

BEFORE THE MARYLAND HEALTH CARE COMMISSION

IN THE MATTER OF

ADVENTIST HEALTHCARE, INC. D/B/A
WASHINGTON ADVENTIST HOSPITAL

Matter No. 13-15-2349

**COMMENTS OF INTERESTED PARTY,
MEDSTAR MONTGOMERY MEDICAL CENTER ON
WASHINGTON ADVENTIST HOSPITAL'S MODIFIED CON APPLICATION**

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INTRODUCTION AND SUMMARY OF COMMENTS

The Maryland Health Care Commission ("Commission") is presented in this case with one of the most pivotal and important health planning decisions in the State in many decades. Washington Adventist Hospital's ("WAH's") modified certificate of need ("CON") application seeks to relocate its hospital facility from an area with a large and growing population of indigent and medically underserved persons -- an area of need -- to an area outside the Beltway which, because it is already in the primary service area of three other hospitals, is an area without need (see Exhibit 1). WAH's proposed certificate of need would lead to the neglect of a large and growing number of people who have depended on WAH for decades. At the same time, this proposed move would lead to further saturation in the area of WAH's proposed new hospital, which will cause diminished financial results for the existing hospitals. Approval of such a proposal is unprecedented in the Commission's history.

The Interested Party does not contest WAH's conclusion that, given the age and condition of its existing physical plant, it needs to build a replacement facility. There is precedent to support redevelopment of hospitals in the communities they serve. WAH's decision not to build a replacement tower in its core service area, however, runs contrary to the Commission's longstanding practice. In recent times, other Maryland hospitals in similar circumstances have chosen to resist the temptation of running to more affluent suburban areas, and instead have chosen to continue to perform their not-for-profit mission of remaining in the communities which they have traditionally served. These hospitals have built new replacement towers on site. These hospitals include: The Johns Hopkins Hospital, Saint Agnes Hospital, Mercy Medical Center, Frederick Memorial Hospital ("FMH"), Franklin Square Hospital and Holy Cross Hospital ("HCH").

WAH's application attempts to address the impact of the proposed relocation on the indigent and medically underserved communities that it would leave behind by suggesting that it will

maintain a presence on its current Takoma Park site. This presence -- WAH suggests -- would include numerous outpatient facilities. WAH's application, however, does not include these facilities in its financial feasibility analysis.

WAH's application is based on financial assumptions that are not supported by historical data and audited financial reports. For example, the viability of WAH's application is based on the assumption, not supported by specific analysis, that it will generate \$40 million in net operating income for 2015 through 2018, prior to the opening of the proposed new hospital, even though WAH lost \$12.6 million from operations in its last audited year, 2013.

WAH's proposed relocation is inconsistent with long-standing Commission practice, and is the antithesis of good health planning for a State such as Maryland which must work to support and revitalize existing communities with indigent and medically underserved populations. In this CON proceeding, WAH's application:

- (1) fails to establish financial viability of the project which is based on unprecedented and speculative assumptions;
- (2) fails to meaningfully analyze the effect of the relocation on the underprivileged and medically underserved residents in the communities it currently serves, or whether their needs will be met by the relocation;
- (3) fails to consider the needs of the Takoma Park community compared with the White Oak/Fairland community, whether an acute care hospital is more needed in Takoma Park or White Oak/Fairland, and whether need would be created in Takoma Park by the relocation of the hospital to White Oak/Fairland, which does not need another hospital;
- (4) fails to meaningfully analyze whether alternatives exist which will allow it to remain in the Takoma Park area and bolster the redevelopment of that historic community; and
- (5) fails to adequately consider the full impact of its proposed relocation on costs and charges of Laurel Regional Hospital ("LRH") and MedStar Montgomery Medical Center ("MMC"), the unnecessary duplication of existing resources resulting from the relocation.

COMMENT 1

WAH's Underlying Financial Assumptions Do Not Support the Financial Feasibility or Viability of the Proposal [COMAR 10.24.01.01B(13) and COMAR 10.24.01.08G(3)(d)]

COMAR 10.24.01.01B(13) provides in pertinent part:

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

(b) Each applicant must document that:

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

COMAR 10.24.01.08G(3)(d) provides in pertinent part:

For purposes of evaluating an application under this subsection, the Commission shall consider the availability of financial and non-financial resources, including community support necessary to implement the project within the time frame set forth in the Commission's performance requirements, as well as the availability of resources necessary to sustain the project.

The WAH project is not financially feasible or viable under these standards because the projections on which it is based are speculative, unprecedented and not supported by the data. WAH's projection is dependent on WAH, among other things: (1) undergoing a dramatic and immediate turnaround from its negative financial and operational performance, (2) securing financing of \$245 million while having a current rating by Moody's of Baa2, nearly the lowest in the State, and current financial ratios well below the critical Moody's median financial ratios to maintain even this low rating, and (3) receiving Health Services Cost Review Commission ("HSCRC") approval for a \$19 million capital rate increase allowing it to be one of the highest – if not the highest – cost hospitals in the State. WAH's ability to achieve any of these results is highly unlikely, but its achievement of all of these results (which it must do for the project to be viable) is implausible.

A. WAH's Current Financial Status is Dire

Even before incorporating the effects of the massive debt it would incur to pursue the project in its CON application, WAH's financial situation is dismal. For example:

- WAH lost \$12.6 million from operations in 2013, its last audited fiscal year (Ex. 93 to November 10, 2014 Completeness Responses, Option 4, Inflated).
- Adventist HealthCare, Inc. ("AHI") has a current Moody's rating of Baa2, which is at the bottom of Moody's ratings. (Ex. 13, p. 27).
- AHI's current financial ratios (App. p. 129) are well below Moody's medians for all rated hospitals and even below the median for the lowest rated (Baa) hospitals in 2013:

<u>MOODY'S MEDIANS¹</u>			
<u>Financial Ratio</u>	<u>Adventist HealthCare</u>	<u>All Hospitals</u>	<u>Baa Hospitals</u>
Debt Service Coverage Ratio	1.8	4.5	3.1
Days Cash on Hand	125	198	148
Debt to Capitalization	45%	35%	43%

¹ Relevant pages from the Moody's August 2014 Ratings Report are attached as Exhibit 12.

- WAH volume has continued to decline with market share losses in 2013 and 2014, indicative of other hospitals in the area available to provide services (HSCRC Discharge Data Set for 2013 and 2014, see attached Exhibit 13).
- WAH charges were some of the highest in the State in 2011 and continue to rise with volume declines and significant rate increases through 2014. (HSCRC Reasonableness of Charges Report, 2011). Incorporating these rate increases, WAH would be one of the highest, if not the highest, charge hospital in the State with rates/prices well over 10% higher than the State average.
- Under all indicators, WAH cannot be characterized as an efficient or effective hospital.

As a high cost hospital with poor financial indicators, WAH does not have the financial capacity to undertake the massive debt for a new hospital. A careful analysis of the assumptions underlying WAH's application demonstrates this fact.

B. WAH's Assumed Financial Turnaround Prior to Proposed Project Opening Is Unrealistic

WAH's projected turnaround is inconsistent with recent trends. WAH experienced a \$12.6 million loss from operations in CY 2013, its most recent audited year (Ex. 93 to November 10, 2014 Completeness Responses, Option 4, Inflated). The CON application contains operating projections that reflect a turnaround yielding \$10.5 million in annual operating income in CY 2018 *Id.* Thus, WAH's projections assume that WAH will achieve a \$23 million improvement in its annual operating performance by 2018. This dramatic change -- which is the basis for WAH's financial viability argument -- would have to occur in the current, tightly managed HSCRC regulated environment and before the proposed new hospital would open.

The projected improvement in annual operating performance to be achieved during the calendar years 2016 through 2018, culminating in a 4.5% operating margin in 2018, is based upon the following assumptions (*id.*):

1. an HSCRC average rate (GBR revenue) increase of over 3% in each year (2016 through 2018);
2. expense increases averaging only 2%, a full 1% below rate/revenue increases;
3. volume reductions of approximately 1% each year, unrelated to market share reductions; and

4. no change in market share and no market share revenue reductions, despite volume declines.

None of these assumptions are supported. First, with respect to the HSCRC rate/revenue annual increases, the 3% provision is comprised of a 2.3% inflation allowance and a population growth amount of 0.75%, based upon a HSCRC computed 1.5% population change times a 50% variable cost factor. In the current, tightly regulated environment, the HSCRC has not provided a full inflation provision (2.3%) in the past several years. Further, WAH has not included any meaningful market share loss adjustments, despite recent loss of market share and projected continuing volume declines.

Second, WAH has projected annual cost (expense) increases less than full inflation each year. These expense changes are more than 1% below the assumed rate changes of 3%. This is unsupportable because rate increases are necessarily tied to cost increases. WAH's assumption that it will obtain rate increases in excess of its increase in costs is the sole reason it is able to project margins that increase 1% per year.

The third and fourth major -- and unsupportable -- assumptions are related to volume changes. Despite the fact that the HSCRC revenue model provides WAH with a population growth estimate of 1.5% and an adjustment of 0.75% ($1.5\% \times 50\%$), WAH projects a 1% volume reduction. This volume change is a full 2.5% (1.5% HSCRC allowance plus the 1% assumed volume change) lower than expected by the HSCRC. Further, WAH assumes this reduction will occur in each of the projected years 2016 through 2018. This unsupported volume reduction assumption has a significant impact on projected costs and, therefore, is the linchpin of the projected margins.

Finally, WAH assumes none of these volume reductions will be related to market share loss. WAH, however, has experienced significant market share losses in each of the last three years. Because loss in volumes due to loss in market share will result in a loss of 50% of attributable revenue, the lack of any market share revenue adjustment thus necessarily overstates revenues, and

therefore, margins, by a significant amount. If only half the volume decline was market share related, WAH would experience revenue reductions of at least 0.5% (and likely higher) per year, resulting in over a 2% margin decline by 2018.

In summary, the initial projection period (2016 through 2018) is critical to the project's viability. First, the operating projections yield over \$40 million in cash, which is required to help fund the \$300 million project budget. Second, and most importantly, the improvement in margins each and every year result in a pre-opening operating performance base of \$10.5 million, or a 4.5% margin. The aggressive projected 4.5% operating margin by 2018 is pivotal for WAH. If WAH were to improve substantially, but achieve only margins of 2.3% (half of WAH's aggressive 4.5% projection), these results would mean a cash reduction of \$20 million available for financing, and a starting margin of only \$5 million, not \$10 million. A \$5 million reduction in operating margin in the post-opening years (2019 to 2023) would result in an operating loss in each and every year after opening.

Accordingly, WAH's first set of unreasonable assumptions would require a miraculous turnaround in operating performance before the proposed opening of a new hospital.

C. Project Viability: Sources of Project Funds are Questionable

WAH has assumed that it will be able to assemble the following three major sources of funds for the financing of the project (App. pp. 15-16):

Fundraising:	\$20 million
Cash:	\$50.6 million
New debt:	\$245 million

What is the likelihood that WAH can secure funding in this manner and in these amounts given its current audited financial statements? If WAH cannot secure this funding, WAH does not have the financial resources to undertake the project. First, WAH assumes \$20 million in fundraising in the next few years. It currently has commitments of only \$2.1 million (App. p. 130).

WAH concedes that AHI has never secured fundraising of this amount. *Id.* While the application asserts that AHI has raised as much as \$15.25 million in a prior campaign (*id.*), that project was not for WAH, but was for a larger hospital in a much more affluent area. There is no basis for concluding that this level of community support could be raised for WAH in an area which is already the primary service area of three other hospitals, where there is no need for an additional acute care hospital.

Another unsupported assumption critical to WAH's funding is its ability to assign over \$50 million of cash reserves to this project. (App. p. 129). As of year-end 2013, AHI had less than 125 days cash on hand, or about \$225 million. *Id.* This ratio of 125 days cash on hand is well below Moody's medians. The assignment of \$50 million would cause AHI's ratio to fall well below 100 days, an unacceptable and unsustainable level that does not support the financing of this project.

WAH's projections are also based on the assumption that in the years 2016 through 2018 it will turn around its operating performance and show positive cash flow of over \$40 million. This assumption is the core of its effort to demonstrate cash availability. This projection is entirely unreasonable and speculative in light of a \$12.6 million negative cash flow in 2013.

Most importantly, WAH has assumed that it would be able to issue a new bond for \$245 million to fund over 80% of the capital cost of a \$300 million replacement hospital in White Oak/Fairland (App. p. 128). AHI plans to issue traditional tax-exempt bond financing of \$245 million on behalf of WAH. (*Id.*) As noted earlier, AHI's most recent audited performance yields key financial ratios well below the Moody's medians. In addition to this unfavorable performance and position, AHI and WAH are faced with the following facts that make achieving this tax-exempt financing very unlikely:

- The additional \$245 million in debt would erode all pertinent financial ratios; the additional debt would result in a Debt to Capitalization ratio of well over 50% as compared to the 35% Moody's median for all hospitals.

- Use of \$50.6 million in cash would cause a Days Cash on Hand for AHI of less than 100 days, as compared to 198 days for the Moody's median for all hospitals. (App. p. 129).
- Projected operating performance from 2016 to 2018 is based on aggressive, unrealistic assumptions, including going from a \$12.6 million loss in CY2013 to \$10.5 million in annual operating income by CY2018, a \$23 million swing.
- Approval by the HSCRC of a \$19 million capital rate increase (App. p. 131) is highly unlikely based on current charge levels and WAH's status as one of the highest cost hospitals in the State. An approval of only half that amount would result in significant, negative margins in post-project performance.

D. Other Factors That Must Be Considered That Will Affect Financing

Other factors not considered that could worsen the ability to achieve this financing include:

(1) additional debt for the Takoma Park projects and unquantified losses associated with those projects,² (2) a requirement by the lender that WAH capitalize an arrangement under which WAH is agreeing to a long-term lease for its utility plant, as opposed to borrowing to pay for its construction (November 10, 2014 Completeness Responses Nos. 3 and 13), and (3) the performance of other AHI entities not included in the current AHI obligated group for financing purposes.

First, WAH states that the Takoma Park campus would include a Federally Qualified Healthcare Center, a Women's Center, a walk-in primary care/urgent care clinic, and the behavioral health service to address the needs of the community for ambulatory services. (App. p. 36). In addition, WAH has recently announced that it is considering a freestanding emergency department at this campus. WAH has not established that the services it proposes at Takoma Park will meet the needs of the communities it is leaving behind, has not guaranteed that these ambulatory care facilities will actually be maintained or established, and has not addressed the financial viability of the project in light of their capital and operating costs associated with the services WAH suggests will be maintained or established in Takoma Park.

² WAH has projected a minimal margin on the behavior health service at Takoma Park. December 12, 2014 Completeness Responses. This is without taking into account the outpatient services that WAH suggests it will provide at the site, which may generate material losses at Takoma Park.

A second factor is the reliability of WAH's projected construction costs. (App. p. 14). WAH has not explained how the construction cost estimate was developed, who developed the estimate, whether that estimate is guaranteed, or how much risk is built into it. To guard against an artificially low estimate, parallel estimates, one from an owner's representative and one from an independent cost consultant, can validate costs, reduce risk of underestimating and prevent downstream CON modifications. Downstream modifications resulting from an artificially low estimate place the Commission in the difficult position of having to approve the modifications only because the approved project is underway.

A third factor that must be considered is the fact that the utility plant lease is not capitalized. WAH has structured the acquisition and construction of the utility plant for its new hospital as a lease expense. (November 10, 2014 Completeness Responses Nos. 3 and 13). This action appears to be a slight of hand. It makes no sense from an economic perspective and may not be appropriate from an accounting perspective. If lenders require that the acquisition of the new hospital's utility plant be capitalized, this action will negatively impact Moody's evaluation of financial ratios and further establish that the project is not financially viable. This is yet another indication that WAH cannot demonstrate that its proposed project is financially viable.

E. WAH's Projected Operating Performance At White Oak/Fairland is Unsupportable

WAH projects it would open the new project in January 2019. (App. p. 5). WAH has included financial projections through 2023. The key operating assumptions during the post-opening projection period (Exhibit 93 to November 10 2014 Completeness Responses, Option 4, Inflated) are as follows:

- (1) the operating base for the post-opening projections incorporates WAH's 2018 projected \$10.5 million positive margin (an unreasonable projection as discussed above);
- (2) annual rate increases averaging over 3% including 2.3% for inflation and 0.75% for population growth. A minor market share reduction of 0.32% in 2019 is assumed for services remaining at Takoma Park;

- (3) a \$19 million (7%) rate increase over and above the assumed 3% annual increases to fund 80% of the incremental capital (depreciation and interest) expenses of the project;
- (4) volume increases averaging 0.9% in admissions and 2.5% in outpatient volumes, closely approximating the 1.5% population growth provision;
- (5) variable expenses will be at inflation plus a provision for the 1.5% volume increase. Fixed expenses will decline each year by 0.7% prior to inflation. This contributes to a projected margin improvement each year; and
- (6) the projected operating margins for the years following project completion will be as follows:

<u>Project Year</u>	<u>Margin</u>
2019	\$ 747,000
2020	\$1,770,000
2021	\$3,120,000
2022	\$4,130,000
2023	\$4,989,000

These projected operating margins are unsupportable because they are based on an aggressive and unrealistic turnaround plan through 2018, requiring a \$10.5 million profit in 2018. If the turnaround is only 50% successful (which is still an aggressive assumption), the margins are \$5 million lower, and do not yield a post-opening positive result in any year through 2023.

Perhaps the most unsupportable and unprecedented assumption is the \$19 million, 7% capital rate increase (App., p. 131). Over the past 10 years, the HSCRC has approved, at most, 50% of the incremental capital costs for efficient and effective hospitals when granting rate increases. Yet WAH is assuming that it will be given 80% funding of incremental capital expenses (\$10 million in depreciation and \$15 million in interest expense). WAH is currently one of the highest charge (cost) hospital in Maryland. There is no basis to project in the current regulatory environment that the HSCRC would grant an additional 7% increase that would make WAH even more of a cost outlier and would increase significantly the costs of the Maryland hospital system.

