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Targeted Survey on Access to Physician Care in Medically Underserved Areas in the Foundation's Geographic Area

A REPORT PREPARED FOR THE WILLIAMSBURG COMMUNITY HEALTH FOUNDATION

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Anecdotal comments are made by local people in the greater Williamsburg area about personal difficulties in accessing physician care.[1] People on Medicaid or without any health insurance are known to have access problems. Reductions in the fee rates paid to physicians by Medicare in 2002 and early 2003 have raised concerns that persons in some market areas, especially Williamsburg with one of the highest percentages of Medicare in Virginia, may have difficulty obtaining the care they need in a timely manner. However, anecdotes are a weak source of information about access to physician care, and it is difficult to know how physician fees set by state or federal government may affect access to physician care locally. With access to health care its major priority, the Williamsburg Community Health Foundation (The Foundation) needs high quality research to know best how to respond and make wise funding decisions.

This report presents results from a 2007 broad-based survey targeted on persons with a limited ability to pay for health-related services and residing in medically underserved areas in The Foundation's geographic area. The study -- which was sponsored by The Foundation -- attempts to assess through state-of-art survey research methods the extent to which people are experiencing problems in accessing physician services and whether certain types of people are more likely to experience problems. It also examines the reasons given by people for reported problems, with the goal of identifying the major issues and challenges to improving physician access.

Medicaid and Uninsured Have Problems

The study found that parity in access to physician care is not a characteristic of The Foundation's geographic area. In summary, people without health insurance were least likely to have a relationship with a personal doctor (59.5 percent), followed closely behind by Medicaid recipients (64 percent), compared to all other groups. Likewise, the uninsured were most likely to have a big problem obtaining access to a specialist when needed (25 percent). Nearly one-half (47.8 percent) of the uninsured had problems obtaining routine care, and nearly 60 percent (59.1 percent) had problems obtaining urgent care. In contrast, the findings from the study reveal that overall 86 percent of people in The Foundation's geographic area have a relationship with a personal doctor. The relationship is dynamic as some people obtained a new personal doctor in the past six months (6.9 percent), are currently looking for a new doctor (5.2 percent), or are considering changing to a new doctor in the next six months (8.6 percent). In terms of specialty care, 86.2 percent have no problems obtaining access to a specialist when needed; however, only 45.8 percent of uninsured people have no problem with specialist care.

In terms of the ability to make appointments and get needed care, approximately 47 percent of people called the doctor's office in the last six months seeking help or advice, and 85.9 percent of the time they always (60.8 percent) or usually (25 percent) obtained help or advice. Only 3.8 percent never obtained help

[1] Kerr, Amanda. "Medicare Docs Have 900 Slots," The Virginia Gazette. June 6, 2007.

or advice. Sixty-five percent of people made a doctor appointment within the last six months, and 87 percent of the time they always (60.2 percent) or usually (27.2 percent) obtained the appointment as soon as they wanted it. The primary reason for not getting an appointment as soon as they wanted it was the doctor did not have an appointment available (56.3 percent) followed by the time available was not convenient (19.5 percent). Among people in the last six months needing care right away, fully 91 percent always got the care as soon as they wanted it (76.6 percent) or usually (14.1), with 2.7 percent never getting needed care right away. As many as 90 percent of people had no problem getting necessary care, tests or treatments in the last six months.

Physician Supply Comparable to Norms

There are 583 active non-federal physicians in The Foundation's geographic area, of which approximately 43 percent are primary care and 57 percent are specialist. This is similar, if not favorable, compared to the physician supply in the U.S. and Virginia (Table ES 1). Nearly 20 percent of physicians and nurse

Table ES.1: Physician Supply Measured as the Number of Physicians per 100,000 Population

	U.S.	Virginia	The Foundation's Geographic Area
	Physicians per 100,000 Population		
Total Active Non-Federal Physicians	274	253	268
Primary Care	100	101	107
Non-Primary Care	174	152	160

practitioners are new to the area (3 years or less). Nearly three-fourths are accepting new patients, including 70 percent who are accepting new Medicaid patients and 78 percent new uninsured patients. Fully 93 percent accept privately insured patients, which means 7 percent or fewer accept no new patients.

Compared to national estimates for Medicare, which report 33 percent do not accept new Medicare patients, 25 percent do not accept new Medicare patients in The Foundation's geographic area. The primary reason for not accepting new patients or limiting services in the Foundation's geographic area is inadequate reimbursement for Medicare and Medicaid, but Medicare billing and regulatory requirements are also given as a common reason.

Methods

In early 2007, The Schroeder Center for Healthcare Policy in partnership with the University of Virginia Center for Survey Research designed a survey of households regarding access to physician care and conducted telephone and in-person interviews with 1,125 people in The Foundation's primary and secondary service areas. More than 60% of the geographic area was identified as medically underserved according to the definitions used by the Virginia Department of Health in the summer of 2006 at the beginning of the study. The nominal response rate for

the survey was 27.6 percent for the random digit dialing mode and 37.0 percent for the listed sample mode and 45.3 for the in-person mode.[2] The targeted geographic areas included Medically Underserved Areas (MUAs) in the Foundation's Primary and Secondary service areas. The Virginia Department of Health, which collects the data on Virginia localities necessary to make the MUA designation and recommends areas for MUA status, reported in 2006 that parts of Williamsburg, James City County, and York County were MUAs under federal guidelines.[3] The surrounding rural, secondary areas of service for The Foundation were also MUAs. These areas were selected in order to target the findings on the persons most likely to have problems with access to physician care. Thus, the results provide evidence of the extent of problems in a set of potentially troubled geographic areas, and, by design, are not necessarily representative of the entire geographic area.

People with an address in an MUA were over sampled. This approach allowed us to produce reliable estimates not only for categories of age and type of insurance status, because they would be represented in the sample in proportion to their representation in the geographic area, but also for a potentially important subgroup residing in an MUA. To compensate for the design, the survey data may be statistically weighted to produce unbiased estimates for the overall population stratified by age, type of insurance and MUA or not. Differences were also examined for subgroups that are known to have more problems in access to physician care, such as those in poor health or with low incomes. These subgroups were not over sampled, but represented in the sample in proportion to their size in

[2] APPOR Response Rate 6 (see Appendix B). Confidence intervals (at the 95 percent level) for the entire sample are in the range of +/- 1 to 3 percent depending upon the measure. Estimates for particular subgroups have more variability, depending upon the sample size and measure.

[3] These areas included counties and portions of counties: Charles City, Gloucester (Petsworth District), King and Queen, King William, James (Census Tracts 801.98, 802.98, 803, & 804), Middlesex, New Kent, Surry, Williamsburg (CTs 3701, 3702.98, & 3703), and York (CTs 505, 507, and 508).

The Virginia MUA designation (12 VAC 5-540) is based upon several criteria, including the infant mortality rate, the percentage of the population over 65, the percentage of the population below the poverty level, and the number of physicians per 1000 of the population. These values are weighted and summed to receive an IMU (Index of Medical Underservice) score. An area with an IMU below 62 is designated as an MUA. The areas listed above had an IMU score of 65 or lower. On September 9, 2006, the Virginia Department of Health revised the designation and removed all areas above from the MUA designation, except Surry County. Because our survey design efforts were already underway using the earlier designation, which was included in our proposal, we retained the earlier designation in our methods.

We used a second definition of medically underserved area called the Primary Care Health Professional Shortage Area (HPSA). The areas for this study included entire counties as follows: Charles City, King and Queen, King William, James, New Kent, and Surry. The HPSA criteria include: (1) the geographic area involved must be rational for the delivery of health services, (2) a specified population-to- practitioner ratio representing shortage must be exceeded within the area, and (3) resources in contiguous areas must be shown to be over utilized, excessively distant, or otherwise inaccessible. These criteria have been defined for shortage of primary medical care physicians, dentists, and mental health professionals in Virginia, but we focused on the physician shortage areas.

the population, thus their results are examined in aggregate across MUA designation and could be subject to larger sample variance.

The interviews were approximately 10 – 13 minutes, depending upon the respondent's experience accessing physician care in the last six months. Those with no reason to access physician care had the shortest interviews, and those who accessed care and had problems experienced the longest interviews. When access problems were reported, follow-up questions about the reasons for these problems were asked. To the extent physician care was not needed in the last six months, and no problems were experienced, the estimates of problems may be based upon only a few respondents who experienced problems. Survey questionnaire items were drawn from a national survey of Medicare beneficiaries conducted by the Centers for Medicare & Medicaid Services by Mathematica Policy Research in 2004 and have been pre-tested and used extensively for understanding and reliability.

In addition to the household survey, in early 2007 a mailed paper and on-line internet-based survey was conducted of 460 physicians and nurse practitioners in the same geographic area. The overall response rate for the survey was 31.1 percent of the entire population of physicians and nurse practitioners in the area. Eligible respondents in group practice received their survey by William & Mary graduate research assistants in public policy. The graduate assistants contacted the office manager and hand delivered the survey package with letters of support for all the members of that practice to be completed and returned by mail or fax or completed on-line. The rest received a mailed survey package. The response rate for the group practice mode was 33.3 percent and 26.9 percent for the others.

A non-response bias analysis revealed that those who completed the survey were almost identical in terms of average year completed medical school, percent participating Medicare provider, and average years in U.S. practice. Those completing the survey were more likely to participate in Virginia Medicaid and accept new Virginia Medicaid patients than those not completing the survey. The physicians and nurse practitioners were asked about the payer mix in their practice, whether they accept new patients or limit services by the patient's insurance coverage, ease of referring to specialist physicians and policies regarding charity care. Survey items were drawn from the 2003 Medicare Survey conducted by the Association of American Physicians & Surgeons and the Physician Survey conducted by the Center for Studying Health System Change as part of their Community Tracking Study in 2005. The approach allowed us to produce reliable estimates for all physicians and nurse practitioners in the geographic area to provide indicators comparable to the measures captured in the household survey to verify measures of physician access.

Limitations

There are several well-known limitations to a study of this type. First, the survey relied upon a telephone household interview. We used two types of random sampling and supplemented the telephone mode with an in-person household

survey. However, the possibility exists that households in the study area were unable to be reached because they did not have a landline telephone or telephone service at the time the calls were placed. Chapter 2 and several appendices examine the implications, which are not considered substantial.

Second, all of the results are based upon the perceptions of access to care among households and the medical community given their individual experiences. While the wording of questions was well tested and validated, having been derived from a national survey funded by the federal government, the terminology is subject to individual interpretation and health literacy may affect the type of answers received.

Third, despite our best efforts to screen and identify people with Medicaid or no insurance, the ending sample sizes were smaller than predicted based upon census data and statewide survey data on the uninsured. Moreover, 9 percent of respondents declined to give their household income, which does not allow us to categorize these respondents into poverty level categories. These survey issues increase the margin of error for these estimates, but do not appear to affect the conclusions as the differences in means are substantial for these subgroups.

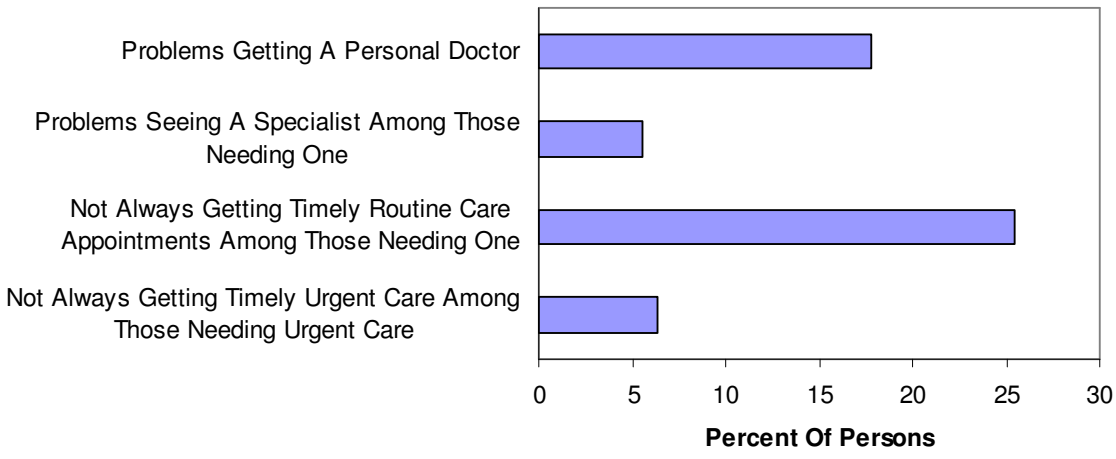
Major Findings

Extent of Problems

Except for those with Medicaid or uninsured, few people had problems with access to care on four key measures used in the survey (Figure ES 1):

- Eighty-six percent of people had a relationship with a primary care doctor.
- Among people who did not have one person as a personal doctor 15.8 percent had more than one doctor or nurse, 7 percent had a doctor who died, moved from the area or retired, or did not like their doctor.
- Among people needing a specialist, 12.8 percent had a problem (big or small) seeing one in the last six months.
- The primary reasons people had a problem (big or small) seeing a specialist was they found a doctor but appointments were hard to obtain (36.5 percent), there were few doctors in the area (17.5 percent) or they could not afford the doctor's charges (12.7 percent).
- Among people seeking routine care appointments in the past six months, 39.5 percent did not always get appointments as soon as they wanted (never 3.3 percent, sometimes 9.1 percent, usually 27.1 percent).
- Among people seeking urgent care (right away) in the past six months, 21.6 percent did not always get appointments as soon as they wanted (never 2.7 percent, sometimes 4.8 percent, usually 14.1 percent).

Figure ES1: Overall Measures of Physician Access In The Last Six Months

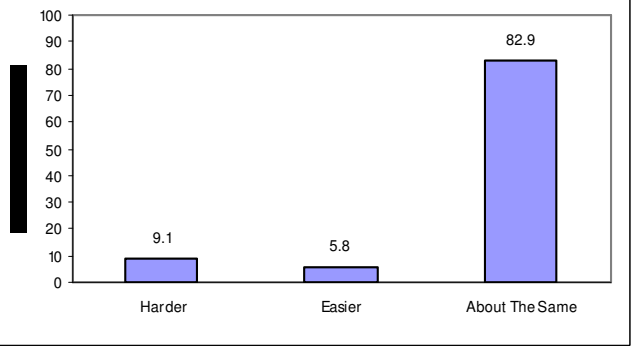


Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

The uninsured were least likely to have a relationship with a personal doctor (59.5 percent) followed closely behind by Medicaid recipients (64 percent). Likewise, the uninsured were most likely to have a big problem obtaining access to a specialist when needed (25 percent). Nearly one-half (47.8 percent) had problems obtaining routine care, and nearly 60 percent (59.1 percent) had problems obtaining urgent care. In contrast, 27 percent of Medicare beneficiaries nationally have problems getting routine care and 17 percent have problems getting urgent care.

Because of the cross-section design, the survey has a limited ability to assess trends in access; but the survey asked whether, in the past year or two, it had gotten harder or easier to see a doctor. Most people said access is about the same, but for 9.1 percent access had become harder, and 5.8 percent access was easier (Figure ES 2). Thus, a net 3.3 percent said it was harder to see a doctor. No substantial differences by age, insurance status or MUA were observed.

