STATE OF WASHINGTON
DEPARTMENT OF HEALTH

November 5, 2013

CERTIFIED MAIL # 7011 2000 0000 5081 8661

Stephen P. Zieniewicz, FACHE
Executive Director
University of Washington Medical Center
1959 NE Pacific Street
Seattle, Washington 98195-6151

RE: CN 13-09

Dear Mr. Zieniewicz:

Thank you for the Certificate of the Need (CN) application submitted by the University of Washington Medical Center posing to add 79 acute care beds to the existing hospital.

We have completed review of the Certificate of Need (CN) application submitted by the University of Washington Medical Center posing to add 79 acute care beds to the existing hospital. For the reasons stated in the enclosed decision, the department has concluded that the project as described below is consistent with the applicable CoN review criteria. The Department is prepared to issue a CoN for this project provided University of Washington Medical Center agrees to the following in its entirety:

Project Description:

This application proposes the addition of 79 medical surgical beds to UWMC's current 450 bed licensed capacity. The project will be completed in two phases. The project will not change the services currently provided by the University of Washington Medical Center.

Phase One

The first phase includes the completion of two of the shelled floors and will add a total of 56 beds, including a new 24 bed intensive care unit, to the license. This Phase is expected to be completed in 2015.

Phase Two

The second Phase includes the completion of the final shelled floor and will add another 23 acute care beds. This Phase is expected to be operational in 2017 (or earlier if demand warrants), and at project completion, UWMC will be licensed for 529 beds, of which 444 will be available for acute care use.

The number of approved beds is summarized below:

Type of Service	Phase 1	Phase 2
General Medical/Surgical	421	444
Level 2 intermediate care nursery	15	15
Level 3 neonatal intensive care unit	35	35
Psychiatric (PPS exempt)	16	16
Rehabilitation, Level 1 (PPS exempt)	19	19
Total	**506**	**529**

Condition:

Approval of the project description as stated above. University of Washington Medical Center further agrees that any change to the project as described in the project description is a new project that requires a new Certificate of Need.

Approved Costs:

The capital expenditure for this project is $70,771,363.

You have two options, either accept or reject the above in its entirety. If you accept the above in its entirety, your application will be approved and a Certificate of Need sent to you. If you reject any provision of the above, you must identify that provision, and your application will be denied because approval would not be consistent with applicable Certificate of Need review criteria. Please notify the Department of Health within 20 days of the date of this letter whether you accept the above in its entirety.

Your written response should be sent to the Certificate of Need Program, at one of the following addresses.

Mailing Address:	Other Than By Mail:
Department of Health	Department of Health
Certificate of Need Program	Certificate of Need Program
Mail Stop 47852	111 Israel Road SE
Olympia, WA 98504-7852	Tumwater, WA 98501

If you have any questions, or would like to arrange for a meeting to discuss our decision, please contact Janis Sigman with the Certificate of Need Program at (360) 236-2955.

Sincerely,

Steven M. Saxe, FACHE
Director

Enclosure

EVALUATION DATED NOVEMBER 5, 2013 OF THE APPLICATION SUBMITTED BY UNIVERSITY OF WASHINGTON MEDICAL CENTER PROPOSING TO ADD 79 ACUTE CARE BEDS TO THE EXISTING 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, Valley 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 the table below.

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

Type of Service	Currently Licensed
General Medical/Surgical	365
Level 2 intermediate care nursery	15
Level 3 neonatal intensive care unit	35
Psychiatric (PPS exempt)[2]	16
Rehabilitation, Level 1 (PPS exempt)	19
Total	**450**

[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]

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 & 9]

BACKGROUND INFORMATION

In 2005, UWMC began the planning for a new patient care tower. In 2007, the UWMC Regents approved construction of the 272,000 square foot Montlake Tower. At the time, the Tower was envisioned to be up to eight stories, with three of the stories being shelled for future inpatient expansion (phase 2). Construction of Phase 1 of the eight story Tower was completed in the summer of 2012 and was occupied in October of 2012. The original planning anticipated that UWMC would seek CN approval to add new beds sometime in the latter part of this decade. However, in the context of current census and demand and because of UWMC's role both within the region and within the UW Medicine's health system, UWMC has determined that the application requesting 79 new beds should be put forth now, and such, active planning for Phase 2 has commenced.

PROJECT DESCRIPTION

This application proposes the addition of 79 medical surgical beds to UWMC's current 450 bed licensed capacity. The project will be completed in two phases. The project will not change the services currently provided by the University of Washington Medical Center.

Phase One

The first phase includes the completion of two of the shelled floors and will add a total of 56 beds, including a new 24 bed intensive care unit, to the license. This Phase is expected to be completed in 2015.

Phase Two

The second Phase includes the completion of the final shelled floor and will add another 23 acute care beds. This Phase is expected to be operational in 2017 (or earlier if demand warrants), and at project completion, UWMC will be licensed for 529 beds, of which 444 will be available for acute care use.

The capital expenditure for this project is $70,771,363. This amount is the estimated cost of completion of the three floors of the Montlake Tower that was shelled for future inpatient expansion. If this project is approved, UWMC anticipates that the last 23 acute care beds would be available for service in calendar year 2017. Under this timeline, year 2018 would be the facility's first full calendar year of operation.

Of the total costs under review, 39% is related to construction costs; 11% is related to fixed and moveable equipment, 6% is related to architect and consulting fees, 4% is related to taxes, 38% is related to financing, and 1% is related to other expenses. [Source; Supplemental Information dated January 25, 2013, p4]

Breakdown Of Capital Costs	Total	% of Total
Construction	$27,934,000	39%
Fixed & Moveable Equipment	$8,109.000	11%
Architect Fees/Consulting Fees	$4,188,000	6%
Taxes	$2,865,000	4%
Financing	$26,886,728	38%
Other	$788,635	1%
Total Estimated Capital Costs	**$70,771,363**	**100%**

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).

EVALUATION CRITERIA

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).[3] For the acute care bed addition of this project, UWMC used portions of the 1987 State Health Plan as it relates to the methodology for acute care beds.

APPLICATION CHRONOLOGY

Letter of Intent Submitted	October 10, 2012
Application Submitted	November 20, 2012
Department's Pre-Review Activities • 1st screening activities and responses	November 21, 2012—April 4, 2013
Department Begins Review of the Application • public comments accepted throughout review	April 4 , 2013
Public Hearing Conducted / End of Public Comment	May 15, 2013
Rebuttal Documents Submitted to Department	May 31 , 2013
Second Rebuttal Documents Submitted to Department	July 11, 2013
Department's Anticipated Decision Date	August 26, 2013
Department's Actual Decision Date	November 5, 2013

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 four entities sought and received affected person status under WAC 246-310-010(2).

- Providence Health and Services, Western Washington Region 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 operates Providence Regional Medical Center located in Everett, within Snohomish County.

- Providence Health and Services, Eastern Washington Region a regional delivery network of organizations offering healthcare through its hospitals, extended care facilities, home health, adult day health, assisted living facilities, physician services, and medical laboratories.

- Providence Health and Services, 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.

[3] 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 (4), (5), and (6).

- MultiCare Health System a healthcare delivery system that operates a variety of healthcare facilities within King and Pierce counties.

SOURCE INFORMATION REVIEWED

- University of Washington Medical Center's Certificate of Need Application received November 20, 2012
- University of Washington Medical Center's supplemental information received January 25, 2013
- University of Washington Medical Center's supplemental information received March 29, 2013
- Public Comments submitted throughout the review of the project until May 15, 2013
- MultiCare Health System public comments received May 15, 2013
- Providence Regional Medical Center Everett public comments received May 15, 2013
- Providence Sacred Heart Medical Center & Children's Hospital public comments received May 15, 2013
- Swedish Health Systems public comments received May 15, 2013
- Public comments submitted at the Public hearing held on May 15, 2013
- University of Washington Medical Center's rebuttal comments received May 31, 2013
- Providence Regional Medical Center Everett rebuttal comments received June 5, 2013
- Swedish Health Systems rebuttal comments received June 5, 2013
- UWMC second rebuttal comments received July 11, 2013
- Providence Regional Medical Center Everett second rebuttal comments received July 11, 2013
- Providence Sacred Heart Medical Center & Children's Hospital second rebuttal comments received July 11, 2013
- Swedish Health Systems second rebuttal comments received July 11, 2013
- 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 7, 2013
- Historical charity care data obtained from the Department of Health's Hospital and Patient Data Systems (2009, 2010, and 2011 summaries)
- Population data obtained from Office of Financial Management dated May 2012
- Licensing and/or survey data provided by the Department of Health's Investigations and Inspections Office
- 1987 State Health Plan
- Joint Commission website [www.jointcommission.org]
- Certificate of Need Historical files

TYPE OF REVIEW

This project has been accepted under the regular review timeline as outlined in WAC 246-31-160.

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 79 acute care beds to its facility is consistent with applicable criteria of the Certificate of Need Program provided the applicant agrees to the following.

Project Description

This certificate approves the addition of 79 medical surgical beds to UWMC's current 450 bed licensed capacity. The project will have two phases. The project will not change the services currently provided by the University of Washington Medical Center.

Phase One

The first phase includes the completion of two of the shelled floors and will add a total of 56 beds, including a new 24 bed intensive care unit, to the license. This Phase is expected to be completed in 2015.

