



February 3, 2017

BY EMAIL (erik.bodin@vdh.virginia.gov) ONLY

Mr. Erik O. Bodin, Director
Office of Licensure and Certification
9960 Mayland Drive, Suite 401
Henrico, VA 23233-1485

Re: Request for Additional Information – Response # 8

Dear Mr. Bodin,

Response # 8 to the questions received from your office on December 22, 2016, has been uploaded to the Citrix ShareFile platform.

Please contact me if you have any difficulty or questions in accessing the Citrix ShareFile platform. As permitted under Virginia Code § 15.2-5384.1.C.1 and Virginia's Rules and Regulations Governing Cooperative Agreements (12VAC5-221-40.D), the material that the parties believe to be proprietary is clearly marked and submitted in separate electronic files for confidential treatment.

Responses to the following questions are submitted as part of Response # 8:

Section V. Additional Information

- D. Tertiary Program
4
- N. Market Analysis
7
- T. Additional Information
27

Additional responses will be provided as soon as possible. Please let me know if you or your staff has any questions related to the enclosed documents.

Sincerely,

Jennifer Light McGrath

cc: Peter Boswell
Allyson K. Tysinger

[REDACTED]

RESPONSE #8
TO QUESTIONS
SUBMITTED DECEMBER 22, 2016
BY
VIRGINIA DEPARTMENT OF HEALTH
IN CONNECTION WITH
APPLICATION FOR LETTER AUTHORIZING COOPERATIVE AGREEMENT

Pursuant to Virginia Code § 15.2-5384.1
and the regulations promulgated thereunder at 12VAC5-221-10 *et seq.*

Submitted by: Mountain States Health Alliance
Wellmont Health System

Date: February 3, 2017

V.D.4.

4. **Assess the strengths and weaknesses in the NHS tertiary program compared to Carilion Clinic, Inova, UVA Health System, VCU Health, and Sentara Healthcare. Be specific for each specialty and sub-specialty program. Describe the strategy by which the NHS will offer benefits to Virginia residents greater than already offered at other Virginia academic medical centers. Justify that investment in the Applicants' academic medical centers is more effective than investment in Virginia competitors.**

JOINT RESPONSE: The Applicants believe that investing in the three NHS tertiary facilities is an effective investment because the residents of Southwest Virginia, while they live in remote areas within a sparsely populated region of Virginia, should have easier access to tertiary services than half-day or more drives to all but one of the tertiary centers listed above

The closest of these facilities to the 11-county Virginia area are Carilion Roanoke Memorial Hospital, located in Roanoke, VA (an average drive of about 2.5 hours for the population of the 11-county Virginia area), and the University of Virginia Medical Center, located in Charlottesville, VA (an average drive of about 4 hours for the population of the 11-county Virginia area). The travel distances to Inova Fairfax Hospital (Fairfax, VA), MCV Hospitals of VCU Medical Center (Richmond, VA), and Sentara Norfolk General (Norfolk, VA) for most patients in the 11-county Virginia area make these tertiary programs undesirable options or inaccessible.^[1]

Assessing the strengths and weaknesses in the NHS's tertiary program compared to Carilion, Inova, UVA, MCV, and Sentara is a challenge due to lack of direct competition and lack of detailed available information about these entities.

Carilion Roanoke Memorial Hospital, according to its website, "is one of the largest hospitals in the state." The facility is a 703-bed hospital with an additional 60-bed Neonatal Intensive Care Unit, Level I trauma center, and pediatric emergency room. The facility is located approximately 153 miles from the nearest NHS tertiary hospital, Bristol Regional Medical Center. This is the closest of the tertiary facilities named in the Question, and geographic proximity is a likely factor in the utilization of this facility by some residents of the 11-county Virginia area.

According to UVA's website, UVA Medical Center is part of the University of Virginia Health System, which is an academic health care center and NCI designated cancer center. The UVA Health System includes a main hospital, children's hospital and clinic network, as well as a school of medicine, school of nursing, and health sciences library. Further, UVA Health System has an extensive telemedicine program with 152 partners across Virginia with access to 60+ subspecialties. Strengths of the UVA tertiary program would likely include its extensive expertise and medical education and research components and its subspecialty services such as Neurosurgery, Oncology, Thoracic Surgery, and Urology based on market share data.