WAH has suggested that, instead of a major rate increase, it may fund the additional operating expenses through volume growth, noting that this would have a greater impact on the waiver and other area providers (App., p. 26). This assumption makes no sense whatsoever. Additional volume cannot generate sufficient revenue to make the project viable. Under the

HSCRC's new Global Budget Revenue ("GBR") system, additional volumes under the increased market share formula would only yield a 50% revenue increase (as a result of the application of the 50% variable cost factor). If expenses only increased 30% (an aggressive assumption), the margin on each 10% volume increase would be 2% (20% of 10%). Under this scenario, it would take an increase of over 30% in volume to generate revenues equivalent to a 7% rate increase that would be required to make this project sustainable. A 30% increase in volume in the already well-served area to which WAH seeks to relocate is implausible.

COMMENT 2

Determining the Impact on Access for the Indigent, Underinsured and the Medically Vulnerable is a Critical Function of the Application Process That WAH Has Sidestepped [COMAR 10.24.10.04B]

COMAR 10.24.10.04B provides in pertinent part:

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

* * *

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

Under this regulation, the Commission should not grant a certificate of need for a hospital relocation project unless the applicant demonstrates that the proposed change will not have an unwarranted adverse impact on the availability of, or access to, health care services needed by the population in the current primary service area, including access for the indigent or uninsured. Despite the clarity of COMAR 10.24.10.04B in requiring that a CON applicant demonstrate no unwarranted impact on the access for the indigent, in its application, WAH has provided little more than a description of the availability of public transportation to the proposed new location in White

Oak/Fairland. WAH has not demonstrated that its proposed change in location will not inappropriately diminish the availability and accessibility of acute care services for the indigent and uninsured communities that it currently serves. WAH suggests that the needs of this population will be addressed by an ambulatory center and other facilities it will establish on its existing site after the proposed new hospital is built in White Oak/Fairland. However, WAH has not established that these facilities will meet the needs of the indigent and medically vulnerable people in the community, has not guaranteed that these ambulatory facilities will actually be established, and has not addressed the financial viability of the project in light of the capital and operating costs associated with establishing and maintaining the services on the Takoma Park campus.

A. The Importance of Proximity and Utilization

Any analysis of the impact of the proposed hospital relocation on indigent and medically underserved persons in the communities served by WAH must begin with recognition of the statistical relationship between hospital utilization and proximity. The academic research, published in leading health care economics journals, has established that proximity is a critical determinant of hospital utilization.³ Additionally, academic research has established that, even in metropolitan areas, small increases in travel time or distance for general (and particularly indigent) patients will reduce the percentage of those patients that actually seek services.⁴ For example, a 1% increase in patients' travel time to a new location will result in:

- a 1.2% reduction in the patients' use of medical-surgical services;
- a 0.7% reduction in the patients' use of obstetric/gynecology services;
- a 1.5% reduction in the patients' use of hospital services among children; and
- a 0.6% reduction in patients' use of psychiatric services.

³ Luft, *et al.*, "Does Quality Influence Choice of Hospital," JAMA Vol. 263, No. 21 (June 6, 1990); Burns *et al.*, *The Impact of Physician Characteristics in Conditional Choice Models for Hospital Care*, Journal of Health Economics, Vol. 11, pp. 43-62 (1992).

⁴ M. McGuick and F. Powell, *Spatial Patterns of Hospital Utilization: The Impact of Distance and Time*, Inquiry 21(1) 1984: 84-95.

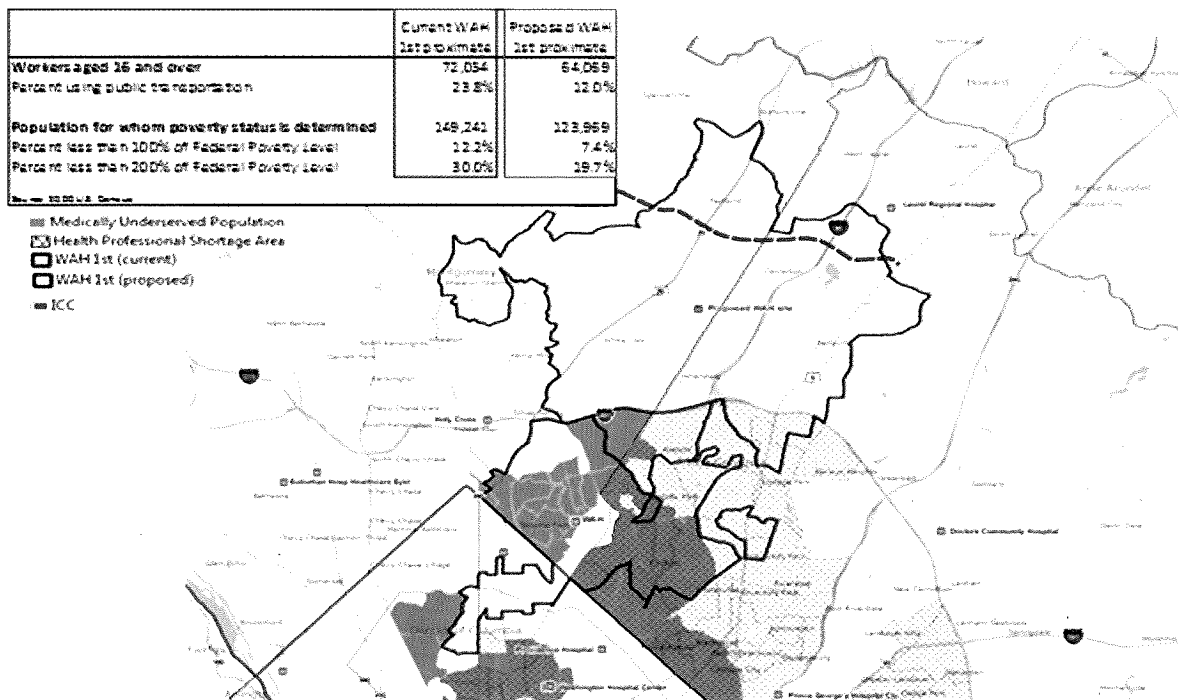
B. The Proximity Relationship Cannot Be Clearly Understood at the ZIP Code Level

Demographic differences between Takoma Park and the White Oak/Fairland area are clear at the census block group level, but not at the ZIP Code level. Data by census block group shows that significant areas for which the current WAH is the closest hospital are demographically quite different than areas for which the proposed location is the closest hospital. ZIP Code areas, however, are too large and irregularly shaped to show these distinctions and too geographically dispersed to make meaningful comparisons (see Exhibit 2).⁵

For purposes of analyzing the impact of WAH's proposed relocation on indigent and medically vulnerable people, it is important to note that at its current location, the existing WAH is the closest hospital to large concentrations of people who are indigent and vulnerable. U.S. Health Resources and Services Administration ("HRSA") data shows areas that are designated as Medically Underserved Areas/Populations ("MUA/Ps") or Health Professional Shortage Areas ("HPSAs")⁶ surround the current WAH site and that these areas are inside the Capital Beltway (Exhibit 3):

⁵ The demographic and statistical information in this subsection of Comment 2 relating to the areas for which the current WAH and the proposed WAH are the most proximate and second most proximate hospital are based on the prefiled testimony of Jeffrey Bubblo and accompanying exhibits submitted by Montgomery General Hospital in the evidentiary hearing on WAH's initial CON application to relocate to the White Oak/Fairland area, which application was withdrawn following the Reviewer's issuance of a recommendation that the application be denied. This demographic and statistical information should be updated if the Commission determines to hold an evidentiary hearing on the current modified CON application as MMMC believes is appropriate.

⁶ MUA/Ps are areas or populations designated by HRSA as having: too few primary care providers, high infant mortality, high poverty and/or high elderly population. Health Professional Shortage Areas (HPSAs) are designated by HRSA as having shortages of primary medical care, dental or mental health providers and may be geographic (a county or service area), demographic (low income population) or institutional comprehensive health center, federally qualified health center or other public facility). An HPSA is a geographic area, population group, or health care facility that has been designated by HRSA as having a shortage of health professionals (<http://bhpr.hrsa.gov/shortage/hpsas/faq.html>). MUA/Ps are geographic areas "in which residents have a shortage of personal health services," and "may include groups of persons who face economic, cultural or linguistic barriers to health care. HPSAs are areas having a shortage of primary medical care or medical or other public health facilities.



On Exhibit 3, the areas in orange reflect areas of medically underserved populations and the hatched areas reflect health professional shortage areas, all of which are inside the Capital Beltway, near WAH.⁷ The area outlined in blue shows the communities for which existing WAH is the closest hospital, all inside the Capital Beltway. The area outlined in red is the area for which the proposed WAH will be the closest hospital. Virtually all of these areas are outside the beltway. Exhibit 3 also shows that there is very little overlap between the areas for which both existing WAH and the proposed WAH are the closest hospital. Furthermore, Exhibit 3 demonstrates that the proposed WAH location, in the area outlined in red, is well removed from the concentrations of indigent and medically underserved persons WAH currently serves.

Demographic data generated by the U.S. Census Bureau and other published sources by census block group establishes that the areas for which the existing WAH is the closest hospital are:

(a) more densely populated, (b) growing faster, and (c) more economically and medically

⁷ Exhibit 4 to these Comments is a copy of the Direct Testimony of Keith Bubblo in the prior proceeding, which was Montgomery General Hospital Exhibit 19 authenticated and introduced into evidence in that case.

underserved than the area for which WAH's proposed new site is the closest hospital (Exhibit 4, [Bubblo Prefiled Testimony], at 19-20):

Demographic Comparison of Census Block Groups in 2010 Base Year

	<u>Takoma Park Area</u>	<u>White Oak/Fairland Area</u>
Population	156,502	137,357
Projected Population Growth – 5 years	9,971 (6.4%)	4,672 (3.4%)
Median Household Income as a % of State Median	84%	112%
Percent Without High School Diploma	22.9%	12.4%
Poverty Rate <200% FPL	30.0%	19.7%
Severe Poverty 100% FPL	12.2%	7.4%

The areas for which WAH is the closest hospital had a population of 156,502, with a projected population growth of 6.4% in five years (or 9,971 additional people). In comparison, the area for which the proposed site in White Oak/Fairland is the closest hospital has a population of 137,357 with a projected 3.4% growth in five years or 4,672 people. (See table above). The existing WAH location serves a population with an adjusted median household income which is 84% of the state median, compared to the population of the proposed location, which has an adjusted median household income that is 112% of the state median. The population for which the existing WAH is the closest hospital has a lower percentage of people without a high school diploma (22.9%) (almost twice as many) as the population of the core service area for WAH's proposed location (12.4%). (Exhibit 4, [Bubblo Prefiled Testimony], p. 20).

Furthermore, U.S. Census Bureau data by census block groups on poverty levels show that the current population for which WAH is the closest hospital has a significantly higher rate of poverty. That is, 30.0% of the population are below 200% of the Federal Poverty Level ("FPL") compared to 19.7% in the population closest to the proposed location. The current population for which WAH is the closest hospital also has a higher percentage of severe poverty (less than 100% of FPL). The areas for which current WAH is the closest hospital have a 12.2% severe poverty percentage, compared to 7.4% for the proposed location. (Exhibit 4, [Bubblo Prefiled Testimony], p. 21).

Assessing the impact on WAH's patients by ZIP Code area does not and cannot focus on the people for which WAH is the closest hospital, and for which proximity is the key. Information on the WAH patients from census block groups is required to adequately assess the impact of the indigent populations that WAH currently serves. However, hospital discharge data, including payer mix, are currently not publicly available at the census block group level. Therefore, a conclusive and effective analysis can only be accomplished by obtaining and analyzing census block group data.

C. A Proposal to More Specifically Examine the Impact on Access on the Indigent and Medically Vulnerable

The effect of WAH's proposed relocation on the people in the communities in the vicinity of existing WAH should be studied in detail at the census block group level, since ZIP Code boundaries do not generate data adequate for an effective analysis of this specific issue.

MMMC believes that the only way that the Commission can make an informed decision regarding the impact on the indigent and vulnerable people that WAH currently serves is to undertake a comprehensive study with more detailed information on this population than is publicly available. Such a study would be consistent with the Commission's governing statute which states that one of its duties in the area of health planning and development is to ". . . periodically participate in or perform analyses and studies that related to: (i) Adequacy of services and financial resources to meet the needs of the population; (ii) distribution of health care resources; (iii) allocation of health care resources. . ." [Health-General §19-115(a)(2)].

Kenneth Thorpe, Ph.D., a professor at Emory University and a nationally recognized expert in the field of public health policy, was retained by the Interested Party to design a research study to assess the impact of WAH's proposed relocation on the indigent and medically underserved communities that it currently serves. This analysis would include the following:

- examination of the distribution of travel time for indigent patients to the current WAH location, the proposed relocation site and the hospital that would be the new most proximate hospital;
- examination of the frequency of use across inpatient and outpatient services (number of admissions, visits, etc.) of indigent and uninsured patients;
- tabulation of the distribution of chronic medical conditions across sites (need for frequent use and medical management);
- use of the published research literature on the relationship between travel time and hospital use, calculation of the expected reduction in utilization among uninsured and Medicaid patients as a result of the proposed relocation; and
- application of these reductions to the types of care that would be at risk of not being provided, such as chronic illnesses.

Dr. Thorpe's analysis would be refined to break out changes in travel time for subsets of these types of admissions that would be of the most concern, such as cardiac care and chronic disease care.

The analysis designed by Dr. Thorpe will allow the parties and the Commission to determine the actual increased travel time of Medicaid and uninsured persons who rely on WAH now for their care and the impact of the proposed relocation on them in terms of whether they will continue to seek care. The evidence indicates that worsening chronic conditions can lead to higher health care costs. In short, a compelling analysis can be developed regarding the extent that indigent and medically underserved persons will not obtain necessary health care as a result of the proposed WAH location.

This level of detailed analysis is not only consistent with the research literature, which states that fewer individuals, particularly indigent individuals, would seek hospital services if the distance and travel time to a hospital increases, but is also appropriate in a situation where a hospital is seeking to leave a location with a substantial and growing population of indigent and medically underserved and vulnerable people. This study is well within the Commission's authority under HG§19-115(a)(2). See Exhibit 5 for additional details about the study requirements.

D. Whether WAH's Proposed Mix of Ambulatory Services in Takoma Park is Sufficient Cannot Yet Be Determined

WAH may contend, in response to this Comment, that it will ameliorate the effect of its proposed relocation on the indigent and medically underserved population it currently serves its plan to continue to operate certain facilities on its existing campus, including a FQHC, a Women's Center providing prenatal and other such services, a primary care clinic, the existing behavioral health service known as Adventist Behavioral Health, the existing licensed rehabilitation unit known as Adventist Rehabilitation Hospital, and physician offices and ancillary services. The detailed impact analysis that the Interested Party proposes, however, would determine whether these facilities are of a nature and scope to meet the needs of the indigent and medically underserved population after the proposed relocation of the hospital. WAH's application has failed to establish the need for acute care services in its existing service area will be met. The Commission's mandate, however, requires an assessment whether this proposal meets the needs of the public and serves the public interest, including the impact on the indigent, medically vulnerable and uninsured, and the adequacy and distribution of the proposed configuration of health care services.

COMMENT 3

The Commission Should Determine the Location That Will Best Meet the "Public Need" for a Hospital [COMAR 10.24.01.08G(3)(b)]

COMAR 10.24.01.08G(3)(b) provides in pertinent part:

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

A. What is the Threshold Issue Regarding Public Need?

At the core of its mandate, the Commission's statute and regulations governing certificate of need review require an assessment of the "public need" for a proposed project. MD. CODE ANN. HEALTH GEN., §19-114(c). Two distinct parts to the WAH proposal should be evaluated

independently. The first, and non-controversial, part is the need to replace the existing physical plant, either through renovation or through construction of a new facility. WAH has made a sufficient case that, from the perspective of physical condition, its current facility needs to be replaced and that the replacement with a new facility rather than renovation is preferable.

The second and distinct component of the proposal is the planned proposed location of the new facility. The threshold issue for regulatory review is the appropriateness of the proposed location to meet the needs of the population to be served. The population to be served in this context is the population for which existing WAH is the closest hospital, which population, for the reasons explained in detail above, is clearly distinguishable by census block group and not by ZIP Code. Thus, the threshold issue is whether a location in White Oak/Fairland or Takoma Park is most appropriate to meet the needs of this population for which WAH currently is the closest hospital.

Determining the most appropriate distribution of health care resources, rather than accepting the location proposed by an applicant as a foregone conclusion, is well within the Commission's authority, as stated at H-G, §19-115(a)(2) and consistent with the Commission's policies and practices. If the most appropriate location is not analyzed, the Commission loses the opportunity to affect a pivotal health planning decision and to perform a fundamental statutory obligation regarding determining need for the populations to be served.

B. Evidence For Takoma Park as the Most Appropriate Location for Acute Care Services

The WAH application fails to demonstrate that the needs of the population currently being served are met by relocation to the White Oak/Fairland site. The areas surrounding the proposed location are already well served by three acute care hospitals. (See Exhibit 1). Indeed, there is no need for additional acute-care services in the WAH's proposed location; therefore, approval of the project would generate a new need for acute-care services in the Takoma Park area. This

difference in the availability of acute care services would only be exacerbated by the proposed relocation.

Given the statistical relationship between hospital proximity and utilization, it is an inescapable conclusion that WAH's proposed relocation to the White Oak/Fairland site to the north and outside of the Capital Beltway will result in WAH shedding volume in the southern part of the areas for which it is currently the closest hospital, areas which contain significant indigent and medically underserved populations. WAH would not be the closest hospital for these areas if it were relocated to White Oak/Fairland. At the same time, WAH's relocation will result in it gaining volumes in the more affluent areas closest to its proposed new location.

The Takoma Park location is also in an area with a higher population density (Exhibit 6) and is growing faster, as described in detail under Comment 2. Further, the Takoma Park area has higher use rates. (Exhibits 7-9). Thus, White Oak/Fairland cannot be a more effective location for a hospital than Takoma Park.