Phase Two

The second Phase includes the completion of the final shelled floor and will add another 23 general medical surgical beds. This Phase is expected to be operational in 2017 (or earlier if demand warrants), and at project completion, UWMC will be licensed for 529 beds, of which 444 will be available for general medical surgical use.

The number of approved beds is summarized below:

Type of Service	Phase 1	Phase 2
General Medical/Surgical	421	444
Level 2 intermediate care nursery	15	15
Level 3 neonatal intensive care unit	35	35
Psychiatric (PPS exempt)	16	16
Rehabilitation, Level 1 (PPS exempt)	19	19
Total	**506**	**529**

Condition:

1. Approval of the project description as stated above. University of Washington Medical Center further agrees that any change to the project as described in the project description is a new project that requires a new Certificate of Need.

Approved Costs:

The capital expenditure for this project is $70,771,363.

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) 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.

Summary of UWMC's Numeric Methodology

As previously stated in the project description portion of this evaluation, UWMC is currently licensed for 450 beds at the hospital. Of this bed compliment, 365 are classified as general medical surgical beds, 16 beds allocated for PPS Exempt psychiatric unit, 19 level 1 PPS exempt rehabilitation unit, 15 level II Intermediate Care Nursery, and 35 level III Neonatal Intensive Care Unit. UWMC proposes to add 79 acute care beds[4] to its existing capacity in two phases. Given that this proposal involves extensive construction, UWMC intends to begin the construction project in October, 2013. The first 56 beds would be added in year 2015, resulting in 421 general medical surgical beds at UWMC. By 2017, UWMC would add the remaining 23 beds as additional floors are completed, resulting in 444 general medical surgical beds at completion. Under this timeline, 2021 would be UWMC's third year of operation with 444 general medical surgical beds, or a total compliment of 529 licensed beds. [Application, p9-10]

UWMC is located within the North King hospital planning area. For its numeric demonstration of need for additional beds, UWMC provided three separate versions of the numeric methodology, all relying on different assumptions and modifications, resulting in considerably different results. For purposes of this discussion, the three versions will be referred to as the Application version, the Screening version, and the Rebuttal version.

In the "Application" version, supplied with the initial application, UWMC applied the numeric methodology to the North King planning area. The Application version uses the appropriate planning area patient days and follows each step as prescribed, but includes a different set of current capacity figures in Step 10 than that used in subsequent versions. As a result, UWMC computed a surplus from 2011 through 2013 and a need for beds from 2014 through 2021. The surplus of beds ranges from 29 in 2011 to 5 in 2013. The need for additional beds range from 7 in 2014 and increases to equal a need for 112 additional beds by the end of year 2021. [Application, P37]

In the second "Screening" version, UWMC applied the numeric methodology to the North King planning area as before, but included patient days and acute care beds for Swedish Ballard. This information was provided in February 2013 after the applicant had submitted their applications. Within this version, UWMC determined a surplus of 90 beds in year 2011, decreasing to a surplus of 5 beds in 2017. The need increases from 12 in 2018 to 64 in 2021. [March 28, 2013 Supplemental Information, P11]

In the final "Rebuttal" version supplied with the applicant's rebuttal documents, UWMC included patient days and acute care beds for Swedish Ballard and reduced the number of acute care beds for Northwest Hospital from 172 beds to 152 beds. As a result of these final changes, UWMC continued to demonstrate a surplus of beds from 2011 through 2016. The first indication of need

[4] Acute care beds and medical surgical beds are the same in this evaluation

for additional beds is apparent in 2017 (14 beds) and increases to a need for 82 beds by the end of year 2021. [UWMC Rebuttal, Attachment 4]

The department reviewed the circumstances of each version of the UWMC bed need methodologies, and ultimately rejected both the Application and Rebuttal versions. The Department acknowledges that the Swedish Ballard historical patient days were not available when the application was submitted thus the applicant could not incorporate the Swedish Ballard data in the methodology. The Swedish Ballard data was provided in sufficient time for the applicant to provide revised calculations in screening responses. The department concludes that the results of the methodology provided during screening are more representative of the King North hospital operations with Swedish Ballard included. Further, revisions of previously supplied data cannot be evaluated when received during the prescribed rebuttal period. As a result, the department will only address UWMC's "Screening" methodology for this evaluation of the proposed expansion. UWMC's "Screening" version is explained in greater detail within the step-by-step portion of the numeric methodology explanation below.

A seven-year horizon for forecasting acute care bed projections will be used in this evaluation which is consistent with the recommendations within the state health plan that states, "For most purposes, bed projections should not be made for more than seven years into the future." Further, a seven year forecast is consistent with most projects for hospital bed additions reviewed by the CN Program. At the time this application was submitted, the seven-year projection year is 2018. As a result, the department will set the target year as 2018, which is seven years after the most recent data (2011).

In summary, the second screening methodology submitted by UWMC based its projections on planning area resident hospital discharges for years 2002-2011. This resulted in a projected total of 153,884 patient days in year 2012; increasing through 2018. Year 2018 projections show 176,600 patient days. UWMC determined a surplus of beds in the planning area through year 2017, with a need for 12 beds arising in 2018. Continuing the forecast through 2021, the applicant calculates a need for approximately 64 beds. A complete summary of the applicant's projections are shown in the table below. [March 28, 2013 Supplemental Information, P11]

Table 1
Summary of UWMC Need Methodology for North King Planning Area

	2012	2013	2014	2015	2016	2017	2018
Patient Days	153,884	157,201	160,699	164,300	168,271	172,368	176,600
Planning Area Beds	680	680	680	680	680	680	680
Adjusted Gross Need	603	616	630	644	659	675	692
Adjusted Net Need	**(77)**	**(64)**	**(50)**	**(36)**	**(21)**	**(5)**	**12**

*numbers in parenthesis indicate a surplus of beds. All numbers are rounded.

The Department's Determination of Numeric Need:

The department uses the Hospital Bed Need Forecasting Method contained in the 1987 Washington State Health Plan to assist in its determination of need for acute care capacity. This forecasting method is designed to evaluate need for additional capacity in general, rather than identify need for a specific project. Though the State Health Plan was "sunset" in 1989, the department has concluded that this methodology remains a reliable tool for predicting the baseline need for acute care beds in most circumstances.

The 1987 methodology was a revision of an earlier projection methodology prepared in 1979 and used in the development of subsequent State Health Plans. This methodology was developed as a planning tool for the State Health Coordinating Council to facilitate long-term strategic planning of health care resources. The methodology is a flexible tool, capable of delivering meaningful results for a variety of applications, dependent upon variables such as referral patterns, age-specific needs for services, and the preferences of the users of hospital services, among others.

The 1987 methodology is a twelve-step process of information gathering and mathematical computation. The first four steps develop trend information on hospital utilization. The next six steps calculate baseline non-psychiatric bed need forecasts. The final two steps are intended to determine the total baseline hospital bed need forecasts, including need for short-stay psychiatric services: step 11 projects short-stay psychiatric bed need, and step 12 is the adjustment phase, in which any necessary changes are made to the calculations in the prior steps to reflect conditions which might cause the pure application of the methodology to under- or over-state the need for acute care beds.

The completed methodology is presented as a series of appendices to this evaluation. The methodology presented here incorporates all adjustments that were made following preparation of the methodology. Where necessary, both adjusted and un-adjusted computations are provided. The methodology uses population and healthcare use statistics on several levels: statewide, Health Service Area (HSA)[5], and planning area. The planning area for this evaluation is the North King planning area.

The North King planning area is described in State Health Coordinating Council documents from 1987 as selected zip codes within King County[6]. Zip codes are assigned by the US Postal Service for mail delivery purposes and do not necessarily correspond to fixed areas over long periods of time. Zip codes may also be added or deleted in an area as necessary. Because some zip codes have been added in King County in the intervening years and some zip code boundaries have changed, the 1987 list of zip codes no longer corresponds with the geographic area intended to be considered the King planning area. Changes and updates were considered in the compilation of the patient day and population totals.

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[5] The state is divided into four HSA's by geographic groupings. HSA 1 is composed of Clallam, Island, Jefferson, King, Kitsap, Pierce, San Juan, Skagit, Snohomish, and Whatcom Counties. HSA 2 is composed of Clark, Cowlitz, Grays Harbor, Klickitat, Lewis, Mason, Pacific, Skamania, Thurston, and Wahkiakum counties. HSA 3 is composed of Benton, Chelan, Douglas, Franklin, Grant, Kittitas, Okanogan, and Yakima Counties. HSA 4 is composed of Adams, Asotin, Columbia, Ferry, Garfield, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, and Whitman counties.

[6] Described in 1981 Puget Sound Health Systems Agency documents, select zip codes from King County including—98103, 98105, 98107, 98115, 98117, 98125, 98133, 98155, 98160, 98177, 98185, and 98195.

When preparing acute care bed need projections, the department relies upon population forecasts published by the Washington State Office of Financial Management (OFM). OFM publishes a set of forecasts known as the "intermediate-series" county population projections, based on the 2010 census, updated May 2012[7]. However, OFM figures are not available for any area smaller than an entire county. Because OFM does not provide population estimates at the level necessary for the zip code areas of the North King planning area, the department relied upon estimates and projections developed by Claritas, Inc. for the applicable zip code populations in King County. [Exhibit A of this evaluation, Population appendix]

This portion of the evaluation will describe, in summary, the calculations made at each step and the assumptions and adjustments made in that process. It will also include a review of any deviations related to the assumptions or adjustments made by UWMC in its application of the methodology. The titles for each step are excerpted from the 1987 State Health Plan.

