EVALUATION OF THE APPLICATION SUBMITTED BY UNIVERSITY OF WASHINGTON MEDICAL CENTER PROPOSING TO ADD INTERMEDIATE CARE LEVEL 2 AND NEONATAL INTENSIVE CARE LEVEL 3 BED CAPACITY AT THE HOSPITAL

APPLICANT DESCRIPTION

University of Washington Medical Center (UWMC) is part of the University of Washington (UW) Medicine healthcare system, which includes Harborview Medical Center, Northwest Hospital and Medical Center, the UW School of Medicine, UW physicians, UW Medicine Neighborhood clinics, and Airlift Northwest.

UWMC is an acute care hospital located at 1959 Northeast Pacific Street in the city of Seattle, within King County. UWMC is currently licensed for 450 acute care beds, holds a three-year accreditation from the Joint Commission[1], is designated as a level I rehabilitation hospital, and in coordination with Harborview Medical Center located in Seattle, is designated as a level 1 adult and pediatric trauma hospital. [source: Joint Commission website and Office of Emergency Medical Services and Trauma System website] A breakdown of UWMC's 450 licensed acute care beds is show in Table 1 below.

Table 1
University of Washington Medical Center
Current Acute Care Bed Breakdown

Type of Service	Currently Licensed
General Medical/Surgical	378
Level 2 intermediate care nursery	12
Level 3 neonatal intensive care unit	20
Psychiatric (PPS exempt)[2]	16
Rehabilitation, Level 1 (PPS exempt)	24
Total	**450**

Additionally, UWMC is a nationally recognized on-campus teaching hospital for the UW School of Medicine. UWMC holds honors and recognition for its nursing care, quality of care, and pediatric care. [source: Application, p2]

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[1] The Joint Commission is an independent, not-for-profit organization that accredits and certifies more than 17,000 health care organizations and programs in the United States. Joint Commission accreditation and certification is recognized nationwide as a symbol of quality that reflects an organization's commitment to meeting certain performance standards.

[2] Prospective Payment System (PPS) is a method of reimbursement in which Medicare payment is made based on a predetermined, fixed amount. The payment amount for a particular service is derived based on the classification system of that service (for example, diagnosis-related groups [DRGs] for inpatient hospital services). CMS uses separate PPSs for reimbursement to acute inpatient hospitals, home health agencies, hospice, hospital outpatient, inpatient psychiatric facilities, inpatient rehabilitation facilities, long-term care hospitals, and skilled nursing facilities. Since October 1, 1983, most hospitals have been paid under the hospital inpatient PPS. However, certain types of specialty hospitals and units were excluded from PPS because the PPS diagnosis related groups do not accurately account for the resource costs for the types of patients treated in those facilities. Facilities originally excluded from PPS included rehabilitation, psychiatric, children's, cancer, and long term care hospitals, rehabilitation and psychiatric hospital distinct part units, and hospitals located outside the 50 states and Puerto Rico. These providers continued to be paid according to Section 1886(b) of the Social Security Act, as amended by Section 101 of the Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982. They are frequently referred to as TEFRA facilities or PPS exempt. These facilities are paid on the basis of Medicare reasonable costs per case, limited by a hospital specific target amount per discharge. Each hospital has a separate payment limit or target amount which was calculated based on the hospital's cost per discharge in a base year. The base year target amount is adjusted annually by an update factor. [source: CMS website]

PROJECT DESCRIPTION

Currently, UWMC has a combined 32-bed special care nursery within space at the hospital that provides a full range of maternal and neonatal services for complicated and uncomplicated patients and for the majority of complicated obstetrical problems, including leadership in clinical and basic research, and continuing education in prenatal and perinatal care. [source: Application p2; WAC 246-310-020(1)(i)(B) and (C)] For CN purposes, this description includes two tertiary services:

- Intermediate care and level 2 obstetric services;
- Neonatal intensive care and level 3 obstetric services.

For this evaluation, these services will be referenced as "level 2" or "level 3" services.

With this application, UWMC proposes to add 18 beds to its combined 32-bed special care nursery. The increase includes the addition of 3 more level 2 beds and 15 more level 3 beds. If approved, UWMC would be operating a 50-bed combined special care nursery. The additional 18 beds are included within UWMC's existing 378 general medical surgical beds and within the hospital's total 450 licensed acute care beds. Table 2 below is a breakdown of UWMC's beds if this project is approved. [source: Application, p9; and June 7, 2010, supplemental information, p4]

Table 2
University of Washington Medical Center
Proposed Acute Care Bed Breakdown

Type of Service	Proposed Licensed
General Medical/Surgical	360
Level 2 intermediate care nursery	15
Level 3 neonatal intensive care unit	35
Psychiatric (PPS exempt)	16
Rehabilitation, Level 1 (PPS exempt)	24
Total	**450**

This project is part of a larger expansion project already underway at UWMC, which includes construction of a new wing attached to the hospital. The expansion project increases space for the special care nursery, medical surgical inpatient, oncology, and diagnostic imaging. The expansion project also includes a vertical shell for three additional inpatient floors. [source: Application, p9; and CRS project #60100098]

For the special care nursery, UWMC proposes to add the 18 additional beds in two phases. Phase one includes the immediate addition of four level 3 beds, resulting in a 36 bed special care nursery (12 level 2 beds and 24 level 3 beds). The capital expenditure associated with phase one is $737,266. Phase one is expected to be complete and operational by the end of December 2010.

Phase two is the relocation of the entire 36 bed special care nursery into the newly built wing, and a 14 bed expansion of the nursery, resulting in a 50 bed special care nursery in new space. With 3 more level 2 beds and 11 more level 3 beds, UWMC would be operating a total of 15 level 2 beds and 35 level 3 beds. The capital expenditure associated with phase two is $4,436,602. UWMC anticipates this phase would be complete and operational by the end of September 2012.

Under the timeline described above, year 2011 would be year one of the project (phase one), and 2015 would be the facility's third year following project completion of phase two. The total capital expenditure of both phases is $5,173,868.[3] [source: June 7, 2010, supplemental information, pp2-3]

APPLICABILITY OF CERTIFICATE OF NEED LAW

This project is subject to Certificate of Need review as the change in bed capacity of a health care facility the provisions of Revised Code of Washington (RCW) 70.38.105(4)(e) and Washington Administrative Code (WAC) 246-310-020(1)(c).

CRITERIA EVALUATION

WAC 246-310-200(1)(a)-(d) identifies the four determinations that the department must make for each application. WAC 246-310-200(2) provides additional direction in how the department is to make its determinations. It states:

"Criteria contained in this section and in WAC 246-310-210, 246-310-220, 246-310-230, and 246-310-240 shall be used by the department in making the required determinations.

(a) In the use of criteria for making the required determinations, the department shall consider:

(i) The consistency of the proposed project with service or facility standards contained in this chapter;

(ii) In the event the standards contained in this chapter do not address in sufficient detail for a required determination the services or facilities for health services proposed, the department may consider standards not in conflict with those standards in accordance with subsection (2)(b) of this section; and

(iii) The relationship of the proposed project to the long-range plan (if any) of the person proposing the project."

In the event the WAC 246-310 does not contain service or facility standards in sufficient detail to make the required determinations, WAC 246-310-200(2)(b) identifies the types of standards the department may consider in making its required determinations. Specifically WAC 246-310-200(2)(b) states:

"The department may consider any of the following in its use of criteria for making the required determinations:

(i) Nationally recognized standards from professional organizations;

(ii) Standards developed by professional organizations in Washington state;

(iii) Federal Medicare and Medicaid certification requirements;

(iv) State licensing requirements;

(v) Applicable standards developed by other individuals, groups, or organizations with recognized expertise related to a proposed undertaking; and

(vi) The written findings and recommendations of individuals, groups, or organizations with recognized expertise related to a proposed undertaking, with whom the department consults during the review of an application."

To obtain Certificate of Need approval, UWMC must demonstrate compliance with the applicable criteria found in WAC 246-310-210 (need); 246-310-220 (financial feasibility); 246-310-230 (structure and process of care); and 246-310-240 (cost containment).[4] Where applicable, meeting the 2005 Perinatal

[3] The total capital expenditure for the larger construction project is $204,000,000.

[4] Each criterion contains certain sub-criteria. The following sub-criteria are not discussed in this evaluation because they are not relevant to this project: WAC 246-310-210 (3), (5), and (6).

Level of Care Guidelines established by the Washington State Perinatal Advisory Committee assists in demonstrating compliance with the criteria.

