

May 2, 2016

Mike McKillip, Project Analyst
Healthcare Planning and Certificate of Need Section
Division of Health Service Regulation
North Carolina Department of Health and Human Services
809 Ruggles Drive
Raleigh, North Carolina 27603

RE: Written comments regarding Novant Health Outpatient Surgery, Develop a New Ambulatory Surgical Facility by Relocating Two ORs from Winston-Salem to Kernersville, HSA II, Project ID # G-011150-16

Dear Mr. McKillip:

Enclosed please find comments prepared by Wake Forest Baptist Health (WFBH) regarding Novant Health Kernersville Outpatient Surgery (NHKOS), Develop a New Ambulatory Surgical Facility by Relocating Two ORs from Winston-Salem to Kernersville, HSA II, Project ID # G-011150-16. After review of the NHKOS application, WFBH has identified several areas of concern we wish to outline for your consideration. They are as follows:

- Per 2016 License Renewal Application reported volumes, Kernersville Medical Center has a surplus of 1 operating room.
- NHKOS states throughout the application that the additional operating rooms are needed to meet the needs of the growing population and huge growth seen at Kernersville Medical Center; however, Novant Health Kernersville Medical Center (NHKMC) has yet to meet operating room volume projections from the hospital's CON application. Furthermore, Forsyth County has a surplus of 2.88 operating rooms and Guilford County, which represents a significant portion of the NHKOS service area, has a surplus of 30.89 operating rooms.
- NHKOS has overstated the projected volumes for this facility in comparison to overall projected market growth rates. NHKOS volume projections were based solely on historic volume growth at NHKMC and do not take into account population growth, historic growth of these surgical services as a whole in the service area, and projected growth in these surgical services in the service area.
- NHKOS does not sufficiently provide documentation of the inadequacy or inability of existing providers to meet the demand identified by the applicant. The large operating room surplus of 30.89 operating rooms in Guilford County is not mentioned at all in the application. The majority of the population in the NHKOS service area lie within Guilford County zip codes.

Pursuant to N.C.G.S. 131E-185(a1)(2), WFBH requests that a public hearing be held on the NHKOS application.

If you have any questions about the information presented here, please feel free to contact me at 336.716.1046.

Sincerely,

Lynn S. Pitman
Associate Vice President, Strategic and Business Planning
Wake Forest Baptist Health

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2016 License Renewal Application Reported Surgical Volumes and CON Operating Room Need Methodology

According to 2016 reported License Renewal Application surgical volumes, Novant Health Forsyth County Facilities have a surplus of 7 operating rooms (this excludes dedicated C-section Rooms). Hawthorne Outpatient Surgery is the only facility with an operating room deficit (1 operating room); all other facilities have surpluses with the exception of Orthopedic Outpatient Surgery (which has the exact required number of operating rooms). NHKMC has a surplus of 1 room according to 2016 License Renewal Application surgical volumes (Table 1).

**Table 1: 2016 License Renewal Application Reported Volume and CON OR Need Methodology
Novant Health, Forsyth County Facilities**

	Total ORs (Less C-Section and Open Heart Rooms)	Total Weighted Surgical Hours	OR Requirement	Surplus (+) / Deficit (-)
Novant Health - All Forsyth County ORs	45	70,335	37.57	7
Forsyth Medical Center	21	34,323	18.33	3
Hawthorne OP Surgery	4	9,054	4.84	-1
Orthopedic OP Surgery	2	3,737	2.00	0
Kernersville Medical Center	4	6,083	3.25	1
Clemmons Medical Center	2	1,529	0.82	1
Medical Park Hospital	12	15,611	8.34	4

Novant states throughout the application that the additional operating rooms are required to meet the growing demand for services in the Kernersville market. However, License Renewal Application reported volumes coupled with operating room need methodology indicate that NHKMC has a surplus of one operating room. Furthermore, per the 2016 SMFP, Guilford County has a surplus of 30.89 operating rooms and Forsyth County has a surplus of 2.88 operating rooms indicating sufficient capacity in the market to accommodate substantial growth in surgical services.