WAH's application attempts to satisfy this criterion only by addressing "bed need" in its total proposed service area and jurisdiction. WAH, however, proposes no increase in bed capacity. Thus, its need analysis is shallow and a foregone conclusion. Its analysis does not attempt to analyze the needs of the population in and near WAH's core service area of Takoma Park, relative to the population in White Oak/Fairland. The application only emphasizes that the proposed site is acceptable: WAH already owns the site, the site is politically popular for economic development reasons, and the site will have better traffic flow than the current site. Given the different demographics, the site will no doubt garner a better payor mix. These facts, however, do not address the basic question for awarding this certificate of need: whether the White Oak/Fairland or the Takoma Park location is the more appropriate one to meet the needs of the population WAH has historically served.

A location in Takoma Park would be a far superior location for a new WAH facility. It is the location that will serve the greatest number of people, particularly indigent and medically underserved residents, and will be in the primary service area of the fewest number of Maryland hospitals.

C. Community Need Index

Another useful illustration of the general need for services in the Takoma Park area over the White Oak/Fairland area is the Community Need Index (“CNI”) score. To inform decisions about prioritization and effectively distributing hospital and other health care resources by providing qualitative and statistical justification for choosing specific communities with the greatest need for health services, Dignity Health and Truven Health developed the CNI in 2004. The CNI strongly supports the conclusion that the Takoma Park area is a superior location for a new WAH facility in terms of the public need. (See Exhibit 10).

The CNI compiles socio-economic factors from the community that are statistically linked to variations in community needs for healthcare services. The CNI score is an average of five different barriers to access to healthcare services including income, cultural, education, insurance, and housing which are correlated with health status. The CNI provides a score for every populated ZIP code in the United States on a scale of 1.0 to 5.0. A score of 1 indicates the community is doing well with the least need for healthcare services. A score of 5 is not good, meaning there is a need for additional services. The purpose is to provide statistical support for choosing specific communities for services designed to address health disparities.

As can be seen from the map in Exhibit 11, the CNI score for the Takoma Park ZIP code (20912) is 3.8. The CNI scores are higher, indicating greater need for additional services, in Takoma Park’s ZIP Code, as well as Takoma Park’s contiguous ZIP Codes (20782, 20783, 20903). The proposed relocation site, housed in 20904, has a CNI score of 3.2, indicating less need.

According to this CNI methodology, therefore, the need for health services is greater in Takoma Park than in the White Oak/Fairland section of the County. These results also show that relocating the hospital would likely only exacerbate the difference in the need for services of these two areas.

If this public policy decision is made based on where is the best place for a hospital to meet the public health needs of the State, the site chosen will be at or near WAH's existing location inside the Capital Beltway serving a growing population with significant areas of indigent and medically underserved persons, not the White Oak/Fairland area. By proposing to leave Takoma Park, WAH is seeking to abandon the very people that need easy access to health care services the most. WAH seeks to move from an area of greater need to an area that -- quite simply -- does not need another acute care hospital.

COMMENT 4

WAH Has Not Adequately Explored a Cost Effective Alternative That Meets the Needs of Takoma Park [COMAR 10.24.10.04B]

COMAR 10.24.10.04B provides in pertinent part:

- (5) A proposed hospital capital project should represent the most cost effective approach to meeting the needs that the project seeks to address.
 - (a) To demonstrate cost effectiveness, an applicant shall identify each primary objective of its proposed project and shall identify at least two alternative approaches that it considered for achieving these primary objectives. For each approach, the hospital must:
 - (i) To the extent possible, quantify the level of effectiveness of each alternative to achieving each primary objective;
 - (ii) Detail the capital and operational cost estimates and projections developed by the hospital for each alternative; and
 - (iii) Explain the basis for choosing the proposed project and rejecting alternative approaches to achieving the project's objectives.

Another hospital is not needed in the White Oak/Fairland area. The Takoma Park area is a better location for this new hospital. The Commission should reject as shallow and self-serving the

argument that White Oak is the only viable, cost effective and available alternative to the current location. Both Mercy Medical Center and The Johns Hopkins Hospital have received CON approval to build modern patient towers on small challenging parcels and on road systems which were less than optimal. The City of Takoma Park has in the past adamantly stated that it supports retaining the hospital and would work with WAH to find a solution. Both the State and the County could exercise eminent domain to assemble a new site for WAH, with WAH funding the required acquisitions. Such a teamwork approach to determining a more appropriate location would be consistent with a common goal of improving and retaining health care services for the Takoma Park community. Finally, a replacement hospital in Takoma Park will contribute to the economic development of this area of the County.

In short, the Commission should require WAH to conduct a meaningful analysis of alternatives for remaining in the Takoma Park area. Thus far, WAH has repeatedly assembled barriers to this alternative, an alternative that would greatly benefit not only the City of Takoma Park and the people in that area, but also the effectiveness of the State's health care delivery system.

COMMENT 5

The Negative Impact on Existing Providers and the Health Care Delivery System Is Unnecessary and Unwarranted [COMAR 10.24.01.08G(3)(f)]

COMAR 10.24.0108G(3)(f) provides:

An applicant shall provide information and analysis with respect to the impact of the proposed project on existing health care providers in the service area, including the impact on geographic and demographic access to services, on occupancy, on costs and charges of other providers, and on costs to the health care delivery system.

The Commission's instructions also direct applicants to demonstrate that the project "does not duplicate existing health care resources."

MMMC and LRH jointly obtained an analysis of the volume and revenue impact on these two institutions that would result from WAH's proposed relocation. Because that analysis is set

forth in detail in the Comment of LRH, it will not be repeated here. Rather, MMMC will incorporate and adopt that Comment as if fully set forth herein.

A. Duplication of Existing Hospital Resources is Unnecessary and Avoidable

WAH's project as proposed should not be approved because the hospital at the proposed location will unnecessarily duplicate existing health care resources. The unnecessary and unwarranted duplication is directly related to the fact that another hospital is not needed in the White Oak/Fairland area because there are three other hospitals already in the service area (see Exhibit 1). Duplication in an area that does not need another hospital creates excess cost structures, and is simply unnecessary. Should the Commission establish such a refutable precedent?

B. The Costs to the Health Care System Will Increase Unnecessarily

As explained in Comment 1 above, WAH is, at this juncture, one of the highest cost hospitals in the State. Further, in order to effect the relocation, WAH would require an additional \$19 million rate increase to fund capital costs. Because the proposed WAH relocation will result in lost volumes at MMMC, this volume shift would move revenue from a lower cost hospital to a higher cost, less efficient hospital. The overall effect of the WAH relocation will be to increase the costs of the Maryland hospital system. Maryland's efforts at creating a more efficient and effective health care system will be set back significantly by this unnecessary duplication and by abandoning the Takoma Park community that needs an acute care hospital more than the White Oak/Fairland community. This application serves WAH's interests more than the health care system, and will be a significant step backwards for the Maryland health care delivery system.

AFFIDAVIT

I hereby declare and affirm under the penalties of perjury that the facts stated in the comments and attachments filed by MedStar Montgomery Medical Center on February 9, 2015 are true and correct to the best of my knowledge, information and belief.

Date: 2/9/15

A handwritten signature in cursive script, appearing to read "Rebekah Stewart", written over a horizontal line.

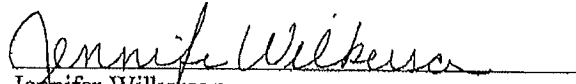
Rebekah Stewart
Assistant Vice President, Hospital Compliance

MedStar Health

AFFIDAVIT

I hereby declare and affirm under the penalties of perjury that the facts stated in the comments and attachments filed by Medstar Montgomery Medical Center on February 9, 2015 are true and correct to the best of my knowledge, information and belief.

Date: 2/9/15

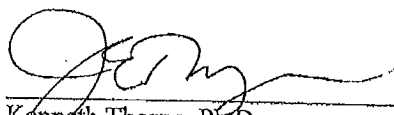

Jennifer Wilkerson
Vice President, Strategic Planning - Baltimore
MedStar Health

AFFIDAVIT

I hereby declare and affirm under the penalties of perjury that the facts stated in the comments and attachments filed by Medstar Montgomery Medical Center on February 9, 2015 are true and correct to the best of my knowledge, information and belief.

Date:

2/9/15



Kenneth Thorpe, Ph.D.

AFFIDAVIT

I hereby declare and affirm under the penalties of perjury that the facts stated in the comments and attachments filed by Medstar Montgomery Medical Center on February 9, 2015 are true and correct to the best of my knowledge, information and belief.

Date: 2/9/15

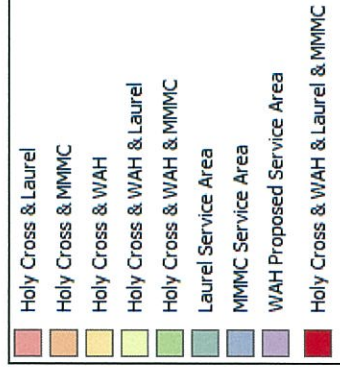
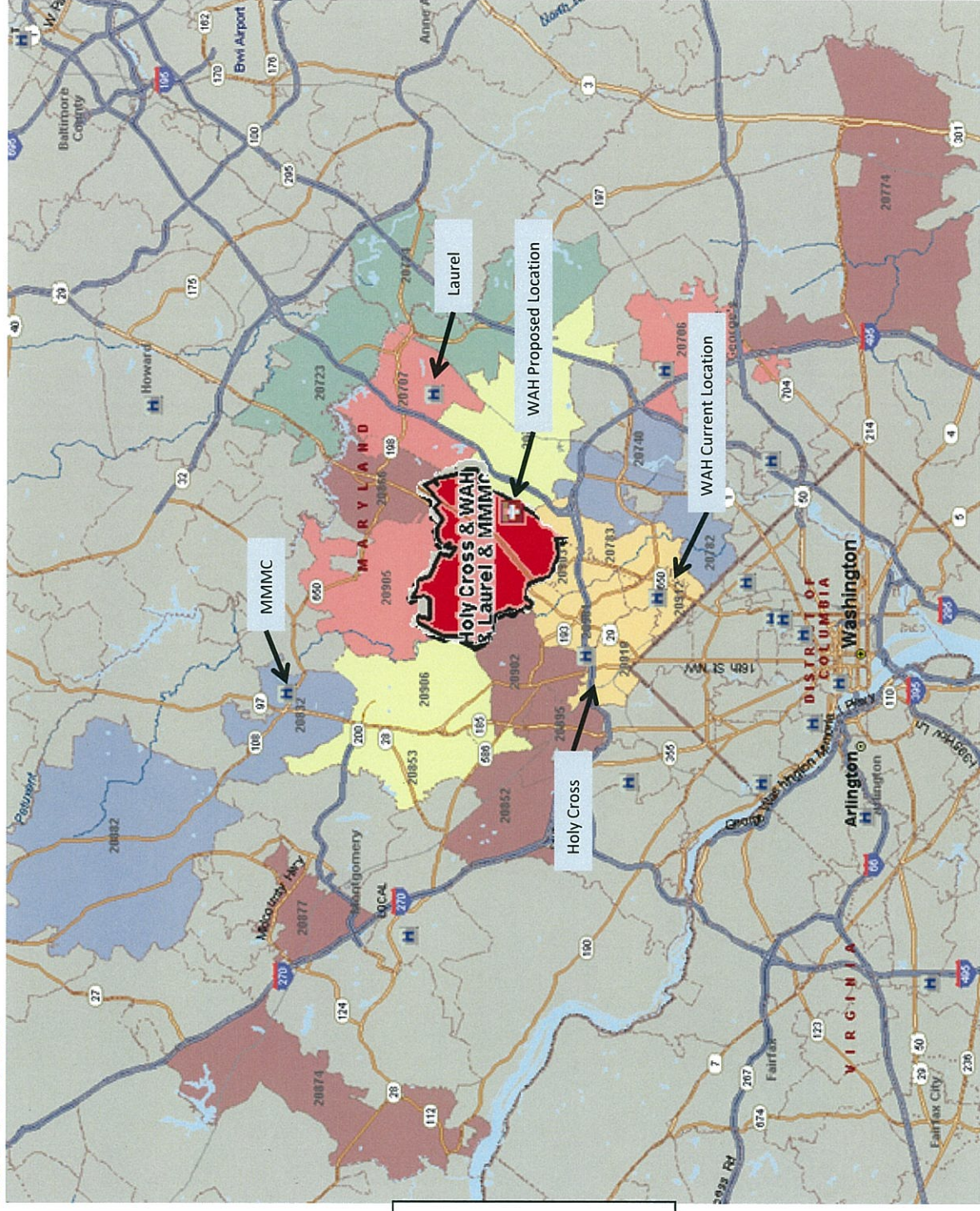
Mark W. Higdon
Mark W. Higdon, CPA

Exhibit List

Exhibit 1	Primary Service Area Overlap at White Oak/Fairland Proposed Site
Exhibit 2	ZIP Code Area Boundaries
Exhibit 3	Medically Underserved Areas/Populations in Census Block Groups Where WAH is the Closest Hospital
Exhibit 4	Prefiled Testimony of Keith Bubblo, In the Matter of Washington Adventist Hospital Relocation CON, Matter No. 09-15-2295
Exhibit 5	Additional Details of Proposed Thorpe Study
Exhibit 6	Population Density by ZIP Code
Exhibit 7	Use Rates by ZIP Code, MSGA Patients Age 0-64
Exhibit 8	Use Rates by ZIP Code, MSGA Patients Age 65+
Exhibit 9	Use Rates by ZIP Code, Obstetric Patients
Exhibit 10	Truven Health Analytics' Community Need Index, Methodology and Source Notes
Exhibit 11	Community Need Index Map, Takoma Park Area and White Oak/Fairland Area
Exhibit 12	Moody's August 2014 Rating Report (excerpt)
Exhibit 13	Market Share Information (HSCRC Data Set)

Overlap of Holy Cross, Laurel Regional, MMMC, and Proposed WAH, Primary Service Areas

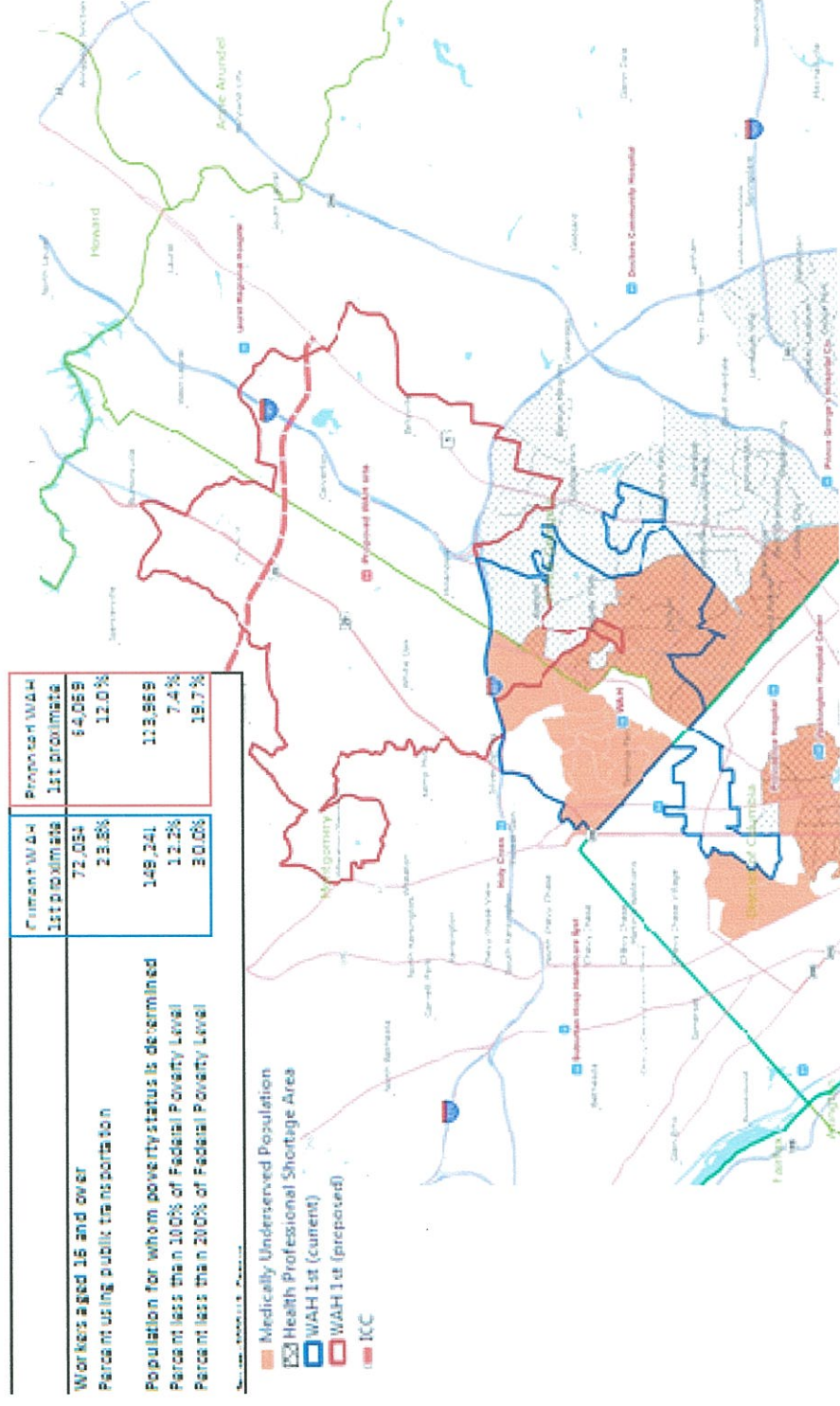
WAH is proposing a move to zip code 20904 which is already served by four hospitals today - Holy Cross, Laurel, MMMC, and WAH.



