



# Primary Care Physicians in Delaware 2008

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Center for Applied Demography &  
Survey Research  
University of Delaware

# **Primary Care Physicians in Delaware 2008**

**prepared for**

**Delaware Department of Health and Social Services  
Division of Public Health**

**by**

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## Overview

In 1995, the Division of Public Health began an effort to measure the number and spatial distribution of primary care physicians practicing in Delaware. The objective was to identify medically underserved areas and to understand any existing or developing trends that could impact the supply of primary care services.

The method chosen to gather the information was a mail survey combined with telephone follow-up of non-respondents. Subsequent surveys were conducted in 1995, 1997, 1998, 2001, 2006, and now in 2008. Each time the survey instrument was refined and shortened with the objective of reducing the burden on the responding physician and improving the quality and relevance of the data gathered. As responses were received, they would either replace information supplied by the physician at an earlier date or in the case of a first time respondent, the responses would extend the coverage of the database. At the same time, responses from physicians in prior years, who no longer had an active Delaware license as determined from the state license file, were eliminated from the database. The resulting database, upon which this report is based, contains information gathered from 1995 through 2008 from physicians who currently hold a Delaware medical license and provide clinical medical services in Delaware.

Delaware currently has 4,283 physicians licensed to practice clinical medicine in Delaware. Of those, 2,271 have a Delaware address, but it does not mean they are active or that they have a Delaware practice. Similarly, physicians living in other states may have an active practice in Delaware. For the purposes of updating the database and producing this report, 2,422 physicians were contacted. This includes all physicians licensed in Delaware with an address in Delaware and physicians licensed in Delaware living within 60 miles of the state. Of those contacted, 1,051 responded to the survey and 978 provided usable data.

Based on the database that combines survey results from 2008 with the results over the previous five rounds of the survey, the number of physicians with an active practice in Delaware

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is estimated at approximately 2,255. This total is used to produce all estimates presented throughout this report.

Primary care physicians are the focus of this report. This group includes physicians practicing in five specialties: family practice, general practice, internal medicine, pediatrics, and obstetrics/gynecology. After weighting for non-respondents, the number of primary care physicians is estimated at 863.

Not all physicians practice full-time. Others practice full-time but do not deliver direct patient care on a full-time basis. To give a more realistic view of the primary care physicians available, full time equivalents (FTE) were calculated. A physician who was engaged in delivering primary care directly to patients 40, or more hours per week was defined as a full-time primary care physician. Anything less than 40 hours was considered as less than full-time. For each four hours less than 40 hours 0.1 FTE was deducted. Anything more than 40 hours was considered only as full-time.<sup>1</sup> In other words, a physician delivering 60 hours per week of primary care was still counted as one full-time equivalent physician.

Finally, it is important to note that the estimates provided here exclude the foreign doctors with J-1 visas who are permitted to practice primary care for three years.<sup>2</sup> Doctors with J-1 visas were removed from the analysis based on a list received from the Division of Public Health. A J-1 Exchange Visitor visa allows international medical graduates (IMG) the opportunity to obtain residency training at an American medical training institution which agrees to sponsor him/her. The graduate must return to his/her home country for a minimum of two years upon completing the residency program before he/she can apply for re-entry to the US. A J-1 visa waiver allows an IMG to remain in the US without having to return to his/her home country for the two-year period. In order to receive a J-1 visa waiver, an IMG must obtain

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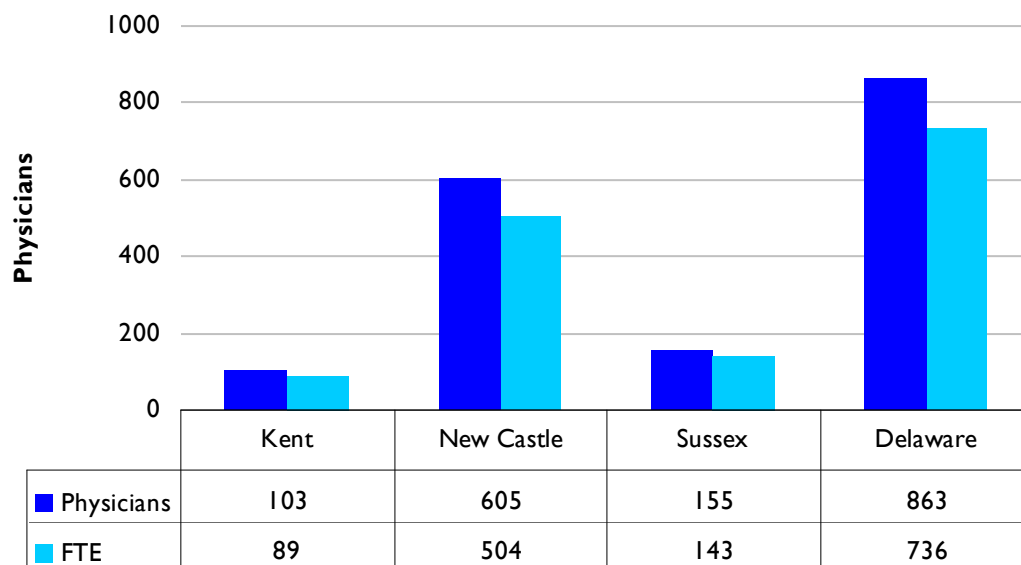
<sup>1</sup> Federal Register/Vol.45, No.223/ Monday, November 17, 1980, Part IV Department of Health and Human Services, 42 CFR Part 5, p.76002.

<sup>2</sup> Federal Register/Vol.45, No.223/ Monday, November 17, 1980, Part IV Department of Health and Human Services, 42 CFR Part 5, p.76002.

employment to practice medicine full-time in a federally designated health professional shortage area or a medically underserved area. Physicians who obtain waivers are required to practice in these shortage areas for a minimum of three years. While these physicians have an impact on access to care, they cannot be counted since they are not required to remain in the area upon completing their three-year waiver requirement.

Figure I.1 below summarizes the current number of primary care physicians in Delaware by county of practice. The number of physicians is provided along with estimates of full-time equivalents (FTE). Given Delaware's population of 873,772<sup>3</sup>, there are about 1,187 persons served by each full-time equivalent primary care physician in 2008. For the three counties, the estimates are 1,718 for Kent County, 1,059 for New Castle County, and 1,310 for Sussex County.