Figure ES 2: Percentage of Respondents Reporting The Ease of Seeing a Doctor in The Past Year or Two As Getting Harder, Easier, or Staying About the Same



Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

The survey included a number of other measures, which also showed relatively small although not inconsequential percentages of people with

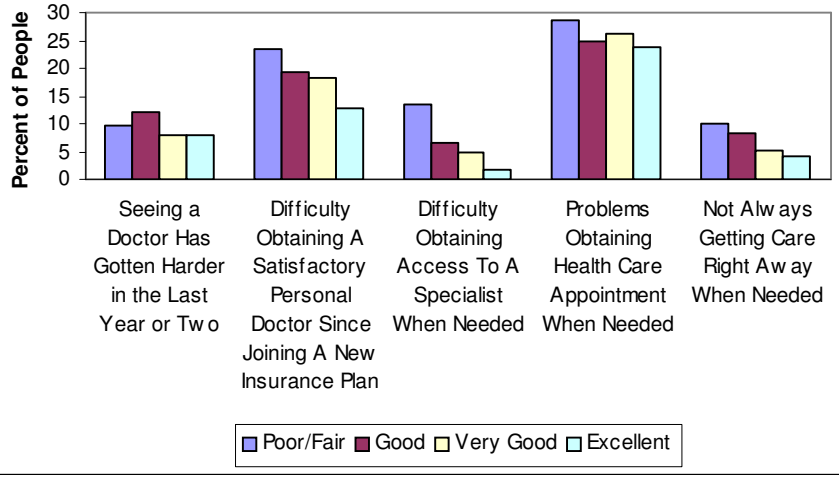
particular access problems. For example, 9 percent had a problem (3.3 percent big problem, 5.7 percent small problem) getting necessary care, tests, or treatment and 10.8 percent identified a health condition for which a doctor's care should have been sought but was not.

Differences across Medically Underserved Areas and Subgroups

Although the survey was targeted to MUAs, the results clearly show there is no difference in access to physician care for people in MUAs as well as Primary Care HPSAs compared to the rest of the Foundation's geographic area. There were no statistically significant differences for any of the four overall measures of access, nor any other measure, except two indicators of satisfaction. There was a five percentage point difference for those rating the ease and convenience of getting a doctor as excellent -- those in MUAs said 34.2 percent excellent versus 40.8 percent for everyone else. And 75.5 said they had to travel too far or it was too difficult to travel in MUAs versus 57.1 percent, if they expressed dissatisfaction with access to care.

Access problems were reported by people in subgroups that traditionally have problems accessing care, such as those with lower health status or with low income. For example, those rating their health as poor or fair were significantly more likely than those in good, very good, or excellent health to say that seeing a doctor has gotten harder in the past year or two, and were more likely to report problems getting a personal doctor, getting timely routine care appointments and seeing a specialist (Figure ES 3). Also, just 81.8 percent of children (ages 0 – 18) had a personal physician, which is a important access issue, if the expectation is that 100 percent of children would have access to physician care.

Figure ES 3: Access Problems By Health Status



Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

Household versus Medical Community Problems

To validate the extent to which access problems experienced by households corresponded with the perceptions of the medical community, the physician and nurse practitioner survey focused on concrete measures of access by payer type, and a structured in-person interview with leaders of the five safety-net providers in the geographic area previewed the preliminary results for any reactions and commentary (Table ES 2 and Table ES 3).

Table ES 2: Safety-Net Provider Percent of Current Patient Load by Payer and Age

Clinic	Angels of Mercy Medical Clinic	Charles City Regional Health Services	Gloucester-Mathews Free Clinic	King William Dawn Community Doctors	Lackey Free Family Medicine Clinic	Olde Towne Medical Center
Percent of Patients by Payer Type						
Medicare	11%	9%	0%	15%	0%	16%
Medicaid	0%	20%	0%	17%	0%	27%
Uninsured	79%	33%	100%	25%	100%	41%
Underinsured	10%	30%	0%	1%	0%	16%
Percent of Patients by Age Category						
Children (under 18)	5%	36%	0%	30%	10%	23%
Adults (18-64)	84%	56%	99.9%	58%	86%	67%
Older Adults (65+)	11%	8%	.1%	12%	4%	10%

* May not sum to 100% as percentages are based on estimates.

Table ES.3: Safety-Net Provider Accepting New Patients and Limiting Services to Patients

Clinic	Angels of Mercy Medical Clinic	Charles City Regional Health Services	Gloucester-Mathews Free Clinic	King William Dawn Community Doctors	Lackey Free Family Medicine Clinic	Olde Towne Medical Center
Accepting New Patients by Payer Type						
Medicare	Y	Y	N/A	Y	N	Y
Medicaid	Y	Y	N/A	Y	N	Y
Uninsured	Y	Y	Y	Y	Y	Y
Underinsured	Y	Y	N/A	Y	N	Y
Limiting Services to Patients by Payer Type						
Medicare	N	N	N/A	N	Y	N
Medicaid	N	N	N/A	N	Y	N
Uninsured	N	N	Referral to specialists	N	N	N
Underinsured	N	N	N/A	N	Y	N

Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

The results from the household survey are entirely congruent with the findings from the medical community. The vast majority of people in the geographic area have health coverage, and 93 percent of physicians and nurse practitioners accept

privately insured persons. Approximately one-fourth do not accept Medicare, Medicaid and uninsured, thus the access problems reported by these populations may be related to the approximately 78 physicians or nurse practitioners in the geographic area who do not accept new patients with one or all of these three types of coverage. Anything that might improve the adequacy or reimbursement from these payers or reduce the billing and regulatory requirements of Medicare would likely increase the participation rate among these physicians and nurse practitioners.

One of the areas with substantial congruence between household and medical community subgroups is problems with specialist care. Households reported access problems and 37.5 percent of those with problems blamed difficulty getting an appointment. The physicians and nurse practitioner results confirm this finding, with 46 percent experiencing difficulty finding an internist for a Medicare referral, 33 percent for Medicaid and 43 percent for uninsured referrals. To put a finer point on it, neurologists and cardiologists specifically were difficult for referral needs. The uninsured had the most difficulty compared to Medicare and Medicaid across all the specialties according to the physicians and nurse practitioners. The safety-net provider leadership unanimously confirms this finding.

Conclusions

The results from these surveys tell us parity in access to physician care is not yet a characteristic of The Foundation's geographic area. People do not have the same access to physician care with higher rates of access problems apparent for those with Medicaid and the uninsured.

On the other hand, access to physician care does not differ geographically. In fact, substantial and widespread physician access problems do not exist in The Foundation's geographic area, especially in the MUAs where we would most expect to find problems. The presence of five primary care safety-net providers in the area contributes to these findings. By targeting MUAs, we attempted to uncover access problems and their reasons where they would be most likely found. There was virtually no difference by MUA and primary care HPSA compared to all other areas. The number of people reporting physician access problems was low, in no small part because 85 percent have a personal physician; and that there was little indication the problems had worsened substantially in the past one or two years. Finally, the supply of physicians, or the number of physicians in the geographic area relative to the population, is comparable to national and Virginia benchmarks. Recruiting new physicians to increase the overall supply is not an issue.

However, some of the findings, such as problems getting appointments for specialty care when needed and large scale reports from physicians and nurse practitioners having difficulty finding a referral physician for Medicare, Medicaid and uninsured patients are issues that present challenges for this community. If Medicare physician payment rates are reduced or the percent uninsured increases, access to physician care could become a larger problem.

1 Introduction

The last previous formal assessment of access to physician care for the Williamsburg area was the 2003 Needs Assessment conducted by the Thomas Jefferson Program in Public Policy, the College of William & Mary and the Center for Excellence in Aging and Geriatric Health. An earlier assessment of Health and Human Service Needs was conducted by the Thomas Jefferson Program in Public Policy at the College of William & Mary in early 1999.

The 2003 Needs Assessment focused on older adults, documenting the rapid growth in the area population, especially, among adults 60 years of age or older. Between 1990 and 2000, the Williamsburg region total population grew two times faster than Virginia or the U.S. For the 60-plus population, the rate of growth was seven times faster than Virginia or the U.S.

Areas of the country with rapidly increasing population combined with a disproportionate share of older adults, who use 3-4 times the number of medical services and 7 times the number of prescribed medicines, are more likely to experience transitory periods with shortages of physician care. Left unattended, adequate access to physician care can be difficult to recover and take a very long time to restore. It simply takes time for access problems to become apparent and more time for new physician practices to arise. To relieve the problems, patients will cross borders to seek care, but this is normally perceived as something a community wants to avoid. If a disproportionate share of patients is covered by Medicare in the area, Medicare's administrative and payment policies may be a

leading cause of disheartened doctors and patient access problems, especially for the frail elderly and disabled with chronic disease.

1.1 Brief Description of the Project, the Population, Project Outcomes, Program Evaluation, and Partners

To further monitor the situation and give the most detailed examination of physician access to date, we conducted a major study of access to generalist and specialist physician care in the Foundation's entire geographic area (Figure 1.1) using standard measures of access that have been widely used in other studies, but never used in this area. This approach allows a comparison of results to national and regional data.

The study had four parts:

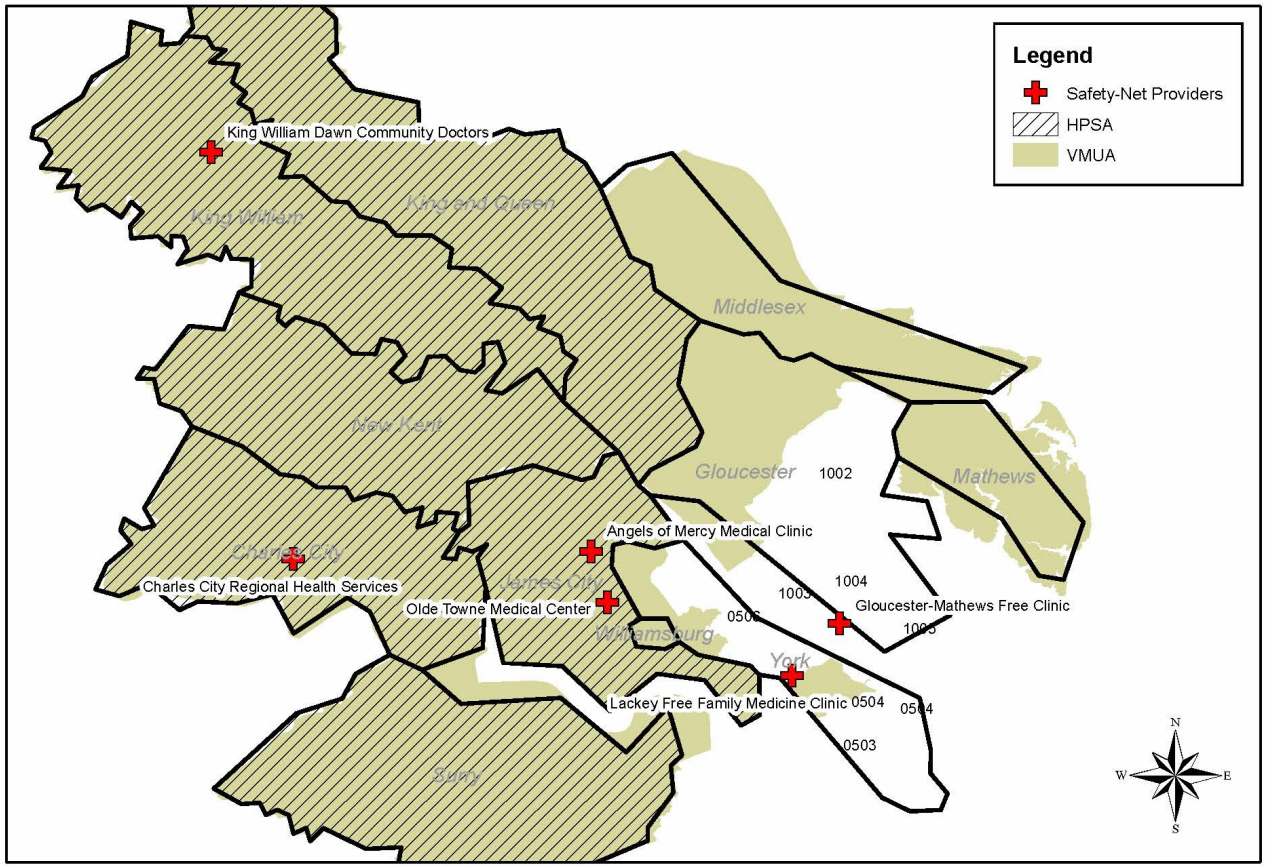
1. A telephone survey of 1000 persons representing all ages with over sample for those in medically underserved areas. The questionnaire contains a series of items covering the following four areas: 1) changes in provider; 2) ability to get timely appointments for both routine and urgent care; 3) unmet healthcare needs and delays in care; and 4) satisfaction with the ease of obtaining generalist and specialist services. Also, demographic information, as well as insurance status and current health status information was obtained. The survey sample frame was based upon a representative source, and was conducted by telephone to maximize the response rate at a reasonable cost.

2. An in-person survey of 90 persons representing all ages using the same survey as the telephone survey in order to quantify any differences between the telephone mode and in-person mode of interviewing.

3. A Mailed and online survey of generalist and specialist physicians and nurse practitioners to quantify access by established Medicare, Medicaid and privately insured patients; acceptance of new patients; and questions about ease of making specialist referrals, and willingness to provide charity care.

4. Structured Interviews with Leadership of Safety-Net Providers validate the preliminary findings and document their contribution to access to physician care as well as the problems they perceive in the community.

Figure 1.1: Safety-Net Providers in Virginia Medically Underserved Areas (VMUAs) and Primary Care Health Professional Shortage Areas (HPSAs) in the Foundation's Service Area



Source: US Department of Health & Human Services, 2006; Virginia Department of Health, 2006

The complete project, with all of its components, yielded four perspectives on access to generalist and specialist physician care – one perspective for each study described above. Taken together, they provide verified and consistent quantification of access to physician care which can be used to identify issues and define challenges.

The project established an Advisory Committee made up of representatives from organizations representing safety-net providers, area health systems, physician organizations, and other relevant groups. The Advisory Committee met twice and provided advice and feedback on all aspects of the project. The project had the University of Virginia Survey Research Center as a partner to conduct the household surveys. The physician and safety-net leadership surveys were conducted by the Schroeder Center for Healthcare Policy.

1.2 Purpose and What You Will Learn

The purpose of this project was to conduct a major household survey and other analyzes of access to physician care in medically underserved areas in the Foundation's primary and secondary service areas. The project set out to learn the following four things:

1. Whether the anecdotal comments made by local residents about personal difficulties in accessing physician care can be substantiated by valid and detailed survey results
2. Differences in access to care by age, insurance status, and MUA designation (i.e., “Which type of health insurance is associated with the best and worst access to physician care and what is the difference in access to care?)
3. Challenges and issues in providing care as reported by physicians and

nurse practitioners

4. Challenges and issues in providing care as reported by community safety-net providers

Knowing these things about physician access to care in The Foundation's geographic area should provide the kind of concrete data that can be used to make the best decisions about future investments in the community. There is a wise saying for the carpenter building a new home, "measure twice and cut once". The same wisdom applies to those who would build a new health care system.

