach to meeting the needs that the project seeks to address.

(a) To demonstrate cost effectiveness, an applicant shall identify each primary objective of its proposed project and shall identify at least two alternative approaches that it considered for achieving these primary objectives. For each approach, the hospital must:

(i) To the extent possible, quantify the level of effectiveness of each alternative in

achieving each primary objective;

(ii) Detail the capital and operational cost estimates and projections developed by the hospital for each alternative; and

(iii) Explain the basis for choosing the proposed project and rejecting alternative approaches to achieving the project's objectives.

(b) An applicant proposing a project involving limited objectives, including, but not limited to, the introduction of a new single service, the expansion of capacity for a single service, or a project limited to renovation of an existing facility for purposes of modernization, may address the cost-effectiveness of the project without undertaking the analysis outlined in (a) above, by demonstrating that there is only one practical approach to achieving the project's objectives.

(c) An applicant proposing establishment of a new hospital or relocation of an existing hospital to a new site that is not within a Priority Funding Area as defined under Title 5, Subtitle 7B of the State Finance and Procurement Article of the Annotated Code of Maryland shall demonstrate:

(i) That it has considered, at a minimum, the two alternative project sites located within a Priority Funding Area that provide the most optimal geographic accessibility to the population in its likely service area, as defined in Project Review Standard (1);

(ii) That it has quantified, to the extent possible, the level of effectiveness, in terms of achieving primary project objectives, of implementing the proposed project at each alternative project site and at the proposed project site;

(iii) That it has detailed the capital and operational costs associated with implementing the project at each alternative project site and at the proposed project site, with a full accounting of the cost associated with transportation system and other public utility infrastructure costs; and

(iv) That the proposed project site is superior, in terms of cost-effectiveness, to the alternative project sites located within a Priority Funding Area.

Applicant's Response

Washington Adventist Hospital, Inc. identified three primary objectives with respect to this proposed relocation: (1) provide a cost effective hospital facility for the patients of WAH; (2) locate the facility on a campus that is accessible to the residents of the hospital service area as well as the physicians who care for those residents; and (3) provide opportunities for re-use of the existing campus for needed health care and other community services. (DI #131 Vol. I, p. 41)

The proposed relocation site was selected after identifying a total of five potential sites including one in Takoma Park, three others in Eastern Montgomery County including the proposed site, and one in Prince George's County. Ultimately three of the five potential sites identified were determined to be unavailable including the site in Takoma Park. A fourth site was caught up in a legal dispute that raised questions as to its availability, and AHC determined that it was not in its interest to pursue such a site. The proposed site was the only clearly available site that would meet WAHI's needs including the size of the site, location within WAH's current primary service area, and accessibility of the site. (DI #131, Vol. II, p. 41)

Prior to pursuing a site for relocation, WAHI stated that it considered major construction

and renovation alternatives for the existing campus. WAHI identified a number of such variations between 2000 and 2005. These variations included a project that was proposed in a 2005 CON application that is described as "only the first phase of a multi-phase plan to upgrade and expand the capabilities of the Hospital on its existing campus." (DI #131, Vol. I. p. 39)

WAHI noted that the full scope of possible expansions and renovations on the current Takoma Park campus were carefully analyzed. (DI #131, Vol. I, p. 45) WAHI submitted evaluations of four on-campus alternatives ranging from one that would only address deferred maintenance to keep the hospital operating, up to an expanded version of the 2005 CON application referred to as "Option C." This option includes the 2005 CON proposal plus a medical office building ("MOB") project, a parking garage project, and a tear down and rebuild of the 1950's building, which WAHI stated would result in 81 inpatient beds being taken out of service. (DI #131, Vol. II, p. 18)

The applicant explained that it also considered moving key service lines and beds to Shady Grove Adventist Hospital or to the proposed Clarksburg hospital and reducing WAH's bed capacity to 150 from 200 beds ("Option A"). This alternative would have involved converting existing hospital space to medical offices but involved no parking structure construction. WAHI stated that the estimated capital cost, not including medical equipment, would be $147 to $179 million including replacement or a major renovation of the 1950s building in the future. (DI #42, Att. 8)

WAHI stated that it also considered another alternative ("Option B") to build a new medical office building and a new parking structure, expand the emergency department, modernize the existing structures, and replace or pursue a major renovation of the 1950s building sometime in the future, but not increase private rooms. The applicant estimated capital cost, not including medical equipment, to be $182 million to $214 million. (DI #42, Att. 8)

WAHI's "Option C" included: the 2005 CON application, which proposed a new patient tower above the 1990s building to house 60 acute care private hospital beds (eliminating 3 bed patient rooms and converting semi-private rooms to private rooms); the renovation of the 1950s, 1970s, and 1990s buildings including the existing nursing units; expansion of the Emergency Department; relocation of the cardiac transcare unit adjacent to the cardiac cath. labs; expansion and renovation of the existing labor and delivery unit; new elevators; and renovation and up-grade to the Hospital's central plant. While Option C, as described, would have included expansions of MOB space and parking, WAHI noted that the number of parking spaces and MOB space would fall short of the need it had identified. This option, as currently described, would also include the replacement of the 1950s building with a new patient tower with 76 private patient rooms. (DI #131, Vol. II, pp. 19-20)

WAHI noted that Option C would be split into 2 phases, with phase II being the demolition of the 1950s building and construction of a new patient tower with 76 private patient rooms and phase I including all other components of the project. WAHI stated that phase I would take approximately 88 months including 24 months for new construction and 60 months for the renovations; phase II would not commence until 36 months after phase I was complete and would take 32 months for demolition and new construction. WAHI estimated that the cost

of this project would be approximately $267 million not including future inflation or financing and other cash requirements compared to a cost estimate of approximately $325 million for the proposed relocation. (DI #131, Vol. II, pp. 19-22)

Regarding the operational costs of the on-campus alternative versus the relocation alternative, WAHI pointed to a number of adverse operational impacts of Option C. Specifically, WAHI noted the disruption in services over the long period of time to complete the option, which WAHI estimated would take 15 years. This would include an extended period of internal space renovation, which WAHI projected would have significantly unfavorable impacts on patient volumes. WAHI estimated a drop of 7.5% in inpatient volumes and a drop of 10% in outpatient volumes during phase I. and a drop of 30% in both inpatient and outpatient volumes during phase II. WAHI projected that the estimated $5,807,000 income from operations for 2011 would decrease to virtually zero ($2,146) during phase I and to a loss of approximately $6,194,000 during phase II. (DI #131, Vol. II, pp. 22-24)

WAHI evaluated each on-campus alternative and the proposed project against 11 rating criteria: access to campus/location; parking aesthetics; patient flow/efficiency; private bed capacity; building utility systems; impact on current operations; future inpatient bed capacity; outpatient capacity/accessibility; site expansion potential; and physician recruitment opportunities. WAHI explained that its evaluation demonstrated that these current campus options would not effectively address several fundamental issues including accessibility, parking, physician office capacity, private bed capacity, and site expansion capacity. (DI #131, Vol. I, pp. 46-47)

In response to Commission staff's questions during completeness review, WAHI gave details of its evaluation of Option C relative to the proposed relocation against each of its rating criteria. With respect to the location and access to the campus, WAHI noted that the existing campus is in a residential neighborhood accessible only by two-lane roads with limited traffic capacity. WAHI pointed to the disadvantage of this situation for EMS vehicles and additional access issues because there is no separate ambulance entrance. WAHI also stated that helicopters' access to the existing campus, which includes transport of patients for cardiac surgery from hospitals performing primary and non-primary PCI, is less than optimum because of its residential location. Finally, WAHI raised the issue of the lack of access by MetroBus to the existing campus. WAHI concluded that there is no way to correct these disadvantages on the existing campus, and that the proposed location is far superior because it will be located in the East County Science Center on a four-lane road with easy access to Route 29, the Inter-County Connector, and Interstate 95. WAHI noted that the proposed location's campus could be developed with separation of patients/visitors, deliveries, and emergency traffic. The proposed site is also accessible using MetroBus. (DI #131, Vol. II, pp. 26 and 29)

With respect to parking, WAHI stated that currently several hundred employees park nearly one mile from the campus and are bused to the hospital, which has an adverse impact on recruitment and retention. While Option C would improve this situation by adding a new parking structure, the proposed capacity would still be 271 spaces short of the amount included in the 2005 campus plan. This remaining shortfall was due to the local community opposition that, in 2005, would only accept an additional 799 spaces, for a total of 1,284 spaces. In contrast,

the relocation plan calls for 1,559 spaces on the new campus. (DI #131, Vol. II, p. 30)

With respect to private bed capacity, WAHI stated that the 2005 CON would have allowed the hospital to go from 57% private rooms to 75% private rooms (based on a total bed capacity of 304 beds) compared to all private rooms in the relocated hospital. Regarding building utility systems, the 2005 plan called for substantial upgrades to the mechanical and electrical systems, but a portion of the existing power plant would remain in place and continue to serve the campus. Thus, the upgrades could not match the energy efficiency and operational maintenance improvements of a new hospital. (DI #131, Vol. II, p. 31)

WAHI cited the lack of physician office space on or adjacent to the existing campus as a principal factor in its difficulty in recruiting and retaining physicians. WAHI pointed to the effort that it has made, first to have a private developer construct such space on the campus as an adjunct to the proposed 2005 CON project and also to develop such office space near the campus. WAHI stated that these plans collapsed due to community opposition. The proposed White Oak-Fairland campus was approved for more than 300,000 sq. ft. of medical office space, with more space available for development immediately adjacent to the campus. (DI #131, Vol. II, p. 33)

Regarding site expansion potential, WAHI stated that there is no possibility for expanding on the existing campus. The neighboring Washington Adventist University is not controlled by AHC and is, itself, looking to expand. There is also limited potential for expanding facilities within the current campus boundary. The site plan approval for the proposed site can accommodate future expansions, if needed, with potential for expansion to adjacent properties. (DI #131, Vol. II, pp. 32-33)

WAHI expressed particular concern with the impact of on current operations of the needed demolition of the 1950s building, which would contain 81 beds including acute rehabilitation beds licensed to Adventist Rehabilitation Hospital after completion of the Option C, phase I discussed above. In addition to concern over the number of beds that would be temporarily taken out of service, WAHI was also concerned with the logistics of demolishing a building that is tightly linked to other buildings including the 1970s and 1980s structures and with the impact of the construction activity on emergency helicopter landings. Specifically, the proximity of the vertical addition to the 1990s building and the demolition and reconstruction of the 1950s building would require helicopter landings to be diverted to another location. WAHI stated that this would be an offsite location that would require ground transport for the final leg of the trip, which would involve traveling on the congested Takoma Park streets near the hospital. (DI #131, Vol. II, pp. 31-32)

In evaluating Option C versus the proposed relocation in terms of a number of its criteria, WAHI referred to interactions with, and the expected position of, the Takoma Park community. WAH's interaction with the community with respect to this planning process began in 2001, before its 2005 CON application. This process culminated with a meeting with community representatives referred to as the "Pond Group" on March 10, 2005, at which time, WAH was advised that the community would only support development on the campus, "if a formal agreement was signed that would 'run with the land' and limit future development except as

agreed." (DI #131, Vol. II, p. 35) In addition to limiting parking, the 2005 Pond Group's proposal would limit total medical office building space to 95,000 sq. ft. (a net increase of 71,000 sq. ft.) and WAH could not add to the footprint or square footage of any building, add to the inpatient or outpatient capacity or volume in any building, or add to the number of daily trips to and from the property, whether by physician, employees, patients, or visitors. (DI #201, pp. 4-5)

WAH's evaluation of the on-campus alternatives and the proposed site plus its concerns with the community opposition to its plans in 2005 and to possible future campus improvements led WAHI to conclude that the on campus alternatives would not support long-term facility modernization goals with an efficient and economical redevelopment strategy. Specifically, WAHI concluded that the on-campus alternatives would not do the following: eliminate aging central plant facilities; correct the insufficient parking; allow for maintaining hospital operations while the major project construction/renovation project is underway; provide adequate open space on campus for further development provide; or overcome the community's desire to limit development in the middle of a residential neighborhood. (DI #131, Vol. I, p. 47)

Interested Party and Participating Entity Comments

HCH

Holy Cross Hospital, in commenting on WAHI's March 28, 2011 updated CON application stated that it would not comment on changes that would be addressed in pre-filed direct testimony. (DI #162, p. 1) However, HCH did submit specific comments on WAHI's responses to Commissioner Reviewer Worthington's March 1. 2011 request for additional information regarding the cost effectiveness standard (specifically WAHI's responses to all parts of question 7). Also, HCH submitted comments on WAHI's responses to the Cost Effectiveness standard in its original and modified applications

In commenting on the original application HCH asserted that WAHI's list of objectives showed that WAHI identified construction of a new hospital as its goal "and then enumerated objectives with that end in mind." (DI #30, p. 23) HCH noted that this is not the analytical process mandated by this standard – that WAHI should have first stated each primary objective of the proposed project and then performed a quantitative analysis comparing the proposed new hospital to two alternative projects. HCH also commented on WAHI's responses to MHCC staff's completeness questions regarding this standard, stating that WAHI's response failed to perform a side-by-side comparison of the proposed relocation to the construction/renovation project proposed by WAH for the Takoma Park campus in 2005, which is a significant part of Option C. HCH stated that such a comparison would show the 2005 project to be more cost effective "when all appropriate objectives are fairly considered" but HCH stated that it was prevented from doing such a comparison because of the 25-page limit applicable to the filed comments. HCH asserted that the 2005 project would cost less and achieve most of WAH's private bed criteria, noting the 2005 CON project would have produced a facility with 80% of WAH's beds in private rooms given WAH's 288 licensed beds in FY 2010 as compared to the 75% cited by WAH in its evaluation of Option C against the private bed criteria. (*Ibid.*) HCH also questioned claims by WAHI that the Takoma Park campus could not accommodate

sufficient parking and medical office space given that the letter of intent for the 2005 CON application indicated that there were also plans for building a parking garage and a medical office building that would not be part of the CON project. (DI #30, pp. 22-25)

In commenting on additional information related to cost effectiveness submitted by WAHI in response to the March 1, 2011 questions, HCH pointed to the difference between the physical bed capacity of Option C (304 beds) and the proposed WAH relocation as updated on March 26, 2011 (249 beds). HCH suggested that, if Option C were revised to only include the number of beds that WAHI currently proposes, both the construction time and the project's cost could be reduced. Specifically, HCH suggested that if phase I of Option C could produce the capacity for 228 beds, WAHI would only need to create the capacity for 21 additional beds to reach its current plan for 249 beds at the proposed White Oak/Fairland campus. Therefore, HCH suggested that an alternative may exist to phase II of Option C that would include demolition of the 1950s building and construction of a new patient tower with 76 private rooms. HCH questioned why WAHI could not begin phase II, which will take 32 months, until 36 months after phase 1 was complete. HCH also raised questions as to why WAHI's Option C should take so long to complete. HCH also stated that, even accepting WAHI's timeline, if phase II were started immediately upon completion of phase I, the project could be completed in six years, not the 15 years claimed by WAHI. (DI #152, pp. 24-26)

HCH also commented on WAHI's response to the March 1, 2011 question relating to the operational impacts of Option C. HCH stated that WAHI provided no support for its claim that, during phase I, inpatient and outpatient volumes would decline by 7.5% and 10%, respectively, as such impacts are at odds with what happened at Holy Cross and other Montgomery County hospitals. HCH further noted that WAHI's claim that, inpatient and outpatient volumes would decline 30% during phase II is flawed because, as explained above, WAHI would have 228 beds in buildings affected by phase I, only 21 fewer than the number beds proposed for the relocated facility. Finally, HCH noted that, because WAHI overstated the impact of Option C on volumes, the claimed financial impact was overstated. HCH also pointed to differences in the assumed variability of factors used by WAHI to adjust salaries, wages, benefits, and medical supplies. (DI #152, pp. 26-27)

Regarding WAHI's response to the March 1, 2011 request to provide a detailed explanation of the scores given to Option C and Option D (the relocation to the White Oak/Fairland site) for each rating criterion, HCH believed that WAHI only provided subjective descriptions of how the criteria were applied, and gave no support for its conclusion that the proposed site was 10 times as accessible as the existing site. HCH specifically pointed to WAHI's failure to consider the reduced size of the proposed relocated hospital, especially beds, in scoring the alternatives on their private bed supply and impact on current operations. HCH also noted that, in scoring each alternative on its parking criteria, WAHI did not compare the total number of parking spaces proposed by Option C on the existing campus to the number of parking spaces proposed for the new site. (DI #152, pp. 27-28)

LRH/MMMC

LRH commented on the October 2009 modification of WAHI's application, stating that the applicant failed to establish the cost-effectiveness of the chosen relocation alternative compared to other reasonable alternatives. LRH noted the lack of a detailed description of Option C and the lack of a specific cost comparison, pointing out uncertainty regarding the source of the costs for the proposed project that were used in WAHI's comparison. LRH also commented on WAHI's failure to provide the capital costs associated with the creation of the Village of Health and Well Being that would remain on the Takoma Park campus if the hospital relocation is approved. LRH stated that WAHI's rating criteria should have taken cost into consideration. LRH noted that WAHI's analysis of alternatives failed to address the most obvious alternative, a return to the 2005 project.

MMMC submitted separate comments on WAHI's October 2009 modification, but the comments were essentially the same as those submitted by LRH. MMMC noted that WAHI did not identify any potential sites within the Takoma Park zip code area and that such an alternative site would meet all of WAHI's stated objectives without jeopardizing access for the Takoma Park neighborhood, or generating objections from MMMC. (DI #58, pp 5-8)

LRH and MMMC submitted joint comments regarding WAHI's March 28, 2011 responses to Commissioner Worthington's questions, including the various parts of question seven, which concerns the cost effectiveness standard LRH and MMMC stated that WAHI's so-called analysis of alternatives sites was a foregone conclusion because only the selected site in White Oak/Fairland was available for purchase. The interested parties also noted that, by failing to identify any other sites that were actually available, WAHI mades "a mockery of the consideration of alternatives required by the regulation." They further explained that the criteria used by WAH to analyze "its existing location was not a meaningful alternatives analysis, but rather an argumentative justification for a foregone conclusion." (DI #144, p.11) LRH and MMMC concluded that WAHI should have considered comprehensive redevelopment of WAH and adjoining University campus, citing part of WAHI's response to a question regarding the budget for the Village of Education, Health and Wellbeing that "[m]ore detailed land use planning will be undertaken incorporating the new regulations and integrating the master plan of Washington Adventist University." (*Ibid.*)

The interested parties also stated that WAHI's rating criteria should have included the effect of each alternative on existing hospitals and the State health care delivery system because a crucial component of health care planning and regulation is to assess this impact so that such proposals are not made solely for corporate gain, but rather, are made in the interest of the public and the State health care delivery system as a whole. (DI #144, pp. 3-11)

CTP

The City of Takoma Park did not comment on WAHI's responses regarding this standard.

Applicant's Response to Comments

WAHI responded to the interested parties' comments on both its original a and its October 2009 modified applications. These responses emphasized WAH's need to relocate as opposed to making a major investment into the existing Takoma Park campus, pointing to: the existing location in a residential neighborhood that is accessed via two lane streets and is incompatible with helicopter landings; primary internal road access that is shared by patients, visitors, emergency vehicles and delivery vehicles; and lack of space for medical office space and isolation from commercial areas that could house such offices. WAHI stated that resources cannot be "misdirected into an expensive but ineffective partial capital project on the existing Takoma Park campus that would never solve these problems" and would require continued inpatient care in portions of the hospital dating from the 1970s. (DI #60, p. 4) In response to comments by LRH and MMMC supporting a project on or in the vicinity of the existing WAH campus, WAHI stated that there is no available land., and again raised its concern with local opposition and land use litigation that could substantially increase capital costs due to extended delays. (DI #44, pp. 6-8; DI #60, pp. 3-6)

In response to more recent comments from HCH on its responses to question 7 of the March 1, 2011 letter, WAHI submitted a letter from Raymond Brower, an architect with RTKL Associates, explaining why a new version of Option C is not a reasonable option. Mr. Brower stated that HCH's focus on bed capacity diverts attention from the significant complexities of redeveloping the existing Takoma Park site and maintaining ongoing operations during construction. Mr. Brower pointed to WAH's limited ability to provide replacement beds for the beds in the 1950s building during demolition and reconstruction. Mr. Brower concluded that vertical expansion of the 1990s building is the only viable option for replacement beds and that such vertical expansion would be limited to four floors because of the structural capacity of the existing building. He noted that the 2005 proposed project was aimed at replacing 3-bed and semi-private rooms, stating that use of this space to replace the beds in the 1950s building would eliminate the opportunity to increase private patient rooms in the near-term. Mr. Brower also pointed to the need to relocate clinical and other services, such as pharmacy, clinical labs, central sterile supply, and respiratory therapy, which are housed in the 1950s building, prior to its demolition. He noted that space for the relocation of such services does not currently exist and was not addressed in the proposed 2005 project, but has been discussed as a major impediment to long-term campus viability. In terms of the complexity of replacing the 1950s building, Mr. Brower also pointed to the need to re-route all utility and communication systems that run through the building prior to demolition. (DI #153, p. 45 and Ex. 3)

Among the barriers to redevelopment of the campus as a whole cited by Mr. Brower are the following: (1) the linear nature of the site only allows for one entry point, which is used by staff visitors and emergency vehicles, requiring delivery of major construction components to be made after hours increasing costs; (2) the linear site configuration limits hospital additions along a linear path on a north-south axis "bookending" older buildings between newer construction; (3) interior renovations will be time consuming and expensive because utilities and communication systems, and patient, staff, and visitor transportation run along linear pathways that must be upgraded in small increments in order to maintain operations, necessitating a 60-month renovation period for phase I of Option C; (4) the lack of available space (referred to as an

"empty chair") for staging future building projects if Option C is implemented, thereby boxing in old buildings; and, (5) limited available open land for additional outpatient clinical services, a medical office, and parking. (DI #153, Ex. 3)

WAHI also responded to HCH's comments on the length of time that it would take to compete Option C, asserting that HCH's contention that Option C could be completed in six years ignored the 60 months that WAHI had indicated would be required for the renovation portion of phase I. WAHI explained the reasons for the long period for renovations including the need to bring plumbing from the floor below into nursing units, which will require that the nursing unit renovations be performed on a portion of the patient rooms while the nursing units continue to operate. WAHI also responded to HCH's questioning of why phase II could not commence until 36 months after the completion of phase I, explaining that the time will be required to first relocate administrative and back office functions to make room for the clinical support functions that are currently located in the 1950s building and then complete a full survey to identify the existing utilities that will need to be relocated. (DI #153, pp. 45-47)

With regard to HCH's charge that AHC had begun the process of evaluating alternative sites after the White Oak/Fairland site had been selected, WAHI stated that the site selection process was the latest in a long process of addressing the needs of the existing campus. WAHI noted that this process began in 2000 and included attempts to relocate the adjacent Washington Adventist University (formerly named Columbia Union College), the Takoma Academy, and Sligo Elementary, which would have enabled WAH to expand onto the college campus and have the use of the Takoma Academy site. Such attempts were not successful because of opposition from historic preservation groups, community groups, and a developer. After this attempt failed, AHC developed the 2005 CON project, which was later withdrawn after it was decided that the major investment would only serve to extend the lives of aging facilities in a 13-acre campus, with community support only if the WAH would agree to perpetual restrictions on growth and other conditions including limiting the size of the medical office building to 50,000 fewer sq. ft. than initially proposed and the parking garage to 500 fewer spaces than originally proposed. (DI #153, pp. 48-50 and Ex. 7)

WAHI submitted a timeline indicating that the search for a site for the hospital's relocation began in October of 2005, ran through June of 2006, and included the development of the site selection grid and the evaluation of five alternative sites including the Takoma Academy site. (DI #153, pp. 49-51 and Ex. 7)

Reviewer's Analysis and Findings

This standard requires the applicant to specify the primary objectives of the proposed project and evaluate at least two alternative approaches for achieving the objectives. WAHI must present the analysis required under subsection (a), given the nature of this project. Since the proposed site is within a Priority Funding Area, WAHI is not required to address subsection (c).

Given that this is a proposal to relocate a hospital with an aging physical plant from its current site to a new site, the primary cost effectiveness question is whether it is more cost

effective to relocate the hospital than to modernize the hospital at its current site. To determine whether the applicant has demonstrated that its proposal to relocate the facility is consistent with this standard, I looked to the information submitted by the applicant, and also considered information presented by the interested parties and the participating entity.

In my view, WAHI could have approached this standard and its related review criterion, *Availability of More Cost Effective Alternatives*, with a greater level of rigor in analyzing and presenting options for expanding and modernizing its physical plant in Takoma Park as an alternative to relocation of the acute care hospital facilities. Presenting the best possible alternatives would strengthen WAHI's case that the proposed replacement and relocation is the most cost effective alternative. WAHI provided a credible overview of the difficulties entailed by major on-site modernization projects on an operating hospital campus but its analysis should have started with a scenario for on-site facility replacement, expansion, and renovation that was more detailed and included the best possible approach that could be feasibly implemented at the current location. Instead, WAHI took the Option C plan from its 2005 application and added increments that made such a project very time consuming and approximately twice as expensive (not adjusted for inflation) as the 2005 iteration of this plan, according to WAHI estimates. I do not find WAHI's analysis persuasive that the Option C, as outlined, was its best alternative for remaining in Takoma Park with more functional and efficient facilities.

WAHI identified three primary objectives that the proposed project seeks to achieve: (1) provide a cost effective hospital facility for the patients of WAH; (2) locate the facility on a campus that is accessible to the residents of the hospital service area as well as the physicians who care for those residents; and (3) provide opportunities for re-use of the existing campus for needed health care and other community services. The first objective is too general to provide a useful basis for comparing alternatives for modernizing the existing campus to the relocation of the hospital on a new campus. The second objective tends to define and limit the solution to the relocation of the hospital without: considering how effective renovation of the existing campus may be in meeting WAH's needs; and making the required comparison of capital and operating costs in meeting such needs though a modernization project versus relocation. The third objective is only meaningful if WAH is relocated to a new campus.

While I do not find the primary objectives identified by WAHI to be helpful in evaluating whether the proposal to relocate the hospital is more cost effective than the modernization of the existing campus, WAHI also identified 11 rating criteria that were used to rate on-campus alternatives and compare them to the relocation of the hospital to the proposed White Oak/Fairland site. I believe that these criteria represent the objectives that WAHI considered in making its decision to propose the relocation of the hospital instead of a major construction/renovation project on its current campus. Therefore, I have concluded that the objectives that I should consider in determining whether WAHI's proposal to relocate the hospital is consistent with this cost effectiveness standard are as follows: (1) improve access; (2) provide sufficient parking to meet the needs of patients, visitors, physicians, and staff; (3) improve campus and building aesthetics; (4) improve patient flow and staff efficiency through improvements in departmental proximity and patient/staff movements; (5) maximize private bed capacity; (6) improve the effectiveness and efficiency of building utility systems; (7) minimize impact on current operations; (8) provide the opportunity for future inpatient capacity; (9)

increase outpatient capacity/accessibility; (10) provide potential to expand the site or the facilities on the site; and (11) increase physician recruitment opportunities, which in WAHI's view means the ability to provide physician office space either on or adjacent to the campus.

While WAHI maintains, based on these rating criteria, that it is more cost-effective to replace and relocate the acute care hospital, the interested parties strongly questioned this conclusion, specifically as it relates to Option C, the most complete and expensive of the on-site modernization alternatives that WAHI reports evaluating. Commissioner Worthington requested that testimony be provided in the evidentiary hearing as to whether Option C, or a variant of this option, could be implemented to modernize the Takoma Park WAH campus that: (1) achieves all or most of the objectives sought by WAHI; (2) can be implemented at a cost and in a manner, with respect to operational disruption, that indicates financial feasibility and viability; and (3) has the potential for acceptability by the City of Takoma Park and neighborhoods surrounding the campus. Commissioner Worthington expressed special interest in testimony concerning the potential for redevelopment of the Takoma Park campus over a shorter time frame than that projected by WAHI in its March 28, 2011 filing, and sought testimony regarding a sequencing of new construction, renovation, and demolition elements that would reduce the loss of bed capacity and the level of disruption projected by WAHI in its March 28, 2011 filing. (DI #174, p. 2)

WAHI witnesses supported the applicant's view that Option C or a variant could not achieve the project objectives and could not be implemented in a manner with acceptable operational disruptions, and that such an option would not be acceptable to either the City of Takoma Park or surrounding neighborhoods. They reiterated concerns regarding the complexities of redeveloping the existing site and the barriers to redevelopment previously cited by the applicant. (DI #209. *See* Robertson, 209M,Brower 209F, Martin 209D, Portella 209E, and Nicholson 209G)

HCH presented a variant of Option C that included a seven-story addition on the east side instead of the one-story addition proposed by WAH in its 2005 CON application (phase I of Option C), which could provide 273 private rooms, all but 33 in new space, plus a floor of shell space that could be fitted out later for the 36 additional private rooms proposed for the replacement hospital. (DI #210) During the hearing, the witness, Philip Tobey, an architect, suggested that, with two additional floors, all functions housed in the 1950 building could be relocated. Tobey posited that such a plan would not require extensive renovation of the 1950s and 1970/80s era buildings, and that space in these buildings could be used for support space or renovated for physician offices or emptied out and demolished. Two locations were identified where parking garages could currently be located and indicated that a parking garage could also go where the current MOB and conference center are located. He also noted that the west end parking structure could be replaced with a larger structure and further stated that remote parking for employees is used by other hospitals including Holy Cross. Regarding replacement and additional MOB space, Tobey pointed out that there is space for a building with a footprint of 16,000 to 18,000 square feet on the east end of the campus, and that a five or six-story 95,000 square foot building could be constructed there, or that existing hospital space could be renovated for physician offices. HCH also questioned the need for a large medical office building, pointing out that there is only 66,000 square feet of physician office space on Holy

Cross's campus. (DI #210I, pp. 3-12 and Ex. 2, and 8/11/11 T. at 273-277)

While HCH's alternative plan appears to have strong conceptual advantages, I would have preferred that WAHI's response to this standard had presented a similar conceptual analysis informed by its superior knowledge of the site, the buildings, and the constraints presented by both. I have concerns regarding the required time frame for an on-site alternative presented in WAHI's Option C. It is not known, of course, whether the HCH alternative or a comparable alternative proposed by WAHI would receive the necessary land use approvals. While the interested parties presented evidence of a long history of WAH success in obtaining land use and zoning approvals of prior site and building changes, none of these changes was as extensive as the HCH concept proposal or for that matter, Option C. WAH would be likely to face some community opposition to any extensive proposal and, although history suggests that the hospital might ultimately receive approval of a major project, it could take a long time and be very expensive with an uncertain final result

Any on-site modernization would not solve the problem of inferior access to the existing WAH site from the two lane roads and the limited roadways on the site, which would still require all vehicular traffic including visitors, physicians, staff, emergency vehicles, and deliveries to move through the site on the same road. Such on-site alternatives also do not answer the problem of future development needs including both possible community opposition and the lack of an "empty chair" for the next new construction phase to be staged. The HCH alternative plan would create essentially new multi-story buildings on both ends of the linear axis connected by older interconnected buildings that would be very difficult to demolish, especially while continuing to operate as a hospital.

It is also not clear that an on-campus alternative could be implemented for significantly less than the proposed relocation. The capital cost of Option C as estimated by WAHI excluding interest, financing, and other cash requirements is only approximately $58 million less than the $325 million in comparable cost for the proposed relocation. HCH also provided testimony on the implementation schedule and cost estimates for its variant of Option C. It stated that the project variant it had described could be designed and constructed in a total of 5 years (4 years to complete all the private rooms), which is much less than the 15 years that WAH has indicated for Option C. It estimated the current capital cost of the alternative project (before the addition of the two floors) by inflating the costs including in the 2005 CON application and including the cost of an above ground parking garage. WAHI estimated, on this basis, that the current capital cost (as of May 2011) would be $187,086,746 and that the total project cost would be $254,644,255. This compares to an estimated current capital cost of $310,755,000 and total project cost of $397,705,000 for the White Oak/Fairland project. However, these cost estimates did not include costs for a medical office building, inflation from May 2011 through December 2011, additional cost of storm water management as a result of changes in requirements since 2005, and the relocation of services from and demolition of the 1950s building. The estimate of equipment cost was based on the 2005 CON application plus inflation, which does not account for new equipment that would be required for the east side tower suggested by the HCH alternative plan.

Regarding the alternative sites that were evaluated by WAHI for the relocation of the

hospital, the additional information submitted by the applicant on March 28, 2011 indicated that all of the sites except for the proposed site were determined to be unavailable for acquisition at some point during the evaluation process. Therefore, Commissioner Worthington determined that the availability of suitable sites and the site selection process were an issue for the evidentiary hearing. He requested that testimony include: additional detail or more clarity on information in the record with respect to the identification of and selection for evaluation of possible sites for the relocation of WAH; and sites not yet identified in the record within WAH's primary service area that were of sufficient size to accommodate the relocation of WAH and that have potential for feasible development for this purpose. (DI #174, p. 2)

WAHI provided testimony that a search for sites began in 2005. (DI #209; *see* Walker: 209J) The search included CoStar (commercial multiple listing), tax maps to identify properties of sufficient size, discussions with a variety of professionals involved in land development, and travel by car. Four sites were identified: (1) Takoma Academy; (2) University of Maryland; (3) the Washington Suburban Sanitary Commission site; and (4) PS Business Parks, the proposed site. It was stated that sites closer to the Takoma Park campus were not ignored and it was not known in advance that some of these sites were already unavailable. Detailed explanation of the consideration of the WSSC site was provided and AHC concluded that the site would not be available for the foreseeable future. (DI #209J, pp. 3-7)

MMMC provided testimony regarding the availability of alternative sites in WAH's primary service area that were of sufficient size to accommodate the relocation of WAH and had potential for feasible development for this purpose. (DI #213) An MMMC witness used recent aerial photographs of the Takoma Park area to identify sites similar in size to the current Takoma Park campus. Four potential sites were identified, ranging in size from approximately 17 to 28 acres. All of these sites currently have a mixture of commercial and residential development, with the current development on each characterized as being in a state of decline. One site is entirely in Montgomery County. A second site straddles the border, with a portion in Montgomery County and a portion in Prince George's County. The other two sites are entirely in Prince George's County. MMMC's expert witness offered his opinion that each site was a viable option for the proposed project. (DI #213-6, pp. 12-22; 8/9/11 T. at 430-42)

WAHI cross-examination showed that, while it may be possible to develop one or more of the sites identified, it would take a long time to put together a site of sufficient size, given the multiple owners and multiple leases. In addition, such sites would likely cost more than WAHI's proposed site, given the need to purchase multiple properties, buy out leases, and demolish buildings. Particularly revealing in terms of cost was the evidence on the appraised values of the properties that came out at the hearing. These appraised values suggest that just acquiring the land would cost significantly more than what AHC paid for the proposed site.

In summary, it is clear to me that AHC and WAH planned for modernization of the hospital on its current campus from at least 2001 through 2005 in an attempt to achieve a variety of objectives. This history shows that the key objectives included a significant increase in the percentage of beds in private rooms, significant improvement in building utility systems, and increases in the amount of parking and medical office space. At that time, AHC and WAH also showed their still-present concern with the issues of access to the campus, circulation within the

campus both on the on the internal roadway and between departments within the buildings.

I believe that the neighboring community could mount costly and delaying objections to substantial expansion of the building mass on the Takoma Park campus based on historic precedent. While WAH could pursue land use approval of its plans over community opposition, it could be expensive and might only result in approval after significant modifications.

Regarding the prospect of alternative sites, I find that, although only one truly available site was identified in WAH's primary service area, AHC undertook a reasonably extensive search while not straying too far from WAH's primary service area. It is also worth noting that Montgomery County has designated the White Oak section of the County as the hub for medical/biotech development. While MMMC identified four other potential sites, all of them are currently developed with a mixture of commercial and residential uses and have appraised values that exceed the cost of the White Oak site.

WAHI has established that relocation of the hospital to the proposed site meets the needs WAHI identified in its rating criteria. The weight of the evidence presented indicates that WAHI could have been able to show that replacement of the hospital at the proposed site is a more cost effective alternative than replacement/modernization at the existing site. Once again, I wish that WAHI had presented an alternative plan for on-site expansion and modernization that was more logical and rigorous than the Option C alternative WAHI presented; had that been done, I could have compared that alternative to the proposed project in order to make a more apt comparison of the effectiveness of the alternatives and their costs, to determine compliance with this standard. As it stands, I do not have the needed information to make a final determination whether the new site is the most cost effective alternative. I want to note that this insufficiency of information is of secondary importance, given my serious concerns and resulting findings regarding viability and financial feasibility.

(6) <u>Burden of Proof Regarding Need</u>

A hospital project shall be approved only if there is demonstrable need. The burden of demonstrating need for a service not covered by Regulation .05 of this Chapter or by another chapter of the State Health Plan, including a service for which need is not separately projected, rests with the applicant.

WAHI addressed the need for the number of proposed operating rooms under this standard. However, for purposes of brevity, the WAHI needs assessment for services not covered by existing State Health Plan standards, as well as interested party and participating entity comments and responses to comments, will be addressed in this Recommended Decision under the *Need* criterion, COMAR 10.24.01.08G(3)(b) and other applicable State Health Plan standards. This Recommended Decision outlines my specific findings and conclusions on the applicant's success in meeting its burden of proof at those points in the decision. MSGA bed need for the relocated hospital was discussed in this Recommended Decision under COMAR 10.24.10.04B(2) and is discussed further under the Need criterion. As previously outlined in this Recommended Decision, I have concluded that the number of MSGA beds proposed for the relocated WAH is consistent with this standard. The need for the proposed size and number of emergency department treatment spaces is addressed under COMAR 10.24.10.04B(14). The need for the 37 proposed acute psychiatric beds is also addressed under the *Need* criterion. The

need for the 30 proposed obstetric beds is addressed under Standard One, the need standard, of the Obstetric Services Chapter of the SHP, COMAR 10.24.12.04(1).

While the need for the specific service capacities proposed is important, my evaluation of such needs is surpassed in importance by questions concerning financial feasibility and viability addressed under COMAR 10.24.10.04B(13) and the *Viability* criterion. The other considerations in this review that exceed the importance of the specific capacities proposed are the potential for unwarranted adverse impacts on hospital charges and access to services addressed under COMAR 10.24.10.04B(4), as well as the impact of the proposed project on other providers and the health care delivery system, which will be addressed under the *Impact* criterion.

As noted later in this Recommended Decision, I have concluded that WAHI has made a strong case for the need to upgrade its physical facilities and for some expanded space but it has not provided an analysis of the comparative cost and effectiveness of the fundamental alternatives of replacement/relocation or on-site upgrades that meets the requirements of this regulation. I have also concluded that the proposed relocation will not inappropriately diminish, for the population in the primary service area, the availability or accessibility to care, including access for the indigent and/or uninsured. While WAHI has satisfied its burden of proof with respect to the need for the number of MSGA and psychiatric beds proposed, it has not met this burden with respect to the need for the number of OB beds, the number of ED treatment spaces, or the shell space for future MSGA beds. WAHI has not demonstrated, through any conventional analysis, when the four additional ORs being accommodated by the shell space would be needed. Such an analysis should be grounded in assumptions about demand generated by the service area population captured by a new hospital in the White Oak location. Similarly, my questions regarding the need for the proposed ED space and MSGA shell space relate to WAHI's failure to acknowledge and account for the likelihood of changes in the relocated hospital's service area and the planned development of urgent care facilities on the Takoma Park campus following the proposed hospital relocation. With respect to OB services, the proposed capacity appears to be excessive, based on WAHI's own projection of need in its existing service area. The need for OB beds at the proposed new hospital location and, more importantly, need reflecting the likely changes in service area and market share, have not been quantified by WAHI.

(7) Construction Cost of Hospital Space

The proposed cost of a hospital construction project shall be reasonable and consistent with current industry cost experience in Maryland. The projected cost per square foot of a hospital construction project or renovation project shall be compared to the benchmark cost of good quality Class A hospital construction given in the Marshall Valuation Service® guide, updated using Marshall Valuation Service® update multipliers, and adjusted as shown in the Marshall Valuation Service® guide as necessary for site terrain, number of building levels, geographic locality, and other listed factors. If the projected cost per square foot exceeds the Marshall Valuation Service® benchmark cost, any rate increase proposed by the hospital related to the capital cost of the project shall not include the amount of the projected construction cost that exceeds the Marshall Valuation Service® benchmark and those portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the excess construction cost.

Applicant's Response

WAHI stated that the Marshall Valuation Service ("MVS") analysis of this project's hospital construction costs, as proposed in the March 2011 update, show that the costs are reasonable and consistent with industry costs experience in Maryland as of December 2010. WAHI noted that, because hospital construction is comprised of various components, it prepared a separate analysis for each component and adjusted for departmental differences by floor, including adjustments for shell space at a departmental cost factor of .35. WAHI indicated that the result is a MVS benchmark of $332.67 per square foot ("SF"). (DI #131, Vol. 1, pp. 50-51 and Att. I)

WAHI indicated that for MVS comparison purposes project costs were adjusted to exclude costs not included in the MVS definitions of construction costs, such as interest funds that will be used for equipment and other capital costs that will not be included in the contract to build the hospital building. In addition, WAHI adjusted the project costs to exclude extraordinary costs that the applicant considered not to be comparable to the MVS standard. These adjustments are detailed in Attachment H of the March 2011 update. The adjusted project cost is $309.19 per SF, which is more than 7% below the MVS benchmark. (DI #131, Vol. 1, pp. 50-51 and Att. G and H)

Interested Party and Participating Entity Comments

HCH

HCH did not comment on WAHI's response to this standard in WAHI's March 2011 update of its application. HCH provided a thorough analysis of WAHI response to this standard in its comments on the original and the October 2009 modified applications. (DI #30, pp.6-7 and Ex. 3; DI #59, pp.6-7 and Ex. 1) In both comments, HCH questioned the accuracy of WAHI's MVS analysis. In the comments on the October 2009 modification HCH pointed to a lack of a complete accounting for, and an explanation of, extraordinary costs that were removed for comparison purposes. HCH also pointed to inconsistencies regarding the existence of a mechanical penthouse. (DI #59 pp. 6-7 and Ex. 1)

LRHMMMC

Neither LRH or MMMC submitted comments on WAHI's response to this standard.