**Figure I.1**  
**Primary Care Physicians**  
**by County**

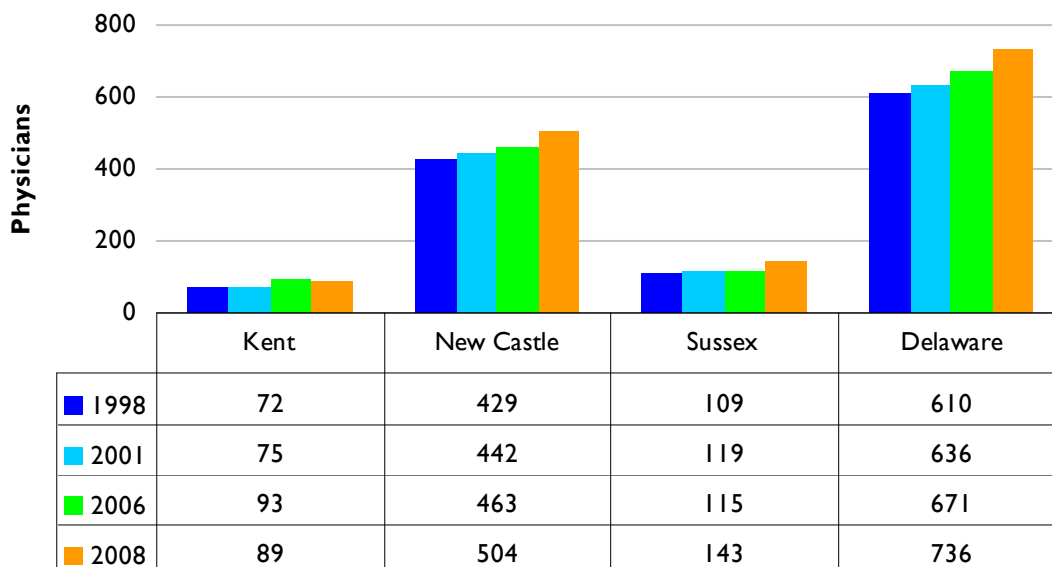


**Source:** Center for Applied Demography & Survey Research  
University of Delaware

<sup>3</sup> Annual Population Projections, Delaware Population Consortium, Version 2007.0, October 23<sup>rd</sup>, 2007, Delaware

Figure 1.2 compares the number of physicians for the last 4 survey periods. The number of FTE primary physicians in the state has increased by 65 since the last survey in 2006. This is in line with the increase of the number of licensed physicians in Delaware from 2005 to 2008. The Delaware Division of Professional Regulation reports that the number of licensed physicians increased from 3,610 in 2005 to the previously indicated 4,283 in 2008<sup>4</sup>. The current survey indicates an increase in the number of physicians in New Castle County and in Sussex County, while the number of FTE physicians has leveled off in Kent County.

**Figure 1.2**  
**FTE Primary Care Physicians**  
**by County and Year**



**Source:** Center for Applied Demography & Survey Research  
University of Delaware

In the remainder of this report, different aspects of primary care physicians and their practices will be examined. Overall, the objective is to touch on those attributes that affect the availability of primary care services. In the section that follows, the basic demographics of the primary care physician population are discussed. Of particular interest is the age structure and

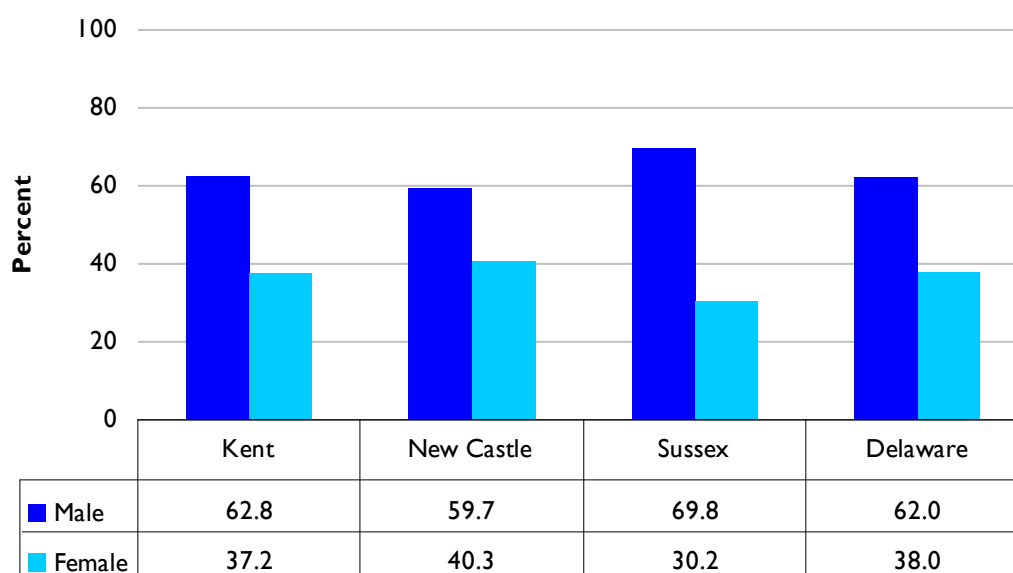
<sup>4</sup> E-mail communication with the Division of Professional Regulation on October 8<sup>th</sup>, 2008.

diversity of these practitioners. The next section deals with practice characteristics. Important issues such as waiting times for patient appointments and the acceptance of new patients are among the topics addressed. Finally, in the last section, the spatial distribution of primary care physicians at the sub-county level is addressed.

## Demographics

The topic of demographic diversity within the primary care physician community is important as changes occur in the population of Delaware. Some patients may feel more comfortable with and are able to communicate better with physicians having particular characteristics. In addition, physicians with particular demographic characteristics may be more likely to train in one of the primary care specialties.

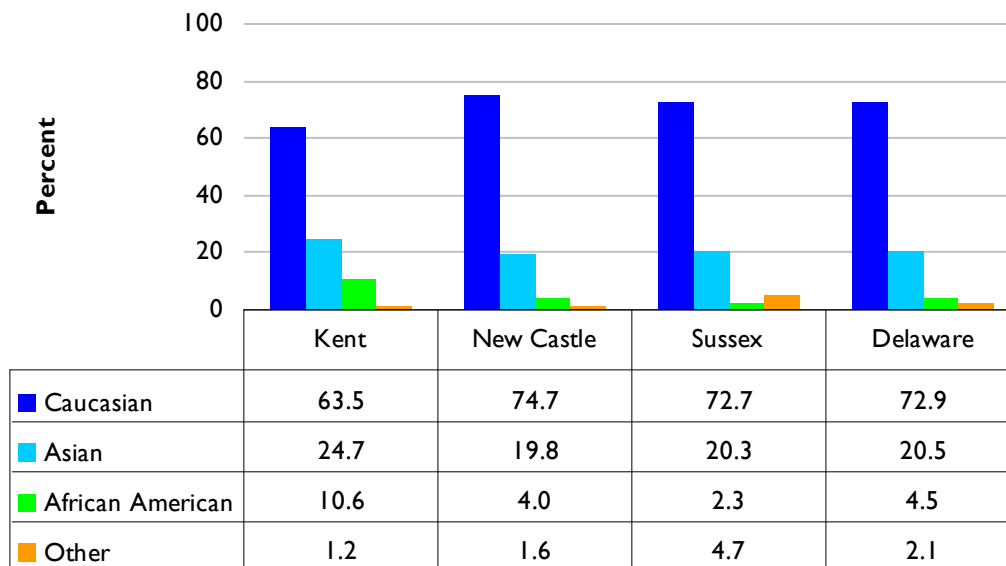
**Figure 2.1**  
**Gender of Primary Care Physicians**  
**by County**



**Source:** Center for Applied Demography & Survey Research  
University of Delaware

The primary care physician community in Delaware is somewhat more than 60% male. There is, however, some variation between the counties. Kent and Sussex counties have relatively more male primary care physicians than does New Castle County. The data provide no readily apparent explanation for this difference. It is interesting that women are more likely to choose one of the primary care specialties. When looking at the entire physician database, 60% of women were in one of those specialties while only 40% of men chose primary care.