APPLICATION CHRONOLOGY

February 9, 2010	Letter of Intent Submitted
April 2, 2010	Application Submitted
April 3, 2010—June 13, 2010	Department's Pre-Review Activities • 1st screening activities and responses
June 14, 2010	Department Begins Review of the Application • public comments accepted throughout review
July 20, 2010	Public Hearing Conducted / End of Public Comment
August 4, 2010	Rebuttal Documents Submitted to Department
September 17, 2010	Department's Anticipated Decision Date
October 18, 2010	Department's Anticipated Decision Date w/ 30 Day Extension
October 8, 2010	Department's Actual Decision Date

AFFECTED AND INTERESTED PERSONS

Washington Administrative Code 246-310-010(2) defines "affected person as:

"...an "interested person" who:

(a) is located or resides in the applicant's health service area;

(b) testified at a public hearing or submitted written evidence; and

(c) requested in writing to be informed of the department's decision."

Throughout the review of this project, the following three entities sought and received affected person status under WAC 246-310-010(2).

- MultiCare Health System a healthcare delivery system that operates a variety of healthcare facilities within King and Pierce counties.
- Swedish Health Services a not-for-profit corporation with 100% ownership of Swedish Medical Center, an acute care hospital that provides Medicare and Medicaid acute care services at three campuses in King County.
- Providence Health and Services a regional delivery network of organizations offering healthcare through its hospitals, extended care facilities, home health, adult day health, and assisted living facilities. Providence Health and Services and operates Providence Regional Medical Center located in Everett, within Snohomish County.

SOURCE INFORMATION REVIEWED

- University of Washington Medical Center's Certificate of Need Application received April 2, 2010
- University of Washington Medical Center's supplemental information received June 7, 2010
- Public comments submitted throughout the review of the project until July 20, 2010
- University of Washington Medical Center's rebuttal comments received August 4, 2010
- Comprehensive Hospital Abstract Reporting System (CHARS) data obtained from the Department of Health's Office of Hospital and Patient Data Systems
- Financial feasibility and cost containment evaluation prepared by the Department of Health's Hospital and Patient Data Systems received August 31, 2010
- Historical charity care data obtained from the Department of Health's Hospital and Patient Data Systems (2006, 2007, and 2008 summaries)
- Population data obtained from Office of Financial Management dated November 2007
- Licensing and/or survey data provided by the Department of Health's Investigations and Inspections Office
- Emergency and trauma designation data provided by the Department of Health's Office of Emergency Medical Services and Trauma System
- Washington State Perinatal Levels of Care Criteria adopted by the Perinatal Advisory Committee--February 2005, used as guidance
- 1987 State Health Plan
- Joint Commission website [www.jointcommission.org]
- Certificate of Need Historical files

CONCLUSION

For the reasons stated in this evaluation, the application submitted on behalf of University of Washington Medical Center proposing to add a total of 18 beds to its combined 32-bed special care nursery is consistent with applicable criteria of the Certificate of Need Program, provided University of Washington Medical Center agrees to the following condition.

CONDITION:

The 50 combined level 2 and level 3 beds are restricted to the services described in this application. Any redistribution of these 50 beds to other licensed bed types would be considered an increase in licensed beds of that type subject to Certificate of Need approval.

The approved capital expenditure for this project is $5,173,868.

A. Need (WAC 246-310-210)

Based on the source information reviewed, the department determines that the applicant has met the need criteria in WAC 246-310-210(1), (2), and (4).

(1) The population served or to be served has need for the project and other services and facilities of the type proposed are not or will not be sufficiently available or accessible to meet that need.

WAC 246-310-020 states (in summary) that level 2 services are to be in an area designed, organized, equipped, and staffed to provide a full range of maternal and neonatal services for uncomplicated patients and for the majority of complicated obstetrical problems. It further states that level 3 services are to be in an area designed, organized, equipped, and staffed to provide services to the few woman and infants requiring full intensive care services for the most serious type of maternal-fetal and neonatal illnesses and abnormalities. Level 3 services also provide coordination of care, communications, transfer, and transportation for a given region, as well as the provision of leadership in preparatory and continuing education in prenatal and perinatal care. A level 3 provider may be involved in clinical and basic research.

UWMC received approval to establish its 32-bed special care nursery, including level 2 and level 3 services in 1982.[5] Data reported to the Department of Health's Hospital and Patient Data Program demonstrates that UWMC's level 2 and level 3 services have been in continuous operation since its inception. With this application UWMC is not requesting the addition of a new tertiary service, rather, UWMC requests expansion of dedicated beds within its existing tertiary service.

For medical/surgical acute care bed projects, the determination of numeric need for acute care hospital beds is performed using the Hospital Bed Need Forecasting method contained in the 1987 Washington State Health Plan. For the addition of dedicated level 2 or level 3 acute care beds, no such numeric methodology exists. As a result, the evaluation of the need criterion for this project begins with an evaluation of the methodology provided by the applicant.

University of Washington Medical Center Rationale for Additional Level 2 and Level 3 Beds

UWMC used historical Comprehensive Hospital Abstract Reporting System (CHARS) data to assist in demonstrating need for additional level 2 and level 3 beds. CHARS data is reported by each Washington State hospital to the department's Hospital and Patient Data Systems program (HPDS). The CHARS data provides historical trends in discharges and lengths of stay for newborn patients for the major diagnostic category (MDC) #15 - NEWBORNS AND OTHER NEONATES WITH CONDITIONS ORIGINATING IN THE PERINATAL PERIOD. MDC #15 is made up of seven diagnosis related groups (DRGs). For years 2003 through 2006, those DRGS were identified as 385 through 391. Beginning in year 2007, the DRGs are identified as 789 through 795. The chart on the following page provides the DRG and corresponding definition for MDC #15.[6]

[5] Certificate of Need #668 issued to UWMC on May 24, 1982.

[6] Each DRGs corresponding level of care is based on October 3, 2001, testimony provided by Louis Pollack, MD, a board certified neonatologist and member of Washington State Perinatal Advisory Committee, and the October 16, 2007, testimony provided by Linda Wallen, MD, also a board certified neonatologist.

DRG	Definition	Level of Care
385 / 789	NEONATES, DIED OR TRANSFERRED TO ANOTHER ACUTE CARE FACILITY	Level 3
386 / 790	EXTREME IMMATURITY OR RESPIRATORY DISTRESS SYNDROME, NEONATE	Level 3
387 / 791	PREMATURITY WITH MAJOR PROBLEMS	Levels 2 or 3
388 / 792	PREMATURITY WITHOUT MAJOR PROBLEMS	Level 2
389 / 793	FULL TERM NEONATE WITH MAJOR PROBLEMS	Level 2
390 / 794	NEONATE WITH OTHER SIGNIFICANT PROBLEMS	Levels 1 or 2
391 / 795	NORMAL NEWBORN	Level 1

For ease of reference, the remainder of this evaluation will refer to the DRGs above using the current 700 series number, rather than the former 300 series number.

As shown in the chart above, of the DRGs included in MDC #15, some do not correspond exactly with the level of care definitions. However, the majority of level 3 patients are included in DRGs 789 and 790, with a few level 3 patients in DRG 791. The majority of level 2 patients are included in DRGs 791, 792, and 793, with a few patients in DRG 794.

To support its increase in level 2 and level 3 beds, UWMC provided a 5-step numeric methodology. UWMC projected the number of level 2 and level 3 patients separately for UWMC and the rest of Health Service Area (HSA) #1.[7] Below is a discussion of UWMC's numeric methodology and the assumptions/data used by UWMC in each step. Throughout the methodology and calculations, UWMC used data from DRGs 789 and 790 for level 3 calculations; and DRGs 791, 792, 793, and 794 for level 2 calculations. [source: Application, p32] Based on 1999 through 2008 historical data, UWMC projected for years 2009 through 2015. [sources where noted]

Step 1 – Determine level 2 and level 3 historical service area use rates (patient days per 1,000 births) and use rate trends

Based on Office of Financial Management data, UWMC used the following data points for this step:

- the ten counties included in HSA #1;
- ten years of historical numbers of births in HSA #1; and
- ten years of historical level 2 and level 3 patient days in HSA #1.

UWMC did not break the results down by county; rather, HSA #1 is shown in its entirety. Results of this step show level 2 and level 3 separately for each year 1999 through 2008. Based on this step, UWMC calculated a 10-year use rate trend for level 2 and level 3 as shown in Table 3 below. [source: Application, pp31-32]

Table 3
UWMC Methodology – Step 1

1999 – 2008 HSA #1	Level 2	Level 3
Historical Use Rate Trend per 1,000 patient days	**2.3**	**6.4**

[7] The state is divided into four HSA's by geographic groupings. HSA 1 is composed of the following 10 counties: Clallam, Island, Jefferson, King, Kitsap, Pierce, San Juan, Skagit, Snohomish, and Whatcom.