CTP

The City of Takoma Park did not submit any comments on this standard.

Applicant's Response to Comments

WAHI responded to the comments on the original April 2009 application by stating that the MVS standard must be addressed in relation to the substantially diminished capital cost in its

October 2009 modified CON. (DI #44, p. 17)[7]

Reviewer's Analysis and Findings

This standard requires a comparison of the project's estimated construction cost with an index cost derived from the Marshall Valuation Service ("MVS"), which is based on the relevant construction characteristics of the proposed project. The MVS includes the base cost per square foot for new construction by type and quality of construction for a wide variety of building uses, including hospitals. Separate base costs are specified for basements and mechanical penthouses. The MVS guide also includes a variety of adjustment factors, including adjustments of the base costs to the costs for the latest month, the locality of constructions, as well as factors for the number of stories, height per story, shape of building (such as relationship of floor size to perimeter), and department use of space. The standard provides that, if the projected cost per square foot exceeds the MVS benchmark cost, any rate increase proposed by the hospital related to the capital cost of the project shall not include the amount of the projected construction cost that exceeds the MVS benchmark and those portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the excess construction cost.

While WAHI submitted an analysis of how its project compares to an MVS benchmark, the material submitted with the March 2011 update of its CON application does not include sufficient detail to evaluate the accuracy and reasonableness of the benchmark calculation. The applicant's narrative refers to separate analysis for each component, but no such analysis was submitted. While the October 2009 modification of the CON application included WAHI's detailed calculation of the MVS benchmark for each floor (DI #42, Att. 10), the proposed size and departmental use of some floors have been changed. In addition, the calculation of the benchmarks in the October 2009 modification used the MVS base cost for Class A, good quality construction as of November 2007, which has since been updated in November 2009 and November 2011. WAHI's October 2009 calculation used the update (current cost multiplier) as of January 2009 and a local multiplier for an uncertain location and date. The MVS current cost multiplier is updated monthly, with the latest update being July 2012; the local multiplier is updated quarterly, with the most recent also being July 2012.

I have calculated a revised MVS benchmark for WAHI based on the information submitted in the March 2011 update using separate MVS November 2011 base costs for the main floors and the basement. I adjusted these base cost for the departmental uses proposed by WAHI as detailed in Exhibit I of the March 2011 updated application. (DI #131, Vol. 1, Ex. I). These costs were further adjusted by applying the perimeter, height per story and multi-story multipliers calculated for the size and shape building proposed by WAHI using the information contained in MVS's November 2011 update. Then these costs per square foot were adjusted by applying the appropriate current cost and local multiplier to bring the MVS benchmark up to date for July 2012 in Silver Spring, Maryland.

[7] The project costs and WAHI's MVS analysis were further modified in WAHI's March 2011updated CON application

The revised calculation of the MVS benchmark for each component of the hospital structure is detailed in the following table.

Table 18: Calculation of Marshall Valuation Service Benchmark for Washington Adventist Hospital Relocation

	Main Floors	Basement	Total
Construction Class/Quality	Class A/Good Quality	A-B	
Number of Stories	6	1	7
Square Feet	451,262	114,721	565,983
Average Floor Areas (square feet)	75,210	114,721	
Average Perimeter (ft.)	1,764	1853	
Average Floor to Floor Height (feet)	16.5	21	
Base Cost per sq. ft. (Nov. 2011)	**$336.71**	**$144.83**	
Adjustment for Dept. Cost Differences	1.0212	1.0036	
Adjusted Base Cost per SF	**$343.85**	**$145.35**	
Multipliers			
Perimeter Multiplier	.9064	0.8885	
Story Height Multiplier	1.1035	1.207	
Multi-story Multiplier*	1.015	1.0	
Combined Multiplier	**1.0152**	**1.0724**	
Refined Cost per SF	**$311.22**	**$155.87**	
Update/Location Multipliers			
Current Cost Multiplier (July 2012)	1.04	1.04	
Location Multiplier (Silver Spring, July 2012)	1.07	1.07	
Final Benchmark MVS Cost per SF	**$388.47**	**$173.45**	
Total Building SF	**451,262**	**114,721**	**565,983**
MVS Building Cost	**$175,301,373**	**$19,898,645**	**$195,200,019**
Final MVS Cost Per SF			**$344.89**

Source: WAHI March 2011 Updated CON application (DI 131, Vol. 1, pp. 12-20 and 50-51 and Ex.I) and Marshall Valuation Service®, published by Marshall & Swift/Boeckh, LLC.
*Multi-story multiplier is .5% (.005) per floor for each floor more than three floors above the ground.

My calculation of the MVS benchmark for the hospital structure of $344.89 per SF, as detailed above, is $12.22 more than the $332.67 per SF calculated by WAHI. This difference may be substantially due to the difference in time accounted for by my updates, but the lack of details in the March 2011 response makes this conclusion uncertain.

A comparison of WAHI's projected cost for constructing the hospital portion of the project to the MVS benchmark is detailed in the following table. It reflects a higher construction financing cost allocation than that submitted by WAHI ($17,740,164 versus $14,418,750); I included the loan placement fees specified in WAHI's budget, but omitted from WAHI's comparison with an MVS benchmark, because MVS includes normal interest and processing fees. I allocated the construction period interest and loan placement fees exclusive of post construction interest to the hospital portion and garage portion based on the costs of each component included in MVS, which excludes equipment and other costs, as a portion of the

WAHI's estimated total current capital costs. I also made a slightly smaller adjustment for other costs that are not included in MVS because I concluded that a number of the adjustments claimed by WAHI for the hospital structure should have been allocated between the hospital structure and the garage structure, including site utility relocation, tree clearing, wetland and tree protection, sedimentation and erosion controls, and Montgomery County land use controls. Since these adjustments primarily related to land disturbance, I allocated these adjustments between the hospital and garage based on the proportional relationship between the largest hospital floor (the basement) and the largest parking garage floor (second floor). The comparison of the MVS benchmark to WAHI's specification of MVS comparable cost for the hospital, as modified by me, is detailed below

Table 19: Comparison of Washington Adventist Hospital Relocation Budget for the Hospital as Modified to Marshall Valuation Service Benchmark

Project Budget Item	Estimated Cost by Applicant
Building	$138,272,000
Fixed Equipment	$19,573,000
Site Preparation	$7,546,000
Architectural Fees	$14,419,000
Permits	$526,000
Cap. Construction Int. & Finance Fees	$17,835,007
Total	**$198,171,007**
Total Adjustments to Cost	$18,190,573
Adjusted Total for MVS Comparison	$179,980,434
Total Hospital Square Footage	**565,983**
Adjusted Hospital Cost Per SF	**$318.00**
MVS Benchmark Cost Per SF	$344.89
Total Over (Under) MVS Benchmark	**($26.89)**

Source: WAHI March 2011 Updated CON application (DI 131, Vol. 1, p. 13 and pp. 19-20 and Ex. I)

WAHI's cost for the garage portion of the project in comparison to the MVS benchmark is addressed in the standard below. Based on the revised comparison detailed above, WAHI's proposed cost per square foot for the construction of the hospital portion of the project is $26.89 per SF less than the MVS benchmark. Therefore, there would not be any exclusion from any rate request submitted to the HSCRC for the capital cost of the hospital portion of this project.

(8) Construction Cost of Non-Hospital Space

The proposed construction costs of non-hospital space shall be reasonable and in line with current industry cost experience. The projected cost per square foot of non-hospital space shall be compared to the benchmark cost of good quality Class A construction given in the Marshall Valuation Service® guide for the appropriate structure. If the projected cost per square foot exceeds the Marshall Valuation Service® benchmark cost, any rate increase proposed by the hospital related to the capital cost of the non-hospital space shall not include the amount of the projected construction cost that exceeds the Marshall Valuation Service® benchmark and those portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the excess construction cost. In

general, rate increases authorized for hospitals should not recognize the costs associated with construction of non-hospital space.

Applicant's Response

While WAHI stated that it recognizes that none of the cost of the proposed parking structure will be included in the proposed replacement hospital's rates, it compared its estimated cost to construct the proposed parking garage to an MVS benchmark for constructing a Class A, Good Quality parking structure in Montgomery County. WAHI stated that according to MVS the cost of constructing such a parking structure in December 2010 was $66.39 per SF and that the estimated cost of constructing the proposed 340,085 square foot parking garage on the relocation site is $63.33 per SF, $3.06 per SF less than the benchmark. (DI #131, Vol. 1, p. 51)

Interested Party and Participating Entity Comments

No comments were submitted on WAHI's response to this standard

Reviewer's Analysis and Findings

This standard requires a comparison of the project's non-hospital estimated construction cost with an index cost derived from the Marshall Valuation Service. This project as updated in March 2011 includes one parking garage. As with the previous standard, this standard provides that any rate increase proposed by the hospital related to the capital cost of the project shall not include excess construction cost.

According to WAHI's comparisons, the cost of constructing the parking garage does not exceed the MVS benchmark for a comparable parking garage. However, WAHI did not submit any details as to how it calculated the $66.39 per SF MVS benchmark or how it arrived at the $63.33 per SF comparable cost of constructing the garage. A recalculation of the MVS benchmark updating some adjustment factors and making minor changes in others resulted in a slight decrease in the MVS benchmark from $66.39 per SF to $65.76 per SF, as detailed in the following table.

I have calculated a revised MVS benchmark for the garage based on the information submitted in WAHI's March 2011 updated CON application, using the MVS base cost for an above-ground parking structure last revised by MVS in February 2012. I adjusted these base costs by applying the perimeter, height per story, and multi-story multipliers calculated for the size and shape garage proposed by WAHI. I then adjusted these costs per square foot by applying the appropriate current cost and local multiplier to bring the MVS benchmark up to date for July 2012 in Silver Spring, Maryland.

The revised calculation of the MVS benchmark for each component of the parking structure is detailed in the following table.

Table 20: Recalculation of Marshall Valuation Service Benchmark for WAHI Parking Garage

Construction Class/Quality	Class A/Good Quality
Number of Stories	6
Square Feet	340,085
Average Floor Areas (square feet)	56,681
Perimeter (ft.)	1,004
Average Floor to Floor Height (feet)	11
Base Cost per SF (Feb. 2010)	**$65.95**
Multipliers	
Perimeter Multiplier	.92818
Height Multiplier	.9405
Multi-story Multiplier*	1.005
Combined Multiplier	**.8773**
Refined Cost per SF	**$57.86**
Sprinkler Add-on	2.39
Adjusted Refined Cost per SF	60.25
Update/Location Multipliers	
Update Multiplier (July 2012)	1.02
Location Multiplier (Silver Spring, 7/12)	1.07
Final Benchmark MVS Cost per SF	**$65.76**

Sources: WAHI March 2011 Updated CON application (DI 131, Vol. 1, pp. 12-20, 51) and Marshall Valuation Service®, published by Marshall & Swift/Boeckh, LLC.
*Multi-story multiplier is .5% (.005) per floor for each floor more than three floors above the ground (two of the garage floors are identified as G1 and G2).

My calculation of the MVS benchmark for the garage structure of $65.76 per SF, as detailed above, is less than the $66.39 per SF calculated by WAHI.

A comparison of WAHI's projected cost for constructing the garage portion of the project to the MVS benchmark is detailed in the following table. It includes an allocation of loan placement fees as well as construction period interest as explained under the *Construction Cost of Hospital Space* standard and adjustments to WAHI's estimated cost for the garage, as explained under the *Construction Cost of Hospital Space* above, and as identified by WAHI. (DI #131, Vol. 1, p. 15) The comparison of the MVS benchmark to WAHI's specification of MVS comparable cost for the garage, as modified by me, is detailed below.

Table 21: Comparison of Washington Adventist Hospital Relocation Budget for the Parking Garage as Modified to Marshall Valuation Service Benchmark

Project Budget Item	Estimated Cost by Applicant
Building	$19,588,000
Fixed Equipment	
Site Preparation	$865,000
Architectural Fees	$1,077,000
Permits	$263,000
Cap. Construction Int. & Finance Fees	$2,174,166
Total	**$23,967,166**
Total Adjustments to Cost	$2,026,758
Adjusted Total for MVS Comparison	$21,940,407
Total Hospital Square Footage	**340,085**
Adjusted Hospital Cost Per SF	**$64.51**
MVS Benchmark Cost Per SF	$65.76
Total Over (Under) MVS Benchmark	**($1.24)**

Source: WAHI March 2011 Updated CON application. (DI 131, Vol. 1, pp. 15, 19-20)

WAHI has not assumed a rate increase in its financial projections, and according to HSCRC and as recognized by WAHI, no construction cost associated with a parking garage will be recognized as a factor in any rate increase request by a hospital. However, the construction of this garage addition does not exceed the MVS benchmark. The application complies with this standard.

(9) Inpatient Nursing Unit Space

Space built or renovated for inpatient nursing units that exceeds reasonable space standards per bed for the type of unit being developed shall not be recognized in a rate adjustment. If the Inpatient Unit Program Space per bed of a new or modified inpatient nursing unit exceeds 500 square feet per bed, any rate increase proposed by the hospital related to the capital cost of the project shall not include the amount of the projected construction cost for the space that exceeds the per bed square footage limitation in this standard or those portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the excess space.

Applicant's Response

WAHI determined the area for each nursing unit by adding up the interior areas of the patient rooms, support areas, and family support rooms on each unit. WAHI's tabulation excluded space for corridors, stairs, elevators, shafts, utility rooms, structural columns, shear walls, and exterior wall enclosures. The result for each nursing unit is detailed on the following table.

Table 22: Inpatient Nursing Unit Program Space Per Bed

Unit Location	Unit Description	Number of Beds	Unit Program Space	Square Feet Per Bed
2 North	ICU/CCU	32	15,509	485
3 South	Obstetrics (30), MSGA (6)	36	12,932	359
4 North	Psychiatric	37	16,265	440
5 South	Med/Surg.	36	13,385	372
5 North	IMCU/Acute Care	36	13,724	381
6 South	Med./Surg.	36	13,385	372
6 North	Med./Surg.	36	13,724	381

Source: WAHI March 2011 Updated Application for CON. (DI #131, Vol.1, p. 52)

Interested Party and Participating Entity Comments

There were no comments on the applicant's response to this standard.

Reviewer's Analysis and Findings

This standard provides that square foot space per bed in excess of 500 square feet per bed will not be eligible for consideration in any rate increase that WAHI could request as a result of this project. An analysis of the replacement hospital's inpatient unit program space shows that all planned inpatient unit space is less than 500 square feet per bed. Therefore, I find that the proposal is consistent with this standard without any condition restricting the cost that could be included in any future rate increase proposed by the hospital.

(10) Rate Reduction Agreement

A high-charge hospital will not be granted a Certificate of Need to establish a new acute care service, or to construct, renovate, upgrade, expand, or modernize acute care facilities, including support and ancillary facilities, unless it has first agreed to enter into a rate reduction agreement with the Health Services Cost Review Commission, or the Health Services Cost Review Commission has determined that a rate reduction agreement is not necessary.

Applicant's Response

WAH's spring 2010 Reasonableness of Charge ("ROC") position was 3.58% above its peer group average. WAHI pointed out that HSCRC's current policy provides for reductions in the annual rate update for hospitals with an average comparative adjusted charge above an HSCRC established threshold. This policy, called "aggressive scaling," caused WAH's annual update factor of 1.5% for FY 2011 to be reduced by a factor of .447%. Also, under this policy hospitals above a second higher threshold are required to enter into discussions with HSCRC regarding a potential rate reduction agreement. WAH's comparative adjusted charge for 2010 did not require such a discussion. (DI #131, Vol. 1, p. 54)

WAHI also pointed out that its CON application assumes no HSCRC rate increases related to the new capital cost for the new hospital facilities and equipment. WAHI then stated

that with no increase in rates related to these capital costs, application of the current ROC methodology would produce future rates for WAHI that would be much less than 3% above the average. (DI #131, Vol. 1, pp. 54-55)

Interested Party and Participating Entity Comments

HCH

HCH did not comment on WAHI's response to this standard in WAHI's March 2011 update of its application, although it commented on WAHI's response to this standard in earlier versions of the application. HCH's comments focused on HCH's point that HSCRC still defined a high cost hospital as one that exceeded its peer group average by more than 3%. HCH further noted that for WAH to be consistent with this standard it must approach HSCRC with a proposed rate agreement, and that consistency with this standard would only occur if HSCRC decided that a spend-down was unnecessary. (DI #59, p. 7)

LRH, MMMC, and CTP did not comment on this standard.

Applicant's Response to Comments

WAHI's response to HCH's comments on the April 2009 application was essentially the same as its response to the standard in March, 2011, as summarized above.

Reviewer's Analysis and Findings

I have considered the requirements of this standard and the changes in HSCRC policy as explained by WAHI that have, in essence, rendered this standard inapplicable to WAH at this time. I have also considered HCH's assertions that WAH must approach HSCRC and propose a rate agreement, and that consistency with this standard will occur only if HSCRC decides that a spend-down is unnecessary. My understanding is that HSCRC has essentially abandoned the rate reduction approach to high cost hospitals, replacing that approach with a policy of aggressive scaling. Given this change in policy, I have concluded that requiring WAH to do what HCH suggests would not be a productive use of the resources of WAHI or HSCRC.

I find that this standard is inapplicable in this review because the rate reduction agreements contemplated by the standard have been replaced by automatic rate reductions. I recommend that MHCC staff consider the ongoing validity of this standard in its next iteration of COMAR 10.24.10, the SHP chapter used in the review of general hospital projects.

(11) Efficiency

A hospital shall be designed to operate efficiently. Hospitals proposing to replace or expand diagnostic or treatment facilities and services shall:

(a) Provide an analysis of each change in operational efficiency projected for each diagnostic or treatment facility and service being replaced or expanded, and document the manner in which the planning and design of the project took efficiency improvements into account; and

(b) Demonstrate that the proposed project will improve operational efficiency when the proposed replacement or expanded diagnostic or treatment facilities and services are projected to experience increases in the volume of services delivered; or
(c) Demonstrate why improvements in operational efficiency cannot be achieved.

Applicant's Response

In responding, WAHI compared its proposed design to WAH's existing facility layout and departmental locations. WAHI noted that, in the replacement hospital, separate access points will permit segregation of patient/visitor, staff, and service traffic, thus preventing congestion. WAHI noted that the provision of adequate parking would save patient and staff time. (DI #131, Vol. 1, p. 56)

With respect to staffing efficiencies, WAHI noted that its plans for an increase of 77.5 FTEs associated with increases in volume would be higher were it not for program improvements such as: (1) the consolidation of critical care services into one nursing unit; (2) reduction of patient transport positions due to better departmental adjacencies; (3) improvements in the patient admission function; and (4) overall reductions in average length of stay. (DI #131, Vol. 1, pp. 56-57)

With respect to the building layout, WAHI compared the replacement hospital's centrally located, segregated elevators for the public and for staff/service that will service the entire building to the existing facility's multiple elevator locations that serve specific areas of the hospital and often mix public, staff, and service traffic. WAHI also pointed to its plans for a separate dedicated patient transfer elevator at the replacement hospital that will allow immediate and discreet movement of patients from the emergency department to critical care, maternity, behavioral health, and intermediate care units. (DI #131, Vol. 1, p. 57)

WAHI noted many specific design features at the replacement hospital that will improve operational efficiency compared to the existing hospital, including the following: all private rooms will increase utilization and reduce patient relocations; nursing workstations will be located outside of patient rooms; the critical care unit is designed in eight bed zones to allow for fluctuation in census and sharing of support services; the surgical suite central clean core will have direct access to central processing; all cardiology (invasive and non-invasive) will be co-located on one floor and will share pre/post-op patient management with surgery; the maternity unit will have a distinct triage suite and C-section prep/recovery suite to preclude the need to use labor and delivery rooms for this purpose; the behavioral health unit will have both adolescent and adult sections that will be able to flex with changes in census and will share common support; and the ED will have universal enclosed exam/treatment rooms to allow flexibility in use and adjustment with changes in census and will have dedicated CT and radiographic rooms and a satellite collection lab.

Interested Party and Participating Entity Comments

There were no comments on this standard.

Reviewer's Analysis and Findings

I have considered the design features of this project and note that many features have been identified that will improve operational efficiency, especially the consolidation of critical care units, the consolidation of cardiac services, the design of nursing units, and improvement in the departmental adjacencies and additional vertical transportation capabilities between departments that will reduce patient transport positions. Therefore, I find that the design of this project has taken operating efficiency into consideration, consistent with the requirements of this standard.

However, as will be noted in the discussion of the Financial Feasibility standard and the Viability criterion, and, as outlined in the HSCRC staff opinion on this project, my findings with respect to this standard do not indicate that WAHI has established the credibility of all the assumptions it has made in this application with respect to its ability to hold growth in operating expenditures to a much lower rate of increase than that experienced for service volume and revenues.

(12) Patient Safety

The design of a hospital project shall take patient safety into consideration and shall include design features that enhance and improve patient safety. A hospital proposing to replace or expand its physical plant shall provide an analysis of patient safety features included for each facility or service being replaced or expanded, and document the manner in which the planning and design of the project took patient safety into account.

Applicant's Response

WAHI identified a number of design features and operational characteristics in its proposed project that it stated would have a positive impact on patient safety. These included the following: all private rooms, which would eliminate infection risks associated with semi-private rooms; the location of hand washing sinks inside each patient room's entry door and along corridors; the close proximity of wash room doors to patient beds, which would reduce falls; nursing alcoves just outside patient rooms, which would allow staff to remain close to their patients; computer stations in alcoves and at patient bedsides, which would allow staff access to electronic medical records and medication bar coding, potentially reducing errors; the ED's separate waiting areas for triage and fast track, separated from the main ED waiting area; all enclosed exam spaces in the ED, which will reduce the risk of infection; the ED's discrete examination/assessment suite for psychiatric patients that will be directly accessible from the ambulance entrance area, which will permit segregation of disruptive patients, and, when admission is necessary, will allow for the discrete transfer of such patients to the behavioral health unit using the adjacent patient transfer elevator; the behavioral health unit's open design, which will allow staff to have visual control of all corridors and activity areas from central work stations; and the identification and designation of locations for ceiling mounted patient lifts, which will provide safer transfer of bariatric and other similarly incapacitated patients (other safety features such as wider doors, floor mounted toilets, furniture, and equipment designed for this population would also be included in these areas).

Interested Party and Participating Entity Comments

There were no comments on this standard.

Reviewer's Analysis and Findings

I have considered the design features of this project and note that many will enhance and improve patient safety. Many of the design features are intended to reduce the risk of infection. The design will also allow the segregation of disruptive patients from their assessment in the ED to their transport and care in the inpatient unit, if necessary. Therefore, I find that the design of this project has appropriately taken patient safety into consideration and the project is consistent with this standard.

(13) Financial Feasibility

A hospital capital project shall be financially feasible and shall not jeopardize the long-term financial viability of the hospital.

(a) Financial projections filed as part of a hospital Certificate of Need application must be accompanied by a statement containing each assumption used to develop the projections.

(b) Each applicant must document that:

- ***(i) Utilization projections are consistent with observed historic trends in use of the applicable service(s) by the service area population of the hospital or State Health Plan need projections, if relevant;***
- ***(ii) Revenue estimates are consistent with utilization projections and are based on current charge levels, rates of reimbursement, contractual adjustments and discounts, bad debt, and charity care provision, as experienced by the applicant hospital or, if a new hospital, the recent experience of other similar hospitals;***
- ***(iii) Staffing and overall expense projections are consistent with utilization projections and are based on current expenditure levels and reasonably anticipated future staffing levels as experienced by the applicant hospital, or, if a new hospital, the recent experience of other similar hospitals; and***
- ***(iv) The hospital will generate excess revenues over total expenses (including debt service expenses and plant and equipment depreciation), if utilization forecasts are achieved for the specific services affected by the project within five years or less of initiating operations with the exception that a hospital may receive a Certificate of Need for a project that does not generate excess revenues over total expenses even if utilization forecasts are achieved for the services affected by the project when the hospital can demonstrate that overall hospital financial performance will be positive and that the services will benefit the hospital's primary service area population.***

There is a general review criterion, Viability, that overlaps this standard with respect to the core issues addressed. This standard was first incorporated into the State Health Plan in 2009 to provide specific guidance on the issue for hospital projects. In addressing this standard and the review criterion, some repetition is unavoidable, but I have attempted to minimize duplication in this Recommended Decision.

Applicant's Response

In its March 2011 update to its application, WAHI provided a statement of assumptions used in developing its projections of revenues and expenses, as follows:

Volume changes

2011-2014 (at the existing WAH): No change in inpatient case volume. Transfer of 1,025 inpatient medical/surgical inpatient cases to observation (one day stays). 1% per annum growth in emergency department (ED) volume. No other outpatient growth.

2015-2018 (at replacement WAH): Medical/surgical/gynecological/addictions (MSGA) cases: +1.5% in 2015; +2% in 2016; +2.5% in 2017-18. Obstetric (OB) and newborn cases: +2.5% per annum. Acute Psychiatric cases: No change. For ED and observation visits: 2.5% growth in 2015; 3.0% in 2016; 3.5% in 2017; and 4.0% in 2018. For ambulatory surgery cases and clinic visits; 2.0% growth in 2015; 2.5% in 2016; 3.0% in 2017; and 3.5% in 2018.

Average length of stay

2011-2014 (at the existing WAH): No change.

2015-2018 (at replacement WAH): MSGA cases: -4.45% in 2015 and 2016. No other changes.

Charges

2011-2014 (at the existing WAH):
Inpatient: Average of currently approved (March, 2011) Charge per Case and adjusted 7/1/2011, plus Maryland Health Insurance Plan (MHIP), Health Care Coverage Fund (HCCF), and Board of Public Works (BPW) allocated cost, high charge outliers and 1-day stay outlier revenue, etc.; adjusted for volume changes applying a 15% adjustment factor, and 0.5% per annum increase in case mix intensity
Outpatient: Average of currently approved rates and adjusted 7/1/2011; adjusted for volume changes

2015-2018 (at replacement WAH):
Inpatient: Rolled forward existing hospital rates with no rate increase for capital, adjusted for volume
Outpatient: Rolled forward existing hospital rates, adjusted for volume

Deductions from revenue

Percent of Gross Patient Service Revenue based on recent experience

Charity:	3.48%
Contractual allowance*:	8.33%
Bad debt:	5.5%
Total:	17.31%

*includes HSCRC uncompensated care fund receipts, MHIP payments, HCCF payments, and BPW

Other operating revenue

2011-2014 (at the existing WAH): No change.

2015-2018 (at replacement WAH): Parking charges.

Salaries and benefits

Assumed changes based on variability with case mix-adjusted (CMA) equivalent inpatient admissions (EIPAs), patient days (specific to medical/surgical/gynecological, intensive care unit, critical or coronary care unit, OB, newborns, etc) and visits (ED visits, observation visits, ambulatory surgery cases, etc.) as appropriate

Assumed existing hospital employees transferred to new hospital

Other operating expenses

2011-2014 (at the existing WAH): Assumed expense structure based on WAH's 2011 budget projection
Employee benefits projected at 20.58% of salary expense based on recent experience
Expense variability assumed with percentage changes in CMA EIPAs or equivalent inpatient days (EIPDs), as appropriate
Outsourced lab services and shared services arrangements with AHC support center assumed to continue throughout projection

2015-2018 (at replacement WAH): Reduction in parking shuttle expenses associated with existing campus
Reduced utilities and maintenance costs as a result f new facility
Expense variability assumed with percentage changes in CMA EIPAs, or EIPDs, as appropriate
Depreciation expense based on overall depreciable lives of"

Building and fixed equipment:	26 years
Major movable equipment:	6.8 years

Financing and cost amortization-effective interest method: 6.3% average during 2015-18

Capital costs
Taxable FHA/GNMA mortgage loan: $285,620,000 – 25 years, level debt service Interest rate: 5.55% Mortgage insurance premium: 0.5% assessed on monthly average outstanding mortgage balance Letter of Credit fees: 1.5% assessed on LOC requirement during 2015-2018 Interest earnings: Funded after construction to build 1 annual mortgage payment Mortgage Reserve Fund: 2.0% after five years and 2 annual mortgage payments after 10 years

Interest earnings rate on average cash balances	
Average cash balance in excess of $30 million:	4.0% per annum
Below $30 million	0.5% per annum

WAHI stated that "all of the projections of future utilization of the hospitals have been based on historical trends in the utilization of those services by the service area population of the hospital or State Health Plan need projections, if relevant." It noted that data source quality for reviewing inpatient trends were complete, but that outpatient service trend data sources were too recent for confident projection.

Interested Party and Participating Entity Comments

HCH

In its initial comments on WAHI's original application, Holy Cross Hospital stated that this proposal was not consistent with this standard. HCS submitted an analysis that indicated that the application used an overstated current year 2009 in its financial projections with overstated revenue projections, including a projection of $7.5 million in net operating income and $7.9 million in total net income. The analysis compared these to interim data available in the fourth quarter of 2009 that indicated WAH's operating losses for the full year[8] HCH stated that WAHI's financial assumptions were vague with respect to estimates of case mix index changes, most cost elements, and the variable cost assumption for labor and other operating expenses. HCH noted that the WAHI's "implication" that it used a 70% variable cost factor in preparing expense projections was inaccurate. HCH explained that this benchmark would not be appropriate, even if it had been used. HCH believed that the WAHI projections actually showed it used a variable cost factor for labor of 13% per equivalent inpatient day, a level referenced by HCH as "absurdly low."

HCH stated that WAHI understated expense projections as a result of its poorly chosen variable cost factor and its unreasonable staffing assumptions. HCH noted that WAHI projected close to level staffing (+4.1 FTEs) through 2015 while inpatient cases and outpatient visits were projected to increase substantially. The interested party stated that projecting the ability to care for higher patient case and visit volumes, with higher case mix intensity, without staff increases

[8] .The actual financial results for 2009 included an operating loss of $1.66 million and a total net income loss that was nearly identical.

produces understated expenses and, thus, overstated income projections that convey no level of confidence. HCH concluded that no adequate foundation was established for these projections.

HCH also noted that revenues from parking charges at the replacement hospital, that have never existed at WAH as a revenue source, were larger than projected income from operations and total net income.

Holy Cross Hospital stated that WAHI's utilization projections were not well-founded, specifically identifying projections of OB case volume as inconsistent with historic use trends. HCH noted that the applicant provided no basis for its use of an 8% annual growth rate in outpatient surgery. Further, HCH pointed out that WAHI projected emergency department visits to increase two percent per year at the replacement hospital but that WAHI did not seem to consider AHC's proposal to operate an urgent care center in Takoma Park after development of the replacement hospital. HCH concluded that WAHI did not provide a basis for these assumptions.

Holy Cross Hospital noted that WAHI's lowered projections of expenses for pre-move planning and physician subsidies were unfounded. HCH stated that it was more reasonable to assume that planning costs would increase for new facility projects of this type, which involve a new hospital service area, physician recruitment, and a projected volume growth. HCH believed that reducing physician subsidies in the face of increased volume, without changes in payer mix, was not realistic. HCH concluded that WAHI had not explained how this could be accomplished. HCH also stated that AHC did not have the financial capacity to implement this project and establish a new general hospital in Clarksburg. [9]

After modifications to the original application, HCH provided additional review and comment, noting that WAHI did not change the current year used. HCH stated that WAHI removed conflicting assumptions but did not follow all assumptions, as stated, in developing its projections. HCH explained that this was still the case with the variable cost factor and that several assumptions were still vague. HCH pointed out that WAHI did not provide any values for Charge per Case, Charge per Visit, Case Mix Index, or CMI changes and thus, revenue projections could not be verified. HCH noted that WAHI had yet to provide a variable cost factor for supplies. HCH also included the analysis of another consultant, Navigant, which determined that the interest rate assumption of 5.75% on the debt securities to finance the replacement hospital was low.

Holy Cross Hospital identified the same concerns with respect to the reasonableness of variable cost factor assumptions that WAHI employed. HCH stated that the variable cost factor implied for labor and supplies in the WAHI projections was far too low to provide realistic expense projections. It pointed out that the WAHI projections indicated very low variable cost factor assumptions applied to the 2009 to 2012 period for the Takoma Park operation, and posed the question, "if WAH can achieve these significant economies in its current building, why has it not already achieved them?"

[9] A CON application for the Clarksburg Community Hospital project, sponsored by AHC, was denied in 2011. The denial was not appealed by CCH.

HCH further noted that WAHI modified its application to assume that it would need to add 52.2 FTEs rather than the 4.1 FTEs in the original filing.

HCH also explained that more realistic income projections, based on its calculations, would fall short of providing the cash infusion from AHC that the applicant projected would be needed for this project.

HCH concluded that, in the aggregate, these observations show that WAHI's application do not show that its proposed replacement hospital is financially viable.

In December 2009, in response to further modifications filed by WAHI, Holy Cross Hospital filed a new iteration of its comments, repeating many of the same substantive comments included in its October, 2009 filing. HCH noted that WAHI had amended its projections for 2009 to show modest operating losses. HCH believed the losses shown by WAHI were understated and noted that WAHI had still not explained some expenses (e.g., $5.7 million in "other expense").

HCH stated that, in its March, 2011 updated application, WAHI included impermissible modifications such as: the addition of shell space to the design; an increase in surgical capacity; a more general redesign of the facility; a statement in the application indicating that final department-level design would occur after CON approval; an increase in psychiatric beds; and the addition of phasing to the project plan, based on WAHI's 2018 cost estimates for finishing shell space in the modified application. (D.I. #137)

HCH noted that WAHI had made a one-third reduction in start-up costs, from $50 million reduced to $34 million, with no real explanation as it merely provided the identical explanatory note provided in 2009 for the $50 million projection. HCH also pointed out WAHI's reduction in volume projections from 2009 to 2011, without any explanation. HCH stated that, as WAHI provided no explanation or defense, these changes could not be accepted and were unreliable. HCH noted that WAHI had made progress in raising the variable cost factor assumptions from the low levels criticized by HCH in 2009, but HCH believed that the new assumptions were still so vague that they could not be used to understand the basis for WAHI projections. HCH explained that the variable cost factor for labor was still too low at the HCH calculated rate of 52.7%. HCH stated that the data showed that WAH experienced a variable cost factor of 67% for labor in the most recent year to year comparison possible, and this was when labor costs needed to be reduced in response to a decline in volume and revenues. HCH noted that labor costs are considered by most experts to be more variable in response to volume growth, making the low assumption by WAHI in future years when it projects volume growth more inexplicable.

HCH pointed out missing information that might explain the interest rate and other financing cost assumptions of the modified application, noting that it was unclear what options WAHI was assuming for placing the debt, traditional sale or Real Estate Mortgage Investment Conduit. HCH believed the rate was understated, based on the likely timing of the project if it moved forward. HCH also questioned WAHI's time estimates for implementing the project, believing them to be understated. It viewed WAHI's proposed shell space as unacceptable to FHA and stated that FHA was likely to require redesign of the project as a condition of obtaining

mortgage insurance.

HCH stated that the cost estimates for the Takoma Park campus redevelopment were understated, given environmental remediation costs that WAHI did not account for in its estimate. HCH noted that WAHI did not include these costs in its application's project cost and explained that these costs should be included. HCH pointed out that WAHI did not provide a basis for the projected increase in demand for medical rehabilitation cases that would be handled on the Takoma Park site at the special hospital left behind, nor did it provide a basis for its projections of outpatient rehabilitation visits at the future Village campus. HCH noted that WAH had not reported any outpatient medical rehabilitation visits in 2009 and 2010. It then explained that WAHI had not provided any assumptions for the financial schedule of revenues and expenses filed for the medical rehabilitation hospital operation. HCH concluded that the financial projections for Takoma Park were unfounded and were unsupported by any commitments from "others", including whom WAHI projected to provide almost 40% of the Village revenue, or a commitment from AHC to fully fund the Village's expenses.

HCH believed that WAHI had not undertaken all that it could have to more firmly establish its ability to restructure AHC as needed to implement this project. In reviewing the correspondence provided by creditor banks, HCH noted a lack of any level of commitment to the changes. HCH stated that AHC could have obtained the requisite amendments and waivers to Bank agreements, contingent on approval of the application for FHA mortgage insurance, but it had failed to make this attempt. HCH questioned whether the creditor banks would be willing to abandon their first lien on WAH revenue being generated during construction, which HCH cited as a requirement of federal loan policy.

LRH/MMMC

These two hospitals initially commented that the WAHI project was not consistent with the COMAR 10.24.10 project review standard for Financial Feasibility, nor with the review criterion addressing the Costs and Effectiveness of Alternatives, stating that WAHI, failed to meet its "burden of proof." LRH/MMMC questioned the project's consistency with this criteria and standard, noting changes occurring in the hospital reimbursement environment that they believe the application did not address. LRH/MMMC stated that the increased credit standards and restrictions on the capital markets make the appropriate financing of this project doubtful. The hospitals pointed out the problematically high cash to debt ratio of AHC, outlined by Moody's Investor Service in December, 2008, and AHC's poor position to undertake a major new debt obligation. LRH/MMMC noted that WAHI did not establish the availability of the cash that AHC will require to implement the project. The hospitals' stated that the applicant had not provided adequate information on the financial aspects of the Village project and that such information should be a part of the CON application itself. LRH/MMMC concluded that WAHI had not established the viability or financial feasibility of the project. (D.I. ##31,32, 36)

In December, 2009, after modifications of the WAHI application reduced the total amount of capital being projected for AHC, LRH/MMMC continued to point out that AHC had not addressed its previously raised concerns with "financial capacity and prudence." The hospitals took issue with the manner in which WAHI has addressed issues raised in the review,

labeling theWAHI responses as non-responsive in any real way. As examples, the hospitals cited WAHI's responses referring to experts who will guide fundraising activities and other experts who will assure that the anticipated financing plan will be implemented; LRH/MMMC stated that these responses did not actually establish the realism of WAHI fundraising goals or project financing plans.

In commenting on WAHI's March, 2011 final modifications, LRH/MMMC renewed their concerns that WAHI had not demonstrated the project's financial feasibility, referencing the Reviewer's request for updated financial information and WAHI's modified application filed in response. The hospitals focused on issues relating to financial feasibility, noting the "inaccuracy, superficiality, and misleading nature of the assumptions made by WAHI with respect to the service area of the proposed replacement hospital, while not outlining further specifics on the specific issues of financial feasibility or project viability." (D.I. #144)

CTP

The City objected to the application's lack of financial detail with respect to the redevelopment and operation of the Takoma Park campus and called for a clear operating and capital plan. It noted that the application did not make it clear how the large transfers of cash required will allow AHC to provide care for the medically underserved of the Takoma Park area, suggesting that the application did not clarify how these resources would be available without straining and endangering the sponsoring organization. The City also noted that staffing and utilization projections did not credibly reflect the actual change in location proposed for the hospital. (DI ##17, 22, 56, and 146)

Applicant's Response to Comments

WAHI objected to CTP's demand for detailed reuse plans for the Takoma Park campus, and stated that it found no basis in regulation for such a requirement. WAHI explained that its presentation of plans for the Village were voluntary and were not directly relevant to consideration of the proposed replacement hospital.

WAHI provided additional correspondence from its financing consultant, Ziegler, supporting the soundness of the interest rate assumptions used in modeling the hospital financing plan and as a rebuttal to HCH's analysis of financial feasibility. WAHI stated that, while the analysis of variable cost factors used by HCH was relevant for a fixed institution, it was not relevant for a project involving replacement of an old hospital with a modern facility designed to substantially reduce costs and improve productivity in ways not reflected by the very high 95% variable cost factor supported by HCH. WAHI also explained that a comparison with peer hospital performance was the appropriate test of whether a new hospital, such as that proposed by WAHI, could achieve the projected reductions in non-capital cost. WAHI pointed out that the cost projections for WAHI were in line with those projected by HCH for its new Germantown hospital project. (D.I. #153)

The Health Services Cost Review Commission

It is appropriate to note, prefatory to my analysis and findings with regard to this project review standard addressing Financial Feasibility, that HSCRC staff provided MHCC with an opinion in June 2011 that it characterized as an "indicator of financial feasibility" but not "a full blown feasibility analysis," which it noted would be required for this project by any issuing authority for the planned debt securities. (*See* Appendix B) It summarized its review of WAHI's financial projections and assumptions as outlining a case that would be insufficient for a favorable report by HSCRC staff, if offered in application for a Comfort Order.[10] Its review focused on assumptions made by WAHI concerning "variable cost factors," finding that, over the projection period of FY 2014 to FY 2018, the replacement hospital's revenues were projected to grow 10.89% (relative to WAH's last year of operation in Takoma Park), while expenses (net of depreciation and interest) were projected to grow only 3.93% relative to volume changes, reflecting an assumed variable cost factor of approximately 33% over the four-year projection period. HSCRC staff stated that its closer review of the year-by-year change showed substantial differences in assumed variable costs in the first two years of the project when compared to the last two years. For FY 2015 (the first year the new facility would be in operation), revenues were projected to increase 2.10% (commensurate with projected volume increases), while expenses were projected to decrease 0.78% (reflecting a negative variable cost factor). For FY 2016, revenues were projected to increase 2.49%, while expenses were projected to increase only 0.65%. HSCRC staff found that this would equate to a variable cost factor of only 26% for FY 2016 (implying dramatic and likely unprecedented cost reductions and improvements in efficiency over these two years). HSCRC staff questioned whether the replacement facility could indeed realize this level of operating cost improvement in FY 2015 and FY 2016. It found the same implausible relationship between revenue and expense growth in the inflated dollar version of the projections. It also found, in its analysis of projected financial ratios, trouble with WAHI's debt to capitalization and debt service coverage ratios and projected days of cash, all indicators that should be better justified to assure success in the debt market. Because of the suspect assumptions HSCRC staff noted concerning WAHI's ability to realize the projected level of "cost improvement," staff also identified the reliability of the replacement hospital's projected margins as suspect.