**Figure 2.2**  
**Race of Primary Care Physicians**  
**by County**



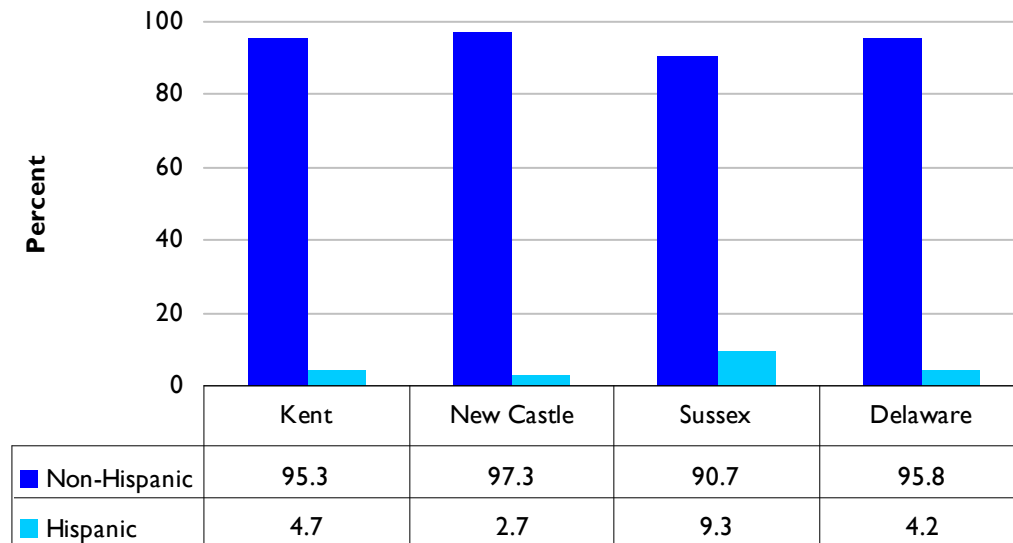
**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

The racial distribution of primary care physicians by county is shown in Figure 2.2. The most interesting aspect of this table is the lack of African American primary care physicians and the preponderance of Asian physicians.

The reason for the paucity of African American physicians in Sussex County is not understood. While the proportion of African Americans in Sussex County is slightly lower than for the state as a whole, one would expect to see 4% rather than 2% of physicians falling into this group thus reflecting the general population characteristics in Sussex County. On average, African American physicians are more likely to choose a primary care specialty (57%) in comparison with Caucasians (42%) and Asians (52%).

Hispanic origin has taken on a particular interest in Delaware with the rapid growth of that population in the 1990s, particularly in Sussex County. The distribution of primary care physicians by Hispanic origin is found in Figure 2.3.

**Figure 2.3**  
**Hispanic Origin of Primary Care Physicians**  
**by County**



**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

Today, Delaware's population is nearly 6%<sup>5</sup> Hispanic, and the physician population essentially mirrors that. The highest proportion of Hispanic physicians is found in Sussex County (9%). Overall, just over 41% of the practice sites in the state had someone available who could speak Spanish (not pictured here). This proportion was 44% in Sussex County with Kent and New Castle counties reporting around 41%.

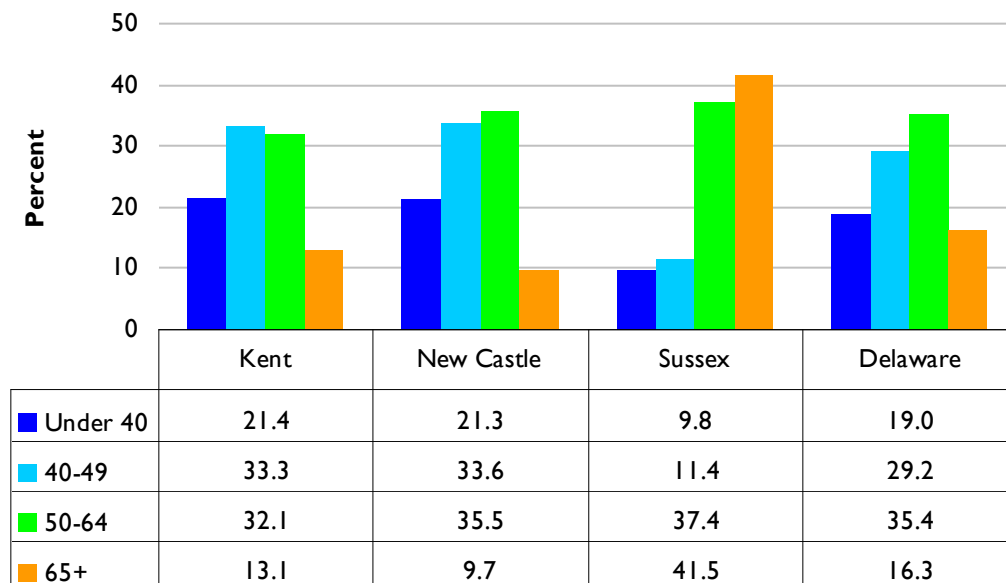
The age of primary care physicians is ultimately a factor in their availability. In addition, there are differences in primary care specialties related to age. A physician who is currently age 40 or less is more likely to practice a primary care specialty (49%) when compared to those that are older (41%). This suggests that physicians training today are more likely to choose one of the primary care specialties than they were ten years ago. However, the rate at which younger

<sup>5</sup> U.S. Census Bureau, 2006 American Community Survey

physicians (younger than 40) chose to practice primary care has dropped since 2006 from 65%<sup>6</sup> to the current 49%.

The age distribution of primary care physicians is found in Figure 2.4. Sussex County stands out – it has the lowest proportion of younger primary care physicians (10% under 40 and 11% between 40 and 50 years of age). Also, Sussex County, the county that boosts the highest proportion population above 40 years of age (45% of the population in Kent County is above 40, compared to 46% in New Castle and 57% in Sussex County<sup>7</sup>) also has the highest proportion (41%) of primary care physicians aged 65 and above.