Step 2 – Grow baseline year use rates using the historical trends, and apply to projected service area births to determine projected level 2 and 3 service area days

Using the most recent full year CHARS data as the baseline year (2008), UWMC applied the 10-year average use rate trend calculated in Step 1 above to determine projected patient days for level 2 and level 3 separately. Office of Financial Management also projects number of births by county for years 2009 through 2015. UWMC used these projections for the 10 counties included in HSA #1. Results of this step are showing in Tables 4 below. [source: Application, p32]

Tables 4
UWMC Methodology – Step 2

	Level 2	Level 3
2008 Baseline Use Rate	1,094	559
Historical Use Rate Trend [from step 1]	2.3	6.4

Projected Year	Level 2 Project Patient Days	Level 3 Project Patient Days
2009	61,012	31,481
2010	61,477	32,013
2011	61,954	32,555
2012	62,444	33,107
2013	62,946	33,669
2014	63,462	34,242
2015	63,992	34,826

Step 3 – Determine UWMC baseline year service area market shares and out-of-area ratios

In this step, UWMC again relied on baseline year 2008 CHARS data. UWMC determined the total number of days for all level 2 and level 3 (separately) patients receiving care within hospitals located in HSA #1 and calculated its market share of the total number of patient days in HSA #1. Using patient zip code data and total number of patient days in HSA #1, UWMC determined the total number of days for patients receiving care in HSA #1 where the patient did not reside in HSA #1. These days are referenced as 'out of area' patient days. UWMC also determined an out-of-area ratio. Results of this step are showing in Table 5 below. [source: Application, p33]

Table 5
UWMC Methodology – Step 3

	Total Days	From HSA #1	From Out-of-Area	UWMC HSA #1 Market Share	Out-of-Area Ratio
Level 2	5,043	4,068	975	6.8%	0.2397
Level 3	6,593	5,054	1,539	16.5%	0.3045

Step 4 – Apply UWMC baseline year service area market shares and out-of-area ratios to projected service area days to calculate UWMC's projected level 2 and level 3 days

In this step, UWMC used the projected patient days for level 2 or level 3 calculated in Step 3 and multiplied its projected market share by corresponding level of care, to project UWMC's projected patient days by level of care for years 2009 through 2015. UWMC then used this number to project its number of patient days using its corresponding out-of-area ratio. Level 2 and level 3 projections

are shown separately in Table 6 below. [source: Application, pp33-34; June 7, 2010, supplemental information, p12]

Table 6
UWMC Methodology – Step 4

Level 2				
	HSA #1 Total Days	**UWMC Market Share**	**UWMC Out-of-Area**	**UWMC Total Projected Days**
2009	61,012	4,145	993	5,139
2010	61,477	4,177	1,001	5,178
2011	61,954	4,209	1,009	5,218
2012	62,444	4,242	1,017	5,259
2013	62,946	4,277	1,025	5,301
2014	63,462	4,312	1,033	5,345
2015	63,992	4,348	1,042	5,390

Level 3				
	HSA #1 Total Days	**UWMC Market Share**	**UWMC Out-of-Area**	**UWMC Total Projected Days**
2009	31,481	5,198	1,583	6,781
2010	32,013	5,286	1,610	6,895
2011	32,555	5,375	1,637	7,012
2012	33,107	5,466	1,665	7,131
2013	33,669	5,559	1,693	7,252
2014	34,242	5,654	1,722	7,375
2015	63,992	5,750	1,751	7,501

Step 5 – Adjust the projected UWMC days to reflect future patients born at UWMC that will no longer need to be transfers to other facilities

UWMC asserts that the additional level 2 and level 3 bed capacity would allow it to retain patients that have historically been transferred because of lack of space at UWMC. In year 2008, UWMC states that it transferred slightly more than 100 neonates to Seattle Children's in King County for level 3 care. For these patients, UWMC reviewed the case files for the 100+ patients, and determined it would retain approximately 20% or 22 patients. These additional patients equate to approximately 995 additional patient days in UWMC's special care nursery or an additional average daily census of 2.6 patients.

For this step, UWMC adjusted its total projected patient days calculated in step 4 to reflect the additional patients/days that would no longer be transferred to Seattle Children's. This patient retention was anticipated to begin in year 2013, when all 50 combined level 2 / level 3 beds are operational. Tables 7A on the following page shows the projected number of patient days derived in step 4, retained patient days for level 3 (if any), projected average daily census, and number of bassinettes projected to be needed using a 70% occupancy. [source: Application, pp33-34; June 7, 2010, supplemental information, p12]

Table 7A
UWMC Methodology – Step 5

Level 2			
Year	**Days**	**ADC**	**# of Bassinettes Needed**
2009	5,139	14.1	20.1
2010	5,178	14.2	20.3
2011	5,218	14.3	20.4
2012	5,259	14.4	20.6
2013	5,301	14.5	20.7
2014	5,345	14.6	20.9
2015	5,390	14.8	21.1

Level 3					
Year	**Days**	**Retained Days**	**Adjusted Days**	**ADC**	**# of Bassinettes Needed**
2009	6,781	-0-	6,781	18.6	26.5
2010	6,895	-0-	6,895	18.9	27.0
2011	7,012	-0-	7,012	19.2	27.5
2012	7,131	-0-	7,131	19.5	27.9
2013	7,252	1,009	8,261	22.6	32.3
2014	7,375	1,022	8,397	23.0	32.8
2015	7,501	1,036	8,537	23.4	33.4

In a final calculation for this step, the total number of bassinettes projected to be needed for level 2 and level 3 were added together to determine if a 50-bed special care nursery would accommodate the projected number of patients based on a 70% occupancy standard. Results of this calculation are shown in Table 7B below.

Table 7B

Year	# of Level 2 Bassinettes Needed	# of Level 3 Bassinettes Needed	Total # of Bassinettes Needed
2009	20.1	26.5	46.7
2010	20.3	27.0	47.3
2011	20.4	27.5	47.9
2012	20.6	27.9	48.5
2013	20.7	32.3	53.1
2014	20.9	32.8	53.8
2015	21.1	33.4	54.5

As shown in Table 7B above, UWMC projects it would need 55 combined level 2 / level 3 bassinettes by the end of year 2015. UWMC asserts that its new design in the special care nursery would accommodate all neonates projected in this methodology because it could easily operate above the 70% target occupancy rate in the special care nursery with the new configuration.

To further demonstrate need for additional level 2 and level 3 bed capacity, UWMC provided information related to the impact of transferring patients to another provider. For its level 3 service, UWMC transfers its patients to Seattle Children's when it is unable to accommodate them because of lack of bed space. Specifically, UWMC is one of the few hospitals in western Washington State that

is designed, organized, equipped, and staffed to care for the lowest gestational age neonates, typically referenced as micronates. Given its experience and expertise, UWMC receives in-state and out-of-state referrals from Wyoming, Alaska, Montana, and Idaho. [source: June 7, 2010, supplemental information, p10]

Women admitted to UWMC's antepartum program may spend weeks or months in the hospital prior to delivery since they are considered a high-risk pregnancy. If the NICU is full as the delivery time nears, maternal transfers (transfer of mother with baby in utero) is preferred. This is a hardship on the patient (mother) and families who expect to remain at UWMC from pre- through post-birthing. [source: June 7, 2010, supplemental information, p10]

If the NICU is full at the time of delivery and maternal transfer is not possible, once birthed, the neonate is stabilized, and in many cases, must be transferred to Seattle Children's while the mother remains at UWMC. This is particularly stressful for the mother to be separated from her newborn child, for families who must travel to two separate facilities for support, and for the high-risk neonates or micronates being transferred. [source: June 7, 2010, supplemental information, p10]

Another example provided by UWMC is "diversion." In this instance, a community hospital pediatrician or neonatologist attempts to refer a neonate to UWMC. The referring pediatrician or neonatologist has already discussed the importance of transfer with the families, and offered preference for UWMC's special care nursery. If UWMC is unable to accommodate the patient because of lack of bed space, delays in patient care occur while another transfer option is explored and discussed with the patient's family. This delay in transfer can impact the outcome of the neonate. [source: June 7, 2010, supplemental information, p10]

During the review of this application, the department received letters of support related to the project. The letters of support were submitted by Providence Regional Medical Center-Everett (PRMC-E)[8] and community members or persons affiliated with UWMC. In addition to the letters of support, MultiCare Health System (MHS) and Swedish Health Services (SHS), provided comments related to this sub-criterion. The comments provided centered on two separate topics. Below is a summary of MHS and SHS's comments, and UWMC's responses, broken down by topic.