Reviewer's Analysis and Findings

Assumptions

The applicant has provided a statement of assumptions to explain its financial projections, as outlined above. However, as will be noted, they are not sufficiently detailed in all respects to provide a full understanding of how all projections were developed. More importantly, I am satisfied that the interested parties and HSCRC have shown that the assumptions with respect to variability of cost, as provided by the applicant in its projections, are

[10] A "Comfort Order" is an order issued by HSCRC in connection with hospital debt financing. An order of this nature provides a level of comfort that sufficient liquidity would be available on the part of the hospital to pay bond holders over the life of a particular debt issue. The HSCRC has been issuing these orders since the early days of rate setting. They have generally benefited Maryland hospitals by reducing capital costs, by enhancing bond ratings, and by increasing hospitals' access to the credit markets.

not consistent with stated assumptions and reflect unrealistic expectations with respect to the applicant's ability to manage growth in expenses in an environment of increased demand for services. Assumptions concerning revenue projections appear to be overstated, based on actual recent performance of WAH.

Utilization Projections

The following table, Table 23, profiles actual inpatient utilization at WAH for the period 2005 through 2011 and the utilization projections of WAHI, developed in 2011, for the period 2012 through 2014, the last year projected for operation of the existing WAH campus in Takoma Park. The second table, Table 24, shows the projections, developed in 2011 by WAH, for the replacement hospital campus.

Table 23: Historic Inpatient Utilization (Acute Care), 2005-2011 and Projected Utilization, 2012-2014*
Washington Adventist Hospital-Takoma Park Campus

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Medical/Surgical/Gynecological/Addictions (MSGA)										
Discharges	13,295	13,417	13,224	13,257	13,170	12,100	10,615	11,275	11,275	11,275
Patient Days	57,006	59,266	59,689	59,664	57,833	55,908	52,198	55,317	55,317	55,317
ALOS	4.3	4.4	4.5	4.5	4.4	4.6	4.9	4.9	4.9	4.9
Obstetric										
Discharges	2,160	2,155	2,608	2,292	2,466	2,234	1,987	1,996	1,996	1,996
Patient Days	6,148	6,241	7,551	6,494	6,976	6,224	5,109	4,992	4,992	4,992
ALOS	2.9	2.9	2.9	2.8	2.8	2.8	2.6	2.5	2.5	2.5
Acute Psychiatric										
Discharges	2,231	2,067	2,006	1,798	1,972	1,756	1,726	1,922	1,922	1,922
Patient Days	10,557	9,686	10,130	9,477	9,733	8,997	8,944	9,427	9,427	9,427
ALOS	4.7	4.7	5.1	5.3	4.9	5.1	5.2	4.9	4.9	4.9
Total Acute Inpatient Care Utilization										
Discharges	17,686	17,639	17,838	17,347	17,608	16,090	14,328	15,193	15,193	15,193
Patient Days	73,711	75,193	77,370	75,635	74,542	71,129	66,251	69,736	69,736	69,736
ALOS	4.2	4.3	4.3	4.4	4.2	4.4	4.6	4.6	4.6	4.6

Sources: HSCRC Discharge Data Base, 2005-2011 and CON Application (March, 2011), 2012-2014.

Table 24: Projected Utilization (Acute Care), 2015-2018 and Historic and Projected Change, WAH, 2005-2014 and WAH Replacement-White Oak/Silver Spring Campus, 2015-2018

	Actual Average Annual Change 2005-2011	Projected Average Annual Change 2011-2014	Projected Average Annual Change 2014-2018	2015	2016	2017	2018
MSGA							
Discharges	(3.6%)	2.1%	2.1%	11,444	11,673	11,965	12,264
Patient Days	*(1.4%)*	*2.0%*	*0.2%*	*54,001*	*52,986*	*54,311*	*55,668*
ALOS	2.4%	(0.1%)	(1.9%)				
Obstetric							
Discharges	(0.7%)	0.2%	2.5%	2,046	2,097	2,149	2,203
Patient Days	(2.1%)	(0.8%)	2.5%	5,115	5,243	5,373	5,508
ALOS	(1.6%)	(0.9%)	0.0%	2.5	2.5	2.5	2.5
Acute Psychiatric							
Discharges	(3.9%)	3.8%	0.0%	1,922	1,922	1,922	1,922
Patient Days	(2.6%)	1.8%	0.0%	9,418	9,418	9,418	9,418
ALOS	1.6%	(1.8%)	0.0%	4.9	4.9	4.9	4.9
Total Acute Inpatient Care Utilization							
Discharges	(3.3%)	2.0%	1.9%	15,412	15,692	16,036	16,389
Patient Days	(1.7%)	1.8%	0.3%	68,534	67,647	69,102	70,594
ALOS	1.8%	(0.2%)	(1.6%)	4.4	4.3	4.3	4.3

Sources: CON Application (March, 2011), Values for 2015-2018
Change calculations based on HSCRC Discharge Data Base, 2005-2011; HSCRC Discharge Data Base and CON Application, 2011-2014; CON Application, 2014-2018.

The annual change figures for three different time periods shown in the preceding table are important to illustrate where this project now stands with respect to its forecasted use and history. However, it cannot be used for purposes of comparison in evaluating consistency of projections "with observed historic trends in use of the applicable service(s) by the service area population of the hospital or State Health Plan need projections." This is because they reflect the reality of actual 2011 data. The projections done by WAHI were developed in 2011 so a recent observed period for use in this standard could be the period from 2005 to 2010. A comparison of this trend with the average annual rate of change projected by WAHI for the period of 2010 to 2018 is apt and shown in the following table. WAHI, in 2011, was projecting a rebound of case volume in two inpatient services, MSGA and acute psychiatric services (comprising about 87% of total WAH case volume), after declining volumes in the preceding five years. The WAHI projection assumed that WAH cases would stabilize in its remaining years of life, through 2014, at a level about 7% below 2010 utilization for MSGA cases, 11% below 2010 demand for obstetric services, and about 9% above 2010 cases for acute psychiatric services. MSGA and obstetric volume was projected to begin rising with replacement of WAH at a new site, with annual average growth assumed of 2.1% and 2.5% respectively. WAHI projected that acute psychiatric case volume would be flat between 2011 and 2018, a clear improvement over the decline of recent years.

Table 25: Historic Change in Utilization (Acute Care), 2005-2010 (at WAH-Takoma Park) and WAHI Projected Change (2010-2018-projections developed in 2011) WAH, 2010-2014) and WAH Replacement-White Oak/Silver Spring (2015-2018)

	Historic 2005-2010	Projected 2010-2018
MSGA		
Discharges	(1.8%)	0.2%
Patient Days	(0.4%)	(0.2%)
ALOS	1.5%	(0.4%)
Obstetric		
Discharges	1.4%	0.3%
Patient Days	1.0%	(0.3%)
ALOS	(0.4%)	(0.7%)
Acute Psychiatric		
Discharges	(4.4%)	1.5%
Patient Days	(3.0%)	0.7%
ALOS	1.7%	(0.7%)
Total Acute Inpatient Care Utilization		
Discharges	(1.8%)	0.4%
Patient Days	(0.7%)	(0.1%)
ALOS	1.2%	(0.4%)

Sources: HSCRC Discharge Data Base, 2005-2011 and CON Application (March, 2011), for 2012-2014.

Average length of stay has been increasing at WAH in recent years, but WAHI projects a reversal of that trend across the board for all services, which could be expected. As the 2011 report on proposed new hospital projects in Montgomery County pointed out, about one third of the growth in MSGA census in Montgomery County in recent years could be viewed as excess, given a comparison of case mix-adjusted length of stay and actual ALOS. WAH and three other hospitals in the jurisdiction could be identified as facilities that could reduce ALOS by achieving stays reflecting the statewide averages. Suburban Hospital was the only hospital in Montgomery County consistently maintaining ALOS in close alignment with its case mix. In the case of WAH, substantial reversal of recent trends in ALOS for MSGA and psychiatric cases are implied by the WAHI projections if they are viewed as reflecting a pattern maintained over time. A countering development in recent years, which will tend to increase MSGA ALOS, in particular, is the reduction in one-day hospital stays, many of which are now being converted to observation stays, as a result of HSCRC policy changes.

As noted elsewhere in this report, WAH's actual results for 2011 came in well under the 2011 WAHI projection, with MSGA case volume almost 14% below and acute psychiatric cases about 10% below the WAHI 2011 projection. The existing hospital's actual OB case volume was relatively close to WAHI's 2011 estimate. The gap in patient days was not as large because ALOS, unfortunately, did not moderate as projected. In fact, average length of stay rose from 2010 to 2011 for all acute care services at WAH.

I find that utilization projections used in WAHI's application are not consistent with observed historic trends in use of the applicable service(s) by the service area population of the hospital. WAHI has not presented a lucid explanation of why these projections should be accepted as reliable. Utilization projections used by WAHI since this application was first filed have been consistently undercut by actual performance. WAHI has repeatedly stated that the service area population that is served by WAH at its Takoma Park campus is the same service

area population, with the same demographic profile, that will be served by the replacement WAH in White Oak. (*See* discussion of the Impact criterion in this Recommended Decision, *infra*.)

Revenue Projections

Patient care revenue estimates appear to be consistent with utilization projections which, however, as noted, are questionable. However, they deviate from current experience with respect to parking fee revenue. This new revenue source is not based on historic experience of WAH, which has never charged for parking, and also appears to be outside the range of recent experience of other similar hospitals in Maryland. I recently asked WAHI to align this revenue source with the best level of performance among existing Maryland hospitals. WAHI's response did not present a convincing more conservative approach to showing how the replacement hospital will generate an accounting profit. (DI #333)

Another important set of revenue estimates related to this project are those developed for the purpose of forecasting income generation by the Village, which will contain the existing specialty hospital, an urgent care center, and other services at the Takoma Park site. These projections are not well explained or supported by WAHI but are important if AHC is to be able to financially manage the restructuring and support of the replacement hospital venture.

Staffing and Expense Projections

I do not find that WAHI has provided expense projections that align with historic notions of how expenses change in response to changes in volume. Its response to this criticism from the interested parties and HSCRC, WAHI has primarily relied on the idea that a new hospital building will change the fundamental nature of the relationship between expenses and volume because of the large overhead cost savings that will emerge, apparently independent of labor and material costs, and the observation that other hospitals have achieved lower non-capital costs per case and, thus, so can WAHI, despite differences observed in hospital size, case mix, and payor mix. I have not found that WAHI effectively addressed these differences or provided a level of detail in a comparative analysis of how the new hospital facility itself would create the level of efficiency improvement and productivity gains relative to volume increases necessary to make their projected performance consistent with this standard.

Financial Performance

This standard requires that hospitals document the ability to generate excess revenues over total expenses (including debt service expenses and plant and equipment depreciation), if utilization forecasts are achieved for the specific services affected by the project within five years or less of initiating operations. WAHI has produced projections that show the replacement hospital generating net income of $1.5 million in the fourth year of replacement hospital operation, after losing $23.3 million in the first three years of operation. However, as noted, I am not convinced that this income projection is reliable, given the problems noted with the applicant's assumptions concerning utilization, revenues, and expenses.

For these reasons, I find that the proposed project is not consistent with this standard. I

want to note that, later in this Recommended Decision, I find that the proposed project is not viable.

(14) Emergency Department Treatment Capacity and Space

(a) An applicant proposing a new or expanded emergency department shall classify service as low range or high range based on the parameters in the most recent edition of Emergency Department Design: A Practical Guide to Planning for the Future from the American College of Emergency Physicians. The number of emergency department treatment spaces and the departmental space proposed by the applicant shall be consistent with the range set forth in the most recent edition of the American College of Emergency Physicians Emergency Department Design: A Practical Guide to Planning for the Future, given the classification of the emergency department as low or high range and the projected emergency department visit volume.

(b) In developing projections of emergency department visit volume, the applicant shall consider, at a minimum:

(i) The existing and projected primary service areas of the hospital, historic trends in emergency department utilization at the hospital, and the number of hospital emergency department service providers in the applicant hospital's primary service areas;

(ii) The number of uninsured, underinsured, indigent, and otherwise underserved patients in the applicant's primary service area and the impact of these patient groups on emergency department use;

(iii) Any demographic or health service utilization data and/or analyses that support the need for the proposed project;

(iv) The impact of efforts the applicant has made or will make to divert non-emergency cases from its emergency department to more appropriate primary care or urgent care settings; and (v) Any other relevant information on the unmet need for emergency department or urgent care services in the service area.

Applicant's Response

WAHI set forth its proposal to relocate WAH's existing emergency department ("ED") from Takoma Park to the White Oak/Fairland section of Montgomery County, along with the rest of its acute care hospital services. The current ED at Takoma Park has 26 treatment bays. WAHI noted that the proposed ED will have 35 treatment rooms, with a total of 24,604 departmental gross square feet and will be organized into zones that provide for triage, fast-track, urgent, and emergent care. WAHI stated that all treatment spaces will be enclosed to provide for patient privacy and comfort, as well as for flexibility in response to fluctuating census. WAHI pointed out that the proposed ED will have a satellite collection lab within the department and discrete access to the critical care, intermediate care, maternity, and behavior health units via a dedicated elevator. The applicant also explained AHC's plans to locate an urgent care and primary care center on the Takoma Park campus. (DI #131, Vol. 1, p. 67)

WAHI reported that WAH's ED volume increased less than 2% from 2005 (44,000 visits to 2010 (44,823 visits). WAHI believed that this slow increase was due to the difficulty in accessing the WAH location both by ambulance, given the surrounding narrow residential streets, and by helicopter, given the undesirability and the difficulty of landing a helicopter so

near the residential neighborhood. WAHI projected no change in WAH's total ED visits for 2011 and a one percent annual increase for 2012 through 2014 based on historical trends. WAHI projected that outpatient ED visits at the relocated hospital would increase from 2015 and go forward at the levels set forth in the following table. The applicant noted that its projected increase for inpatient admissions through the ED were at roughly the same rate of increase that it projected for MSGA admissions, which are also set forth in the following table. In making these projections, WAHI pointed out that it had assumed that the services and service area would not change through 2018, and that the modest projected increase was due to: (1) aging of the population; (2) improved geographic access to the new location; and (3) referrals and transfers from the Takoma Park campus' proposed urgent and primary care center. (DI #131, Vol. 1, p. 67)

Table 26: Projected Rates of Increase of Emergency Department Visits

Year	Outpatient Emergency Department Visits	Inpatient Admissions Through The Emergency Department
2015	2.5%	1.5%
2016	3.0%	2.0%
2017	3.5%	2.5%
2018	4.0%	2.5%

Source: WAH March 2011 Update (DI #131, Vol. 1, p. 67 and p. 123.)

WAHI stated that it projected over 52,000 ED visits for 2018, a utilization level that will result in 1,486 visits per treatment room. (DI #131, Vol. 1, p. 67)

WAHI referenced the American College of Emergency Physicians' guidelines, which are found in *The American College of Emergency Physicians Emergency Department Design: A Practical Guide to Planning for the Future* ("ACEP guidelines"). WAHI compared the ACEP guidelines' low and high range indicators to WAHI's position. WAHI stated that the indicators it used were based on WAH's existing ED as WAHI did not expect the services or the service area to change as a result of the relocation. (DI #131, Vol. 1, p. 68) WAHI's comparison of the WAH ED to the ACEP guideline thresholds is summarized in the following table.

Table 27: Emergency Department Design: A Practical Guide to Planning for the Future – Threshold Indicators for WAHI ED

Indicators for Adult ED	Low Range Threshold	High Range Threshold	Current WAH
ALOS	<2.5 hours	>3.5 hours	>3.5 hours
Location of Observation Beds	Outside ED	Inside ED	Outside ED
Time to Admit	<60 minutes	>90 minutes	>90 minutes
Turnaround Time Dx Tests	<31 minutes	>60 minutes	>60 minutes
% Admitted Patients	<18%	>23%	Between 18 & 23%
% Non-Urgent/% Urgent	>1.1/1	>1/1.1	>1/1.1
Age of Patient	<20% Age 65+	>25% Age 65+	>20% Age 65+
Admin/Teaching Space	Minimal	Extensive	Minimal
Imaging within ED	No	Yes	Yes
Specialty Components	No	Yes	Yes – psych
Flight/Trauma Services	No	Yes	No

Sources: Emergency Department Design: A Practical Guide to Planning for the Future, Huddy, J., American College of Emergency Physicians, Dallas, TX, 2002. And CON application, p. 69.

WAHI provided the relocated hospital's out year projection and identified the floor space and treatment spaces, compar them to the relevant ACEP guidelines summarized in the following table. WAHI used a range of departmental gross square feet ("DGSF") and treatment spaces for an ED with 40,000 to 60,000 annual visits; this is the closest to range to WAHI's visits thresholds.

Table 28: Emergency Department Square Footage and Treatment Space Ranges for an ED with 40-60K Visits and WAHI Proposed Square Footage and Treatment Spaces

	Departmental Gross Square Feet		Treatment Spaces	
	Low Range	High Range	Low Range	High Range
40,000 ED Visits	21,875	28,875	25	33
50,000 ED visits	25,500	34,000	30	40
60,000 ED Visits	29,750	39,950	35	47
WAHI Proposed (52,000 ED Visits projected in 2018)	24,604		35	

Source: WAH March 2011 updated application (DI #131, Vol. 1, p. 70).

Interested Party and Participating Entity Comments

HCH

While HCH did not address this standard in its comments on WAHI's March 2011 updated application, HCH did address it in its comment on WAHI's original application. HCH also submitted a brief comment on this standard in response to WAHI's October 2009 modification. Specifically, HCH stated that WAHI's new ED growth rate assumptions were unrealistic, unreasonable, and cannot be attained. HCH then noted that WAHI failed to demonstrate that the relocated hospital should include an emergency department of the size and with the number of ED treatment spaces proposed. (DI #59, p. 16)

In its comments on WAHI"s original application, HCH identified four areas in which WAHI failed to demonstrate consistency with the standard: (1) incompleteness; (2) failure to address the likely change in service area and impact on other providers; (3) failure to provide credible support for its projected volumes; and (4) failure to justify the continued inefficiencies in the ED that are apparent from WAHI's response to the high vs. low range emergency department parameters.

HCH pointed to WAHI's lack of responses to subpart (b) of the standard, noting that it failed to fully respond to the standard. HCH then explained that WAHI failed to address the likely changes in service area, given that the proposed location would no longer be the first or second most proximate hospital for a significant number of zip code areas that comprise WAH's existing primary service area. HCH noted that "given the importance of proximity for both walk-in and ambulance driven ED patients," the fact that WAH "would no longer be one of the closest hospitals to the patients it currently serves would undoubtedly change its service area." (DI #30, p. 17)

HCH stated that WAHI failed to provide credible support for it projected volumes, and

noted WAHI's projected 48% increase in volume for the ED at the relocated hospital in its first year and the proposed Takoma Park urgent care center. HCH believed that WAHI also failed to justify the continued inefficiencies in the ED, which HCH noted was seen by WAHI's classification of the ED as "high range" for average length of stay for ED patients of more than 3.5 hours, for time to admit after disposition, and for average turnaround time for diagnostic tests. HCH also pointed to WAHI's statement "that the performance parameters for the existing ED in Takoma Park are assumed to remain the same because the services and service area of that Hospital are not anticipated to change as a result of the relocation." (DI #30, pp. 16-17)

LRH/MMMC

Neither LRH or MMMC submitted comments on WAH's responses to this standard.

CTP

In commenting on the March 2011 update, the City of Takoma Park offered very similar comments to those made by HCH on earlier versions of the application. Specifically, CTP believed that WAHI failed to demonstrate consistency with the standard. CTP noted that WAHI's projected ED visits were based on historical demand and did not make adjustments for the change in location of the new hospital. CTP pointed out that such an assumption was not reasonable, especially given WAHI's indications that Mary's Center would treat some of the patients currently seen in WAH's emergency department. CTP believed that some of these patients would still receive primary care in Takoma Park and, if the service area for the relocated hospital did not change, this would result in fewer ED visits to the relocated hospital. (DI #146, pp. 23-24)

Applicant's Response to Comments

WAHI did not specifically respond to HCH's comments regarding this standard. In responding to CTP's statement concerning WAHI's lack of adjustment in its projected ED visits to address the change in location, WAHI pointed out that it proposed moving only six miles from WAH's current location and within its primary service area, which is served by several hospitals. In addition, WAHI stated that any adjustment to the forecasted ED visits would require forecasting the number of residents likely to seek care at another hospital, and that "proximity alone has not been established to be the determinative cause of patient decision making for receiving care." (DI # 153, p. 53)

Reviewer's Analysis and Findings

WAHI is proposing a significant expansion of the hospital's emergency department ("ED") treatment capacity, a 35% increase in treatment rooms from 26 to 35. This standard requires an applicant for an expanded emergency department to classify its service as either low or high range on the parameters in the most recent edition of the ACEP guidelines. WAHI has done that based on WAH's existing ED and has classified that ED in the high range on seven of the 11 parameters. I share HCH's criticism that a new ED in a new hospital should not anticipate certain high range parameters, such as average length of stay in the ED of greater than 3.5 hrs

and time to admit of greater than 60 minutes. WAHI's response that the parameters are assumed to remain the same because the services and service area will not change does not explain or justify why a new facility could not be planned and designed to achieve better performance on such parameters. However, I do not find this issue critical to my determination as to whether WAHI's proposed expansion is consistent with this standard.

The standard requires that the number of ED treatment spaces and departmental space be consistent with the range set forth in the ACEP guidelines, given the classification of the ED as low or high on the parameters used by ACEP and the projected ED visit volume. WAHI's planned department space is low for the projected ED visit volume, and the number of treatment spaces proposed is in the middle of the range. WAHI has not demonstrated that its projections are reasonable. First, WAHI projects that visit volume will increase one percent per year from 2011 through 2014, based on historic trends, in spite of the fact that WAH's ED volume grew less than a total of two percent over the five years from 2005 through 2010. WAHI then projects increases at an accelerating rate from 2015 through 2018 based on aging of the population, better access, and referrals and transfers from the urgent and primary care center to be established on the Takoma Park campus. While the aging of the population and better access may very well contribute to growth in the number of ED visits, WAHI did not show how it considered specific demographic or health service data to support its projection of ED need.

As HCH pointed out, WAHI did not fully respond to subpart (b). Because of recent historic trends at WAH, a more thorough quantitative justification of the projected volume was needed. However, I have a more basic issue with the projected ED volume, just as I have with the projections for other services such as OB, which is WAHI's refusal to consider the changes that are likely to occur in its service area and service area population as a result of the relocation. While the relocation would not span a great distance and the proposed site is still within WAH's current primary service area, the proposed site is not in the center of the existing hospital's service area but on the northern edge. WAHI has cited the uncertainty of ambulance patterns given the change in location as one reason why projecting service changes should not be undertaken. However, the tendency of ambulance trips to be influenced by the length of the trip is an important reason to anticipate that a change in service area will influence visit volume and the capacity needs of the relocated ED. I find that WAHI should have used a projection methodology for the ED volume that considered changes in the relocated hospital's service area, especially changes in market share, the utilization rates and trends in the relocated hospital's projected service area, the projected population for that service area, and existing hospital ED utilization patterns. WAHI should have also provided a better explanation, including a quantitative analysis, of how the proposed Takoma Park urgent care center would function in relation to the relocated ED, specifically with respect to utilization. It is very difficult to understand how an urgent care center located within the existing WAH ED space and targeted, at least in part, at individuals who currently use WAH's ED would not reduce utilization of the relocated ED. Most if not all of these considerations are required by subpart (b) of this standard. Therefore, I find that the proposed increase in ED capacity has not been justified and that WAHI did not comply with this standard.

(15) <u>Emergency Department Expansion</u>

A hospital proposing expansion of emergency department treatment capacity shall

demonstrate that it has made appropriate efforts, consistent with federal and state law, to maximize effective use of existing capacity for emergent medical needs and has appropriately integrated emergency department planning with planning for bed capacity, and diagnostic and treatment service capacity. At a minimum:

(a) The applicant hospital must demonstrate that, in cooperation with its medical staff, it has attempted to reduce use of its emergency department for non-emergency medical care. This demonstration shall, at a minimum, address the feasibility of reducing or redirecting patients with non-emergent illnesses, injuries, and conditions, to lower cost alternative facilities or programs;

(b) The applicant hospital must demonstrate that it has effectively managed its existing emergency department treatment capacity to maximize use; and

(c) The applicant hospital must demonstrate that it has considered the need for bed and other facility and system capacity that will be affected by greater volumes of emergency department patients.

Applicant's Response

WAHI stated that it did not propose to expand WAH's current ED, but that the relocated hospital's ED would be larger than WAH's current ED. It noted that the replacement hospital would have 35 treatment spaces, compared to the 26 currently at WAH. In addressing the management of WAH's existing ED capacity, WAHI pointed to the reduction in ambulance divert hours, which went from 869 in 2007 to 259 in 2008 (there were 33 divert hours in the last seven months of 2008 and fewer than 10 divert hours for the first two months of 2009). WAHI also pointed out AHC's many community health activities and partnerships that could reduce use of the ED for non-emergency medical care. These included increased services to underserved populations, such as Mary's Center for Maternal and Child Care, Mobile Med, and Casa de Maryland.

Interested Party and Participating Entity Comments

No comments were submitted on WAHI's responses to this standard.

Reviewer's Analysis and Finding

WAHI has made efforts to reduce ED utilization for non-emergency care through a wide variety of community health activities and partnerships with community groups such as Mary's Center. WAHI's plan for an urgent care center on the Takoma Park campus would be a very important addition to this effort. However, as noted in my analysis under the prior standard, WAHI has not factored the opening and ongoing operation of the urgent care center into its projections of replacement hospital ED use.

The record shows that the current ED operates efficiently with 26 treatment spaces at an annual visit volume of approximately 45,000. Evidence of efficiency at this level of operation is provided by the reduction in ambulance divert hours cited by WAHI. At the "high range" in which WAHI places the WAH ED on most of the ACEP classification criteria, the ACEP guidelines suggest that WAH have between 33 and 40 treatment spaces for this visit volume.

This standard also requires that an applicant hospital consider the need for bed and other facility capacity that will be affected by greater volumes of emergency department patients. WAHI's plans include shell space for expansion of a number of departments that would be affected by higher levels of ED visit volume, such as space for an observation unit, a cardiac catheterization laboratory, additional ORs, and an additional 36 MSGA beds.

Based on the information above, I find that WAHI's application is consistent with this standard. It has demonstrated attempts to reduce use of its emergency department for non-emergency medical care, effective management of its existing emergency department treatment capacity to maximize use, and has considered the need for bed and other facility and system capacity that will be affected by greater volumes of emergency department patients.

(16) Shell Space

(a) Unfinished hospital space for which there is no immediate need or use, known as "shell space," shall not be built unless the applicant can demonstrate that construction of the shell space is cost effective.

(b) If the proposed shell space is not supporting finished building space being constructed above the shell space, the applicant shall provide an analysis demonstrating that constructing the space in the proposed time frame has a positive net present value that

- ***(i) considers the most likely use identified by the hospital for the unfinished space and***
- ***(ii) considers the time frame projected for finishing the space and***
- ***(iii) demonstrates that the hospital is likely to need the space for the most likely identified use in the projected time frame.***

(c) Shell space being constructed on lower floors of a building addition that supports finished building space on upper floors does not require a net present value analysis. Applicants shall provide information on the cost, the most likely uses, and the likely time frame for using such shell space.

(d) The cost of shell space included in an approved project and those portions of the contingency allowance, inflation allowance, and capitalized construction interest expenditure that are based on the construction cost of the shell space will be excluded from consideration in any rate adjustment by the Health Service Cost Review Commission.

Applicant's Response

WAHI stated that the current architectural plans for the replacement hospital included 27,799 square feet of shell space, all of which would be supporting finished building space that would be constructed above it. WAHI noted that it intended to use the shell space to accommodate a 10-bed clinical decision unit and additional diagnostic and treatment spaces including five operating rooms, two labor and delivery rooms, one C-section room, two cath. labs, a linear accelerator suite, and a 36 bed MSGA unit. (DI #131, Vol. 1, p. 74)

A summary of WAHI's description of the locations and size of each shell space area follows:

Table 29: Location and Size of Shell Space Areas

Shell Space Area	Shell Space Location	Square Footage
One Linear Accelerator	Cellar South – Radiation Oncology	785
Observation Beds/ED Expansion	Level 1 North – Emergency Services	1,250
Two Cardiac Catheterization Laboratories	Level 2 South - Cardiac Catheterization Suite	1,090
Five Operating Rooms	Level 2 South - Surgical Services	3,250
Two LDRs & One C-Section Room	Level 3 North – Maternity	1,200
Med/Surg Nursing Unit (capacity for 36 beds)	Level 4 South	20,224
Total		**27,799**

Sources: March 2011 Updated CON application (DI #131, Vol. 1, Att. B and I) and October 2009 Modification (DI #42, Att. 2 and large plans).

WAHI estimated a cost of $2,836,054 to construct these shell space components of the project. WAHI did not specify the time frame for using these shell spaces, but noted that use of the spaces would largely depend on the growth in demand for these services after the relocation. WAHI pointed to the Commission's 2010 decision in the Montgomery County New Hospital review (Docket Nos. 08-15-2286, 09-15-2294), which showed a 2018 gross MSGA bed need forecast with a range from 206 to 257 beds for the WAH service area. WAHI explained that, even with completion of the shell space, WAHI would have 218 MSGA beds; an amount that was well within the minimum and maximum bed need forecast by MHCC for WAH. In addressing the space for additional operating rooms, WAHI stated that it expected utilization of surgical services to increase with the addition of more community-based private practice physicians. WAHI explained that it anticipated a positive response to the relocated hospital's recruitment activities, the attraction of the new facilities, and due to the availability of medical office space on the relocated campus. WAHI noted that it estimated a cost of $9,618,788 to "fit out" all of the shell spaces, which it expected to incur in 2018. (DI #131, Vol. 1, p. 75)

Interested Party and Participating Entity Comments

HCH

While HCH did not comment on WAHI's response to this standard, HCH stated that the addition of a shell space floor as part of the March 2011 update is an impermissible modification. (DI #162, p. 3)

LRH, MMMC, and CTP did not submit comments on WAH's response to this standard.

Reviewer's Analysis and Findings

This standard requires an applicant to demonstrate that the construction of shell space in a project under review is cost effective. For shell space that is not supporting finished space above (i.e., space that will be on the top floor(s) of the building), an applicant is required to provide an analysis demonstrating that constructing the space in the proposed time frame has a positive net present value. If shell space is on lower floors that support finished space, a net present value analysis is not required, but the applicant is required to provide information concerning the most

likely use, the most likely time frame for finishing the space, and the cost.

WAHI is not proposing any shell space on the top floor of the hospital WAHI has identified the most likely use of each of the shell space areas and provided an estimated cost for finishing the space in 2018. However, WAHI indicated that its final decision on the use of the space will depend on growth in demand for these services after relocation.

I do not view the addition of shell space in the March 2011 iteration of this CON application as an impermissible change. By definition, it is not a change in the bed capacity proposed or the operating room capacity proposed for the project. It only represents building space that provides the potential for such future expansion and that would be subject to regulatory requirements that would be specified in conditions on a CON. The interested parties had ample opportunity to comment on this change.

WAHI is consistent with the requirements of this standard.

COMAR 10.24.12 - State Health Plan for Facilities and Services: Acute Hospital Inpatient Obstetric Services

The policies and review standards in the Acute Hospital Inpatient Obstetric Service Chapter guide Certificate of Need reviews involving new acute hospital inpatient obstetric ("OB") services, existing services proposed to be relocated to newly constructed space, and existing services proposed to be located in renovated space. Standards (1) through (6) apply to all applicants. Standards (7) through (14) apply only to applicants for a new perinatal service. Standard (15) only applies to applicants with an existing service. Since this application includes the relocation of an existing service, standards (7) through (14) are not applicable. Standards (1) through (6) and standard (15) are applicable.

WAH's existing OB service has a 30-bed capacity, but is currently licensed for 21 beds. The proposed obstetric service will have 30 private inpatient post-partum rooms, labor/delivery/ recovery ("LDR") rooms, ante-partum rooms, one C-section room (plus shell space for an additional C-section room), and related support services and functions. It will also have a special care nursery consistent with the requirements of the level IIA perinatal program currently operated at WAH.

I have considered consistency of the proposed project with the applicable review standards and have found that the project, as presented, is not consistent with the Need standard, the Charity Care Policy standard, and the Staffing standard of this SHP chapter, in the latter case because the applicant did not provide the required information as outlined in the standard. These are all deficiencies that could potentially be resolved through the project status conference procedure. However, there are more fundamental problems with this application that cannot be cured through this procedure.

(1) <u>Need</u>

All applicants must quantify the need for the number of beds to be assigned to the obstetric service, consistent with the approach outlined in Policy 4.1. Applicants for a new perinatal

service must address Policy 4.1.

Policy 4.1 of this Plan chapter governing hospital inpatient obstetric services states that the burden of proof for demonstrating need for the number of obstetric service beds proposed rests with the applicant, and outlines the type of information the Commission shall consider. That information includes: historical and projected service area; utilization forecasts; obstetric service providers in the service area anticipated to use the service; data on the number of uninsured, underinsured, indigent and underserved obstetric patients in the service area; expected improvements in the delivery of obstetric services as a result of the new service; any demographic or utilization data that is significantly different from that found in the MHCC's forecast of obstetric service utilization; and any other information on the unmet needs for obstetric services in the service area. The State Health Plan chapter for acute hospital inpatient obstetric services does not include a bed need methodology.

Background

Four of the five general hospitals in Montgomery County provide organized obstetric and perinatal programs, Suburban Hospital being the exception. Three of the five hospitals in Prince George's County provide organized OB and perinatal programs. Recent discharge abstract data for postpartum OB bed use is shown in the table below. As can be seen, Holy Cross Hospital accounts for over half of the total OB discharges from Montgomery County hospitals in each year from 2006 through 2011.

Table 30: Obstetric Discharges, Patient Days, and Average Length of Stay Montgomery and Prince George's County Hospitals, CY 2006 – 2011

OBSTETRIC ("OB") DISCHARGES						
	2006	**2007**	**2008**	**2009**	**2010**	**2011**
Montgomery County General Hospitals						
HOLY CROSS	10,417	9,834	9,706	9,372	9,463	9,257
MEDSTAR MONTGOMERY	713	815	995	872	767	742
SHADY GROVE ADVENTIST	4,741	4,923	5,048	5,336	5,238	5,268
SUBURBAN *	13	23	12	14	12	17
WASHINGTON ADVENTIST	2,155	2,608	2,292	2,466	2,234	1,987
Total	**18,039**	**18,203**	**18,053**	**18,060**	**17,714**	**17,271**
Prince George's County General Hospitals						
DOCTORS COMMUNITY *	40	51	53	56	74	80
FORT WASHINGTON *	21	19	16	19	14	17
LAUREL REGIONAL	767	665	669	755	926	1,075
PRINCE GEORGE'S	3,006	2,823	2,760	2,712	2,760	2,428
SOUTHERN MARYLAND	2,069	2,113	2,160	1,959	2,081	2,386
Total	**5,903**	**5,671**	**5,658**	**5,501**	**5,855**	**5,986**
All Maryland Hospitals	**78,559**	**79,571**	**79,243**	**77,215**	**76,156**	**75,161**

Source: HSCRC Discharge Database.
*Hospital does not operate an organized obstetric service or have licensed OB beds.

Table 30: Obstetric Discharges, Patient Days, and Average Length of Stay
Montgomery and Prince George's County Hospitals, CY 2006 – 2011 (CONTINUED)

OB DISCHARGE DAYS						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	30,835	28,459	28,757	27,399	27,577	24,724
MEDSTAR MONTGOMERY	1,956	2,166	2,709	2,389	1,982	1,869
SHADY GROVE ADVENTIST	13,453	14,123	14,609	15,706	15,152	15,569
SUBURBAN *	34	58	25	33	33	33
WASHINGTON ADVENTIST	6,261	7,551	6,494	6,976	6,224	5,109
Total	**52,539**	**52,357**	**52,594**	**52,503**	**50,968**	**47,304**
Prince George's County General Hospitals						
DOCTORS COMMUNITY *	83	106	109	106	151	127
FORT WASHINGTON *	41	30	28	28	16	30
LAUREL REGIONAL	1,914	1,590	1,542	1,819	2,360	2,689
PRINCE GEORGE'S	8,247	7,758	8,094	8,042	8,041	7,108
SOUTHERN MARYLAND	5,558	5,548	5,718	5,093	5,445	6,323
Total	**15,843**	**15,032**	**15,491**	**15,088**	**16,013**	**16,277**
All Maryland Hospitals	**221,080**	**222,857**	**224,097**	**218,684**	**211,275**	**206,237**

Source: HSCRC Discharge Database.
*Hospital does not operate an organized obstetric service or have licensed OB beds.
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Table 30: Obstetric Discharges, Patient Days, and Average Length of Stay
Montgomery and Prince George's County Hospitals, CY 2006 – 2011 (CONTINUED)

OB ALOS (DAYS)						
	2006	2007	2008	2009	2010	2011
Montgomery County General Hospitals						
HOLY CROSS	2.96	2.89	2.96	2.92	2.91	2.67
MEDSTAR MONTGOMERY	2.74	2.66	2.72	2.74	2.58	2.52
SHADY GROVE ADVENTIST	2.84	2.87	2.89	2.94	2.89	2.96
SUBURBAN *	2.62	2.52	2.08	2.36	2.75	1.94
WASHINGTON ADVENTIST	2.91	2.90	2.83	2.83	2.79	2.57
Total	**2.91**	**2.88**	**2.91**	**2.91**	**2.88**	**2.74**
Prince George's County General Hospitals						
DOCTORS COMMUNITY *	2.08	2.08	2.06	1.89	2.04	1.59
FORT WASHINGTON *	1.95	1.58	1.75	1.47	1.14	1.76
LAUREL REGIONAL	2.50	2.39	2.30	2.41	2.55	2.50
PRINCE GEORGE'S	2.74	2.75	2.93	2.97	2.91	2.93
SOUTHERN MARYLAND	2.69	2.63	2.65	2.60	2.62	2.65
Total	**2.68**	**2.65**	**2.74**	**2.74**	**2.73**	**2.72**
All Maryland Hospitals	**2.81**	**2.80**	**2.83**	**2.83**	**2.77**	**2.74**

Source: HSCRC Discharge Database.
*Hospital does not operate an organized obstetric service or have licensed OB beds.

Applicant's Response

WAHI stated that it planned to relocate its existing OB service along with the rest of its acute care hospital services. WAHI explained that the relocated hospital would have 30 obstetric beds, which is the same as WAH's current physical capacity.[11] WAHI noted that all patient rooms would be private rooms in the relocated hospital's obstetric unit. WAHI compared this to the existing 30-bed capacity at WAH, which includes 10 semi-private and 10 private rooms. (DI #131, Vol. 1, p. 76; DI #42, Att. 1, pp. 32-33)

WAHI stated its belief that primarily the same medical staff who currently use the WAH facility will also provide OB services in the replacement hospital. However, WAHI indicated that, prior to completing construction on the replacement hospital, it would implement a physician recruitment plan. WAHI also noted that it would provide office space on the new campus for newly recruited obstetricians. (DI #131, Vol. 1, pp. 76-78)

Using FY 2008 discharges from WAH, WAHI identified seven zip code areas in Montgomery County and four zip code areas in Prince George's County as its primary obstetric service area. WAHI included the following data on the number of uninsured, underinsured, indigent, and underserved among the 6,488 obstetric discharges of service area residents reported by all Maryland hospitals for FY 2008: 52% Medicaid patients; 45% privately insured; and 3% categorized as "other payer or self-pay." Citing the 2007 *Report on the Status of Women in Montgomery County*, WAHI noted that, in 2004, four percent of Montgomery County's pregnant women did not receive care until the third trimester (79% sought prenatal care during the first trimester), and that 8% of the County population over 18 had no health insurance at the end of 2004. WAHI pointed out that by 2007, 83.3% of births were to women who received first trimester prenatal care. WAH reported that in 2008 it provided prenatal care to 750 patients as part of the Montgomery County Maternity Partnership Program. (DI #131, Vol. 1, pp. 78-79)

WAHI noted that for Prince George's County in 2007, 33.4% of all births were to women who had not received prenatal care during the first trimester, and that 49.2% of the births to Hispanic women were to women who did not have prenatal care during the first trimester. (DI #131, Vol. 1, p. 79)

WAHI stated that it modeled future demand based on the changes in overall needs in the service area. (DI #131, Vol. 1, pp. 76-78) In its October 2009 modification, and again in its March 2011 update, WAHI explained that, based on its examination of WAH's OB discharges for the first two quarters of 2009, it determined that 84.3% of these OB discharges came from 25 zip codes (nine in Montgomery County, 14 in Prince George's County, and two in the District of Columbia). WAHI then identified OB discharges from all Maryland hospitals to these zip code areas, and estimated a total of 10,670 OB discharges for 2009 on an annualized basis. For each year from 2004 through 2009, WAHI calculated the ALOS and the annual change in the ALOS. WAHI also included the discharge rate and annual changes in the discharge rate. WAHI based this calculation on the annual number of OB discharges for the service area and the estimate of the female population between the age of 15 and 44 for each year over the same period of time. The applicant projected future OB discharges for the service area through 2018 by applying the

[11] As of July 1, 2012, WAH has 21 licensed OB beds.

rate of change in the discharge rate from 2005 through 2009 (3.1% per year) to the projection by Claritas, Inc. of female population age 15 through 44. The applicant then projected the ALOS for these discharges by applying the ALOS rate of change from 2005 through 2009 (0.1% per year), and then projected the patient days. (DI #42, pp. 89-91 and Att. 12; DI #131, Vol. 1, pp. 109-14)

Given the projected discharges and patient days developed as described above, the applicant stated that it would have 7,701 OB days in 2015, assuming that WAHI would have the same percentage of patient days that WAH had during the first two quarters of 2009. Based on these projections, the applicant calculated a need for 32 OB beds to assure availability of a bed for 99% of the time, assuming a cumulative normal distribution. However, WAHI noted that WAH reported a recent decline in the utilization of its obstetric unit, down from a 2003 high of 2,516 discharges. It attributed this decline to the perception of community obstetricians and their patients that the WAH facility had disadvantages compared to those at other hospitals. WAHI specifically attributed the decrease in discharges from 2007 to 2008 (a 12% decline) to the relocation of one sizable obstetrical group practice to MGH.[12] Based on this trend, and its 2010 discharges (2,234), WAHI projected 1,996 discharges at WAH for each year from CY 2011 through CY 2014. WAHI projected annual increases at the relocated hospital of 2.5% from CY 2015 through 2018, resulting in a projection of 2,203 admissions for CY 2018. WAHI projected a total of 5,508 patient days for 2018, assuming an average length of stay of 2.5 days throughout the projection period. WAHI calculated the bed need to be 25 beds for this patient day volume to assure availability of a bed 99% of the time assuming a cumulative normal distribution. (DI #131, Vol. 1, pp. 76-78, 109-14)

WAHI noted that the 30 OB beds would be in a unit co-located with six MSGA beds. WAHI stated that the intended allocation between the 30 OB beds and the six MSGA beds had not changed as a result of the reduction in projected utilization. It explained that this could provide flexibility when the daily census of OB and MSGA patients varied, and that available beds on the unit would be assigned to OB patients and female MSGA patients on the basis of daily demand for both services. (DI #131, Vol. 1, p. 114)

Interested Party and Participating Entity Comments

HCH

HCH provided comments on WAHI's response to this standard in WAHI's original application; it did not address it in response to WAHI's October 2009 modification or its March 2011 updated application. In its comments, HCH stated that there was no rational basis for WAHI's claim that its obstetric volumes at the relocation hospital would increase by 9% per year for at least three years given both the recent declines in WAH's OB volumes and the expectation that demand for OB care would change significantly for many years.[13] (DI #30, p. 18)

[12] Over the past 10 years, OB admissions to WAH decreased from 2,529 in CY 2001 to 2,155 in CY 2006 with a decrease of 14 % from 2,516 in 2003 to 2,163 in 2004. Since 2006, WAH's OB admissions have varied year to year with increases one year followed by decreases the next year reaching a high of 2,608 in 2007 and a low over this period of 2,234 in 2010.