Section III Need / Demand 1(a), Pages 29-31: Increasing Number of Surgeons on NHKMC Medical Staff

Novant projects surgical cases using Medical Group Management Association (MGMA) benchmarks for expected surgical volumes per full-time surgeon by specialty. The MGMA benchmarks are used to illustrate the impact in terms of surgical cases of new surgeons to the NHKMC medical staff. This is a faulty methodology to project surgical volume as it solely supply-based and does not account for the demand-side of the equation. A surgeon’s capacity to perform a certain number of procedures does not necessarily translate into a market demand for those procedures. Furthermore, Novant does not elaborate as to where these new providers to the NHKMC medical staff will originate from. If they are existing providers in the market, their surgical volume will likely be shifting from another facility. If they are new to the market, their projected surgical capacity should be compared to projected demand for services to determine that there is adequate volume in the market to accommodate the volumes.

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Section III Need / Demand 1(a), Pages 31-32: NHKMC Outpatient Surgical Market Share in Forsyth and Guilford Counties

Novant claims that there was not a shift in outpatient market share from Novant Health Forsyth facilities to NHKMC because overall outpatient surgical market share grew for Novant Health Forsyth County facilities in all but two zip codes (27009 in Forsyth and 27265 in Guilford). However, when breaking-out NHKMC from all other Novant Health Forsyth County facilities, Novant Health market share dropped in at total of six zip codes from CY 2012 to CY 2014. Novant Health Forsyth County facilities (with the exception of NHKMC) lost market share in two zip codes in Forsyth County: 27009 (Belews Creek) which declined 4.5% and 27284 (Kernersville) which declined by 2.3%. Market share declined in four of the eight zip codes in the NHKMC Guilford County market: 27265 (High Point), 27357 (Stokesdale), and 27410 (Greensboro) each of which declined by 0.3%, and 27409 (Greensboro) which declined by 0.7% (Table 2). These declines in market share are contradictory to Novant’s claim that market share was not shifted from its Forsyth County facilities to NHKMC.¹

**Table 2: Market Share Change from CY 2012 – CY 2014
NHKMC, All Other NH Forsyth County Facilities, and Total NH Forsyth County Facilities**

	KMC	All Other NH	Total NH
Forsyth			
27009	1.8%	-4.5%	-2.7%
27051	4.2%	1.3%	5.5%
27284	4.7%	-2.3%	2.4%
27285	10.1%	6.9%	17.0%
Guilford			
27235	5.1%	1.4%	6.5%
27265	0.2%	-0.3%	-0.1%
27282	0.4%	0.9%	1.3%
27310	2.0%	2.7%	4.7%
27357	0.7%	-0.3%	0.4%
27358	1.4%	1.1%	2.5%
27409	1.1%	-0.7%	0.4%
27410	0.4%	-0.3%	0.1%

Section III Need / Demand 1(a), Pages 33-34: Population Growth of Novant Health Kernersville Outpatient Surgery (NHKOS) Market Area

Novant cites the projected growth in Kernersville and the surrounding zip codes as support for the growing NHKOS market. According to Truven Health Market Discovery data, Winston-Salem (where the operating rooms are being proposed to be relocated from) zip codes are projected to grow at a rate of 0.8% annually from 2014-2019 compared to a Kernersville growth of 1.0%. Although the growth rate in Kernersville is slightly higher, the raw population 5-year growth is much lower due to a smaller population; five-year

¹ It should also be noted that zip code 27285, the zip code with the largest percentage *increase* in cases at both NHKMC and at other NH facilities from 2012 to 2014, also had the lowest total *number* of cases, 42 in 2012 and 57 in 2014. See NHKOS application, Exhibit 3, Table 11.

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growth for Winston-Salem is estimated at +11,379 whereas 5-year growth for the NHKOS market is estimated as +3,065.