Note: Service area is defined as the first 60% of discharges
Source: MapPoint DCHA WebFocus, CY13

MUA/P and HPSA in Census Block Groups

Where WAH is the Closest Hospital



BEFORE THE MARYLAND HEALTH CARE COMMISSION

IN THE MATTER OF:

WASHINGTON ADVENTIST HOSPITAL

RELOCATION CON

Matter No.

09-15-2295

**MONTGOMERY GENERAL HOSPITAL'S
PREFILED DIRECT TESTIMONY OF KEITH BUBBLO**

1.

**BACKGROUND QUALIFICATIONS
AND PROFFER OF EXPERT WITNESS**

Q1. Please state your full name and business address.

A1. My name is Keith Bubblo and my business address is 50 Sewall Street, Suite 102, Portland, Maine 04102.

Q2. What is Hearing Exhibit No. MGH 7?

A2. It is my curriculum vitae.

Q3. By whom are you employed?

A3. I am employed by Stroudwater Associates, a healthcare consultancy advising hospitals and health care systems on strategic issues.

Q4. What is your position with Stroudwater Associates?

A4. I am an Analyst.

Q5. What are your duties and responsibilities as an Analyst?

A5. I assist clients with market data analysis and research by drawing upon available health care data sources and using Geographic Information System (GIS) and visual data tools.

Q6. How long have you held this position?

A6. Six years.

Q7. What positions did you hold prior to becoming an Analyst at Stroudwater Associates?

A7. I was a Project Assistant at Stroudwater Associates and before that I was a Document Control Specialist at Fairchild Semiconductor.

Q8. Briefly state your educational background.

A8. I earned a Bachelor of Arts from Wilkes University in Wilkes-Barre, Pennsylvania and a Certificate in Geographic Information Systems from the University of Southern Maine in Gorham, Maine.

**MGH OFFERS MR. KEITH BUBBLO AS AN EXPERT
IN THE FIELD OF HEALTH CARE PLANNING.**

2.

ASSIGNMENT

Q9. What were you asked to do for purposes of this case?

A9. Montgomery General Hospital ("MGH") asked me to identify the nature and scope of the indigent and underserved population served by the Washington Adventist Hospital ("WAH"). MGH also asked me to model the effect of the proposed WAH relocation on the access to care for this population, specifically focusing on the impact of the change in travel time to the nearest hospital. Specifically, MGH asked me to address certain aspects of Commissioner Worthington's Issue Area #1 with regard to (1) changes in travel time to the nearest hospital for the Takoma Park population and its implications, and (2) more specific information on the size and socio-economic characteristics of that population than is currently in the record.

Q10. Have you reviewed the prefiled testimony of Jeffrey B. Sommer?

A10. Yes.

Q11. Do you agree with Mr. Sommer's analysis and conclusions?

A11. Yes.

2.

**ANALYSIS AND COMPARISON OF THE CORE PROXIMATE
POPULATION OF WAH'S CURRENT LOCATION AND ITS
PROPOSED RELOCATION TO THE WHITE OAK / FAIRLAND LOCATION**

Q12. Did you review the CON application materials filed by WAH in this proceeding?

A12. Yes.

Q13. Do you recall the following statements from the March 28, 2011 CON Application?

- "The project...does not reduce the potential availability or accessibility of its services, or change the availability or accessibility to care for indigent or uninsured residents of its service area. In fact, this project is needed specifically to assure continued availability and accessibility to these very residents to the hospital and health services that they really need" (at p. 34).
- "The relocation of WAH will not significantly change the communities serviced or the services provided, except for the better." (at p. 97).

A13. Yes.

Q14. Based on your training and experience and your investigation in this case, do you have an opinion, to a reasonable degree of professional certainty, as to the accuracy of these two statements?

A14. Yes.

Q15. What is that opinion?

A15. It is my opinion that these statements are not accurate. Based on my investigation and analysis, it is highly unlikely that WAH's core population will be the same at its proposed relocation to the White Oak / Fairland area as it is at WAH's current location in Takoma Park. The proximity analysis demonstrates that the core population that surrounds and relies upon the WAH in Takoma Park will change significantly. Thus, the availability and accessibility for the residents that most need hospital services, such as the indigent and uninsured which are

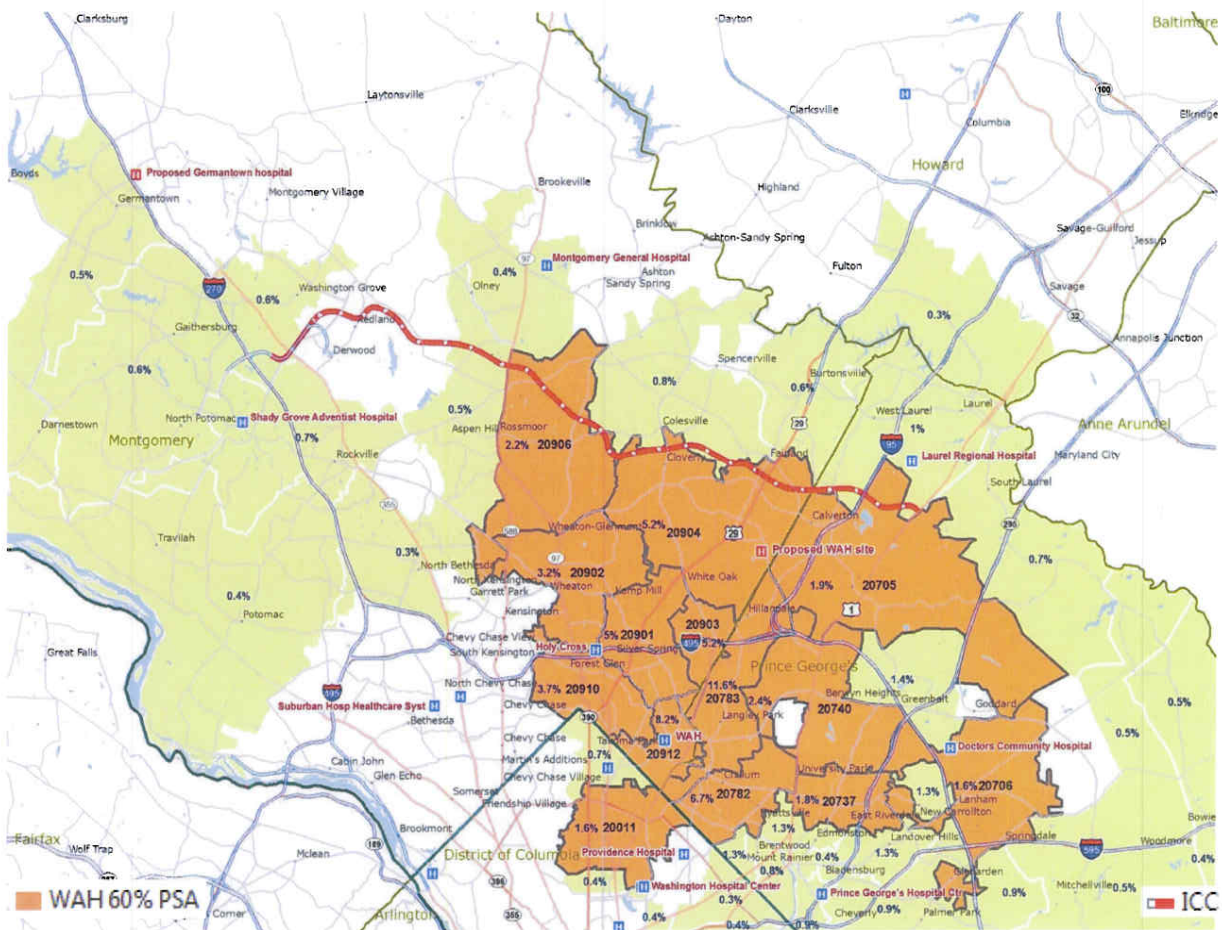
concentrated inside the Capital Beltway, will be reduced by WAH's proposed relocation to the White Oak / Fairland area.

Q16. What is the first step in your analysis in connection with WAH's core proximate population?

A16. I first looked at WAH's primary service area.

Q17. What is Hearing Exhibit No. MGH 8 which is reproduced below?

**TABLE 1: Washington Adventist Hospital Primary Service Area 2009
(Total Discharges excluding Normal Newborns)
Source: DCHA Maryland, DC and Virginia Hospital Discharge Data**



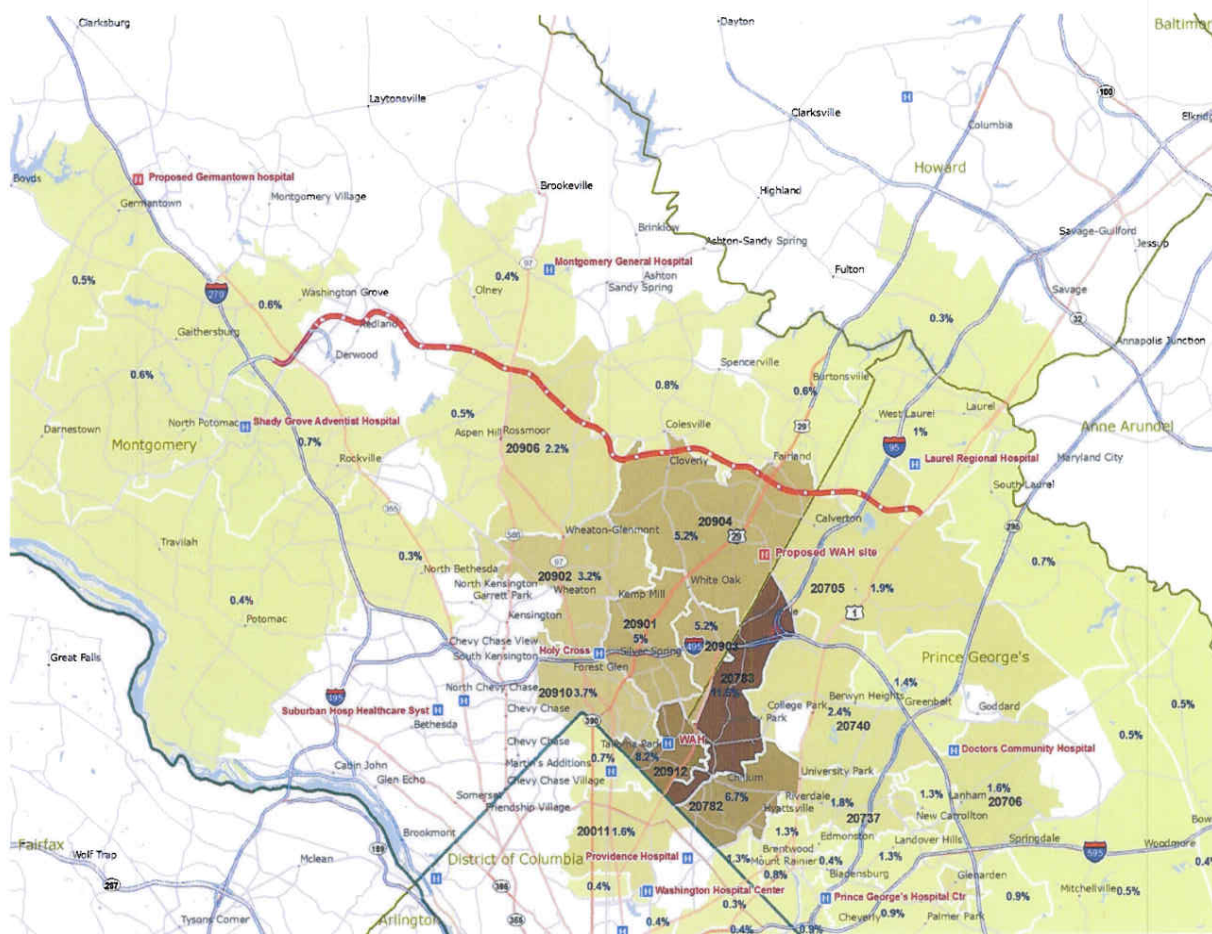
A17. It is a map which shows in red WAH's primary service area, as defined by the Maryland State Health Plan's (SHP) definitions for CON purposes. Using 2009 patient origin data and the 60% patient origin standard, the primary service area is a set of fourteen ZIP Codes:

Q18. What is the next step in your analysis in connection with WAH's core proximate population?

A18. I next looked at the relative patient origin within those zip codes.

Q19. What is Hearing Exhibit No. MGH 9?

TABLE 2: WAH Patient Origin 2009 (Total Discharges excluding Normal Newborns)
Source: DCHA Maryland, DC and Virginia Hospital Discharge Data



A19. It is a map which shows that the largest proportion of WAH's patients - 26.7% - come from three 'core' zip codes. Almost 12% (11.8%) of all admissions came from 20783 (Hyattsville), 8.2% from 20912, WAH's home zip code, and 6.7% from 20782 (also Hyattsville). This is shown in the darker brown shades.

Q20. What was the next step in your analysis?

A20. Most hospital data is captured on the ZIP Code level, which in many cases can be a too generalized collection of population. My model looks at Census Block Group-level data for this analysis. Census Block Groups, which are collections of Census Blocks, are smaller geographies than ZIP Codes, and allow differences in demographics within a ZIP Code to be more readily viewed and analyzed. This is particularly important when looking at ZIP Codes with large or irregular geographies, such as 20783 (Hyattsville), which stretches over 6 miles northeast from the Maryland/District of Columbia border southwest of Chillum to near Paint Branch Park above Hillandale.

Using the WAH patient ZIP Codes as a comparison, I selected the Census Block Groups that have their geographic center points, or centroids, within areas of Montgomery County, Prince George's County, and Howard County, Maryland, and within the District of Columbia. This resulting layer of 742 separate Census Blocks Groups was then used to make drive time comparisons from each census block group to area hospitals.

Q21. What is Hearing Exhibit No. MGH 10 which is reproduced below?

TABLE 3: Census Block Group Selection (Source: ESRI)



A21. It is a map which shows the selected Census Block Groups in green.

Q22. Why is only a small portion of the District of Columbia included?

A22. Only one zip code, 20011, is included in WAH's SHP-defined primary service area in 2009. Therefore, I included the census block groups from that zip code.

Q23. What did you do next?

A23. I performed drive time comparisons.

Q24. Please describe how you performed the drive time comparisons.

A24. Drive time proximity in minutes from each block group centroid was calculated to produce a detailed table of 742 point-to-point travel times to each of the 12 most likely hospital destinations for the population within each Block Group: the current WAH site in Takoma Park, the proposed WAH site on Plum Orchard Drive in White Oak/Fairland, MGH, Holy Cross Hospital (“HCH”), Shady Grove Adventist Hospital, Suburban Hospital, Laurel Regional Hospital (“LRH”), Doctor’s Community Hospital, Prince George’s Hospital Center (“PGHC”), and two District of Columbia hospitals, including Providence Hospital and Washington Hospital Center. For this analysis, the District of Columbia hospitals selected are assumed to represent all D.C.-based hospitals, since these two are the nearest to the focus area.

The drive time analysis is based the Metropolitan Washington Council of Governments (MWCOC) traffic model, which incorporates the effects of the ICC on regional travel patterns in 2030. The 2030 assumption for travel time is considered conservative, since it includes an additional 12 years of growth and traffic load into the projected drive times for the ICC and Montgomery County and Prince George’s County road network.

Q25. What is Hearing Exhibit No. MGH 11 which is reproduced below?

TABLE 4: Point-to-Point Travel Time Minutes and Ranking by Census Block Group FIPS Code Selection (Source: Kimley-Horn Associates and ESRI)

FIPS	Old_WAH	MGH	GRMN	HCH	SHADY	SUB	LRH	DOCS	WHC	PROV	PGH	Old_WAHrank	MGHrank	GRMNrank	HCHrank	SHADYrank	SUBrank	LRHrank	DOCSrank	WHCrank	PROVrank	PGHrank
240317006042	59.77	40.56	19.84	49.93	29.52	46.12	55.41	72.13	75.04	73.38	85.26	7	3	1	5	2	4	6	8	10	9	11
240317006043	58.27	41.37	17.73	48.44	32.41	44.62	56.22	70.64	73.55	71.89	83.77	7	3	1	5	2	4	6	8	10	9	11
240317006044	61.48	42.86	20.94	51.65	31.81	47.83	57.70	73.85	76.76	75.09	86.98	7	3	1	5	2	4	6	8	10	9	11
240317003081	51.12	34.22	11.10	41.28	26.28	37.47	49.06	63.48	65.36	63.69	76.62	7	3	1	5	2	4	6	8	10	9	11
240317003082	51.12	34.22	11.10	41.28	26.28	37.47	49.06	63.48	64.89	63.22	76.62	7	3	1	5	2	4	6	9	10	8	11
240317003092	45.46	28.56	4.92	35.63	20.62	31.81	43.41	57.82	60.74	59.07	70.96	7	3	1	5	2	4	6	8	10	9	11
240317003102	51.12	30.88	7.77	37.95	22.95	34.19	45.73	60.15	63.07	61.40	73.29	7	3	1	5	2	4	6	8	10	9	11
240317003101	50.35	33.44	9.80	40.51	25.51	36.70	48.29	62.71	65.63	63.96	75.85	7	3	1	5	2	4	6	8	10	9	11
240317003103	50.35	33.44	9.80	40.51	25.51	36.70	48.29	62.71	65.63	63.96	75.85	7	3	1	5	2	4	6	8	10	9	11
240317003061	56.27	39.36	15.73	46.43	31.43	42.62	54.21	68.63	71.54	69.88	81.77	7	3	1	5	2	4	6	8	10	9	11
240317003062	56.27	39.36	15.73	46.43	31.43	42.62	54.21	68.63	63.53	61.86	81.77	7	3	1	5	2	4	6	10	9	8	11
240317008151	46.76	29.85	7.36	36.92	21.92	33.11	44.70	59.12	62.03	60.37	72.25	7	3	1	5	2	4	6	8	10	9	11
240317008154	52.36	35.46	12.96	42.53	27.52	38.71	50.30	64.73	67.64	65.97	77.86	7	3	1	5	2	4	6	8	10	9	11
240317006092	52.35	30.45	15.89	31.83	21.25	36.01	45.30	62.03	67.63	65.96	75.16	7	3	1	4	2	5	6	8	10	9	11
240317006094	51.45	34.55	12.05	41.62	26.41	37.80	49.40	63.82	66.73	65.07	76.95	7	3	1	5	2	4	6	8	10	9	11
240317026022	8.65	25.73	41.25	6.83	39.21	25.73	29.45	28.70	22.96	21.29	33.23	2	5	11	1	10	5	8	7	4	3	9