^[1] For example, according to Google maps, the distances from Abingdon, VA to each of these tertiary facilities is as follows: 19.7 miles to Bristol Regional Medical Center, 134.9 miles to Carilion Roanoke Memorial Hospital, and 211.6 milesto UVA Medical Center.

With the exception of Carilion Roanoke Memorial Hospital for some patients, the NHS tertiary facilities in Tennessee are geographically closer to the patients in the 11-county Virginia area than the Virginia tertiary facilities mentioned in the Question.

Table D-4 below shows information about services currently offered by each of the NSH tertiary facilities and by the other tertiary facilities listed in the Question, according to information available on the other facilities' websites.

Table D-4 – Tertiary Services Offered

SERVICE	HVMC	BRMC	JCMC	UVA	MCV	Carilion Medical Center	Inova Fairfax	Sentara Norfolk General
Organ Transplantation				X	X		X	X
Burn unit					X			X
High-Risk OB	X	X	X	X	X	X	X	X
Level 3 Neonatal Services	X		X	X	X	X	X	X
Bone Marrow Transplantation				X	X		X	X
Level I Trauma	X		X	X	X	X	X	X
Neurology	X	X	X	X	X	X	X	X
Neurosurgery	X	X	X	X	X	X	X	X
Open-Heart Surgery	X	X	X	X	X	X	X	X

The current tertiary services offered at the NHS facilities are tailored to best meet the needs of the population served by them with the available resources. There are certain high level services that are performed at only one or two of the Parties' tertiary facilities presently—based on the availability of technology and physician expertise. In 2015, almost 70% of tertiary level discharges in the 11 county VA service were treated at a NHS facility. Of the approximately 30% who were treated in a non-NHS facility, about 70% of those patients sought care at other hospitals in Virginia, Kentucky, North Carolina and Tennessee, including Duke Health, Vanderbilt University Medical Center, Mission Health, and Novant Health.

It will not be possible or advisable for the NHS to perfectly replicate the mix of tertiary service offerings at other Virginia academic medical centers. As is currently the case, NHS may develop a strategy focused on “centers of excellence” for advanced programs in highly specialized areas where services are unique to the region and where the consolidation of procedures will help to provide case variety and volumes sufficient to ensure high levels of quality and better outcomes for patients. Rather than limiting access for patients, by spreading program fixed costs over larger regional patient populations, this approach will encourage the development of new tertiary services not currently justifiable in our market. This is the single biggest reason for investment in NHS as opposed to other academic competitors – competitors routinely hundreds of miles away.

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Exhibit D-4 provides detail on the tertiary services provided to patients in the 11-county Virginia area at NHS tertiary facilities and the other tertiary facilities named in the Question during FY14-FY16, using publicly available VAHA data.

INDEX OF DOCUMENTS:

- Exhibit D-4 Detailed FY14-FY16 Product Line by DRG- VA Patients

V.N.7.

7. Please provide any competitor analysis or SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis that MSHA or WHS (or their consultants) have conducted since 2009.

MSHA RESPONSE: The requested information is provided.

MSHA believes that **Exhibit N-7A** is proprietary, confidential and competitively sensitive under federal antitrust laws. MSHA will submit this Exhibit separately to the Virginia State Health Commissioner and the Attorney General for the Commonwealth of Virginia as proprietary information that is required to remain confidential under Virginia Code Section 15.2-5384.1.C.1 and Virginia's Rules and Regulations Governing Cooperative Agreements (12VAC5-221-40.D).

INDEX OF DOCUMENTS:

- Exhibit N-7A MSHA Competitor Analysis– **PROPRIETARY**

WHS RESPONSE: The requested information is provided.

WHS believes that **Exhibit N-7B** is proprietary, confidential and competitively sensitive under federal antitrust laws. WHS will submit this Exhibit separately to the Virginia State Health Commissioner and the Attorney General for the Commonwealth of Virginia as proprietary information that is required to remain confidential under Virginia Code Section 15.2-5384.1.C.1 and Virginia's Rules and Regulations Governing Cooperative Agreements (12VAC5-221-40.D).

INDEX OF DOCUMENTS:

- Exhibit N-7B WHS Competitor Analysis – **PROPRIETARY**

V.T.27.

27. Provide documents, prepared in the ordinary course of business, relating to the merging parties' business plans, short term and long range strategies and objectives, and budget and financial projections covering the next five years as either a stand-alone or affiliated system.