Guilford zip codes in the NHKOS service area are projected to grow an average of 1.4% annually or an estimated +10,865 in aggregate. However, Guilford County has a surplus of 30.89 operating rooms, which shows adequate capacity within the County to meet the growing demands of the population.

Section III Need / Demand 1(a), Page 38: Conclusion

Novant cites that the relocation is in response to the growing Kernersville market to meet utilization demands. However, NHKMC has a surplus of one operating room according to 2016 LRA data indicating that the need is being met currently and capacity exists to accommodate future growth. Furthermore, the surplus of 2.88 operating rooms in Forsyth County and 30.89 operating in Guilford County indicate that there is adequate capacity in the NHKMC market to meet current and projected growth in outpatient surgical services.

Per the Novant Health CON application for NHKMC, the volume projections for the operating rooms are outlined in Table 3 below. The Novant Health CON for NHKMC projected a total of 4,160 cases by PY 3 (7/2011 – 6/2012) to be performed in four operating rooms.

Table 3: Novant Health Surgical Projections from NHKMC CON Application

	PY 1 7/1/09 – 6/30/10	PY 2 7/1/10 – 6/30/11	PY 3 7/1/11 – 6/30/12
Projected # of IP Surgical Procedures	863	1,068	1,282
Projected # of OP Surgical Procedures	1,939	2,400	2,878
Total # of Surgical Procedures	2,802	3,468	4,160

NHKMC opened in 2011. Using the Trendstar data provided in the NHKOS CON application (Exhibit 3, Table 3), and assuming the same project months as the NHKMC CON application, Table 4 below shows that NHKMC performed a total of 1,597 cases in actual PY 1 of the Kernersville Hospital CON, which is 1,205 cases fewer than the targeted volume for PY1.² Pulling volume out to the next year, 7/2012 – 6/2013, total cases equaled 2,385 compared to a projected PY 2 of 3,468 which is 1,083 cases fewer than projected by PY 2. In the third year, 7/2013-6/2014, total cases equaled 2,883 compared to a projected PY 3 of 4,160 which is 1,277 cases fewer than projected by PY 3. Looking to the last year available, total cases equaled 2,991 which is *still* 1,169 fewer than the 4,160 cases projected in PY 3.

² Note that NHKOS Exhibit 3, Table 3 reports no volume until October 2011, so actual PY 1 only includes 9 months. According to the NHKOS application, NHKMC opened in March 2011. NHKOS fails to explain why the Trendstar data reflects no surgeries performed at NHKMC until October 2011.

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Table 4: Comparison of Surgical Projections from NHKMC CON Application to NHKMC Actuals

	PY 1 7/11– 6/12¹	PY 2 7/12-6/23	PY 3 7/13-6/14	PY 4 7/14-6/15
NHKMC Historic Volume				
Inpatient	216	460	666	808
Outpatient	1,381	1,925	2,217	2,183
Total	1,597	2,385	2,883	2,991
PY 1-3 Volume Target from CON	2,802	3,468	4,160	4,160
Difference Between Actual and Volume Target	(1,205)	(1,083)	(1,277)	(1,169)

1: Volume reported begins in October 2011 so total includes 9 months

Novant states the additional capacity is needed on the Kernersville campus to accommodate the rapid volume growth experienced at NHKMC. However, NHKMC has yet to meet the surgical case projections included in the CON application four years after the hospital opened, and therefore they have not even outpaced their own projected growth. Most recent publicly available data in the 2016 LRA includes a total FFY 2015 volume of 3,521 cases at NHKMC which is still 640 cases below the 4,160 cases projected in PY 3 of the CON. Novant’s Trendstar data reports even less cases (3,418) in CY 2015.

Section III Need / Demand 1(b) Step 2, Pages 40-41

Novant is using an 11.5% annual growth rate for inpatient volume as this is the “most conservative growth rate” of the inpatient historic data for NHKMC. This growth is, however, is 10.4 percentage points greater than the annual projected Forsyth County population growth (1.1%) and 10.8 percentage points greater than the annual projected Guilford County population growth (0.7%).