Step 1: Compile state historical utilization data (i.e., patient days within major service categories) for at least ten years preceding the base year.

For this step, attached as Appendix 1, the department obtained planning area resident utilization data for 2002 through 2011 from the Department of Health Office of Hospital and Patient Data Systems' CHARS (Comprehensive Hospital Abstract Reporting System) database. Total resident patient days were identified for the North King Planning Area, HSA 1, and the State of Washington as a whole, excluding psychiatric patient days (Major Diagnostic Category (MDC) 19), normal newborns (Diagnostic Related Group (DRG) 391), and rehabilitation DRGs according to the county in which care was provided.

UWMC followed this step as described above with no deviations.

Step 2: Subtract psychiatric patient days from each year's historical data.

While this step was partially accomplished by limiting the data obtained for Step 1, the remaining data still included non-MDC 19 patient days spent at psychiatric hospitals. Patient days at dedicated psychiatric hospitals were identified for each year and subtracted from each year's total patient days. The adjusted patient days are shown in Appendix 2.

UWMC followed this step as described above with no deviations. The nominal number of psychiatric patients, included in this step is psychiatric patients from the psychiatric hospitals not removed when the MDC 19 is applied in the query of the CHARS data base.

Step 3: For each year, compute the statewide and HSA average use rates.

The average use rate (defined as the number of patient days per 1,000 population) was derived by dividing the total number of patient days in each HSA by that HSA's population and multiplied by 1,000. For the purposes of this application, the average use rate was also determined for the state and the North King planning area and is attached as Appendix 3. Actual and projected population figures for this analysis were derived from the combination of State of Washington Office of Financial Management (OFM) "medium-series" county population projections and Claritas data as described above.

[7] The May 2012 series was the most current data set available during the production of the state acute care methodology following the release of the 2011 CHARS data and can be found at http://www.ofm.wa.gov/pop/estimates.asp and compiled internally by DOH

UWMC followed this step as described above with differing population values.

Step 4: Using the ten-year history of use rates, compute the use rate trend line, and its slope, for each HSA and for the state as a whole.

The department has computed trend lines for the state, HSA 1, and the North King planning area based upon the trends in use rates from these ten years and has included them as Appendix 4. The resulting trend lines uniformly exhibit a mild upward slope. This trend can be related to overall population growth and the fact that the state's population is growing older as the large number of "baby boomers" (those born from 1946 to 1964) age and begin to demand more health services. Utilization of hospital beds by patients aged 65 and older is significantly higher than bed utilization by younger patients, as demonstrated in subsequent calculations.

UWMC followed this step as described above with no deviations. Use of differing population values and patient days produces slightly different, but comparable, results.

Step 5: Using the latest statewide patient origin study, allocate non-psychiatric patient days reported in hospitals back to the hospital planning areas where the patients live. (The psychiatric patient day data are used separately in the short-stay psychiatric hospital bed need forecasts.)

This step calculates the patient days of residents in in the four HSAs and the state as a whole.
The previous four steps of the methodology utilize data particular to the residents of the North King planning area to calculate the use rate in step 6. In order to forecast the availability of services for the residents of a given region, patient days must also be identified for the facilities available within the planning area. Step 5, included as Appendix 5, identifies referral patterns in and out of the North King planning area and illustrates where residents of the planning area currently receive care. For this calculation, the department separated patient days by age group (0-64 and 65 and older), and subtracted patient days for residents of other states. The department also used discharge data for Washington residents that receive health care in Oregon. This data was obtained from the Oregon Department of Human Services.

As has been noted earlier, the original purpose for this methodology was to create comprehensive, statewide resource need forecasts. For purposes of this evaluation, the state was broken into only two planning areas—North King and the state as a whole minus North King. Appendix 5 illustrates the age-specific patient days for residents of the North King planning area and for the rest of the state, identified here as "WA – North King."

UWMC followed this step as described above. The out of state patient days varied slightly from those used by the department. This will effect comparable computations explained further in step 9.

Step 6: Compute each hospital planning area's use rate (excluding psychiatric services) for each of the age groups considered (at a minimum, ages 0-64 and 65+).

Appendix 6 illustrates the age-specific use rates for the year 2011, as defined in Step 6, for the North King planning area and for the rest of the state.

UWMC followed this step as described above with no deviations. UWMC used Claritas 2011 population data that was based on 2010 census data. This data was made available by Claritas in

August 2012. Previous Claritas data was based on the 2000 census population data. This will impact the results in future steps within the methodology

Step 7A: Forecast each hospital planning area's use rates for the target year by "trend-adjusting" each age-specific use rate. The use rates are adjusted upward or downward in proportion to the slope of either the statewide ten-year use rate trend or the appropriate health planning region's ten-year use rate trend, whichever trend would result in the smaller adjustment.

As discussed in Step 4, the department used the ten-year use rate trends for 2002-2011 to reflect the use patterns of Washington residents. The 2011 use rates determined in Step 6 were multiplied by the slopes of both the Health Service Area's ten-year use rate trend line and by the slope of the statewide ten-year use rate trend line for comparison purposes.

The State has a lower projected rate (an annual increase of 1.2730) than the HSA trend rate of 1.4986. As directed in Step 7A, the department applied the State trend to project future use rates.

The methodology is designed to project bed need in a specified "target year." It is the practice of the department to evaluate need for a given project through at least seven years from the last full year of available CHARS data, or 2011 for purposes of this analysis. Therefore, the minimum target year for this analysis will be 2018, and we have projected through 2021.

UWMC followed this step as described above with no deviations. [Source: March 28, 2013 Supplemental Information, P11, January 25, 2013 Supplemental Information p7-24]

Step 8: Forecast non-psychiatric patient days for each hospital planning area by multiplying the area's trend-adjusted use rates for the age groups by the area's forecasted population (in thousands) in each age group at the target year. Add patient days in each age group to determine total forecasted patient days.

Using the forecasted use rate for the target year 2018 and population projections, projected patient days for North King planning area residents are illustrated in Appendix 8. As noted in Step 7, above, forecasts have been prepared for a series of years and are presented in summary in Appendix 10 as "Total North King Res Days."

UWMC applied this step with projections through 2021.

Step 9: Allocate the forecasted non-psychiatric patient days to the planning areas where services are expected to be provided in accordance with (a) the hospital market shares and (b) the percent of out-of-state use of Washington hospitals, both derived from the latest statewide patient origin study.

Using the patient origin study developed for Step 5, Appendix 9 illustrates how the projected patient days for the North King planning area and the remainder of the state were allocated from county of residence to the area where the care is projected to be delivered in the target year 2018. The results of these calculations are presented in Appendix 10 as "Total Days in North King Hospitals."

UWMC applied this step with no deviations and with slightly differing in-migration percentages. [March 28, 2013 Supplemental Information, P11; January 25, 2013 Supplemental Information p7-24]

Step 10: Applying weighted average occupancy standards, determine each planning area's non-psychiatric bed need. Calculate the weighted average occupancy standard as described in Hospital Forecasting Standard 11.f. This should be based on the total number of beds in each hospital (Standard 11.b), including any short-stay psychiatric beds in general acute-care hospitals. Psychiatric hospitals with no other services should be excluded from the occupancy calculation.

The number of available beds in the planning area was identified in accordance with the State Health Plan standard 12.a, which identifies:

1. beds which are currently licensed and physically could be set up without significant capital expenditure requiring new state approval;
2. beds which do not physically exist but are authorized unless for some reason it seems certain those beds will never be built;
3. beds which are currently in the license but physically could not be set up (e.g., beds which have been converted to other uses with no realistic chance they could be converted back to beds);
4. beds which will be eliminated.

The State Health Plan determines the number of available beds in each Planning Area, by including only those beds that meet the definition of #1 and #2 above, plus any CN approved beds. This information was gathered through a capacity survey of the state hospitals, inclusive of the North King planning area hospitals. For those hospitals that do not respond to the department's capacity survey, the information is obtained through the Department of Health's Office of Hospital and Patient Data Systems records.

For this project, there are six hospitals considered in the North King planning area. Below is a summary of these facilities and the department's determination of the capacity values used in the production of the acute care bed methodology. Each of the hospitals currently operating in the North King planning area have completed and returned a survey for use in the establishment of the available bed capacity. In additional to the survey data, the department conducted a bed space survey of Northwest Hospital and Swedish Ballard in September 2013. [2013 DOH Construction Review Service bed space survey]

Kindred

This facility is located at 10631 8th Avenue NE in Seattle. Kindred reports 40 beds set up and available long term acute care and 40 Long Term Care/Skilled Nursing Facility beds for a total capacity of 80 licensed beds. This facility is an acute care hospital that specializes in long term acute care rather than general acute care services No capacity or patient days attributable to Kindred will be included in the production of the need methodology [Department Historical Data]

Northwest Hospital and Medical Center

This facility is located at 1550 North 115th St. in Seattle. Northwest Hospital and Medical Center is a general acute care hospital. The department Surveyed their bed spaces in September and concluded that Northwest Hospital had 150 set up beds and 16 acute care not set up for a total of 166 beds. [2013 DOH Construction Review Service bed space survey]

Seattle Cancer Care Alliance

This facility is located at 825 Eastlake Avenue in Seattle. Seattle Cancer Care alliance (SCCA) is a 20 bed facility providing specialized cancer care services. [SCCA 2012 Utilization Survey]

Seattle Children's
This facility is located at 4800 Sandpoint Way NE in Seattle. The beds and patient days for this facility have been excluded from this evaluation.