FIPS	New_WAH	MGH	GRMN	HCH	SHADY	SUB	LRH	DOCS	WHC	PROV	PGH	New_WAHrank	MGHrank	GRMNrank	HCHrank	SHADYrank	SUBrank	LRHrank	DOCSrank	WHCrank	PROVrank	PGHrank
240317006042	54.18	40.56	19.84	49.93	29.52	46.12	55.41	72.13	75.04	73.38	85.26	6	3	1	5	2	4	7	8	10	9	11
240317006043	54.99	41.37	17.73	48.44	32.41	44.62	56.22	70.64	73.55	71.89	83.77	6	3	1	5	2	4	7	8	10	9	11
240317006044	56.47	42.86	20.94	51.65	31.81	47.83	57.70	73.85	76.76	75.09	86.98	6	3	1	5	2	4	7	8	10	9	11
240317003081	46.79	34.22	11.10	41.28	26.28	37.47	49.06	63.48	65.36	63.69	76.62	6	3	1	5	2	4	7	8	10	9	11
240317003082	46.32	34.22	11.10	41.28	26.28	37.47	49.06	63.48	64.89	63.22	76.62	6	3	1	5	2	4	7	9	10	8	11
240317003092	43.54	28.56	4.92	35.63	20.62	31.81	43.41	57.82	60.74	59.07	70.96	7	3	1	5	2	4	6	8	10	9	11
240317003102	43.54	30.88	7.77	37.95	22.95	34.19	45.73	60.15	63.07	61.40	73.29	6	3	1	5	2	4	7	8	10	9	11
240317003101	47.06	33.44	9.80	40.51	25.51	36.70	48.29	62.71	65.63	63.96	75.85	6	3	1	5	2	4	7	8	10	9	11
240317003103	47.06	33.44	9.80	40.51	25.51	36.70	48.29	62.71	65.63	63.96	75.85	6	3	1	5	2	4	7	8	10	9	11
240317003061	52.98	39.36	15.73	46.43	31.43	42.62	54.21	68.63	71.54	69.88	81.77	6	3	1	5	2	4	7	8	10	9	11
240317003062	44.96	39.36	15.73	46.43	31.43	42.62	54.21	68.63	63.53	61.86	81.77	5	3	1	6	2	4	7	10	9	8	11
240317008151	43.47	29.85	7.36	36.92	21.92	33.11	44.70	59.12	62.03	60.37	72.25	6	3	1	5	2	4	7	8	10	9	11
240317008154	49.07	35.46	12.96	42.53	27.52	38.71	50.30	64.73	67.64	65.97	77.86	6	3	1	5	2	4	7	8	10	9	11
240317006092	49.06	30.45	15.89	31.83	21.25	36.01	45.30	62.03	67.63	65.96	75.16	7	3	1	4	2	5	6	8	10	9	11
240317006094	48.17	34.55	12.05	41.62	26.41	37.80	49.40	63.82	66.73	65.07	76.95	6	3	1	5	2	4	7	8	10	9	11
240317026022	17.14	25.73	41.25	6.83	39.21	25.73	29.45	28.70	22.96	21.29	33.23	2	5	11	1	10	5	8	7	4	3	9

A25. These are charts showing two different scenarios of the resulting point-to-point travel time table for each block group centroid and hospital destination. The first scenario is where WAH remains in its current location, and the second is where WAH relocates as proposed to White Oak/Fairland area. The drive time estimates for each block group centroid to each hospital in both tables were ranked 1-11, with 1 being the lowest travel time in minutes and 11 being the highest travel time in minutes.

Q26. Please further describe the two scenarios shown on TABLE 4 above.

A26. Table 4 is an example from the data base of 742 census block groups. For each census block group, I have entered the drive time in minutes, based on data from MWCOG and compiled by Kimley-Horn Associates. The first table excerpt from the database shows the first phase of this portion of the analysis – assuming WAH remains in its current Takoma Park location. The second part is an excerpt from the table assuming WAH relocates as proposed to the White Oak / Fairland area. The right side of each table excerpt is the ranking of each hospital for each Census Block Group based on those drive times, *e.g.*, which hospital location is closest to that Census Block Group, which is second closest, and so on.

Q27. Does Table 4 above show current drive times?

A27. No. The drive times shown on Table 4 reflect the expected road network and traffic in 2030. We did this in order to incorporate the impact of the ICC.

Q28. How, if at all, do you make use of the data shown on TABLE 4?

A28. The data and rankings allow me to map the first and second most proximate block groups to WAH for WAH's existing location in Takoma Park and its proposed relocation to the White Oak / Fairland area. As expected, WAH is currently most proximate to a unique collection of block groups near its current Takoma Park location. Should it relocate, that collection of block groups would shift in proximity to other hospitals, while the WAH White Oak / Fairland location would supplant other proximate hospitals and become the closest for a different collection block groups, with its own particular demographic makeup.

Q29. What are the results of this analysis?

A29. The results of this analysis describe:

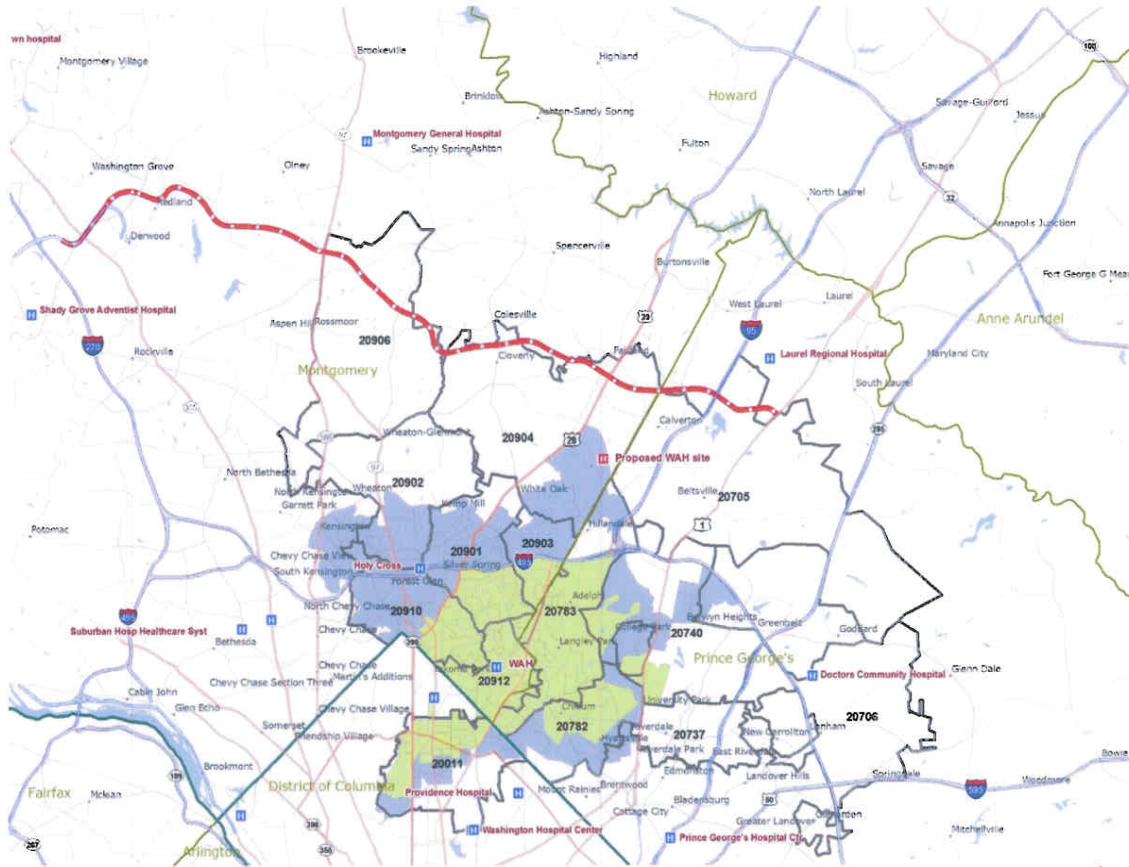
- the effect of the WAH relocation on the ease of access for its core proximate population – those block groups where WAH is currently the most proximate hospital.
- the increase in travel time for WAH's core population at its existing location compared to its proposed relocation to the White Oak / Fairland area.
- the hospital or hospitals that become the most likely new destinations for WAH's current core proximate population when seeking hospital care.
- that WAH's argument that its service area ZIP Codes are not expected to change significantly with the proposed relocation and that it expects to serve the same population it currently does, despite moving 7-8 miles away and north of the Capitol Beltway, is demonstrably incorrect.

Q30. What are the proximate block groups to WAH at its current location?

A30. Based on my analysis and drive time rankings, WAH's current Takoma Park location is the first or second most proximate hospital for 186 census block groups. Of these block groups, 107 are first most proximate to WAH's current Takoma Park location. Current estimates put this population at 156,502 (AGS, 2010).

Q31. What is the Hearing Exhibit No. MGH 12 which is reproduced below?

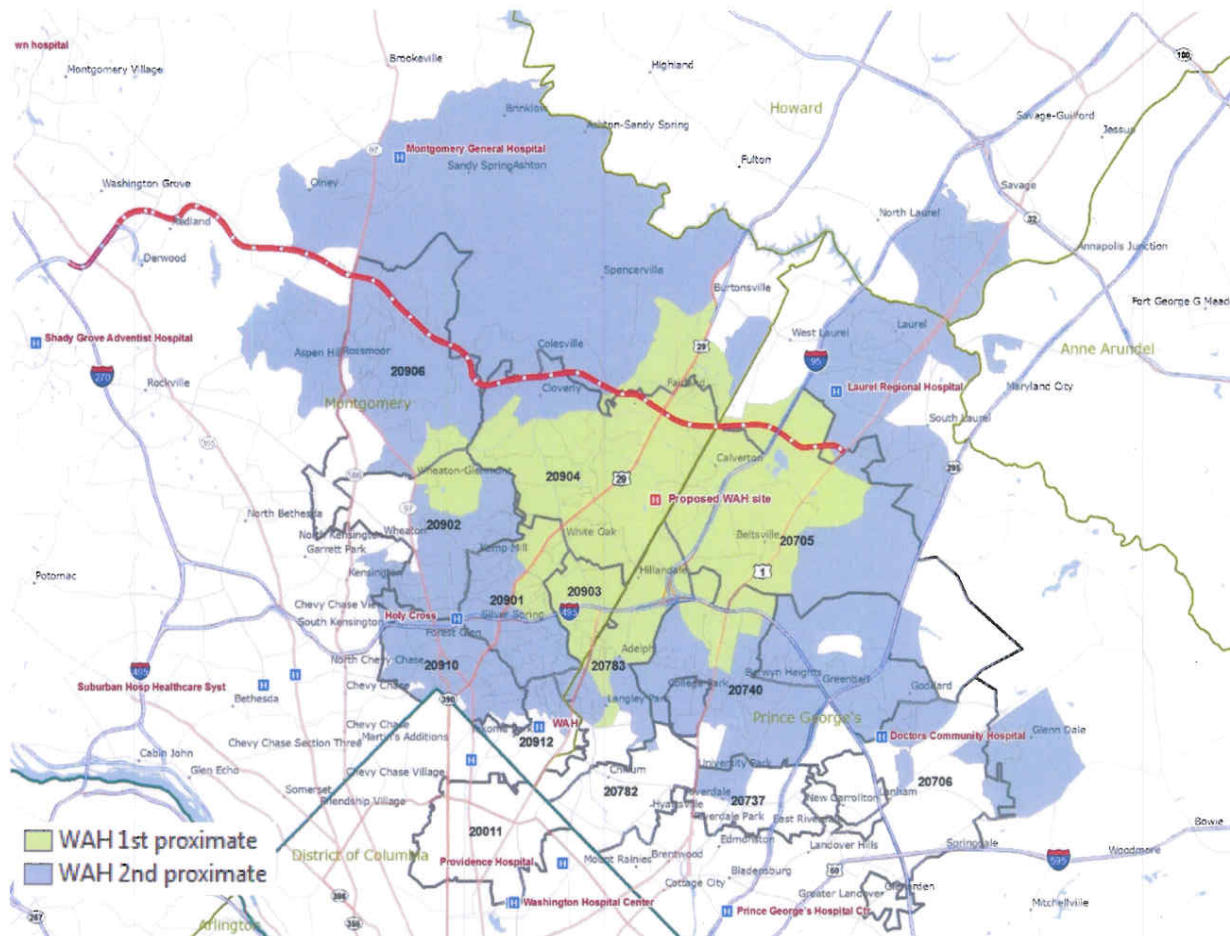
TABLE 5: Census Block Groups First and Second Most Proximate to Current WAH Location (Source: Kimley-Horn Associates and ESRI)



A31. It is a map on which WAH is 60% PSA ZIP Codes are outlined in grey for comparison to the first most proximate block groups, shaded in green. The blue area on Table 5 represents the population for whom WAH is the second closest hospital. This map demonstrates that the SHP defined Primary Service area encompasses a much broader geography than the first most proximate area, or even the first and second most proximate area. The primary service area concept – while a useful tool – does not attempt to measure patient utilization in the context of competing hospitals.

Q32. What is Hearing Exhibit No. MGH 13 which is reproduced below?

TABLE 6: Census Block Groups First and Second Most Proximate to Proposed WAH Relocation to the White Oak / Fairland Area
(Source: Kimley-Horn Associates and ESRI)



A32. It is a map which shows in comparison the first and second most proximate census block groups, shaded in green and blue respectively, for the proposed WAH location, and the SHP-defined current primary service area outlined in gray.

Q33. What are the proximate block groups to WAH at its proposed relocation in the White Oak / Fairland area?

A33. Based on my analysis, WAH's proposed White Oak / Fairland location would be first in proximity to a collection of 74 Block Groups with a population estimated at 137,357 as shown in light green on TABLE 6.

Q34. Are the maps shown on Tables 5 and 6 the same scale?

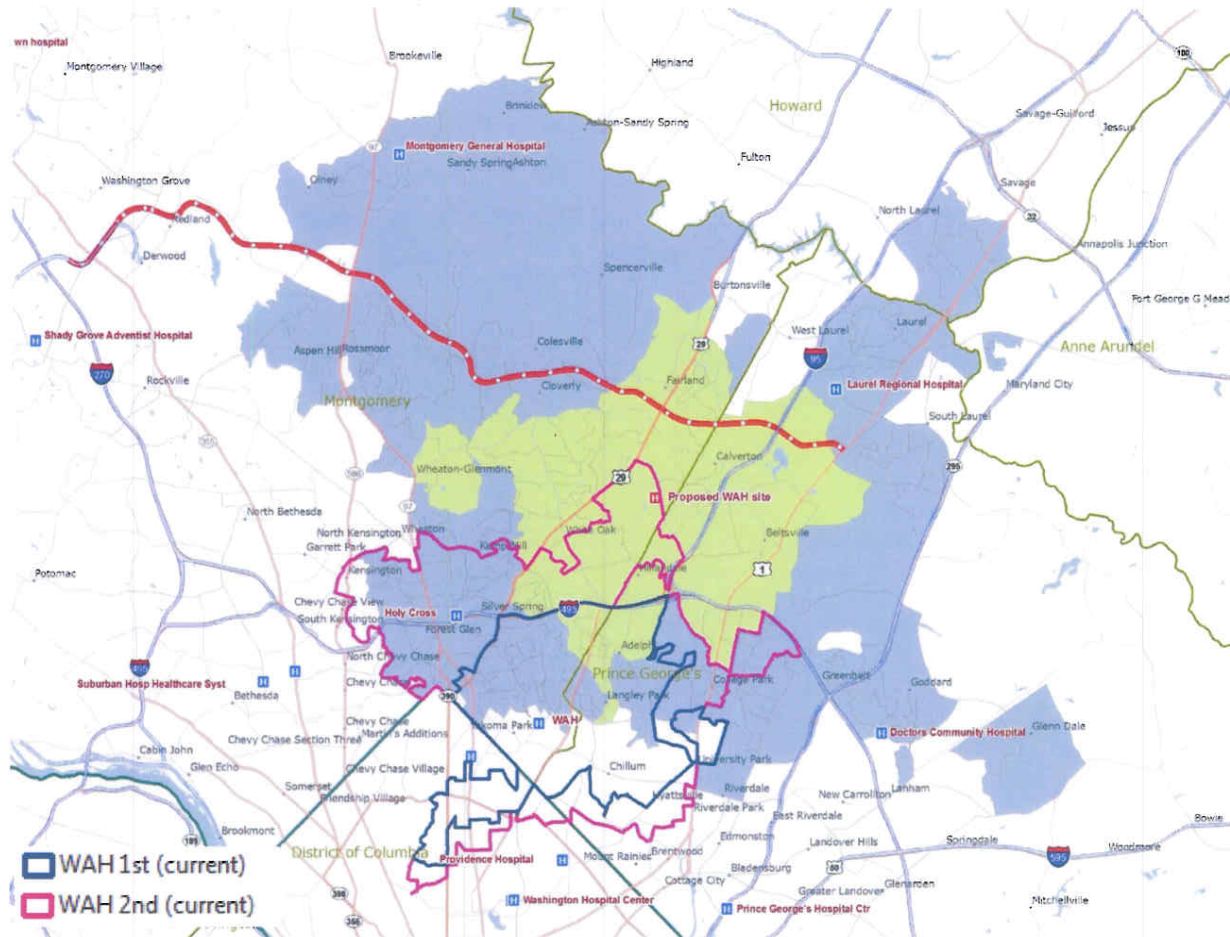
A34. Yes.

Q35. Please describe the comparison shown on Tables 5 and 6.