2 Methods

In this chapter, we discuss the survey design and the approach for analyzing and reporting the results from the survey. The next section describes how the targeted geographic areas were selected followed by a discussion of the methods for choosing the respondent samples in each geographic area. Next, an overview of the survey instrument design and methods for conducting the survey are covered. Finally, the methods for analyzing and reporting the survey results are discussed.

In summary, the study first used census data to clearly delineate the geographic areas to be included in the study (Appendix A). These were the political subdivisions identified in the Annual Report of the Williamsburg Community Health Foundation as the geographic area they serve. Within these political subdivisions, to the level of census tract, we identified those geographic areas named at the time by the Virginia Department of Health as Virginia Medically Underserved Areas (VMUAs). The sample was divided to ensure that both VMUAs and non-VMUAs were represented. Within both areas, respondents were interviewed about their access to physician care, with special questions to those who reported access problems.

Telephone interviews were conducted between February 2007 and May 2007, typically lasting between 13 and 15 minutes. Approximately 70 respondents were interviewed in-person or by phone after they failed to be identified by a telephone number, but were identified by an address (see Appendix B). Since access to physician care could arise from a variety of circumstances, respondents

were probed about whether the problems were related to decisions by physicians about who to treat or health insurance or lack of health insurance in addition to other factors.The analytical plan budgeted for 1,000 telephone interviews and 90 in-person interviews, aiming to interview respondents in proportion to their representation in the geographic area by three strata:

1. Virginia Medically Underserved Area: residing in a VMUA or not;
2. Age: child (0-18 years of age), younger adult (19-65 years of age), older adult (65 years or older);
3. Insurance: uninsured, Medicaid, and insured.

This approach attempted to strike a balance between the competing goals of geographic diversity (that is, representing each small geographic area) and adequate statistical precision of the sample survey estimates (that is, obtaining large enough sample sizes for each strata of interest for reliable estimates of the percent with access problems). The population versus the sample of persons residing in a VMUA or not, and the distribution of the population by age, is known with as much certainty as possible from Census 2000 data. Small area estimates of the population below the state or large metropolitan area by insurance status is not known reliably. However, a large telephone survey of Virginians conducted in 2001 by the Virginia Health Care Foundation in Richmond, VA, gives some guidance about the percent to expect, if the local geographic area is assumed to be similar to the statewide. To compensate for any divergence between the population estimates and the sample survey results by strata, the data may be weighted so that the results represent the overall population of interest within these groups. The remainder of this chapter provides more detail on the sampling study design.

2.1 Selection of Geographic Service Area

The geographic areas to be surveyed by telephone and in-person household interviews were determined by first identifying the service area of the Williamsburg Community Health Foundation. The service area includes the City of Williamsburg, and the counties of Charles City, Gloucester, James City, King and Queen, King William, Mathews, Middlesex, New Kent, Surry, and York. The service area was then compared to a list of Virginia Medically Underserved Areas to determine which census tracts are designated with VMUA status according to the criteria of the Virginia Department of Health. When the Access to Physician Care Survey commenced, the VMUA designation was last updated in 1994 and was enumerated in terms of 1990 census tract boundaries. To facilitate the Access to Physician Care survey, the 1990 tract numbers and boundaries were translated to Census 2000 labels by comparing 1990 and 2000 Census maps. By using Census 2000 tract numbers, a more current list of census tracts was generated for the survey in which each was identified as either VMUA or non-VMUA. Out of forty-eight 2000 census tracts within the geographic service area, thirty-four were designated with VMUA status according to Virginia Department of Health listing at the time Fourteen other tracts were designated non-VMUA. See Figure 1.1 for a map of the study area, with VMUA and Primary Care HPSAs identified. Since the start of the survey the Virginia Department of Health has revised the list of VMUAs across the state.

2.2 Sample Design

2.2.1 Household Survey

The Household Survey was conducted by the Center for Survey Research (CSR) at the University of Virginia using both Computer-Aided Telephone

Interviewing (CATI) and Computer-Assisted Personal Interviewing (CAPI). This was a survey of the general population of the Williamsburg Community Health Foundation geographic service area, with special attention to medically underserved areas, designated by VMUAs and Primary Care HPSAs. A standardized telephone survey was utilized to capture responses from a total of 1,062 residents in Williamsburg and surrounding counties. In addition to the telephone survey, an additional 72 residents participated in the survey using the same instrument via in-person interviews.

In each selected geographic area, the target population for the study consisted of all persons age six months or older residing in the area more than six months. Several of the questions in the survey have six-month reference periods, thus the target population was limited by geography and length of time in the area. In addition, the survey excluded persons who did not speak English. This was a difficult decision to make, however, the pretest which reached 32 persons on the telephone found almost none without English skills, and non-English speaking persons were rarely encountered in the production survey. The cost of translating the lengthy survey was viewed as prohibitive for a small likelihood of uncovering non-English speaking respondents. Appendix B provides additional detail on the sampling methods, response rates, and exclusion criteria.

Random-digit dialing (RDD) was employed to reach a random sample of 625 residents of the general population of the Williamsburg Community Health

Foundation geographic service area. RDD produces a more representative sample of the population than do most other sampling methods because households are selected for contact at random and all households with a working telephone can be reached. Listed and unlisted residential telephones have equal probability of being included in an RDD study. In addition to the RDD sample, a sample of postal addresses was drawn from the Delivery Sequence File (DSF) file from the post office for the VMUAs. The VMUAs consisted of several whole counties and parts of two counties, defined as groups of census tracts within those counties.

Finally, the sample list for the in-person interviews included all sampled DSF addresses that had no telephone number or were unable to be interviewed by telephone. Hard refusals were excluded from the in-person sample. Initially, a total of five households in each cluster were randomly selected for completion of the in-person interviews. Each cluster was targeted for a completion rate of two households. When the sample for a PSU was exhausted, having not yielded the targeted number of completions, additional households were randomly selected for inclusion in the sample. A total of seventy-five additional households were selected beyond the original 225 households. Based upon these methods, we assumed a random sample, subject to the rules just discussed, would yield large enough samples of respondents to represent the strata in Table 2.1.

Table 2.1: Sample Frame and Completed Sample: Selected Characteristics of Targeted Study Area

Geographic Medically Underserved Area	Frame (Local Population)	Completed Sample
Yes	144,478 (66%)	830 (73.8%)
No	72,831 (34%)	295 (26.2%)
Children, Younger Adults, Older Adults[1]		
Children (0-18)	53,147 (24%)	148 (13.2%)
Younger Adults (19-64)	135,373 (62%)	626 (55.6%)
Older Adults (65+)	28,662 (13%)	318 (28.3%)
Unknown		33 (2.9%)
	Frame (Statewide Population)	
Type of Insurance[2]		
Uninsured	920,140 (13%)	79 (7.0%)
Medicaid (non-elderly)[3]	454,493 (6%)	34 (3.1%)
Private (Medicare included)	5,703,367 (81%)	1,012 (90.0%)

[1]Census 2000
Medically Underserved Areas and Medically Underserved Populations have shortages of primary medical care, dental or mental health providers and may be **geographic** (a county or service area) or **demographic** (low income, Medicaid-eligible populations, cultural and/or linguistic access barriers to primary medical care services)
They are each assigned an Index of Medical Underservice (IMU) score, which is used to determine the eligibility of an area or population for MUA/MUP status.
We conducted a Household Survey which included Medically Underserved Areas in the Foundation's Primary and Secondary services areas. These areas include: Charles City, Gloucester County (Petsworth District), King and Queen County, King William, James (Census Tracts 801.98, 802.98, 803, & 804), Middlesex, New Kent, Surry, Williamsburg (CTs 3701, 3702.98, & 3703), and York (CTs 505, 507, and 508). These are all designated as MUA (Medically Underserved Areas, i.e. have a IMU score of 65 or lower).

[2]Uninsured from Virginia Health Care Foundation, Virginia Health Access Survey 2001 (statewide estimates). Medicaid (non-elderly) from Department of Medical Assistance Services count of 383,761 children and 70,732 non-aged or disabled adults (454,493) and Census 2000 count of 7.08 million Virginians.

[3]An additional 31 dual Medicare-Medicaid eligible were in the completed sample. Because Medicare is the primary payer and Medicaid is secondary, they were counted as Private (Medicare included).

2.2.2 Physician and Nurse Practitioner Survey

A sample frame of 558 physicians was derived from five different sources for the mailed survey. These sources include the Virginia Department of Health Professions, the Virginia Board of Medicine, Riverside Health System, Sentara Healthcare, and the Williamsburg and James City County telephone directory. The construction of the sample began with a physician database downloaded from the VDHP website. Of the 38,922 physicians included in the VDHP database, 7,705 of those have an inactive license and were eliminated from the sample. Another 9,948 physicians with mailing addresses outside of Virginia were also removed. The remaining list of 21,269 physicians was then searched by city and zip code to determine which of those reside or practice inside the targeted geographic sample area. This search yielded 506 eligible physicians. To ensure that all eligible physicians were included, the list of 506 names and addresses was cross-referenced with (1) a list of physician names by county available at the Virginia Board of Medicine website, (2) physician databases provided by Sentara Healthcare and Riverside Health System, and (3) the Williamsburg and James City County telephone directory. This process revealed that 82 eligible physicians were missing from the list generated from the VDHP database. Following the addition of these 82 physicians, the practice specialties and locations for all physicians in the list were examined to make a final determination of eligibility for the survey. Thirty names were subsequently removed either because their reported specialty designations (including radiology, pathology, anesthesiology, and nephrology) or their practice location at a military facility made them ineligible for the survey.

Table 2.2: Derivation of the Physician Sample	
38,922	Total physicians in VDHP database
-7,705	Physicians with inactive licenses
31,217	Physicians with active licenses
-10	Physicians with out-of-state mailing addresses
21,269	Physicians with Virginia mailing addresses
-20,763	Physicians with practice addresses outside the targeted survey area
506	Physicians with practice addresses inside the targeted survey area
+82	Physicians added from cross-referencing other sources
588	Physicians after cross-referencing with other sources
-30	Physicians removed due to ineligible practice specialty or location
558	Physicians after removing ineligible specialties and locations

To create the sample frame of nurse practitioners to include in the mailed survey, a list of 150 names and addresses was obtained from the Virginia Department of Health Professions through the Board of Nursing. This list was a complete representation of all nurse practitioners in the targeted geographic survey area. However, two individuals were removed because their practice location at military facilities made them ineligible for the survey. These eliminations produced a final sample of 148 nurse practitioners for the mailed survey.

2.2.3 Safety-Net Provider Leadership Survey

The sample of safety-net providers included seven directors, with at least one representative from each of the six clinics in the study area. They were identified through The Foundation and asked by telephone or e-mail to participate by scheduling an in-person interview. The principal investigators conducted all of the interviews in the clinic offices of the safety-net providers, by first presenting the preliminary findings from the household survey and then seeking comment and

reaction to the results. The response rate from the leadership of safety-net providers was 100 percent.

2.3 Survey Instruments

2.3.1 Household Survey

The household questionnaire was based on a modified version of the "Targeted Beneficiary Survey on Access to Physician Services Among Medicare Beneficiaries" conducted by Mathematica Policy Research, Inc. (Lake, et al., 2004). The questionnaire contains a series of items covering the following four areas: 1) changes in provider; 2) ability to get timely appointments for both routine and urgent care; 3) unmet healthcare needs and delays in care; and 4) satisfaction with the ease of obtaining generalist and specialist services. Also, demographic information, as well as insurance status and current health status information was obtained. Insurance questions were included, similar to those used by the U.S. Census Bureau in its current Population Survey (CPS). When participants reported an access problem, additional questions were asked to determine the nature of the problem. These items were asked in an open-ended format and the interviewer coded the response based on a pre-existing list of categories. For those responses where no category applied, responses were typed verbatim and analyzed by the research team. A copy of the survey instrument can be found in Appendix C.1.

The primary benefit to basing the current survey on the 2004 Targeted Beneficiary Survey was that it enabled the research team to generate benchmark comparisons to the national estimates. However, it is important to keep in mind that

the 2004 Survey included only Medicare Beneficiaries, while the current survey included all ages and insurance types.

Pre-Test

The draft questionnaire was pre-tested between January 11th and 15th, 2007, resulting in 32 completed interviews using the RDD sample. Timing results from the pre-test indicated a suitable average interview length of approximately 14 minutes. The questionnaire was revised based on the pre-test findings and based upon suggestions from the project's advisory committee. The questionnaire was initially designed to screen for persons with no insurance, older adults, and children under the age of 18. The pre-test version of the questionnaire included screening questions at the beginning of the interview that would select for the uninsured, for children, and for persons age 65 and older, allowing interviews with adults under age 65 if the other targeted groups were absent from the household roster.

Of the 32 completed interviews, 4 completions involved respondents with no insurance, 11 completions included adults 65 and older, 9 completions involved children under the age of 18, and the remaining 8 completions were adults ages 18-64. After reviewing the results of the pre-test, the client requested that CSR modify the screening process was removed under the assumption that a random selection would lead to self-representing strata in the three areas identified.

2.3.2 Physician and Nurse Practitioner Survey

The physicians and nurse practitioners were asked about the payer mix in their practice, whether they accept new patients or limit services by the patient's

insurance coverage, ease of referring to specialist physicians and policies regarding charity care. Survey items were drawn from the 2003 Medicare Survey conducted by the Association of American Physicians & Surgeons and the Physician Survey conducted by the Center for Studying Health System Change as part of their Community Tracking Study in 2005. The approach allowed us to produce reliable estimates for all physicians and nurse practitioners in the geographic area to provide indicators comparable to the measures captured in the household survey to verify measures of physician access.

2.3.3 Safety-Net Provider Leadership Survey

We developed a survey consisting of nine items (see Appendix E) which was administered in the form of a structured interview. Questions were developed based on the items addressed in the Physician and Nurse Practitioner Survey. These included estimates of the ages and insurance status of safety-net provider patients as well as the types of patients being accepted. Safety-net providers were also asked open-ended questions to identify and challenges facing the community in terms of physician access.

2.4 Survey Procedures

2.4.1 Household Survey

CSR conducted the telephone interviews from its Computer-Assisted Telephone Interviewing (CATI) Laboratory at the University of Virginia. CATI is a system in which computers are employed to increase the efficiency, accuracy, and flexibility of telephone surveys conducted by trained interviewers. Questions appear on the computer screen in programmed sequence as the interviewer presses the keys on

the keyboard to record the respondent's answers. Accurate, instantaneous data entry is assured by the system. The computer system stores the data base of telephone numbers and is used to control the sampling process, dial each sampled number, schedule call-backs, and record the disposition (e.g., "no answer," "busy") of each attempted call. CSR's CATI lab also allows for audio monitoring of calls by lab supervisors.

All telephone calls for the study were made from the CATI laboratory under the direct supervision of CSR staff. Numbers were dialed automatically by the WinCATI computer system. Calling was done on Sunday through Friday evenings and on Sunday afternoons. The interviewers received at least three hours of training prior to production interviewing. Many had prior interviewing experience on similar studies.