<u>UWMC Planning Area of HSA #1</u>

MHS and SHS voiced concerns regarding UWMC using all ten counties in HSA #1 as its planning area. MHS asserts that Pierce County and the 'southeast planning area' should not be included because UWMC's market share is not large enough in those areas. SHS asserts that east King, southeast King, and Pierce County should not be included for the same reason. [source: MHS public comment received July 20, 2010; SHS public comment received July 15, 2010]

In response, UWMC asserts that all ten counties in HSA #1 are appropriate for its planning area. UWMC provided data and maps to demonstrate this assertion. UWMC also states that since it is a 'quaternary healthcare provider' it is expected to have a small market share in the larger region and a larger market share in its geographic area of location. This small market share simply means that the

[8] It is noted that PRMC-E submitted a letter outlining specific areas of concern before the July 20, 2010, public hearing. PRMC-E's concerns were the same concerns voiced by both SHS and MHS. At the July 20 public hearing, PRMC-E submitted a letter of support for UWMC's project with no concerns; therefore, the department will not address PRMC-E's first letter in this section of the evaluation.

sickest of the patients (level 3) would be referred or transferred to UWMC, rather than treated in their own community hospitals. [source: UWMC rebuttal comments received August 4, 2010]

No Consideration of Existing Level 2 or Level 3 Supply in the Planning Area
Only MHS provided comments related to this topic. MHS states that there is a need for additional level 3 capacity in the region, but notes that UWMC's methodology does not factor in existing level 2 or level 3 capacity in the ten-county planning area. [source: MHS public comment received July 20, 2010]

In response, UWMC agreed that it did not factor in existing level 2 and level 3 supply in its methodology. UWMC asserts that its methodology is based on its own internal current and projected need. The methodology does not anticipate shifting market shares or an expansion in scopes of level 2 or level 3 services. UWMC states its current special care nursery is operating at 90% or above on most days. The 3 bed increase for level 2 capacity would accommodate those level 2 patients that are being diverted to other providers. The 15 bed increase in level 3 capacity would accommodate the additional patients that must be transported to Seattle Children's Hospital (approximately 22% or 22 patients) because of UWMC's lack of bed space. Further the 18 bed increase would alleviate the overcrowding in the special care nursery and reduce the average occupancy from over 90% to 70%. [source: UWMC August 4, 2010, rebuttal statements, pp3-8]

Below is an evaluation of UWMC's methodology and concerns raised by MHS, SHS, and PRMC-E related to the planning area and existing capacity.

Department's Review
The department's need review will begin with the underlying assumptions used by UWMC in its need methodology. The three main assumptions used by UWMC are **1)** planning area; **2)** special care nursery occupancy of 70%; and **3)** 22% patient retention.

UWMC Service Area
UWMC defines its service area to be the ten counties in HSA #1 based on several factors. First, UWMC reviewed its fiscal year patient origin data based on FY 2010 discharges and identified its primary service area to be those areas from which approximately 80% of its discharges originated. UWMC determined that 50% of its patients reside in King County; 25% to 30% come from other areas in northwest Washington, and the remaining 15% to 20% come from the remainder of Washington State and other states, specifically Wyoming, Alaska, Montana, and Idaho. UWMC acknowledges that there are several level 2 / level 3 providers in the service area; however, since UWMC's special care nursery cares for both neonates and micronates, referrals from those providers are not uncommon. Based on this review, UWMC used the HSA #1 service area.

For demonstrative purposes and in response to concerns raised by MHS and SHS, UWMC provided a revised methodology based on a smaller planning area. Excluding Jefferson, San Juan, and Pierce counties, UWMC's revised methodology was based on seven counties, rather than ten. In this methodology, UWMC's historical use rate for level 2 increased significantly, while level 3 decreased slightly [step 1]. A smaller service area resulted in less historical patient days for both level 2 and level 3 applied to a smaller number of projected births in step 2. The results in step 3 showed a slightly smaller percentage of out-of-area ratios for both level 2 and level 3. Because of the increased use rate for level 2 (in step 1), step 4 results in more projected patient days for level 2 using the smaller service area. For level 3, the projected days are slightly less. UWMC determined its retention

to be 20 patients, rather than the 22 for step 5, resulting in a slight decrease in level 3 patient days when compared to step 5 of the methodology.

Table 8 below compares the final number of bassinette projections using seven counties vs. ten counties and based on 70% occupancy. [source: June 7, 2010, Attachment 2]

Table 8A - Step 5
UWMC Projections Based on Ten Counties

Year	# of Level 2 Bassinettes Needed	# of Level 3 Bassinettes Needed	Total # of Bassinettes Needed
2009	20.1	26.5	46.7
2010	20.3	27.0	47.3
2011	20.4	27.5	47.9
2012	20.6	27.9	48.5
2013	20.7	32.3	53.1
2014	20.9	32.8	53.8
2015	21.1	33.4	54.5

Table 8B – Step 5
UWMC Projections Based on Seven Counties

Year	# of Level 2 Bassinettes Needed	# of Level 3 Bassinettes Needed	Total # of Bassinettes Needed
2009	20.2	26.5	46.7
2010	20.4	26.9	47.3
2011	20.6	27.2	47.8
2012	20.8	27.6	48.4
2013	21.0	31.9	52.9
2014	21.2	32.4	53.6
2015	21.4	32.8	54.2

When comparing Tables 8A and 8B above, the projected number of Level 2 bassinettes increases slightly, while the level 3 projections decrease slightly, resulting in no significant changes in the projections.

In conclusion, as an existing tertiary provider of level 2 and level 3 services, UWMC receives patients from a broad service area. Based on the rationale provided by UWMC and the comparison methodology provided in the application, whether UWMC uses ten counties in HSA #1 or seven counties in the HSA appears to make no significant difference in the projections. UWMC's service area is reasonable.

Special Care Nursery Occupancy of 70%

UWMC based its need methodology on 70% occupancy of level 2 and level 3 beds. UWMC bases this occupancy percentage on the 1980 State Health Plan, Criterion 10 '*Variable Occupancy Rates*.' UWMC asserts that the CN Program continues to rely on this guidance when reviewing bed expansion applications. [source: June 7, 2010, supplemental information, pp3-5]

For level 2 and level 3 projects, the Program uses the 2005 Washington State Perinatal Levels of Care Criteria adopted by the Perinatal Advisory Committee as guidance. The Perinatal Levels of Care

Criteria do not identify an optimum occupancy for level 2 or level 3 units. Rather, it recommends an average daily census of at least 10 level 2/level 3 patients and is tied to quality of care standards. UWMC currently exceeds this standard.

The Program continues to rely on guidance from the 1987 [not 1980] State Health Plan (SHP) for general medical surgical acute care bed additions, but does not typically use the SHP for level 2 / level 3 projects. Volume II of the 1987 SHP provides some guidance related to Obstetric and Neonatal Services [pages B3-B5]. While many portions of this section are no longer relevant or reasonable for projects submitted in year 2010, Section (1) states that "*There shall be two levels of pediatric facilities/services recognized in the state: basic services and specialized services.*" Section (1) defines specialized services as:

> *"hospital services which primarily provide specialized services for complicated pediatric problems. These services shall be provided in dedicated pediatric units with appropriate specialized and sub-specialized personnel and a separate nurses' station."*

Section (8) states (in part):

> *"Existing level II and III neonatal services shall have an average annual occupancy rate of 75 percent."*

In general medical surgical acute care bed evaluations, the department determined that the occupancy standards reflected in the 1987 SHP are higher than can be maintained by hospitals under the current models for provision of care. As a result, the department adjusted the occupancy standards presented in the SHP downward by 5% for all but the smallest hospitals (1 through 49 beds). Applying this reduced occupancy standard to UWMC's special care nursery results in an average annual occupancy rate of 70%. While the 1987 SHP is out-dated in many areas related to special care nurseries, applying the 70% occupancy standard appears practicable and efficient for a 50 bed combined unit. As a result, UWMC's projected 70% occupancy is reasonable.

22% Patient Retention

Based on a historical discharge review, UWMC determined it would recapture approximately 22% or 22 patients annually if this project is approved. These patients represent transfers to Seattle Children's Hospital because of UWMC's lack of available level 3 capacity. The 22 additional patients represent slightly more than 1,000 patient days or approximately two level 3 bassinettes.