Swedish Medical Center/Ballard Campus
This facility is located at 5300 Tallman Avenue, NW in Seattle. The Swedish Medical Center Ballard Campus is included in the Swedish Medical Center license and was not separately identified on the 2012 acute care bed survey. The department surveyed their bed spaces in September and concluded that Swedish Ballard Hospital had 75 set up beds and 49 acute care not set up for a total of 124 beds. [2013 DOH Construction Review Service bed space survey]

University of Washington Medical Center
The applicant facility is located at 1959 NE Pacific Street in Seattle and is licensed for 450 acute care beds. Of the 450 beds, 360 acute care beds set up and available and 5 are assignable but not set-up. In addition the 450 beds include 16 PPS exempt Psychiatric, 19 PPS exempt Rehabilitation and 50 total neonatal intensive care beds. [2012 UWMC Utilization Survey]

While the methodology states that short-stay psychiatric beds should be included in the above totals, the fact that all psychiatric patient days were excluded from the patient days analyzed elsewhere in the methodology makes their inclusion inconsistent with the patient days used to determine need. There are no psychiatric hospitals located in the North King planning area. However, dedicated psychiatric beds within the acute care hospitals were excluded. In summary, among the four hospitals which remained open in the North King planning area the Department has determined that there are 675 available acute care licensed beds. In addition, since rehabilitation patient days have been excluded the beds associated with rehabilitation services have also been excluded.

The bed tally ultimately used in this evaluation by the UWMC can be found in the UWMC's March screening response and a comparison to the department's bed tally is shown in the table below. [March 28, 2013 Supplemental Information, P11]

Table 2
North King Planning Area Acute Care Bed Capacity Totals

Hospital	UWMC Total	Department Total
Northwest Hospital and Medical Center	172	166
Seattle Cancer Care Alliance	20	20
Swedish/Ballard	123	124
University of Washington Medical Center	365	365
Applicable Hospital Capacity	**680**	**675**
Kindred	0	0
Seattle Children's	0	0
Applied Methodology Capacity	**680**	**675**

The disparity between capacities applied in the methodologies appears small. There are some differences between Northwest Hospital and Swedish Ballard which is why the department's

Construction Review Service conducted the acute care bed space survey for the 2 facilities in September 2013.

The weighted occupancy standard for a planning area is defined by the State Health Plan as the sum, across all hospitals in the planning area, of each hospital's expected occupancy rate times that hospital's percentage of total beds in the area. In previous evaluations, the department determined that the occupancy standards reflected in the 1987 State Health Plan 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 State Health Plan downward by 5% for all but the smallest hospitals (1 through 49 beds).

As a result of this change, the North King planning area's weighted occupancy, after removing Children's and Kindred has been determined to be 69.96%. The weighted occupancy standard assumptions detailed above, is reflected in the line "Wtd Occ Std" in Appendix 10a and 10b.

Step 11: To obtain a bed need forecast for all hospital services, including psychiatric, add the non-psychiatric bed need from step 10 above to the psychiatric inpatient bed need from step 11 of the short-stay psychiatric hospital bed need forecasting method.

The applicant is not proposing to add psychiatric services at the facility. In step 10, the department excluded the short stay psychiatric beds from the bed count total. For these reasons, the department concluded that psychiatric services should not be forecast while evaluating this project.

UWMC also did not provide psychiatric forecasts within its methodology.

Step 12: Determine and carry out any necessary adjustments in population, use rates, market shares, and out-of-area use and occupancy rates, following the guidelines in section IV of this Guide.

Within the department's application of the methodology, adjustments have been made where applicable and described above. UWMC's adjustments were all described within its methodology.

The results of the department's methodology are available in Exhibit A as Appendices 10A and 10B attached to this evaluation. Appendix 10A calculates the North King planning area bed need without the proposed project. Appendix 10B demonstrates the impact of adding 79 additional beds to UWMC in multiple phases. A summary of those appendices is shown in the table below. . [Source: Exhibit A, Appendix 10A &10B]

Table 3
Department Methodology
Appendix 10A – Without Project - Summary

	2011	2014	2017	2018	2019	2020	2021
Planning Area # of beds	675	675	675	675	675	675	675
Adjusted Gross Need	556	603	650	666	682	698	714
Need/(Surplus) – Without Project (Appendix 10a) *	**(119)**	**(72)**	**(25)**	**(9)**	**7**	**23**	**39**

*numbers in parenthesis indicate a surplus of beds. All numbers are rounded

As shown in table 3, for base year 2011, Appendices 10A illustrates a planning area net surplus of 9 beds for the minimum target year of 2018. This small surplus would not necessarily preclude the department from considering an expansion of beds in this planning area. [Exhibit A, Appendix 10a]

In comparison, the results of UWMC's application of the methodology are stated in the table below. [March 28, 2013 Supplemental Information, P11]

Table 4
Applicant's Acute Care Need Methodology Summary

	2011	2014	2017	2018	2019	2020	2021
Planning Area Beds	680	680	680	680	680	680	680
Adjusted Gross Need	590	630	675	692	709	727	744
Adjusted Net Need *	**(90)**	**(50)**	**(5)**	**12**	**29**	**47**	**64**

* numbers in parenthesis indicate a surplus of beds. All numbers are rounded.

As shown in the table 4 above, UWMC's application of the methodology illustrates a decreasing planning area surplus for years 2011 through 2017. The applicant projects a need for 12 beds 2018 that increases to 64 beds by 2021.

As demonstrated by the department's methodology summarized in Table 3 above, the North King planning area currently does not show a need for additional acute care bed capacity until 2019.

Both the applicant's and the department's numeric need projections based on the State Health Plan method did not find need materializing until 2018. Both identified need for beds with the need being more significant in 2021 than in 2018.

The projection methodology supports a need for general medical surgical beds less than that requested by the applicant. Therefore UWMC is requesting the department to evaluate other factors in addition to the acute care bed need methodology. UWMC reports that their most acute occupancy problem is with their intensive care units. These are the units where services will generally be provided for the patients being transferred in from outside the planning area. This issue will be analyzed later in this evaluation.

Public Comment

During the review of this application, the department received letters of support before and during the May 15, 2013 public hearing. The letters of support were submitted by staff of UWMC and physicians who make referrals to UWMC. All letters of support expressed concerns with having appropriate beds available at UWMC when referrals of extremely ill patients are received from providers in distant communities. [Public comment provided during the review]

The department also received letters in opposition to this expansion project. Comments were received from Swedish Health System, Providence Sacred Heart Medical & Children's Hospital, and Providence Regional Medical Center Everett. The three hospitals submitted similar data contending that there is not a need for additional licensed beds in the North King planning area. They also contend that UWMC is not the only provider of specialized tertiary and quaternary patient services in King County and the State of Washington. These hospitals submitted a substantial amount of data

from the DOH CHARS data base to support of their position. The focus of the data was to show the amount of tertiary and quaternary services provided by hospitals located in Washington State.

UWMC Rebuttal

The Applicant responded to the public comment by contending that UWMC is the Medical School and provides tertiary and quaternary services other hospitals in the state and region do not provide. The applicant contends that their census is increasing while other hospitals in the area are not experiencing an increase in census. Further, these beds are necessary in order to maintain an efficient balance and to eliminate bottlenecks at a hospital that has been nationally recognized as a low cost, high quality provider.

Department Evaluation

The acute care bed need methodology evaluates the need for acute care hospital beds in a defined planning area and evaluates whether the current supply of beds in the planning area is available or accessible to meet this projected need.

Since the bed need methodology did not provide a conclusive result for approving or denying, UWMC's proposed 79 be acute care addition, the department analysis will evaluate the availability and accessibility of the acute care beds at the two relevant facilities. The two relevant facilities in the planning area are Northwest Hospital and Medical Center and Swedish Medical Center /Ballard Campus.

The department evaluated their historical admissions and patient days for the most recent five year period data was available (2007-2011) to test this premise. Table 5a below illustrates the growth for UWMC excluding all neonates, rehabilitation, and psychiatric patient days.

Table 5a
UWMC Historical Utilization 2007-2011*

	2007	2008	2009	2010	2011	Avg. Annual Growth
Acute Care Patient Days	90,837	90,812	86,827	90,752	95,031	1.1%
ADC	249	249	238	249	260	
Occupancy	68%	68%	65%	68%	71%	

* Excludes all neonates, rehab, and psychiatric patient days
Source: CHARS

Table 5a above shows a 1.1% growth in acute care patient days over the five year time period. The occupancy level for the acute patient days is approaching a level that could cause UWMC problems in responding to requests for admissions for an acute care bed.

Table 5b below illustrates the growth for all patient days over the same five years. This table shows an average of 0.7% growth and the 5.3% increase between 2010 and 2011.
Table 5b also shows that for all patient days UWMC is experiencing a lower growth rate but experiencing a higher occupancy on the total number of beds. The occupancy is at a level that could be affecting UWMCs ability to respond to requests for admissions.