JOINT RESPONSE: The following documents provide the requested information:

- Application Exhibit 10.3 MSHA Existing and Future Business Plans covering the next five years (2016-2020)
- Application Exhibit 10.4 WHS Existing and Future Business Plans covering the next five years (2016-2020)
- Application Exhibit 17.1 Commitments and Proposed Accountability Mechanisms for Active Supervision (**NEW** – see Section IV.17)
- Application Exhibit 17.2 Modified Proposed Achievement Scoring Mechanism (**NEW** – see Section IV.17)
- Exhibit B-8A MSHA GME Plans
- Exhibit C-1E Joint Academics and Research Functional Team Members and Project Plan Draft
- Exhibit G-1A Amended New Health System Revised Commitments
- Exhibit M-3B Joint NewCo Baseline Financial Model Information – PUBLIC
- Exhibit M-3C Joint NewCo Baseline Financial Model Information and Report of FTI Consulting, Inc. – **PROPRIETARY**
- Exhibit O-5A Year-by-Year Summary of Investments
- Exhibit O-5B New Health System Template Community Health Improvement Plan
- Exhibit O-5C Estimates of How and When the \$150 Million Investment in a Common Clinical IT Platform and Health Information Exchange will be Allocated
- Exhibit Q-1A MSHA HIS Report
- Exhibit Q-1B WHS IT Consultants' Reports
- Exhibit Q-2A High-Level Timeline for Common Clinical IT Platform

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- Exhibit Q-2B Summary Description of Parties Current Electronic Health Records Systems and Plans for Common Clinical IT Platform
- Exhibit Q-2C Ballard Health Alignment Overview IT Strategy
- Exhibit Q-5A MSHA Culture & Governance Assessment
- Exhibit Q-5B WHS Culture & Governance Assessment
- Exhibit T-32A Ballard Health Alignment Overview

LIST OF EXHIBITS FOR RESPONSE #8

SECTION V

Exhibit Number	Description
D-4	Detailed FY14-FY16 Product Line by DRG- VA Patients
N-7	MSHA Competitor Analysis *This information will be submitted separately to the Virginia State Health Commissioner and the Attorney General for the Commonwealth of Virginia as proprietary information required to remain confidential under Virginia Code Section 15.2-5384.1.C.1, and Virginia's Rules and Regulations Governing Cooperative Agreements (12VAC5-221-40.D).

DISCHARGES WITH RELATIVE WEIGHTS of >2.0**

SYSTEM	FACILITY	2013	2014
Wellmont	WELLMONT BRISTOL REGIONAL MEDICAL CENTER	1,876	1,817
	Wellmont Holston Valley Medical Center	1,498	1,453
	WELLMONT LONESOME PINE HOSPITAL	62	74
	MOUNTAIN VIEW REGIONAL MEDICAL CENTER	102	63
	LEE REGIONAL MEDICAL CENTER	26	
	Wellmont Hancock County Hospital		1
Wellmont Total		3,564	3,408
All Other	CARILION MEDICAL CENTER	459	444
	Mission Hospital	148	335
	UNIVERSITY OF VIRGINIA MEDICAL CENTER	283	336
	CLINCH VALLEY MEDICAL CENTER	375	330
	The NC Baptist Hospitals		
	Pikeville Medical Center	180	213
	WYTHE COUNTY COMMUNITY HOSPITAL	199	160
	CARILION NEW RIVER VALLEY MEDICAL CENTER	88	118
	Duke University Med Ctr		
	Novant Health Forsyth MC		
	Vanderbilt University Medical Center		
	Blue Ridge Regional Hosp		
	LEWISGALE MEDICAL CENTER	39	51
	University of Tennessee Medical Center	32	50
	UK Chandler Medical Center	23	17
	Fort Sanders Regional Medical Center	12	12
	BUCHANAN GENERAL HOSPITAL	24	30
	LEWISGALE HOSPITAL - PULASKI	17	21
	Carolinas Medical Center	3	19
	TWIN COUNTY REGIONAL HOSPITAL	26	41
	LEWISGALE HOSPITAL - MONTGOMERY	16	17
	Novant Hlth Charlotte Ort		
	MCV HOSPITALS OF VCU MEDICAL CENTER	17	14
	East Tennessee Children's Hospital	8	10
	Middlesboro ARH Hospital	4	6
	Parkwest Medical Center	10	5
	Claiborne Medical Center	4	6
	Hugh Chatham Mem Hospital		
	CARILION TAZEWELL COMMUNITY HOSPITAL	5	3
	St. Jude Children's Research Hospital	1	18
Duke Raleigh		3	
INOVA FAIRFAX HOSPITAL	5	2	
Hazard ARH Regional Medical Center	2	1	
Baptist Health Lexington	1	1	