MHS, SHS, and PRMC-E did not provide any comments disputing UWMC's projected retention. At the July 20, 2010, public hearing, a representative of Seattle Children's Hospital provided comments in support of UWMC's project. An excerpt of those comments is restated below.

> *"The UWMC and Seattle Children's NICU's have worked closely over the years and, as such, have developed their own areas of expertise. The UWMC program is [an] expert in management of the most medically compromised antepartum cases and smallest, in terms of gestational age and weight, neonates—frequently referred to as micronates or micro preemies, while Children's unit specializes in congenital anomalies and surgical cases. The same clinicians care for neonates at both institutes. As with all beds at Children's our NICU runs at very high occupancy levels. On an increasingly regular basis we find that we do not have a sufficient number of NICU beds in the system to care for patients, families, and community providers that rely on us."*

Based on the information above, the department concludes that the 22% recapture or retention rate is reasonable.

Existing Capacity

UWMC did not consider existing level 2 or level 3 capacity as a factor in its methodology. MHS criticizes UWMC's methodology for not identifying the existing supply in its planning area. UWMC asserts that existing supply is irrelevant because its methodology focuses on an internal need for additional level 2 and level 3 bassinettes.

As previously stated, the department does not have a published methodology for the addition of dedicated level 2 or level 3 acute care beds. As a result, the evaluation of the need criterion for level 2 or level 3 applications begins with an evaluation of the methodology provided by the applicant. Each applicant provides a different methodology to support its project.

For this project, UWMC states that its need methodology "*mirrors the NICU need methodology put forth by the applicant, and evaluated by the department, in its Southwest Washington Medical Center CN decision, November 9, 2009.*" A review of UWMC's methodology demonstrates that it clearly does not mirror the Southwest Washington Medical Center methodology.[9] However, it does not have to mirror any previous methodology.

As an existing provider of level 2 and level 3 services for many years, UWMC has already established a reliable patient base and market share in its service area. UWMC does not factor in existing capacity because it is not expecting to increase its market share in the planning area. With the exception of the 22% referrals to Seattle Children's discussed above, UWMC is not expecting to alter any existing referral patterns for level 2 or level 3 services. Further, Seattle Children's Hospital, the facility identified as the provider projected to lose the UWMC referrals, submitted a letter of support for this project. As a regional provider of level 3 services, UWMC anticipates the existing referral relationships with level 3 providers in the state will continue, and no additional increase will occur if this project is approved. As a result, for UWMC's project, its methodology is reasonable.

Based on the above information, the department concludes that this sub-criterion is met.

(2) *All residents of the service area, including low-income persons, racial and ethnic minorities, women, handicapped persons, and other underserved groups and the elderly are likely to have adequate access to the proposed health service or services.*

UWMC is currently a provider of health care services to residents of Washington State, including low-income, racial and ethnic minorities, handicapped and other underserved groups. As an acute care hospital, UWMC participates in the Medicare and Medicaid programs. To determine whether all residents of the service area would have access to an applicant's proposed services, the department requires applicants to provide a copy of its current or proposed admission policy. The admission policy provides the overall guiding principles of the facility as to the types of patients that are appropriate candidates to use the facility and any assurances regarding access to treatment.

[9] This conclusion is based on a number of factors that are different when comparing SWMC's methodology with UWMC's methodology. Since it is not relevant, this evaluation will not list or address the differences. However, one significant difference is that SWMC's methodology included a detailed section on 'existing capacity' and projected the number of level 3 bassinettes that would be needed for the entire planning area, which included two hospitals. UWMC's methodology projects for only UWMC.

To demonstrate compliance with this sub-criterion, UWMC provided a copy of its current Admission Policy used for the hospital. The policy outlines the process/criteria that UWMC uses to admit patients for treatment or care and states that any patient requiring care will be accepted for treatment regardless of race, creed, gender, national origin or religious preference. [source: Application, Exhibit 7]

To determine whether low-income residents would have access to the proposed services, the department uses the facility's Medicaid eligibility or contracting with Medicaid as the measure to make that determination. To determine whether the elderly would have access or continue to have access to the proposed services, the department uses Medicare certification as the measure to make that determination.

For its Washington State healthcare facilities, UWMC currently provides services to Medicare and Medicaid eligible patients. Information provided in the application demonstrates that UWMC intends to maintain this status for its existing facilities. [source: June 7, 2007, supplemental information, Attachments 2, 4, 5, & 6]

A facility's charity care policy should confirm that all residents of the service area including low-income, racial and ethnic minorities, handicapped and other underserved groups have, or would have, access to healthcare services of the applicant. The policy should also include the process one must use to access charity care at the facility.

To demonstrate compliance with this sub-criterion, UWMC submitted its current charity care policy, reviewed and approved by the Department of Health's Hospital and Patient Data Systems (HPDS) program. The approved policy outlines the process one would use to access this service. Further, UWMC included a 'charity care' line item as a deduction from revenue within the pro forma financial documents. [source: Application, Exhibit 7 and June 7, 2010, supplemental information, Attachments 2, 4, 5, & 6]

For charity care reporting purposes, HPDS divides Washington State into five regions: King County, Puget Sound (less King County), Southwest, Central, and Eastern. UWMC is located in King County within the King County Region. Currently there are 20 hospitals located within the region, including UWMC. According to 2006-2008 charity care data obtained from HPDS,[10] UWMC has historically provided more than the average charity care provided in the region.[11] UWMC's most recent three-year (2006-2008) average percentages of charity care for gross and adjusted revenues are 1.57% and 2.84%, respectively. The 2006-2008 average for the King County Region is 1.36% for gross revenue and 2.42% for adjusted revenue. [source: HPDS 2006-2007 charity care summaries]

UWMC's pro forma revenue and expense statements indicate that the hospital will provide charity care at approximately 1.47% of gross revenue and 2.79% of adjusted revenue. RCW 70.38.115(2)(j) requires hospitals to meet or exceed the regional average level of charity care. Since UWMC's historical charity care is currently more than the average for the region and UWMC projects to continue providing more charity care than the regional average, the department concludes a charity care condition is not necessary. This sub-criterion is met.

[10] As of the writing of this evaluation, 2009 charity care data is not available.

[11] Harborview Medical Center is subsidized by the state legislature to provide charity care services. Charity care percentages for Harborview make up almost 50% of the total percentages provided in the King County Region. Therefore, for comparison purposes, the department excluded Harborview Medical Center's percentages.

(4) The project will not have an adverse effect on health professional schools and training programs. The assessment of the conformance of a project with this criterion shall include consideration of:

(a) The effect of the means proposed for the delivery of health services on the clinical needs of health professional training programs in the area in which the services are to be provided; and

To demonstrate compliance with this sub-criterion, UWMC provided an overview of its college, graduate, and post-graduate programs in medicine offered exclusively by UWMC under RCW 28B.20.020 and RCW 28B.20.060.[12] [source: Application, pp35-37] Based on the information provided, the department concludes that this sub-criterion is met.

(b) If proposed health services are to be available in a limited number of facilities, the extent to which the health professions schools serving the area will have access to the services for training purposes.

To demonstrate compliance with this sub-criterion, UWMC provided and overview of its Warren G. Magnuson Institute for Biomedical Research and Health Professions Training, created under RCW 28B.20.462.[13] [source: Application, pp35-37] Based on the information provided, the department concludes that this sub-criterion is met.

B. Financial Feasibility (WAC 246-310-220)

Based on the source information reviewed, the department determines that the applicant has met the financial feasibility criteria in WAC 246-310-220(1), (2), and (3).

(1) The immediate and long-range capital and operating costs of the project can be met.

WAC 246-310 does not contain specific WAC 246-310-220(1) financial feasibility criteria as identified in WAC 246-310-200(2)(a)(i). There are also no known recognized standards as identified in WAC 246-310-200(2)(a)(ii) and (b) that directs what the operating revenues and expenses should be for a project of this type and size. Therefore, using its experience and expertise the department evaluates if the applicant's pro forma income statements reasonably project the proposed project is meeting its immediate and long-range capital and operating costs by the end of the third complete year of operation.

To demonstrate compliance with this sub-criterion, UWMC provided its Statement of Operations for the special care nursery (combined level 2 / level 3) cost center for projected years 2010 through 2015. [source: June 7, 2010, supplemental information, Attachment 2] A summary of the Statement of Operations is shown in Table 9 on the following page.