The Advisory Board Company provides growth projections for inpatient and outpatient services for specified services in specified market segments. The Advisory Board Company projections for 2014-2024 for the 12 zip codes in the NHKOS service area for General Surgery and Orthopedic Surgery, which composed 92% of NHKMC surgical inpatient volume per the 2016 LRA, are 18% over 10 years which translates to an average annual growth of 1.8% (Table 5). Novant’s projection of 11.5% annual inpatient volume growth is 9.7 percentage points *greater* than the overall inpatient General Surgery and Orthopedic Surgery market growth rate.

**Table 5: Advisory Board Company Inpatient Market Estimates
NHKOS Market Area, Orthopedics and General Surgery**

	2014 Market Volume	2019 Market Volume	2024 Market Volume	5YR Growth Rate	10YR Growth Rate	10YR Avg Growth Rate	10YR Avg Growth
General Surgery	1,831	1,973	2,117	8%	16%	1.6%	29
Orthopedics	1,721	1,861	2,086	8%	21%	2.1%	37
Total	3,552	3,834	4,203	651	18%	1.8%	65

Novant suggests that the annual growth in cases is reasonable because the historic growth averaged 190 new cases annually, they are adding surgeons to the medical staff, and the volume is supported by population growth and increasing market share. However, the annual projected surgical volume growth

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of 11.5% is 10.4 (Forsyth County) to 10.8 (Guilford County) points greater than the population growth and 9.7 points greater than the NHKOS market growth rate for inpatient surgical services per The Advisory Board Company.

NHKOS market projections from the Advisory Board Company estimate that the entire market for NHKOS inpatient General Surgery and Orthopedic Surgery will grow by 65 cases per year (Table 5). This compares to an average projected growth of 138 cases per year per the NHKOS application (Table 6) a difference of +73 cases on average per year. This suggests that approximately 53% ($73 / 138 = 53\%$) of NHKMC inpatient volume will come from volume shifts from other facilities in the market and approximately 47% ($65 / 138 = 47\%$) of NHKMC inpatient volume will come from increased market demand for inpatient surgical services. It also suggests that NHKMC will capture 100% of the projected inpatient NHKOS market growth (65 cases per year). It is unrealistic to assume this degree of inpatient market share capture to NHKMC.

Table 6: NHKMC Inpatient Surgical Case Projections

	2015	Growth Rate	2016	2017	2018	2019	2020	2021	Avg Growth
Inpatient Cases	901	11.5%	1,005	1,120	1,249	1,392	1,552	1,730	-
Annual Growth	-	-	104	115	129	143	160	178	138

Section III Need / Demand 1(b) Step 3, Pages 43-44

Novant is using 7.7% annual growth rate for outpatient volume as this rate represents the same period used for inpatient projections and is less than the average annual outpatient growth for all three of the Novant Health outpatient surgical databases. This growth, however, is 6.6 percentage points greater than the annual projected Forsyth County population growth (1.1%) and 7 percentage points greater than the annual projected Guilford County population growth (0.7%).

The Advisory Board Company provides growth projections for inpatient and outpatient services for specified services in specified market segments. The Advisory Board Company projections for 2014-2024 for the 12 zip codes in the NHKOS service area for Hospital Based Outpatient General Surgery, Ophthalmology, Orthopedic Surgery, and Podiatry procedures, which composed 95% of NHKMC surgical outpatient volume per the 2016 LRA, are 23% over 10 years which translates to an average annual growth of 2.3% (Table 7). Novant’s projection of 7.7% annual outpatient volume growth is 5.4 percentage points *greater* than the overall Hospital Based Outpatient General Surgery, Ophthalmology, Orthopedic Surgery, and Podiatry procedure market growth rate.