A35. What you see when looking at Table 6 compared with Table 5, is the dramatic change in proximity based on the different road network available to the proposed site in the White Oak / Fairland area. This analysis also shows (in green) the much larger area where the proposed WAH would be first most proximate hospital (in green) and particularly where it would be the second most proximate hospital (in blue). The ICC allows increased access to the proposed site for areas to the northwest and northeast. Areas south of the current WAH location, however, are beyond this boundary.

Q36. What is Hearing Exhibit No. MGH 14 which is reproduced below?

TABLE 7: Census Block Groups First and Second Most Proximate to the Proposed WAH location in the White Oak / Fairland Area with Current Overlay (Source: Kimley-Horn Associates and ESRI)



A36. This is a map showing the current proximity boundaries (outlined in blue and pink) and the proximity boundaries of the proposed location (shaded in green and blue). When the current WAH proximity boundaries from Table 5 are overlaid on this map in Table 6 of the proposed proximity areas, the gap in coverage for the previous core proximate geography (most proximate) is illustrated by the green shaded area South of I 495. Only 16% of the population, in 12 of 107 block groups, is closest in proximity to both the current and proposed WAH site (24,727 out of 156,502).

Q37. Please describe TABLE 7 in more detail.

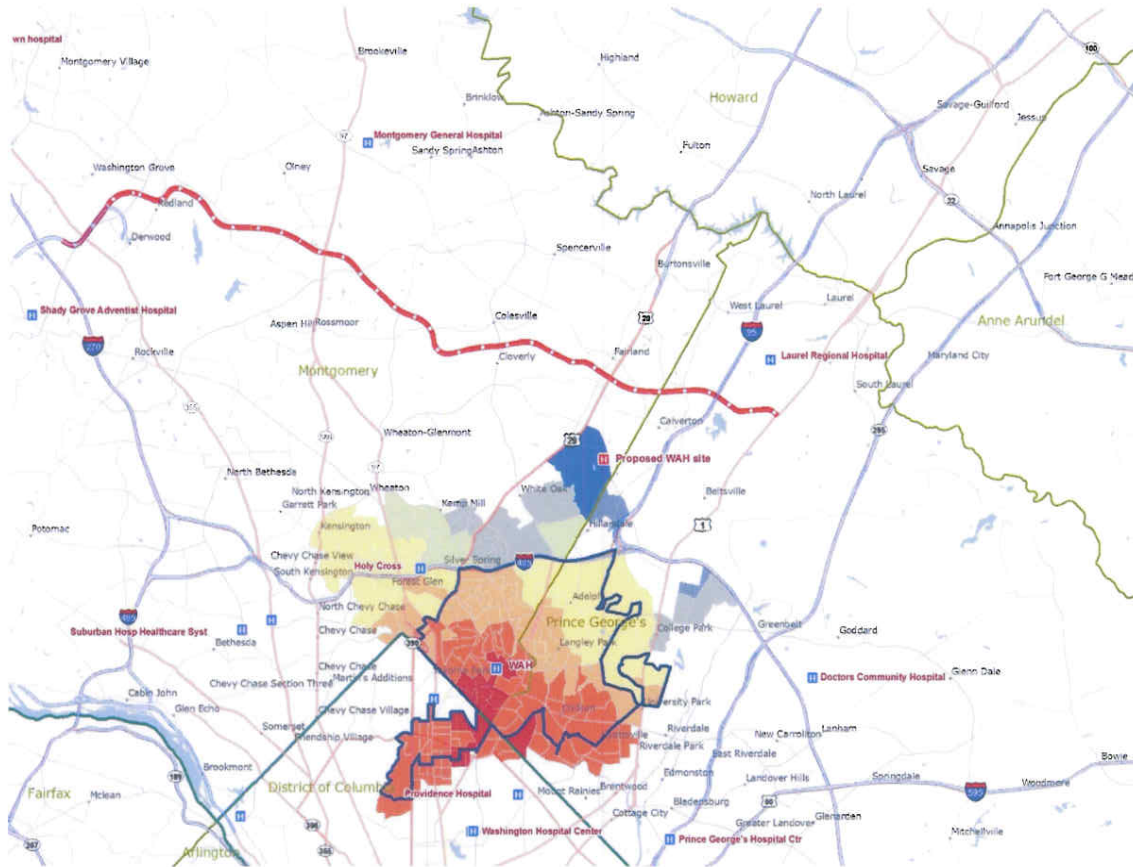
A37. The area outlined in blue represents, from TABLE 5, the census block groups for which the current WAH hospital is the closest, or first most proximate hospital. The area outlined in pink represents the census block groups for which the current WAH hospital is the second most proximate hospital. The green and blue shaded areas, from TABLE 6 are the census block groups for which the proposed WAH location is either the first or second most proximate hospital. The area inside the blue outline and shaded in green represents the census block groups for which the population will be the closest hospital both before and after the proposed move to the White Oak / Fairland area. Everyone else within that blue outline will undergo a shift in proximity because they will no longer have WAH as their closest hospital. This represents 131,775 people.

Q38. What is the impact on the travel times for WAH's current core proximate population to the proposed new location in the White Oak / Fairland area?

A38. Travel time to the proposed WAH site in the White Oak / Fairland area increases for this previously proximate population due to the relocation, with many populations around the current WAH site experiencing increases of 11 to 20 minutes, based on the MWCOG traffic model.

Q39. What is the Hearing Exhibit No. MGH 15 which is reproduced below?

TABLE 8: Travel Time Increase (Decrease) to Proposed WAH Location in the White Oak / Fairland Area from Current Most Proximate Census Block Groups (Source: Kimley-Horn Associates and ESRI)



A39. This map illustrates the difference in travel time minutes increase/(decrease) for each first and second proximate collection of block groups. As illustrated in an earlier map, the proposed WAH site in the White Oak / Fairland area would be the third or fourth closest facility for a large portion of this previously proximate population.

Q40. What implications, if any, are shown on TABLE 8?

A40. The map reproduced as Table 8 above demonstrates that not only is the area of the WAH's core proximate census block groups for whom travel times will be reduced smaller than the group that will experience longer travel times, but also that the longer travel times are almost entirely inside the Capitol Beltway.

Q41. Have you reviewed the prefiled testimony of Edward Y. Papazian, P.E.?

A41. Yes.

Q42. Do you agree with Mr. Papazian's analysis and conclusions?

A42. Yes.

3.

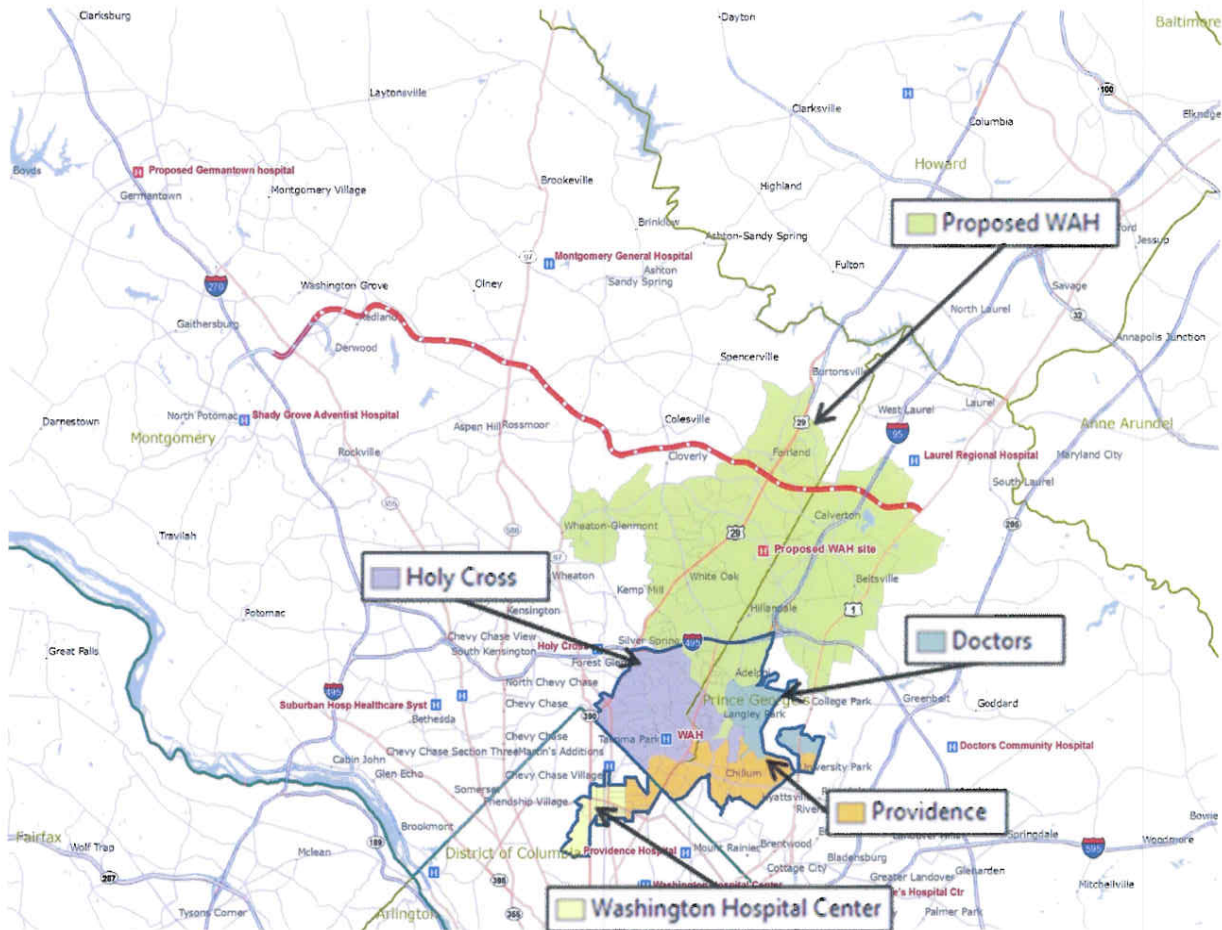
**THE IDENTIFICATION OF HOSPITALS THAT
WILL BECOME THE NEW DESTINATION FOR
WAH'S CURRENT CORE POPULATION WHEN IT IS LEFT BEHIND**

Q43. Based on the established relationship between proximity and hospital choice, what does the change in location likely mean for the core proximate population regarding hospital choice should WAH be allowed to relocate to its proposed location in the White Oak / Fairland area?

A43. Should WAH relocate to the White Oak / Fairland area, the new most proximate hospital for much of WAH's population would be divided among HCH in Silver Spring, Doctors Community, and the two District of Columbia hospitals – Providence and Washington Hospital Center.

Q44. What is the Hearing Exhibit No. MGH 16 which is reproduced below?

TABLE 9: New Most Proximate Hospital Destinations for WAH's Current Population and its Post-WAH Relocation to the White Oak / Fairland Area (Source: Kimley-Horn Associates and ESRI)



A44. This map illustrates which areas of WAH's core proximate population will end up with WHC as the closest hospital, or Providence, or Holy Cross or Doctors, should WAH relocate to the White Oak / Fairland area as proposed.

Q45. What is Hearing Exhibit No. MGH 17 which is reproduced below?

TABLE 10: Demographics of New Most Proximate Hospital Destinations for WAH's Current Population and its Post-WAH Relocation to the White Oak / Fairland Area (Source: Kimley Horn Associates and ESRI)

New Proximate Hospital	Pop.	Pct of total	Adj. MHHI	MHHI % of state	Pop +5	Abs +5	Pct +5	w/o HS diploma	w/o college degree
Holy Cross	74,045	47%	\$ 55,503	81%	82,633	8,588	12%	25%	60%
Doctors	7,257	5%	\$ 51,438	75%	7,986	729	10%	14%	51%
Providence	33,783	22%	\$ 63,215	93%	33,716	(67)	0%	20%	68%
Wash Hosp Center	16,690	11%	\$ 57,043	83%	16,849	159	1%	15%	61%
Proposed WAH	24,727	16%	\$ 56,384	83%	25,289	562	2%	28%	70%
	156,502	100%							

A45. This table shows the distributions of this population, along with demographic comparisons. This table shows that 16% percent of this population would be most proximate to the proposed WAH site in the White Oak / Fairland area, while 84% would be most proximate to other Maryland and DC hospitals, primarily HCH, and Providence Hospital.

4.

A DEMOGRAPHIC COMPARISON OF THE CORE PROXIMATE POPULATION IN THE VICINITY OF EXISTING WAH TO THE POPULATION IN THE VICINITY OF PROPOSED WAH

Q46. How does this core proximate population compare at the Census Block Group level in terms of income, population growth, educational attainment, and other socioeconomic factors to what will be WAH's new proximate population in the White Oak/Fairland area?

A46. Demographic data by Census Block Group show that the current WAH location is the first closest hospital for a larger number of people (156,502) in a faster-growing area (6.4% growth in five years, or 9,971 additional people), compared to the proposed site in the White Oak Fairland area. That is, 137,357 people and 3.4% growth in five years or 4,672 additional people.

The current WAH location also serves a population with an adjusted median household income that is only 84% of the state median. The proposed site in the White Oak / Fairland area

serves a population with an adjusted median household income which is well above the state median at 112%. The median household income for the State of Maryland was \$68,316 in 2010.

Additionally, educational attainment data for persons aged 25 and older show that the percentage of the population proximate to the current WAH location without a high school degree is just under 23%, compared to only 12.4% for persons most proximate to the proposed site in the White Oak / Fairland area.

Q47. What is the Hearing Exhibit No. MGH 18 (which is reproduced below)?

TABLE 11: Population-Adjusted Demographic Comparison between Current and Proposed WAH Proximate Populations
(Source: Applied Geographic Solutions)

	Adj. MHHI	% of state	Pop.	Pop +5	Abs +5	Pct +5	% w/o HS diploma	% w/o college degree
Current WAH 1st proximate	\$ 57,282.62	84%	156,502	166,473	9,971	6.4%	22.9%	63.0%
Current WAH 1st & 2nd proximate	\$ 64,721.36	95%	271,960	287,783	15,823	5.8%	18.4%	58.5%
Proposed WAH 1st proximate	\$ 76,189.91	112%	137,357	142,029	4,672	3.4%	12.4%	54.0%
Proposed WAH 1st & 2nd proximate	\$ 77,420.80	113%	478,904	507,230	28,326	5.9%	12.6%	53.7%

Demographics Source: AGS (2010 base year)
State of Maryland Median Household Income (2010): \$68,316

A47. This table shows how WAH's core proximate population at its current location in Takoma Park compares at the Census Block Group level in terms of income, population growth, educational attainment, and other socioeconomic factors to what will be WAH's new proximate population in the White Oak/Fairland area.

Q48. What other demographic information is available regarding the Takoma Park area that may be relevant to this analysis?

A48. Although data on poverty rates are not available at the Census Block Group level, it is available by zip Code. The UDS Mapper tool (www.udsmapper.org), developed by the Robert Graham Center and funded by the U.S. Health Resources and Services Administration (HRSA), shows that the current WAH site is located in an area with a higher poverty rate than the proposed location in the White Oak / Fairland area. The areas coinciding with the current

WAH most proximate populations are designated as Medically Underserved Areas/Populations (MUA/Ps) and/or Health Professional Shortage Areas (HPSAs) by HRSA.

Q49. What are MUA/Ps?

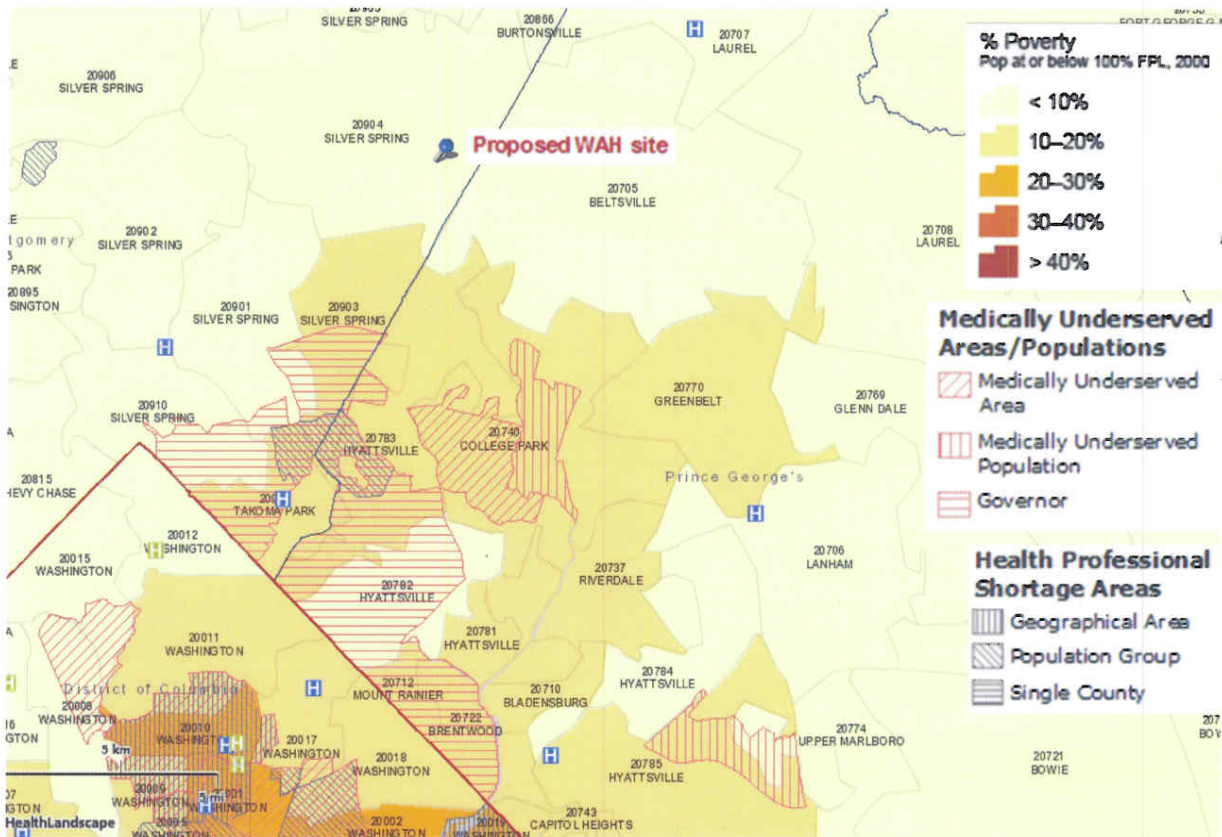
A49. MUA/Ps are geographic areas “in which residents have a shortage of personal health services, or Exceptional/Governor designated. Medically Underserved Populations (MUPs) may include groups of persons who face economic, cultural or linguistic barriers to health care.” (<http://bhpr.hrsa.gov/shortage/>).