Table 5b
UWMC Historical Utilization for All Patients 2007-2011

	2007	2008	2009	2010	2011	Avg. Annual Growth
All Patient Days *	110,960	111,704	106,081	108,462	114,520	0.7%
ADC	304	306	291	297	314	
Occupancy	75%	76%	72%	73%	78%	

Table 5c
UWMC Projected Utilization 2004-2018*

	2014	2015	2016	2017	2018	Avg. Annual Growth
Acute Care Patient Days	97,041	98,404	99,093	99,786	100,485	0.7%
ADC	266	270	271	273	275	
Occupancy	73%	74%	74%	75%	75%	

* Excludes all neonates, rehab, and psychiatric patient days

Table 5c above shows that projecting the acute care patient days forward at the current all patient days growth rate of 0.7% results in UWMC having 75% occupancy for the acute care beds in 2017. This conservative projection puts them at an occupancy level that could be affecting their ability to respond for requests for admissions to an acute care bed. This 75% occupancy is reached only three years after an expected decision on this application.

The applicant did a similar projection to the one done by the department, but they relied on a one year growth of 4.7% which occurred between 2010 and 2011 to support their acute care patient day projections. Table 5d below shows these projections by UWMC.

Table 5d
UWMC Patient Day Projections at 4.3% Annual Growth

	2014	2015	2016	2017	2018
Acute Care Patient Days	106,671	111,258	116,042	121,032	126,236
ADC	292	304.8	317.9	331.6	345.9
Occupancy	80.1%	83.5%	87.1%	90.8%	94.8%

Source: Applicant

The applicant reports the projections in the table above are for acute care patient days, and the occupancy calculation was based on 365 beds. The department views these projections as very optimistic and since they are based only on a one year data increase that may not be achievable by the applicant. As shown in the table, UWMC would experience significant occupancy problems almost immediately.

UWMC is also supporting their request on the contention that they provide tertiary and quaternary services that the other two hospitals in the North King planning area do not provide. UWMC did an evaluation of the DRGs provided by Swedish/Ballard and UWMC for the year 2011. Table 6 below shows that for acute care patient days and for total days, 52 % of the days provided by UWMC occurred in DRGs that were not provided at Swedish Ballard.

Table 6
Comparison of UWMC and Swedish Ballard Patient Days
2011

	2011 UWMC	2011 Swedish/Ballard	UWMC Unique	% Unique
Total Acute Days	94,870	10,641	49,330	52.0%
Total Days	116,244	15,080	60,722	52.2%
Total Neonates Levels II & III	11,334	301	7,148	63.1%

Source:

UWMC also provided a letter from Ms. Cindy Hecker, Executive Director clarifying Northwest's bed capacity stating that while Northwest is a *"comprehensive medical center and provides select tertiary services, we are not staffed, equipped or programmatically designed to provide care to the growing tertiary/quaternary patient population served by UWMC In; addition we do not have the specialized ICU capability needed to care for these complex patients."*

Phase one of this project includes a 24 bed ICU unit and added to the existing 44 ICU beds reported in CHARS, UWMC would have 68 ICU beds out of their 539 acute care beds. Table 7 below compares the number of ICU beds for several similar size acute care hospitals in Washington State.

Table 7
Acute Care Hospital ICU Comparison
2011

Hospital	ICU Beds	Acute Care Beds	%
UWMC	44	360	12%
Providence St. Peter	13	333	4%
Swedish Medical Center	78	592	13%
Northwest	15	181	7%
SWMC	55	511	11%
TG	97	497	20%
VM	30	207	15%
SHMC	55	531	10%
Overlake	20	297	7%

UWMC has more ICU beds than the general hospitals and slightly lower than hospitals functioning as referral centers for their service areas. UWMC is proposing to add a 24 bed ICU as part of this project. The addition of the 24 ICU beds would result in the UWMC percentage of ICU beds compared to acute care beds increasing to 16%. This makes the number of ICU beds more comparable to the regional referral hospitals. [Source: CHARS, 2011 Hospital bed surveys]

To evaluate the need for ICU beds further, the department reviewed the ICU occupancy data on the two existing 22 bed ICU units provided by UWMC. Table 8 below shows the occupancy status reported by the applicant. [Source: Application, p25]

Table 8
UWMC ICU Occupancy Status 2011

	5E Med Surg ICU	5SE CCU
Licensed Beds	22	22
ADC Midnight	18.4	20.3
Avg. Occupancy	84%	92%

To illustrate the fluctuations in census, UWMC provided the data on days when the units exceeded occupancy on the licensed beds covering the time period January 1, 2012 through October 31, 2012. This data is shown in Table 9 below.

Table 9
UWMC ICU Occupancy

	5E Med. Surg ICU		SE Critical Care ICU	
Occupancy	# of Days	Percent	# of Days	Percent
100%	62	20.3%	94	30.8%
95%	104	34.1%	159	52.1%
90%	136	44.6%	213	69.8%
85%	162	53.1%	246	80.7%
80%	195	63.9%	270	88.5%
75%	225	73.8%	287	94.1%
70%	243	79.7%	296	97.0%
65%	272	89.2%	299	98.0%
55%	297	97.4%	303	99.3%

Neither of the other two hospitals in the North King planning area has the ICU bed, staff, and support services to provide the care needed by these patients accessing the UWMC. [Source: Application p26]

As the patient origin data from the acute care bed need indicates, a substantial portion of patients using UWMC facilities and services come from outside the North King planning area. UWMC reports that 24.6% of the patients come from King County areas outside of the North King planning area, 11.8 % come from Snohomish County, 26.7% come from other HSA 1 areas 15 % come from other Washington areas, and 7.8% come from out of state. [Source: Application, p5] The influx of referrals generated all but 10,570 patient days in 2011. The UWMC gets transfers from a large number of hospitals. The applicant reported that there were 1,645 transfers from other hospitals into UWMC in 2011. For 2012 there were 1,735 transfers into UWMC from other hospitals. [Source: Supplemental Materials, p14 &15]

Department Conclusion

The department has concluded that allocating the projected patient days to all the hospitals in the North King planning area as the methodology does, will not provide an accurate allocation of the needed beds in the North King planning area. UWMC has provided documentation that the patients

coming into the planning area are coming for specialized care at UWMC. The other two hospitals in the planning area do not have the facilities, personnel, or other resources to provide the needed services. The current occupancy levels for UWMC especially in their intensive care units indicate a need for beds. The projections provided by the department using 0.7% growth indicate that there will be a need for beds at UWMC by 2017. The occupancy levels for the intensive care units appear to be at a critical point already as demonstrated by the number of days of extreme occupancy. Therefore the department concludes that the 79 beds requested by UWMC in this application are reasonable. **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.

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]

The department uses the facility's Medicare certification to determine whether the elderly would have access or continue to have access to the proposed services. UWMC currently provides services to Medicare eligible patients in their medical facilities. Details provided in the application demonstrate that UWMC intends to maintain this status. A review of the anticipated revenues indicates that the facility expects to continue to receive Medicare reimbursements. [Source: Application P14 Exhibit 12]

The department uses the facility's Medicaid eligibility or contracting with Medicaid to determine whether low-income residents would have access to the proposed services. UWMC currently provides services to Medicaid eligible patients in their medical facilities. Details provided in the application demonstrate that UWMC intends to maintain this status. A review of the anticipated revenue indicates that the facility expects to continue to receive Medicaid reimbursements. [Source: Application P14 Exhibit 12]

UWMC demonstrated its intent to provide charity care to Washington residents by, submitting its current charity care policy, reviewed and approved by the Department of Health's Hospital and Patient Data Systems (HPDS) program. It outlines the process one would use to access services when they do not have the financial resources to pay for the required treatments. UWMC also included a 'charity care' line item as a deduction from revenue within the pro forma income statements for their facility. [Source: Application, p30, Exhibit 7 & Exhibit 12]

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 2009-2011 charity care data obtained from HPDS,[8] UWMC has historically provided more than the average charity care provided in the region.[9] UWMC's most recent three-year (2009-2011) average percentages of charity care for gross and adjusted revenues are 1.92% and 3.56%, respectively. The 2009-2011 average for the King County Region is 1.68% for gross revenue and 3.07% for adjusted revenue. [Source: HPDS 2009-2011 charity care summaries]

UWMC's pro forma revenue and expense statements indicate that the hospital will provide charity care at approximately 5.47% of gross revenue and 7.23% of adjusted revenue. RCW 70.38.115(2) (j) requires hospitals to meet or exceed the regional average level of charity care. 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. **This sub-criterion is met.**

(3) The applicant has substantiated any of the following special needs and circumstances the proposed project is to serve.

(a) The special needs and circumstances of entities such as medical and other health professional schools, multidisciplinary clinics and specialty centers providing a substantial portion of their services or resources, or both, to individuals not residing in the health services areas which the entities are located or in adjacent health services areas.

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. 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.*" [Source: Application, pp35-37]
In this case not approving the project may have an adverse effect on profession training programs provided by UWMC.

To further 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.[10] 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.*" [Source: Application, pp38-39]
Department Conclusion
UWMC documented that they provide specialty services, medical training, and research services to a significant number of individuals residing outside of the North King service area. This was evaluated as part of the numeric need methodology earlier in this section. Highlights of that evaluation include:

- demonstration that 72% of UWMC's patients come from outside of the North King planning area based on their patient origin study

[8] As of the writing of this evaluation, 2012 charity care data is not available.
[9] 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.
[10]

- the documentation of referrals from other large tertiary hospitals to UWMC
- physician letters of support documenting that the scope of care available in their community was not sufficient for the patients referred to UWMC

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) 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, the department evaluated the FY 2015 through FY 2018 Statement of Operations for the entire hospital. [HPDS Analysis p2] A summary of the Statement of Operations is shown in the table 10 below.