**Figure 2.4**  
**Age of Primary Care Physicians**  
**by County**



**Source:** Center for Applied Demography & Survey Research  
University of Delaware

Physicians were asked if they planned to be active in clinical medicine five years from now. Those answers are summarized in Figure 2.5. In general, 80% of physicians expect to be

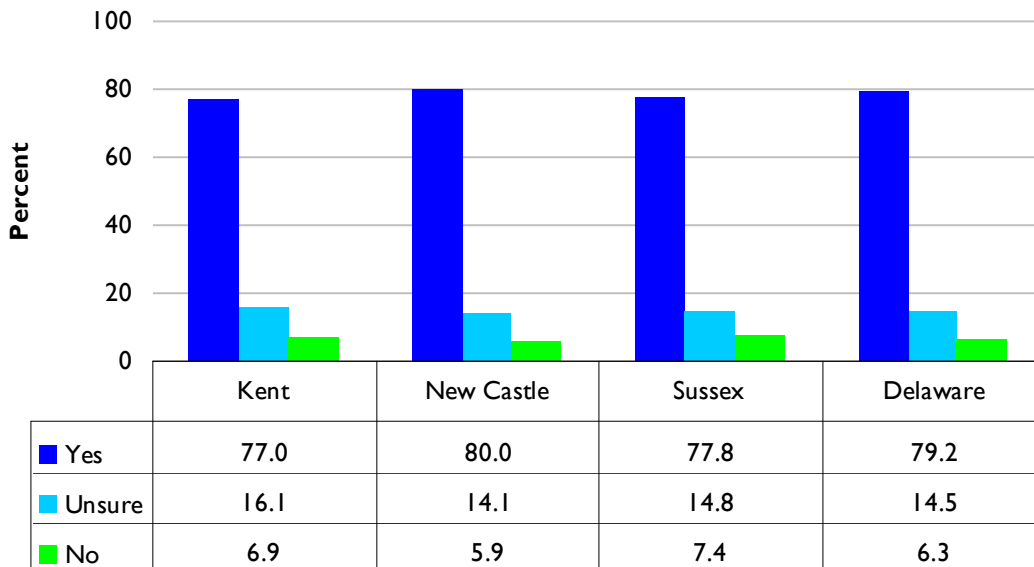
<sup>6</sup> Primary Care Physicians in Delaware 2006, CADSR, University of Delaware

<sup>7</sup> Annual Population Projections, Delaware Population Consortium, Version 2007.0, October 23<sup>rd</sup>, 2007, Delaware



active in five years. The highest proportion (80%) of physicians indicating that they will be active five years from now is found in New Castle County. While around 77-78% of physicians in Kent and Sussex counties indicated that they will be active five years from now.

**Figure 2.5**  
**Active Five Years from Now**  
**by County**



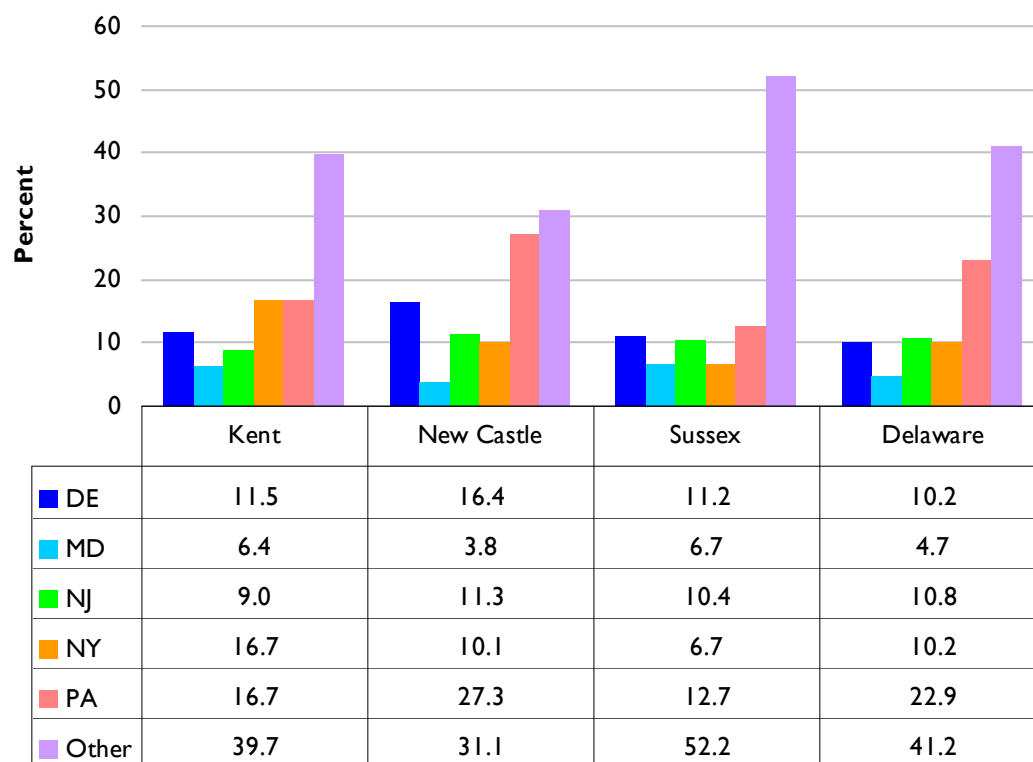
**Source:** Center for Applied Demography & Survey Research  
University of Delaware

It is necessary to analyze why some physicians choose to practice in Delaware and others choose to practice in other states. The way this choice is made determines the adequacy of the supply to serve Delaware's residents. Several pieces of information are useful for this purpose. First, where did this physician originally reside at the time he/she graduated high school? Second, in what state did the physician attend medical school? A third key variable is the state in which the physician did his/her residency.

In Figure 2.6, the distribution of the state of the physician's high school graduation is shown. The first interesting aspect of this figure is that 59% of Delaware's primary care physicians grew up in the region (DE, MD, PA, NJ and NY) and approximately 10% are from Delaware. However, these figures vary significantly across counties. Fifty-two percent of

physicians practicing in Sussex County resided outside of the region at the time they graduated high school, while only 31% of New Castle County's physicians come from outside of the region. Over 16% of New Castle County's physicians resided in Delaware at the time of their graduation from high school, while only about 11% of Sussex and Kent county's physicians are from Delaware.

**Figure 2.6**  
**State of High School Graduation**  
**by County**



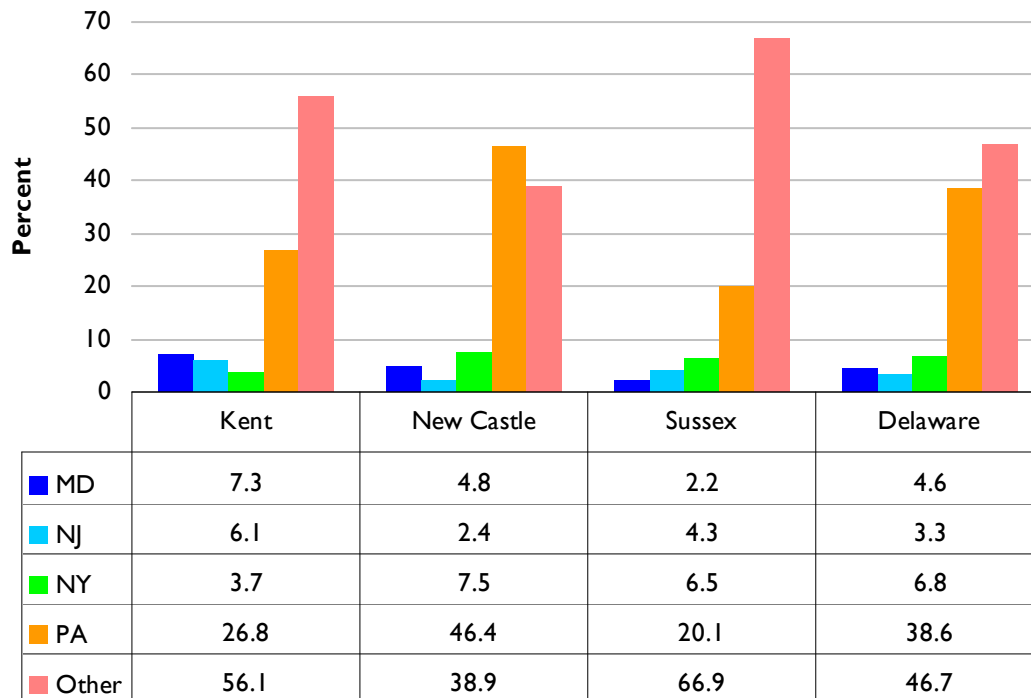
**Source:** Center for Applied Demography & Survey Research  
University of Delaware