Production calling for the survey was carried out in two phases. First, for the DSF (with a goal of reaching 400 participants), calls were completed between February 12th – 22nd, and again from March 19th-20th. Second, for the RDD sample (with a goal of reaching 600 participants), calls were placed between February 19th - 27th; March 12th - 14th; and from May 24th – 29th. For all RDD calls, numbers were dialed automatically by the WinCATI computer system. CSR completed a total of 625 RDD and 424 DSF interviews (including those completed in the conversion phase of calling), for an overall response rate of 21.3% and 26.5%, respectively. The final version of the interview took an average of nearly 13 minutes to complete, with a median completion time of 12 minutes. The overall interview

production rate for RDD was only 1.08 interviews per hour while DSF productivity much higher at 1.66 interviews per hour.

CSR assisted the principal investigators in the design of the supplementary in-person interviewing phase of the project. The in-person phase of the project targeted those households in the DSF sample who did not respond to telephone surveying or did not have working telephone numbers. This randomly drawn sample was intended to supplement the telephone interviewing with responses from harder-to-reach respondents. CSR sent advance letters to each household with a known address selected for in-person interviewing. The letter included a return postcard for establishing available times for interviewing. CSR adapted the questionnaire used in the telephone interviewing phases to a CAPI (Computer-assisted Personal Interviewing) format.

Call sheets were developed by CSR to allow the interviewers to randomly select an individual from each household. The protocol for selecting individuals followed the Kish method. In this protocol all members of the household are listed according to age. Each call sheet contained a Kish table to identify which member of the household was to be interviewed. Call sheets were arranged by County and Primary Sampling Unit (PSU) to facilitate transportation to households.

Interviewers were students of the College of William & Mary employed by the Schroeder Center. Each interviewer participated in a two-day training event held on

March 2-3, 2007. All training materials were developed by CSR in collaboration with Annemarie Rosenlund, a consultant with extensive expertise in training in-person interviewers. CSR provided assistance to the Schroeder Center staff in drafting field materials including a Field Interviewer Manual, an introductory letter and door hangers for households when no one was at home at the time of the visit.

CSR tracked, accumulated, and converted field disks to a readable data file and merged this data with the telephone interview data.

2.4.2 Physician and Nurse Practitioner Survey

The survey of physicians and nurse practitioners used a mixed-mode approach starting with a paper copy of the survey provided to all eligible from the 558 physicians and 148 nurse practitioners identified with known addresses. The paper copies of the survey were combined with a request to complete the paper survey and return it either with the pre-addressed and stamped envelop provided, or facsimile, or by going to an internet site and completing the survey online. Thus each physician and nurse practitioner received a package including the survey, a cover letter from the Williamsburg Community Health Foundation, and a letter from the medical directors of both Sentara Healthcare and Riverside Health System as physician leaders in the community (see Appendix D.1 and D.2).

The surveys with the cover letters were prepared and mailed beginning February 23 by one of two modes. The Advisory Committee for this study suggested mailing to all nurse practitioners, but not mailing to all physicians. Instead, the surveys for physicians in medical group practice should be batched and hand-delivered for a

group to the practice administrator with a request to complete the surveys. Many of the questions were assumed to apply to an entire practice and yield the same answer from all the physicians in the group because they reflected the policy of the group, toward accepting different payers, for example. Thus, some of the surveys were delivered in person to the practice administrator and the rest were mailed directly to the physician at the address used for licensure.

The field procedures for this survey were intended to be short (less than three months), thus most of the surveys should have been received either by direct mail or through hand-delivery to the practice manager by March 1, 2007. The initial sample assumed a 40 percent response rate and a 99 percent eligibility rate among the 558 physicians and 148 nurse practitioners, but during the preparation of the mailing a number were declared ineligible. The reasons for ineligibility from among the initial 732 (583 + 149) are:

- Retired or not in active practice seeing patients
- Practice name was Eastern State Hospital, military base, or VA Medical Center
- Practice name was outside of the target geographic area (e.g., Virginia Commonwealth University)
- Practice name was hospital-based, emergency room or urgent care center
- Practice name was a hospital-based specialty (pathology, radiology or anesthesiology)
- Practice name was in Newport News and a subspecialty (cardiology, dermatology, urology)

Others were declared ineligible when surveys were returned with an indication that the respondent was retired or not seeing patients or other reasons for ineligibility or inability to answer the questions because they were not relevant to the type of practice. At the end of the survey, of the initial 558 identified physician names, 228

or 39 percent were determined to be ineligible, leaving 355 eligible physician respondents. Of the initial 148 nurse practitioner names, 24 or 16 percent were determined to be ineligible, leaving 125 eligible nurse practitioner respondents.

Non-response Bias

Table 2.3 summarizes the final survey completion rates. Batching the group practice surveys and hand-delivering them yielded slightly higher results, with 33.9 percent completion rate using this mode, compared to 26.9 percent completion with mail only. The overall response rate was 31.1 percent, somewhat short of the assumed 40 percent, but a large portion of the population of physicians and nurse practitioners serving the target geographic area responded and completed a survey.

Non-response bias is a concern if the respondents are systematically different from the non-respondents. Because we used licensure data for the sample frame from the Virginia Department of Health Professions, which includes certain information about each physician in the sampling frame, we are able to examine whether non-response bias is an issue for many of the physicians. Similar data was not available to us for nurse practitioners to perform similar non-response analysis.

Table 2.3: Physician and Nurse Practitioner Survey Completion Results, March 1, 2007 – May 31, 2007

	Survey Completed		Survey Not Completed		Total
Mode	**Number**	**Percent**	**Number**	**Percent**	
Group	44	33.9 %	86	66.1 %	100.0 %
Mail	105	26.9 %	245	73.1 %	100.0 %
Total	149	31.1 %	331	68.9 %	100.0 %

Table 2.4 displays the results of this non-response bias analysis. The database has information on year completed medical school, reported Medicare and Medicaid participation and average years in U.S. practice. Generally, the physicians completing a survey were very similar to those who did not. The year completing medical school is nearly identical (1982-1983) and years in U.S. practice the same (17 years). Nearly the same percent report to the state that they are a participating Medicare provider (92 percent and 91 percent).

Table 2.4: Physician and Nurse Practitioner Survey Non-response Bias Analysis

	Survey Completed	Survey Not Completed
Average Year Completed Medical School	1983	1982
Medicare:		
Is a Participating Provider	92	91
Is Accepting New Medicare Patients	80	75
Medicaid:		
Participate in Virginia Medicaid	84	72
Is Accepting New Virginia Medicaid Patients	66	59
Average Years in U.S. Practice	17	17

Source: Based on licensure data from the Virginia Department of Health Professions.

However, there was a difference in three items. The survey respondents tend to be more likely to participate in Medicaid and accept new Medicaid patients compared to non-respondents. Five percent more of those completing the survey accept new Medicare patients, 12 percent more participate in Medicaid, and 7 percent more accept new Medicaid patients. The nature of the survey questions -- detail about practice participation with different payers and policies regarding indigent care – are likely to be uncomfortable to answer for nonparticipating physicians and discourage a response. Despite the remarkable similarities on other

measures, these differences, especially regarding Medicaid, should be considered in interpreting the results.

Margin of Error

A second concern, beyond simply whether the respondents differ from non-respondents, is the variation that as expected arises from a random sample. A statistic called the margin of error expresses the amount of random sampling error in the results of a survey. A large margin of error reduces the confidence an estimate based upon a survey sample is close to the "true" figures, meaning the actual result from the entire population.

Like confidence intervals, the margin of error can be defined for any desired confidence level. For this survey, we have chosen a 95 percent confidence level. This level means the probability is 95 percent that a margin of error around either side of a reported percentage result would include the population percentage, or that the probability of the estimate being wrong is 5 percent. Along with the confidence level, sample size, in particular, determines the magnitude of the margin of error. A larger sample size produces a smaller margin of error.

Table 2.5: Confidence Interval (margin of error +-) for Physician and Nurse Practitioner Population of 480 and Confidence Level of 95 Percent

	Sample Size		
Percentage	**100**	**150**	**200**
10	5.24	3.98	3.18
25	7.56	5.75	4.59
50	8.73	6.64	5.30

The confidence interval (margin of error +-) for the population of 480 physician and nurse practitioners in this survey are shown in Table 2.5 at various percentage

estimate results (the majority of the results in this survey are in percentage terms) and sample sizes.

The estimated percentage plus or minus its margin of error is a confidence interval for the percentage. In other words, the margin of error is half the width of the confidence interval.[4]

In cases where the sampling fraction exceeds 10%, as it does in this survey, the margin of error can be adjusted using a finite population correction factor (FPC) to account for the added precision gained by sampling close a larger percentage of the population. The FPC formula is as follows:

$$\mathrm{FPC} = \sqrt{\frac{N-n}{N-1}}.$$

The FPC for this survey is 0.83, or a narrowing of the margin of errors shown above by approximately 83 percent. The margin of error is larger for percentage estimates when they are closer to 50 percent. Thus, with 149 completed surveys from a population of 480 physicians and nurse practitioners, the margin of error range from 3.98 to 6.64 before applying the FPC.

2.4.3 Safety-Net Provider Leadership Survey

The structured interviews took place between April 30th and June 1st, 2007. Four of the interviews were scheduled in-person on site at the location of the safety-net provider and were conducted by one or both members of the research team. The final interview was conducted by telephone and included directors from two clinics

[4] It can be calculated as a multiple of the standard error, with the factor depending of the level of confidence desired; a margin of one standard error gives a 68% confidence interval, while the estimate plus or minus 1.96 standard errors is a 95% confidence interval, and a 99% confidence interval runs 2.58 standard errors on either side of the estimate.

served by the same regional office. Each interview was scheduled one to two weeks in advance and preliminary findings from the study as well as the survey instrument were sent electronically in advance of the interview. Interviews took approximately one hour and consisted of members of the research team reviewing the preliminary study findings and asking the nine items on the survey. For those safety-net providers who were unable to answer all questions at the time of the interview (e.g., percentage of patient load by age or insurance type), they collected the information and were generally able to fax their response within the next week following the interview.

2.5 Analytic Methods

The Household Survey data were entered in SPSS version 15.0. Quantitative analyses primarily included frequencies and cross-tabs to determine physician access problems with respect to the defining categories of age, insurance type, and VMUA and HPSA designations. Where open-ended questions were asked, responses were recorded in Excel by the interviewers and were analyzed qualitatively.

The Physician and Nurse Practitioner Survey data were entered in Survey Monkey and were then transferred to Excel. Quantitative analyses primarily included frequencies and cross-tabs to determine medical providers' acceptance of new patients with respect to the defining category of insurance type, as well as levels of charity care, and challenges with making referrals for patients.

The Safety-Net Provider Leadership Survey data were entered into Excel. Quantitative analyses primarily included frequencies to determine patient characteristics and acceptance of new patients based on insurance status. Reports of challenges in providing care to their patients were analyzed qualitatively.

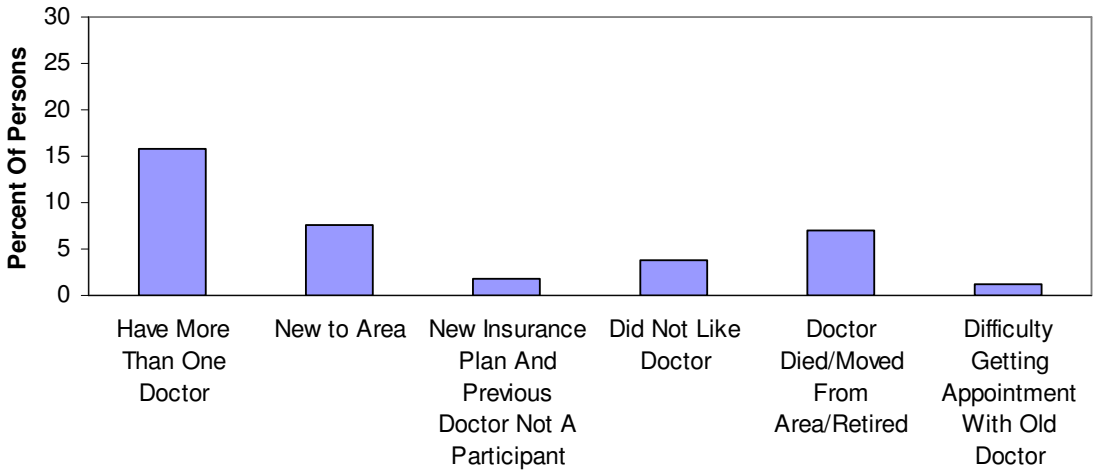
3 Results

The purpose of this chapter is to present the findings from the 2007 Targeted Survey on Access to Physician Care. First, we describe the people in The Foundation's geographic area who had different types of problems accessing physician services. We distinguished between those counties designated as VMUAs and Primary Care HPSAs in order to determine potential differences in access issues. We also evaluated differences in access problems based on age and insurance status. Third, we identified the primary reasons for access problems for those experiencing access problems. Next, we analyzed the views of nearly one-third of the medical providers in the study area. Finally, we assessed the experiences and challenges as reported by the leadership of safety-net providers. All the results taken together should provide as complete report as possible of access to physician care in The Foundation's geographic area.

3.1 How Common Are Access Problems in the Foundation's geographic Area?

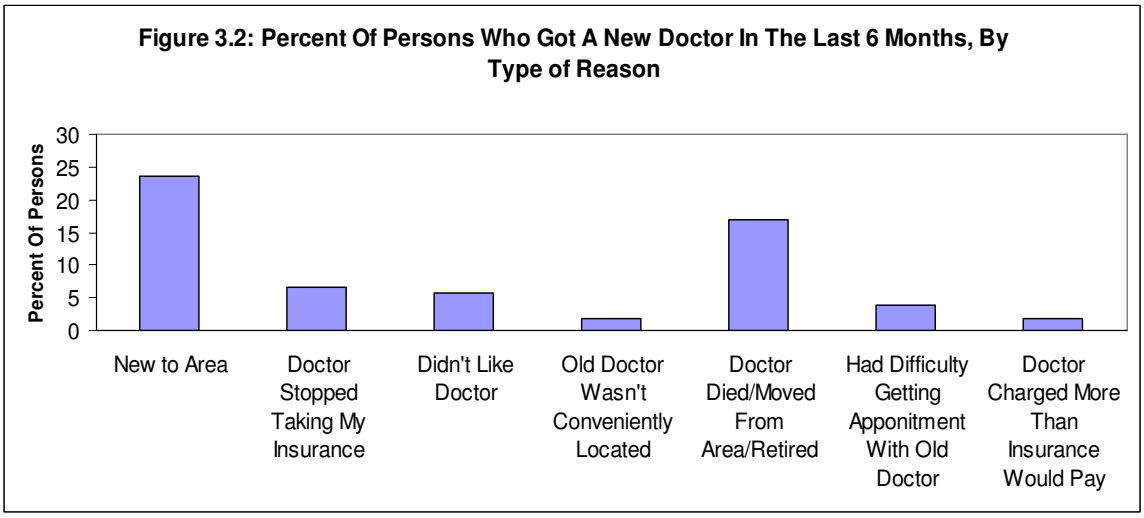
In the 11 localities that comprise the primary and secondary service areas of The Foundation, we found that most individuals had a personal doctor (86%). Figure 3.1 shows the reasons people do not have one personal doctor. The primary reason for not having one person who serves as a personal doctor or nurse is having more than one doctor or nurse (15.8 percent). A secondary reason is being new to the area (7.6 percent).