[13] However, as noted above, WAHI's latest projections were for annual increases of 2.5% per year after the relocation, the same rate of increase as projected in its October 2009 modification, not the 9% projected in its original application.

LRH/MMMC

LRH and MMMC submitted joint comments on both WAHI's March 2011 updated application and its responses to additional questions, but neither these comments nor those filed separately by either of the hospitals addressed the review standards for Obstetric Services. However, Laurel Regional Hospital did address the projected change in the female population as it affected the need for obstetric beds its comments on WAHI's October 2009 modification that addressed the Adverse Impact standard and the Impact criterion. LRH pointed out that Claritas projected the female population of LRH's primary service area to decline by 5% between 2009 and 2014. (DI #57, p. 6)

CTP

The City of Takoma Park stated that WAHI's statistics were based on historical demand and the projections make no adjustments for the change in location. (DI #29, p. 13; DI #146, p. 24)

Applicant's Response to Comments

WAHI responded that the basis for its OB projections were addressed in its October 2009 modified CON application. (DI #44, p. 21)

Reviewer's Analysis and Findings

The applicant noted that the relocated hospital will have an inpatient obstetric service, as does the existing hospital. It pointed out that Policy 4.3 of the Obstetric Services chapter of the SHP states that hospital obstetric programs should maintain a minimum of 1,000 obstetric cases per year in metropolitan jurisdictions, and that WAH's obstetric case volume has exceeded 2,000 cases per year from 2006 through 2010 and fell only slightly below that level in 2011 (1,987). Therefore, it concluded that the only question is whether the proposed 30 obstetric beds are needed, particularly given the fact that WAH has been licensed for 21 obstetric beds in recent years.

I find that WAHI's own projections support the need for only 25 beds and point out that I have a number of issues with that methodology. First WAHI is projecting a more than 10% increase in admissions from its current service area in the face of a declining population of females in their child-bearing years. While some improvement may be possible given a new physical plant and the planned recruitment of additional physicians, a 10% increase over the next seven years in the face of declining population will be very challenging.

The second issue is the assumption that utilization will be distributed in a cumulative normal distribution. While the Commission has used this methodology to assess bed need in a number of previous applications to add obstetric beds, the growing practice of scheduling caesarean section deliveries raises questions as to the continued validity of this approach. Another approach might be a specific minimum occupancy rate such as that used for pediatric beds. Applying a minimum occupancy rate approach to WAHI's projections (average daily

census of 15) suggests a minimum occupancy of 65% and the need for 23 beds at the utilization projected by WAHI. In 2010, WAH's obstetric unit operated at 81% occupancy; in 2011, it operated at approximately 67% occupancy.

My final issue is with WAHI's position regarding the likely change in the replacement hospital's service area and changes in its market share. As pointed out by the City of Takoma Park, WAHI's projections are based on historical utilization within WAH's current service area and the projected population changes for that service area. As I have said before, I think changes in the existing hospital's service area zip code areas are likely to result from the relocation and, more importantly, so are changes in the hospital's market shares of discharges to many of these zip code areas. For example, in 2009, WAH had an almost 40% market share of all obstetric discharges from Maryland and Washington, DC hospitals to zip code 20912, its current home zip code, but an approximately 20% market share of discharges to zip code 20904, which is the home zip code area of the replacement hospital. Significant changes in these market shares are likely after the hospital relocates. Differences in the population will amplify changes in market share. WAHI projects that the 2016 female population 15 to 44 will be 7,792 in zip code 20912, compared to 11,047 for zip code 20904. However, WAHI insists that its service area will not change and did not use this information in projecting need for OB beds at the replacement hospital.

In conclusion, WAHI has not demonstrated the need for 30 obstetric beds at the replacement hospital, an increase of 9 beds from the existing hospital, and is not consistent with this standard. This problem with the OB bed capacity proposed by this application could have been resolved through the project status conference process that is available to a reviewer, which could be followed by the applicant's modification of its proposal. However, as previously noted, I have more fundamental concerns with this application that have led to my recommendation that the Commission deny the application..

(2) The Maryland Perinatal System Standards

Each applicant shall demonstrate the ability of the proposed obstetric program and nursery to comply with all essential requirements of the most current version of Maryland's Perinatal System Standards, as defined in the perinatal standards, for either a Level I or Level II perinatal center .

Applicant's Response

WAHI stated that it would provide the same level of services at the new location as provided at WAH, which is Level IIB Perinatal services. WAHI also noted that WAH complied with all applicable standards of the Level IIB service.

Interested Party and Participating Entity Comments

There were no comments on this standard.

Reviewer's Analysis and Findings

The information presented by the applicant and the experience of WAH in operating a Level II center demonstrate that WAHI has the ability to comply with the applicable Maryland Perinatal System Standards. I find that the applicant has met this standard.

(3) Charity Care Policy

Each hospital shall have a written policy for the provision of charity care for uninsured and under-insured patients to promote access to obstetric services regardless of an individual's ability to pay.

(a) The policy shall include provisions for, at a minimum, the following:

(i) annual notice by a method of dissemination appropriate to the hospital's patient population (for example, radio, television, newspaper);

(ii) posted notices in the admissions office, business office and emergency areas within the hospital,

(iii) individual notice provided to each person who seeks services in the hospital at the time of community outreach efforts, prenatal services, preadmission, or admission, and

(iv) within two business days following a patient's initial request for charity care services, application for medical assistance, or both, the facility must make a determination of probable eligibility.

(b) Public notice and information regarding a hospital's charity care policy shall be in a format understandable by the target population.

Applicant's Response

In response to part (a) of this standard, WAHI stated that WAH's charity care policy provided for a determination of probable eligibility by the Manager of Collections and Customer Service (or designee) within two business days following the patient's request accompanied by a complete application. The applicant noted that WAH provides public notice of its charity care policy by posting written notices at all access points, including the emergency department, the cashier, and patient accounting offices, and by providing individual notice to each person who sought services at the hospital at the time of preadmission or admission. In addition, the applicant explained that Adventist HealthCare d/b/a WAH published annual notices regarding its charity care policy each July in all the *Gazette*'s Montgomery County editions, as well as the *Gazette*'s College Park/Greenbelt, Hyattsville, and Laurel editions. (DI #131, Vol.1, p. 87 and Att. D)

Interested Party and Participating Entity Comments

There were no comments on this standard.

Reviewer's Analysis and Findings

As I discussed in response to COMAR 10.24.10.04A(2), WAH's charity care policy is not in compliance with the charity care standard since WAH requires a patient to have a

complete application before the Manager of Collections and Customer Service will make a determination of *probable* eligibility. The SHP standard's required two-day turnaround for a determination of probable eligibility permits a patient to know fairly quickly whether the patient is likely to be eligible for charity care, if what the patient represented in a request for charity care or application for medical assistance is supported by underlying required documentation to complete an application. This standard requires a determination of probable eligibility; a final determination of eligibility can be made after the application is complete and has required supporting documentation.

I find that WAH does not comply with this standard and that WAHI's application cannot be viewed as consistent with this standard. If this or similar standards were the only problems with the WAHI application, the deficiencies would have been resolved through a status conference procedure, because they should be easily correctable. However, there are more fundamental issues regarding this application that cannot be cured through this process.

(4) Medicaid Access

Each applicant shall provide a plan describing how the applicant will assure access to hospital obstetric services for Medical Assistance enrollees, including:

(a) an estimate of the number of Medical Assistance enrollees in its primary service area, and

(b) the number of physicians that have or will have admitting privileges to provide obstetric or pediatric services for women and infants who participate in the Medical Assistance program.

Applicant's Response

WAHI stated that review of enrollment data for Maryland Medical Assistance Program indicated that there were approximately 20,000 HealthChoice enrollees in WAH's primary service area as of March 31, 2009. WAHI explained that WAH also participated in the Montgomery County Maternity Partnership program to provide prenatal and obstetrical care to indigent women. This program accounted for 8,310 visits to WAH's Women's Center and 633 deliveries. WAHI also stated that WAH had 30 physicians on staff in obstetrics and gynecology and, of these physicians, 18 performed 1,188 deliveries for Medical Assistance enrollees in 2008. WAHI noted that all of these physicians would be invited to remain on the medical staff at the new location. WAHI also stated its commitment to continue participation in the Montgomery County Maternity Partnership program. (DI #131, Vol.1, pp. 87-88)

Interested Party and Participating Entity Comments

There were no comments on this standard.

Reviewer's Analysis and Findings

WAHI plans to assure access to hospital obstetric services for Medical Assistance enrollees by inviting the current medical staffs of WAH to remain on the staff at the new location, including physicians who provide obstetric services to Medicaid enrollees. WAHI is also committed to continued participation in the Montgomery County Maternity Partnership

program.

On the basis of the information provided, I find that WAHI complies with this standard.

(5) Staffing

Each applicant shall provide information on the proposed staffing, associated number and type of FTEs, projected expenses per FTE category and total expenses, for labor and delivery, post-partum, nursery services, and other related services, including nurse staffing, non-nurse staffing and physician coverage, at year three and at maximum projected volumes.

Applicant's Response

WAHI provided information on existing staffing (nurse, non-nurse, and others) based on the CY 2009 budget for labor and delivery, post partum, nursery, and OB clinic. WAHI also projected this information for CY 2015 and stated that staffing will grow in proportion to the projected increase in volume. WAHI indicated that private practice community physicians would provide physician coverage at the replacement hospital, as is the current practice at WAH. (DI #131, Vol.1, pp. 90-91)

Interested Party and Participating Entity Comments

There were no comments on this standard.

Reviewer's Analysis and Findings

In its 2011 updated application, WAHI projected calendar year 2015 as the first year of operation of the relocated hospital and projected volume growth at least through 2018. Therefore, the 2015 projections are not at year three or at maximum projected volume as required by the standard.

Although I know it was an oversight on WAHI's part not to correct the information for this standard when it updated its application in 2011, I must find that the application does not comply with this standard. Like several other issues, this finding could be corrected via the status conference process, were it not for the more serious problems.

(6) Physical Plant Design and New Technology

All applicants must describe the features of new construction or renovations that are expected to contribute to improvements in patient safety and/or quality of care, and describe expected benefits.

Applicant's Response

WAHI identified a number of design and technological features of the proposed obstetric facilities that it expected to contribute to improvements in patient safety and/or quality of care. These included the following: all private rooms; electronic medical record access in all rooms that would be conveniently located in charting alcoves between patient rooms; advanced security

systems for infant protection and patient safety; standardized room designs and set-up; strategically located hand washing sinks to promote control of cross contamination and infection control; ample space for family accommodation and support; and larger labor and delivery rooms to include an isolette zone and an appropriate support area.

Interested Party and Participating Entity Comments

There were no comments on this standard.

Reviewer's Analysis and Findings

WAHI has complied with this standard, which requires that an applicant describe certain physical plant and technology features that are expected to contribute to improvements in patient safety and/or quality of care.

(7) Outreach Program

Each applicant with an existing perinatal service shall document an outreach program for obstetric patients in its service area who may not have adequate prenatal care, and provide hospital services to treat those patients. The program shall address adequate prenatal care, prevention of low birth weight and infant mortality, and shall target the uninsured, under-insured, and indigent patients in the hospital's primary service area, as defined in COMAR 10.24.01.01.B.

Applicant's Response

In response to this standard, and in other places in the application, WAHI pointed out WAH's participation in the Montgomery County Maternity Partnership. WAHI stated that in 2010, more than 800 low-income, uninsured and underinsured women participating in this program received care at the hospital's Women's Center. WAHI also noted that WAH partners with the Mary's Center Primary Care Clinic in Long Branch, a community-based non-profit that focuses on providing maternal and child care services to low income immigrant women. WAHI indicated that Mary's Center would be expanding these services by opening a second clinic on the Takoma Park campus. (DI #131, Vol.1, p. 92)

Interested Party and Participating Entity Comments

There were no comments on this standard.

Reviewer's Analysis and Findings

I find that WAHI has documented two significant efforts on the part of WAH to reach out to women in its services area who may not have adequate prenatal care due at least in part to the lack of or inadequate insurance. WAHI complies with this standard.

COMAR 10.24.07 State Health Plan for Facilities and Services: Overview, Psychiatric Services, and Emergency Medical Services

I considered the proposed project's compliance with the applicable standards in the Psychiatric Services section of this State Health Plan chapter. This SHP chapter is out of date due to changes in the use of psychiatric beds and the dramatic changes in use of hospital psychiatric beds (especially with respect to average length of stay) and the role and scope of State psychiatric hospital facilities that have occurred since its development. This section reviews standards that are still relevant and applicable. These standards were not the subject of comments filed by interested parties or the participating entities. Because I find that the project complies with the applicable standards, I review them in brief.

Availability

Standard AP 1a

The projected maximum bed need for child, adolescent, and adult acute psychiatric beds is calculated using the Commission's statewide child, adolescent, and adult acute psychiatric bed need projection methodologies specified in this section of the State Health Plan. Applicants for Certificates of Need must state how many child, adolescent, and adult acute psychiatric beds they are applying for in each of the following categories: net acute psychiatric bed need, and/or state hospital conversion bed need.

This standard requires an applicant to specify how many child, adolescent, and adult acute psychiatric beds it is seeking so that the bed need for each age group can be assessed independently. WAHI has designed the replacement hospital with a 37-bed acute psychiatric unit for adults. (DI #131, Vol. 1, p. 92) The need for this unit, as well as comments from LRH on the proposed psychiatric services, is discussed in detail under the Need criterion, COMAR 10.24.01.08G(3)(b).

Standard AP 2a

All acute general hospitals with psychiatric units must have written procedures for providing psychiatric emergency inpatient treatment 24 hours a day, 7 days a week with no special limitation for weekends or late night shifts.

The applicant stated that the replacement hospital will have written procedures for providing emergency inpatient psychiatric treatment 24 hours a day, seven days per week, with no limitation for weekends or late night shifts. (DI #42, p. 74) In addition, WAHI provided a copy of WAH's written procedures for providing psychiatric treatment. (DI #42, Att. 16) The application is consistent with this standard.

Standard AP 2b

Any acute general hospital containing an identifiable psychiatric unit must be an emergency facility, designated by the Department of Health and Mental Hygiene to perform evaluations of persons believed to have a mental disorder and brought in on emergency petition.

WAHI noted that WAH is currently designated by the Department of Health and Mental Hygiene to perform evaluations of persons brought in on an emergency petition for psychiatric evaluation. (DI #131, Vol. 1, p. 93 and Att. 23) The application is consistent with this standard.

Standard AP 2c

Acute general hospitals with psychiatric units must have emergency holding bed capabilities and a seclusion room.

WAHI stated that the replacement hospital will have emergency holding beds and a seclusion room. (DI #131, p. 94) WAH currently has four exam and assessment rooms located within the emergency department. (DI #131, p. 94) The application is consistent with this standard.

Standard AP 3a

Inpatient acute psychiatric programs must provide an array of services. At a minimum, these specialized services must include: chemotherapy, individual psychotherapy, group therapy, family therapy, social services, and adjunctive therapies, such as occupational and recreational therapies.

WAHI stated that all of the services listed in the standard are routinely provided to patients at WAH based on individual patient's needs. (DI #131, Vol. 1, p. 94) The application is consistent with this standard.

Standard AP 3c

All acute general hospitals must provide psychiatric consultation services either directly or through contractual arrangements.

WAHI noted that WAH provides all of its psychiatric consultation services directly through its full and part-time psychiatrists. (DI #131, Vol. 1, p. 94) The application is consistent with this standard.

Standard AP 4a

A Certificate of Need for child, adolescent or adult acute psychiatric beds shall be issued separately for each age category. Conversion of psychiatric beds from one of these services to another shall require a separate Certificate of Need.

WAHI stated that the proposed WAH hospital will only have adult psychiatric services. (DI #131, Vol. 1, p. 96)

Accessibility

Standard AP 5

Once a patient has requested admission to an acute psychiatric inpatient facility, the following services must be made available:

(i) intake screening and admission;

(ii) arrangements for transfer to a more appropriate facility for care if medically indicated; or

(iii)necessary evaluation to define the patient's psychiatric problem and/or
(iv) emergency treatment.

The applicant stated that all patients who present at WAH's emergency department are provided a medical screening examination by qualified medical personnel. In addition, any person who presents with psychiatric issues is assessed by a licensed clinician who works with the emergency department physician to determine the appropriate level of care. If the patient requires admission to a psychiatric inpatient unit, the Needs Assessment Clinician facilitates the admission either to WAH or another health care facility. (DI #131, Vol. 1, p. 95) The application is consistent with this standard.

Standard AP 6

All hospitals providing care in designated psychiatric units must have separate written quality assurance programs, program evaluations and treatment protocols for special populations, including children, adolescents, patients with secondary diagnosis of substance abuse, and geriatric patients, either through direct treatment or referral.

WAHI stated that WAH has written quality assurance programs, program evaluations, and treatment protocols that address special populations. (DI #131, Vol. 1, p. 95) WAHI provided documentation of these policies. (DI #42, Att. 16) The application is consistent with this standard.

Standard AP 7

An acute general or private psychiatric hospital applying for a Certificate of Need for new or expanded acute psychiatric services may not deny admission to a designated psychiatric unit solely on the basis of the patient's legal status rather than clinical criteria.

The standard is not applicable because WAHI is not proposing new or expanded psychiatric services. WAHI is replacing WAH's existing psychiatric capacity at a new location. The application is consistent with this standard.

Standard AP 8

All acute general and private freestanding psychiatric hospitals must provide a percentage of uncompensated care for acute psychiatric patients which is equal to the average level of uncompensated care provided by all acute general hospitals located in the health service area where the hospital is located, based on data available from the Health Services Cost Review Commission for the most recent 12-month period.

For CY2010, WAH's percentage of uncompensated care for acute psychiatric patients was 7.6 percent. (D I#131, Vol. 1, p. 96) This percentage is greater than the average provided by all hospitals in Montgomery County (7.1 percent) and statewide (6.6 percent). (DI #131, Vol. 1, p. 96) For CY2009 and CY2010 combined, among the 3,713 inpatient accounts for behavioral health services at WAH, there were 452 patients who were eligible for and received charity care allowances totaling $1,039,307. (DI #131, p. 96) The average charity care allowance was $2,299. (DI #131, p. 96)

Quality

Standard AP 12a
Acute inpatient psychiatric services must be under the clinical supervision of a qualified psychiatrist.

WAHI stated that all patients admitted to WAH for inpatient psychiatric services are under the care and supervision of a Board-certified psychiatrist. (DI #131, Vol. 1, p. 96) The application is consistent with this standard.

Standard AP 12b
Staffing of acute inpatient psychiatric programs should include therapists for patients without a private therapist and aftercare coordinators to facilitate referrals and further treatment. Staffing should cover a seven-day per week treatment program.

WAHI stated that a staff therapist and psychiatrist are assigned to every patient admitted to WAH's psychiatric program. (DI #131, Vol. 1, p. 96) These licensed clinicians provide counseling, aftercare planning, and discharge coordination seven days per week. (DI #131, Vol. 1, p. 96) The application is consistent with this standard.

Continuity

Standard AP 13
Facilities providing acute psychiatric care shall have written policies governing discharge planning and referrals between the program and a full range of other services including inpatient, outpatient, long-term care, aftercare treatment programs, and alternative treatment programs. These policies shall be available for review by appropriate licensing and certifying bodies.

WAHI states that WAH has written policies governing discharge planning that include the involvement of the patient and his or her family in the aftercare planning process. (DI #131, Vol. 1, p. 96) The program works in collaboration with community agencies and referral sources to serve as discharge resources for the patient. (DI #131, Vol. 1, p. 96) A copy of the written discharge planning policies for psychiatric patients was provided. (DI #16, Att. 10) The application is consistent with this standard.

B. Need

COMAR 10.24.01.08G(3)(b) Need.
The Commission shall consider the applicable need analysis in the State Health Plan. If no State Health Plan need analysis is applicable, the Commission shall consider whether the applicant has demonstrated unmet needs of the population to be served, and established that the proposed project meets those needs.

Background

WAHI's response to this criterion addressed the need for MSGA beds, OB beds, acute

psychiatric beds, and operating rooms. While WAHI's response to this criterion included a projection of MSGA bed need, the applicable need analysis in the State Health Plan with respect to MSGA beds was considered under COMAR 10.24.10.04(B)(2), earlier in this Recommended Decision. I concluded that WAHI's proposed project is consistent with that standard because the hospital is not proposing additional MSGA beds. The 182 MSGA beds proposed are fewer than WAH's current MSGA capacity of 241 MSGA beds and fewer than its current license allocation of 191 MSGA beds (effective July 1, 2012).

With respect to the need for the number of OB beds proposed, while WAHI projected the need in response to this criterion, I examined the need for the number of beds proposed under the first review standard of the SHP chapter for Acute Hospital Inpatient Obstetric Services, COMAR 10.24.12. While I found that there is a need for an OB unit at the relocated hospital, WAHI has not demonstrated the need for the number of OB beds proposed because it projected a need for fewer beds than proposed and because its methodology is based on WAH's current service area and market shares with no accounting for likely changes in service area and market shares as a result of the relocation.

In addition to the need for MSGA beds and obstetric beds, an analysis of the need for the number of ED treatment spaces proposed is required by the State Health Plan, at COMAR 10.24.10.04(B)14. This assessment of need for ED treatment capacity must be based on guidelines published by the American College of Emergency Physicians. For this reason, the need for ED treatment capacity was addressed under that standard earlier in this Recommended Decision. In my consideration of that standard, I concluded that WAHI had not demonstrated the need for the number of treatment spaces proposed because its need analysis did not consider likely changes in service area and market shares as a result of the relocation.

Regarding the need for psychiatric beds, while there is a State Health Plan chapter that addresses acute psychiatric hospital bed need, it is a plan that is not current with respect to bed need, reflecting a different era in inpatient psychiatric care, during which a transition from State-operated hospital facilities to general hospital and community settings for most inpatient care was still evolving and before the modern era of aggressive use of outpatient care following relatively short hospitalizations for crisis stabilization and the full flowering of today's psychiatric pharmacopeia. Because the SHP Chapter reflects this different era in its policies and assumptions concerning bed need, the demonstration of need for the number of psychiatric beds proposed will be addressed under this review criterion.

Finally, the need for hospital-based operating rooms is not currently covered by the State Health Plan. Therefore, WAHI addressed this question under this Need criterion and I will consider it in this section.

INPATIENT PSYCHIATRIC SERVICES

Background

The following tables show the recent utilization trends in discharges, days, and ALOS for psychiatric discharges from hospitals in Montgomery County and Prince George's County, the

two counties of patient residence from which WAHI expects to draw the greatest case volume. As shown in Table 31, for four of the seven hospitals, the number of psychiatric days was lower in 2010 than in 2005. At Suburban Hospital, the number of days increased, but only slightly. At Potomac Ridge, the number of days was higher compared to 2005, but below the volume for 2006-09. As shown in Table 32, at four of the seven hospitals the number of discharges increased from 2005 to 2010. As shown in Table 33, at five of the seven hospitals the ALOS decreased during this period. The decreasing ALOS for acute psychiatric discharges at a majority of the hospitals in Montgomery and Prince George's Counties may account for many hospitals' declining or static volume of patient days for psychiatric services. Currently, none of these hospitals appears over utilized. As shown in Table 34, none of these hospitals exceeded an average of 80 percent occupancy for CY2010.

Table 31: Acute Psychiatric Patient Days CY 2005-10
Montgomery County and Prince George's County Hospitals

Hospital	2005	2006	2007	2008	2009	2010
Laurel Regional Hospital	2,842	3,098	2,804	3,831	3,066	2,523
MedStar Montgomery	6,053	5,440	5,204	6,160	6,282	5,885
Adventist Behavioral Health	24,427	29,090	29,388	29,746	32,109	28,147
Prince George's	7,349	7,537	6,616	5,308	6,985	7,871
Southern Maryland	6,780	6,871	6,512	6,317	6,379	5,888
Suburban Hospital	6,134	5,997	5,607	5,292	5,722	6,285
Washington Adventist	10,557	9,690	10,157	9,477	9,814	8,997

Source: HSCRC Discharge Data Base and data for freestanding psychiatric hospitals.
Note: Adventist Behavioral Health reported aggregated data for patient days for two hospitals, only one of which is in Montgomery County. The first year of disaggregated data is 2009.

Table 32: Acute Psychiatric Discharges CY2005-10
Montgomery County and Prince George's County Hospitals

Hospital	2005	2006	2007	2008	2009	2010
Laurel Regional Hospital	556	601	580	646	765	800
MedStar Montgomery	1,214	1,127	1,110	1,177	1,257	1,279
Adventist Behavioral Health	2,946	3,181	3,011	2,739	3,263	2,836
Prince George's	1,120	1,141	1,148	918	1,269	1,340
Southern Maryland	1,454	1,455	1,315	1,330	1,312	1,333
Suburban Hospital	962	933	997	916	1,077	1,195
Washington Adventist	2,231	2,068	2,006	1,798	1,979	1,756

Source: HSCRC Discharge Data Base and data for freestanding psychiatric hospitals
Note: Adventist Behavioral Health reported aggregated data for discharges for two hospitals, only one of which is in Montgomery County. The first year of disaggregated data is 2009.

Table 33: Acute Psychiatric Average Length of Stay CY2005-10
Montgomery County and Prince George's County Hospitals

Hospital	2005	2006	2007	2008	2009	2010
Laurel Regional	5.1	5.2	4.8	5.9	4.0	3.2
MedStar Montgomery	5.0	4.8	4.7	5.2	5.0	4.6
Adventist Behavioral Health	8.3	9.1	9.7	10.9	9.8	9.9
Prince George's	6.6	6.6	5.8	5.8	5.5	5.9
Southern Maryland	4.7	4.7	5.0	4.7	4.9	4.4
Suburban Hospital	6.4	6.4	5.6	5.8	5.3	5.3
Washington Adventist	4.7	4.7	5.1	5.3	5.0	5.1

Source: HSCRC Discharge Data Base and data for freestanding psychiatric hospitals
Note: Adventist Behavioral Health reported aggregated data for patient days for two hospitals, only one of which is in Montgomery County. The first year of disaggregated data is 2009. Also, it serves children as well as adults and all patients are included in the ALOS calculation.

Table 34: Acute Psychiatric Bed Capacity and Occupancy
for Hospitals in Montgomery County and Prince George's County, CY2010

	Licensed Beds FY 2011	Reported Physical Bed Capacity June 1, 2010	Reported Staffed Beds June 1, 2010	Average Annual Occupancy (Licensed Beds) – Based on 2010 ADC
Laurel Regional	14	18	14	49.4%
MedStar Montgomery	25	33	22	64.5%
Adventist Behavioral Health	97	100	93	79.5%
Prince George's	28	36	26	77.0%
Southern Maryland	25	34	24	64.5%
Suburban	24	24	24	71.7%
Washington Adventist	40	40	40	61.6%
Total/Average	253	285	243	71.0%

Source: MHCC Annual Survey of Hospital Beds and Selected Other Services.

Applicant's Response

WAHI stated that WAH currently has a capacity for 40 adult psychiatric beds and proposed that the replacement hospital have 37 adult psychiatric beds. (DI #131, Vol. 1, p. 94) WAHI noted that WAH reported a capacity of four adolescent psychiatric beds on the FY2009 and FY2010 MHCC surveys of hospital capacity, but reported only adult bed capacity, including specifically geriatric capacity, for FY2012. WAHI stated that adolescents would be more effectively treated at the adolescent unit at Adventist Behavioral Health in Rockville. (DI #131, Vol. 1, p. 94)

WAHI defined the total service area ("TSA") for its psychiatric unit as the 57 zip codes that cover the first 84.7 percent of WAH's psychiatric discharges in the first two quarters of 2009. (DI #131 Vol. 1, p. 115) These zip codes are located primarily within Montgomery, Howard, Anne Arundel, and Prince George's counties. WAHI projected that the population in its TSA, age 15 and older, would increase from 1,447,395 in 2009 to 1,494,686 in 2015, as shown in Table 6. For the population in the TSA, WAHI also projected that the discharge rate would increase slightly, from a rate of 4.22 to 4.66, and that the ALOS would decrease slightly, from

5.3 in 2009 to 4.8 in 2015. WAHI noted that these changes in the discharge rate and ALOS were based on their historic respective trends from 2005 to 2009. (DI #131 Vol. 1, pp.119-20) With regard to projected changes in psychiatric admissions for WAH specifically, WAHI forecasted no increase in admissions between CY2011 and 2018. (DI #134, p. 92)

WAH relied on the current market share for Montgomery County hospitals and population projections in projecting the need for psychiatric beds at WAH in 2015. WAHI's market share assumptions and its 2015 projected bed need are shown in the following two tables. WAHI forecasted a total of 9,762 psychiatric patient days for WAH in 2015. WAHI based this forecast both on the total number of days forecasted for the TSA in 2015 and WAH's market share, based on first six months of CY2009 discharge data. (DI #131, Vol. 1, p.120)

Table 35: Projected Inpatient Psychiatric Bed Days by Hospital Location for CY2009

Hospital	Age Cohort			
	Days from WAH's TSA Jan-June 2009	Market Share Within WAH's TSA	Total Days, All Areas	Percent Hospital Days from PSA
Shady Grove Adventist*	36	0.2%	63	57.1%
Suburban	1,789	10.9%	2,741	65.3%
Holy Cross*	124	0.8%	130	95.4%
MedStar Montgomery	1,967	12.0%	2,987	65.9%
Washington Adventist	4,183	25.5%	4,881	85.7%
Southern Maryland	2,137	13.0%	3,266	65.4%
Laurel Regional	1,014	6.2%	1,733	58.5%
Prince George's	3,193	19.5%	3,538	90.2%
All Other Hospitals	1,949	11.9%		
Totals	16,392			
Annualized	32,784			

Source: DI #131, Vol. 1, p. 119. *No organized psychiatric unit.

Table 36: Calculation of Bed Need for the TSA of WAH, Assuming 70% Bed Occupancy

Projections	Year	
	2009	2015
Population	1,447,395	1,484,686
Use Rate	4.22	4.66
ALOS	5.32	4.80
MSGA Discharges	6,102	6,925
Patient Days	32,492	33,271
Bed Need	129	130

Source: DI #131, Vol. 1, p. 120.

WAHI anticipated fewer psychiatric admissions for CY2011 through CY2015 than in CY2009 and CY2010. WAHI noted that WAH had 2,070 psychiatric admissions for 2009, but WAHI estimated only 1,922 for CY2011 through CY2015. Based on this anticipated reduction

in psychiatric admissions, WAHI believed that, in future years, there would be fewer patient days, given the reduction in admissions, and a slightly lower average length of stay. WAHI forecasted that the average occupancy for psychiatric beds for CY2011 through CY2014 would remain below the CY2009 level, but that it would return to the CY2009 level in 2015 when the new hospital opened. WAHI noted that WAH's occupancy for psychiatric beds was approximately 71 percent for CY 2009 and only about 61 percent for CY2010 (DI #131, Vol. 1, pp. 123-25).

Interested Party and Participating Entity Comments

LRH/MMMC

LRH submitted comments regarding the impact of the relocated hospital on LRH's psychiatric services, but it did not directly comment on the need for psychiatric services at WAH. LRH's comments and WAHI's response to those comments are discussed in detail in the section of this Recommended Decision that discusses the Impact criterion.

Reviewer's Analysis and Findings

WAHI responded appropriately to each of the standards in the existing State Health Plan's Psychiatric Services Chapter, COMAR 10.24.07. WAHI included the key requirements of the existing methodology by incorporating population projections for the age group to be served and using discharge data to calculate use rates and ALOS. WAHI also used hospital discharge data to calculate its market share. The applicant's use of five-year trends in use rates and ALOS to project patient days is a reasonable approach. For the discharge rate, using the average annual change based on the five-year trend, rather than the ten-year trend, results in a more conservative projection regarding the need for psychiatric beds. The average annual ten-year change in the discharge rate is 2.8 percent compared to an average annual five-year change of 1.7 percent. For ALOS, there is only a slight difference in the five-year and ten-year trends: ALOS decreased at respective average annual rates of -1.7 percent and -1.9 percent. (DI #42, Att. 13)

WAHI's annual projections of admissions and bed days for the existing hospital from CY2011 through 2018 are not simply based on the five-year historic average annual change in discharge rates and ALOS. Instead WAHI projects that WAH will experience no change in bed days from CY2011 through 2018. (DI #131, Vol. 1, pp.123-24) WAHI does not explain the basis for the projected static number of admissions and bed days, but the projected numbers are below WAH's discharges and bed days in 2009, and therefore, WAHI's estimated future utilization of psychiatric beds appears to be conservative.

Although WAHI performed an analysis of the need for psychiatric beds according to patient zip codes, I find that an analysis of need according to Maryland's health planning regions is more appropriate because psychiatric services are not available at all hospitals, but need to be available to the entire population in Maryland. I also find that psychiatric inpatient services function as regional services. The psychiatric discharge data for WAH in CY2010 indicates that the population to be served is primarily located in Montgomery County and Prince George's County. Therefore, I conclude that an appropriate analysis of the need for acute psychiatric

services considers residents of Montgomery County and the Southern Region, which includes Prince George's, Calvert, Charles, and St. Mary's counties. This approach yields different assumptions about the current and projected use rates, ALOS, and patient days for the population in need of psychiatric services who are likely to be served by hospitals in Montgomery County and the Southern Region. However, I find that this analysis ultimately supports the need for WAHI's proposed psychiatric unit with 37 beds.

As shown in Table 37, the projected rate of change in the discharge rate for the population in the total service area of WAH, which is assumed to be the same as the historic rate between 2004 and 2009 (1.7 percent) is much higher than the projected rate of change for Montgomery County during this period (0.2 percent) and also higher than for the Southern Region (1.1 percent). However, the adult discharge rates for both Montgomery County and the Southern Region are higher for CY2010 than for the population in WAH's TSA in 2009 and that projected for 2015.

Table 37: Discharge Rates, ALOS, and Average Annual Change Over Time for Select Geographic Regions

Projections	TSA of WAH			Montgomery County			Southern Region		
	2009	2015	Rate of Change 2004-09	2010	Rate of Change 2001-10	Rate of Change 2006-10	2010	Rate of Change 2001-10	Rate of Change 2006-10
Use Rate per 1,000 population	4.22	4.66	1.7%	6.37	2.0%	0.2%	5.44	0.9%	1.1%
ALOS	5.32	4.80	-1.7%	7.4	0.7%	1.4%	5.4	-2.1%	-1.1%

Source: DI #131, p. 120; HSCRC discharge data and Maryland Department of Planning population projections from 11/23/10.
Note: The population used by WAH is age 15 and over, but the population for Montgomery County and the Southern region is only for the population age 18 and older.

Projections of the need for acute psychiatric beds in Montgomery County and the Southern Region were developed using HSCRC discharge data for CY2001 to CY2010 and population projections from the Maryland Department of Planning. Based on the average annual change in bed day rates by age group and region for this period, the need for psychiatric beds in 2015 was projected. Assuming that the number of psychiatric bed days per capita continue to change at the same rate in the future as the 10-year average rate of change, by age group, only a few additional psychiatric beds may be needed in both Montgomery County and the Southern Region.

The number of beds needed depends on what is regarded as a reasonable average annual occupancy rate. Assuming the number of licensed psychiatric beds in Montgomery County in 2015 is the same as in 2011 (155 total for acute care hospitals and Potomac Ridge Behavioral Health Center combined), the projected utilization of psychiatric beds by adult residents of Montgomery County would be at 85 percent occupancy in CY2015 In order to reduce the utilization of psychiatric beds in Montgomery County to 80 percent of licensed capacity, which I regard as closer to an optimal level of utilization, there would potentially need to be an additional nine adult psychiatric beds. However, it should be noted that Holy Cross received a CON for a new hospital project in Montgomery County that includes a six-bed psychiatric unit. Those beds would potentially be available in 2015. (Docket # 08-15-2286)

For the Southern Region, with no change in capacity in CY2015 compared to 2011 (90 adult beds), it is projected that utilization of psychiatric beds by adults will be 90 percent in CY2015. In order to reduce the utilization of psychiatric beds in the Southern Region to 80 percent of licensed capacity, there would need to be an additional 11 adult psychiatric beds.

The above projections of need for adult psychiatric beds in Montgomery County and in the Southern Region are based on the assumption that the per capita number of adult bed days for residents of the respective locations will be consistent with the average annual change from CY2001 to CY2010. In addition, I assume that for psychiatric services the in-migration and out-migration utilization patterns will remain the same in CY2015 as in CY2010.

The potential need for nine additional adult inpatient psychiatric beds in Montgomery County is driven by an increase primarily in the discharge rate for Montgomery County residents. The average annual discharge rate for adult residents from Montgomery County on a per capita basis increased at an average annual rate of 2.0 percent between CY2001 and CY2010. The average length of stay (ALOS) of these residents has increased from 6.9 days in CY2001 to 7.4 days in CY2010, increasing an average of less than one percent a year over the same period.

For the Southern Region, the average annual discharge rate has increased only slightly during the period 2001 to 2010, just under one percent. In contrast, the ALOS has declined at an average annual rate of 2.1 percent over this period. The need for adult psychiatric beds appears to be driven primarily by population growth which is projected to increase 3.4 percent from 2011 to 2015. This level of growth is one percent higher than the projected growth for adults in Montgomery County for the same period.

Statewide between CY2001 and CY2010, the average annual change in psychiatric discharges for adults (2.2 percent) is similar to the average annual change for adults from Montgomery County (2.0 percent) and more than twice the average annual change for the Southern Region (0.9 percent). Unlike the ALOS trend for adults from Montgomery County, the statewide rate declined slightly between CY2001 and CY2010, from 7.1 days to 6.8 days. For the Southern Region, the ALOS for adults declined at a greater rate, shifting from 6.6 days in CY2001 to 5.4 days for CY2010.

In summary, only a few additional psychiatric beds may be needed in both Montgomery County and the Southern Region in CY2015, assuming 80 percent occupancy. WAHI projects a need for only one additional bed in CY2015, assuming 70 percent occupancy, and accounting only for the population in its TSA. WAHI is not proposing to increase WAH's psychiatric bed capacity to meet a projected need for psychiatric beds. Instead, it proposes a psychiatric unit with three fewer beds.

WAHI's decision to build slightly less capacity is not a significant concern because there are other providers of psychiatric services in Montgomery County and in Prince George's County who may meet the future need for inpatient psychiatric services. In addition, as noted earlier, Holy Cross Hospital received CON approval to build a new Montgomery County hospital with a six-bed psychiatric unit. The need for the six-bed psychiatric unit was justified based on the projected need for acute psychiatric services in 2015, which is the same timeframe used to

evaluate WAH's proposed project.

WAH has shown that the capacity it proposes is needed and will likely be highly utilized. Therefore, I find that WAH has demonstrated the need for the number of psychiatric beds proposed, as required by COMAR 10.24.01.08G(3)(b).

Need for Surgical Services

Applicant's Response

WAHI proposed to construct space for 11 operating rooms ("ORs"), seven of which would be finished and equipped when the hospital opened. WAHI noted that the space for the four remaining ORs would be left as unfinished shell space to be completed and equipped when patient volumes justified the additional investment. WAHI provided a detailed table of the inventory of ORs at WAH's current location and at the proposed location, and then later submitted additional information indicating a different complement of ORs. A summary of information provided by WAHI regarding WAH's current and WAHI's proposed OR inventory is shown in Table 38 below.

Table 38: Washington Adventist Hospital Inventory of Operating Rooms by Type and Location

Type	Current Location	Proposed Location
Mixed-Use General Purpose	8	5(+ 4 shelled)
Mixed-Use Special Purpose	3	0
Other ORs	1	0
Dedicated Inpatient Special Purpose	0	2
Total Surgery Department ORs	**12**	**7 (+ 4 in shell space)**
Dedicated C-Section	2	2 (+ 1 shelled)
Dedicated Cystoscopy	1	1
Dedicated Endoscopy	2	2

Source: DI #41, p. 7; DI #131 V 2, pp. 55-56; DI #134, p. 122.