UVA TRANSITIONAL CARE HOSPITAL	2	2
Watauga Medical Center	6	3
Park Ridge Health	3	1
UNC Hospitals	6	
Harlan ARH Hospital		7
SENTARA MARTHA JEFFERSON		1
Methodist Medical Center of Oak Ridge	1	1
Davis Medical Center	1	2
Select Specialty Hospital		
Blue Ridge HealthCare NC		
Northern Hosp-Surry Cnty		
Duke Regional Hospital	1	2
MEMORIAL HOSPITAL	1	
Tug Valley ARH Regional Medical Center		
Margaret R Pardee Mem		
Asheville Specialty Hosp		
Whitesburg ARH Hospital	1	2
INOVA MOUNT VERNON HOSPITAL		
CARILION GILES MEMORIAL HOSPITAL		2
UK Healthcare Good Samaritan Hospital	2	2
Frye Regional Med Center		
BON SECOURS ST. MARY'S HOSPITAL		1
Saint Joseph East		4
CJW MEDICAL CENTER	1	2
Saint Joseph Hospital	11	4
CMC - Pineville		
TRISTAR CENTENNIAL MEDICAL CENTER	1	1
SENTARA VIRGINIA BEACH GENERAL HOSPITAL		
Novant Helth Rowan MC		
Lake Norman Reg Med Ctr		
CENTRA HEALTH	1	
MedWest Harris		
Novant Hlth Presbyterian		
Caldwell Memorial Hosp		
Onslow Memorial Hospital		
TRISTAR SOUTHERN HILLS MEDICAL CENTER		1
CHILDREN'S HOSPITAL OF THE KING'S DAUGHTERS		
NC Specialty Hospital		
Parkridge Medical Center		
CMC-Northeast		
HENRICO DOCTORS' HOSPITAL	2	2
NOVANT HEALTH PRINCE WILLIAM MEDICAL CENTER		
High Point Regional Hosp		
SENTARA WILLIAMSBURG REGIONAL MEDICAL CENTER	2	
Rex Healthcare		
Kindred Hospital-Chattanooga		
RIVERSIDE REGIONAL MEDICAL CENTER	1	

TriStar Skyline Medical Center		
Cape Fear Valley Hlth Sys		
Catawba Valley Medical		
Cone Health	1	4
LeConte Medical Center	1	1
Saint Joseph Hospital London		1
New Hanover Regional M.C.		
Saint Thomas West Hospital	3	1
CENTER FOR RESTORATIVE CARE AND REHABILITATION	1	
CarolinaEast Medical Ctr		
VALLEY HEALTH WINCHESTER MEDICAL CENTER		1
Select Specialty Hospital - Lexington		
WakeMed		1
Alleghany Memorial Hosp		
SENTARA NORFOLK GENERAL HOSPITAL	1	4
Wilkes Regional Med Ctr		
MARY WASHINGTON HOSPITAL		2
Alamance Regional Med Ctr		
VIRGINIA HOSPITAL CENTER	1	
Duke University Medical Center	44	66
BON SECOURS MEMORIAL REGIONAL MEDICAL CENTER	1	2
Catawba Valley Medical Center	1	1
Mercy Hospital	8	
Norton Brownsboro Hospital	1	
Lake Norman Regional Medical Center		2
Norton Hospital	1	1
Carolinas HealthCare System Charlotte Institute of Rehab		1
Norton Womens and Kosair Childrens Hosp		1
Memorial Health Care System (Hospital)	3	
Novant Health Charlotte Orthopedic Hospital	4	7
Mission Health System	139	
Ashe Memorial Hospital		1
New Hanover Regional Medical Center	2	1
Novant Health Forsyth Medical Center	17	51
SENTARA PRINCESS ANNE HOSPITAL		1
Novant Health Medical Park Hospital		2
Carolinas HealthCare System Carolinas Medical Center	6	
Novant Health Presbyterian Medical Center		4
BON SECOURS ST. FRANCIS MEDICAL CENTER	1	
Blount Memorial Hospital		1
Medical Park Hospital	1	
Cape Fear Valley Health System	1	
University of Louisville Hospital	1	1
High Point Regional Hospital	3	1
First Health Moore Regional Hospital	2	
Blue Ridge HealthCare Hospitals Inc		2
Forsyth Memorial Hospital	27	