Figure 3.1: Percent Of Persons Who Do Not Have A Personal Doctor, By Type of Reason



Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

The reasons some persons got a new doctor in the last six months are identified in Figure 3.2. The most common reason was that the individual was new to the area. Many counties in The Foundation's geographic area are increasingly desirable locations to raise families and to retire, and this feature is reflected in these results which also may be an issue to address. In terms of specialty care, 86.2 percent had no problem obtaining access to a specialist when needed; however, this was clearly dependent upon insurance status, as we will show later. Both primary and specialty care access problems were experienced by

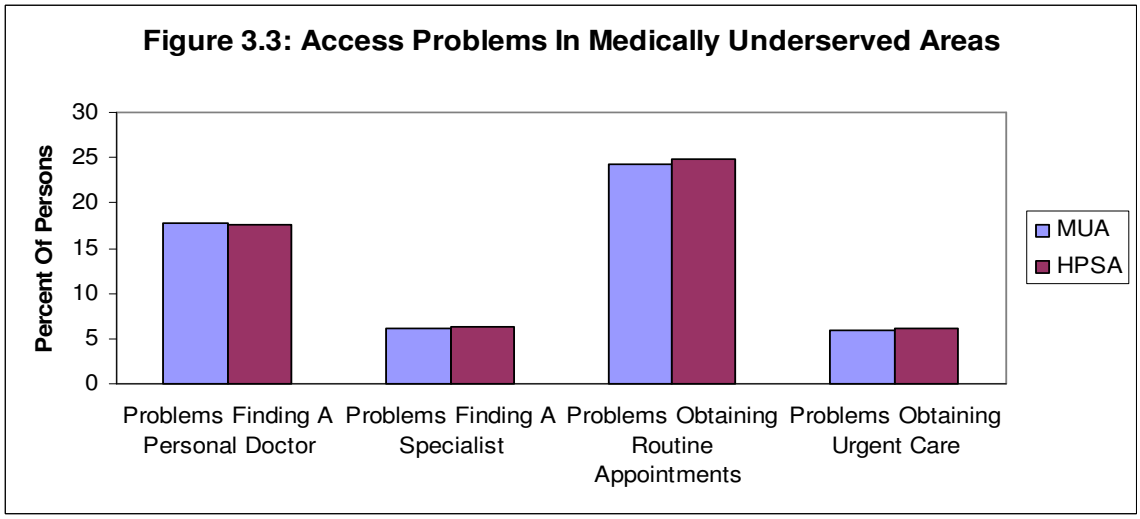


Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

people in subgroups that traditionally have problems accessing medical care, such as those in poorer health and those with lower incomes.

3.2 Access Problems in Virginia Medically Underserved Areas (MUAs) and Primary Care Health Professional Shortage Areas (HPSAs)

Although the survey was targeted to MUAs, the results clearly show there is no difference in access to physician care between MUAs or HPSAs and the



Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

rest of The Foundation's geographic area (Figure 3.3). These findings hold true whether comparing responses from individuals in the Primary Care HPSAs (Surry, Charles City, James City, New Kent, King William, King and Queen) to all other counties (Middlesex, Mathews, Gloucester, York and Williamsburg City). There were no statistically significant differences for any of the four overall measures of access, nor any other measure, except two indicators of satisfaction in the case of VMUAs.

3.3 Access Problems by Age Groups

While we found very few access problems in VMUAs and HPSAs as compared to individuals residing outside these areas, our survey findings point toward the difficulties that certain subgroups experience. There were only modest differences between the three age groups with respect to obtaining primary and specialty care services.

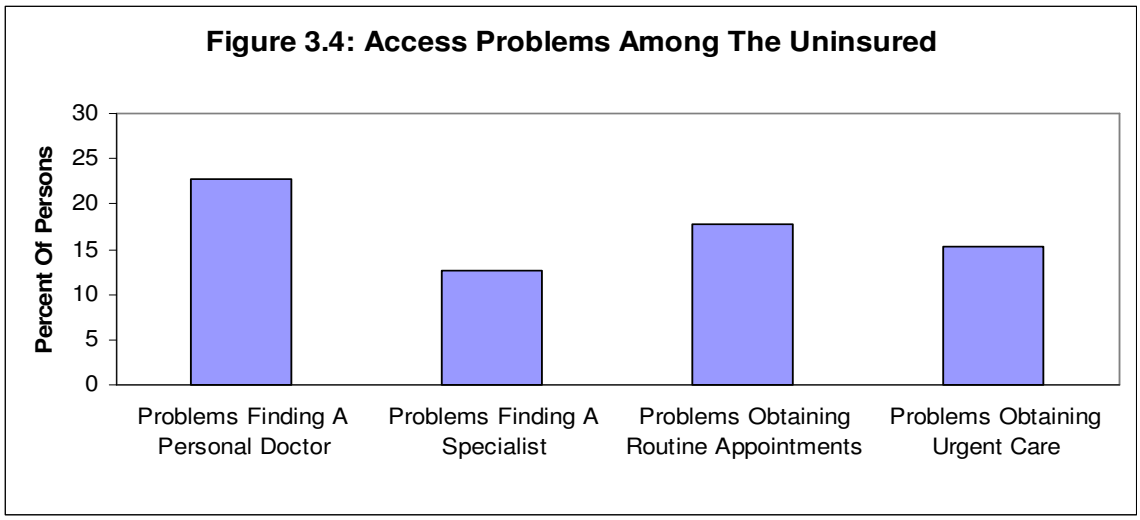
People 65 and over, covered by Medicare, had the fewest access problems (Appendix F). There were essential differences in other measures of access to care among age groups. Younger adults (age 19-64) perceived that it has gotten harder to see a doctor in the past year or two (12.5 percent). Younger adults were also less likely to obtain a healthcare appointment when needed, with 10.6 percent sometimes obtaining that appointment and an additional 5 percent never able to obtain an appointment when needed. Younger adults were also more likely to have a health condition for which the doctor's care should have been sought but was not. Reasons given included they thought it would

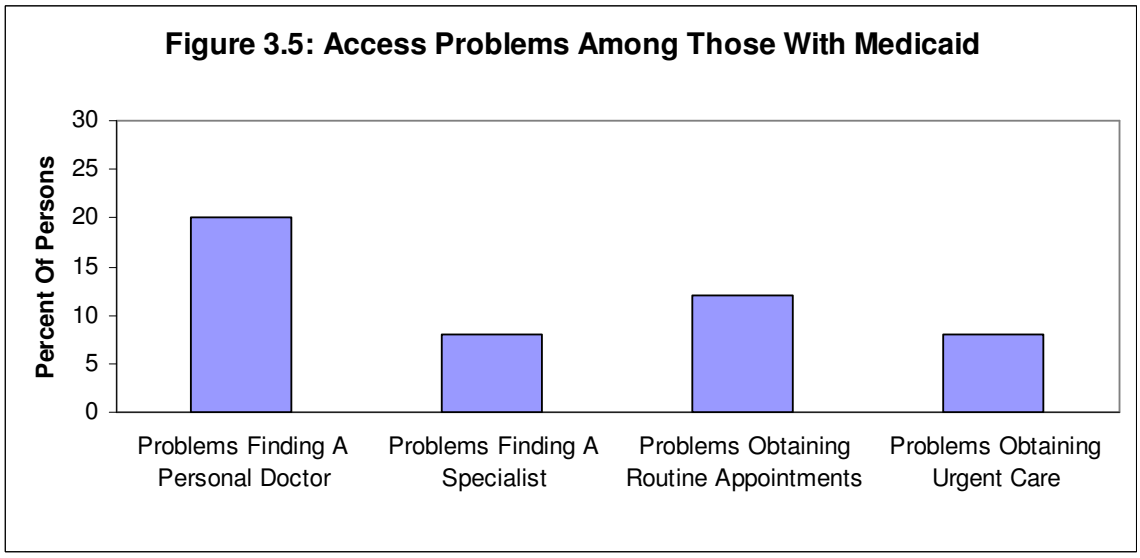
cost too much (17.4 percent), they could not get appointment soon enough (17.4 percent), or that they perceived there was no doctor available (17.4 percent). Likewise, younger adults were more likely to postpone visits due to being too busy with other things (20 percent), experiencing concerns with affordability (17.3 percent), and believing the problem was not serious enough for an appointment (12.8 percent).

With respect to children's access issues, as reported by a parent or other proxy, 81.8 percent of children had a personal physician (Appendix G). This finding is an important issue, if the expectation is that 100 percent of children would have access to physician care.

3.4 Access Problems by Insurance Status

The survey results indicate greater disparities between the insured and uninsured and those with Medicaid coverage as compared to individuals covered by Medicare or other private insurance (e.g., employment-based coverage, veteran's benefits) (Appendix G). Medicaid recipients and those with no insurance are particularly vulnerable and were also more likely to have poorer levels of health (Appendix G). The uninsured were least likely to have a relationship with a personal doctor (59.5 percent), followed closely behind by Medicaid recipients (64 percent) (Appendix G). Figures 3.4 and 3.5 highlight access problems for the uninsured and those on Medicaid. Across the board the uninsured were most likely to have big problems finding a personal doctor, obtaining access to a specialist when needed, as well as problems obtaining





Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

obtaining routine care as well as urgent care. Double digit percentages of people on Medicaid had the same problems with access to care.

3.5 Reasons for Access Problems

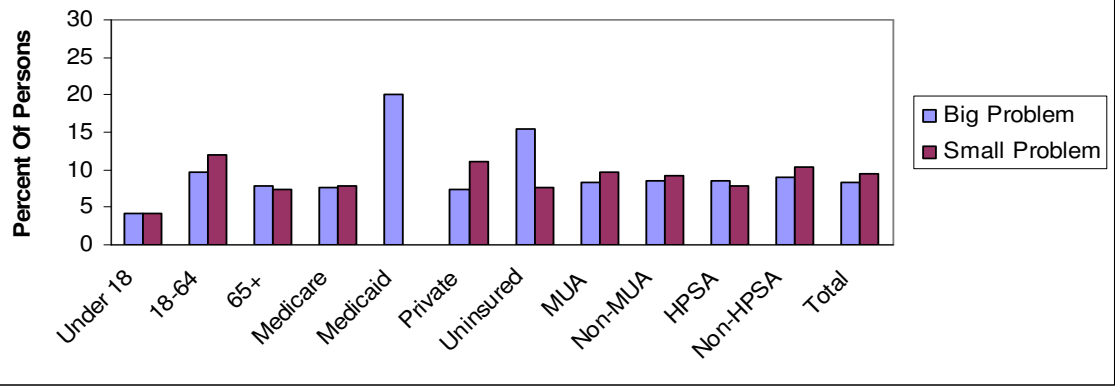
While there may be many reasons individuals could provide for not being able to access healthcare when needed, we determined that there were four primary areas of concern. These include: 1) difficulty obtaining a satisfactory personal doctor since joining a new insurance plan; 2) ability to make

appointments and get needed care; 3) unmet needs and delayed care; and 4) satisfaction with ease of getting primary and specialty care physician services. The following section highlights these four indicators in more detail.

3.5.1 Difficulty Finding New Physicians

Out of those persons in The Foundation's geographic area who got a new personal doctor in the past six months (7 percent), almost 18 percent described this process as a problem. Figure 3.6 shows the differences in problems based on individual characteristics. It is evident that those with Medicaid had the

Figure 3.6: Percent Of Persons Reporting Problems Finding A Personal Doctor



Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

greatest problem. Table 3.1 identifies the reasons people experienced problems. The top two reasons given were that there were too few doctors in the area and that they could not find a doctor accepting their insurance (See Figure 3.7). Respondents to the survey had to have needed physician care in the last week and then experienced a problem in order to give a reason. Thus the number of

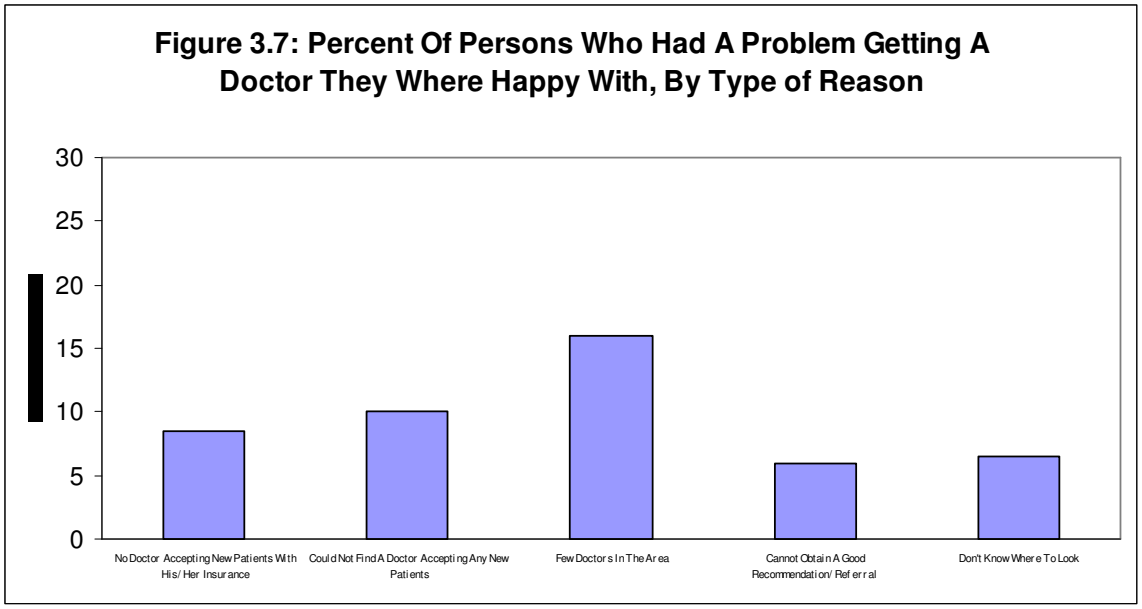
Table 3.1: Reasons for Access Problems Among Persons in Foundation's Geographic Area

	Percent	Confidence Interval (+/-)
Percentage Reporting At Least 1 Physician Access Problem	17.8	2.235
Percentage Due To Physician Insurance Participation issues	4.4	7.465
Percentage Due To Other Availability Issues	16.8	5.069
Percentage Reporting Problem Finding Doctor or Specialist In Last 6 Months	12.8	1.952
Percentage Due To Physician Insurance Participation issues	1	7.371
Percentage Due To Other Availability Issues	5.8	5.515
Percentage Not Getting Necessary Care In Last 6 Months	9	1.672
Percentage Due To Physician Insurance Participation issues	0.5	6.183
Percentage Due To Other Availability Issues	4.4	5.685
Percentage Rating Availability of PCPs or Specialists As Fair Or Poor	10.9	1.821
Percentage Due To Physician Insurance Participation issues	0.4	8.748
Percentage Due To Other Availability Issues	13.5	5.397

Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

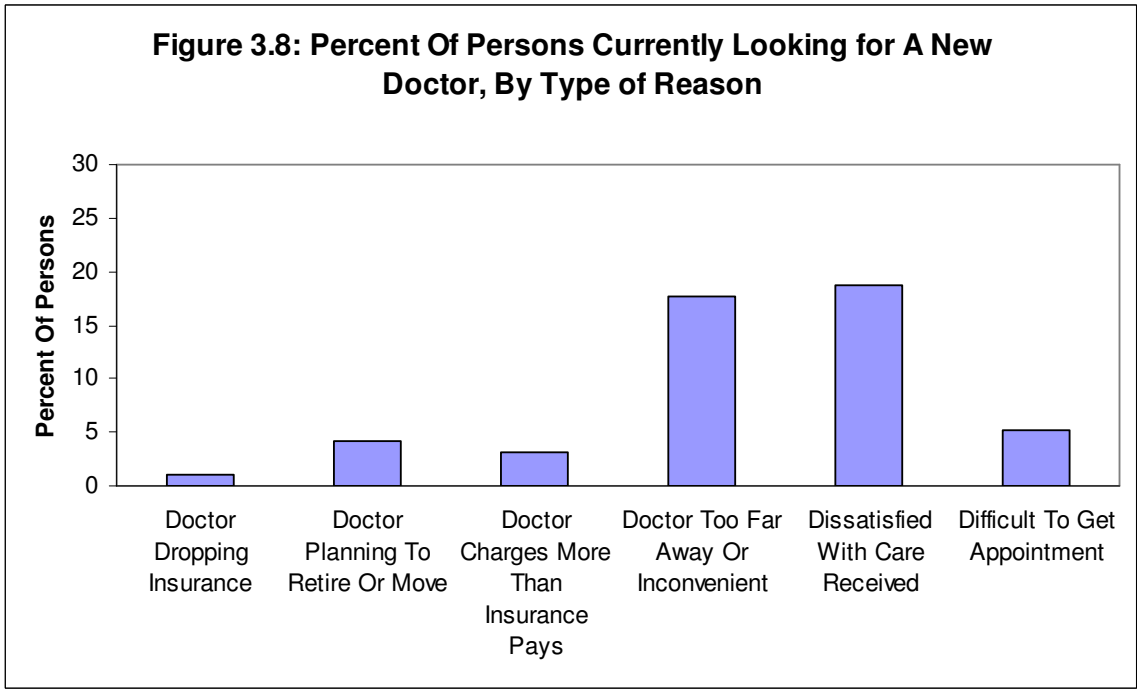
respondents can be small in these categories and we have included a confidence interval for these statistics.