WAHI noted that the three ORs at WAH that are identified in Table 8 as "mixed-use special purpose" were primarily used for cardiac surgery. (DI #131, Vol. 2, p. 54) WAHI stated that the relocated hospital would dedicate two ORs as inpatient ORs for cardiac surgery and a third OR would be used for both cardiac cases and other surgeries. (DI #131, Vol. 2, p. 54)

WAHI projected the need for seven operating rooms in 2015 based on an analysis of WAH's historic data for surgical cases and surgical minutes. Table 39 provides a summary of WAHI's information provided on WAH's historic use of its mixed-use operating rooms.

Table 39: Washington Adventist Hospital's Surgical Cases and Minutes, FY2004-2008

Fiscal Year	Number of Cases		Number of Minutes	
	Inpatient	Outpatient	Inpatient	Outpatient
2004	3,209	4,125	499,229	249,567
2005	3,247	3,899	510,420	257,065
2006	2,968	3,448	461,898	246,475
2007	2,744	3,259	418,770	228,144
2008	2,663	3,597	401,018	228,002

Source: DI #16, Att. 8.
Note: Numbers exclude endoscopy, cystoscopy, and lithotripsy cases.

With regard to future utilization of general purpose mixed-use operating rooms, WAHI provided projections for cases and surgical time for years 2011 to 2018, as shown in Table 40 below. WAHI noted that the 2008, 2009, and 2010 data for surgical minutes reflect actual utilization. (DI #131, Vol. 2, pp. 55-56)

Table 40: Washington Adventist Hospital's Current and Projected Utilization of Mixed-Use Operating Rooms, 2008-2018

Year	IP Surgery Minutes	OP Surgery Minutes	Total Surgery Minutes	Estimated Turnaround	Total Minutes
2008	365,277	209,029	574,306	114,861	689,167
2009	435,654	216,056	674,251	134,850	809,101
2010	342,140	176,053	540,644	108,129	648,773
2011	342,140	170,771	512,911	102,582	615,494
2012	342,140	170,771	512,911	102,582	615,494
2013	342,140	170,771	512,911	102,582	615,494
2014	342,140	170,771	512,911	102,582	615,494
2015	227,272	174,187	401,459	80,292	481,751
2016	231,818	177,671	409,488	81,898	491,386
2017	237,613	183,001	420,614	84,123	504,736
2018	243,553	188,491	432,044	86,409	518,453

Source: DI #131 Vol. 2, pp. 55-56.
Notes: Turnaround time is estimated at 20% of surgical minutes. Outpatient surgical minutes are assumed to increase between 2% and 3% per year. Estimates of total surgery minutes do not include endoscopy and cystoscopy minutes. The replacement hospital will commence operations on January 1, 2015.

Table 41 is a summary of WAHI's submission regarding WAH's existing and WAHI's proposed general purpose mixed-use operating rooms and their projected levels of utilization.

Table 41: Actual and Projected Use of Mixed-Use OR Capacity at Washington Adventist Hospital, 2008-2018

Year	OR Rooms	Optimal Capacity	Percent of Optimal Capacity Use
2008	10	979,200	70.4%
2009	10	979,200	82.6%
2010	10	979,200	66.3%
2011	10	979,200	62.9%
2012	10	979,200	62.9%
2013	10	979,200	62.9%
2014	10	979,200	62.9%
2015	5	489,600	98.4%
2016	5	489,600	100.4%
2017	5	489,600	103.1%
2018	5	489,600	105.9%

Source: DI#131, Vol. 1, pp. 48-49.
Notes: Calculation of the percent of optimal capacity use is based on data reported in Table 10 of this Recommended Decision.

WAHI also projected utilization for two dedicated cardiac surgery operating rooms, as shown in Table 42 below. WAHI stated these rooms will have an optimal capacity of 48,960 minutes, which is half the capacity of a mixed-use general purpose operating room. (DI #131 Vol. 1, p. 49) Based on its surgical time and capacity assumptions, WAHI projected that the two dedicated cardiac surgery ORs will operate at 147 percent of optimal capacity in 2015 through 2018.

Table 42: Washington Adventist Hospital's Projected Utilization of Dedicated Cardiac Operating Rooms, 2008-2018

Year	IP Surgery Minutes	OP Surgery Minutes	Total Surgery Minutes	Estimated Turnaround	Total Minutes
2015	120,000	-	120,000	24,000	144,000
2016	120,000	-	120,000	24,000	144,000
2017	120,000	-	120,000	24,000	144,000
2018	120,000	-	120,000	24,000	144,000

Source: DI #131, Vol. 1, p. 49.

WAHI explained that the need for the proposed operating rooms was justified given that successful recruitment of community-based private practice physicians would increase future utilization of surgical services at the replacement hospital. (DI# 16, p. 20) WAHI stated that WAH's recruitment of surgical specialists was constrained by features of WAH's current location, such as lack of office space, limited parking, congested roadways, and out-of-date facilities. (DI #16, p. 20) The applicant noted that, prior to completing the construction of the replacement hospital, WAHI would implement a physician recruitment plan. (DI #16, p. 20)

Interested Party and Participating Entity Comments

Only LRH provided comments on WAHI's analysis of its need for ORs at the proposed new location. LRH stated that WAHI failed to provide a rationale for its projected eight percent growth in outpatient surgery in the first year of the replacement hospital's operation.[14] (DI #30, p. 13)

Reviewer's Analysis and Findings

WAHI is proposing to dramatically reduce surgical capacity at the replacement hospital initially, going from seven mixed-use general purpose ORs and three mixed-use special purpose ORs in CY2010, to five mixed-use general purpose ORs and two dedicated inpatient special purpose ORs. WAHI has included shell space for four additional ORs, but this space is not projected to be needed until beyond year 2018. (DI #131, Vol. 2, p. 54) The reduced need for ORs projected by WAHI also seems to contradict its stated intent to recruit additional surgeons at the new location, and its analysis of the need for shell space to build four additional ORs. In order to evaluate the need for surgical capacity at the proposed location, I considered multiple data sources, including WAH's CON application, HSCRC discharge data, and survey data on OR inventories and utilization.

I reviewed the surgical cases and minutes data by time of operating room reported by WAH on the annual MHCC survey of hospital capacity. This data suggests that WAH operated its mixed-use general purpose ORs near optimal utilization for CY2008 and CY2009, which is consistent with data presented to detail its need for ORs at the new location. For CY2010, the reported utilization of these ORs was much lower, averaging around 20 percent of optimal capacity, compared to 95.6 percent for CY2009 and 101.7 percent for CY2008, as shown in Table 43. The CY2010 data were obviously reported incorrectly because data in the HSCRC discharge abstract for CY2010 does not show a plunge in case volume for inpatient or outpatient surgery.

For the ORs at WAH that are dedicated to cardiac cases, WAH reported much lower use on the MHCC survey of hospital capacity, compared to the mixed-use general purpose ORs. Depending on the assumed optimal capacity of the ORs, the rooms may or may not be operating above optimal capacity. If the optimal capacity standard for the ORs dedicated to cardiac surgery is assumed to be half the optimal capacity standard for mixed-use general purpose ORs, then utilization appears high for 2008 and 2009, as shown in Table 44. Among the Maryland hospitals that have cardiac surgery services, none has reported to the Commission both special operating rooms dedicated to cardiac cases and the volume of cases performed in such rooms. Thus, the experience at other Maryland hospitals cannot be used to evaluate the optimal capacity proposed by WAH. However, based on the information reported by WAH for CY2008-CY2010 on the use of its ORs designated for cardiac cases, the rooms were used an average of 48,799 minutes each, including an assumed 30 minutes of turnaround time per case. This level of use is very similar to the capacity standard proposed by WAH, 48,960 minutes. Use of the ORs designated for cardiac ORs rooms ranged from 56,766 minutes in CY2008 to 34,876 minutes in CY2010.

[14] WAHI subsequently revised its projections, rendering the point moot. LRH did not comment on the revised much lower surgical projections for outpatient surgical time.

Table 43: Washington Adventist Hospital's General Purpose Mixed-Use Operating Room Capacity & Utilization, CY2008-2010

Year	Number of Rooms	Number of Cases	Surgical Minutes	Estimated Turnaround Minutes	Percentage of Optimal Capacity Used
CY2008	7	*6,252*	509,524	187,560	101.7%
CY2009	7	*5,437*	491,897	163,110	95.6%
CY2010	7	1,398	104,067	41,940	21.3%

Source: MHCC Annual Hospital Survey, 2009-2011.
Notes: Turnaround time is assumed to be 30 minutes per case. Optimal capacity is assumed to be 97,920 minutes.

Table 44: Washington Adventist Hospital's "Other" Operating Room Capacity & Utilization, CY2008-2010

Year	Number of Rooms	Number of Cases	Surgical Minutes	Estimated Turnaround Minutes	Percentage of Optimal Capacity Used
2008	3	545	153,048	16,350	115.3%
2009	3	522	148,604	15,660	111.8%
2010	3	372	87,189	11,160	67.0%

Source: MHCC Annual Hospital Survey, 2009-2011.
Notes: Turnaround time is assumed to be 30 minutes per case. Optimal capacity is assumed to be 48,960 minutes.

A reduced need for mixed-use general purpose ORs at WAHI is consistent with the historic trends in outpatient and inpatient surgical case volume at WAH. However, other hospitals serving a similar population, such as MMMC and LRH, have experienced growth in their outpatient surgical case volume over the period 2001-2010, and MMMC has also experienced growth in its inpatient surgical case volume over the same period. With regard to outpatient surgeries at WAH, the average annual change in case volume for both the most recent five and ten year periods indicate that the number of outpatient surgical cases have declined over the period 2001 to 2010, approximately by -4 percent on average and. for 2006 to 2010, case volume declined at a faster rate, approximately -11 percent on average, as shown in Table 45. In contrast, both LRH and MMMC have experienced growing case volumes for outpatient surgeries over the period 2001 to 2010, about 1.3 percent and one percent respectively, and stronger growth in the period 2006-2010, about 6.6 percent and 3.9 percent respectively, as shown in Table 45. Statewide, the trend has been growing case volumes for outpatient surgery, 3.2 percent for the period 2001-10 and 3.7 percent for the period 2006-10.

Table 45: Five-Year and Ten-Year Average Annual Change in Surgical Case Volume for Select Hospitals

Hospital/Area	Outpatient Surgeries		Inpatient Surgeries	
	CY2006-2010	CY2001-2010	CY2006-2010	CY2001-2010
Laurel Regional Hospital	6.6%	1.3%	-4.7%	-3.5%
MedStar Montgomery Medical Center	3.9%	0.9%	1.6%	0.3%
Washington Adventist Hospital	-10.9%	-4.0%	-7.0%	-3.8%
Statewide (all hospitals)	3.7%	3.2%	1.4%	1.2%

Source: HSCRC discharge abstract data and outpatient data, 2001-10.

As shown in Table 45, only MMMC has increased its volume of inpatient surgeries both for the period 2001 to 2010 and for the period 2006 to 2010. Both WAH and LRH experienced a declining volume of inpatient surgeries between 2001 and 2010, around -3.5 percent each. For the period 2006 to 2010, WAH experienced a greater average annual decline in its inpatient surgical case volume compared to LRH; the decline at WAH was about -7 percent, compared to -4.7 percent at LRH. As with outpatient surgical case volume, the inpatient surgical case volume increased statewide between 2001 and 2010 (1.2 percent), with slightly greater growth for the period 2006 to 2010 (1.4 percent), as shown in Table 45.

I developed estimates of the need for ORs at the relocated hospital based on the 10-year trend in outpatient and inpatient surgeries at WAH and on data reported for CY2008 on number of surgical cases, surgical minutes, and turnaround time. Specifically, the average annual change in outpatient surgical cases at WAH from 2001 to 2010 was multiplied by the number of outpatient surgeries reported by WAH in 2008 to generate the number of 2009 surgeries and the process was repeated for subsequent years. A similar approach was used for estimates of inpatient surgeries. As shown in Table 46, this analysis suggests that six mixed-use ORs are needed, assuming the optimal capacity of a mixed-use OR is 97,920 minutes.

Table 46: Projected Surgical Cases, Time, and Mixed-Use Capacity Required for Washington Adventist Hospital, CY2009-2015.

Year	Number of Cases		Number of Minutes			OR Capacity Needed
	Outpatient	Inpatient	Outpatient	Inpatient	Total	
2009	3,381	2,562	281,990	437,044	719,035	7.3
2010	3,178	2,464	265,071	420,436	685,507	7.0
2011	2,988	2,371	249,167	404,460	653,627	6.7
2012	2,808	2,281	234,217	389,090	623,307	6.4
2013	2,640	2,194	220,164	374,305	594,469	6.1
2014	2,481	2,111	206,954	360,081	567,035	5.8
2015	2,333	2,030	194,537	346,398	540,935	5.5

Source:.MHCC Annual Hospital Surveys; WAHI applications.
Notes: Total minutes include an assumed turnaround time of 20 minutes per case, which is the value reported mixed-use ORs on the MHCC Hospital Survey for CY008. OR Need is based on an assumed optimal capacity of 97,920 minutes per OR.

WAHI proposes to build out only five mixed-use ORs at the new location, but have shell space for an additional four ORs. I note that the optimal capacity standard for mixed-use ORs is relatively low for hospitals because it is based on an eight-hour day and these rooms may be used for longer than eight hours per day and for emergency surgeries throughout the day enabling some hospitals routinely to operate above an average of 97,920 minute per mixed-use ORs. Therefore, the five ORs could be adequate for the projected volume. However, these projections assume continued decline in surgical volume, which may be tied at least in part to the constraints of the existing location cited by WAHI as reasons for relocating, such as the difficulty of attracting and retaining physicians and patients due to the constraints of the facility and campus. (D I#16, p. 20) To the extent that WAH's declining surgical volumes are tied to its current physical location and campus layout, a boost in volume may be expected as a result of the relocation.

The ten-year trend in the number of surgeries for residents in the existing primary service area of WAH shows an increase for both inpatient and outpatient surgeries performed at acute care hospitals in Maryland. For outpatient surgeries, the average annual increase over the period 2001 to 2010 is 1.7 percent. For inpatient surgeries, the average annual increase over the same period is 0.3 percent. This data suggests that the future demand for surgery among residents of WAH's current PSA may be expected to rise in future years, to the extent that historic trends hold. However, I have concluded that the relocated hospital's PSA is unlikely to be the same as WAH's the current PSA, with some changes in the zip code composition and more importantly changes in the hospital's market share, but WAH has not identified expected changes in zip code or market share.

While future surgical volumes at the relocated hospital are uncertain (as previously noted, WAHI declined to make assumptions regarding changes in service area and market share resulting from this proposed project), I find that the proposal to finish and equip five mixed-use general purpose ORs and two ORs dedicated to cardiac cases is reasonable. The need for the two ORs dedicated to cardiac cases is justified by current volumes that are not likely to change due to relocation. The need for the five mixed-use general purpose ORs is more than justified by projected volume, even if one assumes continued declines in utilization. The construction of shell space for four additional ORs will provide the ability to expand reasonably quickly to meet increases in demand by patients and physicians realized after the relocation. However, WAHI has not demonstrated, through any conventional analysis supported by firm assumptions about the surgical demand likely to be generated by the service area population captured in the White Oak location, the future trend in demand that will establish when the four additional ORs planned for the shell space would be needed.

Reviewer's Summary of Need Criterion Analysis

The need criterion requires the Commission to consider the applicable need analysis in the SHP. Where there is no need analysis, the Commission is required to consider whether the applicant has demonstrated unmet needs of the population to be served, and established that the proposed project meets those needs. I have addressed the need for the diagnostic and treatment capacities that are covered by applicable SHP chapters, and determined that the number of MSGA beds proposed is consistent with the SHP because WAHI is proposing fewer MSGA beds

than currently exist both on a licensed bed and physical capacity basis. With respect to the need for the proposed psychiatric beds, as noted earlier, I have concluded that it is appropriate to analyze need for the psychiatric beds by determining whether WAHI has demonstrated that the population to be served needs the number of beds proposed. I have concluded that WAHI has shown a need for the number of beds proposed, which is also slightly less than the current number of psychiatric beds. With respect to OB beds and ED capacity, while there is a need for those services at the relocated hospital, WAHI has not demonstrated a need for the capacities proposed. WAHI has demonstrated a need for the number of operating rooms proposed, butit has not show the need to construct shell space for later conversion to four additional operating rooms through any conventional service area analysis.

C. Availability of More Cost-Effective Alternatives

COMAR 10.24.01.08G(3)(c) <u>Availability of More Cost-Effective Alternatives</u>.
The Commission shall compare the cost effectiveness of the proposed project with the cost effectiveness of providing the service through alternative existing facilities, or through an alternative facility that has submitted a competitive application as part of a comparative review.

The applicant did not provide a specific response to this criterion. It referenced its response to the Cost-Effectiveness project review standard at COMAR 10.24.10.04B(5). This response was considered acceptable for docketing of the application in that the SHP standard covers the same substantive ground as this criterion, addressing more specific requirements for demonstrating that a consideration of costs and effectiveness of alternatives was used in planning the project for which approval is requested. Please see that discussion, beginning at page 43.

In my review of that standard, I noted that deficiencies with the WAH facilities and the difficulty presented by on-site modernization as an alternative to replacement and relocation. I also noted the obstacle that neighborhood opposition could present for this option and the quality of WAHI's site selection process.

Unfortunately, I found that WAHI had presented an on-site expansion and modernization alternative that was not convincing as the most logical alternative to compare to the proposed project in order to establish compliance with this standard. I concluded that I could only find that WAHI had established that its proposed project is likely to be the most cost effective alternative to meeting the needs it identified. I find that I do not have the information needed to determine that WAHI has established, through an examination of the cost and effectiveness of the best alternative approaches, that the proposed project is the most effective alternative. As noted earlier, this issue is of secondary importance given the more serious concerns noted with financial feasibility and viability.

D. Viability of the Proposal

COMAR 10.24.01.08G(3)(d) Viability of the Proposal.
The Commission shall consider the availability of financial and nonfinancial resources, including community support, necessary to implement the project within the time frames set forth in the Commission's performance requirements, as well as the availability of resources necessary to sustain the project.

Overview

This project splits a single hospital campus into two hospital campuses, reported to be approximately 6.6 miles apart: a new 249-bed general hospital campus and a reconfigured and redeveloped 24-bed acute rehabilitation specialty hospital campus. The applicant estimated a required capital investment of $417.7 million, with $397.7 million for the replacement hospital campus and $20 million for redevelopment of the Takoma Park campus, with the latter project the only component for which AHC will be directly responsible. AHC will provide launching support, in the form of equity, to the legally separate WAHI entity, but will not be obligated for replacement hospital debt. The applicant projects that it will stabilize and grow service volume at the replacement hospital when compared to the recent performance of WAH, and that this will elevate revenues sufficient to cover the increase in debt service, the increase in operating cost that growing volume will require, and also will generate margin above these requirements for short-term capital and other needs, without a rate increase (although WAHI reserves the right to request a rate increase in the future). The redeveloped Takoma Park campus is also projected to replace WAH in the AHC obligated group and perform well enough to enable repayment of the long-term debt accumulated by WAH that will remain a debt obligation of AHC after WAHI, as a separate legal entity, is spun off from AHC. The financial feasibility of this plan, its benefits and risks when contrasted with other options, and the credibility of the assumptions used to support the AHC plan has been a contentious field of analysis and debate among the interested parties in this review.

WAHI estimated that pre-licensure/first use of the replacement hospital will take 32 to 34 months from capital obligation. With respect to the "time frames set forth in the Commission's performance requirements," a "new" hospital would, under the performance requirements adopted in MHCC regulation, be given 36 months to obligate the replacement project and 36 months to construct the replacement hospital. Permitted extensions of performance requirements could add up to one year more to this time frame, a total of seven years.

The performance requirement that, arguably, more accurately applies to this project is one for "major (greater than $5,000,000) additions, replacements, modernizations, relocations, or conversions to an existing health care facility." Under this requirement, WAHI would have up to 24 months to obligate 51 percent of the approved capital expenditure, and up to 24 months after the effective date of a binding construction contract to complete the project. Extension of the second performance requirement could add up to six months more to the 24-month time frame to construct the project. This is 2 to 4 months less than WAHI projects to be needed.

AHC formed WAHI, the applicant, to serve as the ownership entity for the replacement hospital, separate and apart from the hospitals and other health-related entities that currently comprise the obligated group of AHC. Thus, the two hospital campuses resulting from this project will have separate owners that will not be jointly obligated to service any debt incurred. This restructuring is necessitated by the financing plan for the project, which assumes funding 72% of the total estimated hospital replacement project cost of $397.7 million with insured bond debt. (The source of funding for redevelopment of the Takoma Park campus is identified as AHC cash.) WAHI plans to obtain insurance from the federal government in order to obtain favorable interest rates[15] on the project debt. This financing mechanism would not be available to WAH as part of the AHC obligated group. AHC could not obtain the interest rates on bonds viewed as necessary for viability of this project if it attempted to finance replacement hospital cost on its own. AHC has a credit rating by Moody's Investors Service of Baa2 on rated debt, a rating near the bottom of the investment grade class of ratings.

The three interested parties opposing this replacement hospital project have argued that the project is not viable. They have questioned the ability of WAHI to implement the project financing plan proposed and have also questioned the assumptions used by WAHI to project financial performance of the replacement hospital. Holy Cross Hospital has provided most of the comments and supporting analysis on this criterion. Laurel Regional Hospital and MedStar Montgomery Medical Center have focused greater attention, analytically, to the issue of the impact that the replacement hospital would have on their ability to attract patients rather than viability of the project, but have also addressed viability in their comments.

The City of Takoma Park, a participating entity in this review, has not opposed the move of the hospital outright but has stated that it supports the move of the hospital only if the Commission "imposes conditions that preserve primary and urgent health care services in Takoma Park." (DI #291). The City is not satisfied with WAHI's specificity and level of commitment to particular objectives for the existing site redevelopment and does not believe that AHC has documented that it has sufficient capital to assure that the Village will be adequately funded and sustained, when all the capital commitments of AHC are considered. It objects to WAHI's representation that it should not be required to provide primary and urgent care services on a 24/7 basis on the Takoma Park campus, WAHI's opposition to a condition that the primary/ urgent care providers in the Village adhere to WAH's charity care policy, and WAHI's opposition to the requirement that it notify the Commission of proposed changes in the Village's services, which could include termination of those services.

The Health Services Cost Review Commission provided MHCC with an opinion in June 2011 that it characterized as an "indicator of financial feasibility" but not "a full blown feasibility analysis," which it noted would be required for this project by any issuing authority for the planned debt securities. (*See* Appendix B) It summarized its review of WAHI's financial projections and assumptions as outlining a case that would be insufficient for a

[15]WAHI has assumed an interest rate of 5.55% (25 years, level debt service) on taxable FHA/GNMA debt securities.

favorable report by HSCRC staff, if sought in application for a Comfort Order. Its review focused on assumptions made by WAHI concerning "variable cost factors," finding that WAHI's projection of an ability to manage growth in revenue of nearly 6% from 2016 to 2018 (current dollars) by keeping expenses increases to 3.7% was not "plausible." It found the same implausible relationship between revenue and expense growth in the inflated dollar version of the projections. It also found, in its analysis of projected financial ratios, trouble with WAHI debt to capitalization and debt service coverage ratios and projected days of cash, all indicators that should be better to assure success in the debt market. Because of the suspect assumptions already noted concerning WAHI's ability to realize the projected level of "cost improvement," HSCRC staff concluded that the reliability of the projected margins is also suspect.

An evidentiary hearing in this review began in August 2011 and concluded in October 2011 with the filing of closing arguments by the interested parties. Commissioner Worthington identified viability as one of the issue areas for hearing testimony and testimony concerning the feasibility of the project financing plan and the financial feasibility of the project were addressed by experts provided by the applicant and the opposing interested parties.

In June 2012, I asked the applicant to prepare a revised schedule of projected revenues and expenses for the replacement hospital operation, also stated in 2011 dollars, based on the audited financial performance of WAH in FY 2011, with adjustments in assumed income generated from parking fees at the replacement hospital and adjustments in expenses that the applicant would forecast in response to lower projected level of parking revenue. The interested parties submitted comments on WAHI's filing and WAHI filed a reply to their comments.

Applicant's Response

In responding to this criterion, WAHI provided audited financial statements for AHC, and stated that it had not assumed an increase in rates (charges) in its financial projections, but reserved the right to seek a rate increase from HSCRC in the future. It provided the required schedule of historic and projected revenues and expenses (historic for WAH and projected for WAHI.) WAHI stated that it did not anticipate any impact on the costs and charges for hospital services at other hospitals located in the area as a result of this project. It stated that future patient charges at the replacement hospital will remain consistent with the rates approved for WAH by HSCRC.

With respect to funding the project, WAHI described the capital campaign it plans to mount to obtain $25 million in gift funding for the project.

The Project Budget Estimate

WAHI estimated that the replacement hospital project, which includes construction of a parking garage, will cost $397.7 million. WAHI has provided the following budget estimate detail.

Table 47: Washington Adventist Hospital, Inc. Estimated Uses and Sources of Funds Replacement and Relocation of the General Hospital Facilities of WAH

Uses of Funds			
	Hospital	Garage	Total
New Construction	$190,836,000	$ 21,793,000	$212,629,000
Major and Minor Equipment	34,649,000	-	34,649,000
Contingencies	20,063,000	1,084,000	21,147,000
Other Capital Costs	42,180,000	150,000	42,330,000
Capitalized Construction Interest	13,311,000	1,067,000	14,378,000
Inflation	12,607,000	1,047,000	13,654,000
Total Capital Costs	**$313,646,000**	**$25,141,000**	**$338,787,000**
Financing and Other Cash Requirements			$22,278,000
Working Capital			36,640,000
Total Uses of Funds			**$397,705,000**
Sources of Funds			
Cash			$27,205,000
Gifts			25,000,000
Taxable FHA / GNMA Debt			285,620,000
Working Capital			34,000,000
Transfer of Land & Equipment from Adventist HealthCare, Inc.			25,880,000
Total Source of Funds			**$397,705,000**

Source: WAHI March 28, 2011 Updated CON Application (DI #131, Vol. 1, pp. 18-19).

WAHI stated that, if the hospital is relocated, AHC plans to undertake an estimated $20 million cash expenditure to redevelop the Takoma Park site to serve as a "Village of Education, Health and Well-Being."

Table 48: Adventist HealthCare, Inc. Estimated Uses and Sources of Funds Redevelopment of the former WAH Campus (The Village)

Uses of Funds	
Site Preparation/Land Improvements	$5,000,000
Building Demolition	2,000,000
Building Renovations	11,956,772
Contingencies	947,839
Other Capital Costs	95,390
Total Capital Costs and Uses of Funds	**$20,000,000**
Source of Funds	
Cash	$20,000,000

Source: WAHI March 28, 2011 Updated CON Application (DI #131, Vol. 2, Ex. 8).

Funding the Project

WAHI stated that it will finance with taxable debt securities, FHA mortgage insured bonds, raising $285.6 million. The applicant's budget estimate anticipated a $59 million cash contribution from AHC, with about 42 percent coming from contributed gifts and $25.9 million in contributed land and equipment from AHC.[17]

Projected Financial Performance of the Project

In March, 2011, in the last iteration of its CON application before the beginning of the evidentiary hearing, WAHI provided actual 2009 and 2010 revenue and expense figures for WAH and projected the financial performance of WAH and WAHI, the replacement hospital for calendar years 2011 (the "current year projection") through 2018 (with an assumption that the replacement hospital would open at the beginning of 2015 and reach an average annual occupancy rate of 77% by 2018.

WAHI reported that WAH had net operating revenues in 2009 and 2010 of $239.2 million and $230.8 million, respectively, and projected net operating revenues of $240.6 million in 2011. It reported total operating expenses of $240.9 million and $226.6 million in 2009 and 2010, respectively, and projected total operating expenses of $234.7 million in 2011. This revenue and expense performance yielded a net loss of $1.7 million from operations in 2009 and net income of $4.5 million in 2010. WAHI projected net income of $6 million from the operation of WAH in 2011. The following table provides the reported actual revenues and expenses for 2009 and 2010and the projected current year 2011 performance.[18]

[17]Thus, the total AHC equity contribution, including real asset transfers, could be viewed as approximately $107 million, including the $20 million estimated to be needed to implement the redevelopment plan in Takoma Park if the general hospital moves.

[18] It should be noted that actual 2011 financial results for WAH were reported in 2012 and differ substantially from the WAHI projection shown in Table 49. Actual 2011 net patient service revenue for 2011 was $220 million and net operating revenue was $225 million. Actual 2011 operating expenses reported was $222.5 million, yielding income from operations of $2.5 million and overall net income of $2.1 million.

Table 49: Revenues and Expenses ($000s)
Actual 2009-2010, Current Year 2011 Projected Washington Adventist Hospital

	Actual 2009	Actual 2010	Projected 2011
Inpatient Revenue	$216,819	$206,156	$217,358
Outpatient Revenue	67,959	59,909	67,479
Gross Patient Revenue	284,778	266,065	284,837
Allowance For Bad Debt	(15,619)	(14,522)	(15,651)
Contractual Allowance	(25,955)	(16,368)	(23,489)
Charity Care	(9,166)	(9,318)	(9,700)
Net Patient Service Revenue	$234,038	$225,857	$235,997
Other Operating Revenues	$5,251	$4,840	$4,471
Parking Garage Revenue	$0	$0	$0
Investment Income	($72)	$147	$180
Interest income-trustee funds	$0	$0	$0
Net Operating Revenue	$239,217	$230,844	$240,648
Salaries, Wages, Benefits	$101,067	$97,405	$100,174
Contractual Services/Agency Labor	$13,252	$11,869	$10,607
Interest on Current Debt	$2,330	$2,548	$3,421
Interest on Project Debt	$0	$0	$0
Current Depreciation	$8,437	$8,301	$9,861
Project Depreciation	$0	$0	$0
Current Amortization	$0	$0	$0
Project Amortization	$0	$0	$0
Supplies	$51,880	$43,843	$44,449
Other Expenses	$63,915	$62,676	$66,149
Operating Expenses	$240,881	$226,642	$234,661
Income from Operation	($1,664)	$4,202	$5,987
Other Income	$1	$339	$0
Net Income (loss)	($1,663)	$4,541	$5,987

Source: Figures for 2009 through Projected 2011: CON Application, April, 2011.

Table 49: Revenues and Expenses ($000s)
Actual 2009-2010, Current Year 2011 Projected Washington Adventist Hospital
(CONTINUED)

Operating Margin	**(0.71%)**	**1.86%**	**2.54%**	**0.92%**
Occupancy Percentage	**69.9%**	**69.4%**	**68.0%**	**67.0%**
Patient Days	**74,459**	**71,400**	**70,771**	**66,252**
Outpatient Visits	**60,357**	**58,500**	**58,301**	**-**
Equivalent Inpatient Days (EIPD)	**97,797**	**92,149**	**92,742**	**-**
Gross Revenue/EIPD	**$2,912**	**$2,887**	**$3,071**	**-**
Net Revenue/EIPD	**$2,446**	**$2,505**	**$2,595**	**-**
Expense/EIPD	**$2,463**	**$2,460**	**$2,530**	**-**
Operating Income/EIPD	**($17)**	**$46**	**$65**	**-**
Change in Inpatient Days		**(4.11%)**	**(0.88%)**	**(6.4%)**
Change in Outpatient Visits		**(3.08%)**	**(0.34%)**	**-**
Bad Debt Percentage	**5%**	**5%**	**5%**	**-**
Contractual Allowance Percentage	**9%**	**6%**	**8%**	**-**
Charity Percentage	**3%**	**4%**	**3%**	**-**

In its 2011 updated application, WAHI provided out-year projections of 2012 to 2018 that are shown in the table below. The table that follows shows financial and operational projections produced by the applicant.

Table 50: Projected Revenues and Expenditures (Current Year 2011 Dollars in 000s)
Washington Adventist Hospital

Revenue	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Inpatient Revenue	$201,729	$202,234	$202,730	$207,103	$212,063	$218,021	$224,031
Outpatient Revenue	83,555	83,857	84,325	86,042	88,395	91,131	94,353
Gross Patient Revenue	285,284	286,091	287,055	293,145	300,458	309,152	318,384
Allowance For Bad Debt	(15,676)	(15,720)	(15,773)	(16,123)	(16,525)	(17,003)	(17,511)
Contractual Allowance	(23,730)	(23,795)	(23,872)	(24,399)	(25,006)	(25,728)	(26,486)
Charity Care	(9,908)	(9,937)	(9,972)	(10,195)	(10,452)	(10,757)	(11,083)
Net Patient Service Revenue	$235,970	$236,639	$237,438	$242,428	$248,475	$255,664	$263,304
Other Operating Revenue	$4,471	$4,471	$4,473	$4,134	$4,108	$4,156	$4,207
Parking Garage Revenue (net)	$0	$0	$0	$2,108	$2,411	$2,585	$2,732
Investment Income	$153	$192	$178	$229	$448	$796	$1,107
Interest Income-Trustee funds	$0	$0	$0	$40	$122	$204	$289
Net Operating Revenue	$240,594	$241,302	$242,089	$248,939	$255,564	$263,405	$271,639
Expenses	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Salaries, Wages, Benefits	$100,246	$100,375	$100,529	$101,034	$102,085	$104,174	$106,420
Contractual Services	10,608	10,608	10,609	10,578	10,557	10,596	10,639
Interest on Current Debt	3,298	3,063	2,873	0	0	0	0
Interest on Project Debt	$0	$0	$0	$17,411	$17,072	$16,714	$16,335
Current Depreciation	9,726	9,335	9,707	0	0	0	0
Project Depreciation	0	0	0	22,652	23,066	23,129	22,766
Current Amortization	0	0	0	1,070	1,050	1,027	1,004
Project Amortization	0	0	0	0	0	0	0
Supplies	44,518	44,599	44,701	45,296	46,066	47,001	48,018
Other Expenses	66,207	66,226	66,294	63,485	63,127	64,029	64,999
Operating Expenses	$234,603	$234,206	$234,713	$261,526	$263,023	$266,670	$270,181
Income	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Income from Operation	$5,991	$7,096	$7,376	($12,587)	($7,459)	($3,265)	$1,458
Other Income	0	0	0	0	0	0	0
Net Income (loss)	$5,991	$7,096	$7,376	($12,587)	($7,459)	($3,265)	$1,458

Source: DI #149, Table 3, Projected Revenues and Expenses, dated 4/12/11.

Table 51: Selected Financial and Operational Projections for WAH and WAHI

YEAR	2012	2013	2014	2015	2016	2017	2018
Operating Margin	2.5%	3.0%	3.1%	(5.2%)	(3.0%)	(1.3%)	0.6%
Occupancy Percentage	68.0%	68.0%	68.0%	75.2%	74.2%	75.8%	77.5%
Patient Days	69,736	69,736	69,736	68,534	67,647	69,102	70,594
Outpatient Visits	59,685	60,037	60,393	61,789	63,526	65,630	68,132
Equivalent Inpatient Days (EIPD)	98,620	98,652	98,743	97,007	95,845	97,986	100,325
Gross Revenue/EIPD	$2,893	$2,900	$2,907	$3,022	$3,135	$3,155	$3,174
Net Revenue/EIPD	$2,440	$2,446	$2,452	$2,566	$2,666	$2,688	$2,708
Expense/EIPD	$2,379	$2,374	$2,377	$2,696	$2,744	$2,722	$2,693
Operating Income/EIPD	$61	$72	$75	($130)	($78)	($33)	$15
Change In Inpatient Days	(1.5%)	0.0%	0.0%	(1.7%)	(1.3%)	2.2%	2.2%
Change in Outpatient Visits %	2.4%	0.6%	0.6%	2.3%	2.8%	3.3%	3.8%
Bad Debt %	5%	5%	5%	6%	5%	5%	5%
Contractual Allowance %	8%	8%	8%	8%	8%	8%	8%
Charity %	3%	3%	3%	3%	3%	3%	3%

Source: Table 3, Projected Revenues and Expenses, dated 4/12/11 and Table 1, Statistic Projections, Updated CON Application, March 2011 (DI #131)

In June 2012, in response to my request, the applicant prepared a revised schedule of revenues and expenses for the project, also stated in 2011 dollars, based on the audited financial performance of WAH in FY 2011 and with no volume adjustments. WAHI was told to assume that it could not generate parking fee revenue per equivalent inpatient day from parking that exceeded the highest level of parking fee revenue per equivalent inpatient day generated by any Maryland hospital in FY 2010 or 2011. WAHI was permitted to adjust its expenditure projections in response to this revised revenue target. WAHI produced the following revised schedule of projected revenues and expenses. Only two line items were altered by the applicant, net parking garage revenue and, as an offset to lower revenue projections, a lower projected contractual services expenditure, specifically based on an assumption of less need for subsidizing physicians.[19]

Finally, WAHI provided the following revenue and expense statement for the first four years of operation of the Village of Education, Health and Well-Being, which the applicant intends to build on the current site in Takoma Park when the hospital is relocated, beginning in 2015. (DI #131) WAHI stated that the 24-bed specialty rehabilitation hospital currently operating on this site, which it reported as having an average daily census of 15.7 patients, will see a steady increase in volume through 2018, reaching an ADC of 20.1 patients by that year. On a

[19]The applicant did not revise the projections as instructed, using 2011 audited financial performance.

conventional revenue and expense basis, WAHI reported that this specialty unit of WAH generated income from operations of just under $2 million in 2009 and $1.3 million in 2010. It projected that the facility will generate average net income of $2.3 million from 2011 through 2014, a period in which it will continue to operate alongside and within WAH. The applicant projected that the specialty hospital will generate an average of $2 million in net income for the period 2015 to 2018, the first four years in which it would be operating as a free-standing specialty hospital in Takoma Park.[20]

Table 52: Projected Lease Income and Operating Expenses ($000s)
The Village of Education, Health, and Well-Being
2015-2018

Lease income	**2015**	**2016**	**2017**	**2018**
AHC Business Units	$2,490	$2,560	$2,630	$2,630
Washington Adventist University	764	1,528	1,528	1,528
Mary's Center	1,071	1,071	1,071	1,071
Others	87	2,536	3,251	3,251
Total lease income	$4,413	$7,695	$8,480	$8,480
Operating expenses	**2015**	**2016**	**2017**	**2018**
Building and maintenance	$2,950	$3,009	$3,069	$3,131
Leasing fees	805	829	854	879
Interest	2,362	2,183	2,007	1,811
Current depreciation	1,247	1,247	1,247	1,247
Project depreciation	288	758	886	886
AHC corporate fees	0	0	242	239
Total operating expenses	$7,651	$8,026	$8,304	$8,192
Income	**2015**	**2016**	**2017**	**2018**
Income from Operation	($3,238)	($331)	$175	$287

Source: DI #131

Interested Party and Participating Entity Comments

HCH

Holy Cross Hospital's comments on the final iteration of this application in March 2011 stated that the funding plan for the project is not feasible. HCH noted that WAHI had not documented the feasibility of its plan for restructuring AHC as a prerequisite to making the funding plan possible and, thus, the application is not consistent with the Financial Feasibility standard for hospital projects found in COMAR 10.24.10.04(13) or the Viability review criterion. According to HCH, the proposed project will not meet FHA's criteria for the mortgage insurance issuance (because it contains shell space) and ultimate debt terms described by WAHI. It explained that WAHI's financing plan is at odds with existing bond covenants between AHC and its creditors and that WAHI's assumptions are not realistic with respect to the interest rate obtainable. It concluded that AHC cannot meet the cash requirements of the funding plan and that its attempting to do so would further weaken its financial position.

HCH also explained its belief that the project's forecast of financial performance is unrealistic and based on unsupported and, in some cases, vague assumptions, indicating non-

[20]WAHI did not support these projections by providing comprehensive statements of the assumptions employed in their development.

compliance with the same SHP standard and review criterion noted above. HCH maintained that the project's volume projections are unrealistic and at odds with observed historic trends. It stated that WAHI's revenue is overstated and that its expenses are understated, even if WAHI's expectations concerning utilization of the replacement hospital are realized. With respect to revenues, HCH noted the importance of parking fee revenue in producing a positive bottom line but questioned the applicant's ability to generate so much profit from a source currently untapped by WAH. It explained that a chief problem on the expense side is WAHI's assumption of a variable cost rate, which HCH calculated to be 34.3% for labor and 67.2% for supplies, far different than actual WAH experience. HCH stated that projections of revenues, expenses, and income are not reliable because a hospital cannot operate with very low rates of growth in labor expenditures during periods of much higher growth in volumes and in the revenues generated by volume growth. HCH also explained that WAHI's claim that fees paid to physicians will decline is at odds with its payor mix assumptions, which anticipate more Medicaid and uninsured patients at the replacement hospital. HCH believed, if the WAHI projections were adjusted to apply more realistic assumptions, the result would show that the project is not viable. HCH criticized the applicant for inconsistency in this key assumption, stating that it used much different variable cost rate assumptions in modeling financial performance if WAH were modernized on site.[21] HCH stated that WAHI used a more realistic variable cost rate assumption for its Option C alternative project that it does not want to undertake, in order to make a forecast of profitability more difficult for that alternative, but used a much different assumption to boost projected performance of the replacement hospital project.

HCH also explained that the applicant's project budget estimate for redevelopment of the Takoma Park campus was unrealistically low, its availability of funding sources was not documented, and no realistic plan for sustainability of that project had been presented.

LRH/MMMC

MedStar Montgomery Medical Center and Laurel Regional Hospital stated that the applicant has not met the burden of proving that the project was feasible and viable with reference to the same financial feasibility standard and review criterion cited by HCH. (DI #144) These parties emphasized that AHC has not credibly established its financial capacity to implement the project and the other projects it planned to undertake simultaneously.[22]

CTP

The City of Takoma Park stated that the project does not comply with the financial feasibility standard of the SHP, primarily questioning the service area definition basis for WAHI's projections of utilization given the likely impact of moving the hospital approximately 6 miles north of its present location. (DI #146) CTP noted that WAHI's projections of charity care, bad debt, and emergency utilization were based on an unchanged perspective on the service area population, but that the hospital will no longer be centered in the same service area. CTP

[21] This is WAHI's Option C alternative, which was discussed under the Cost- Effectiveness standard, COMAR 10.24.10.04B(5).