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[12] RCW 28B.20.020 states "*The aim and purpose of the University of Washington shall be to provide a liberal education in literature, science, art, law, medicine, military science and such other fields as may be established therein from time to time by the board of regents or by law.*" RCW 28B.20.060 states: "*The courses of instruction of the University of Washington shall embrace as exclusive major lines, law, medicine, forest products, logging engineering, library sciences, and fisheries.*"

[13] RCW 28B.20.462 states: "*The Warren G. Magnuson institute for biomedical research and health professions training is established within the Warren G. Magnuson health sciences center at the University of Washington. The institute shall be administered by the university. The institute may be funded through a combination of federal, state, and private funds, including earnings on the endowment fund in RCW 28B.20.472.*"

Table 9
UWMC Special Care Nursery Cost Center
Years 2011 through 2015 Projected Statement of Operations Summary

	Projected 2011	Projected 2012	Projected 2013	Projected 2014	Projected 2015
Number of Beds in SCN	**36**	**36**	**50**	**50**	**50**
Total Net Revenue	$ 31,403,000	$ 31,864,000	$ 33,587,000	$ 35,428,000	$ 35,886,000
Total Expenses w/ Allocations	$ 21,123,000	$ 21,423,000	$ 23,982,000	$ 24,901,000	$ 25,121,000
Net Profit or (Loss)	**$ 10,280,000**	**$ 10,441,000**	**$ 9,605,000**	**$ 10,527,000**	**$ 10,765,000**

The 'total net revenue' line item in Table 9 is the result of gross revenue minus any deductions for contractual allowances, bad debt, and charity care directly related to the special care nursery cost center. The 'total expenses with allocations' line item includes staff salaries/wages and all hospital cost allocations related to the special care nursery. Table 9 reflects the gradual increase in both level 2 and level 3 patients projected by UWMC. Projected expenses for year 2013 are expected to be greater than expenses in the previous two years because of the additional FTEs to be added for the first year of operating as a 50 bed unit. As shown in Table 9, the special care nursery cost center is projected to be profitable in years 2011 through 2015.

UWMC also provided its Statement of Operations for the hospital as a whole with the special care nursery for projected years 2011 through 2015. [source: June 7, 2010, supplemental information, Attachment 5] A summary of the Statement of Operations is shown in Table 10 below.

Table10
UWMC Projected Statement of Operations Summary
Years 2011 through 2015

	Projected 2011	Projected 2012	Projected 2013	Projected 2014	Projected 2015
Total Operating Revenue	$ 781,887,000	$ 805,823,000	$ 828,122,000	$ 849,040,000	$ 868,598,000
Total Operating Expenses	$ 741,656,000	$ 768,380,000	$ 787,802,000	$ 800,985,000	$ 814,552,000
Net Profit or (Loss)	**$ 40,231,000**	**$ 37,443,000**	**$ 40,320,000**	**$ 48,055,000**	**$ 54,046,000**

The 'total operating revenue' line item in Table 10 is the result of gross patient revenue and non-operating revenue minus any deductions for contractual allowances, bad debt, and charity care. The 'total operating expense' line item includes all hospital staff salaries/wages. As shown in Table 10, the hospital as a whole is projected to be profitable in years 2011 through 2015 with a 50-bed special car nursery.

To determine whether UWMC would meet its immediate and long range capital costs with a 50-bed special care nursery, the department's Hospital and Patient Data Systems (HPDS) reviewed current and projected balance sheets. Historical year [2009] and year 5 [2015] are shown in Tables 11A and 11B on the following page. [source: HPDS analysis, p2 and June 7, 2010 supplemental information, Attachment 6]

Table 11A
University of Washington Medical Center Balance Sheet for Year 2009

Assets		Liabilities	
Current Assets	$ 143,652,000	Current Liabilities	$ 124,256,000
Fixed Assets	$ 300,498,000	Long Term Debt	$ 84,786,000
Board Designated Assets	$ 201,489,000	**Total Liabilities**	**$ 209,042,000**
Other Assets	$ 58,157,000	**Equity**	**$ 494,754,000**
Total Assets	**$ 703,796,000**	**Total Liabilities and Equity**	**$ 703,796,000**

Table 11B
University of Washington Medical Center Balance Sheet for Projected Year 2015

Assets		Liabilities	
Current Assets	$ 155,940,000	Current Liabilities	$ 159,050,000
Fixed Assets	$ 537,605,000	Long Term Debt	$ 260,046,000
Board Designated Assets	$ 342,735,000	**Total Liabilities**	**$ 419,096,000**
Other Assets	$ 82,563,000	**Equity**	**$ 699,747,000**
Total Assets	**$ 1,118,843,000**	**Total Liabilities and Equity**	**$ 1,118,843,000**

To assist the department in its evaluation of this sub-criterion, HPDS provided a summary of the short and long-term financial feasibility of the project, which includes a financial ratio analysis. The analysis assesses the financial position of an applicant, both historically and prospectively. The financial ratios typically analyzed are **1)** long-term debt to equity; **2)** current assets to current liabilities; **3)** assets financed by liabilities; **4)** total operating expense to total operating revenue; and **5)** debt service coverage. If a project's ratios are within the expected value range, the project can be expected to be financially feasible. Additionally, HPDS reviews a project's projected statement of operations to evaluate the applicant's immediate ability to finance the service and long term ability to sustain the service.

For Certificate of Need applications, HPDS compared the projected ratios with the most recent year financial ratio guidelines for hospital operations. For this project, HPDS used 2008 data for comparison with current year 2009 and projected years 2013, 2014, and 2015. The ratio comparisons are shown in Table 12 on the following page. [source: HPDS analysis, p3]

Table 12
Current and Projected HPDS Debt Ratios for University of Washington Medical Center

Category	Trend[14]	State 2008	Current 2009	Projected 2013	Projected 2014	Projected 2015
Long Term Debt to Equity	B	0.527	0.171	0.370	0.346	0.367
Current Assets/Current Liabilities	A	1.877	1.156	1.007	1.010	0.982
Assets Funded by Liabilities	B	0.436	0.297	0.380	0.365	0.371
Operating Expense/Operating Revenue	B	0.949	0.924	**0.446**	**0.439**	**0.437**
Debt Service Coverage	A	4.701	9.450	4.864	5.317	5.335
Definitions:	**Formula**					
Long Term Debt to Equity	Long Term Debt/Equity					
Current Assets/Current Liabilities	Current Assets/Current Liabilities					
Assets Funded by Liabilities	Current Liabilities + Long term Debt/Assets					
Operating Expense/Operating Revenue	Operating expenses / operating revenue					
Debt Service Coverage	Net Profit+Depr and Interest Exp/Current Mat. LTD and Interest Exp					

Note: The operating expense/operating revenue ratio for projected years 2013 - 2015 is for the special care nursery only.

Comparing UWMC's most current (2009) ratios with the statewide ratios (2008) revealed that UWMC is within the normal range in all except the current assets to current liabilities ratio. Approximately 85% of this ratio is made up of short term accounts receivable. This ratio demonstrates UWMC's liquidity—i.e. its ability to convert assets into cash to meet current obligations. This ratio is below the normal range when compared to existing hospitals. After evaluating the hospital's projected ratios and statement of operations for years 2011-2015, staff from HPDS provided the following analysis. [source: HPDS analysis, p3]

"...The ratios are appropriate for a project like this. The hospital has had an above average financial foundation in the past and I do not see this changing in the near future."

Given that the other ratios are within the normal range, the current assets to current liabilities ratio is not of concern for this project. Based on the information above, the department concludes that the immediate and long-range operating costs of the project can be met. This sub-criterion is met.

(2) *The costs of the project, including any construction costs, will probably not result in an unreasonable impact on the costs and charges for health services.*

WAC 246-310 does not contain specific WAC 246-310-220(2) financial feasibility criteria as identified in WAC 246-310-200(2)(a)(i). There are also no known recognized standards as identified in WAC 246-310-200(2)(a)(ii) and (b) that directs what an unreasonable impact on costs and charges would be for a project of this type and size. Therefore, using its experience and expertise the department compared the proposed project's costs with those previously considered by the department.

UWMC identified a total capital expenditure for both phases to be $5,173,868. The costs, by phase, are broken down in Table 13 on the following page.

[14] A is better if above the ratio, and B is better if below the ratio.