Physicians who grew up in Maryland are more likely to locate in Kent or Sussex counties. In contrast, physicians from Pennsylvania are more oriented toward New Castle County.

The pattern observed for the state of high school graduation is replicated in part for the state of medical school graduation (Figure 2.7). Significantly more primary care physicians

graduating from medical schools in Maryland locate in Kent County. Those from medical schools in Pennsylvania are more likely to locate in New Castle County.

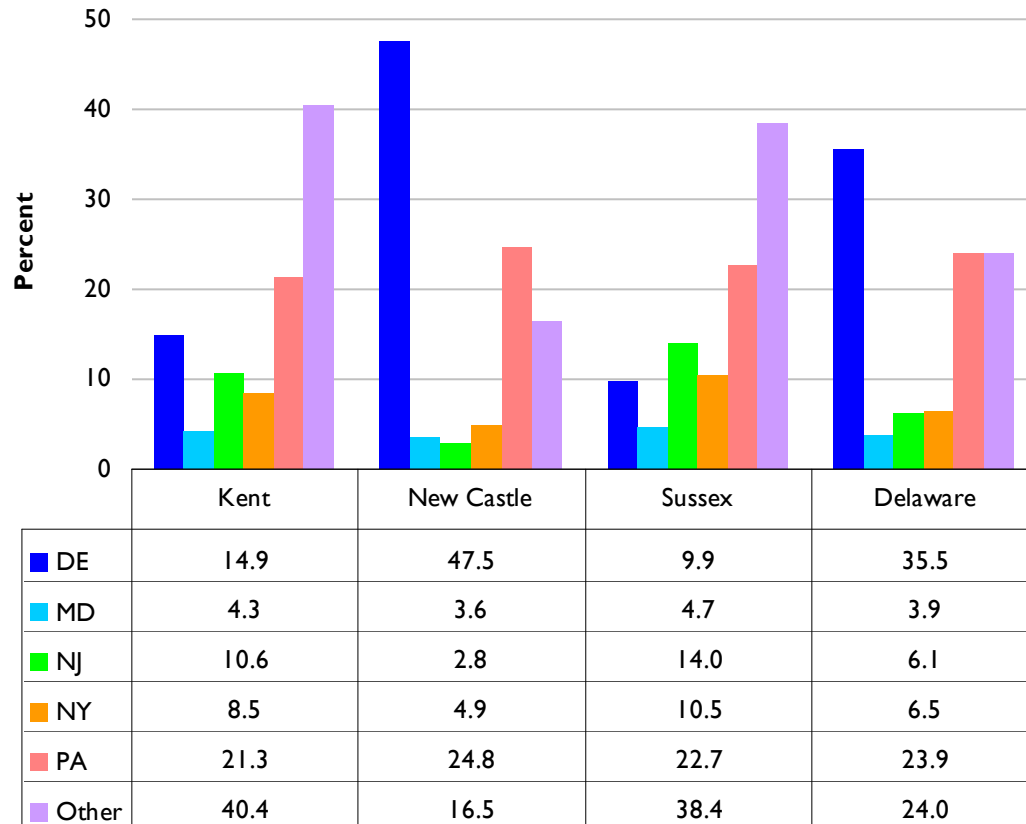
**Figure 2.7**  
**State of Medical School Graduation**  
**by County**



**Source:** Center for Applied Demography & Survey Research  
University of Delaware

There clearly is a geographic orientation exhibited by these responses. Similar patterns emerge with the state of the physician's medical residency, presented in Figure 2.8. Forty seven percent of New Castle County's physicians completed their medical residency in Delaware, while only 15% of primary care physicians in Kent County's and 10% of Sussex County's physicians completed their residency in Delaware. Overall, 24% of Delaware's physicians completed their medical residency outside of the region.

**Figure 2.8**  
**State of Medical Residency**  
**by County**



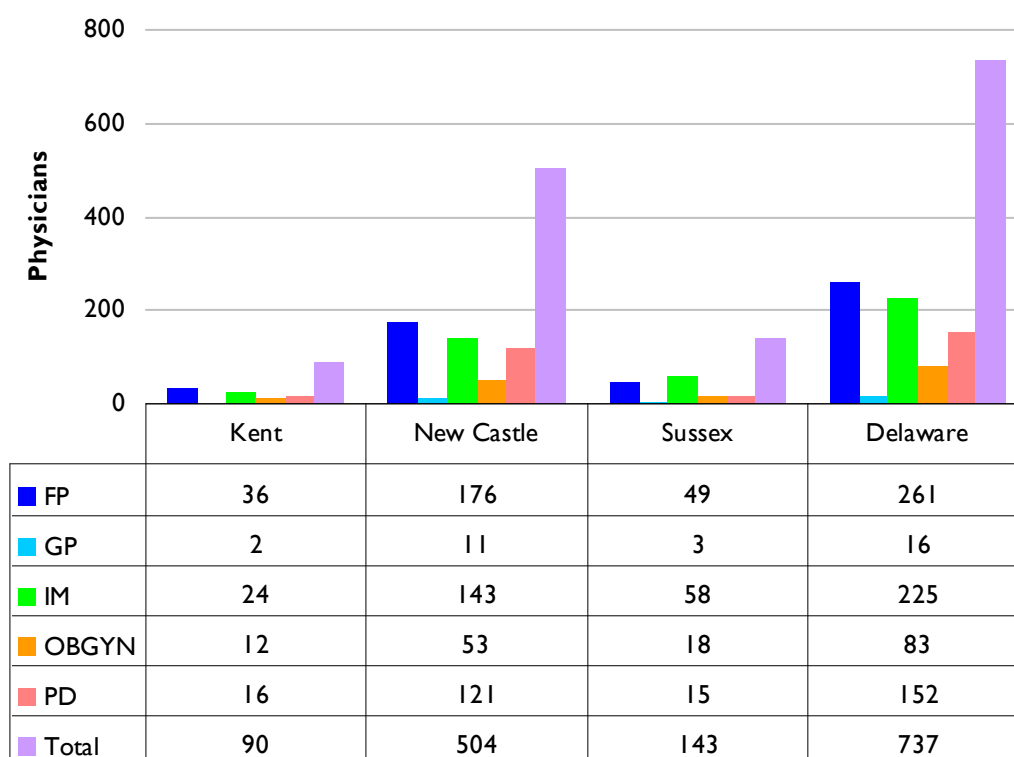
**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

It might prove valuable to those making an effort to recruit new primary care physicians for Delaware to point out that all of these findings reflect three facts. First, most of Delaware's primary care physicians (59%) resided in the region at the time of high school graduation. Second, most of Delaware's primary care physicians (53%) went to medical school within several hundred miles of where they practice today. Third, just over three quarters of Delaware's primary care physicians completed their medical residency in the region.