Q50. What are HPSAs?

A50. HPSAs are areas “which may be designated as having a shortage of primary medical care, may be urban or rural areas, population groups, or medical or other public facilities.” (<http://bhpr.hrsa.gov/shortage/>).

Q51. What is Hearing Exhibit No. MGH 19 (which is reproduced below)?

**TABLE 12: Medically Underserved Areas / Populations,
Health Professional Shortage Areas and Poverty Levels
(Source: HRSA)**



A51. This map presents a complete picture of the area in terms of rates of poverty, Medically Underserved Areas/Populations, and Health Professional Shortage Areas.

5.

CONCLUSIONS

Q52. Based on your training and experience, do you have an opinion to a reasonable degree of professional certainty as to the nature and scope of the indigent and underserved population served by WAH at its current location?

A52. Yes.

Q53. What is that opinion?

A53. The population determined to be WAH's 'core proximate population' is medically and economically disadvantaged compared to other areas of Montgomery County and/or to the core proximate population for WAH at its proposed site in the White Oak / Fairland area. This population is also growing faster than the population that would be the core proximate population for WAH at its proposed site in the White Oak / Fairland area.

Q55. Based on your training and experience, do you have an opinion to a reasonable degree of professional certainty as to the effect of the proposed WAH relocation on the access to care for this population?

A54. Yes.

Q55. What is that opinion?

A55. A large percentage of this population would be worse off in terms of the availability of hospital services if WAH were allowed to abandon the Takoma Park area. If WAH relocates to the White Oak / Fairland area as it has proposed, only 16% of WAH's current core proximate population will still have WAH as their closest hospital.

VERIFICATION

I solemnly declare and affirm under the penalties of perjury that the facts set forth in the foregoing testimony are true and correct to the best of my knowledge, information, and belief.



Keith Bubblo

Exhibit 5: Additional Details of Proposed Thorpe Study

The proposed study involves obtaining the required data, with appropriate safeguards, in a manner that is permitted by privacy laws. Under 45 C.F.R. § 164.512(d), a regulation implementing the Health Insurance Portability and Accountability Act (“HIPAA”) (U.S.C. §§), WAH is permitted to disclose protected patient health information to a health oversight agency, such as the Commission, for activities authorized by law, including civil or administrative audits, licensure or disciplinary actions, civil administrative or criminal proceedings or actions or other activities necessary for appropriate oversight of WAH, including a ruling on a CON application. In order to determine impact on the indigent and medically underserved population that is closest proximate to WAH, a study showing DRG, insurance status and distance and time to travel to the current WAH site compared to the future proposed site and future new closest hospital would be necessary.

The data requested from WAH should be limited only to the data determined to be necessary for this study in order to be compliant with the HIPAA standard found at 45 CFR 164.502(b)¹, 164.514(d)² and commonly referred to as the “minimum necessary” standard. This standard is based on the practice that protected health information should not be used or disclosed when it is not necessary to satisfy a particular purpose or carry out a specified function. Depending on the nature of WAH’s medical record keeping, these fields could conceivably expand to allow inclusion of the relevant data. The Commission should perform an initial review of the electronic medical record system to ascertain the exact fields and output necessary to produce the relevant data for the study.

¹ [45 CFR 164.502.](#)

² [45 CFR 164.514\(d\).](#)

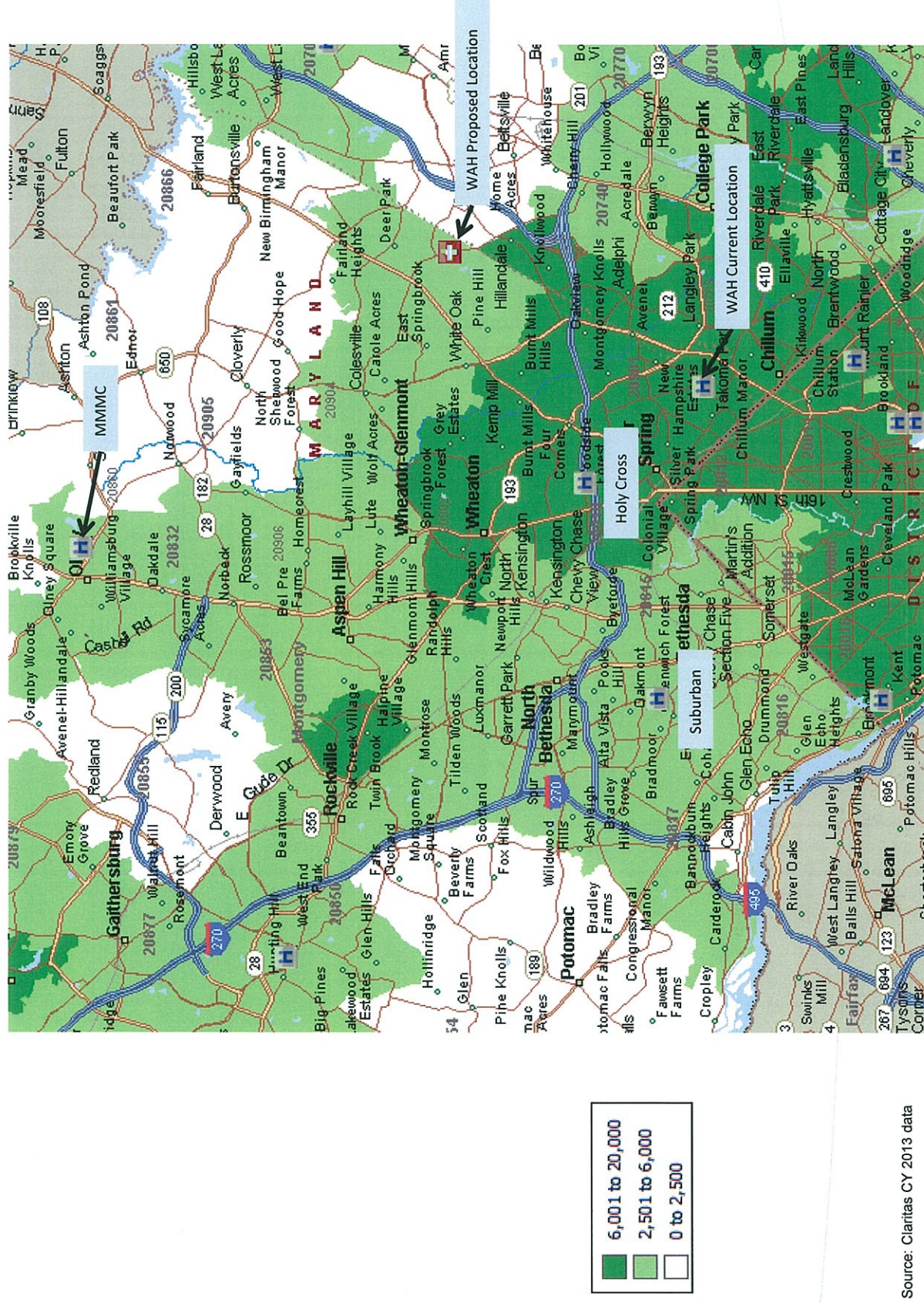
In conducting such a study, the Commission would need to request the following (or substantially similar) data elements from WAH:

Data Element	Purpose
Patient ID	To assist in calculating utilization by patient.
Patient Address: Street Address, City and Zip Code	To examine distribution of travel time to current and proposed location. To examine the concentration of the at-risk population in relation to the current and proposed site.
Insurance Type/Category	To focus on the at-risk or medically disadvantaged populations, i.e., Medicaid and uninsured, that use WAH, rather than the general population.
Date of Service, Admit and Discharge date (to determine Frequency of Use)	To examine current utilization among the uninsured and Medicaid patients to determine potential changes from the increase in travel times and reductions in use for those patients in close proximity to the current location; as well as reductions in travel time for those in close proximity to the proposed site.
Diagnosis-related group (DRG)	To examine the distribution of chronic medical conditions and need for frequent use and medical management. To determine what, if any risk of reduction to the types of care received based on literature on the effect of distance increases in distance and travel time on utilization.

Once the data has been requested from WAH, the Commission may choose to conduct the study itself or opt to authorize WAH or the Interested Parties to utilize a vendor to conduct the study. This is so because the Commission would be considered a “covered entity” under section 45 CFR 164.502³ and thus may redisclose the data to an outside vendor who may perform the study as long as an agreement protecting the information is in place.

³ [45 CFR 164.502.](#)

Population Density by Zip Code



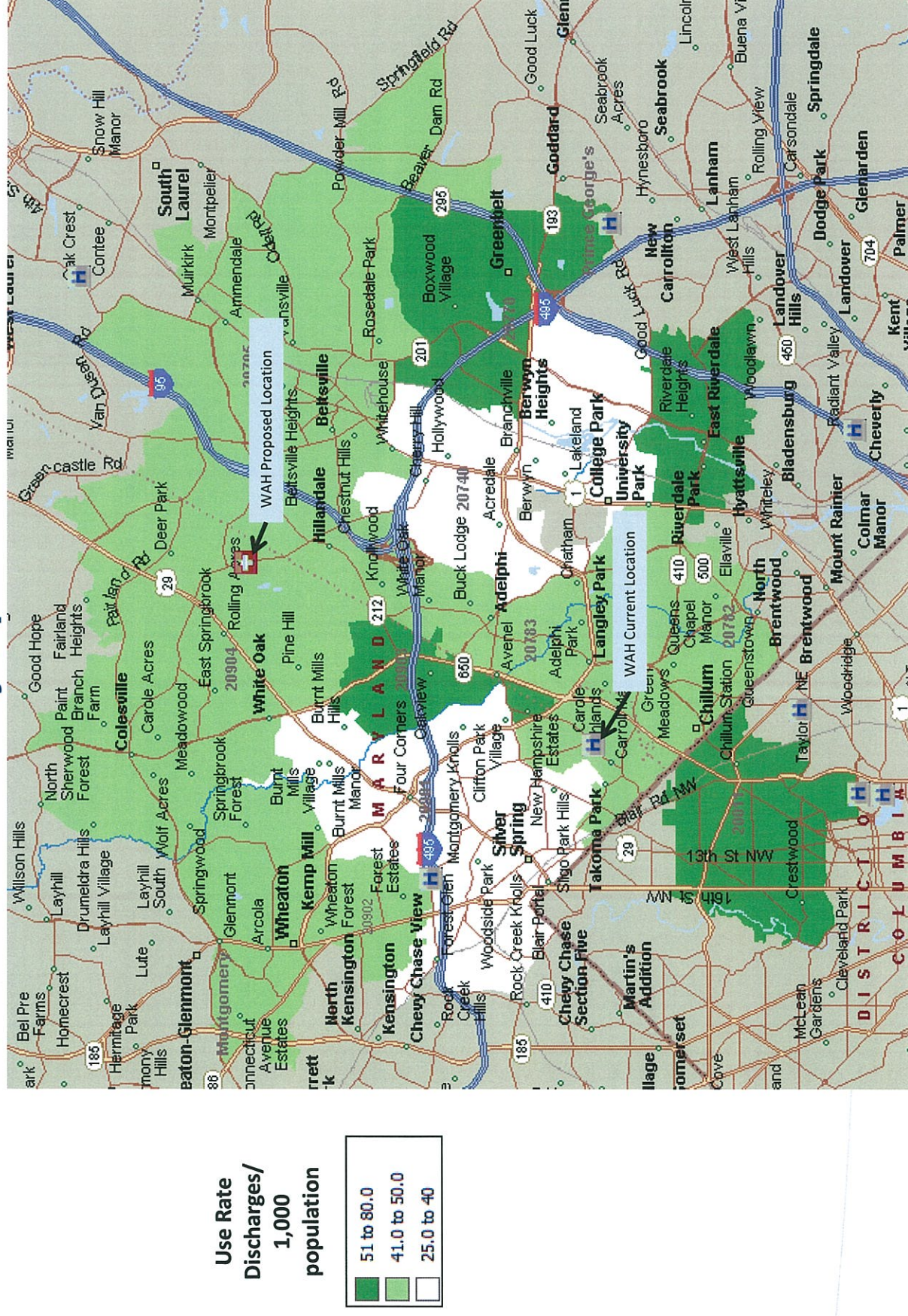
Source: Claritas CY 2013 data

Knowledge and Compassion **Focused on You**



MedStar Health

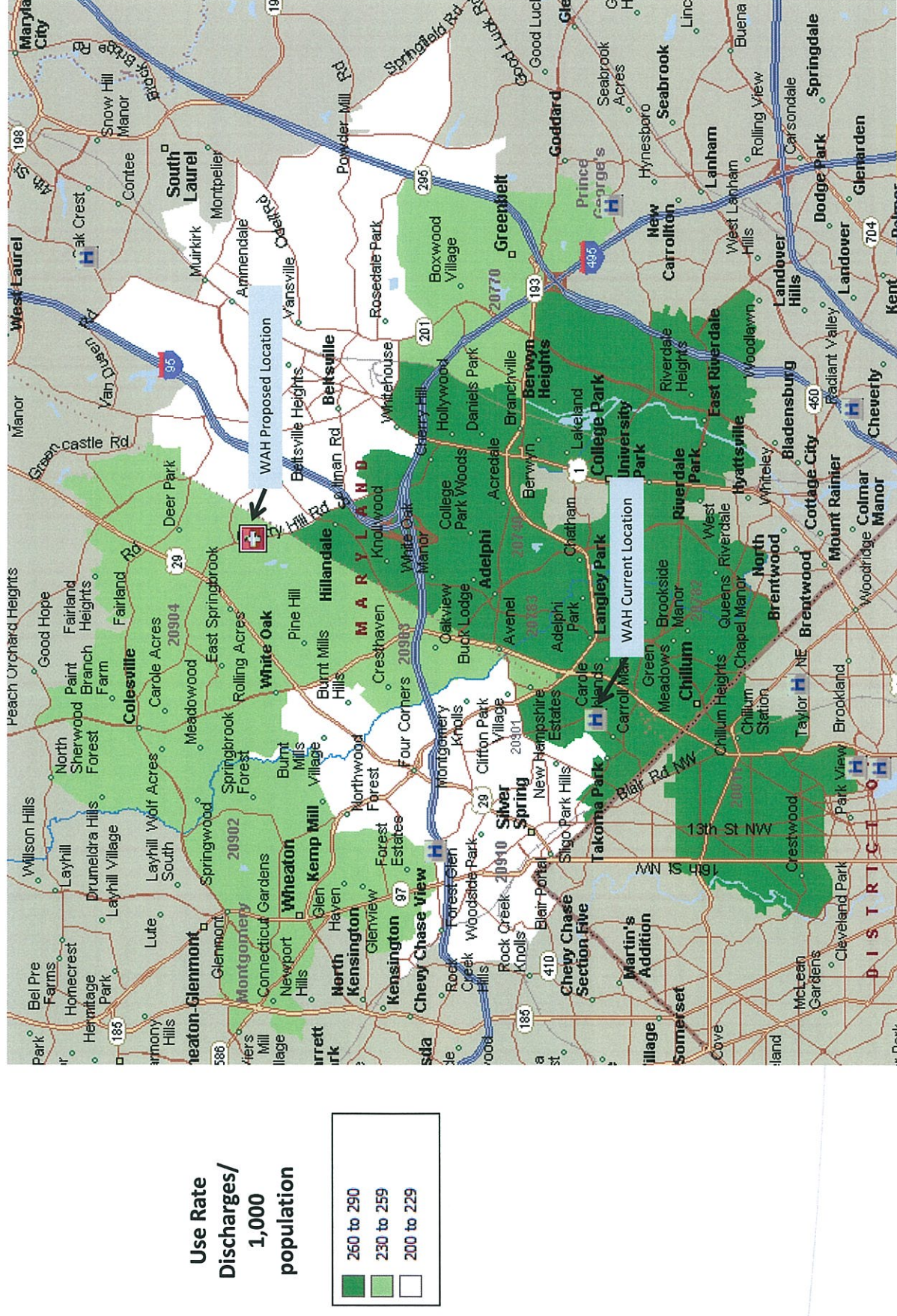
MSGA Patients 0-64 Use Rate by Zip Code



Source: Claritas CY 2013 and DCHA; includes all services except Behavioral, Normal Newborn, Rehab, and Obstetrics

Knowledge and Compassion Focused on You

MSGA Patients 65+ Use Rate by Zip Code



Source: Claritas CY 2013 and DCHA; includes all services except Behavioral, Normal Newborn, Rehab, and Obstetrics

Knowledge and Compassion Focused on You

MedStar Health

Use Rate
**Discharges/
1,000
population**

Dark Green	40 to 50
Medium Green	30 to 39
Light Green	20 to 29

Source: Claritas CY 2013 data

Knowledge and Compassion **Focused on You**

Community Need Index

Methodology and Source Notes

Overview

Not-for-profit and community-based health systems have long considered community need a core component of their mission of service to local communities. While specific initiatives designed to address health disparities vary across local communities (outreach to migrant farm workers, asthma programs for inner city children, etc), the need to prioritize and effectively distribute hospital resources is a common thread among all providers.

Given the increased transparency of hospital operations (quality report cards, financial disclosures, etc.), community benefit efforts need to become increasingly strategic and targeted in order to illustrate to a variety of audiences how specific programs have been designed and developed. While local community needs assessments will always play a central role in this process, they are often voluminous, difficult to communicate, and may lack necessary qualitative and statistical justification for choosing specific communities as having the “greatest need”.