Table 10
University of Washington Medical Center
Years 2015 through 2018 Projected Statement of Operations Summary (1,000's)

	Projected 2015	Projected 2016	Projected 2017	Projected 2018
Patient Days	136.938	134.139	149.031	153.431
Total Net Revenue	$1,012,177	$1,049,598	$1,086,861	$1,114,446
Total Expenses w/ Allocations	$933,099	$948,809	$979,272	$990,134
Net Profit or (Loss)	**$79,078**	**$100,789**	**$107,589**	**$124,312**

The 'total net revenue' line item in the table above is the result of gross revenue minus any deductions for contractual allowances, bad debt, and charity care. The 'total expenses with allocations' line item includes staff salaries/wages and all hospital cost allocations. The table above reflects the financial position of UWMC as a whole. As shown in the table above; the hospital is projected to be profitable in years 2015 through 2018.

To determine whether UWMC would meet its immediate and long range capital costs with the 79 additional beds the department's Hospital and Patient Data Systems (HPDS) reviewed current and projected balance sheets. Historical year [2012] and year [2015] are shown in Tables 11a below 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 2012 (1,000's)

Assets		Liabilities	
Current Assets	$171,189	Current Liabilities	$129,004
Fixed Assets	$248,325	Long Term Debt	$193,429
Board Designated Assets	$480,783	**Total Liabilities**	**$322,433**
Other Assets	$480,783	**Equity**	**$ 663,470**
Total Assets	**$985,903**	**Total Liabilities and Equity**	**$ 985,903**

Table 11b
University of Washington Medical Center Balance Sheet for Projected Year 2018 (1,000's)

Assets		Liabilities	
Current Assets	$203,269	Current Liabilities	$143,660
Fixed Assets	$569,653	Long Term Debt	$289,896
Board Designated Assets	$626,794	**Total Liabilities**	**$433,556**
Other Assets	$123,404	**Equity**	**$1,089,564**
Total Assets	**$1,523,120**	**Total Liabilities and Equity**	**$1,523,120**

This project is part of a larger construction project. The physical shell for the beds proposed in the application submitted by UWMC was constructed as part of UWMC's Montlake Tower inpatient bed tower project. UWMC will use internal funding derived from tax-exempt bonds and reserves for the costs of the project. Approximately 73% or $51.6 million will come from the internal debt at 5.5% interest and 27% or $19.1 million will be from reserves. The balance sheet for UWMC shows that the funds are available and that the cost of the project will not harm UWMC. HPDS staff compiled an analysis for the cost of this construction project in relation to designated reserves and other asset classes from UWMC's 2012 fiscal year end. The results are summarized in the table 12 below. [Source: HPDS Analysis p2]

Table 12
UWMC Asset Ratios

Capital Expenditure (1,000's)	$70,771
Percent of Total Assets	7.2%
Percent of Board Designated Assets	28.5%
Percent of Equity	10.7%

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 2011 data for comparison with current year 2012 and projected years 2016 through 2018. The ratio comparisons are shown in Table 12 on the following page. [Source: HPDS analysis, p3]

Table 13
Current and Projected HPDS Debt Ratios for University of Washington Medical Center

Category	Trend [11]	State 2011	Current 2012	Projected 2016	Projected 2017	Projected 2018
Long Term Debt to Equity	B	0.561	0.292	0.355	0.309	0.266
Current Assets/Current Liabilities	A	2.042	1.327	1.383	1.402	1.415
Assets Funded by Liabilities	B	0.440	0.327	0.339	0.312	0.285
Operating Expense/Operating Revenue	B	0.966	0.934	0.904	0.901	0.888
Debt Service Coverage	A	4.370	1.027	13.074	13.993	14.926
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					

Review shows that while this project will have an impact to the hospital; this project will not adversely impact the financial health of the hospital. UWMC has a strong financial position and receives funds to help support the additional expenses experience by teaching hospitals. **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.

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

UWMC identified a total capital expenditure for both phases to be $70,771,363. The costs are broken down in table 14 below.

Table 14
University of Washington Medical Center
Estimated Capital Expenditure Breakdown

Breakdown Of Capital Costs	Total	% of Total
Construction	$27,934,000	39%
Fixed & Moveable Equipment	$8,109.000	11%
Architect Fees/Consulting Fees/ Site Supervision	$4,188,000	6%
Taxes	$2,865,000	4%
Financing	$26,886,728	38%
Other	$788,635	1%
Total Estimated Capital Costs	**$70,771,363**	**100%**

To assist the department in its evaluation of this sub-criterion, HPDS reviewed hospital financial data reported by UWMC. Staff from HPDS provided the following analysis of forecasted rates at UWMC. [Source: HPDS analysis, p4]

HPDS also compared UWMC's costs and charges to the year 2012 statewide average and determined that they are similar to the Washington statewide average. [Source: HPDS analysis, p4]

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.**

(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 $70,771,363. The costs were broken down in Table 14 above. UWMC proposes to fund the project with a combination of hospital reserves and UW general revenue bonds. After reviewing UWMC's proposed financing, HPDS provided the following statement. [Source: HPDS analysis, p4]

"University of Washington Medical Center will use internal funding derived from tax-exempt bonds and reserves for the costs of the project. Approximately 73% or $51.6 million will come from the internal debt at 5.5% interest and 27% or $19.1 million will be from reserves. The hospital has adequate reserves to cover the contribution".

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)

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.

(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 79 beds in two separate phases. The first phase is the completion of two of the shelled floors and will add a total of 56 beds, including a new 24 bed intensive care unit. UWMC anticipates that this phase would be complete in May 2015. The second phase includes the completion of the final shelled floor and will add another 23 acute care beds. This phase is expected to be operational in February 17, 2017. Under these two timelines, year 2018 would be the hospital's first full calendar year of operation with the 79 beds and 2018 is third full year following completion of phase two. [Source: Application, pp10 &19]

To accommodate the additional patients and patient days beginning in year 2015, UWMC projected FTE increases each year beginning in year 2015. Table 15a below and table 5b on the next page is a summary of UWMC's FTEs from year 2015 through 2019. [Source: Application, p47]

Table 15a
UWMC Projected Special FTEs for 79 Bed Addition

	Year 2015	2016 Increase	2017 Increase
Nurse Manager	2.0	0.0	1.0
RN3	4.0	0.0	2.0
RN2	39.7	29.0	26.7
PSS Supervisor	0.4	0.4	0.3
PSS2	2.2	1.7	1.6
Hospital Assistant	0.6	0.4	0.2
Patient Care Technician	7.7	6.8	6.7
Total FTEs	**56.7**	**38.3**	**38.5**

Table 15b
UWMC Projected Special FTEs for 79 Bed Addition

	2018 Increase	2019 Increase	FTE Total
Nurse Manager	0.0	0.0	3.0
RN3	0.0	0.1	7
RN2	21.2	21.9	162.3
PSS Supervisor	0.2	0.3	1.8
PSS2	1.3	1.3	9.5
Hospital Assistant	0.2	0.3	2.0
Patient Care Technician	5.2	5.2	37.2
Total FTEs	**28.1**	**29.1**	**222.8**

UWMC anticipates the need to add 222.8 FTEs to staff the 79 bed increase. UWMC reports being well positioned to attract and retain staff, and in the current economy does not anticipate significant problems in securing the needed, qualified staff. They report that UWMC's reputation as a nationally recognized provider of high quality tertiary/quaternary services, its status as a Magnet Hospital for Nursing Excellence, and its position as a research/teaching facility has historically greatly enhanced its efforts and minimized difficulty in recruiting qualified staff. [Source: Application, p48]

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.*
UWMC reports that with the recent completion of the Montlake Tower, and with the proposed remodel and expansion of ancillary departments that is scheduled to occur in the next phase of the Tower, UWMC will have sufficient physical space to address the ancillary and support service needs of the 79 new beds. [Source: Application, p48] **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 2013.[12]

Complementing reviews performed by the Joint Commission are the surveys conducted by the department's Investigation and Inspection's Office (IIO). In February 2009, 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. 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]

[12] http://www.qualitycheck.org

Based on UWMC compliance history, the department concludes that there is reasonable assurance that the hospital would continue to operate in conformance with state and federal regulations. **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.

UWMC states that the additional beds would greatly assist in promoting continuity of care at the hospital. Reported increases in demand for inpatient critical care currently exceed operational capacity on a frequent basis. The applicant states that their ability to provide services to their larger service area beyond the North King Planning Area is hindered by the lack of available beds in the intensive care units on short notice.

The applicant states as a widely recognized referral center within WWAMI, UWMC staff enjoy an extensive working knowledge of the resources available throughout the region. The historic relationships established by UWMC and its medical staff are critical to successfully supporting patients post discharge. In addition, UWMC is the teaching hospital for UW Medicine, which includes four hospitals, neighborhood, clinics, and Airlift Northwest.