Only 5.2 percent of people were currently looking for a new doctor. Figure 3.8 identifies some of the explanations given for needing a new primary care doctor. While other access issues, particularly with specialty care, indicated problems with getting appointments, the issue of appointments was less of a



Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

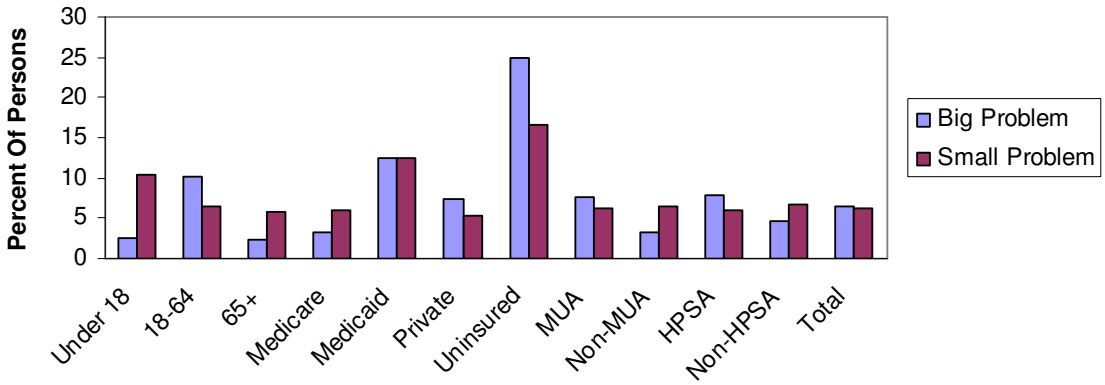
concern here. The more common explanations for needing a new primary care doctor were that the individuals were dissatisfied with the current care or that the doctor's office was not conveniently located.



Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

Figure 3.9 shows the percentage of persons experiencing problems accessing specialty care, by respondent characteristics. The uninsured had the greatest problem (big or small) (45.8 percent) obtaining specialty care when needed.

Figure 3.9: Percent Of Persons Reporting Problems Finding A Specialist

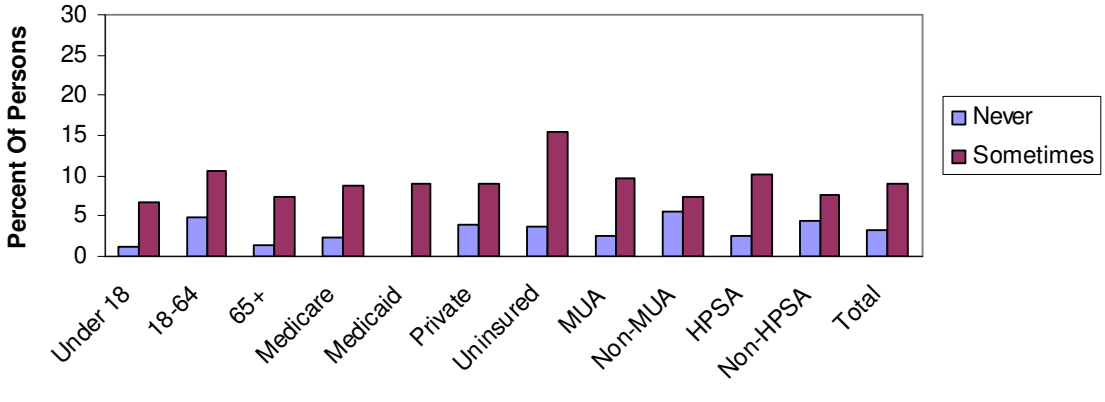


Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

3.5.2 Ability to Make Appointments and Get Needed Care

Figure 3.10 shows the problems people experienced when trying to obtain a timely routine care appointment. The magnitude of persons who were "never"

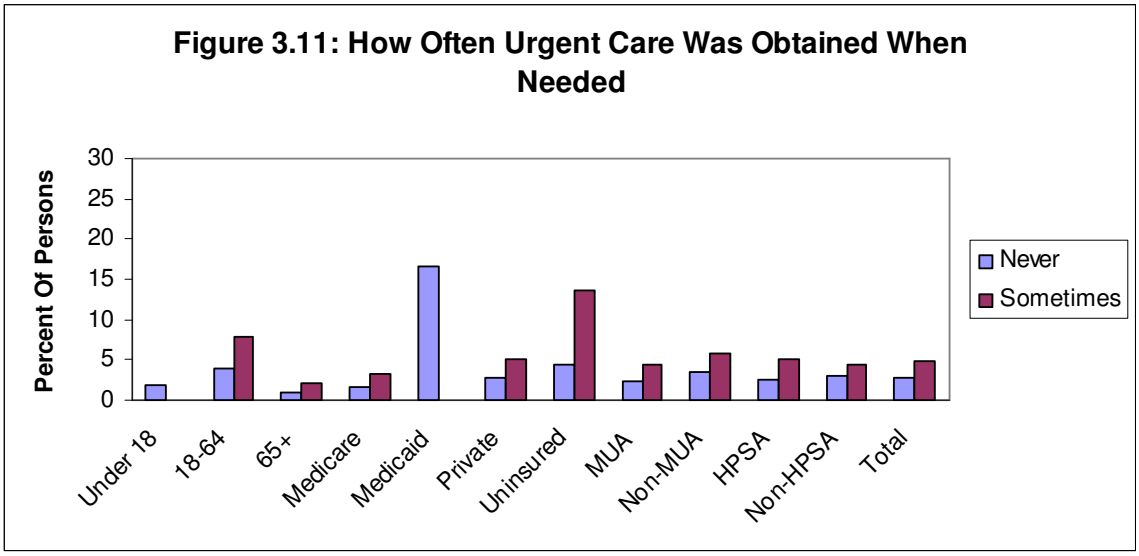
Figure 3.10: How Often Timely Routine Care Appointments Were Obtained



able to obtain these routine care appointments was less than 5 percent. Ideally, people should always able to obtain their appointments when needed. Shown elsewhere (Appendix G), Medicare (73.6 percent) and Medicaid (72.7 percent) respondents were always able to obtain routine care appointments, while only 52.3 percent of those with private insurance and 46.2 percent of the uninsured were able to always obtain this appointment.

Figure 3.11 shows the percentage of persons obtaining timely urgent care when needed. Twenty percent of persons with Medicaid were never able to obtain timely urgent care. Half of Medicaid respondents were unable to obtain care right away because they were unable to get an appointment with their doctor while the remainder they could not leave their family members to see the doctor. The survey revealed nominal use of urgent care facilities and the emergency department of the local hospital for routine care when needed.

Figure 3.11: How Often Urgent Care Was Obtained When Needed



Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

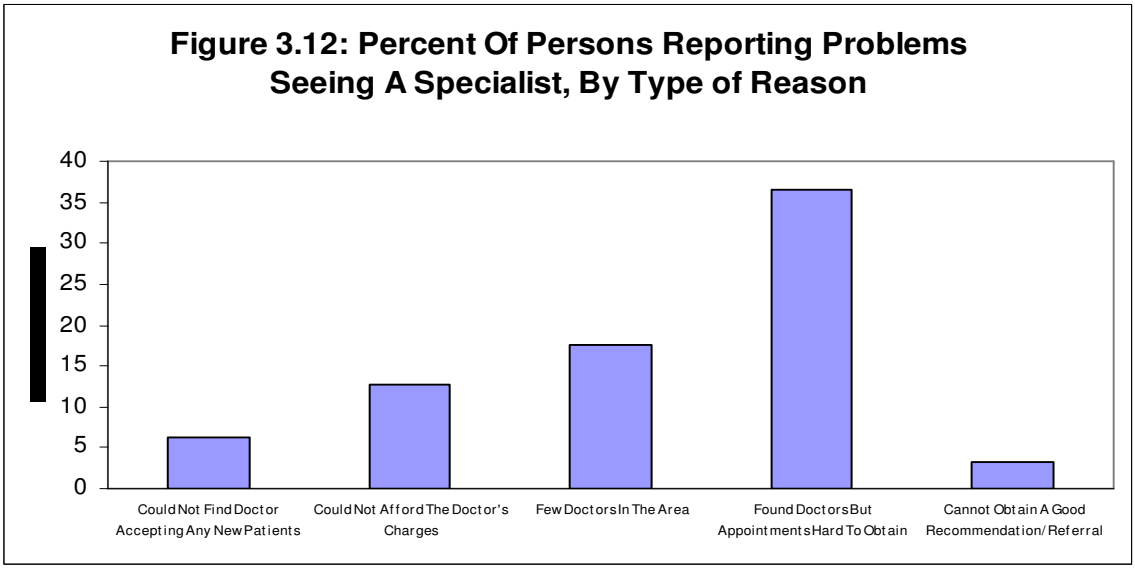
3.5.3 Unmet Needs and Delayed Care

Appendix G shows the percentage of persons in The Foundation's geographic area with unmet needs. Approximately 11 percent of persons identified that they had a health condition for which a doctor's care should have been sought but was not. The most common reasons given for not seeing a doctor included: they could not get an appointment soon enough (14.7 percent); no doctor was available (14.7 percent); and they could not afford the care (14.7 percent). Approximately 18 percent of persons explained that they had postponed a doctor's visit over the last six months. The most commons reasons for postponing care including being too busy with other things ((20.5 percent) and concerns with affording the care (15 percent).

3.5.4 Satisfaction with Ease of Getting Physician Services

Out of all the individuals in The Foundation's geographic area with problems accessing specialty care (12.8 percent), the largest group (36.5

Figure 3.12: Percent Of Persons Reporting Problems Seeing A Specialist, By Type of Reason

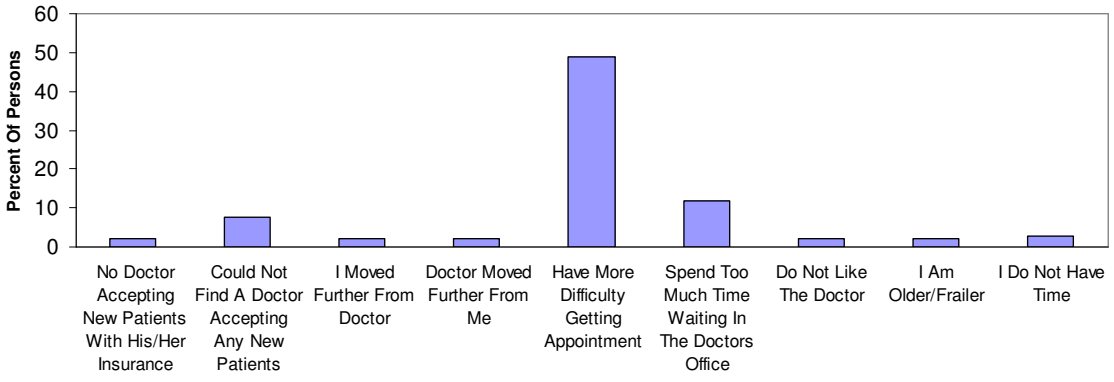


Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

percent) found a specialist but also found that it was difficult to obtain an appointment (See Figure 3.12). This access issue was more pronounced for the uninsured and those with Medicaid.

When asked if it was harder, easier, or about the same to see a doctor today as compared to the past year or two, the majority of persons (83 percent) perceived that seeing a doctor was about the same. While nearly 6 percent of persons found it was easier to see a doctor in the past year or two, approximately 9 percent of persons perceived that it was harder. When asked to identify how it has become harder, the majority of these persons (50%) described difficulties with getting an appointment (See Figure 3.13). While getting appointments,

Figure 3.13: Percent Of Persons Who Said That Seeing A Doctor Has Gotten Harder Over The Last Year Or Two, By Type of Reason



Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

particularly with specialists, was consistently identified as a challenge, most individuals rated the availability of specialist care when needed as good or better (70 percent) Table 3.2 shows how persons rated convenience and availability of primary and specialty care. The next section describes the findings from the Physician and Nurse Practitioner Survey.