Because of such challenges, Dignity Health and Truven Health jointly developed a Community Need Index (“CNI”) in 2004 to assist in the process of gathering vital socio-economic factors in the community. The CNI is strongly linked to variations in community healthcare needs and is a strong indicator of a community’s demand for various healthcare services.

Based on a wide array of demographic and economic statistics, the CNI provides a score for every populated ZIP code in the United States on a scale of 1.0 to 5.0. A score of 1.0 indicates a ZIP code with the least need, while a score of 5.0 represents a ZIP code with the most need. The CNI should be used as part of your larger community need assessment, and can help pinpoint specific areas that have greater need than others. The CNI should be shared with your community partners and used to justify grants or resource allocations for community initiatives.

Methodology

The CNI score is an average of five different barrier scores that measure various socio-economic indicators of each community using the 2014 source data. The five barriers are listed below along with the individual 2014 statistics that are analyzed for each barrier. These barriers, and the statistics that comprise them, were carefully chosen and tested individually by both Dignity Health and Truven Health:

1. Income Barrier

- Percentage of households below poverty line, with head of household age 65 or more
- Percentage of families with children under 18 below poverty line
- Percentage of single female-headed families with children under 18 below poverty line

2. Cultural Barrier

- Percentage of population that is minority (including Hispanic ethnicity)
- Percentage of population over age 5 that speaks English poorly or not at all

3. Education Barrier

- Percentage of population over 25 without a high school diploma

4. Insurance Barrier

- Percentage of population in the labor force, aged 16 or more, without employment
- Percentage of population without health insurance

5. Housing Barrier

- Percentage of households renting their home

Every populated ZIP code in the United States is assigned a barrier score of 1,2,3,4, or 5 depending upon the ZIP code national rank (quintile). A score of 1 represents the lowest rank nationally for the statistics listed, while a score of 5 indicates the highest rank nationally. For example, ZIP codes that score a 1 for the Education Barrier contain highly educated populations; ZIP codes with a score of 5 have a very small percentage of high school graduates.

For the two barriers with only one statistic each (education and housing), Truven Health used only the single statistic listed to calculate the barrier score. For the three barriers with more than one component statistic (income, cultural and insurance), Truven Health analyzed the variation and contribution of each statistics for its barrier; Truven Health then weighted each component statistic appropriately when calculating the barrier score.

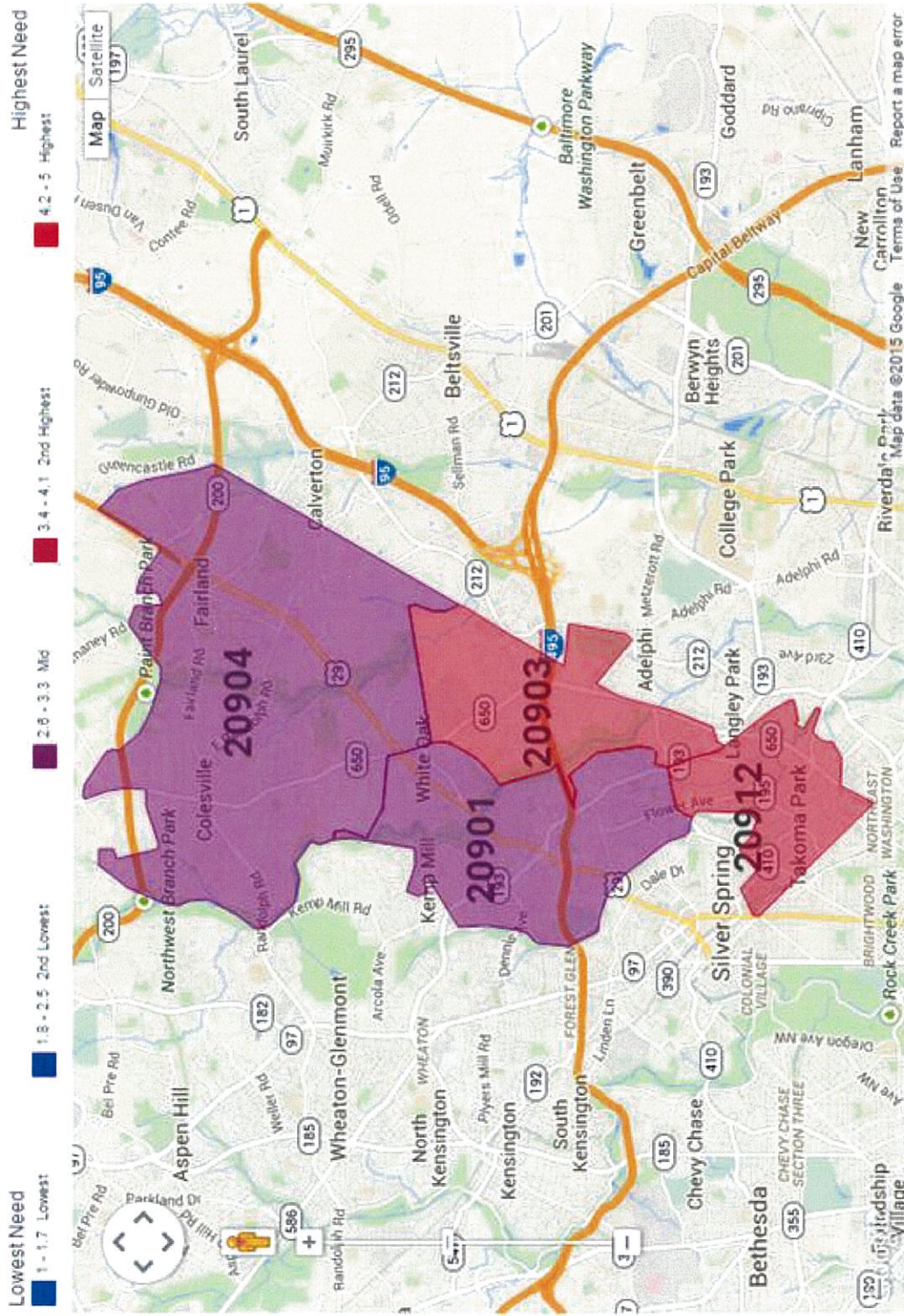
Once each ZIP code is assigned its barrier scores from 1 to 5, all five barrier scores for each ZIP code are averaged together to yield the CNI score. Each of the five barrier scores receives equal weight (20% each) in the CNI score. A score of 1.0 indicates a ZIP code with the least need, while a score of 5.0 represents a ZIP code with the most need.

Data Sources

- 2014 Demographic Data, The Nielsen Company
- 2014 Poverty Data, The Nielsen Company
- 2014 Insurance Coverage Estimates, Truven Health Analytics

Applications and Caveats

- CNI scores are not calculated for non-populated ZIP codes. These include such areas as national parks, public spaces, post office boxes and large unoccupied buildings.
- CNI scores for ZIP codes with small populations (especially less than 100 people) may be less accurate. This is due to the fact that the sample of respondents to the 2010 census is too small to provide accurate statistics for such ZIP codes. This issue is mitigated by either eliminating such ZIP codes from your analysis completely, or by making sure that low population ZIP codes are combined with other surrounding high population ZIP codes using the weighted average technique described above.



Zip Code	CNI Score	Population	City	County	State
20901	3.2	37619	Silver Spring	Montgomery	Maryland
20903	4	22522	Silver Spring	Montgomery	Maryland
20904	3.2	57655	Colesville	Montgomery	Maryland
20912	3.8	25041	Takoma Park	Montgomery	Maryland

MOODY'S

INVESTORS SERVICE

MEDIAN REPORT

Revenue Growth and Cash Flow Margins Hit All-Time Lows in 2013 US Not-for-Profit Hospital Medians

Balance sheet measures and debt coverage ratios remain stable despite weak performance

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Summary

Fiscal year 2013 US not-for-profit hospital medians reveal continued slowing revenue growth and weaker operating performance, declining to levels not seen since the recession.¹ In 2013, operating revenue growth dropped to an all-time low of 3.9% and was outpaced by expense growth for a second consecutive year, an unsustainable trend. This unfavorable relationship resulted in a second year of declines in both operating margins and operating cash flow margins (when calculated with bad debt as a revenue deduction). The operating cash flow margin reached an all-time low of 9.0%.

Important findings discussed in this report include²:

- » **Revenue growth rate reached an all-time low, and expense growth outpaced revenue growth for a second consecutive year.**
- » **Profitability margins declined for a second consecutive year to levels not seen since the recession.**
- » **Inpatient admissions declined as outpatient services grew, although the rate of growth slowed compared to prior years, which indicates a decline in healthcare demand.**
- » **Exposure to Medicare increased, shifting away from commercial payors, another factor in the slower revenue growth.**
- » **Unrestricted absolute and relative liquidity measures grew as equity market returns were strong and hospitals spent less on capital than in prior years.**

We expect continued financial weakening due to volume declines in a predominantly fee-for-service environment, reinforcing our negative outlook on business conditions in the not-for-profit hospital sector.

¹ The medians reflect audit year ends of December 31, 2013 and prior; therefore they do not incorporate the impact of the Affordable Care Act's (ACA) individual mandate, which went into effect January 1, 2014. We expect minimal impact from the ACA's individual mandate in the 2014 medians given the low enrollment levels.

² Starting on page 16, the medians are presented in three formats: by year for five years, 2009- 2013 (Appendix 5), by broad rating category for 2013 (Appendix 6) and by alphanumeric rating category for 2013 (Appendix 7).

	2009	2010	2011	2012	2013
Key Ratios ^[4]					
Operating Margin	2.6%	2.5%	2.6%	2.5%	2.0%
Excess Margin	4.8%	4.9%	5.2%	5.3%	5.1%
Operating Cash Flow Margin	9.3%	9.3%	9.3%	9.5%	9.0%
Cash on Hand (Days)	148.8	162.8	172.4	187.8	197.6
Cash-to-Direct Debt	105.3%	113.6%	119.9%	125.9%	134.7%
Cash-to-Comprehensive Debt	77.6%	84.5%	89.8%	89.2%	99.9%
Maximum Annual Debt Service Coverage (x)	4.1	4.1	4.2	4.3	4.2
Annual Debt Service Coverage (x)	4.2	4.4	4.5	4.7	4.5
Debt-to-Cash Flow (x)	3.5	3.5	3.4	3.4	3.7
Debt-to-Total Operating Revenue	35.9%	36.2%	36.3%	38.0%	37.9%
Annual Operating Revenue Growth Rate	6.3%	4.4%	5.4%	5.1%	3.9%
Annual Operating Expense Growth Rate	6.1%	4.4%	5.1%	5.5%	4.3%
3 Year Operating Revenue CAGR	7.0%	6.1%	5.5%	5.1%	5.0%
3 Year Operating Expense CAGR	7.4%	6.2%	5.2%	5.1%	5.1%
Debt-to-Capitalization	41.1%	39.6%	39.4%	39.0%	35.4%
Current Ratio (x)	1.9	1.9	1.9	1.9	1.9
Cushion Ratio (x)	13.7	14.8	15.7	16.5	17.5
Return on Assets	4.3%	4.6%	4.6%	4.3%	4.0%
Accounts Receivable (Days)	46.0	44.5	45.1	50.1	49.8
Average Payment Period (Days)	58.4	57.8	59.3	64.7	63.4
Capital Spending Ratio (x)	1.3	1.1	1.2	1.2	1.2
Average Age of Plant (Years)	9.8	10.1	10.4	10.5	10.7
Monthly Liquidity to Demand Debt	231.6%	293.2%	333.0%	348.2%	385.2%
Annual Liquidity to Demand Debt	245.0%	337.5%	363.8%	397.8%	439.0%
Demand Debt as a % of Total Direct Debt	45.4%	37.8%	36.3%	34.3%	34.3%
Cash to Demand Debt	261.6%	342.3%	380.7%	421.2%	457.0%
Monthly Liquidity to Total Cash and Investments	100.0%	98.2%	97.8%	97.8%	98.2%
Patient Revenue Sources by Gross Revenue (%) ^[5]					
Medicare	42.6%	42.7%	43.5%	43.7%	44.4%
Medicaid	11.9%	12.6%	13.0%	13.1%	13.0%
Commercial	35.8%	35.0%	33.8%	33.3%	32.4%
Self-Pay & Other	7.2%	7.5%	7.7%	7.6%	7.7%

[1] Financial data are based on audited financial statements for 383 freestanding hospitals, single-state and multi-state healthcare systems. Ratings are as of 7/11/14.

[2] Utilization statistics are based on a smaller sample size where five years of consistent data are available.

[3] Combined Admissions and Observation Stays is a separately calculated median and does not equal the sum of median Admissions and median Observation Stays.

[4] Monthly and Annual Liquidity statistics are based on a smaller sample size where five years of consistent data are available.

[5] Payer Mix columns do not sum to 100% because each entry is a separately calculated median.

Issuer	Rating	Outlook
Lawrence Memorial Hospital	A1	Stable
Med-Map L.L.C. (guaranteed by Sisters of Charity of Leavenworth Health System)	Aa3	Negative
Rural Health Resources of Jackson County (guaranteed by Sisters of Charity of Leavenworth Health System)	Aa3	Negative
Salina Regional Health Center	A1	Stable
Sisters of Charity of Leavenworth Health System	Aa3	Negative
Stormont-Vail HealthCare	A2	Stable
KENTUCKY		
Appalachian Regional Healthcare	MIG 1	No Outlook
Baptist Healthcare System Obligated Group	A2	Stable
King's Daughters' Medical Center	A3	Negative
Murray-Calloway County Public Hospital Corporation	Baa3	Negative
Owensboro Medical Health System	Baa2	Stable
Pikeville Medical Center	A3	Stable
Pikeville Medical Center (Bond Anticipation Notes)	MIG 1	No Outlook
LOUISIANA		
East Jefferson General Hospital	Ba1	Negative
Franciscan Missionaries of Our Lady Health System, Inc.	A2	Stable
Lafayette General Medical Center	A3	Stable
Ochsner Clinic Foundation	Baa1	Stable
Ochsner Community Hospital (guaranteed by Ochsner Clinic Foundation)	Baa1	Stable
Terrebonne General Medical Center	A2	Stable
Touro Infirmary	Baa2	Stable
West Jefferson Medical Center	Baa2	Stable
Willis-Knighton Medical Center	A2	Stable
Woman's Hospital Foundation	A3	Stable
MAINE		
Eastern Maine Medical Center Obligated Group	Baa1	Negative
Maine Health & Higher Education Facilities Authority (Reserve Fund Resolution)	A1	Stable
MaineGeneral Medical Center	Ba1	Negative
MARYLAND		
Adventist HealthCare, Inc.	Baa2	Stable
Anne Arundel Health System	A3	Stable
Bon Secours Health System, Inc.	A3	Positive
Calvert Health System	A3	Stable
Carroll Hospital Center	A3	Stable
Doctors Community Hospital	Baa3	Negative
Frederick Memorial Hospital, Inc.	Baa1	Stable
Greater Baltimore Medical Center	A2	Stable
Johns Hopkins Health System	Aa3	Stable
LifeBridge Health	A2	Stable

WAH Primary Service Area Market Share

Hospital	FY12			FY13			FY14			FY15*			Market Share Change		
	Disch.	Share		Disch.	Share		Disch.	Share		Disch.	Share		FY14 vs. FY13	FY14 vs. FY12	FY14 vs. FY15*
Holy Cross	13,624	42.0%		13,590	43.0%		13,090	43.1%		13,668	44.4%		↑ 0.04	↑ 1.04	↑ 1.32
Washington Adventist	8,394	25.9%		7,861	24.9%		7,504	24.7%		7,452	24.2%		↓ -0.20	↓ -1.21	↓ -0.49
Doctors Community Hospital	1,964	6.1%		1,769	5.6%		1,576	5.2%		1,404	4.6%		↓ -0.42	↓ -0.87	↓ -0.63
Suburban Hospital Center	1,450	4.5%		1,319	4.2%		1,334	4.4%		1,512	4.9%		↑ 0.21	↓ -0.08	↑ 0.52
Prince Georges Hospital Ctr	1,233	3.8%		1,154	3.7%		1,220	4.0%		1,278	4.2%		↑ 0.36	↑ 0.21	↑ 0.14
Laurel Regional Hospital	1,171	3.6%		1,254	4.0%		1,111	3.7%		878	2.9%		↓ -0.31	↑ 0.04	↓ -0.80
MedStar Montgomery	974	3.0%		904	2.9%		791	2.6%		884	2.9%		↓ -0.26	↓ -0.40	↑ 0.27
Shady Grove Adventist	848	2.6%		885	2.8%		862	2.8%		832	2.7%		↑ 0.03	↑ 0.22	↓ -0.13
University of Maryland	576	1.8%		596	1.9%		598	2.0%		452	1.5%		↑ 0.08	↑ 0.19	↓ -0.50
Johns Hopkins	544	1.7%		562	1.8%		583	1.9%		594	1.9%		↑ 0.14	↑ 0.24	↑ 0.01
Adventist Rehab Hospital	304	0.9%		290	0.9%		342	1.1%		360	1.2%		↑ 0.21	↑ 0.19	↑ 0.04
Howard County General	247	0.8%		292	0.9%		281	0.9%		286	0.9%		↑ 0.00	↑ 0.16	↑ 0.00
Anne Arundel Medical Center	213	0.7%		274	0.9%		245	0.8%		246	0.8%		↓ -0.06	↑ 0.15	↓ -0.01
Other	862	2.7%		825	2.6%		846	2.8%		934	3.0%		↑ 0.17	↑ 0.12	↑ 0.25
TOTAL	32,404	--		31,575	--		30,383	--		30,780	--		--	--	--

Notes: *FY15 annualized based on six months of available data.

WAH CY2013 60% Service Area: 20783, 20912, 20782, 20903, 20901, 20904, 20740, 20910, 20705, 20011, 20737, 20902, 20770

Source: PCA (HSCRC discharge data) accessed: 1.19.15 and 2.9.15 (Excludes MS-DRG 795 Normal Newborn)