Table 13
University of Washington Medical Center
Estimated Capital Expenditure Breakdown

Item	Phase 1	Phase 2	Total	% of Total
Construction Costs	$ 426,567	$ 2,100,000	$ 2,526,567	48.83%
Equipment (Fixed and Moveable)	$ 174,380	$ 828,000	$ 1,002,380	19.37%
Architect, Engineering, and Consulting Fees	$ 85,409	$ 955,000	$ 1,040,409	20.11%
Other Costs-CN Fees[15]	0	$ 35,000	$ 35,000	0.68%
Other Costs-Capitalized Interest	0	$ 226,602	$ 226,602	4.38%
Washington State Sales Tax	$ 50,910	$ 292,000	$ 342,910	6.63%
Total Capital Costs	**$ 737,266**	**$ 4,436,602**	**$ 5,173,868**	**100.00%**

To assist the department in its evaluation of this sub-criterion, HPDS reviewed hospital financial data reported by each hospital. Staff from HPDS provided the following analysis. [source: HPDS analysis, p3]

> *"There are several ways to review hospital newborn cost information. Hospitals report data to DOH through the financial format and the hospital inpatient format. In the financial reporting system, hospitals can report all newborn revenue and expense for delivery and post partum care under account 6100 Alternative Birth Center or they can report it under 6170 Nursery for the baby only and 6070 Acute Care for the mom. Newborns that need intensive care are reported under 6010 Intensive Care, which also includes Adult and Pediatric patients.*
>
> *Newborn days in Intensive Care are usually a small percent of the total. I reviewed the hospital inpatient database (CHARS) for comparison data. Revenue Code 0172 is Level II Nursery care and 0173 is Level III Nursery Care in the CHARS database. I calculated the average charges per day for those discharges that included Revenue Code 0172 and those for 0173. The average charge per day in 2009 in CHARS was slightly more than the projections in the applicant's combined level II and III pro-forma for. However the Level III CHARS data was much more than the combined level II and III pro-forma as can be expected given the higher acuity of level III only."*

HPDS also compared UWMC's costs and charges to the year 2009 statewide average and determined that they are reasonable. [source: HPDS analysis, p3]

UWMC will adhere to the latest building codes for construction and energy conservation. HPDS reviewed the construction costs for the project and that the costs are within past construction costs reviewed by the HPDS office. [source: HPDS analysis, p5]

Based on the information above, the department concludes that the costs of the project will probably not result in an unreasonable impact on the costs and charges for health services. This sub-criterion is met.

[15] It is noted that UWMC should have included its CN application fee under phase one, rather than phase two. Regardless of which phase the fee is under, the total cost of the project remains at $5,173,868.

(3) *The project can be appropriately financed.*

WAC 246-310 does not contain specific source of financing criteria as identified in WAC 246-310-200(2)(a)(i). There are also no known recognized standards as identified in WAC 246-310-200(2)(a)(ii) and (b) that directs how a project of this type and size should be financed. Therefore, using its experience and expertise the department compared the proposed project's source of financing to those previously considered by the department.

UWMC identified a total capital expenditure for both phases to be $5,173,868. The costs, by phase, were broken down in Table 13 on the previous page. UWMC proposes to fund the project with a combination of hospital reserves and bond financing. After reviewing UWMC's proposed financing, HPDS provided the following statements. [source: HPDS analysis, p4]

> *"University of Washington Medical Center capital expenditure is projected to be $5,173,868 over two phases. The system indicates it will use a bond and reserves to finance this project. The bond portion $3,302,025 will be assigned to this project from existing debt. A portion of the project $1,871,843, will be paid out of reserves. The hospital has the reserves for that portion of the project. This project will not adversely impact reserves, or total assets, total liability or the general health of the hospital in a significant way. "*

Based on the information above, the department concludes that the project can be appropriately financed and this sub-criterion is met.

C. Structure and Process (Quality) of Care (WAC 246-310-230) and the Year 2005 Washington State Perinatal Level of Care Guidelines.

Based on the source information reviewed, the department determines that the applicant has met the structure and process (quality) of care criteria in WAC 246-310-230 and is consistent with the 2005 Washington State Perinatal Level of Care guidelines.

(1) *A sufficient supply of qualified staff for the project, including both health personnel and management personnel, are available or can be recruited.*

WAC 246-310 does not contain specific WAC 246-310-220(1) financial feasibility criteria as identified in WAC 246-310-200(2)(a)(i). There are also no known recognized standards as identified in WAC 246-310-200(2)(a)(ii) and (b) that directs what the operating revenues and expenses should be for a project of this type and size. Therefore, using its experience and expertise the department evaluates if the applicant's pro forma income statements reasonably project the proposed project is meeting its immediate and long-range capital and operating costs by the end of the third complete year of operation.

If this project is approved, UWMC would add the 18 beds in two separate phases. Phase one is the immediate increase of four level 3 beds within the existing special care nursery. UWMC anticipates that this phase would be complete by the end of year 2010. Phase two is the relocation of the entire 36-bed special care nursery and the addition of three more level 2 beds and eleven level 3 beds. This phase is expected to be complete by the end of September 2012. Under these two timelines, year 2011 would be the hospital's first full calendar year of operation with a 36-bed special care nursery, and 2015 is year three following completion of phase two. [source: June 7, 2010, supplemental information, pp2-3]

To accommodate the additional patients and patient days beginning in year 2011, UWMC projected small FTE increases each year beginning in year 2011. Table 14 below is a summary of UWMC's FTEs from year 2011 through 2015. [source: June 7, 2010, supplemental information, p18]

Table 14
UWMC Current and Projected Special Care Nursery FTEs

Level 2 & Level 3 Combined FTEs	Current Year 2010	2011 Increase 36-bed SCN	2012 Increase 36-bed SCN	2013 Increase 50-bed SCN
Nurse Manager	1.00	0.00	0.00	0.00
RN3	3.50	0.00	0.00	0.00
RN2	65.40	6.68	0.94	3.98
PSSS2	4.20	0.00	0.00	4.20
SPP Supervisor	1.00	0.00	0.00	0.00
Hospital Assistant	0.60	0.00	0.00	0.60
ARNP's	5.00	0.00	0.00	0.00
Clinical Nurse Educator	0.50	0.00	0.00	0.50
OT/PT	0.60	0.00	0.00	0.40
Respiratory Care Practitioner	5.00	2.50	0.00	0.90
Nutritionist	0.60	0.00	0.00	0.30
Total FTEs	**87.40**	**9.18**	**0.94**	**10.88**

Level 2 & Level 3 Combined FTEs	2014 Increase 50-bed SCN	2015 Increase 50-bed SCN	Level 2 & Level 3 Combined FTE Total
Nurse Manager	0.00	0.00	**1.00**
RN3	0.00	0.00	**3.50**
RN2	4.00	1.10	**82.10**
PSSS2	0.00	0.00	**8.40**
SPP Supervisor	0.00	0.00	**1.00**
Hospital Assistant	0.00	0.00	**1.20**
ARNP's	0.00	0.00	**5.00**
Clinical Nurse Educator	0.00	0.00	**1.00**
OT/PT	0.00	0.00	**1.00**
Respiratory Care Practitioner	0.00	0.00	**8.40**
Nutritionist	0.00	0.00	**0.90**
Total FTEs	**4.00**	**1.10**	**113.50**

UWMC considers the addition of approximately 26 FTEs in five years to be minimal. With the new configuration of the special care nursery, UWMC expects to accommodate existing and projected volumes at lower occupancies. UWMC states that its reputation as a nationally recognized provider in the state has allowed it to be well positioned to attract and retain quality staff. [source: Application, pp47-48]

Many changes in healthcare delivery have occurred since UWMC established its special care nursery almost 30 years ago. Since its inception, UWMC has made every effort to meet the current (at the time) Washington State Perinatal Levels of Care staffing guidelines. Included in the staff table above are key medical staff and other providers for the level 3 services recommended in the Levels of Care guidelines.

In addition to the information shown in Table 14 above, UWMC provided curriculum vitas for its chief of services physician and its medical director for the special care nursery. Both physicians are board certified in pediatrics and neonatology. [source: Application, pp54-55 and Exhibits 13 & 14]

Based on the information provided by UWMC in its application and supplemental documentation, the department concludes UWMC's staff is already in place or can be recruited. As a result, this sub-criterion is met.

(2) *The proposed service(s) will have an appropriate relationship, including organizational relationship, to ancillary and support services, and ancillary and support services will be sufficient to support any health services included in the proposed project.*

In addition to the specific documents for its current special care nursery, UWMC identified existing ancillary and support services including pharmacy, therapies (OT/PT/ RT), nutritional services, blood bank, ultrasound, social services, laboratory, and radiology. [source: Application, pp57-58]

It is clear from the documentation provided above that UWMC has been providing level 2 and level 3 services for some time and has maintained appropriate referral and transfer relationships with existing level 2 or level 3 providers, including Seattle Children's Hospital. Additionally, the documentation demonstrates UWMC's special care nursery is consistent with the Washington State Perinatal Levels of Care guidelines. As a result, this sub-criterion is met.