Table 3.2: Satisfaction with Ease of Getting Physician Care

	Percent Of Persons										
	Age			Insurance				MUA Status		HPSA Status	
	Under 18	18-64	65+	Medicare	Medicaid	Private	Uninsured	Yes	No	Yes	No
Rating For Ease and Convenience of Getting A Doctor											
Excellent	37.7	34.6	36.3	35.7	28.0	37.6	25.6	34.2	40.8	35.4	36.7
Very Good	31.5	26.7	34.4	34.9	32.0	26.6	29.5	29.6	30.1	27.6	32.7
Good	19.9	23.0	18.2	17.9	16.0	22.5	23.1	21.0	20.2	21.5	19.8
Fair	8.2	8.7	5.7	5.6	8.0	8.8	7.7	8.0	6.5	7.9	7.3
Poor	0.7	4.2	3.2	4.3	4.0	2.8	3.8	4.4	0.7	4.6	1.8
Have Not Gone to the Doctor	1.4	2.6	1.3	1.1	4.0	1.6	9.0	2.2	1.4	2.3	1.5
Reasons For Rating Ease and Convenience of Getting A Doctor											
Available Doctors Do Not Take New Patients With His/Her Insurance	0.0	1.3	0.0	2.7	0.0	0.0	0.0	1.0	0.0	0.0	2.4
Available Doctors Do Not Accept Patients At All	0.0	1.3	3.6	2.7	0.0	0.0	11.1	2.0	0.0	0.0	4.9
Wait Too Long For Appt	7.7	6.3	3.6	5.4	33.3	4.1	11.1	4.9	9.5	3.7	9.8
Available Doctors Charge Too Much	0.0	2.5	0.0	2.7	0.0	0.0	11.1	2.0	0.0	0.0	4.9
No Doctors Available	0.0	7.5	10.7	8.1	0.0	6.8	11.1	4.9	19.0	3.7	14.6
Do Not Like Available Doctors	15.4	2.5	0.0	0.0	0.0	6.8	0.0	3.9	4.8	4.9	2.4
Cannot Get An Appt	0.0	2.5	0.0	0.0	0.0	2.7	0.0	2.0	0.0	2.4	0.0
Have to Travel Too Far/Too Difficult to Travel	61.5	73.8	71.4	73.0	33.3	75.7	55.6	75.5	57.1	80.5	56.1
Could Not Leave Other Family Member	0.0	1.3	0.0	0.0	0.0	1.4	0.0	1.0	0.0	1.2	0.0
Doctor Requires Upfront Payment	0.0	2.5	0.0	0.0	0.0	1.4	11.1	2.0	0.0	1.2	2.4
Could Not Get Off Work	0.0	3.8	0.0	0.0	0.0	4.1	0.0	2.0	4.8	2.4	2.4
Rating For Availability of Specialist Care When Needed Over Past 6 Months											
Excellent	30.8	19.9	29.0	30.6	13.6	23.0	7.1	25.0	22.6	25.7	22.6
Very Good	21.7	29.5	34.9	33.6	31.8	29.8	11.4	29.3	31.7	28.3	32.2
Good	14.0	20.4	13.7	14.6	4.5	18.6	24.3	16.8	18.8	16.6	18.3
Fair	4.9	4.8	2.3	2.7	13.6	4.0	7.1	4.1	3.5	3.9	4.0
Poor	1.4	3.5	2.0	2.2	4.5	2.2	8.6	2.9	2.1	2.8	2.5
Did Not Need Specialist Care	27.3	20.7	16.3	14.6	27.3	21.8	37.1	20.8	19.5	21.8	18.6

Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

3.6 Physician and Nurse Practitioner Access

The purpose of the Physician and Nurse Practitioner Survey was to obtain several quantitative measures of access to care from the provider viewpoint to complement and verify the household survey results. The providers included in the survey were asked four batteries of questions: background practice information, the extent to which they are accepting patients and limiting services to patients, ease of making referrals, and charity care.

3.6.1 Physician and Nurse Practitioner Background Information

Descriptive background information is shown in Table 3.3. The area has 43 percent primary care and 57 percent specialist physicians, which compares favorably to the national average of 36.5 percent physicians in primary care (HRSA 2007). A relatively large number in this area are in family practice – 24 percent – compared with 16 percent nationally. OB/GYN, pediatrics and general internal medicine are approximately equally represented in the remaining primary care specialties.

Specialty

Specialists dominate the local area with 57 percent of the physicians in the area, which is still a smaller percent than nationally at 63 percent (HRSA 2007). A wide range of specialists are in the area, as shown in Table 3.3, with pulmonary, anesthesiology, ophthalmology, and cardiology among the most numerous among the specialists. The survey asked respondents a single open-ended question about specialty. Thus, some might practice general internal medicine in addition to an internal medicine specialty or

Table 3.3 Background Information for Physicians and Nurse Practitioners: Practice Specialty, Years in Community, Patient Care at Least 20 Hours Per Week

Specialty		Percent
Generalist		
Family Practice		24%
OB/GYN		8%
Internal Medicine		6%
Pediatrics		5%
Total Generalist	43%	
Specialists		
Pulmonary		8%
Anesthesiology		4%
Ophthalmology		4%
Orthopedics		4%
Cardiology		3%
Dermatology		3%
Emergency Medicine		2%
ENT		2%
Gastroenterology		2%
Geriatrics		2%
Psychiatry		2%
Other[a]		21%
Total Specialist	57%	
Years Practiced in This Community		
More than 25		14%
25-21		10%
20-11		22%
10-6		25%
5-4		11%
3 or less		18%
Practicing and Involved in Patient Care at least 20 Hours Per Week		
Yes		88%
No		12%

[a]Chiropractics, Endocrinology, General Surgery, Nephrology, Neurology, Oncology, Optometry, Pain Management, Podiatry, Radiation Oncology, Rheumatology, Sleep Disorders, Substance Abuse, Urology.

Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

subspecialty, but the survey did attempt to make this distinction.

Years Practiced in This Community

Nearly 20 percent of physicians and nurse practitioners are new to the

area, having been here 3 years or less. An additional 11 percent have been here only slightly longer -- 4-5 years. More than 25 percent have been here more than 20 years; 10 percent 21-25 years and an added 14 percent more than 25 years. Nearly 90 percent of physicians and nurse practitioners practice and are involved in patient care. But the area does lose some active patient care to the approximately 12 percent of physicians and nurse practitioners who work less than 20 hours per week in patient care.

3.6.2 Level of Service

The next set of tables present the estimated patient load by payer mix currently and five years ago. Table 3.4 has the average percent distribution

Table 3.4: Physician and Nurse Practitioner Percentage of Patient Load Current and Five Years Ago, 2007.

	Percent	
	Current	**Five Years Ago**
Medicare Patients	34%	30%
Medicaid Patients	11%	9%
Uninsured Patients	12%	11%
Privately Insured patients	48%	53%

Does not sum to 100 percent because of estimating by respondents. Answered question: 133. Skipped question: 18.

Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

of patients as estimated by the respondent to the survey. Respondents were only asked to quickly estimate each payer and may not have checked to make the figures total 100 percent. We did not try to force the figures to sum to 100 percent.

Medicare patient loads as a percent of the practice are higher currently

compared to five years ago, higher an average 4 percentage points to 34 percent of the practice on average. Medicaid also increased from 9 percent to 11 percent. Uninsured patients are also up by one percentage point. The privately insured patient load has fallen. Table 3.5 displays the same responses in a different format. Instead of averaging, we have counted the

Table 3.5: Physician and Nurse Practitioner Percentage of Patient Load Down, No Change or Up from Five Years Ago, 2007.

	Percent		
	Down	**No Change**	**Up**
Medicare Patients	20%	41%	40%
Medicaid Patients	24%	50%	29%
Uninsured Patients	18%	66%	19%
Privately Insured patients	40%	35%	28%

Answered all eight questions: 101. Skipped some or all 8 questions: 49.

Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

number estimating the percent of patient load has gone down, no change, or up. Indeed 40 percent estimated their privately insured patient load has gone down compared to 5 years ago. The highest estimated stable population is the uninsured, with fully two-thirds with no change in uninsured patients. Medicaid had about as many up as down with 50 percent with no change. As with the average patient load, the estimated percent seeing Medicare go up is twice the percent estimating down.

In terms of accepting patients and limiting services, Table 3.6 shows the results by payer. Seventy percent or more of physicians and nurse practitioners

accept new patients. As many as 93 percent accept privately insured patients. Approximately three-fourths accept Medicare, Medicaid and uninsured. Among those who accept new patients, however, approximately 20 percent limit some services. The limited services were unspecified, but the percent limiting services is very similar for Medicare, Medicaid and Uninsured. The percent accepting privately insured by limiting services is only 12 percent.

Table 3.6 Physician and Nurse Practitioner Accepting New Patients or Limiting Some Services, 2007.

	Percent Yes			
	Medicare	**Medicaid**	**Uninsured**	**Privately Insured**
Are you accepting new patients?	75%	70%	78%	93%
Are you limiting some services to this type of patient?	19%	19%	22%	12%

Answered question: 122. Skipped question: 29

Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

Among physicians and nurse practitioners not accepting or limiting services the reasons are shown in Table 3.7. While the top reasons for each payer were similar, there we some differences in the magnitude. The most frequent reason for not accepting patients or limiting services for Medicare, Medicaid and Uninsured was inadequate reimbursement, with Medicaid receiving a mention 41 percent of the time compared to Medicare and Uninsured in the low 30 percentage points. Next most frequent reason given, again for all three payers, was the practice already has

Table 3.7: Physician and Nurse Practitioner Reasons for Not Accepting New or Limiting Services to Patients, 2007.

	Percent of Column Yes (Multiple Responses Allowed)		
	Medicare	**Medicaid**	**Uninsured**
Billing and regulatory requirements	22%	18%	16%
Concern about an audit	1%	1%	0%
Inadequate reimbursement	30%	41%	32%
Patients have high clinical burden	22%	16%	18%
Practice already has enough patients	22%	20%	24%
Other	3%	3%	10%

Answered question: 55. Skipped question because not accepting patients and not limiting services: 96.

Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

enough patients. The next most frequent reason was patients have a high clinical burden, followed closely by billing and regulatory requirements. Concern about an audit almost did not register with anyone.

A series of questions were asked of those not accepting new patients or limiting services regarding the priority they give to making new appointments. The series of question is designed to verify the answers already given and also measure the ease of getting appointments based upon payer type and whether the patient is new or established. The results for Medicare and Medicaid compared to privately insured are shown in Table 3.8.

Most physicians and nurse practitioners who are not accepting new patients or limiting services, nonetheless, treat all their patients the same without regard to payer type and whether the patient is established or not. Established

Table 3.8 Comparison to Privately Insured Patients, the Priority Practice Gives Appointments for New Patients By Type, 2007.

	Priority Compared to Privately Insured			
	New Medicare Patients	**Established Medicare Patients**	**New Medicaid Patients**	**Established Medicaid Patient**
Much Lower	3%	0%	12%	5%
Somewhat Lower	10%	1%	8%	1%
Same	84%	94%	79	90%
Somewhat Higher	0%	1%	1%	3%
Much higher	3%	4%	0%	1%

Answered question: 69. Skipped question because not accepting patients and not limiting services: 82.

Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

patients, whether they are Medicare or Medicaid, receive some priority compared to new Medicare or Medicaid patients, but they have the same priority as privately insured patients. The patient receiving the lowest priority is the new Medicaid patient, with 12 percent indicating they give higher priority to privately insured patients.

A substantial share of physicians and nurse practitioners has difficulty finding a physician for a patient needing a referral (Table 3.9). Consistently across payer type, internists are difficult to find. Nearly 50 percent have trouble finding an internist for patients with Medicare coverage. Neurologists were also difficult to find. But physicians and nurse practitioners consistently have the greatest

Table 3.9 Physician and Nurse Practitioner Who Experienced Difficulty in Finding a Physician for a Patient Needing a Referral in Last Six Months, 2007

	Percent of Column Yes (Multiple Responses Allowed)		
	Medicare	**Medicaid**	**Uninsured**
Internist	46%	33%	43%
Neurologist	23%	24%	38%
Orthopedist	8%	15%	35%
Cardiologist	12%	20%	33%
Ophthalmologist	12%	15%	32%
ENT	13%	15%	27%

Answered question: 97. Skipped question because not accepting patients and not limiting services: 54.

Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

difficulty finding specialists for their uninsured patients. Approximately one-third have difficulty for all the specialties shown in Table 3.9.

3.6.3 Charity Care

The final set of questions asked about the amount of charity care physicians and nurse practitioners provided in their office or elsewhere. Table 3.10 shows the distribution in terms of number of hours provided in the previous month.

Nearly one quarter provided no charity care. Approximately another quarter provided 1 to 5 hours. Another 25 percent provided 6-10 hours. Thus, three-quarters provided none or less than 10 hours of charity care in the last month. Assuming 20 days of 8 hours each, or 160 hours of work time in a month, 10 hours of charity care is approximately 6 percent of time. Another quarter of physicians and nurse practitioners provided more than 10 hours of

Table 3.10: Physician and Nurse Practitioner Hours Providing Charity Carea in the Last Month, 2007.

	Percent
None	24%
1-5 hours	27%
6-10 hours	25%
11-15 hours	10%
16-20 hours	5%
21-25 hours	1%
26-30 hours	3%
31-50 hours	3%
More than 50 hours	2%

Answered question: 140. Skipped question: 11. [a]Charity care means you charged either no fee or a reduced fee because the financial need of the patient was recognized before the care was given. Please do not include time spent providing bad debt services for which you expected but did not receive payment.

Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

charity care, including 5 percent who provided 31 or more hours in the previous month.

The location for the charity care provided is shown in Table 3.11. More than 40 percent provided charity care in their main practice. A total of 18 percent provided care in a clinic. Only 6 percent provide care on call at a hospital

Table 3.11: Physician and Nurse Practitioner Place to Typically Provide Charity Care, 2007.

	Percent
In my main practice	43%
On-call at a hospital or emergency department	6%
In a clinic	18%
Other	33%

Answered question: 110. Skipped question because did not provide charity care: 41.
Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

or emergency department.

Physicians and nurse practitioners who are not currently providing charity care are virtually split about whether they would consider providing charity care. Over half (53 percent) would not provide charity care either because they do not have the time (47 percent) and or they are not interested (6 percent). That leaves 47 percent among the 24 percent not now providing charity who would consider providing charity care. In other words, approximately 12 percent

Table 3.12: Physician and Nurse Practitioner Interest in Providing Charity Care, 2007.

	Percent
Yes, I would consider	47%
No, not interested	6%
No, do not have the time	47%

Answered question: 85. Skipped question because did not provide charity care: 66.

Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

or nearly 60 percent of the 480 physicians and nurse practitioners in the area would consider providing charity care.

3.7 Safety-Net Provider Leadership Survey

The responses from all six of safety-net provider surveys were analyzed. The clinics in The Foundation's geographic area have been in the communities that they serve from 10 to 29 years. At least two clinics are planning to relocate their facilities in the near-term in order to expand the capacity and thus, serve a larger patient population. Most coordinators were able to schedule an appointment for a patient to be seen within 48 hours of receiving the call. Several clinics are not open all day or every day and thus it was noted that appointments

were scheduled based on operating hours and based on the reason for medical care, such as an acute condition. Three of the clinics do operate during evening and weekend hours in order to accommodate their patients' schedules.

Table 3.13 identifies the demographics (e.g., age, payer) of the patient population for each clinic. Table 3.14 shows the types of patients each safety-net provider is currently accepting as well as any services that are being limited.

The safety-net providers each have experienced difficulty in finding specialty care for patients who have needed referrals over the past six months. The greatest difficulty has primarily been with the uninsured patients that they serve. Many specialty areas were identified as a challenge including: neurology; endocrinology; gastroenterology; cardiology; and mental health.

Table 3.13: Safety-Net Provider Percent of Current Patient Load by Payer and Age

Clinic	Angels of Mercy Medical Clinic	Charles City Regional Health Services	Gloucester-Mathews Free Clinic	King William Dawn Community Doctors	Lackey Free Family Medicine Clinic	Olde Towne Medical Center
Percent of Patients by Payer Type						
Medicare	11%	9%	0%	15%	0%	16%
Medicaid	0%	20%	0%	17%	0%	27%
Uninsured	79%	33%	100%	25%	100%	41%
Underinsured	10%	30%	0%	1%	0%	16%
Percent of Patients by Age Category						
Children (under 18)	5%	36%	0%	30%	10%	23%
Adults (18-64)	84%	56%	99.9%	58%	86%	67%
Older Adults (65+)	11%	8%	.1%	12%	4%	10%

* May not sum to 100% as percentages are based on estimates.