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**Table 7: Advisory Board Company Outpatient Market Estimates
NHKOS Market Area; Orthopedics, General Surgery, Ophthalmology, and Podiatry**

	2014 Market Volume	2019 Market Volume	2024 Market Volume	5YR Growth Rate	10YR Growth Rate	10YR Avg Growth Rate	10YR Avg Growth
General Surgery	3,255	3,553	4,114	9%	26%	2.6%	86
Ophthalmology	2,867	3,265	3,924	14%	37%	3.7%	106
Orthopedics	4,550	4,693	4,993	3%	10%	1.0%	44
Podiatry	234	278	343	19%	47%	4.7%	11
Total	10,906	11,789	13,374	2,468	23%	2.3%	247

Novant suggests that the annual growth in cases is reasonable because the historic growth averaged 342 new cases per year, they are adding surgeons to the medical staff, and the volume is supported by population growth and increasing market share. However, the annual projected surgical volume growth of 7.7% is 6.6 (Forsyth County) to 7 (Guilford County) points *greater* than the population growth and 5.4 points *greater* than the NHKOS market growth rate for outpatient surgical services per The Advisory Board Company.

NHKOS market projections from the Advisory Board Company estimate that the entire market for NHKOS outpatient General Surgery, Ophthalmology, Orthopedic Surgery, and Podiatry will grow by 247 cases per year (Table 7). This compares to an average projected growth of 234 cases per year per the NHKOS application (Table 8). This suggests that NHKMC will have to capture on average approximately 95% ($234 / 247 = 95\%$) of all outpatient surgical market growth to meet volume targets. In its most aggressive year, 2021, NHKMC will have to capture 100% of the market growth plus shift 32 cases from other facilities ($279 - 247 = 32$) to meet volume targets.

Table 8: NHKMC Outpatient Surgical Case Projections

	2015	Growth Rate	2016	2017	2018	2019	2020	2021	Avg Growth
Inpatient Cases	2,517	7.7%	2,710	2,917	3,141	3,382	3,641	3,919	
Annual Growth	-	-	193	208	223	241	259	279	234

Section III Need / Demand 1(b) Step 5, Page 45

Novant projects a need for 2 operating rooms at NHKOS by growing baseline NHKMC volume annually at 7.7% and then assuming 50% in PY 1 will be ASC appropriate, 55% in PY 2 will be ASC appropriate, and 60% in PY 3 will be ASC appropriate.

If volume were grown at the annual market growth rate of 2.3%, the OR need would not reach 1.5 by PY 3. Volume would need to be grown at double the market rate, or 4.6%, to meet the threshold by PY 3 and more than triple the market rate to meet the threshold by PY 2 (Table 9). This signifies that the demand is not sufficient to support the two ambulatory operating rooms.

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**Table 9: NHKOS Operating Room Need Scenarios
Novant Methodology Compared to Market Growth Rate, Double Market Growth Rate, and Triple Market Growth Rate**

NHKOS OR Need In Project Years	PY 1 (April 18 – March 19)	PY 2 (April 19 – March 20)	PY 3 (April 20 – March 21)
NHKOS Projected OR Need	1.28	1.52	1.78
OR Need if Volume Grown @ Market Rate	1.09	1.22	1.36
OR Need if Volume Grown @ Double Market Rate	1.17	1.34	1.53
OR Need if Volume Grown @ Triple Market Rate	1.25	1.47	1.72

III Need / Demand 1(b) Step 6, Page 46

Novant projects a need for 4 operating rooms at NHKMC by growing baseline NHKMC volume annually at 11.5% for inpatient and 7.7% for outpatient. Outpatient volumes are then reduced by 50% in PY 1, 55% in PY 2, and 60% in PY 3 to account for the shift to NHKOS.

If volume were grown at the annual market growth rates of 1.8% for inpatient and 2.3% for outpatient per the Advisory Board estimates, the OR need would only reach 2.49 by PY 3. Volume growth at double the market rates would result in an OR need of 2.67 by PY 3 and growth at triple the market rates would result in a need of 3.05 by PY 3 (Table 10). This signifies that the demand is not sufficient to support the four operating rooms at NHKMC.