	Hugh Chatham Memorial Hospital	10	10
	CaroMont Health Inc.	1	
	Our Lady Of Bellefonte Hospital	2	
	BON SECOURS MARY IMMACULATE HOSPITAL	2	1
	INOVA ALEXANDRIA HOSPITAL		1
	SENTARA NORTHERN VIRGINIA MEDICAL CENTER		1
	INOVA FAIR OAKS HOSPITAL		1
	Columbus Regional Healthcare System	1	
	Alleghany Memorial Hospital	1	1
	Shriners Hospital for Children Lexington	1	1
	Asheville Specialty Hospital	1	1
	The McDowell Hospital	1	
	Presbyterian Orthopaedic Hospital	2	
	The North Carolina Baptist Hospital	242	240
	Randolph Hospital	1	
	Carolinas Medical Center Northeast	2	
	Iredell Health System		2
	Durham Regional Hospital	3	
	Jackson-Madison County General Hospital	1	
	Carolinas Specialty Hospital	2	
	Kindred Hospital - Chattanooga	1	
	ERLANGER MEDICAL CENTER	2	
	Kindred Hospital Louisville		1
	University of North Carolina Hospitals	2	1
	Kindred Hospital of Greensboro	3	
	Erlanger Medical Center-Baroness Hospital		1
	Saint Thomas Midtown Hospital	2	2
	VALLEY HEALTH WARREN MEMORIAL HOSPITAL	1	
	Blue Ridge Regional Hospital	47	47
	Vanderbilt University Hospitals	67	48
	Kindred Hospital-Greensboro	1	
	Vidant Medical Center	3	
	Select Specialty Hospital - Greensboro	2	
	Morristown-Hamblen Healthcare System	4	1
	Kings Daughters Medical Center	2	1
	AUGUSTA HEALTH		1
	Select Specialty Hospital - Winston-Salem	2	
	Northern Hospital of Surry County	1	2
	Select Specialty Hospital of Winston Salem		5
	Margaret R. Pardee Memorial Hospital	2	
	All Other Total	2,710	2,833
MSHA	JOHNSTON MEMORIAL HOSPITAL	664	806
	Johnson City Medical Center	782	831
	Indian Path Medical Center	394	358
	NORTON COMMUNITY HOSPITAL	169	226
	SMYTH COUNTY COMMUNITY HOSPITAL	113	146
	RUSSELL COUNTY MEDICAL CENTER	40	26

Franklin Woods Community Hospital	7	9
Unicoi County Memorial Hospital, Inc.	3	
Sycamore Shoals Hospital		3
MSHA Total	2,172	2,405
Grand Total	8,446	8,646

2015
1,717
1,393
138

3,248

493

343

303

258

240

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135

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** Includes the Following VA Counties:
Buchanan
Dickenson
Grayson
Lee
Russell
Scott
Smyth
Tazewell
Washington
Wise
Wythe

CY15 DISCHARGES

NHS	5791	67.1%
OTHER	2840	32.9%
TOTAL	8631	

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2,840
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832
342
180
145
18

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2,543

8,631

FACILITIES LISTED IN THE QUESTION

CARILION MEDICAL CENTER	493
UNIVERSITY OF VIRGINIA MEDICAL CENTER	303
CARILION NEW RIVER VALLEY MEDICAL CENTER	135
MCV HOSPITALS OF VCU MEDICAL CENTER	13
CARILION TAZEWELL COMMUNITY HOSPITAL	7
INOVA FAIRFAX HOSPITAL	5
UVA TRANSITIONAL CARE HOSPITAL	5
INOVA MOUNT VERNON HOSPITAL	2
SENTARA VIRGINIA BEACH GENERAL HOSPITAL	1
SENTARA WILLIAMSBURG REGIONAL MEDICAL CENTER	1
SENTARA NORFOLK GENERAL HOSPITAL	1
TOTAL	966

TOTAL VISITS TO NON NHS FACILITIES	2,840
TOTAL VISITS TO LISTED FACILITIES	966

34.0%