[22] AHC's proposal to build a new hospital in Clarksburg was denied by MHCC in 2011, and that denial was not appealed.

noted that the demographic characteristics of the areas defined by radii around the current and proposed sites show marked differences. CTP explained that the absence of such adjustment called into question all of the financial projections for the proposed hospital.

Additionally, CTP pointed out the current hospital's $98 million bond debt, the estimated $20 million capital improvement of the site if the hospital moves, and AHC's other large financial responsibilities related to funding the replacement hospital. The City concluded that the applicant did not provide sufficient detail on how AHC will manage these funding requirements, with adequate contingency reserves. CTP also stated that it remained concerned that Takoma Park may not be adequately served if the hospital is relocated, based on the degree of commitment and documentation of resource availability shown in the application.

Applicant's Response to Comments

In responding to HCH, WAHI noted the experience and expertise of its "financing team" as a basis for confidence that its plan could be implemented as described and in the time frames estimated. (DI #153) WAHI defended its use of a current interest rate as the basis for projecting debt requirements instead of attempting to predict interest rate movements. It expressed confidence that lenders will work with AHC and agree to the changes to credit agreements needed to implement the WAHI plan, because they will understand the "strategic and financial rationale" for the plan. The applicant rejected HCH's questions concerning its ability to implement the project as quickly as estimated, describing its expert's careful assessment of the work needed to obtain FHA mortgage insurance following CON approval and the sequencing of other steps necessary to adhere to the estimated project implementation schedule. It stated that shell space will not be an issue in the financing plan because it will be funded with AHC equity rather than borrowed funds.

The applicant defended the credibility of its projections of adequate financial support for the Village campus redevelopment project and its projection that this campus will be self-supporting with positive net cash flows. It described the risks associated with this project as minimal, because of the AHC entities' "internal allocation of costs" that would provide a base of support for the project.

WAHI stated that HCH is simply wrong about its variable cost factors, explaining that it projects, on average, overall variability of 61% with volume for staffing between 2015 and 2018, with changes in case mix adjusted equivalent inpatient admissions, and 80% for supplies between 2011 and 2018, with the same change. It noted that these factors reflect anticipated productivity gains resulting from a new facility.

WAHI responded to Takoma Park's comments by noting that the City overstated the actual cash that WAHI will need to be transferred as part of this project, excluding: the $34 million in working capital transferred from WAH to WAHI, which it described as funding that could not be diverted to another use: $25 million expected to come from fundraising campaigns; $15.4 million in equipment purchases that would be undertaken with or without the move; and $10.5 million for the land, already owned by AHC. WAHI also stated that CTP had used an incorrect figure for debt associated with WAH ($68 million, not $98 million) and asserted that its

projections supported the adequacy of its resources to implement the replacement hospital and the redevelopment of the existing hospital site, through the significant cash flow of AHC and the positive cash flow of the replacement hospital and the Village campus in Takoma Park.

Reviewer's Analysis and Findings

With respect to the two parts of this criterion, the availability of financial and nonfinancial resources necessary to implement the project within the time frames set forth in the Commission's performance requirements and the availability of resources necessary to sustain the project, I am unable to conclude that WAHI has established a credible foundation for a positive finding with respect to either part.

I find that WAHI has outlined an approach to financing this project that is uncertain. It has not identified any specific alternative approach to obtain the funding required for the proposed project if it is unsuccessful in obtaining FHA mortgage insurance for the sale of debt securities. However, my review of the record does not definitively show that AHC will not be able to restructure its system to meet the requirements of this financing option by replacing Washington Adventist Hospital with the Village of Education, Health, and Well-Being in the AHC obligated group and transferring the hospital assets to a free-standing entity. If the creditor approvals are provided for this restructuring, WAHI may be able to attain the needed insurance. A number of steps that may prove challenging for AHC and WAHI will need to be accomplished but I find that it is in the realm of possibility that AHC and WAHI can ultimately succeed.

WAHI could have undertaken an independent analysis of project financial feasibility that would meet the requirements for approval of an application for FHA mortgage insurance. If positive, in its findings and conclusions, this would allay many if not all of the uncertainties surrounding WAHI's ability to use this project financing plan. I recognize that this is not a requirement for docketing a CON application and is probably an investment that AHC is reluctant to undertake without CON authorization. The record indicates that, while CON approval of the project is needed to obtain the insurance, pre-application work of this type could have been undertaken by WAHI.

Instead, I have been presented with expert opinion from WAHI on the feasibility of this financing plan and the ability of WAHI to qualify for it as well as expert opinion from opponents of the project outlining all of the difficulties likely to be encountered by this applicant and this project in successfully restructuring itself and meeting the insurance program requirements. I find these two sets of dueling experts to be credible enough, following cross-examination of their testimony and rebuttal, on both sides of the question, considering only the narrow boundaries in which they can confidently offer an opinion. I do not believe it is possible to make a meaningful assessment of clear superiority with respect to the arguments on either side of this issue. I believe that both sets of experts are correct to the extent that they have been asked to provide their assessments. The WAHI experts contend, based on their considerable knowledge and expertise, that the plan can be implemented. (DI #209. *See* Carlson [209N], Davis [209L], Lee [209C], Nicholson [209G], and Wilson [209I]). They stress that WAHI debt will not be part of AHC's debt structure and, thus, performance of WAHI will not affect that debt structure. AHC's Master Indenture and credit agreements do not prohibit the obligated group from transferring assets to

WAHI as long as certain tests are met. They conclude that AHC can make loans and transfers to WAHI, so long as it monitors the amounts of such transfers and makes sure it stays in compliance with the terms of the Master Indenture and credit agreements. Some lender institutions (three of the five banks identified as having credit agreements with AHC) have indicated a willingness to consider the needed changes. The WAHI experts claim that the financing steps outlined by WAHI, the timing anticipated, and the process proposed for obtaining mortgage insurance approval are reasonable and accurate.

The opposing interested party experts have not, as I have noted, proven that the plan cannot be implemented, but they have persuasively outlined the problems WAHI will face in implementing the plan. (DI #210. *See* testimony of Marion, Nicolle, and Shirey) They noted the significant amount of revenue that is pledged as collateral for AHC's financial obligations that will be removed under the applicant's plan. These HCH experts pointed out the likely conflicts between WAH's current creditors, i.e., the banks that provide credit enhancement and liquidity for the bond indebtedness of the AHC obligated group and FHA with respect to the collateral to be required to finance the removal of WAH from the obligated group and the construction of a replacement hospital in White Oak/Fairland. They have noted that HUD's mission in the mortgage financing program is not to provide one hospital with a competitive advantage over another and question whether the federal program will look favorably on a health system with an investment grade, albeit low investment grade, rating seeking to finance a project outside its existing group of obligor entities and finance this project on a non-recourse basis putting FHA at risk if the project fails. They note that shell space for a medical/surgical nursing unit in the proposed replacement hospital and WAHI's proposals for use of AMPO funds ("amount necessary to make the project operational") are inconsistent with HUD rules and are likely to require modification and delay of the proposed project. These experts stated that WAHI's projected performance does not meet HUD requirements and WAHI has no waivers from such requirements. They also note that HUD would want to assure itself that the apparent turnaround of WAH in 2010 would be sustained and not a one-time event. HCH's experts emphasized that AHC has not shown that the letter of credit banks are willing to give up their pledge of revenues or their first-lien position while WAH continues to operate on the existing Takoma Park campus, as will be "required for WAHI to finance construction of the replacement hospital under the FHA 242 program" and suggest that, since WAHI will have no assets other than the replacement hospital, "the bank supplying the letter of credit will look to AHC to provide the required collateral." (D.I.#210, testimony of Marion)

I would note that the course of WAH's performance in 2011 could suggest that the 2010 turnaround did not usher in a sustained recovery and that WAH's recent filing with HSCRC regarding unaudited revenue and expense results for the first seven months of 2012 confirms this trajectory. WAH reports that it lost $2.9 million in the period January 1, 2012 through July 31, 2012 and that its total loss for this period, when non-operating revenue and expense are added in, was $3.4 million. (D.I.#344)

This compares with the projected positive margin of nearly $6 million for 2012 in the application that is the subject of this Recommended Decision.

Over the period in which the applicant reviewed this project, the projected performance of

WAH and the actual or revised projections for WAH followed the track shown in the following table.

Table 53: Projected and Actual Revenues, Expenses, and Margin ($000s), 2009-2011
Washington Adventist Hospital

	2009		2010		2011	
	Projected 4/2009	Actual	Projected 10/2009	Actual	Projected 3/2011	Actual
Net Operating Revenue	$247,931	$254,912	$241,083	$243,211	$240,648	$225,000
Total Operating Expenses	240,470	256,501	239,186	239,153	234,661	222,513
Operating Margin	$7,461	($1,589)	$1,897	$4,057	$5,987	$2,487

Sources: 2009 projected: CON application, April, 2009; 2010 projected: October, 2009 revised CON application; 2011 projected: March, 2011 revised CON application.
2009-2011 Actual: Consolidated Financial Statements for the Year Ended December 31, 2009-2011, Adventist HealthCare, Inc.
Actual revenue labeled "Total unrestricted revenues," actual expenses labeled "Total expenses," and actual income labeled "Income (loss) from operations" in financial statements.

With respect to the applicant's repeated representations that the release of WAH from the AHC obligated group and the non-recourse financing contemplated should allay concerns with the broader risk associated with this proposed project, I note that Moody's Investors Service, in its July 27, 2011 opinion on AHC creditworthiness, assigned a Baa2 rating applicable to approximately $187.1 million of rated debt and stated the following:

> Extensive multi-year capital program will likely require significant capital investments, funded with additional debt, use of leases or cash. These future plans are not incorporated into the current Baa2 rating; additional debt will likely heighten AHC's credit risk profile.
>
> Future plans for redevelopment of the Washington Adventist Hospital facility may include altering its membership in the Obligated Group and though it is anticipated that debt incurred to proceed would be non-recourse to the Obligated Group, the construction and development of the new campus will likely add to credit risk of the rated borrowing group.
> (HCH Evidentiary Hearing Exhibit 20)

Revenue, expense, income, and cash flow experience of AHC, as reported in its consolidated financial statements and the resultant financial ratios for the last four fiscal years are shown in the following table.

Table 54: Actual Revenues, Expenses, and Margin ($000s), 2008-2011
Consolidated Adventist HealthCare, Inc.

	2008	2009	2010	2011
From the Balance Sheets				
Cash and Cash Equivalents	$15,672	$51,938	$32,366	$15,167
Short-term Investments	139,716	110,063	164,424	167,410
Current Maturities of Long-term Obligations	81,075	207,057	36,462	18,420
Net Long-Term Obligations	308,755	169,791	295,315	304,762
Net Unrestricted Assets	229,319	264,643	327,127	342,823
From the Statements of Operations				
Total Unrestricted Revenues (less provision for uncollectible accounts)	$771,138	$749,844	$754,733	$760,681
Interest	14,526	9,457	9,075	12,548
Depreciation and Amortization	33,655	32,381	33,006	33,235
Total Expenses	758,401	730,936	731,140	739,901
Income (Loss) from Operations	12,737	18,908	23,593	20,781
Investment Income	(21,052)	(5,985)	4,775	4,289
Other Income (expenses)	746	975	544	(8,236)
Total Other (Expense) Income	(20,306)	(5,010)	5,319	(3,948)
Portion of Loss Related to Minority Interest	-	(160)	-	-
Revenues (Less Than) In Excess of Expenses from Continuing Op.	(7,693)	13,738	28,911	16,833
Ratios and HSCRC Targets				
Operating Margin	**1.65%**	**2.52%**	**3.13%**	**2.73%**
HSCRC Target Values	**2.75%**	**2.75%**	**2.75%**	**2.75%**
Excess Margin	**(1.02%)**	**1.84%**	**3.81%**	**2.20%**
HSCRC Target Values	**4.00%**	**4.00%**	**4.00%**	**4.00%**
Debt to Capitalization Ratio	**57.38%**	**39.08%**	**39.65%**	**47.06%**
HSCRC Target Values	**40.00%**	**40.00%**	**40.00%**	**40.00%**
Days of Cash on Hand	**8**	**27**	**17**	**8**
HSCRC Target Values (days)	**115**	**115**	**115**	**115**
Maximum Debt Service Coverage	**0.64**	**0.28**	**1.44**	**2.15**

Sources: Consolidated Financial Statements for the Years Ended December 31, 2008-2011, Adventist HealthCare, Inc.
Note that prior to the 2011/2010 Audited Financial Statement provision for uncollectible accounts (bad debts) was reported as an expense item. Therefore to make the years consistent provision for uncollectible accounts as reported for 2008 and 2009 have been deducted from expenses and revenues ($43,302,605 for 2008 and $39,449,089 for 2009).

While AHC as a whole is not subject to HSCRC rate regulation, I believe it is worth comparing its financial performance to the financial ratios that HSCRC has used in the past and that are reported in HSCRC staff's opinion letter on the proposed project. As can be seen, AHC has generated income from operations of $18.9 to $23.6 million in the last three years and its operating margin has been close to or exceeded the HSCRC target, but it has experienced decreases in cash and cash equivalents during the last three fiscal years. Its excess margin has been significantly below the HSCRC target in three of the last four years. For 2008 and 2009 this was a result of poor investment performance. While the AHC debt to capitalization ratio exceeded the HSCRC target for the most recent year, it is much better than the ratio for WAH and, for 2009 and 2010, this ratio was within the HSCRC target. AHC's maximum debt service coverage ratios have been below what HSCRC considers to be adequate (see Appendix 3) until the most recent year. The amount of calculated days of cash on hand is extremely low relative to the HSCRC target. Credit facilities are used at appropriate times to assure that this indicator is brought into technical compliance with levels required by covenants with creditor financial institutions.

In light of HSCRC staff's opinion that the project's financial feasibility rests on implausible assumptions and that financial ratios are not aligned with what the financial markets typically want to see for favorable consideration (DI #230), I am left with strong concerns that this project's financing scheme does not appear to be feasible and that the resource requirements it places on AHC will put this organization at risk of weakening further.

HSCRC staff noted that it has observed, in general, that over the medium to long term, hospital costs appear to be approximately 75-85% variable with changes in volume (and correspondingly 15-25% fixed regardless of volumes). As such, it is HSCRC policy to adjust hospital rates and revenue to reflect this relationship of fixed to variable costs. For volume increases, hospitals are allowed to keep 85 cents on the dollar, and for volume declines, their rates are adjusted such that they only lose 85 cents on the dollar (retaining 15 cents to cover fixed costs). HSCRC noted that hospital managers have indicated to the HSCRC that, over the shorter time horizon of one to two years, they believe that variable costs (the components of their cost structure that actually can be altered with changes in volume) are in the neighborhood of 40-60%. HSCRC staff believes these observations (or "rules of thumb") with regard to fixed and variable hospital costs are salient in the context of evaluating the financial projections provided by WAHI.

HSCRC staff found that the WAHI projections showed revenue growing 0.61 %, while expenses (net of depreciation and interest) were projected to grow 0.34% from FY 2011 through FY 2014. These changes reflect the hospital's relatively flat volume assumptions over this period and an assumed variable cost proportion of approximately 56%. Over the projection period of FY 2014 to FY 2018, the replacement hospital's revenues were projected to grow 10.89% (relative to WAH's last year of operation in Takoma Park), while expenses (net of depreciation and interest) were projected to grow only 3.93% relative to volume changes, reflecting an assumed variable cost factor of approximately 33% over the four-year projection period. HSCRC staff stated that its closer review of the year-by-year change showed substantial differences in assumed variable costs in the first two years of the project when compared to the last two years. For FY 2015 (the first year the new facility is in operation), revenues were projected to increase

2.10% (commensurate with projected volume increases), while expenses were projected to decrease 0.78% (reflecting a negative variable cost factor). For FY 2016, revenues were projected to increase 2.49%, while expenses were projected to increase only 0.65%. HSCRC staff found that this would equate to a variable cost factor of only 26% for FY 2016 (implying dramatic and likely unprecedented cost reductions and improvements in efficiency over these two years). HSCRC staff questioned whether the facility could indeed realize this level of operating cost improvement in FY 2015 and FY 2016. From FY 2016 through FY 2018, revenues were projected to increase near six percent, while expenses were projected to increase 3.7 %. This would equate to a variable cost factor of approximately 62% over this two-year period. While low relative to the variable cost proportion reflected in HSCRC rate adjustments, HSCRC staff concluded that this assumption was much more reasonable than the variable cost proportions assumed in years FY 2015 and 2016.

HSCRC staff also examined the inflated dollar projections relative to the current dollar projections to isolate the hospital's revenue and expense inflation assumptions. This analysis showed that the hospital is projecting expenses to increase at approximately the same rate as revenues are increasing for inflation through FY 2014. However, beginning with FY 2015 through FY 2018, the hospital is projecting expenses to increase by approximately 0.4% less than revenue increases for inflation. While HSCRC staff stated its belief that it may be plausible for the facility to manage costs to grow at this lower rate, it concluded that the likelihood of achieving both this assumed level of operating efficiency and the cost reductions implied by the very low variable cost factors assumed in the period FY 2015 to FY 2018 did "not seem plausible."

Included with the HSCRC memorandum are attachments that showed financial ratios based on the applicant's "inflated" dollar financial projections. The important ratios and indicators include: operating margin; days of cash (DOC); debt to capitalization; and debt service coverage (DSCR). The ratios are calculated based on the projections (and the volume and cost assumptions discussed above) for the period FY 2011 through FY 2018. The memorandum notes that institutions evaluating the credit-worthiness of a hospital traditionally place great weight on these indicators. As such, HSCRC staff believes that the hospital's performance on these ratios is most important in determining whether it will be able to borrow the monies necessary to complete the project.

HSCRC's review of the financial ratios showed that WAH had improved its operating margin between FY 2009 and 2010, and was projecting that it would again improve during FY 2011 to 2.49% (as noted above, the actual operating margin for 2011 was 1.1%). The hospital projected that its operating margin would remain somewhat constant through FY 2014. WAHI projected a 7% decrease in its operating margin (from 2.29% to -4.75%) during FY 2015 due, in large part, to the significant increase in depreciation and interest (10% of total expenses) after the opening of the replacement facility. HSCRC staff concluded that the decrease to WAH's operating margin would have been greater if WAHI had projected what HSCRC staff believes might have been a more realistic variable cost factor for that year (as noted above, WAHI projected a small decrease in expenses despite a substantial increase in volume, a negative variable cost assumption). WAHI projected that the hospital's operating margin would improve to -1.88% for FY 2016 due to expenses increasing only a small proportion relative to increases in

revenue resulting from volume increases (an assumed 26% variable cost proportion). HSCRC staff concluded that this projected increase in expenses may be unrealistic.

HSCRC staff noted that the financial statements provided by WAHI show that WAH's Debt to Capitalization is extremely high up to the time when the replacement hospital is projected to open. It stated that this high ratio results in part from some assets being provided to the new entity that are not reported on WAH's books until after the new facility opens. However, HSCRC determined that the Debt to Capitalization remains high even after the new facility is opened and all assets are combined under the new obligated entity. HSCRC found that the Debt Service Coverage Ratio ("DSCR") is adequate until FY 2015 when it dips to a low of 1.26 times. Normally, bond rating agencies prefer DSCRs in the range of 2 to 3 times during the forecast period. DSCRs below 2.0 are cause for concern. Depending on the borrowing documents and bond covenants, DSCRs below 2.0 may place the borrower in technical default on the bonds. HSCRC staff also found that Days of Cash ("DOC") remained low throughout the projection period. If the unrestricted assets being provided to the new entity were included on the WAHI balance sheet, the DOC would improve somewhat. However, total DOC available to the new entity when it opens in FY 2015 is still projected to be low at 42 days. HSCRC staff noted that bond rating agencies prefer to see days of cash at 100 days or higher at a minimum.

HSCRC staff concluded by stating that, should WAHI receive CON approval for this project and come before the HSCRC requesting a Comfort Order, given these current projections, it would be "hard-pressed to recommend a favorable report to the Commission (HSCRC)."

WAHI addressed the HSCRC staff's memorandum, emphasizing that the HSCRC staff's skeptical view of the variable cost issue is based on a failure to understand the important inefficiencies being eliminated by moving to a new replacement hospital and that the ability of WAHI to keep expense growth low relative to volume increases afforded by this move is a function of lower overhead costs, such as plant operations, maintenance, and utilities. (DI #238) Comparing productivity gains projected by WAHI with the non-capital cost experience of Shady Grove Adventist Hospital ("SGAH"), WAHI argued that there is no obvious reason why a relocated WAH cannot operate with non-capital costs per unit approaching those of SGAH. Improvements in facility design will improve operational efficiency and facilitate a drop in medical/surgical ALOS. WAHI also characterized the HSCRC staff's analysis of financial ratios as misleading and inaccurate because WAH will not be the entity seeking financing. WAHI contended that the ratios of AHC's entire obligated group better reflect the financial position of entities relevant to a review of this project and that this group, for example, has acceptable ratios and its performance will not be affected by the replacement hospital, which will not be part of the obligated group. WAHI concluded that the debt service coverage ratio cited by HSCRC is not a cause for concern related to technical default because a project using the FHA-insured mortgage loan program will have specific technical default provisions determined at the completion of the loan program review.

In rebuttal, the interested parties noted that WAHI's argument that SGAH had costs that were 10% lower, on a per case basis, and 14.8% lower per CMA EIPA than WAH must be considered in light of the 20.67% productivity improvement that would be necessary for WAH to

achieve its inflated financial projections. They contend that SGAH is much larger than WAH (38.7% larger, based on CMA EIPAs in 2010) and for WAHI to suggest that its costs and expenses can be the same as those at Shady Grove is equivalent to assuming that noncapital costs are a hundred percent variable, a conclusion that no expert in the review process claimed. (DI #287)

Thus, with respect to the availability of resources necessary to sustain the project, my review of the record indicates that WAHI's financial projections for this project rest on dubious assumptions and that these problems are substantial enough that I cannot find the project to be viable, as presented. To some extent, it appears that WAHI may have made strategic choices in putting this plan forward that have hurt its ability in this regard. WAHI maintains that this replacement of WAH will not alter the service area or service area population served by the existing hospital. The applicant uses this foundation to claim that the hospital's payor mix will not change as a result of the project and that the Commission cannot accurately determine its impact on other hospitals. WAHI also projects an ability to implement this project without any adjustment in its charges and with lower requirements for providing financial subsidies to physicians. These choices, which could be viewed as "conservative," certainly allowed WAHI to make the case that it was not "running away" from less lucrative segments of its historic service area population to "greener pastures," that it was not looking to thrive on the capture of market share from other hospitals, and that it was not attempting a revitalization that would make it an even more expensive hospital than it already is. However, they are choices that have led WAHI to make assumptions concerning revenue sources, productivity gains, and expenditure reductions that are far from conservative and failed to pass muster in HSCRC staff's review, which has not been convincingly rebutted by WAHI. While I appreciate the work of some of WAHI's consultants to cast these projections in most positive light possible, I am compelled to give considerable weight to the effective expert counter-argument placed in the record on these issues. In the aggregate, I cannot find that WAHI has met the burden of proof on this criterion. Again, a positive, credible and independent analysis of financial feasibility, providing an independent assessment of what assumptions are realistic in modeling performance of this project, would have been most useful in this case. The only independent opinion available was that of HSCRC and, as that agency noted, it was not providing a rigorous financial feasibility analysis in its opinion memorandum, nor could it, given the level of documentation and explanation for many of the assumptions made in the application. However, the HSCRC staff's opinion of the project's financial feasibility was negative.

I felt it was necessary to allow an opportunity to test the viability of this project against a more conservative revenue forecast, because of the unprecedented level of parking fee revenue that WAHI was assuming it could generate at the replacement hospital site. For this reason, I requested, on June 5, 2012, that WAHI provide information to test the viability of the project against a more conservative revenue forecast. The following table provides the alternative financial projection scenario filed by WAHI in response to my request.

Table 55: Projected Revenues and Expenditures (Current Year 2011 Dollars in 000s)
As Revised in 2012
Washington Adventist Hospital

Revenue	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Inpatient Revenue	$201,729	$202,234	$202,730	$207,103	$212,063	$218,021	$224,031
Outpatient Revenue	83,555	83,857	84,325	86,042	88,395	91,131	94,353
Gross Patient Revenue	285,284	286,091	287,055	293,145	300,458	309,152	318,384
Allowance For Bad Debt	(15,676)	(15,720)	(15,773)	(16,123)	(16,525)	(17,003)	(17,511)
Contractual Allowance	(23,730)	(23,795)	(23,872)	(24,399)	(25,006)	(25,728)	(26,486)
Charity Care	(9,908)	(9,937)	(9,972)	(10,195)	(10,452)	(10,757)	(11,083)
Net Patient Service Revenue	$235,970	$236,639	$237,438	$242,428	$248,475	$255,664	$263,304
Other Operating Revenue	$4,471	$4,471	$4,473	$4,134	$4,108	$4,156	$4,207
*Parking Garage Revenue (net)**	*$0*	*$0*	*$0*	*$1,682*	*$1,661*	*$1,678*	*$1,689*
Investment Income	$153	$192	$178	$229	$448	$796	$1,107
Interest Income-Trustee funds	$0	$0	$0	$40	$122	$204	$289
Net Operating Revenue	$240,594	$241,302	$242,089	$248,513	$254,814	$262,498	$270,596
Expenses	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Salaries, Wages, Benefits	$100,246	$100,375	$100,529	$101,034	$102,085	$104,174	$106,420
*Contractual Services**	*10,608*	*10,608*	*10,609*	*8,095*	*8,235*	*8,466*	*8,717*
Interest on Current Debt	3,298	3,063	2,873	0	0	0	0
Interest on Project Debt	$0	$0	$0	$17,411	$17,072	$16,714	$16,335
Current Depreciation	9,726	9,335	9,707	0	0	0	0
Project Depreciation	0	0	0	22,652	23,066	23,129	22,766
Current Amortization	0	0	0	1,070	1,050	1,027	1,004
Project Amortization	0	0	0	0	0	0	0
Supplies	44,518	44,599	44,701	45,296	46,066	47,001	48,018
Other Expenses	66,207	66,226	66,294	63,485	63,127	64,029	64,999
Operating Expenses	$234,603	$234,206	$234,713	$259,043	$260,701	$264,540	$268,259
Income	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Income from Operation	$5,991	$7,096	$7,376	($10,530)	($5,887)	($2,042)	$2,337
Other Income	0	0	0	0	0	0	0
Net Income (loss)	$5,991	$7,096	$7,376	($10,530)	($5,887)	($2,042)	$2,337

Source: Exhibit G, WAHI's Response to Reviewer's Request for Supplemental Information, June 19, 2012.
*Not in italics in WAHI's filing.

WAHI chose to alter only two lines (*italicized* in the table above) of its revenue and expense projections from what was contained in its 2011 updated application. With respect to parking revenue, WAHI reduced its forecasted revenue from this source by an average of 31% over the four-year period of 2015 to 2018, a total of $3.1 million. The expense line for contract services was revised to assume lower payments to physicians, reductions averaging 21% over the same period of the much larger expense base of $10.6 million per year, more than offsetting the revenue reduction and producing a marginally better bottom line income performance. WAHI also chose not to provide a re-based set of projections reflecting the actual performance in 2011, which, as indicated in Table 55 above, that compare the 2011 projections for 2011 and actual 2011 results, which proved to be a challenging year for WAH. It generated 6.8% lower net patient service revenue and missed its net operating revenue projection by a similar percentage. It was only able to reduce expenses projected in the Spring of 2011 by 5.2%, resulting in income of $2.1 million, $3.9 million less (66%) than last year's projection of $5.99 million and 65% less than WAH continues to project for 2012 in the CON application (all figures expressed in 2011

dollars). Any such rebasing would have held volume constant, based on my instructions.

Holy Cross Hospital asked that WAHI's filing be struck in its entirety because it was not responsive to my request, i.e., it was not an "updated forecast" based on the audited financial performance of WAH in FY 2011, and it overstated parking revenue in a manner inconsistent with my request, by using gross revenue per EIPD rather than net revenue and by adding additional parking fee revenue for hospital and MOB employees to an adjusted revenue figure assumed to only account for patients and visitors, based on the comparison hospital chosen. (DI #338) In a separate filing, HCH stated that WAHI's expense adjustments are not justified because: WAHI cannot fairly claim that it can match Shady Grove Adventist physician subsidy levels because the hospitals are not comparable, with respect to services or payor mix; and, no changes in payor mix are projected by WAHI. (DI #334) HCH noted that WAHI's assumption of having the same patient mix, coupled with growing service volume are not consistent with WAHI's assumed reduction in physician subsidies, because more Medicaid and uninsured patients will require higher levels of subsidy. HCH provided an analysis of what it viewed as the correct alternative scenario that I sought, with a forecast of financial performance rebased on actual 2011 results, and parking revenue and expense adjustments that HCH believed are consistent with my instructions and its view of what can be credibly achieve. HCH's alternative projections found that the WAHI would not generate income in the period of 2015 to 2018.

MMMC and LRH largely echoed the complaint of HCH that WAHI should have rebased its updated projections to reflect actual 2011 results, did not follow instructions to adjust parking revenue, and also offers that WAHI inappropriately failed to account for a policy adjustment imposed by HSCRC in June, 2010 that "had the effect of significantly reducing WAH's revenue per case." (DI #335) They find the expense adjustment unrealistic in light of WAHI's projection of no change in the service area or payor mix resulting from the hospital relocation.

WAHI responded to the interested party comments by stating that it had followed my instructions, implying that following my instructions as interpreted by the interested parties would have required volume adjustments, which I instructed WAHI not to change. (DI #337) WAHI acknowledged that achieving its projections for 2012-2014 "would be complicated" by the volume reductions actually experienced in 2011, but voiced confidence in its 2015-2018 projections at the replacement hospital. WAHI explained that it added an adjustment to the plain meaning of my instructions for adjusting the projected employee parking fee net revenue, because the comparison hospital it used does not charge employees for parking. It claimed that recent success by AHC in negotiating with physicians on subsidy issues justified its confidence that it can achieve the projected reductions at the replacement hospital. It rejected the MMMC/LRH claim regarding the HSCRC policy change as beyond the scope of my request and irrelevant, pointing out that its historic and budget year projections accounted for HSCRC rates for those years when the projections were developed.

I allowed a final set of comments from the interested parties on the WAHI reply. (DI #340 and 341) HCH rebutted WAHI's claim that it had followed my instructions. HCH took WAHI to task for its attempt to support its analysis by comparing parking fee revenue projections to those reported by Mercy Medical Center in Baltimore, which HCH considered to be inappropriate for comparison with the WAHI White Oak site. HCH stated that WAHI

ignored operating expenses in this comparison and also noted that net revenue at Mercy Medical Center was $765,700 and that this is a hospital in downtown Baltimore. HCH also faulted WAHI for producing a figure representing interest and depreciation for parking facilities, a projected $2.1 million in 2018, for the first time in this review, despite an opportunity to do so earlier and repeated questioning on this issue during the evidentiary hearing. HCH noted that no support or explanation of the figure was provided by WAHI. The result of WAHI's failure to follow instructions, according to HCH, is that it continued to project net parking revenue per equivalent inpatient day ("EIPD") of $16.84, far above the highest existing hospital figure that I asked WAHI to match; according to HCH, that would be the $8.19 figure reported by St. Joseph Medical Center in 2010. On this basis, HCH concluded that a correct response by WAHI to my request would have shown that the project is not financially feasible.

LRH and MMMC stated that WAHI made an invalid comparison of its parking fee "net income" projection to the "net revenue" reported by St. Joseph Medical Center ("SJMC") for 2010 in order to make the case that the applicant's revenue projections are reasonable, the difference being the subtraction of interest and depreciation expenditures in the WAHI net income figure. They reached the same conclusion as HCH: WAHI should have used the SJMC reported net revenue figure of $8.19 per EIPD to model its revised revenue projections in order to follow my instructions and, instead, WAHI produced a revised projection that assumes net revenue of $16.84 per EIPD in 2018 and figures ranging from $17.12 to $17.34 per EIPD in the first three years of replacement hospital operation. LRH/MMMC claimed that WAHI's projected ability to reduce physician subsidies, supported by a claim of recent success in the areas of anesthesia, pediatrics, and psychiatry subsidies, is at odds with its recently reported experience. They noted that, while WAHI reported a reduction in anesthesia physician subsidy costs from 2010 to 2011 to HSCRC, it also reported an increase in subsidies for psychiatric physicians and, on an equivalent inpatient admission basis, saw subsidies for these three physician specialties increase 4.6% between 2010 and 2011.[23] LRH/MMMC pointed out that WAHI reported an increase of 3.6% in total physician subsidy cost over this period, translating to an increase of 14.2% on a subsidy cost per equivalent inpatient admission ("EIPA") basis. Finally, LRH and MMMC continued to argue that WAHI's updated financial projections should have accounted for the April 2011 HSCRC "productivity adjustment," claiming that properly accounting for this adjustment would have resulted in a downward adjustment to net revenue in WAHI's projections ranging from $2.7 million in 2012, and a range of $8.54 to $9.51 million between 2013 and 2018. On this basis, LRH and MMMC concluded that an appropriate response to my June 5, 2012 request for supplemental information would have shown that the replacement hospital is not financially feasible.

On balance, this exercise did not provide any greater level of confidence in the viability of this proposed project. I believe the parking fee income projected by WAHI is unrealistic, in light of the overall Maryland hospital experience. I also conclude that WAHI's projection that it will be able to substantially reduce physician subsidies, for a second time in the course of this review, is suspect, given its underlying projection of volume growth with no improvement in payor mix that would suggest room for cutting such financial support.

[23] No subsidies for pediatricians were reported by WAH during this period. WAH does not operate an organized pediatric inpatient service.

I am sympathetic to the difficult cycle in which WAH finds itself and appreciate the cost cutting that AHC has been able to achieve in recent years in the face of this hospital's relative weakness in maintaining volume. On balance, however, I believe that WAHI asks the Commission to subordinate appropriate concern for the risks placed on AHC and, instead, simply agree with it that the plan put forward in this application is the only path for assuring the future of both WAH and AHC. I regret that I cannot find that the components of this plan, as presented, justify this faith.

Use of a variable cost factor in line with HSCRC's historic assumptions, when applied to this project, results in operating losses beyond the five-year expectation for accounting profit in the SHP's standard for financial feasibility. The current financial projections of WAHI must be viewed as unreliable because of the divergence WAH's actual 2011 performance from the 2011 budgeting on which the projections are based. As noted above, there are indications that 2012 results will also compare unfavorably with the projections for 2012 in WAHI's updated application. My request for additional analysis related to the parking revenue projections of WAHI has not allayed my concerns about the feasibility of the proposed project. While I believe that there are legitimate questions concerning the aggressive assumptions used by WAHI to project the income generated from this new revenue source, the ability to reduce physician subsidies projected as the means of offsetting more conservative margins produced from parking does not appear well-founded in WAHI's fundamental projections concerning volume and payor mix at the new hospital.

WAHI has failed to provide a convincing portrayal of the Village redevelopment project in Takoma Park as a financially viable undertaking. Unfortunately, this is an important factor in WAHI's plan for making this proposed project one that is sustainable for AHC. Given the evidence presented by the applicant, the ability of the Village to generate over $4 million in rental revenue from non-AHC sources seems uncertain, at best. This existing site, which would continue to function as a small specialty hospital campus, would require $20 million in estimated initial capital investment from AHC. It is not projected to generate lease income covering expenses during the first two projected years of operation. Very small amounts of net income are projected to be generated by the Village in 2017-2018, but this relies on the ability to generate $4.3 million in lease payments from non-AHC sources in these years. The Village has come into more specific detail as this review progressed, at the prodding of the City of Takoma Park. AHC has not satisfied CTP with it level of commitment or demonstration of adequate resources. The City does not support this project as it currently stands.[24] I do not agree with the applicant's view that the Village project is not intrinsically related to consideration of this project's viability. It is another demand on AHC equity that is essentially proposed as a new business unit of AHC and it is, in essence, taking the place of WAH in the AHC obligated group as AHC assumes the accumulated debt service of WAH after WAH disappears from the group. However, the total record of evidence and analysis supporting the credibility of this vision is

[24] It should be noted that an important basis for this withholding of support, based on the comments provided by CTP, appears to be AHC's unwillingness to commit to development of a freestanding medical facility, with emergency medical services available round-the-clock, on the Village campus. AHC has committed to an "urgent care center." I do not take a position on this issue. Freestanding medical facilities ("FMFs") are scheduled to be categorically regulated under Maryland's CON law beginning in 2015 but, currently, there is a moratorium on the issuance of CONs to establish new FMFs. MHCC has not yet developed standards that address need and access issues related to FMF development.

minimal. I recognize that WAHI has gone a long way to portray this project as the only option for salvaging WAH, albeit a risky option. I have struggled with this argument, because, as noted elsewhere in this Recommended Decision, I believe that attempting to modernize the physical facilities on the existing WAH campus is a difficult alternative that also carries risk of ultimate failure and would clearly fail to provide the same level of future flexibility and capacity for expansion that a move of the hospital to a new, larger, and more developable site would. Again, I must conclude that, if there is a situation in which a CON applicant should have presented MHCC with an independent study of a project's financial feasibility tailored to the requirements of its financing plan, this is such a situation.

For these reasons, I find that WAHI has not demonstrated that its proposed replacement hospital project is viable.

E. Compliance with Conditions of Previous Certificates of Need

COMAR 10.24.01.08G(3)(e), Compliance with Conditions of Previous Certificates of Need. ***An applicant shall demonstrate compliance with all terms and conditions of each previous Certificate of Need granted to the applicant, and with all commitments made that earned preferences in obtaining each previous Certificate of Need, or provide the Commission with a written notice and explanation as to why the conditions or commitments were not met.***

AHC formed and is the sole member of WAHI, a new corporation that is the applicant in this review. Thus, the entity WAHI has never been issued a CON. AHC also owns and operates the existing Washington Adventist Hospital and, as noted earlier in this Recommended Decision, operates other health care facilities in Maryland.

In responding to this criterion, WAHI identified two CONs issued to WAH and one CON application filing by WAH that was subsequently withdrawn, since 1990, and stated that WAH had complied with all conditions applicable to all previously issued CONs.

Reviewer's Analysis and Findings

The two CONs identified by WAHI were a November 1996 approval to relocate 10 comprehensive care facility ("CCF") beds from Shady Grove Adventist Nursing & Rehabilitation Center and 10 CCF beds from Washington Adventist Nursing & Rehabilitation Center to WAH to establish a 20-bed in-hospital CCF unit. In February, 2003, WAH received CON approval to relocate 15 of these 20 CCF beds to Fairland Nursing and Rehabilitation Center, increasing the bed capacity at that CCF to 97 beds.

MHCC records indicate that WAH also received approval in November 2005 to establish a freestanding ambulatory surgery center with 4 operating rooms and 2 procedure rooms to be located in Silver Spring. This CON was relinquished in August, 2006 and the project was never implemented.

Reviewer's Analysis and Findings

Based on the information presented, I find that Adventist HealthCare and WAH are both in compliance with the terms and conditions of previous CONs, and that, on this basis, WAHI is consistent with this criterion.

F. Impact on Existing Providers and the Health Care Delivery System

COMAR 10.24.01.08G(3)(f) Impact on Existing Providers.
"An applicant shall provide information and analysis with respect to the impact of the proposed project on existing health care providers in the service area, including the impact on geographic and demographic access to services, on occupancy, on costs and charges of other providers, and on costs to the health care delivery system."

Applicant's Response

WAHI stated that the proposed relocation would have no negative impact on other providers and would benefit all residents in its service area. (DI #131, p. 142) WAHI explained that, together with its evolving plans to re-use the current Takoma Park campus as a Village of Education, Health and Well-Being, the replacement hospital "will continue to support AHC's mission of providing accessible high quality hospital care that has been its tradition for over 100 years." (Ibid) WAHI noted that the project would not add any new services to the health care delivery system, and would have no impact on the costs and charges of other providers. (DI #131, Vol. I, p. 142)

With respect to access, WAHI believed that, unlike WAH's current location, the proposed location, which is within WAH's current primary service area, would provide superior access to most residents since it is better served by the major roads, especially Colesville Road (Route 29), I-95, the Capital Beltway (I-495), and the new Inter-County Connector. WAHI stated that the larger campus would provide the opportunity for construction of medical office buildings, with easy access to the hospital for both hospital-based physician practices and community physicians. WAHI concluded that such expansions on the existing campus would be expensive and would involve significant disruption to current operations. WAHI further pointed out that, while the proposed location would improve access to both hospital and physician services, WAHI still planned to retain a core complement of existing outpatient and ancillary services on the Takoma Park campus. WAHI noted that it expected that primary care and specialty physicians would continue to maintain offices there. In addition, WAHI stated it was working to provide an urgent care center and a primary care clinic for the uninsured. (DI #131, pp. 142-143)

In response to Commission staff's completeness questions regarding likely changes in the hospital's service area and the impact of such changes on other hospitals, WAHI stated that, after relocation, WAH's service area would not change "in any significant way that can be accurately quantified and forecasted at this time." (DI #16, p. 32) WAHI restated this position in its October 2009 modified application and its March 2011 updated application. (DI #42, p. 86; DI #131, p. 144) In assessing the relocation's potential impact on other Maryland hospitals'

MSGA, obstetric, and psychiatric inpatient services, WAHI used WAH's primary service area ('PSA") for each service, and hypothetical PSAs for each service for the proposed relocated hospital. (DI #131, Vol. I, pp. 105-108) However, WAHI did not alter its forecast of PSA volumes to reflect the changes in its volume projections it presented in Table 1 of its modified or updated applications. (DI #42, pp. 101-02; DI #131, Vol. I, pp. 123-26).