## Practice Characteristics

The 863 primary care physicians in Delaware are distributed across different specialties and have different types of practices. In this section, some of the key characteristics of those practices are discussed. The attributes selected for analysis largely relate to capacity and availability for patient care.

**Figure 3.1**  
**Specialty of FTE Primary Care Physicians**  
**by County**

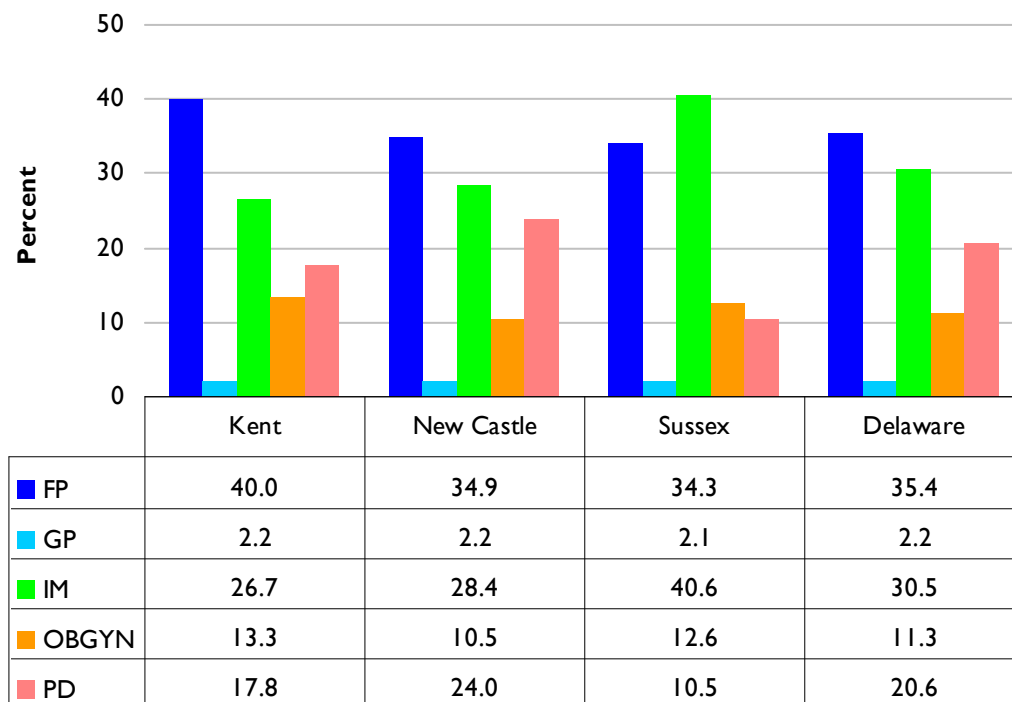


**Source:** Center for Applied Demography & Survey Research  
University of Delaware

In general, the primary care physicians deliver similar services; they also practice in their reported specialties. For comparison, Figure 3.1 contains the estimates for these specialties by county by full time equivalents. No one specialization really dominates the distribution. Physicians in family practice are most populous, followed closely by physicians in internal

medicine and pediatricians. Only 16 of Delaware's primary care physicians reported that they are general practitioners.

**Figure 3.2**  
**Distribution of Primary Care Specialties**  
**by County**



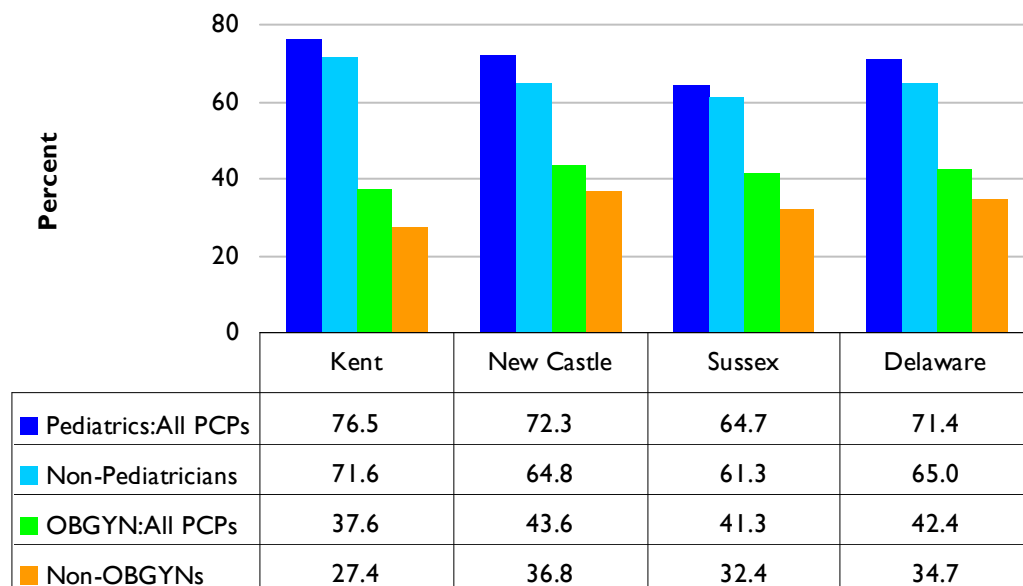
**Source:** Center for Applied Demography & Survey Research  
University of Delaware

The distribution in Figure 3.2 shows that primary care physicians are distributed essentially in three major groups. Just over 35% are family/general practitioners; one third are internists who focus on adults; and one third are primary care physicians focused on smaller groups of patients (OBGYN+PD). It is interesting to see that Kent County has a significantly larger proportion of primary care physicians in the “full-service” groups.

Primary care physicians with family practice or internal medicine specialties may provide pediatric and OBGYN services. The extent of this crossover between the specialties is shown in Figure 3.3, below. First of all, the table needs some explanation. The lines labeled **Pediatric** and **OBGYN** include all primary care physicians. The lines directly beneath exclude the

specialists in those areas. Thus, 76% of primary care physicians in Kent County provide pediatric services and 72% of non-pediatric primary care physicians provide those services. Perhaps the most interesting part of this information is that compared to the other counties, a larger proportion of New Castle County's non-OBGYN physicians is providing OBGYN services. This is consistent with the much smaller proportion of OBGYNs available in New Castle County. The proportion of non-pediatric physicians providing pediatric services is highest in Kent County among all of Delaware's counties. This certainly relates to the younger age distribution of the general population in Kent County.