(3) *There is reasonable assurance that the project will be in conformance with applicable state licensing requirements and, if the applicant is or plans to be certified under the Medicaid or Medicare program, with the applicable conditions of participation related to those programs.*

UWMC will continue to provide Medicare and Medicaid services to the residents of King County and surrounding communities. The hospital contracts with the Joint Commission to survey and accredit the quality of service provided. The Joint Commission lists UWMC in full compliance with all applicable standards following the most recent on-site survey in June 2009.[16]

Complementing reviews performed by the Joint Commission are the surveys conducted by the department's Investigation and Inspection's Office. (IIO). Most recently, IIO completed one quality of care / fire life safety survey at the hospital.[17] There were no adverse licensing actions as a result of the survey. In late 2009, Northwest Hospital and UWMC established an affiliation agreement, and in June 2010, IIO completed one quality of care / fire life safety survey at the hospital. There were no adverse licensing actions as a result of the survey. [source: facility survey data provided by DOH Investigations and Inspections Office]

The majority of UWMC's level 2 and level 3 staff is already in place. UWMC provided names and professional license numbers for all credentialed staff. Quality of care for UWMC's staff is verified through the Department of Health's Medical Quality Assurance Commission. The commission credentials medical staff in Washington State and is used to review the compliance history for all medical staff, including physicians, RNs, and licensed technicians. A compliance history review of credentialed or licensed staff associated with UWMC's special care nursery reveals no recorded sanctions for all. [source: compliance history provided by Medical Quality Assurance Commission]

[16] http://www.qualitycheck.org
[17] Survey completed February 2009.

Based on UWMC compliance history and the compliance history of staff associated with the special care nursery and family birth center, the department concludes that there is reasonable assurance that the hospital would continue to operate in conformance with state and federal regulations with the additional 18 combined level 2 and level 3 bassinettes. This sub-criterion is met.

(4) *The proposed project will promote continuity in the provision of health care, not result in an unwarranted fragmentation of services, and have an appropriate relationship to the service area's existing health care system.*

WAC 246-310 does not contain specific WAC 246-310-230(4) criteria as identified in WAC 246-310-200(2)(a)(i). There are also no known recognized standards as identified in WAC 246-310-200(2)(a)(ii) and (b) that directs how to measure unwarranted fragmentation of services or what types of relationships with a services area's existing health care system should be for a project of this type and size. Therefore, using its experience and expertise the department assessed the materials in the application.

In response to this sub-criterion, UWMC states it is ready to expand its special care nursery to accommodate its existing and projected number of patients. UWMC has multiple pediatric sub-specialists on current staff and an ongoing relationship with level 2 and level 3 providers in HSA #1. [source: Application, p49; June 7 2010, supplemental information, p4]

The above response provided by UWMC addresses continuity of care for UWMC, however, continuity of care is not limited by a facility. Depending on the patient's needs, continuity of care may include transport of the patient to the most appropriate provider. For tertiary services, continuity of care means a hospital's ability and willingness to triage and transport as necessary to the most appropriate tertiary provider. For level 3 patients, this could mean that the patient would be transported to a physician or physician group who has not previously seen the patient. In this case, continuity of care also means that the referring hospital provides specific patient information and documentation to the receiving facility. Additionally, continuity of care also includes the communication and sharing of patient information between physicians in different facilities or physicians within the same facility. Further, with a tertiary program where there is a direct connection among sufficient patient volumes and provider effectiveness, quality of service, and improved outcomes of care, the department concludes that the establishment of a quality provider in this health care service is far more critical than patient, family, or physician convenience. Documentation provided in UWMC's application also addresses this concept of continuity of care. UWMC's quality assurance approach demonstrates it will strive to provide a quality program that ensures quality outcomes.

The department concludes that there is reasonable assurance that approval of this project would allow residents access to a quality tertiary service. Further, UWMC's relationships within the existing health care system would continue and is not likely to result in an unwarranted fragmentation of services. This sub-criterion is met.

(5) *There is reasonable assurance that the services to be provided through the proposed project will be provided in a manner that ensures safe and adequate care to the public to be served and in accord with applicable federal and state laws, rules, and regulations.*

This sub-criterion is addressed in sub-section (3) above and is considered met.

D. Cost Containment (WAC 246-310-240)

Based on the source information reviewed, the department determines that the applicant has met the cost containment criteria in WAC 246-310-240(1), (2), and (3).

(1) Superior alternatives, in terms of cost, efficiency, or effectiveness, are not available or practicable.

To determine if a proposed project is the best alternative, the department takes a multi-step approach. Step one determines if the application has met the other criteria of WAC 246-310-210 thru 230. If it has failed to meet one or more of these criteria then the project is determined not to be the best alternative, and would fail this sub-criterion.

If the project met WAC 246-310-210 through 230 criteria, the department would move to step two in the process and assess the other options the applicant or applicants considered prior to submitting the application under review. If the department determines the proposed project is better or equal to other options the applicant considered before submitting their application, the determination is either made that this criterion is met (regular or expedited reviews), or in the case of projects under concurrent review, move on to step three.

Step three of this assessment is to apply any service or facility specific criteria (tie-breaker) contained in WAC 246-310. The tiebreaker criteria are objective measures used to compare competing projects and make the determination between two or more approvable projects which is the best alternative. If WAC 246-310 does not contain any service or facility criteria as directed by WAC 246-310-200(2)(a)(i), then the department would look to WAC 246-310-240(2)(a)(ii) and (b) for criteria to make the assessment of the competing proposals. If there are no known recognized standards as identified in WAC 246-310-200(2)(a)(ii) and (b), then using its experience and expertise, the department would assess the competing projects and determine which project should be approved.

Step One

For this project, UWMC has met the review criteria under WAC 246-310-210, 220, and 230. Additionally, UWMC has met the service specific review criteria identified in the Washington State Perinatal Levels of Care Criteria adopted by the Perinatal Advisory Committee on February 2005. Therefore, the department moves to step two below.

Step Two

UWMC states its only other option was to cap its level 2 / level 3 volumes and continue with a 32 bed special care nursery. While UWMC recognized this option would be the least costly when comparing to this project under review and the larger construction project underway at the hospital, it was perceived by UWMC to have other costly consequences, which are summarized below. [source: Application, pp59-60; June 7, 2010, supplemental information, p21]

- Sufficient level 2 / level 3 tertiary services would not be available at UWMC to meet its existing patients or forecasted patients.
- The transfer of babies or mother with babies in-utero to out of state facilities [Portland] would continue;
- The transfer of babies or mothers with babies in-utero would increase due to lack of availability of sufficient bassinets to meet the forecasted need; and
- The health care cost of providing level 2 or level 3 services would continue to be greater than necessary because transfers are costly and create hardships for families.

Rather than the option above, UWMC chose to establish expand its special care nursery. As previously stated, this project is part of a larger, construction project already underway at UWMC. If expansion of the bed space for the special care nursery needed to occur, this is the most opportune time because the plans and configuration can be accommodated into the larger project.

The department considered the results of UWMC's numeric methodology and the rationale used to demonstrate internal need for additional level 2 and level 3 capacity. Need for the project has been demonstrated, therefore the department concurs that 'do nothing' is not a viable option for this project.

During review of this application, the department received letters of support from community members. While three existing providers voiced concerns related to UWMC's planning area, none of the providers dispute the need for additional capacity at UWMC.

Given the only other option to this project is do nothing, taking into account the community support, and the results of UWMC's numeric need methodology, the department concludes that the project described is the best available alternative for the community. This sub-criterion is met.

Step Three

This step is used to determine between two or more approvable projects which is the best alternative. There was no other projected submitted requesting to expand level 2 or level 3 services within King County or HSA #1 as a whole. This step is not applicable to this project.

(2) In the case of a project involving construction:

a) The costs, scope, and methods of construction and energy conservation are reasonable;

Phase two of this project requires build out of space for the special care nursery in the newly constructed wing. This sub-criterion is primarily evaluated within the financial feasibility criterion under WAC 246-310-220(2). Based on that evaluation, the department concludes that this sub-criterion is met.

b) The project will not have an unreasonable impact on the costs and charges to the public of providing health services by other persons.

Phase two of this project requires build out of space for the special care nursery in the newly constructed wing. This sub-criterion is primarily evaluated within the financial feasibility criterion under WAC 246-310-220(2). Based on that evaluation, the department concludes that this sub-criterion is met.

(3) The project will involve appropriate improvements or innovations in the financing and delivery of health services which foster cost containment and which promote quality assurance and cost effectiveness.

This project has the potential to improve delivery of level 2 and level 3 services to the residents in King county and HSA #1. The department is satisfied the project is appropriate and needed. This sub-criterion is met.