UWMC and UW School of Medicine enjoy strong working relationships with hospitals, specialists, primary care providers, and others throughout WWAMI. [(Source: Application, p 49]

Therefore the department concludes that approval of the 79 additional licensed beds will improve continuity in providing services to patients utilizing the hospital services in the North King planning area. **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.

A determination that a proposed project will foster cost containment shall be based on the following criteria.

(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. Therefore, the department moves to step two.

Step Two

Before submitting this application the applicant considered three other options. All options considered by UWMC involved adding various numbers of beds. [Source: Application: pp53-59]

- One floor, 24 to 48 additional beds
  After allocating 24 or 48 beds to ICU units this alternative would potentially leave no beds for acute care service. This also leaves 2 floors to be developed later after patients are using the existing units resulting in disruption of patient care and higher construction costs.

- Two floors 48 to 64 additional beds
  This alternative leaves one floor to be developed at a later time causing patient disruption and adding additional construction costs to the project.

- Three beds 74 to 96 additional beds
  This alternative allows for all three floors to be completed at the same time. Based on choices of ICU bed needs, UWMC reduced a number of beds less than the maximum considered in this alternative.

Based on the department's findings under need, the department did not identify other reasonable alternatives.

The department concludes that the project chosen by the applicant is the best alternative. **This sub-criterion is met.**

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

a) The costs, scope, and methods of construction and energy conservation are reasonable;
This project requires build out of space for the acute care beds in the newly constructed Montlake Tower. 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.
This project requires build out of space for the acute care beds in the newly constructed Montlake Tower. 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 does have the potential to improve delivery of acute care services to the residents of the North King Hospital Planning Area and Washington State. **This sub-criterion is met.**

EXHIBIT A

2000-2009 HSA TOTAL NUMBER OF RESIDENT PATIENT DAYS											
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	10-YEAR TOTAL
HSA #1	1,122,876	1,136,135	1,145,828	1,175,674	1,190,407	1,235,086	1,282,624	1,275,813	1,269,568	1,295,164	**12,129,175**
NK	89,878	85,647	84,828	83,749	82,817	85,568	88,211	87,757	86,162	86,819	**861,436**
STATEWIDE TOTAL	**1,801,497**	**1,817,545**	**1,831,276**	**1,894,857**	**1,935,410**	**1,995,882**	**2,065,622**	**2,059,941**	**2,045,563**	**2,058,360**	**19,505,953**
2000-2009 CHARS wo all MDC19 and MDC15.xlsx											
Subtract Childrens and Kindred from the above pt days											
Childrens & Kindred											
HSA 1	39,091	43,323	42578	45672	42292	45029	49575	51880	49906	50383	
NK	4210	6587	5375	4346	3923	3599	4554	4249	4414	4958	
STATEWIDE	49348	53676	52291	56162	53850	56005	64577	65715	64090	63685	
Total Pt. Days											
HSA #1	1,083,785	1,092,812	1,103,250	1,130,002	1,148,115	1,190,057	1,233,049	1,223,933	1,219,662	1,244,781	
NK	85,668	79,060	79,453	79,403	78,894	81,969	83,657	83,508	81,748	81,861	
STATEWIDE TOTAL	1,752,149	1,763,869	1,778,985	1,838,695	1,881,560	1,939,877	2,001,045	1,994,226	1,981,473	1,994,675	

2002-2011 HSA TOTAL NUMBER OF RESIDENT PATIENT DAYS											
	2002	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**10-YEAR TOTAL**
HSA #1	1,083,785	1,092,812	1,103,250	1,130,002	1,148,115	1,190,057	1,233,049	1,223,933	1,219,662	1,244,781	**11,669,446**
NK	85,668	79,060	79,453	79,403	78,894	81,969	83,657	83,508	81,748	81,861	**651,612**
STATEWIDE TOTAL	1,752,149	1,763,869	1,778,985	1,838,695	1,881,560	1,939,877	2,001,045	1,994,226	1,981,473	1,994,675	**18,926,554**

2002-2011 HSA TOTAL NUMBER OF PSYCHIATRIC PATIENT DAYS											
	2002	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**10-YEAR TOTAL**
HSA #1	492	741	717	662	616	805	1067	1713	1404	1758	**9,975**
NK**	12		5	32	35	37	144	75	97	197	**634**
STATEWIDE TOTAL	**530**	**970**	**898**	**799**	**716**	**954**	**1,152**	**2,006**	**1,527**	**1,939**	**11,491**

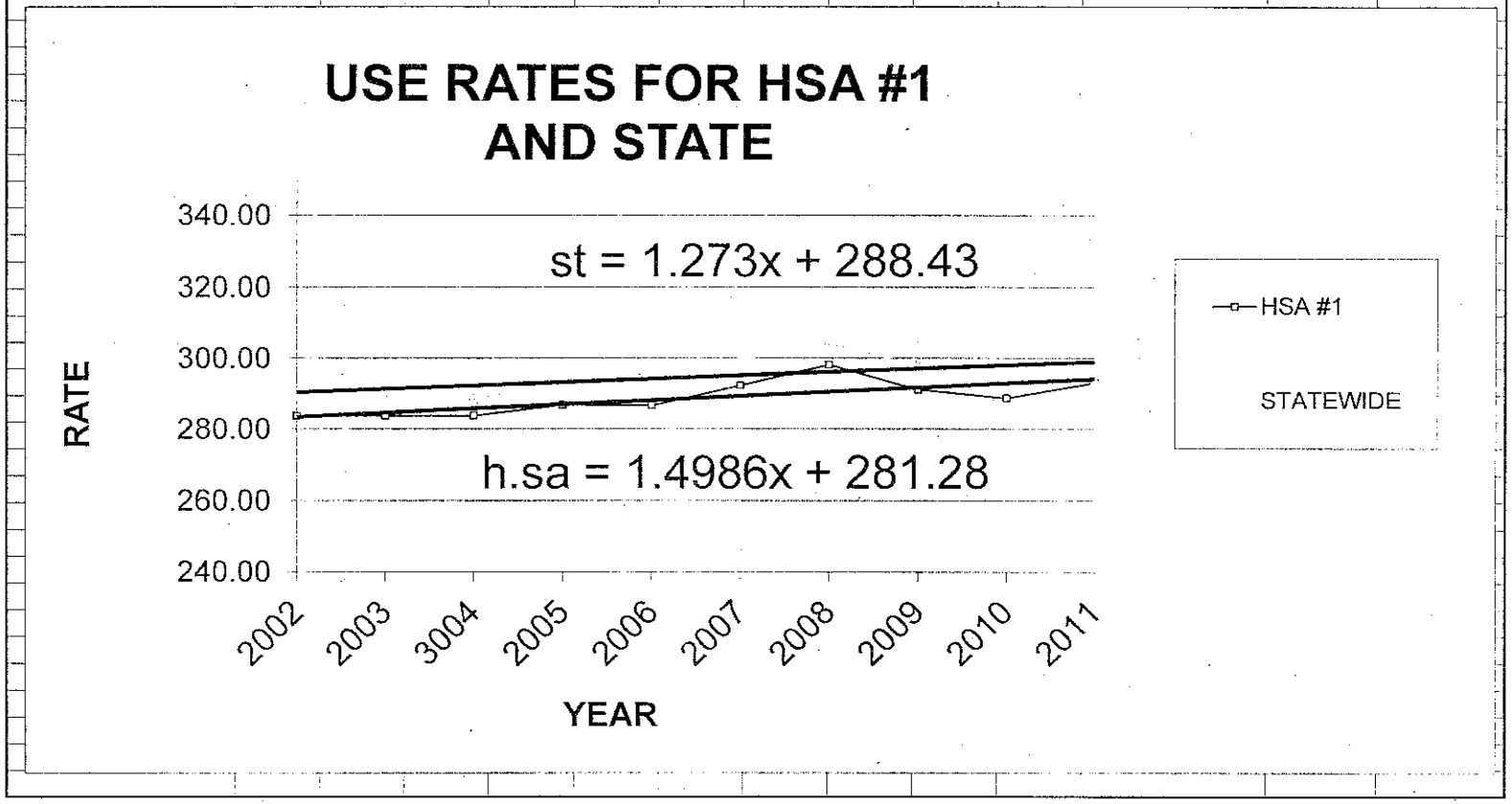
2002-2011 HSA TOTAL NUMBER OF PATIENT DAYS MINUS PSYCH DAYS											
	2002	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**10-YEAR TOTAL**
HSA #1	1,083,293	1,092,071	1,102,533	1,129,340	1,147,499	1,189,252	1,231,982	1,222,220	1,218,258	1,243,023	**10,576,178**
NK	85,656	79,060	79,448	79,371	78,859	81,932	83,513	83,433	81,651	81,664	**814,587**
STATEWIDE TOTAL	**1,751,619**	**1,762,899**	**1,778,087**	**1,837,896**	**1,880,844**	**1,938,923**	**1,999,893**	**1,992,220**	**1,979,946**	**1,992,736**	**18,915,063**

2002-2011 HSA TOTAL NUMBER OF RESIDENT PATIENT DAYS MINUS PSYCH DAYS											
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	10-YEAR TOTAL
HSA #1	1,083,293	1,092,071	1,102,533	1,129,340	1,147,499	1,189,252	1,231,982	1,222,220	1,218,258	1,243,023	**11,659,471**
NK	85,656	79,060	79,060	79,371	78,859	81,932	83,513	83,433	81,651	81,664	**814,199**
STATEWIDE TOTAL	**1,751,619**	**1,762,899**	**1,778,087**	**1,837,896**	**1,880,844**	**1,938,923**	**1,999,893**	**1,992,220**	**1,979,946**	**1,992,736**	**18,915,063**