WAHI identified changes in the PSAs for each service for the relocated hospital, which it termed "hypothetical and based on educated guesses as to what in fact will occur when the hospital moves." (DI #16, p. 32; DI #42, p. 86; DI #131, p. 144) The applicant noted that its projections of how market share will change were based on the local knowledge of the team that developed the relocation project. WAHI explained that this team used its knowledge of: (1) the Montgomery County, Prince George's County, and District of Columbia neighborhoods served by WAH and other Maryland hospitals; (2) the transportation infrastructure serving these neighborhoods, including public transportation; (3) physician practice patterns; and (4) likely future changes over the next decade that affect these factors. (DI #21, p. 34)

WAHI's assessment of the relocated hospital's potential impacts on other Maryland hospitals based on WAH's PSA and the relocated hospital's "hypothetical" PSA, as well as the volume projections contained in its original April 10, 2009 CON application, are detailed below.

Impact on MSGA Utilization

To assess potential impact, WAHI examined the number and distribution of MSGA discharges from any Maryland hospital to the Takoma Park primary service area and to a hypothetical White Oak PSA for FY 2008 and 2016. Then it reviewed the changes that would occur as a result of the relocation. WAHI projected 35,596 MSGA discharges in FY 2016 for its current PSA, assuming a 2.2% annual increase for the service area based on historical trends. (DI #131, Vol. 1, p. 145)

WAHI projected that MSGA discharges would increase at the existing hospital at an annual rate of 1%, given the existing hospital's physical constraints and competitive disadvantage. WAHI projected that the relocated hospital would impact other hospitals as shown in the following table, assuming a 2% per year increase in discharges at the new hospital.[25] WAHI based these data on the assumptions specified above and on the assumption that the primary service area would not change.

[25] WAHI's assumptions regarding the rates of growth in MSGA, Obstetric and Psychiatric discharges have changed as detailed under other standards and criterion most notably the financial feasibility standard. The discharge growth assumptions used in WAHI's impact analysis were first submitted in response to Commission staff's April 24, 2009 completeness questions using the volume growth assumptions as the same as set forth in WAHI's April 10, 2009 original application. While these assumptions were changed in the October 2009 modified application and the March 2011 update, the impact analysis was never changed.

Table 56: MSGA Cases at Washington Adventist Hospital and other Area Hospitals in 2008 and Projected for 2016 for WAH's Current PSA If the Hospital Relocates to White Oak/Fairland

Hospital	FY 2008 Discharges	FY 2008 Market Share	FY 2016 Discharges	FY 2016 Market Share
Washington Adventist	7,909	26.4%	8,917	25.1%
Holy Cross – Silver Spring	8,524	28.5%	10,216	28.7%
Doctor's Community	3,337	11.2%	4,043	11.4%
Montgomery General	3,185	10.7%	3,862	10.9%
Suburban	1,747	5.8%	2,150	6.0%
Prince George's	1,213	4.1%	1,515	4.3%
Laurel Regional	1,099	3.7%	1,379	3.9%
Other MD Hospitals	2,895	9.7%	3,517	9.9%
Total from MD Hospitals	29,909		35,599	

Source: WAH March 28, 2011 Updated CON Application (DI #131, Vol. I, p. 146)

Using a scenario that assumed no change in PSA, as analyzed above, WAHI stated that no hospital would experience a decrease in discharges, and that there would be no negative impact on market share to the PSA. WAHI noted that this was the case because the projected growth in MSGA discharges from the relocated hospital (2% per year) would be less than the projected growth in such discharges from the service area (2.2% per year). (DI #131, Vol. I, p. 146)

Using a scenario that assumed no change in PSA, as analyzed above, WAHI stated that no hospital would experience a decrease in discharges, and that there would be no negative impact on market share to the PSA. WAHI noted that this was the case because the projected growth in MSGA discharges from the relocated hospital (2% per year) would be less than the projected growth in such discharges from the service area (2.2% per year). (DI #131, Vol. I, p. 146)

WAHI then provided a projection of the relocation's impact that assumed changes in the applicant's market share by zip code area, which were based on a zip code area's proximity to the relocated hospital. In this projection, WAHI took into account the redistribution of the balance of discharges to other Maryland hospitals. WAHI then projected changes in discharges assuming a hypothetical primary service area for the new hospital that included the addition of some new zip code areas and excluded some of the current PSA zip code areas. (DI #131, Vol. I, pp. 147-50) Using the area hospitals' actual 2008 MSGA discharges and market share, WAHI compared two 2016 scenarios: if WAH remained in Takoma Park and if it relocated to White Oak. In projecting 2016 discharges and market shares, the applicant assumed its hypothetical White Oak primary service area. This comparison is detailed in the table below.

Table 57: Comparison of Projected Area Hospital 2016 MSGA Discharges and Market Share from Washington Adventist Hospital Hypothetical White Oak Primary Service Area If WAH Is Relocated and If It Remains in Takoma Park To Area Hospitals 2008 Discharges and Market Share from the Service Area

Hospital	WAH in Takoma Park		WAH Remains in Takoma Park		WAH Relocates to White Oak	
	Actual FY 2008 Discharges	FY 2008 Market Share	FY 2016 Discharges	FY 2016 Market Share	FY 2016 Discharges	FY 2016 Market Share
Washington Adventist	7,677	27.2%	8,264	25.2%	9,262	28.3%
Holy Cross – Silver Spring	8,517	30.1%	9,962	30.4%	9,342	28.5%
Doctor's Community	1,913	6.8%	2,266	6.9%	2,462	7.5%
MedStar Montgomery	3,598	12.7%	4,266	13.0%	3,818	11.7%
Suburban	1,777	6.3%	2,143	6.5%	2,039	6.2%
Prince George's	823	2.9%	1,008	3.1%	1,183	3.6%
Laurel Regional	1,147	4.1%	1,412	4.3%	1,211	3.7%
Other MD Hospitals	2,808	9.9%	3,337	10.2%	3,244	9.9%
Total from MD Hospitals	28,260	100.0%	32,774		32,774	

Source: WAH March 28, 2011 Updated CON application (DI #131, Vol. I, pp. 150, 152, and153)

Impact on Utilization of Obstetric Beds

WAHI projected that the utilization of its inpatient obstetric beds would rebound from the general decline seen over the past few years at WAH. WAHI explained that this decline was due to the perception of community obstetricians and their patients that the WAH facility had disadvantages not found at other hospitals.

In response to Staff's completeness questions, WAHI performed the same impact analysis that it performed for the MSGA discharges, which it later included in its October 2009 modified application and the March 2011 updated application. WAHI developed an impact scenario based on a "hypothetical" change in service area that eliminated some zip code areas included in WAH's current OB PSA and added other zip code areas not in WAH's current OB PSA This projection also adjusted market shares by zip code area, as was done for the MSGA projections. Based on these changes, WAHI believed that, as a result of the relocation to new facilities, the utilization of its inpatient obstetric beds would rebound at WAHI from the general decline at WAH over the past few years. In this projection, WAHI assumed that service area discharges would increase at an annual growth rate of approximately 1% per year. WAHI compared two 2016 scenarios; if WAH remained in Takoma Park and if it relocated to White Oak. Using each area hospital's actual 2008 obstetric discharges and market share, WAHI compared the same two 2016 scenarios as before. In projecting 2016 discharges and market shares, the applicant assumed its hypothetical White Oak primary service area. (DI #42, pp. 120-25 and Att. 18 and 19; DI #131, Vol.1, pp. 149-154) This comparison is detailed in the table below.

Table 58: Projected 2016 Obstetric Discharges from Maryland Hospitals to Washington Adventist Hospital Hypothetical WAH White Oak Primary Service Area If the Hospital Remains in Takoma Park Compared to Relocation to White Oak

Hospital	WAH in Takoma Park		WAH Remains in Takoma Park		WAH Relocates to White Oak	
	FY 2008 Discharges	FY 2008 Market Share	FY 2016 Discharges	FY 2016 Market Share	FY 2016 Discharges	FY 2016 Market Share
Washington Adventist	1,711	21.8%	1,842	21.7%	2,562	30.2%
Holy Cross – Silver Spring	3,857	49.2%	4,187	49.4%	3,742	44.2%
Doctor's Community	25	0.3%	27	0.3%	28	0.3%
MedStar Montgomery	184	2.3%	198	2.3%	193	2.3%
Suburban	3	0.0%	3	0.0%	2	0.0%
Prince George's	731	9.3%	787	9.3%	734	8.7%
Laurel Regional	291	3.7%	313	3.7%	241	2.8%
Other MD Hospitals	1,040	13.3%	1,113	13.1%	964	11.4%
Total from MD Hospitals	7,842	100.0%	8,475		8,474	

Source: WAH March 28, 2011 Updated CON application (DI #131, Vol. I, pp. 153-54).

Impact on Utilization of Psychiatric Beds

WAHI developed projections of the growth and distribution of psychiatric cases under scenarios similar to those employed for MSGA and obstetric bed use. As shown in the following table, WAHI projected the numbers of psychiatric discharges and impact on other hospitals for WAH's 2008 psychiatric PSA. In its projection, WAHI assumed approval of the relocation, a "hypothetical" change in service area, and a growth rate of approximately 1% per year.

WAHI compared the same two 2016 scenarios as before – if WAH remained in Takoma Park and if the hospital relocated to White Oak. WAHI compared each area hospital's actual 2008 acute psychiatric discharges and market share to "hypothetical" discharges from the relocated hospital primary service area, also shown in the table below.

Table 59: Projected 2016 Psychiatric Discharges from Maryland Hospitals to Washington Adventist Hospital Hypothetical WAH White Oak Primary Service Area If the Hospital Remains in Takoma Park Compared to Relocation to White Oak

Hospital	WAH in Takoma Park		WAH Remains in Takoma Park		WAH Relocates to White Oak	
	FY 2008 Discharges	FY 2008 Market Share	FY 2016 Discharges	FY 2016 Market Share	FY 2016 Discharges	FY 2016 Market Share
Washington Adventist	1,034	39.8%	1,103	38.9%	1,125	39.7%
Holy Cross – Silver Spring	36	1.4%	38	1.3%	40	1.4%
Doctor's Community	16	0.6%	17	0.6%	17	0.6%
MedStar Montgomery	584	22.1%	623	22.0%	550	19.4%
Suburban	224	8.5%	241	8.5%	248	8.7%
Prince George's	291	11.0%	313	11.0%	343	12.1%
Laurel Regional	253	9.6%	272	9.6%	276	9.7%
Other MD Hospitals	210	7.9%	226	8.0%	236	8.3%
Total from MD Hospitals	2,648		2,833		2,834	

Source: WAH March 28, 2011 Updated CON application (DI #131, Vol. I, p. 154)

Interested Party and Participating Entity Comments

HCH

Holy Cross Hospital did not comment on WAHI's March 2011 updated CON application with respect to this criterion. HCH did comment on WAHI's response to Commissioner Worthington's March 1, 2011 request for additional information concerning the quantity and range of services - particularly services for indigent and uninsured patients - that would be offered at the Village of Education, Health and Wellbeing on the Takoma Park campus after the hospital's relocation. HCH questioned the applicant's commitment to provide charity care and also noted that the information WAHI submitted reinforced the need for emergency care in Takoma Park over and above the Village's proposed primary and urgent care. (DI #152, p. 44) HCH's comments on WAHI's response to this criterion in earlier versions of the application (April 2009 original application and the October 2009 modification) were more substantial and still generally applicable to subsequent submissions. These comments are summarized below.

On October 13, 2009, HCH submitted comments on WAHI's original April 2009 CON application and WAHI's responses to Staff's completeness letters. HCH did not agree with WAHI's statement that the proposed relocation would have no negative impact on other providers. In supporting its viewpoint, HCH took the zip code areas in WAH's current PSA and compared travel times to HCH, to WAH's current location, and to the proposed relocation. HCH noted that ten of the zip code areas that are now closer to WAH will be closer to HCH, and that the relocated hospital would be closer to three zip code areas. HCH's analysis indicated that, for the zip code areas that would be closer to HCH, the population would be greater and would have higher proportions of minority populations, persons who speak English "less than very well", and persons who do not have cars. HCH's analysis also showed a significantly higher

percentage of Medicaid, self-pay, or charity care patients in discharges to these zip code areas. (DI #30, pp. 18-20 and Ex. 7)

HCH also examined the proposed relocation's impact on convenience for the population in the zip code areas, as measured by travel time (proximity) to each hospital. HCH noted that the population closer to the relocated hospital (zip code areas for which the relocated WAH will be the closest or second closest hospital) had a lower average percentage of Medicaid patients and charity/self pay patients (21%) than the average for the zip code areas that would be further away from the relocated hospital than from the current WAH (30%). HCH believed that patients who currently seek care at WAH from zip code areas further away from the proposed location would seek care at other hospitals after the relocation. HCH pointed out that the applicant's market share is less (average of 15%) in the zip code areas for which the relocation will make it more convenient, and greater (average of 36%) in the zip code areas for which the relocation will make it less convenient. HCH also noted that, for all zip code areas where the relocated hospital would be less convenient, HCH would become more convenient in terms of its proximity rank, usually moving from second or third closest hospital to first or second closest hospital. HCH concluded that the changes in proximity occurring as a result of the relocation would put significantly more stress on HCH's emergency department.

HCH also stated that, while the relocation would cause it to lose inpatient cases, the change in payer mix would have far greater implications. HCH evaluated WAHI's estimated impact of the relocation on MSGA discharges from area hospitals to zip code areas in WAH's hypothetical White Oak PSA, had WAH been relocated prior to FY 2008. HCH noted that WAHI estimated that it would have gained 928 cases and that HCH would have lost 530 cases. HCH applied the FY 2009 Medicaid/self pay/charity care percentage for each zip code area in question to the number of cases that WAHI estimated would have shifted. HCH then calculated that it would have had a net loss of 518 Medicare/commercially insured cases and a net loss of only 12 Medicaid/self pay/charity care cases. HCH stated that such calculations show that HCH would have lost cases from zip code areas with a higher proportion of Medicare/commercially insured patients, and it would have gained patients from zip code areas with a relatively higher proportion of Medicaid/self pay/charity cases. (DI #30, pp. 20-21 and Ex. 8 and 9)

In its December 2, 2009 comments on WAHI's October 2009 modified application, HCH reiterated its earlier comments on the original application, in which it stated that the proposed relocation should not be approved because of "significant untoward impact on other hospitals that currently serve area residents and because the proposed relocation is not beneficial to the health care delivery system." HCH concluded that this negative impact resulted from the diminished access to care that will be experienced by at-risk populations who currently rely on WAH's services.

LRH/MMMC

LRH and MMMC submitted joint comments regarding WAHI's response to the March 2011 additional information questions. These comments reiterated earlier comments stating that WAHI's application should be denied because WAHI failed to satisfy the review criterion regarding impact, COMAR10.24.01.08G(3)(f). LRH/MMMC explained that the proposed

relocation would have a severe impact on MMMC, LRH, and other providers, and also on the health care delivery system. LRH/MMMC noted that WAHI's proposed location would capture large portions of volumes from both LRH and MMMC, and that the proposed relocation "would undermine, and perhaps stymie, State and County efforts to restructure and revitalize LRH's parent company, Dimensions Healthcare System …, which has suffered severe financial losses as a result of the fact that it serves a large indigent population." (DI #144, p. 2) Specifically, they believe that a significant percentage of uninsured and Medicaid patients who currently seek care at WAH will seek care at PGHC. LRH/MMMC stated that these patients will exacerbate PGHC's financial condition and will undermine efforts to provide the facilities and attract the physicians needed to revitalize DHS. (DI #144, pp. 10-11)

In its separate comments on WAHI's original (April 2009) and modified (October 2009) application, LRH pointed to adverse impacts similar to those that were expressed in the comments on WAHI's responses to the March 2011 additional information questions. In discussing WAHI's statements that the proposed relocation would not affect the applicant's PSA, LRH noted that a hospital's PSA almost always includes at least the hospital's home zip code area and surrounding zip code areas. LRH pointed out that such zip code areas for the relocated hospital would be different than for WAH's existing location. LRH also noted that the proposed home zip code area, 20904, is contiguous to LRH's home zip code area, 20707. (DI #31, pp. 2, 15; DI #57, p. 4)

In 2009, LRH performed an impact analysis that indicated that the relocation would have resulted in the loss in 2008 of 11% of LRH's total discharges (11.8% of its MSGA discharges, 4.9% of its OB discharges, and 12.4% of its psychiatric discharges). LRH calculated this impact by determining WAH's average market share for each service for WAH's current home zip code area and for all zip code areas that touch its home zip code area.[26] LRH based this calculation on 2008 data from HSCRC's non-confidential database. For each service, LRH then calculated what WAH's discharges would have been from each zip code area by multiplying the total 2008 admissions to all Maryland hospitals from the relocated hospital's home and contiguous zip code areas by its average market share from its current home and contiguous zip code areas for that service. LRH repeated this procedure for all other zip code areas in WAH's 2008 primary service area. Then LRH calculated the increase (or decrease) in admissions at the relocated location from each zip code area by subtracting WAH's actual 2008 discharges for each service from the relocated hospital's estimated discharges for each zip code area. The impact on LRH for each zip code was determined by multiplying the increase (or decrease) in WAH's admissions by LRH market share for that zip code area. LRH also estimated that it would have lost 4,388 emergency and outpatient visits, if WAHI had been in operation at the new site in 2008. For this estimate, LRH used a methodology that was similar to that used for the inpatient services. (DI #31, p. 16 and Ex. 5)

Laurel Regional Hospital disagreed with WAHI's position that volume increases from population growth would be large enough to offset decreases in patient volumes related to shifts in market share resulting from the new hospital site. LRH pointed to Claritas' population projections that showed increases in population that were less than the losses in volume that LRH projected would have occurred in 2008, if WAH had already relocated (a 3.9% population

[26] Note that these average market shares included the two contiguous Washington, DC zip codes.

increase in LRH's PSA compared to an 11.8% decrease in MSGA volume and a 12.4% decrease in acute psychiatric volume). With respect to the impact on obstetric volumes, LRH pointed to Claritas' projections of 5% decline in the female population between 2009 and 2014, and stated that such a population trend would exacerbate LRH's estimate of losses if WAH had been relocated prior to 2008. (DI # 57, p. 6)

LRH stated that its estimates of impact were conservative as it had not taken into account the impact of a new hospital on market share. In support of its position, LRH pointed to the experiences of Upper Chesapeake Medical Center and Anne Arundel Medical Center, both of which relocated during the late 1990s and both of which experienced large increases in discharges after moving. For Anne Arundel Medical Center, LRH cited a 20.3% increase in discharges from 1997 to 1999, and a 64% increase from 1994 to 2008. For Upper Chesapeake Medical Center, LRH cited a 158% increase in discharges from 1994 to 2008. (DI #31, p. 17)

In 2009, LRH calculated that its estimated reductions in inpatient and outpatient volume that would result from the relocated hospital as detailed above, would have caused a reduction in income of $3,624,380. LRH based this calculation on the FY 2009 case mix index, the FY 2010 charge per case and average charge per outpatient visit, and the assumption that costs are 57.1% variable with volume. Thus, LRH concluded that for every $100 loss in revenue, LRH would be able to reduce expenses by $57.10.

Laurel Regional Hospital also calculated the impact of the changes in the PGHC volumes that it estimated would have occurred had the applicant been operating at the new site using the same approach as used for LRH (using PGHC FY2010 charge per case and 2009 case mix index for each inpatient service, and a variable cost assumption of 58.7%). LRH calculated that PGHC would have experienced a $555,785 increase in net income. (DI #31, Ex. 8)

In 2009, MMMC submitted separate comments on WAHI's original (April 2009) and modified (October 2009) application. MMMC pointed to similar adverse impacts as noted in the joint comments on WAHI's responses to Commissioner Worthington's March 2011 additional information questions. MMMC noted its disagreement with WAHI's repeated statements that WAHI's PSA would not change as a result of the relocation, and that the relocation would have no impact on any other provider. MMMC stated that WAHI's analysis and conclusions were flawed because WAHI failed to account for market share redistribution that would result from changes in the population's geographic proximity to the relocated hospital. MMMC also explained that WAHI's hypothetical analysis was flawed as it only addressed the primary service area, not the secondary service area. MMMC noted that an impact analysis should take into account the effect of geographic proximity and related changes in market penetration among zip code areas that constitute WAH's service area. (DI #32, pp. 2-4 and Att. A(1))

MMMC undertook its own impact "ring analysis," which assumed that the market penetration among zip code areas in WAHI's service area after relocation will be similar to the market penetration patterns exhibited at the existing Takoma Park location. MMMC applied this market share assumption to WAHI's proposed location to derive an estimate of the discharges from the relocated hospital, determining that market penetration among zip code areas would change with proximity, even though many of the PSA zip codes would not change. For example,

zip code area 20904, which is currently within WAH's Takoma Park PSA, would be the home zip code area of the relocated hospital. MMMC concluded that in FY 2008 WAH would have had a 52.2% market share from the 20904 zip code area, its "relocated" home zip code area if the applicant had already moved to the proposed location, compared to its actual 17.2% market share. MMMC's methodology also accounted for a much larger portion of WAH's service area than the PSA used in WAHI's hypothetical analysis. (DI #32, pp. 3-5)

MMMC also stated that the relocated WAHI could expect to capture additional market share because it would be a new facility that would be located near major roadways. MMMC also cited the experience of Anne Arundel Medical Center and Upper Chesapeake Medical Center in support of this expectation. To account for market share changes associated with factors beyond changes in geographic proximity, such as the added attraction of a new facility, MMMC increased by 20% the market shares for each ring calculated above. (DI #32, pp. 2-6 and Attachment A(2))

MMMC estimated the impact of the losses in volume on its financial condition. It estimated that it would have experienced a $12.6 million loss in patient revenue as a result of both inpatient and outpatient volume losses attributable to WAH's change in location and the newness of its physical plant. MMMC concluded that, at this level of volume reduction, it would close part of a nursing unit to achieve additional cost savings for total expense reductions of $4.1 million (32.8% variable costs). MMMC stated that the resultant decrease in net income would have been $8.5 million. (DI #32, pp. 6-8)

The hospital pointed out that WAHI's own analysis indicated that MMMC would have lost 7.4% of its 2008 MSGA discharges if the applicant's hospital had been located at the proposed location in 2008 instead of at its current location (assuming no change in PSA and a 10.5% decrease if the PSA changed to WAH's hypothetical PSA). MMMC acknowledged WAHI's position that there would not be a negative impact given the expected increase in discharges that would increase the number of MSGA discharges from all area hospitals. However, on this point, MMMC adopted the comments of LRH. (DI #58, pp. 4-5) LRH concluded that "the data simply do not support [WAHI]'s claim that there would be an increase in total discharges as a result of population increases so that all parties will remain whole…." (DI #57, p. 7)

MMMC also considered the impact of the new hospital proposed for northwestern Montgomery County[27] using the same methodology used to estimate the impact of WAH's relocation. MMMC calculated the effect on profitability of the combined impact of the applicant's relocated hospital and the Germantown hospital and estimated that there would have been a $21.2 million decrease in patient revenue and a $6.9 million reduction in expenses, and a $14.3 million reduction in income. (DI #32, pp. 7-8 and Attachment A (3))

With respect to costs to the health care delivery system, MMMC pointed to its $8,748 charge per case for the 2009 rate year, which was $1,638 lower than WAH's $10,386. Then

[27] Holy Cross Hospital- Germantown (Docket No. 08-15-2286) was granted a CON by the Commission on January 20, 2011. The decision has been appealed by parties related to AHC.

MMMC calculated that a shift of 755 cases, the lower estimate of WAHI's impact, would have increased overall costs to the system by $1.2 million. (DI #32, pgs. 8)

Applicant's Response to Comments

In its April 18, 2011 response to interested party comments on its updated application and additional information, WAHI reiterated its belief that the interested party hospitals "will not experience unwarranted negative impact … that cannot be managed effectively or would cause unwarranted financial harm." (DI #153, p. 42) WAHI noted that the proposed site was not selected to capture market share from other hospitals, but rather that it was the available site within WAH's PSA with sufficient acreage needed for a state-of-the-art hospital, medical office buildings, and parking structures. (DI #153, p. 37)

WAHI explained that the fact that the hospital's future location will differ from its current location should be of no material consequence to other hospitals, given that the future location is within WAH's current PSA where it already shares overlapping service areas with multiple hospitals. WAHI further stated that the interested parties could not change the PSA to account for the hospital's future location prospectively because, according to Maryland regulations, a hospital's PSA is based on discharges over the prior 12-month period. Moreover, WAHI believed that the task of projecting the number of hospital discharges from the relocated WAHI and from other hospitals after the relocation was inherently speculative. Thus, WAHI noted that the interested parties' reliance on proximity alone ignored other factors that may have as much or more influence, but are more difficult to quantify. WAHI listed other such factors including patient physician preference, perceptions of travel time savings, changes in ambulance catchment areas, use of non-hospital alternatives, impact of federal health care reform on future hospital utilization, availability of a new hospital facility with private rooms, rapid future population increases resulting from major large scale development projects in the area, and distinctive specialty services provided by WAH. (DI #153, pp. 36-42)

In addressing Laurel Regional Hospital's statement that the proposed relocation would have a substantial negative impact on LRH and on its parent, Dimensions Health System, WAHI pointed out that it increasingly faces the same challenges as DHS, and that the solution to DHS's problems is not a weak and declining WAH that would place greater burdens on DHS. WAHI stated that a stronger, relocated WAH would be able to provide greater support for indigent, underserved, and ethnically diverse populations. Regarding LRH's concerns with the loss of MSGA volume and obstetric volume, WAHI stated that it was not adding MSGA beds, and that its obstetric volumes could be achieved without harming LRH. Regarding its psychiatric service, WAHI maintained that it is a regional service; and, therefore, a change in location from Takoma Park to White Oak would not affect LRH. WAHI explained that it was not proposing to expand its psychiatric capacity, so its projected volumes could be achieved without harming LRH. (DI #44, pp. 13-15)

In response to MMMC's comments, the applicant stated that it would remain in its primary service area and would retain close ties to Takoma Park. WAHI noted that, because of the area's population, "a redistribution of market share" was not needed "to sustain WAH at its new site." (DI #44, p. 16) WAHI further noted that it was not simply a community hospital, but

a regional provider of cardiac services as well as psychiatric services, and as such its relocation within its primary service area would not be detrimental to MMMC or any other hospital. WAHI disagreed with MMMC's references to the experience of relocated Upper Chesapeake and Anne Arundel Medical Centers to justify adjusting WAHI's prospective market share upward. WAHI explained that Montgomery County is a multi-hospital jurisdiction with a robust competitive market, and other hospitals, including MMMC, are implementing major physical plant upgrades. (DI #44, pp. 15-17)

Reviewer's Analysis and Findings

In considering the Impact criterion, I want to first note my findings under the related Adverse Impact standard, COMAR 10.24.10.04B(4), where I concluded that the proposed relocation would not inappropriately diminish either access for the population in the primary service area or the availability or accessibility to care, including access for the indigent and/or uninsured because. I found that other hospitals are reasonably accessible to these populations and that some services would likely continue to be available on the Takoma Park campus through the Village of Education, Health and Well-Being, although, as noted, the viability of this entity has not been clearly demonstrated.

WAHI has repeatedly stated that it could not accurately quantify and forecast any significant change to WAH's service area. (DI #16, p. 32; DI #42, p. 86; DI #131, Vol. 1, p. 144) It has insisted that projections of demand at interested party hospitals through 2018, based the assumed relocation, cannot be produced with a degree of reliability that could support a finding that the project will have a negative impact on the interested party hospitals. (DI #209B, pp. 4-7) I find that such logic should also preclude WAHI from concluding that there will be no negative impact on the hospitals. I cannot determine whether there will be a negative impact without an analysis of what the impact is likely to be.

This criterion requires the applicant to provide an analysis of the impact of the proposed project on existing health care providers. While WAHI provided such an analysis in response to Commission staff's completeness questions, WAHI characterized its analysis as being entirely hypothetical and based on educated guesses as to what in fact would occur if WAH moved to White Oak. (DI #131, p. 144) While the analysis of future impacts based on specific methodologies are preferable, the use of educated guesses may be appropriate; however, the use and application of educated guesses, as well as specific methodologies, require detailed explanations of each underlying assumption, as was requested by Commissioner Worthington in specifying the issues for the evidentiary hearing. My evaluation of WAHI's analysis of the impact through the year 2016 reveals a lack of such detailed assumptions, specifically as they relate to the reasons for the changes in market shares. My evaluation also revealed inconsistencies between the zip code areas specified in WAHI's narrative response to the completeness questions and its quantitative analysis. Therefore, I find that WAHI's impact analysis is not useful in assessing the impact of the proposed project on existing health care providers in the area, but not for the reasons outlined by WAHI.

While HCH contends that there will be a significant impact on other hospitals that currently serve area residents resulting from this project, it did not quantify such impacts in any

of its comments on the various versions of WAHI's application. In responding to the request for testimony analyzing the impact of WAH's proposed relocation through 2018, LRH and MMMC both updated and refined their previous impact analyses submitted in response to WAHI's application. These updated and refined analyses were both generally responsive to the Reviewer's request. Both projected discharges by multiplying projected 2018 population for each zip code area in WAHI's home and contiguous zip code areas and a number of other zip code areas by 2010 discharge rates for the particular zip code areas. They then allocated a portion of the projected discharges for each of the zip code areas to WAHI based on WAH's 2010 market share for zip code areas of comparable relationship to WAH's current home zip code area and to WAHI's proposed home zip code area.[28]

In countering the impact analyses prepared by the interested parties, WAHI asserted that the interested parties cannot change WAH's PSA for the future location prospectively because according to Maryland regulations, a hospital's PSA is based on discharges over the prior 12-month period. (DI #153, pp. 36-37) I cannot agree with WAHI's application of the PSA definition to this criterion. First, the criterion refers to "service area" not primary service area.[29] More importantly, WAHI's interpretation would mean that this criterion would not be applicable to a new facility or to a proposal to relocate a facility that may change service areas. These types of applications are among the most likely to impact other providers. Regardless of the definition, the concept of primary service area is not critical to the impact analysis prepared by LRH and MMMC. Central to the impact analyses prepared by each of these parties is the concept that a hospital's attraction to patients is strongest in its home zip code area and those zip code areas contiguous to the home zip code area. WAHI's proposed location would have a different home zip code area and many different contiguous zip code areas than its current home and contiguous zip code areas. Therefore, these interested parties contend that WAHI's market share in its proposed home and contiguous zip code areas will increase at the expense of other hospitals that currently serve those zip code areas. LRH extended its analysis beyond WAHI's proposed home and contiguous zip code areas to other zip code areas in WAH's current primary service area (not a future primary service area) based on 2008 discharge data. MMMC's analysis extended to include other zip code areas in WAH's current primary service area that will not be contiguous to the proposed site's home zip code area and to 25 secondary zip code areas in Montgomery and Prince George's County.

I have concluded that the evidence strongly suggests that there will be changes in market share that are likely to impact the interested parties. The strongest evidence of this is the existing utilization pattern in Montgomery County. The data shows that Montgomery County hospital market shares are greatest in zip code areas that are closest to each hospital. There is a credible

[28] LRH's consultant, Andrew Solberg, calculated the average market share for WAH's home and contiguous zip codes excluding the two District of Columbia zip codes. (DI #211, Tab 4, pp. 4-9, 37-38) Dean Montgomery, testifying for MMMC, initially included one DC zip code in his calculation, but testified to alternative calculations: one without any DC zip codes and one that included both DC zip codes. (DI #236 Montgomery Rev. PFT,, pp. 47-51; 8/10/11 T. at 890-908; 8/11/11 T. at 918-29)

[29] The Acute Care Hospital Services Chapter of the State Health Plan (COMAR 10.24.10) includes a definition of service area that is also related to the most recent 12 month period. However, this definition applies to the specific Chapter, not to a CON review criterion such as the Impact on Existing Providers and the Health Care Delivery System.

basis for believing that WAH's market share will increase after the relocation in areas more proximate to the new site, and that any increase in the hospital's market share will cause a decrease in the market share of other hospitals.

While the evidence strongly suggests that WAH's relocation will have an impact on other area hospitals, the impact on psychiatric volume at other hospitals is less clear. My analysis of need indicates that psychiatric bed demand is likely to increase over the next few years in Montgomery County and Southern Maryland, which includes Prince George's County. WAHI is actually proposing a small decrease in psychiatric bed capacity from 40 beds to 37 beds. Therefore, I do not think the relocation of WAH will have a substantive adverse impact on inpatient psychiatric volumes at either MMMC or LRH.

While LRH and MMMC both projected changes in each hospital's utilization, including WAH's utilization, based primarily on changes in the relocated hospital's market shares, I think they over-estimated the impact by not fairly taking into account the market influence of the other area hospitals. One significant reason for this is that neither interested party's methodology accounted for the relative proximity of the area hospitals to each zip code area. The weaknesses in their methodologies fall into two areas. First, the use of market shares in the home and contiguous zip code areas as a proxy for proximity is imperfect because it does not account for such facts as the new home and contiguous zip code areas still including the home zip code area of another hospital (zip code area 20707, which is contiguous to WAHI's proposed home zip code area, is the home zip code area of LRH) and other zip code areas that are contiguous to WAHI's proposed home zip code area will continue to be contiguous to existing hospitals, most notably zip code area 20906 would still be contiguous to MMMC's home zip code area. The interested parties compounded this problem by applying WAH's expected market share first and then converting WAHI's expected gains to losses for the interested party hospitals based on the interested parties' 2010 market shares.

MMMC's own testimony provides support for my conclusion that LRH and MMMC have over-estimated the impact. Both LRH and MMMC cited the 2009 *Community Hospital Replacement Study* by Stroudwater Associates ("CHRS") (DI #214, Ex. 21), and MMMC cited the experience of Inova Loudon Hospital (in Northern Virginia) , which relocated six miles from its former site. Both the CHRS and the experience of Inova Loudon Hospital indicate much smaller changes in market share than those projected for WAH's relocation by LHR and MMMC. The CHRS found a median change in market share over a three-year period,(including two year's post-completion), in the hospitals' service areas[30] of 6% for the 11 not-for-profit hospitals that relocated more than one mile. (Sommer PFT, DI #213, Tab 4, pp. 27-30) Inova Loudoun Hospital, as reported in pre-filed testimony for MMMC, experienced a 31% increase in market share in the seven eastern zip code areas in Loudon County over a 12-year period. (DI #236 Montgomery Rev. PFT, pp. 30-32)

Both LRH and MMMC projected additional impacts on their inpatient volumes that would result from the attraction of a new hospital, called the "shiny penny" effect. Both

[30] Jeffrey Sommer, a co-author of the CHRS, stated in pre-filed testimony that the 2009 Study used the Dartmouth Atlas of Healthcare's definition of service area: the contiguous zip codes where the hospital attracts a plurality of inpatients.

interested parties pointed to the 2009 Survey as the basis for making further adjustments in the loss of discharges over and above the changes in market share. While the concept of a new hospital attracting a greater market share makes sense in concept, I find that the evidence on the record is not sufficient to make such an adjustment. Specifically, the three hospitals in the 2009 Survey that were cited as having been replaced within one mile of the former hospitals and that experienced a 9% increase in market share are not a sufficient sample on which to generalize a specific adjustment. This is reinforced by the observation that 11 not-for-profit hospitals that moved more than one mile had a lower median increase in market share of 6%. (DI #213, pp. 27-30) For these hospitals, it is impossible to separate the "shiny penny" effect from the relocation effect, but one would expect the increase in market share to be larger for more distant hospital replacements than for replacements on-site or very near a former site.

In support of its position that a new hospital merits an additional adjustment for impact on existing hospitals, LRH cited significant increases in discharges experienced by Upper Chesapeake Medical Center in Harford County and Anne Arundel Medical Center ("AAMC") in Anne Arundel County during the 1990s and the first decade of this century following relocation. LRH cited a 158% increase in discharges from Upper Chesapeake and a 64% increase in discharges from AAMC from 1994 to 2008. (DI #31, p. 17) I find this rationale to be off point because increases in discharges are not the same as increases in market share: simply considering changes in discharges at one hospital does not take into account changes in total discharges from an area's hospitals that are often driven by changes in population or a general change in the population's use of hospitals. In addition, Upper Chesapeake is part of the only hospital system located in Harford County, and the two hospital system (including Harford Memorial Hospital) experienced a combined increase in discharges of 79% over that time period and an increase of 57% from 1990 to 2010, while the total County population increased by 33% and the population 65 and over, which uses hospital resources at a much higher rate, increased by over 100% over the twenty-year period With respect to Anne Arundel County, its total population increased by 25.4% from 1990 to 2010 and its population 65 and over increased by 66.9%.

Given the weaknesses of the impact analyses prepared by the applicant and the interested parties, I prepared my own impact analysis based on two central principles. The first principle is that recent market share for each hospital is the most reliable indicator of current utilization patterns reflecting many of the factors identified by WAHI as being unquantifiable such as the services offered by each hospital, perception of quality and effectiveness, patient and physician referral patterns, and EMS ambulance system catchment area. The second principle is that market shares for each hospital in the future will be comparable to the past unless there are significant changes to these factors that will change the competitive balance. The relocation of WAH is the type of change that will impact the competitive balance by changing factors such as patient and physician referral patterns and EMS ambulance system catchment areas which will be reflected in changes in market shares of area hospitals. I note that one of WAHI's stated primary reasons for relocating is the inability to develop sufficient medical office space on or near the Takoma Park campus. WAHI considers this critical for the retention and attraction of physicians.

My analysis did not assume future market share based simply on the adjacencies of zip codes to the proposed location, as was done by LRH and MMMC, but based the replacement

hospital's future market shares on its actual proximity to each area zip code relative to other hospitals. I then proportionally adjusted WAHI's future market share and those of the other Maryland and DC hospitals that had significant market shares in each impacted zip code so that the total projected market of these hospitals (relocated WAH plus the other hospitals with significant market share) equaled their total market share in 2009.

To estimate the impact of the relocated WAH on the other hospitals in the service area, especially the interested party hospitals, I needed to identify the expected service area zip codes for the relocated hospital. I considered identifying an expected PSA or an expected 85% service area as defined in the Acute Care Hospital Services chapter of the SHP. I rejected these alternatives because I was concerned that the PSA would be too small an area for the adequate assessment of impact and the ability to identify which contiguous zip code areas would contribute the first 60% of the relocated hospital's future discharges. Use of a more expansive service area definition is problematic because the existing WAH's service area is so diffuse that predicting all the potential health system changes that could affect market share over such a large area in the future is doubtful. I chose instead to base WAHI's service area definition on its proximity to zip code areas relative to other hospitals, comparable to existing WAH's proximity to the zip code areas that contributed at least 85% of WAH's discharges in 2009. This avoids the unrealistic requirement of prescribing the number of discharges from each zip code area, ranked from most important to least important, while providing a reasonable parameter for identifying zip code areas that are likely to contribute 85% of the relocated hospital's discharges.

To determine the zip code areas to include in the expected 85% MSGA service area for the White Oak site and for other steps in my analysis I used drive times from Maryland and District of Columbia zip code areas to each Maryland and District of Columbia hospital generated by *Freeway* drive-time analysis software.[31] The Maryland zip code areas were then sorted[32] by proximity to WAH's current location and the 2009 MSGA cases (discharges) were summed until they equaled 85% of WAH's total 2009 MSGA discharges. The same thing was done for obstetric discharges. For MSGA, this occurred with the zip code areas for which WAH is the ninth closest Maryland hospital and these zip code areas contributed 85.4% of WAH's 2009 MSGA discharges. For obstetrics, this occurred with the zip code areas for which WAH is the fourth closest Maryland hospital and these zip code areas accounted for 88.2% of WAH's 2009

[31] The driving time from each Maryland and District of Columbia zip code to each Maryland and District of Columbia hospital was determined from the population center (population weighted centroid) of each zip code area to each hospital using *Freeway* drive-time analysis software. The population-weighted centroid of each zip code area was calculated using an algorithm within *Mapinfo* that uses the population in each zip-four area within that zip code area to identify the population-weighted center of that zip code area. The *Freeway* software then generated the drive time between each zip code area and each existing hospital, the site of Holy Cross Hospital–Germantown, and WAH's proposed new location. *Freeway* uses a compressed representation of the street network with road linkages divided into six categories; rural local, rural arterial, rural freeway, urban local, urban arterial, and urban freeway. The "moderate" speeds were assigned to all links, i.e. 25 miles per hours for urban local, 35 for urban arterial, except 25 mph for rural local and 45 for urban freeway. Moderate speed is described as background traffic level in most major metropolitan areas. The 45 mph speed was assigned to the urban freeways because of the generally heavy traffic in the Washington, DC metro area.

[32] DC zip codes were excluded because the market shares of Maryland hospitals from DC zip codes are consistently much lower than their market shares from Maryland zip codes of comparable proximity.

obstetric discharges. Then those zip code areas for which the relocated WAH would be the ninth most proximate or closer Maryland hospital for MSGA beds and the fourth or closer Maryland hospital for obstetric beds were identified.[33]

In order to account for the opening of Holy Cross Hospital-Germantown on MedStar Montgomery Medical Center (as MMMC did in its impact analysis), I followed the same process as for WAHI except that I used MMMC's 2009 experience because MMMC is the most comparable Montgomery County hospital in size to the future HCH-G.

To project the impact of the proposed relocation on the market shares of the area hospitals, I used the expected service areas of HCH-G and the relocated hospital as defined above, compared to each existing hospital's (DCH, HCH-SS, LRH, MMMC, and PGHC) 85% service area[34] based on 2009 discharges for each hospital to identify each hospital's service area zip code areas that are likely to be affected by the hospital's relocation. I did the same for obstetrics, except that I did not include DCH because it does not have any obstetric beds.

For each of the zip code areas in WAHI's and HCH-G's MSGA and obstetric expected service areas, the initial expected market shares were based on WAH's, or in the case of HCH-G, MMMC's average market share for zip codes of a comparable proximity. For the other hospitals, the initial expected market share for each hospital zip code area likely to be impacted by the relocation of WAH and/or the opening of HCH-G equaled each hospital's 2009 market share for the particular zip code area for the particular service (MSGA or Obstetrics).