Table 3.14: Safety-Net Provider Accepting New Patients and Limiting Services to Patients

Clinic	Angels of Mercy Medical Clinic	Charles City Regional Health Services	Gloucester-Mathews Free Clinic	King William Dawn Community Doctors	Lackey Free Family Medicine Clinic	Olde Towne Medical Center
Accepting New Patients by Payer Type						
Medicare	Y	Y	N/A	Y	N	Y
Medicaid	Y	Y	N/A	Y	N	Y
Uninsured	Y	Y	Y	Y	Y	Y
Underinsured	Y	Y	N/A	Y	N	Y
Limiting Services to Patients by Payer Type						
Medicare	N	N	N/A	N	Y	N
Medicaid	N	N	N/A	N	Y	N
Uninsured	N	N	Referral to specialists	N	N	N
Underinsured	N	N	N/A	N	Y	N

Source: 2007 Targeted Survey of Physician Access conducted by the College of William & Mary for the Williamsburg Community Health Foundation.

When asked to identify the top two challenges currently facing the community in terms of improving access to physician services, a number of detailed and important responses were obtained. The most frequently reported challenge was transportation. The next most frequent response was the need for more specialty physicians willing to provide pro bono services. Additional

responses included:

- Networking and communicating among safety net clinics
- More walk-in primary care clinics
- More mobile clinics
- Education/non-compliance on part of patients
- Cost of clinic services still too expensive for some patients
- Increase in Baby Boomers and older adults with complex and chronic conditions
- Potential physician shortage.

Finally, safety-net providers were asked to consider the implications of the findings from the current physician access study in light of the role that The Foundation might take in addressing gaps in access to care. Implications identified included:

- Serve as a catalyst or think-tank for addressing gaps
- Provision of more core funding over multiple years to increase capacity at free clinics
- Continue and expand Chronic Care Model
- Development of Project Access (national model) linking uninsured patients to specialty physicians willing to provide pro bono services
- Provision of transportation services
- Support for a mental health provider
- Facilitate link with physicians interested in charity care
- Increase awareness of clinics (recognize capacity issues)
- Support clinics in providing continuity of care

While the safety-net providers clearly identified challenges with respect to their ability to serve uninsured and under-insured patients, they also acknowledged ways in which The Foundation might support their mission. The next chapter summarizes the findings and provides some conclusions for the community, households and medical providers.

Conclusions

The results from these surveys tell us that parity in access to physician care is not a characteristic of The Foundation's geographic area. In summary, uninsured people were least likely to have a relationship with a personal doctor (59.5 percent), followed closely behind by Medicaid recipients (64 percent), compared to all other groups. Likewise, the uninsured were most likely to have a big problem obtaining access to a specialist when needed (25 percent). Nonetheless, the results also tell us that substantial and widespread physician access problems do not exist in The Foundation's geographic area, especially in the VMUAs and HPSAs where we would most expect to find problems. By targeting VMUAs, we attempted to uncover access problems where they would be most likely found. In fact, there was virtually no difference by VMUA or HPSA. We found that generally the number of people reporting physician access problems was low, in no small part because 85 percent have a personal physician; and that there was little indication the problems had worsened substantially in the past one or two years. Finally, the supply of physicians, or the number of physicians in the geographic area relative to the population, is comparable to national and Virginia benchmarks. Recruiting new physicians to increase the overall supply is not an issue.

However, some of the findings, such as problems getting appointments for specialty care when needed and large scale reports from physicians and nurse practitioners having difficulty finding a referral physician for Medicare, Medicaid and uninsured patients are issues that present challenges for this community. If

Medicare physician payment rates are reduced or the percent uninsured increases, access to physician care could become a larger problem. Another comprehensive set of surveys like this one is warranted in five to seven years.

Extent of Problems

Except for those with Medicaid or the uninsured, few people had problems with access to care on four key measures used in the survey:

- Eighty-six percent of people had a relationship with a primary care doctor.
- Among people who did not have one person as a personal doctor 15.8 percent had more than one doctor or nurse, 7 percent had a doctor who died, moved from the area or retired, or did not like their doctor.
- Among people needing a specialist, 12.8 percent had a problem (big or small) seeing one in the last six months.
- The primary reasons people had a problem (big or small) seeing a specialist were they found a doctor but appointments were hard to obtain (36.5 percent), there were few doctors in the area (17.5 percent) or they could not afford the doctor's charges (12.7 percent).
- Among people seeking routine care appointments in the past six months, 39.5 percent did not always get appointments as soon as they wanted (never 3.3 percent, sometimes 9.1 percent, usually 27.1 percent).
- Among people seeking urgent care (right away) in the past six months, 21.6 percent did not always get appointments as soon as they wanted (never 2.7 percent, sometimes 4.8 percent, usually 14.1 percent).

The uninsured were least likely to have a relationship with a personal doctor (59.5 percent) followed closely behind by Medicaid recipients (64 percent). Likewise, the uninsured were most likely to have a big problem obtaining access to a specialist when needed (25 percent). Nearly one-half (47.8 percent) had problems

obtaining routine care, and nearly 60 percent (59.1 percent) had problems obtaining urgent care. In contrast, 27 percent of Medicare beneficiaries nationally have problems getting routine care and 17 percent have problems getting urgent care.

Because of the cross-section design, the survey has a limited ability to assess trends in access, but the survey asked whether, in the past year or two, it had gotten harder or easier to see a doctor. Most people said access is about the same, but for 9.1 percent access had become harder, and 5.8 percent access was easier. Thus, a net 3.3 percent said it was harder to see a doctor. No substantial differences by age, insurance status or MUA were observed.

The survey included a number of other measures, which also showed relatively small although not inconsequential percentages of people with particular access problems. For example, 9 percent had a problem (3.3 percent big problem, 5.7 percent small problem) getting necessary care, tests, or treatment and 10.8 percent identified a health condition for which a doctor's care should have been sought but was not.

Differences across Medically Underserved Areas and Subgroups

Although the survey was targeted to VMUAs, the results clearly show there is no difference in access to physician care between VMUAs or HPSAs compared to other parts of the Foundation's geographic area. There were no statistically significant differences for any of the four overall measures of access, nor any other measure, except two indicators of satisfaction. There was a five percentage point

difference for those rating the ease and convenience of getting a doctor as excellent -- those in VMUAs said 34.2 percent excellent versus 40.8 percent for everyone else. And 75.5 said they had to travel too far or it was too difficult to travel in VMUAs versus 57.1 percent, if they expressed dissatisfaction with access to care.

Access problems were reported by people in subgroups that traditionally have problems accessing care, such as those in worse health or with low income. For example, those rating their health as poor or fair were significantly more likely than those in good, very good, or excellent health to say that seeing a doctor has gotten harder in the past year or two, and were more likely to report problems getting a personal doctor, getting timely routine care appointments and seeing a specialist. Also, just 81.8 percent of children (ages 0 – 18) had a personal physician, which is an access problem if the expectation is that 100 percent of children would have access to physician care.

Household versus Medical Community Problems

To validate the extent to which access problems experienced by households corresponded with the perceptions of the medical community, the physician and nurse practitioner survey focused on concrete measures of access by payer type. In addition, a structured in-person interview with leaders of the six safety-net providers in the geographic area previewed the preliminary results for any reactions and commentary.

The results from the household survey are entirely congruent with the findings

from the medical community. The vast majority of people in the geographic area have private health coverage, and 93 percent of physicians and nurse practitioners accept privately insured persons. Approximately one-fourth do not accept Medicare, Medicaid and uninsured, thus the access problems reported by these populations may be related to the approximately 78 physicians or nurse practitioners in the geographic area who do not accept new patients with one or all of these three types of coverage. Anything that might improve the adequacy or reimbursement from these payers or reduce the billing and regulatory requirements of Medicare would likely increase the participation rate.

One of the areas with substantial congruence between household and medical community subgroups is problems with specialist care. Households reported access problems and 37.5 percent of those with problems blamed them on difficulty getting an appointment. The physicians and nurse practitioner results confirm this finding, with 46 percent experiencing difficulty finding an internist for a Medicare referral, 33 percent for Medicaid and 43 percent for uninsured referrals. To put a finer point on it, neurologists and cardiologists were also difficult for referral needs. The uninsured had the most difficulty compared to Medicare and Medicaid across all the specialties according to the physicians and nurse practitioners. The leaders of the safety-net providers unanimously confirm this finding.

Study Limitations

There are several well-known limitations to a study of this type. First, the survey relied upon a telephone household interview. We used two types of random

sampling and supplemented the telephone mode with an in-person household survey. The percentage of households without a telephone is relatively small, with estimates placing this number near 8 percent.[1] However, the possibility exists that households in the study area were unable to be reached because they did not have a landline telephone or telephone service at the time the calls were placed. Chapter 2 and several appendices examine the implications, which are not considered substantial.

Second, all of the results are based upon the perceptions of access to care among households and the medical community given their individual experiences. While the wording of questions was well tested and validated, having been derived from a national survey funded by the federal government, the terminology is subject to individual interpretation and health literacy may affect the type of answers received.

Third, despite our best efforts to screen and identify people with Medicaid or no insurance, the ending sample sizes were smaller than predicted based upon census data and statewide survey data on the uninsured. Moreover, 9 percent of respondents declined to give their household income, which does not allow us to categorize these respondents into poverty level categories. These survey issues increase the margin of error for these estimates, but do not appear to affect the conclusions as the differences in means are substantial for these subgroups.

[1] Czaja, R. & Blair, J. (1996). *Designing surveys: A guide to decisions and procedures*. Thousand Oaks, CA: Pine Forge Press.

Otherwise, the percentages of phone survey respondents were very similar to the 2000 Census data with respect to education, income, and ethnicity.

4.3 Implications for the Community

The results from the surveys taken together are generally reassuring regarding access to physician care. We attempted to target areas of The Foundation's geographic area most likely to have people with access problems, yet we found that the share of people who reported problems was not large overall and was really no different from other areas on numerous measures. The area has six safety-net providers, which may provide much of the explanation for these findings, although for the uninsured and Medicaid, much more work remains to be done. On balance, people perceived worsening of access to care over the past year or two, but this was only net 3 percent of the population. The vast majority perceived no change, although most people are satisfied with their access to physician care. Finally, the issue of an adequate number of physicians can be set aside given the apparently comparable physician to population ratios here compared to Virginia and the nation.

Yet some of the findings provide grounds for concern. Most importantly, there is apparent stenosis in access to specialist physician care with households, physicians and nurse practitioners reporting problems. Rates of access problems are higher, though moderate, for people with certain characteristics, such as the uninsured, lower health status and lower income. Further, some people as well as physicians and nurse practitioners cite problems related to health insurance billing,

regulations and payment rates. Having one of the highest percent of the population with Medicare coverage, the community must be wary of being on the leading edge of problems created by the Medicare fee schedule. Current Medicare policy is to cut Medicare fees to physicians if Medicare spending for physician services rises faster than established benchmarks. This could be an acute problem for The Foundation's geographic area before it is a problem for the rest of the state or the country, but it is not a problem in 2007 according to these findings. Medicaid payment rates are also cited by physicians and nurse practitioners and could be the source of the problems with access to specialist care found in these surveys.

This study provides important information that the Board of Directors and the leadership of The Foundation can consider as they decide how to respond to perceived needs in the community. The information from the study, along with proposal ideas from traditional and new grant applications, will provide important input to these decisions. Specifically, the Board and the leadership will want to weigh whether the extent of problems shown is large enough to warrant changes in their funding priorities, or whether some ideas that might appear to be useful are addressing issues that do not actually exist. Priority setting and determining interventions that will work are also activities that are served with results such as these from a broad-based targeted survey.

4.3.1 Challenges and Issues: Households

Remaining challenges for The Foundation's geographic area are clear from the results of the household survey. The vast majority of people have a personal

physician. One reason they do not is because they are in transition, i.e. having just moved to the area, changing physician, changing insurance. Some of this is natural, but one issue might be whether there might be ways to smooth the transitions and help more people get a personal physician.

In this connection, the finding that 19 percent of children are without a personal physician is a serious challenge. It is one thing for a relatively healthy adult, for example, to be without a personal physician; but it is quite another for a child to be without. Educational or other issues for the parents may play a role and need to be addressed to bring this number as close as possible to 100 percent.

By the same token, the reasons given for not having a personal physician as well as getting specialist care when needed were related to a perception that there were not enough doctors in the area and an inability to find a doctor accepting any new patients. Three-fourths of physicians and nurse practitioners are accepting new patients. The percent with such problems is not large and might be addressed significantly with an educational or information intervention.

While it was not large, the net number of people who perceived access to physician care was getting worse over the last one to two years is an issue that might need to be addressed. One thought is whether efforts to improve the access to specialist care would help to reverse this perception.

4.3.2 Challenges and Issues: Physicians and Nurse Practitioners

The results from the physician and nurse practitioner survey identified two challenges. First, serious problems making referrals to specialists especially for Medicare, Medicaid and uninsured patients is a challenge for this community. The specialties of cardiology and neurology were cited most frequently. The survey was too brief to uncover the reasons for these problems from the provider perspective, but they are deeper than not having enough of these specialties and whether they accept these patients. The results suggest that we need to look elsewhere for the explanation. Second, the physicians and nurse practitioners are already engaged in charity care, but many are willing to do more. One important challenge is how to tap into an obviously underused resource in this community.

4.3.3 Challenges and Issues: Safety-Net Provider Leadership

Finding specialists who accept uninsured patients is very difficult, costly and time consuming for safety-net providers. Most hospitals in the state with certificate of public need approvals are expected to provide significant charity care as a part of that approval. Their specialist physicians are an important ingredient to reaching their charity care requirements. Yet, each of the six safety-net providers told stories of serious challenges for specific patients who needed specialist care and it could not be found. One issue is whether the safety-net providers could work together on this issue and find a pathway for improvement. The household survey also indicated that among those who could think of other resources for physician access, a minority could recognize the names of the safety-net providers when they were named, suggesting an awareness issue in the community. But even if people with access to physician care problems find the safety-net providers, it is often for only a solution to

an acute problem. The lack of parity in basic measures of access most certainly suggest that adult preventive care is not what it should be for recommended screenings, mammograms, pap smears, and flu shots. Childhood vaccinations are not likely to be up-to-date if the children do not have a personal physician, as we have found. With appropriate ambulatory care we can also assume a reduction in preventable hospital admissions and lower costs.

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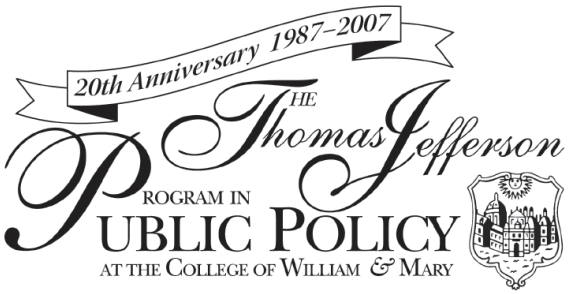

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