TOTAL POPULATIONS											
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	10-YEAR TOTAL
HSA #1	3,818,510	3,849,500	3,885,500	3,938,000	4,003,059	4,068,118	4,133,178	4,198,237	4,219,632	4,241,101	**40,354,835**
NK	304,951	306,020	307,090	308,160	309,230	310,300	311,370	312,439	313,509	314,579	**3,097,648**
STATEWIDE TOTAL	**6,041,710**	**6,098,300**	**6,167,800**	**6,256,400**	**6,363,584**	**6,470,767**	**6,577,951**	**6,685,134**	**6,724,540**	**6,784,072**	**64,170,258**

USE RATE PER 1,000											
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	10-YEAR TOTAL
HSA #1	283.70	283.69	283.76	286.78	286.66	292.33	298.07	291.13	288.71	293.09	**2,888**
NK	280.88	258.35	257.45	257.56	255.02	264.04	268.21	267.04	260.44	259.60	**2,629**
STATEWIDE	**289.92**	**289.08**	**288.29**	**293.76**	**295.56**	**299.64**	**304.03**	**298.01**	**294.44**	**293.74**	**2,946**

RESIDENT USE RATE PER 1,000													
	2002	2003	3004	2005	2006	2007	2008	2009	2010	2011	10-YEAR TOTAL		Trendline
HSA #1	283.70	283.69	283.76	286.78	286.66	292.33	298.07	291.13	288.71	293.09	2,887.91		1.4986
NKing											0.00		
STATEWIDE	289.92	289.08	288.29	293.76	295.56	299.64	304.03	298.01	294.44	293.74	2,946.47		- 1.2730



STEP #5
2011 DATA

	# of Pat days	Less OOS	TOTAL LESS OOS	
NKing Hospitals				
0-64	95,817	8,726	86,891	9.13%
65+	43,111	2,484	40,627	5.76%
TOTAL	138,728	11,210	127,518	8.08%
WA - NKing				
0-64	1,037,291	44,060	993,231	4.25%
65+	816,717	31,835	784,882	3.90%
TOTAL	1,854,008	75,895	1,778,113	4.09%

	TO NKing	TO WA	
FROM NKing			
0-64	18,859	23,989	check w CHARS
65+	18,590	19,218	
TOTAL	37,449	43,207	
FROM WA			
0-64	68,032	969,242	
65+	22,037	765,664	
TOTAL	90,069	1,734,906	
	127,518	1,778,113	

	TOTAL # OF DAYS FOR N KING RESIDENTS BY HSA (LESS PATS FROM OOS)	ADD DAYS PROVIDED IN OREGON **	TOTAL # OF DAYS FOR RESIDENTS BY HSA
	42,848	108	42,956
	37,808	83	37,891
	80,656	191	80,847
	1,037,274	39,964	1,077,238
	787,701	19,864	807,565
	1,824,975	59,828	1,884,803

** Patient Days as reported by Oregon CUP

MARKET SHARE
PERCENTAGE OF PATIENT DAYS

	TO NKing	TO WA	TO OREGON
% OF NKing RESIDENTS			
0-64	43.90%	55.85%	0.25%
65+	49.06%	50.72%	0.22%
TOTAL			
% OF WA - NKing RESIDENTS			
0-64	6.32%	89.97%	3.71%
65+	2.73%	94.81%	2.46%
TOTAL			

2011 POPULATIONS BY PLANNING AREA

	NKing	WA-NKING TO WA	
0-64	277,400	5,646,706	5,924,106
65+	35,039	825,031	860,070
TOTAL	312,439	6,471,737	6,784,176

STEP #6
USE RATE BY PLANNING AREA

	NKing	TO WA
USE RATES		
0-64	154.85	160.77
65+	1,081.38	978.83

USE RATE BY PLANNING AREA FROM STEP 6							
	NKing						
YEAR 2011 USE RATES							
0-64	154.85						
65+	1,081.38						
PROJECTED POPULATION	YEAR 2018						
	NKing						
0-64	287,608						
65+	50,301						
TOTALS	**337,909**						
PROJECTED 2018 USE RATE							
	NKing						
USE RATES*							
0-64 using HSA Trend	165.34						
0-64 using Statewide Trend	**163.76**						
65+ using HSA Trend	1,091.87						
65+ using Statewide Trend	**1,090.29**						
* Projected by applying either HSA trend or Statewide trend, whichever trend would result in the smaller adjustment							
Bold Print indicates use rate closest to current value							

USE RATE BY HSA FROM STEP 7A	
PROJECTED USE RATE - 2018	**NKing**
USE RATES	
0-64	163.76
65+	1,090.29
PROJECTED POPULATION - 2018	
	NKing
0-64	287,608
65+	50,301
TOTALS	**337,909**
PROJECTED # OF PATIENT DAYS	YEAR 2018
	NKing
0-64	47,100
65+	54,843
TOTALS	**101,942**

PROJECTED # OF PATIENT DAYS				
YEAR 2018	NKinging	WA - NKinging	TOTAL	
0-64	47,100	1,242,667	1,289,767	
65+	54,843	1,123,078	1,177,921	
TOTALS	101,942	2,365,746	2,467,688	
MARKET SHARE % OF PATIENT DAYS FROM STEP 5				
% OF NKinging RESIDENTS	NKinging	WA - NKinging	TO OREGON	
0-64	43.90%	55.85%	0.25%	
65+	49.06%	50.72%	0.22%	
% OF WA - NKinging RESIDENTS	NKinging	WA - NKinging	TO OREGON	
0-64	6.32%	89.97%	3.71%	
65+	2.73%	94.81%	2.46%	
# OF NKinging RESIDENTS	NKinging	WA - NKinging	TO OREGON	Total
0-64	20,678	26,303	118	47,100
65+	26,907	27,816	120	54,843
				101,942
# OF WA - NKinging RESIDENTS	NKinging	WA - NKinging	TO OREGON	Total
0-64	78,480	1,118,087	46,101	1,242,667
65+	30,647	1,064,807	27,625	1,123,078
				2,365,746
# OF RESIDENT PAT DAYS PROJECTED IN NKing				
0-64	99,158			
65+	57,554			
# OF RESIDENT PAT DAYS PROJECTED IN WA - NKing				
0-64	1,144,390			
65+	1,092,622			
# OF WA RESIDENT PAT DAYS PROJECTED IN OREGON				
0-64	46,220			
65+	27,745			
OUT OF STATE % OF PATIENT DAYS FROM STEP 5				
NKing	%			
0-64	10.04%			
65+	6.11%			
WA - NKinging				
0-64	4.44%			
65+	4.06%			
PROJECTED # OF PATIENT DAYS 2018				
PLUS OUT OF STATE RESIDENTS				
NKing				
0-64	109,116	2.316700748		
65+	61,073	1.113593411		
TOTAL	170,188			

North King Acute Care Bed Need
Appendix 10a

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
NKing Planning Area											
Population 0-64(1)	280,147	281,213	282,279	283,344	284,410	285,476	286,542	287,608	288,673	289,739	290,805
0-64 Use Rate	154.85	156.13	157.40	158.67	159.94	161.22	162.49	163.76	165.04	166.31	167.58
Population 65+(1)	34,432	36,699	38,966	41,233	43,500	45,767	48,034	50,301	52,568	54,835	57,102
65+ Use Rate	1,081.38	1082.65	1082.65	1083.93	1085.20	1086.47	1087.75	1089.02	1090.29	1091.56	1092.84
Total Population	314,579	317,912	321,245	324,577	327,910	331,243	334,576	337,909	341,241	344,574	347,907
Total NKing Res Days	80,616	83,637	86,617	89,652	92,696	95,748	98,809	101,878	104,956	108,042	111,137
Total Days in NKing Hospitals (2)	141,965	145,959	149,910	153,926	157,955	161,996	166,050	170,117	174,196	178,288	182,393
Available Beds (3)											
Children's	0	0	0	0	0	0	0	0	0	0	0
Swedish Ballard (4)	124	124	124	124	124	124	124	124	124	124	124
SCCA	20	20	20	20	20	20	20	20	20	20	20
Kindred	0	0	0	0	0	0	0	0	0	0	0
Northwest Hosp. (4)	166	166	166	166	166	166	166	166	166	166	166
UWMC	365	365	365	365	365	365	365	365	365	365	365
Total	**675**	**675**	**675**	**675**	**675**	**675**	**675**	**675**	**675**	**675**	**675**
Wtd Occ Std(5)	69.96%	69.96%	69.96%	69.96%	69.96%	69.96%	69.96%	69.96%	69.96%	69.96%	69.96%
	556	**572**	**587**	**603**	**619**	**634**	**650**	**666**	**682**	**698**	**714**
Net Bed Need/(Surplus)	(119)	(103)	(88)	(72)	(56)	(41)	(25)	(9)	**7**	**23**	**39**
								7 yr			

(1) Source: Claritas 2011
(2) Adjusted to reflect referral patterns into and out of NKing Planning Area to other planning areas and Oregon
(3) Source: Fall 2011 Hospital Survey returns
(4) Source: Fall 2013 DOH Construction Review Services bed space survey