I then calculated the final expected market shares for each zip code area likely to be affected by the relocation and/or opening. The zip code areas likely to be affected are the zip code areas in WAHI's expected MSGA service area that are also included in the 85% service area of the service area of another hospital (DCH, HCH-SS, MMMC, LRH, and PRHC). For these zip code areas, I proportionally adjusted the initial expected market shares of the relocated WAH, the service area hospitals, and other hospitals with significant market share so that their total equaled the 2009 total for the particular zip code area without the relocated WAH and /or HCH-G but included the market share of WAH at its current location, based on the assumption that the total market share for the area hospitals and other hospitals with significant market share would equal what it was in 2009, and that the market shares for other hospitals not having a significant market share would not change. This process was also followed for the impact of the relocated hospital's obstetric service, except that DCH was excluded because it does not have an inpatient obstetric service, and for HCH-G's expected MSGA and obstetric service areas.

For example, for LRH's home zip code area 20707, the hospital had a 2009 MSGA market share of 42.9%, while WAH was the fifth closest hospital to the zip code and had a market share of 6.3%. However, the relocated WAH would be the second closest hospital to zip code area 20707. Therefore, based on WAH's 2009 MSGA discharge experience for Maryland zip code areas for which it was the second closet hospital, WAHI's initial expected market share

[33] This was determined by ranking the proximity of all Maryland hospitals including the approved Holy Cross Hospital in Germantown but not the existing WAH.

[34] An existing hospital's 85% service area for a particular service is made up of the contiguous zip code areas that contributed the first 85% of the hospital's discharges for that service in a particular year.

for that zip code area is 24.2%. The total market share for WAHI plus HCH-SS, MMMC, LRH, PGHC, DCH, and Howard County General Hospital, all in Maryland, and Washington Hospital Center in Washington, DC would equal 96%. The total market share for all these hospitals excluding the proposed WAHI and adding the existing WAH was 78% in 2009. Proportionally adjusting these hospital's market shares so that the total market share including the relocated hospital (WAHI) but excluding existing hospital (WAH) equals a 78% market share results in an adjusted expected market share for WAHI of approximately 20% and an expected market share for LRH of approximately 35%. Thus this method recognizes that WAH would move significantly closer to this zip code area relative to other hospitals, but also recognizes that LRH will remain the closest hospital and that LRH already has a strong presence in this zip code area. The result of this methodology is that while the relocated hospital is projected to experience a significant increase in market share compared to the existing WAH – increasing to 20% from 6.3%,LRH is expected to retain its position of having the highest market share in its home zip code area. This contrasts with LRH's methodology, which projected that WAHI would have a significantly higher market share than LRH in LRH's home zip code area.

MMMC projected that more than half of its loss of discharges to the relocated hospital would come from the 20906 zip code area, estimating an almost 700% increase in WAH's 2018_ market share of the total discharges from this zip code area.[35] MMMC concluded that, while existing WAH had a 4.7% share of discharges from this zip code in 2010, the replacement hospital's share would increase to 37.1%, resulting in a 34% decline in MMMC's discharges, changing its market share from 34.9% to 23%. (Montgomery Revised PFT, DI 236, p. 42 and MMMC, Hearing Ex.163) However, my analysis indicates that both the replacement hospital and MMMC's market share of MSGA discharges will remain essentially the same as for WAH and MMMC in 2009, at 4.2% and 42.6% respectively. This appears surprising for a zip code area that is contiguous to WAHI's proposed home zip code area. However, according to my proximity analysis, WAH in Takoma Park is the fifth most proximate hospital to the population centroid of the zip code area and WAHI's location will only improve the hospital's proximity to the fourth most proximate. WAH's average MSGA market share for Maryland zip code areas for which it is the fourth most proximate hospital was 4.3%, which is only slightly more than WAH's actual 2009 MSGA market share for zip code area 20906. This is explained at least in part by the fact that both zip code areas 20906 and 20904, WAHI's proposed home zip code area, are very large, and zip code area 20906 borders zip code area 20904 on the west and northwest, while WAHI's proposed location is on the eastern edge of zip code area 20904. Another factor is the relative proximity of the area hospitals. My proximity analysis shows that there are currently five hospitals within 20 minutes of zip code area 20906; the proposed relocation will not change this. Relatively low market shares in zip code areas that are contiguous to the home zip code area of a Maryland hospital are not unheard of in Montgomery County. In zip code area 20815, which is contiguous to HCH-SS's home zip code area, HCH-SS had a 2009 MSGA market share of 4.7%. This is notable because, for this zip code area, HCH-SS is the second most proximate hospital in Maryland and the third most proximate hospital when Sibley Hospital in Washington, DC is included.

I also note that MMMC's analysis of travel time indicates that MMMC will be closer to the center of zip code area 20906 (12 minutes) than the relocated hospital will be (19.9 minutes).

[35] MMMC's impact analysis did breakdown the impact by service (MSGA, Obstetric, Pediatric, and Psychiatric).

(Papazian PFT, DI #213, Tab 7, p. 17) Thus, based on proximity, there is no reason to project that the relocated WAH will have a greater market share than MMMC in zip code area 20906, especially since MMMC has the highest MSGA market share in this zip code area.[36]

In order to convert the projected changes in market share into estimated changes in discharges and ultimate impact on occupancy rates and hospital net income, I needed to project future discharges by zip code area. While the former Reviewer requested analysis of impact through 2018, because it is the year that the relocated WAH is expected to reach full occupancy, I projected the discharges and impact in 2019 because I was working with 2009 base year data (both discharges and population) and 2019 retains the 10-year time horizon used in the Commission's MSGA bed need methodology. Also, population projections are done in five-year increments so that five year age cohorts that are typically used can be "aged" for purposes of analysis and I used 2014 population projections by age, gender, and zip code area and total forecast 2019 population by zip code area.[37]

My methodology shows that the projected 2019 MSGA discharges from MMMC's 85% service area are: 7,359 without the new HCH-G and the relocation of WAH:, 6,931 with HCH-G; and 6,602 with both HCH-G and the relocated hospital. However, the 6,602 discharges are only 10 fewer than the MSGA discharges from MMMC to the zip code areas in its 85% service area in 2009, a decline of 0.2%. The projected discharges (6,602), which represented an estimated 85.3% of total 2009 MSGA discharges from MMMC, should mean a total of 7,740 discharges assuming that MMMC experiences the same proportional decrease outside the 85% service area, as I am projecting inside the area. At the 2009 average length of stay of 4.29 days, the 7,740 discharges would result in 33,205 patient days and an occupancy rate of 75.8% of the 120 MSGA rooms approved under Docket Number 09-15-2294 all operating as private rooms. This is comparable to the actual occupancy rates of MMMC's MSGA patient rooms in 2009 (76%) and 2010 (75.7%) and is consistent with the Commission's target MSGA occupancy rate of 75% for hospitals with an average daily census of between 50 and 99. Therefore, this decline should not have a significant impact on MMMC's bed occupancy. In fact, if I add back the decrease in projected discharges attributable to HCH-G (428), the resulting projection would show an increase in MMMC's discharges compared to 2009. I have concluded that, in evaluating the impact of WAH's proposed relocation on other hospitals with respect to this criterion, I should

[36]It appears that MMMC's consultant ran his model to estimate travel time at morning congested conditions. This would explain why the MMMC's estimated travel time from zip code area 20906 to MMMC, a trip in the northerly direction away from DC, is virtually the same as the Freeway estimated time of 11.6 minutes, while MMMC's estimated time to HCH-SS is 27.2 minutes from zip code area 20906, a trip toward DC, and Freeway generated an estimated the travel time to be 11.3 minutes. This difference is also present in the estimated times to Suburban Hospital where Freeway estimated the trip to take 14.4 minutes and MMMC estimated the travel time at 40.7 minutes.

[37] The 2019 population was projected for each zip code area by applying a change factor (to account for mortality and migration) to each 5-year 2014 age cohort. The change factor was derived from the change in each 5-year age cohort from the 2009 estimate as it aged to the next 5-year age cohort in the projected 2014 population. For example, the projected 2014 population 65 to 69 was compared to the 2009 population estimate for the 60 to 64 age cohort and the change factor was calculated. Then this change factor was applied to projected 2014 population 60 to 64 to derive the 2019 projected population age 65 to 69. These initial projections by age and zip code area were proportionately adjusted for the forecast total 2019 population by zip code area developed by Applied Geographic Solutions ("AGS").

only consider the impact of WAH's relocation, not the impact of other factors or other proposals that are not the subject of this review[38].

I project that MMMC's obstetric discharges will decline over the 10-year period as a result of a projected decrease in the female population of typical child-bearing age range of 15 through 44. For MMMC's 85% obstetric service area, I project a decline of a little more than 11% in its effective obstetric service area population[39] and a 10.5% decrease in discharges. The result is a projected decrease from 759 discharges for the service area in 2009, which was 87% of MMMC's total of 872 obstetric discharges in 2009, to a projection of 679 obstetric discharges in 2019 from the service area, a decrease of 80 discharges from its 2009 volume, without considering the impact of the expected opening of HCH-G and the relocation of WAH. Applying the methodology as described above, I project that the opening of HCH-G will further decrease MMMC's 2019 obstetric discharges in its 85% service area by another 32 discharges to 647, and I project that the relocation of WAH will decrease MMMC's 2019 discharges from its service area by an additional 4 discharges to 643, a decrease of 0.6%. The decline that is attributable solely to the relocation of WAH should not have a significant impact on bed occupancy.

WAHI presented persuasive rebuttal testimony that its impact on LRH and MMMC would be less than each hospital's analysis indicated, given the hospitals' projected changes in patient volume. MMMC's projections assumed that hospital rates would be reduced by 0.5% for future years because HSCRC has reduced the annual update over the past three years. (DI #236, Lovic Rev. PTF, pp. 6-7) WAHI disagreed with this assumption, citing an historical increase in rates over a longer time frame. (Cook rebuttal PFT, DI #288, pp. 25-29) Regardless of the question of what would be the most reasonable assumption regarding future rates, it is not appropriate to make such adjustments to financial projections that are expressed in constant dollars specifically to avoid the uncertainty of future rate increases and cost increases and the differences of opinion of dueling financial experts as demonstrated in this proceeding. In addition and, more importantly, in considering this application and the impact of the proposed relocation on existing hospitals, consideration of how rates will change adds factors that have an impact on a hospital's financial condition that are not directly related to the proposed relocation.

My conclusions regarding the impact of WAH's relocation on MMMC's patient volume are consistent with WAHI's analysis of the inpatient and outpatient volume increases projected by MMMC, the loss of admissions attributable to WAHI projected by MMMC, and the outpatient revenue projected by MMMC (Lovic Rev. PFT, DI #236, p. 5). WAHI's analysis indicates that MMMC's admissions will increase by 9.3% between FY 2010 and FY 2018 based on the increases projected by MMMC and the impact of the WAH relocation projected by MMMC but not the opening of HCH-G. (Cook Rebuttal PFT, DI #288, p. 8) Adjusting WAHI's analysis to account for the projected impact of the hospital relocation, excluding the two DC zip code areas from the home and contiguous market share, the increase is reduced to 6.6%.

[38] MMMC did not seek Interested Party status in the Montgomery County New Hospitals review (Docket No. 08-15-2286) that resulted in the award of a CON to HCH-G.

[39] The effective service area population is the sum of the population of the particular age group or groups for each zip code in the hospital's service area for that service multiplied by the hospital's market share for the particular service in each zip code.

Accounting for the loss of 636 admissions in FY 2018 as a result of HCH-G, as projected by MMMC, MMMC would still have essentially the same number of inpatient admissions as in FY 2010 (an increase of four admissions) assuming the increases projected by MMMC. (Montgomery Revised PFT, DI #236, pp.24-25, Ex. 130 & 131) In summary, I find that MMMC's own projections of change in inpatient admissions as result of expected growth, the impact of HCH-G, and the relocation of WAH do not indicate a decrease in inpatient volume.

MMMC projects an increase in outpatient revenue for FY 2018 compared to actual results for FY 2010 after the impact of the opening of HCH-G and the relocation of WAH. (MMMC, Hearing Ex. 167) WAHI's analysis of MMMC projections had the same result. (Cook Rebuttal PFT, DI #288, p. 9) My own analysis had the same general result.

The opening of HCH-G should have no or very minimal impact on LRH. Regarding the impact of the proposed relocated hospital on LRH, my methodology projects that the 2019 MSGA discharges from LRH's 85% service area will be 4,263 without the relocation of WAH, and 3,617 with the relocation, a projected decrease of 626 discharges. This is very similar to the decrease of 559 discharges projected by LRH. (DI # 211, Tab 4, p. 40) I note that the projected 3,617 discharges are only 165 fewer than LRH's actual 2009 discharges from the zip code areas in its 85% service area, a decline of 4.4%. Assuming LRH loses discharges at the same rate outside its 85% service area, the total number of MSGA discharges would be 4,241. At LRH's 2009 ALOS of 4.18 days, the 4,241 discharges will result in 17,853 patient days, compared to its actual 2009 total of 18,560 days. This would be an ADC of 48.9 patients and an occupancy rate of 73% based on LRH's 67 licensed MSGA beds effective July 1, 2009 compared to the actual 2009 ADC of 50.8 patients and an occupancy rate of 76%.

With respect to LRH's obstetric discharges, as with my projections of MMMC's future volume, I project a decline over the 10-year period as a result of a projected decrease in the female population in the typical child-bearing age range of 15 through 44. For LRH's 85% obstetric service area, I project a decline of a little more than 16% in LRH's effective obstetric service area population and a little over 17% decrease in discharges. The result is a projected decrease from 649 discharges for the service area in 2009, which was 86% of LRH's total of 755 obstetric discharges in 2009, to a projection of 538 obstetric discharges in 2019 from the service area, a decrease of 111 discharges from its 2009 volume, without considering the impact of the relocated hospital. When I apply the methodology described above, I project that the relocation of WAH will decrease LRH's 2019 discharges from its service area by an additional 38 discharges to 499 discharges, a decrease of almost 8%. Again, this number is very similar to the decrease of 42 discharges projected by LRH. (DI #211, Tab 4, p. 40)

While my analysis shows that the relocated hospital will have some potential adverse impact on LRH's inpatient volume, LRH's own projections of financial impact indicate that losses in 2018 would be less than recent losses, but would have improved more without the WAH relocation. LRH projected that, absent the impact from the WAH relocation, LRH would have an almost $2.2 million loss from operations for FY 2018. After correcting an error in LRH's understanding of WAHI's impact on inpatient volume, LRH projected a loss of approximately $4.1 million. (DI #295) With this projected increase in losses of $4.1 million, the total loss projected by LRH in FY 2018 is approximately $6.3 million, which is less than the

actual loss of $7.5 million in FY 2010 and the estimated loss for FY 2011 of approximately $6.6 million. (LRH Ex. 13) The reason why the operating losses will not increase, in spite of the projected decrease in inpatient discharges, is that LRH projected an increase in outpatient visits and revenue from 2010 to 2018, which is confirmed by examining LRH's projections of the financial impact of WAHI before the correction for LRH's initial error in incorporating WAHI's impact on inpatient volume. LRH projected that its gross outpatient revenues would increase from $36.4 million dollars in 2010 to 45.4 million in FY 2018, after the impact of WAHI. (DI #212, Ex. 15) Since LRH assumed that the impact on outpatient volumes would be proportional to the impact on inpatient volume, correcting for the error in impact on inpatient volume that resulted in approximately doubling the volume impact also means reducing the impact on outpatient revenue, thus resulting in the projection of higher outpatient revenues even after the impact of the WAH relocation.

WAHI projected LRH's inpatient and outpatient revenue based on LRH's projected increases in inpatient and outpatient volume (King PFT, DI #211, Tab 3, p. 7) and on the correct understanding of LRH's projection of WAHI's impact on LRH's inpatient volume. Based on this information, WAHI projected that LRH's FY 2018 inpatient revenues will be $4.3 million less than LRH's inpatient revenues for FY 2010, but that LRH's outpatient revenues in FY 2018 will be $11 million more than its outpatient revenues in FY 2010, for a net increase in gross patient revenue of $6.7 million. (Cook Rebuttal PFT, DI #288, pp. 6-7)

While I agree with WAHI's general methodology and the results that clearly indicate that the impact of the hospital's relocation will not cause LRH's gross patient service revenue in FY 2018 to be less than it was in FY 2010, I do not agree with all of the steps taken to get there. Specifically, I do not agree with the adjustment that WAHI made with respect to one-day stays. WAHI adjusted the FY 2010 admissions to remove all the FY 2011 one-day stays that LRH cited as available for conversion, thereby reducing the FY 2010 admissions from the actual total of 6,197 to 5,320. WAHI also decreased LRH's inpatient revenue and increased outpatient revenue for FY 2010, accordingly, to account for the conversion of one-day stays to observation visits. However, this was not a correct application of LRH's analysis. It is my understanding that LRH made adjustments to its historical utilization data so that it could accurately project future inpatient and outpatient utilization, accounting for the expected conversion of one-day stays to observation visits. LRH then applied the conversion changes to FY 2012 through FY 2018; these conversions are reflected in LRH's projection of the inpatient and outpatient volume increases as detailed in LRH Exhibit 12. LRH's actual revenue and expenses and the estimated results for 2011, both of which are reported in LRH Exhibit 13 submitted on May 20, 2011, support the conclusion that WAHI's adjustment for the conversion of one-day stays was incorrect. (DI #212, Ex. 12, 13)

I projected LRH's gross patient revenue using WAHI's basic methodology but starting with the actual gross inpatient and outpatient service revenue for FY 2010 and what I believe to be the estimate for FY 2011, as reported by LRH in Exhibit 13, as the base for projecting the changes in revenue through FY 2018. I then relied on LRH's growth projections for inpatient and outpatient volume for FY 2012 through FY 2018 and its projection of the impact of the WAH relocation on inpatient admissions. Because LRH did not submit its estimate for the volume change from FY 2010 to FY 2011, I developed my own estimates based on the revenues

reported in Exhibit 13 and LRH's FY 2010 annual HSCRC cost filing. The cost filing indicated that LRH had 6,197 admissions in FY 2010 and 52,076 outpatient visits. I estimated the FY 2011 admissions by first calculating the FY 2010 gross inpatient services revenue per admission ($10,637) by dividing the FY 2010 gross inpatient services revenue ($65,916,100) by the FY 2010 admissions. I then divided the FY 2011 gross inpatient services revenue of $61,061,279 by the 2010 revenue per admission to arrive at an estimate of 5,740 admissions for FY 2011. I checked this number for reasonableness by obtaining the actual monthly admission for the first nine months of FY 2011(July 2010 through March 2011) from the HSCRC Financial Databases FY 2007-FY 2011 as reported on the HSCRC website under Hospital Data and Reporting. I used the July through March period because I assumed that information would have been available when LRH developed its projections that were submitted on May 20, 2011. (DI #212, Ex. 13) I calculated the monthly average and annualized it, which resulted in a total of 5,739 admissions for FY 2011.

This analysis indicates that, based on LRH's own volume projections and its analysis of the impact of the WAH relocation, LRH should have almost $5.6 million more in gross patient services revenue in FY 2018 than its estimate for FY 2011 ($4.2 million less from inpatients and $9.8 million more from outpatients). I used FY 2011 as a base year instead of FY 2010 because of LRH's significant decrease in inpatient revenues and increase in outpatient revenues from 2010 to 2011, presumably at least in part due to the conversion of one-day stays to observation visits, and because its 2011 fiscal year was at least 75% complete when LRH submitted its impact analysis.

In summary, I find that WAHI's approach to this criterion is problematic. It is proposing to move a general hospital campus to a new community, over six miles from its present location and across an important defining perceptual demarcator of "place" for many Marylanders living in the region, the Washington, D.C. Beltway (Interstate 495). And yet, WAHI has chosen to take the position that the likely impact of this project on other hospitals cannot be meaningfully discerned or projected. It provided some analysis of impact at Commissioner Worthington's request, with this caveat, but methods and assumptions for its projections were lacking.

I have evaluated the impact scenarios provided by the opposing interested parties and find that both LRH and MMMC are likely to see less patient revenue than they would experience without the relocation of WAH, and that LRH is likely to see some decrease in inpatient volume compared to current levels. However, both LRH and MMMC will probably see increases in total gross patient revenue compared to current levels even after the impact of a relocated WAH. I do not interpret the Impact criterion as functioning within CON regulation as an approach to insuring the continued growth of existing health care providers, such as LRH and MMMC, at whatever levels they project. Therefore, I do not consider the likely impact of the relocation of WAH on other hospitals to be large enough to warrant denial of WAHI's CON application, despite its problematic response to this criterion. Replacement and relocation of a general hospital that has functioned for many decades on the same site can be the best approach to adapting the health care system to changes in population and community and regional development that has occurred over the life of the hospital. This can also have the benefit of making economic sense within the life cycle of the hospital's assets and the potential options for modernizing and expanding those facilities. For this reason, the Commission must be open to

allowing replacement and relocation of hospitals that will have an impact on volume and revenues of other hospitals. Replacing and relocating a hospital in a metropolitan area will almost always have such an impact on other hospitals. The degree of impact is critical to an adequate assessment and poses complexities but WAHI's primary assumption that such assessments are too speculative to be useful[40] is hard to accept.

V. SUMMARY

I regret that I must recommend that the Maryland Health Care Commission deny Washington Adventist Hospital, Inc.'s CON application.

Adventist HealthCare is an organization that has a long history of service in Montgomery County and it has a very real need to modernize WAH's facilities to improve their functionality and efficiency and to remain competitive with other hospitals, such as Holy Cross Hospital and MedStar Montgomery Medical Center, which have recently upgraded or are in the process of upgrading their facilities. After reviewing the voluminous record in this case, I am persuaded that a replacement and relocation of this hospital may very well offer the best solution for revitalizing Washington Adventist Hospital's performance and prospects for the future, although WAHI would have been better served by a more rigorous analysis of the best options possible.

WAHI has not presented the Commission with a proposal that should be approved, under the criteria and standards established by MHCC and promulgated as regulations for evaluating health care facility projects. Most importantly, it has not shown that the project is financially feasible and would be viable in the future. It has also failed to obtain a positive opinion from HSCRC on financial feasibility. The proposal, as it stands, leaves open serious questions about the future availability of services in the Takoma Park community after WAHI opens in White Oak.

Important secondary issues in this review must also be addressed to obtain approval under the applicable MHCC criteria and standards and some of these are relevant to considerations of viability and financial feasibility. WAHI's case that replacement and relocation is the most cost effective alternative to modernizing WAH is undercut by the doubts raised by interested parties that the alternatives for modernizing the existing hospital that were presented by the applicant represent the best available alternative to replacement and relocation. In addition, WAHI has taken the position, in this review, that the impact of replacement and relocation cannot be reasonably projected to a level that would permit impact to be meaningfully analyzed; it has coupled this posture with its assumption that the service area population served by WAH will not change if the hospital is relocated to White Oak. I cannot find that this is an adequate response to the MHCC requirement that impact be considered in this decision. While I have found that other hospitals are likely to have their volumes of service adversely affected by the proposed WAH replacement and relocation, I have not found that the likely impact presents a basis for denial of the proposal. A more reasoned approach to the impact criterion by the applicant that assumed some change in payor mix may have lent itself to establishing a stronger

[40] I note that, on cross-examination, WAHI's witness acknowledged that he had calculated an assessment of impact for a proposed new hospital.

foundation for financial feasibility and viability of this replacement hospital proposal. Finally, WAHI failed to prove a need for some aspects of the project. Some issues in a proposed project can be addressed through the project status conference process available in MHCC regulations. However, the more fundamental concern with project financial feasibility and viability does not make this a path that I, as reviewer, can pursue at this time.

The following summarizes the problems and deficiencies of the WAHI application that serve as the basis for my recommendation of denial, listed in order of importance.

VIABILITY/FINANCIAL FEASIBILITY

COMAR 10.24.01.08G, The Viability of the Proposal Criterion

I find that WAHI has outlined a single approach to financing this project which is laden with uncertainty. The applicant has not identified any specific alternative approach to obtain the funding required for the proposed project if it is unsuccessful in obtaining FHA mortgage insurance for the sale of debt securities. WAHI could have commissioned an independent analysis of project financial feasibility that would meet the requirements for approval of an application for FHA mortgage insurance. If positive, in its findings and conclusions, this would allay many if not all of the uncertainties surrounding WAHI's ability to use the proposed project financing plan. I recognize that this is not a requirement for docketing a CON application and is probably an investment that AHC is reluctant to undertake without CON authorization. The record indicates that, while CON approval of the project is needed to obtain the insurance, pre-application work of this type could have been undertaken by WAHI but it chose not to pursue such work.

I have strong concerns that this project's financing scheme was not shown to be feasible and that the resource requirements it places on AHC will put this organization at risk of weakening further. The HSCRC staff opinion that questioned the assumption that revenue growth would significantly outpace cost growth as well as the staff's view that the applicant's current financial ratios were not well aligned with what financial markets typically like to see for favorable consideration are compelling concerns for me. HSCRC staff stated its belief that it may be plausible for the facility to manage costs to grow much more slowly than volume and revenues, but achieving this assumed level of operating efficiency in addition to the cost reductions implied by the very low variable cost factors assumed "do not seem plausible." It also found that WAH's performance on key financial ratios is most important in determining whether the hospital will be able to borrow the monies necessary to complete the project and concluded that, should this project be approved and come before the HSCRC requesting a Comfort Order, using the projections and assumptions outlined in the application, staff would be "hard-pressed to recommend a favorable report to the Commission (HSCRC)."

With respect to the availability of resources necessary to sustain the project, my review of the record shows that the financial projections for this project produced by WAHI rest on questionable assumptions. My doubts about these assumptions are substantial enough that I cannot find the project to be viable, as presented.

WAHI has not established that the proposed project is within its reach and the reach of AHC, which must launch the project with substantial infusions of equity and simultaneously establish the Village, which will replace WAH in the AHC obligated group and, in conjunction with the rest of the group, assume WAH's remaining bond debt. The Village, which will operate on the existing Takoma Park campus, will continue to function as a small specialty hospital campus, but it will require a sizeable investment from AHC. The challenges of establishing the Village have only come into more specific detail as this review progressed. AHC has not satisfied the City of Takoma Park with it level of commitment or demonstration of adequate resources. The City of Takoma Park does not support this project as it currently stands. I do not agree with the applicant's view that the Village is not intrinsically related to consideration of this project's viability. The Village represents another project-related demand on AHC equity, but the evidence and analysis supporting the credibility of this vision is minimal.

For these reasons, I find that WAHI has not demonstrated that its proposed replacement hospital project is viable.

COMAR 10.24.01.08G, The State Health Plan Criterion
COMAR 10.24.10, Acute Care Hospital Services

Project Review Standards for Acute Inpatient Services

13. Financial Feasibility

The applicant has not sufficiently detailed its assumptions to provide a full understanding of how all projections were developed; more importantly, the assumptions with respect to variability of cost, as provided by the applicant in its projections, are not consistent with stated assumptions and reflect unrealistic expectations with respect to the applicant's ability to manage growth in expenses in an environment of increased demand for services. Assumptions concerning revenue projections appear to be overstated. I find that utilization projections used in this application are not consistent with observed historic trends in use of the applicable service(s) by the service area population of the hospital and that WAHI has not presented a lucid explanation of why these projections should be accepted as reliable. Utilization projections used by WAHI since this application was first filed have been consistently undercut by actual performance. Patient care revenue estimates appear to be consistent with utilization projections which, however, as noted, are questionable. However, they deviate from current experience with respect to parking fee revenue and this new revenue source, which is not based on the historic experience of WAH, also appears to be outside the range of recent experience of other similar hospitals.

I asked WAHI to align its projected parking revenue source with the best level of recorded performance among existing Maryland hospitals. Its response, while outlining a scenario of reduced revenue from parking fees, continued to be predicated on a very large amount of income generation from this source, relative to other hospitals in the State. WAHI's filing showed that the replacement hospital would achieve an accounting profit by achieving projected expenditure cuts for physician subsidies that are at odds with a replacement hospital that would have the same historic patient/payor mix as WAH in Takoma Park and increasing

patient volume levels. Another important set of revenue estimates related to this project are those developed for the purpose of forecasting income generation by the Village, the specialty hospital campus replacing the current WAH campus operation. These projections are not well explained or supported by WAHI but are important if AHC is to be able to financially manage the restructuring and support of the replacement hospital venture. As noted, I do not find that WAHI has provided expense projections that align with historic notions of how expenses will change in response to changes in volume. This standard requires that hospitals document the ability to generate excess revenues over total expenses (including debt service expenses and plant and equipment depreciation), if utilization forecasts are achieved for the specific services affected by the project, within five years or less of initiating operations. WAHI has produced projections that show the replacement hospital generating net income of $1.5 million in the fourth year of replacement hospital operation, after losing $23.3 million in the first three years of operation. However, as noted, I am not convinced that this income projection is reliable, given the problems noted with the applicant's assumptions concerning utilization, revenues, and expenses and the fact that the applicant's projections of financial performance of WAH have been off the mark, for fiscal years 2009 through 2012.

For these reasons, I find that the project is not consistent with this standard.

COST AND EFFECTIVENESS

COMAR 10.24.01.08G, The State Health Plan Criterion
COMAR 10.24.10, Acute Care Hospital Services

Project Review Standards for Acute Inpatient Services

5. Cost-Effectiveness

I believe that WAH's neighbors could mount costly and delaying objections to substantial expansion of the building mass on the Takoma Park campus based on historic precedent. While WAH could pursue land use approval of its plans over community opposition, it could be expensive and might only result in approval after significant modifications. I find that, although only one truly available site was identified in WAH's primary service area, AHC undertook a reasonably extensive search while not straying too far from the hospital's primary service area. It is also worth noting that Montgomery County has designated the White Oak section of the County as the hub for medical/biotech development. Other potential sites identified are currently developed with a mixture of commercial and residential uses and have appraised values that exceed the cost of the White Oak site.

WAHI has established that relocation of the hospital to the proposed site meets the needs WAHI identified in its rating criteria. I believe that the weight of the evidence presented indicates that WAHI could have been able to show that replacement of the hospital at the proposed site is a more cost effective alternative than replacement/modernization at the existing site. However, WAHI should have presented an alternative of on-site expansion and modernization that was more logical and rigorous than the Option C alternative WAHI presented; had that been done, I could have compared that alternative to the proposed project in

order to make an apt comparison of the effectiveness and costs of these alternatives under this standard. As it stands, I do not have the needed information to make a firm determination whether the new site is the most cost effective alternative.

COMAR 10.24.01.08G, The Availability of More Cost-Effective Alternatives Criterion

The applicant did not provide a specific response to this criterion. It referenced its response to the *Cost-Effectiveness* project review standard at COMAR 10.24.10.04B(5), discussed above. This response was considered acceptable for docketing of the application in that the SHP standard covers the same substantive ground as this criterion. In my review of that standard (immediately preceding), I noted the substantial deficiencies of the WAH facilities, when assessed against contemporary standards and improvements that have been made and are being made by competing hospitals, and the difficulty presented by on-site modernization as an alternative to replacement and relocation. I also noted the obstacle that neighborhood opposition could present for this option and the quality of WAHI's site selection process. I found that WAHI had not presented an alternative for on-site expansion and modernization that was convincing as the most logical alternative to compare to the proposed project in order to establish compliance with this standard and concluded that I could only find that WAHI had established that its proposed project may be the most cost effective alternative to meeting the needs it identified.

NEED

COMAR 10.24.01.08G, The Need Criterion

With respect to obstetric beds and emergency department treatment capacity, while there is clearly a need for those services at the relocated hospital, WAHI has not demonstrated a need for the service capacities proposed. With respect to the number of operating rooms proposed, WAHI has demonstrated a need for the number proposed, but the need to convert the additional operating room space to be constructed as shell space is uncertain.

COMAR 10.24.01.08G, The State Health Plan Criterion
COMAR 10.24.10, Acute Care Hospital Services

Project Review Standards for Acute Inpatient Services

6. Burden of Proof Regarding Need

I have concluded that WAHI has made a strong case for the need to upgrade its physical facilities and for some expanded space. With respect to the need for specific facility and service components, WAHI has carried the burden of proof with respect to the need for medical/surgical ("MSGA") and acute psychiatric bed capacity proposed. However, it did not support the need for the proposed number of obstetric beds or the proposed emergency department treatment space capacity. With respect to OB services, the proposed capacity appears to be excessive, based on WAHI's own projection of need in the hospital's existing service area. The need for

OB beds was not analyzed from the perspective of the proposed new hospital location and corresponding changes that could be expected in the service area population and, more importantly, market share. WAHI's case for the amount of shell space needed for likely future expansion of MSGA beds and operating rooms is questionable, based on the justifications provided. The questions regarding the need for the proposed ED capacity and the MSGA bed and OR capacity shell space relate to WAHI's failure to acknowledge and account for the likelihood of changes in the relocated hospital's service area.

COMAR 10.24.01.08G, The State Health Plan Criterion
COMAR 10.24.10, Acute Care Hospital Services

Project Review Standards for Acute Inpatient Services

14. Emergency Department Treatment Capacity and Space

WAHI is proposing a significant expansion of the hospital's ED treatment capacity, a 35% increase in treatment rooms from 26 to 35. This standard requires an applicant for an expanded emergency department to classify its service as low or high range on the parameters in the most recent edition of the ACEP guidelines. WAHI has done that based on the existing ED and classified its ED in the high range on seven of the 11 parameters; however, I disagree with the classification of some parameters in the high range, such as average length of stay in the ED of greater than 3.5 hours and time to admit of greater than 60 minutes. For a new ED in a new hospital, these assumptions appear inefficient. WAHI's response that the parameters are assumed to remain the same because the services and service area will not change does not explain or justify why a new facility could not be planned and designed to achieve better performance on such parameters. However, I do not find this issue critical to my determination as to whether WAHI's proposed expansion is consistent with this standard.

The standard requires that the number of ED treatment spaces and departmental space be consistent with the range set forth in the ACEP guidelines, given the classification of the ED as low or high on the parameters used by ACEP and the projected ED visit volume. WAHI's planned department space is low for the ED visit volume projected and the number of treatment spaces proposed is in the middle of the range. Therefore, just on this basis, I could find the proposed ED consistent with this standard. However, WAHI has not demonstrated that its projections are reasonable. It projects visit volume growth averaging one percent through 2014, in Takoma Park, even though WAH's ED volume grew less than a total of two percent over the five years from 2005 through 2010. WAHI projects increases at an accelerating rate from 2015 through 2018 at the replacement hospital, based on aging of the population, better access, and referrals and transfers from the urgent and primary care center to be established on the Takoma Park campus. WAHI did not show how it considered specific demographic or health service data to support its ED need projection. WAHI should have been able to show how a growing and aging population would contribute to growth.

WAHI did not fully respond to subpart (b) of this standard. Because of recent historic trends at WAH, a more thorough quantitative justification of the projected volume was needed. However, I have a more basic issue with the projected ED volume, just as I have with the

projections for other services such as obstetrics: WAHI's refusal to consider the changes that are likely to occur in its service area and service area population as a result of the relocation. While the relocation would not span a great distance and the proposed site is still within WAH's current primary service area, the proposed site is not in the center of its historic service area but on the northern edge. WAHI has cited the uncertainty of ambulance patterns given the change in location as one reason why projecting service changes should not be undertaken. However, the tendency of ambulance trips to be influenced by the length of the trip is an important reason to anticipate that a change in service area will influence visit volume and the capacity needs of the relocated ED. I find that WAHI should have used a projection methodology for the ED volume that considered changes in the service area, especially changes in market share, the utilization rates and trends in the projected service area, the projected population for that service area and existing hospital ED utilization patterns. WAHI should have also provided a better explanation, including a quantitative analysis, of how the proposed Takoma Park urgent care center would function in relation to the relocated ED, specifically with respect to utilization. It is very difficult to understand how an urgent care center located within the existing WAH ED space and targeted, at least in part, at individuals who currently use WAH's ED would not reduce utilization of the relocated ED. Most if not all of these considerations are required by subpart (b) of this standard. Therefore, I find that WAHI did not comply with this standard and that its proposed increase in ED capacity has not been justified.

COMAR 10.24.01.08G, The State Health Plan Criterion
COMAR 10.24.12, Acute Hospital Obstetric Services

(1) Need

The relocated Hospital needs an inpatient obstetric service. Therefore, the only question is whether there is a need for the 30 OB beds proposed, particularly given the fact that WAH has been licensed for 21 OB beds in recent years. I note that WAHI's own projections support the need for only 25 beds and I have a number of issues with WAHI's methodology. First, WAHI is projecting a more than 10% increase in admissions from its current service area in the face of declining populations of females in their child-bearing years. While some gains in market share may be possible given a new physical plant and the planned recruitment of additional physicians, a 10% increase over the next seven years in the face of declining population is overly optimistic. My second issue concerns WAHI's assumption that utilization will be distributed in a cumulative normal distribution. While the Commission has used this methodology to assess bed need in a number of previous applications to add OB beds, the growing practice of scheduling deliveries raises questions as to the validity of this approach, given the recorded occupancy rates that hospitals have been reporting for OB units, which are much higher than this frequency distribution would indicate as optimal. Finally, there is the recurring disagreement with WAHI regarding the likely change in service area and changes in market share. As pointed out by the City of Takoma Park, WAHI's projections are based on historical utilization within WAH's current service area and the projected population changes for this service area. As I have said before, I think that if the hospital is relocated, changes in WAH's service area are likely and, more importantly, so are changes in its market share of discharges in this service area. Thus, an analysis of the need for bed capacity starting from this more realistic change expectation is needed.

IMPACT

COMAR 10.24.01.08G, The Impact on Existing Providers and the Health Care Delivery System Criterion

In responding to this review criterion, WAHI contends that the proposed project "will have no negative effects on other providers and will enhance the performance of the health care system for the benefit of all residents of its service area." Regarding geographic and demographic access, WAHI contends that the proposed location will provide superior access for most residents of its primary service area because the proposed location is better served by major roads. Regarding the impact on occupancy (volume), and on costs and charges of other providers, WAHI asserts that the proposed project is not likely to have negative effects on other providers while at the same time stating it is unable to quantify effects.

The evidence strongly suggests that there will be impacts. The strongest evidence of this is the existing utilization pattern in Montgomery County. The data clearly indicates that Montgomery County hospital market shares are greatest in zip code areas that are closest to each hospital.

In summary, I find that WAHI has neglected to approach this criterion with any analysis that was helpful. Under these circumstances, I chose to provide my best evaluation of the impact scenarios put forth by the opposing interested parties and find that both LRH and MMMC are likely to see less patient revenue than they would be likely to experience without the relocation of WAH, and that LRH is likely to see some decrease in inpatient volume compared to current levels. However, I have also concluded that both LRH and MMMC are likely to see increases in total gross patient revenue compared to current levels even if WAH relocates. I do not interpret the Impact Criterion as functioning within CON regulation as an approach to insuring the continued growth of existing health care providers, such as LRH and MMMC, at whatever levels they project. Therefore, I do not consider the likely negative impact of the relocation of WAH on other hospitals to be large enough to warrant denial of this CON application. In the public interest, there has to be some trade-off between the benefits of new facilities development, creating more efficient, safer, and technologically-advanced facilities and services, and the market share of other existing providers, so that all facilities are encouraged to upgrade over time. LRH and its parent, Dimensions Health System, need to achieve financial stability; however, progress in this area is not fundamentally altered by the likely impact of the proposed project, if it were to be approved.

OTHER MORE MINOR DEFICIENCIES WITH THE APPLICATION

COMAR 10.24.01.08G, The State Health Plan Criterion
COMAR 10.24.10, Acute Care Hospital Services

General Review Standards for Acute Inpatient Services

1. Information Regarding Charges

The web link provided by WAH does not lead to a representative list of services and charges on its website, consistent with the State Health Plan definition of such a list. The standard requires that the list of services and charges be readily available to the public. For these reasons, I find that WAH is not in compliance with this standard and that WAHI's application cannot be viewed as consistent with this standard on that basis.

2. Charity Care Policy

WAH's charity care policy provides that the Manager of Collections and Customer Service (or designee) shall "determine probable eligibility within two business days following the patient's request accompanied by a *complete* application." (emphasis added; DI #131, Att. D) This policy is not in compliance with part (a) of this standard, because the policy requires a patient to have a *complete* application before the Manager of Collections and Customer Service will make a determination of *probable* eligibility. The purpose of this standard is to give a potential patient seeking charity care an idea fairly quickly as to whether the patient will be able to obtain services. The standard's required two-day turnaround for a determination of *probable* eligibility permits a patient to know their likely eligibility for charity care, if the underlying required documentation bears out what the patient represented in a request for charity care or application for medical assistance. It can take a patient days or weeks to get all the required documentation needed for a *complete* application. This standard requires a determination of probable eligibility; a final determination of eligibility can be made after the application is complete and contains all required supporting documentation.

COMAR 10.24.01.08G, The State Health Plan Criterion
COMAR 10.24.12, Acute Hospital Obstetric Services

(5) Staffing

Calendar year 2015 was projected to be the first year of operation of the relocated hospital and WAHI is projecting volume growth at least through 2018. Therefore, the 2015 projections are not at year three or at maximum projected volume, as required by the standard. Thus, WAHI's application does not comply with this standard.

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WAHI, as any applicant, has the option of seeking judicial review of a denial of a CON application. More positively, AHC may choose to revisit the strategic choices it has made in this application and seek to cure its deficiencies, by developing a project plan based on more realistic assumptions, a more rigorous examination of the resources at hand, and an assumption that changing its location may actually change the nature of the patient population generating demand for its services in ways that can be analytically supported and that improve its ability to forecast a successful replacement project that both HSCRC and MHCC can find feasible.

If one is to conclude that a replacement facility of some scale is needed to revitalize WAH and improve its service delivery to residents, then a credible plan for financing and implementation, with greater assurance of positive financial performance in the future, is essential. In my opinion, WAHI has not produced such a plan and approval of the plan it has put forward would not be in the best interest of WAH, AHC, or the larger community that is served by this health system's facilities. AHC has historically been and is now a significant part of the health care delivery system for Montgomery and Prince George's Counties. The financial health of AHC is critical. It is the largest provider of acute care hospital services in Montgomery County, with two hospitals accounting for over 43% of the jurisdiction's total hospital beds. It is also a major provider of behavioral health, medical rehabilitation, and home health services in the region. I hope that AHC and WAH will seriously and constructively consider the issues raised in this Recommended Decision and promptly move to develop a new plan to achieve the important objectives addressed in this application so that the future of both WAH and AHC can be assured.