**Figure 3.3**  
**Provide Selected Specialty Services**  
**by County**

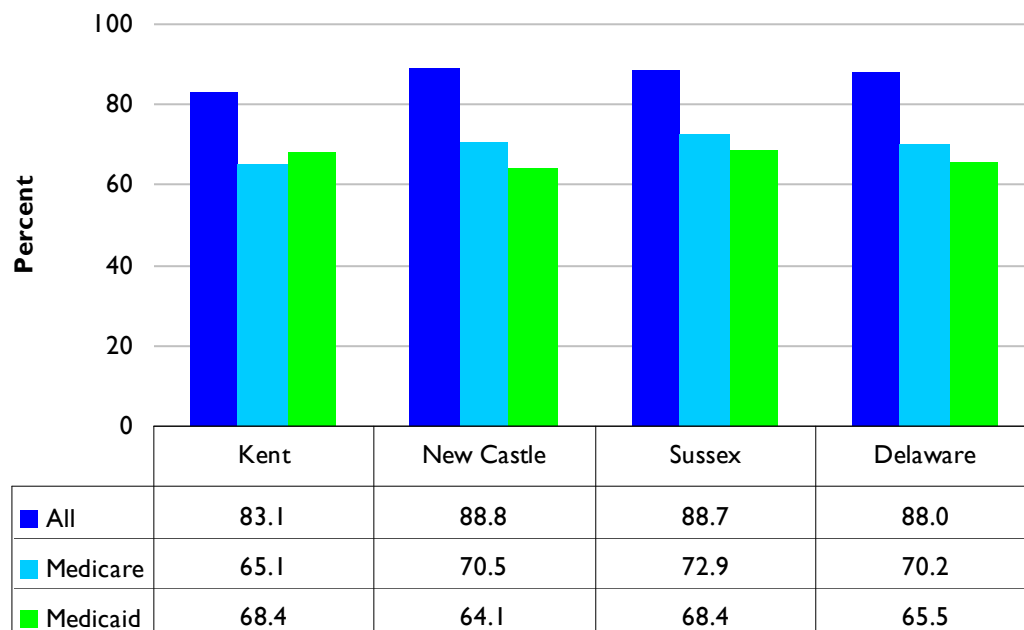


**Source:** Center for Applied Demography & Survey Research  
University of Delaware

One of the most critical issues with respect to the capacity of primary care physicians is whether they are accepting new patients. The data with respect to this question is found in Figure 3.4. Between 83% and 89% of primary care physicians report that they are accepting new patients. The proportion is lowest in Kent County.

Primary care physicians were also asked if they were accepting new Medicare and/or Medicaid patients. Those results are also found in Figure 3.4, below. A cautionary note is needed for interpreting the Medicare results. Pediatricians comprise almost 20% of primary care physicians. However, they only see a very small set of Medicare patients, i.e. those situations where one of the special programs allows a child to have access to Medicare through SSI (Social Security Insurance). In reality, about 83% of non-pediatric primary care physicians are accepting new Medicare patients in contrast to the 70% indicated in the table. Still, that is below the estimates for all patients. This may reflect the fact that older patients will occupy substantially more of a given physician's time than younger patients.

**Figure 3.4**  
**Accepting New Primary Care Patients**  
**by County**



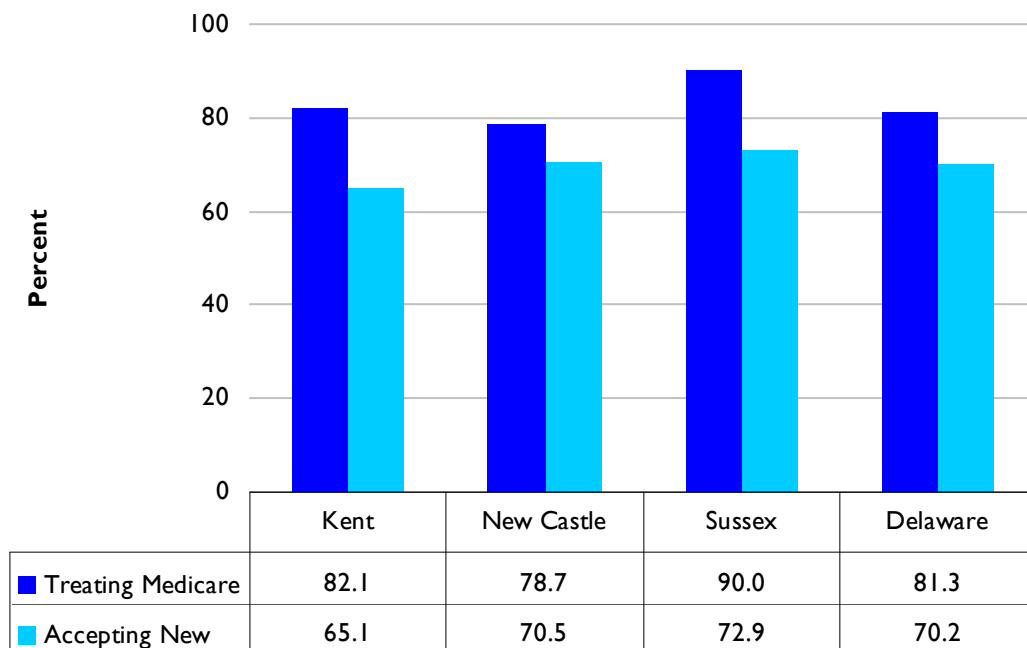
**Source:** Center for Applied Demography & Survey Research  
University of Delaware

The results regarding the acceptance of new Medicaid patients are similar to those for Medicare but without the cautionary note. There are differences between counties with physicians in New Castle County being the least willing to accept new patients of this type.



The difference between primary care physicians who are currently treating Medicare patients and accepting new Medicare patients is shown in Figure 3.5. The spread between these two estimates for Delaware is eleven percentage points. These differences are most severe in Kent and Sussex counties where the difference is 17%. This suggests that those migrating to the state to retire or those who lose their current physician for any number of reasons could have a difficult time finding a new one.

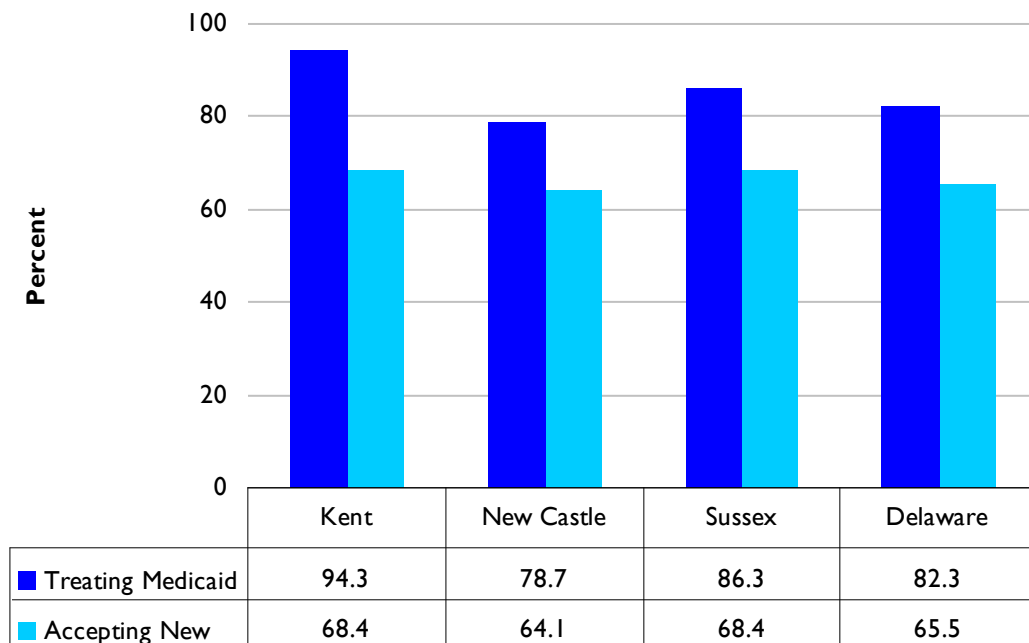
**Figure 3.5**  
**Accepting New Medicare Patients**  
**by County**