**Table 10: NHKMC Operating Room Need Scenarios
Novant Methodology Compared to Market Growth Rate, Double Market Growth Rate and Triple Market Growth Rate**

NHKMC OR Need In Project Years	PY 1 (April 18 – March 19)	PY 2 (April 19 – March 20)	PY 3 (April 20 – March 21)
NHKMC Projected OR Need	3.34	3.54	3.75
OR Need if Volume Grown @ Market Rate	2.62	2.56	2.49
OR Need if Volume Grown @ Double Market Rate	2.74	2.71	2.67
OR Need if Volume Grown @ Triple Market Rate	2.97	3.01	3.05

Section III Need / Demand 1(b) Step 7, Page 46

Novant projects an overall need of six operating rooms on the Kernersville campus by PY 3; two operating rooms at NHKOS and four operating rooms at NHKMC. However, Novant has significantly overstated the growth in demand for services in this market. For Novant to achieve the projected volume targets, they will have to capture 100% of the organic growth in services in this market plus shift a significant volume from their own facilities and / or competitor facilities.

A more realistic estimate of the operating room need is a total of 3.85 operating rooms by PY 3 which models NHKMC and NHKOS inpatient and outpatient annual volume growth at the market rates of 1.8% for inpatient and 2.3% for outpatient. Even if Novant were able to grow volume at three times the market rates, the operating room need would only equal 4.77 by PY 3 requiring a relocation of just one operating room, not two as proposed.

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As Guilford County has a surplus of 30.89 operating rooms and Forsyth County has a surplus of 2.88 operating rooms, there is sufficient capacity in surrounding areas to accommodate this growth.

NHKMC + NHKOS OR Need	PY 1 (April 18 – March 19)	PY 2 (April 19 – March 20)	PY 3 (April 20 – March 21)
NHKMC +NHKOS Projected OR Need	4.62	5.06	5.53
OR Need if Volume Grown @ Market Rate	3.71	3.78	3.85
OR Need if Volume Grown @ Double Market Rate	3.91	4.05	4.20
OR Need if Volume Grown @ Triple Market Rate	4.22	4.48	4.77

Section III Need / Demand 1(b), Page 47-48, Alternate Methodology

Novant projects surgical cases using Medical Group Management Association (MGMA) benchmarks for expected surgical volumes per full-time surgeon by specialty. The MGMA benchmarks are used to illustrate the impact in terms of surgical cases of new surgeons to the NHKMC medical staff. This is a faulty methodology to project surgical volume as it solely supply-based and does not account for the demand-side of the equation. A surgeon’s capacity to perform a certain number of procedures does not necessarily translate into a market demand for those procedures. Furthermore, Novant does not elaborate as to where these new providers to the NHKMC medical staff will originate from. If they are existing providers in the market, their surgical volume will likely be shifting from another facility. If they are new to the market, their projected surgical capacity should be combined with projected demand for services to determine that there is adequate volume in the market to accommodate the volumes.

Section III Need / Demand 3(a), Page 50

Novant does not adequately respond to the necessity of relocating the operating rooms from Forsyth Medical Center in Winston-Salem to Kernersville. They cite that “the growth of surgical services at NHKMC supports the need to develop the proposed project”. However, NHKMC has yet to reach its own volume targets per the CON application. Novant does not address anywhere in the Need / Demand methodology why the providers in Guilford County, which have a surplus of +30.89 operating rooms, cannot meet the demand for services in the NHKOS market area of which the Guilford County zip codes account for 58% of the population in the NHKOS market area.

Section III Need / Demand 9(b), Page 59

Novant does not clearly provide specific documentation of the inadequacy or inability of existing providers to meet the demand identified by the applicant. Guilford County has a surplus of 30.89 operating rooms.