**Source:** Center for Applied Demography & Survey Research  
University of Delaware

The situation for Medicaid patients is probably even more difficult (Figure 3.6). There is a difference of over 17 percentage points between those who are currently treating Medicaid patients and those who will accept new ones.

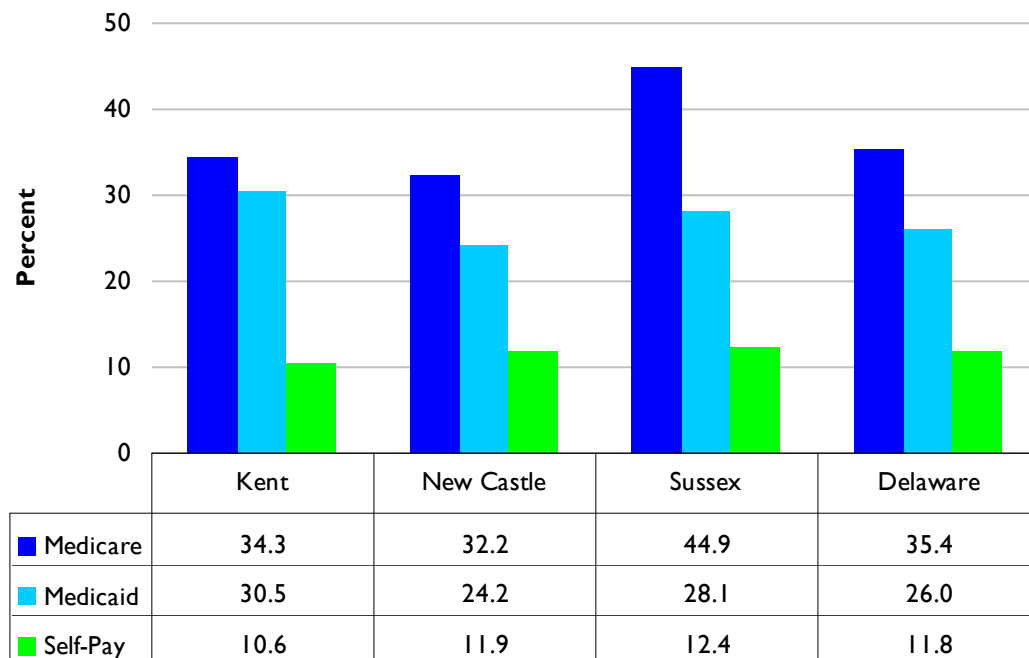
**Figure 3.6**  
**Accepting New Medicaid Patients**  
**by County**



**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

Part of the explanation for this less than enthusiastic response about taking on new Medicare and Medicaid patients may lie in the current amount of time devoted by primary care physicians to these two populations (Figure 3.7). Over one third of physician time is devoted to Medicare patients. This is about 2.5 times more than would be expected given their share of the population. However, older people need significantly larger amounts of physician time. As a typical physician's clientele ages, the physician's ability to absorb new patients declines. The estimates in Sussex County are highest because the older population is relatively higher there.

**Figure 3.7**  
**Percent of Time Serving Selected Patient Groups**  
**by County**

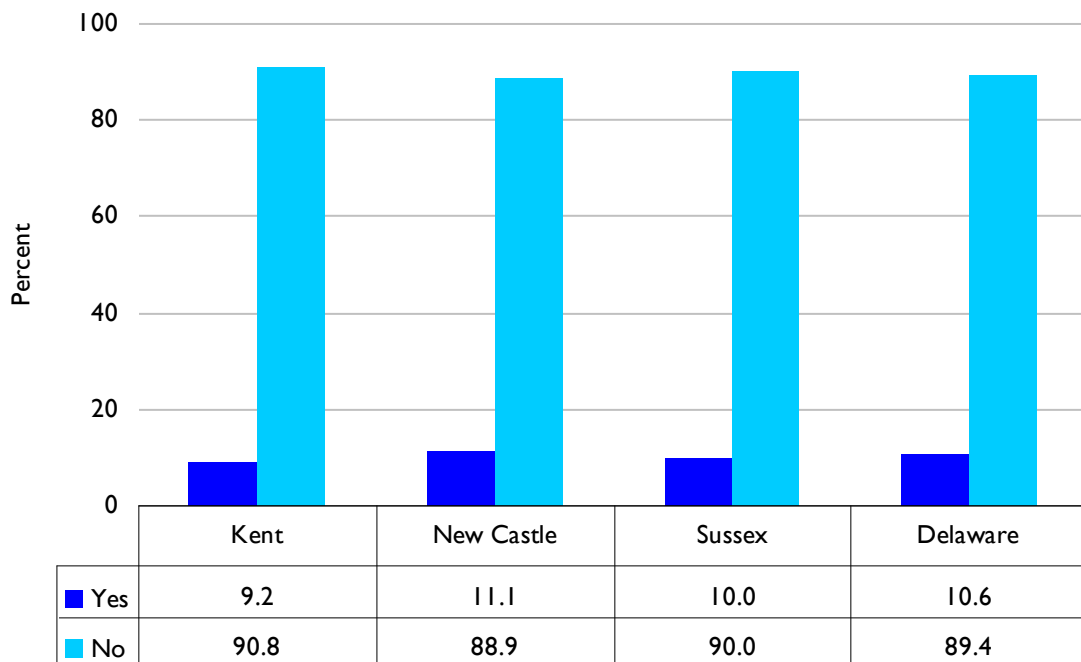


**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

The estimates for time spent on providing care to Medicaid patients are somewhat surprising although it is consistent across all three counties. Medicaid patients use about 26% of a physician's time, although 12% of the population uses Medicaid sometime during the year. Since children are a significant part of that population, perhaps that explains part of the difference.

Primary care physicians were asked to indicate whether they practice geriatrics as a sub-specialty since it will take on greater importance in the years to come with the aging of the baby boomers. Overall, 10% of primary care physicians have this sub-specialty (see Figure 3.8). Given the age of Sussex County's population, one might hope for a greater prevalence there rather than in Kent County, which has the youngest population.

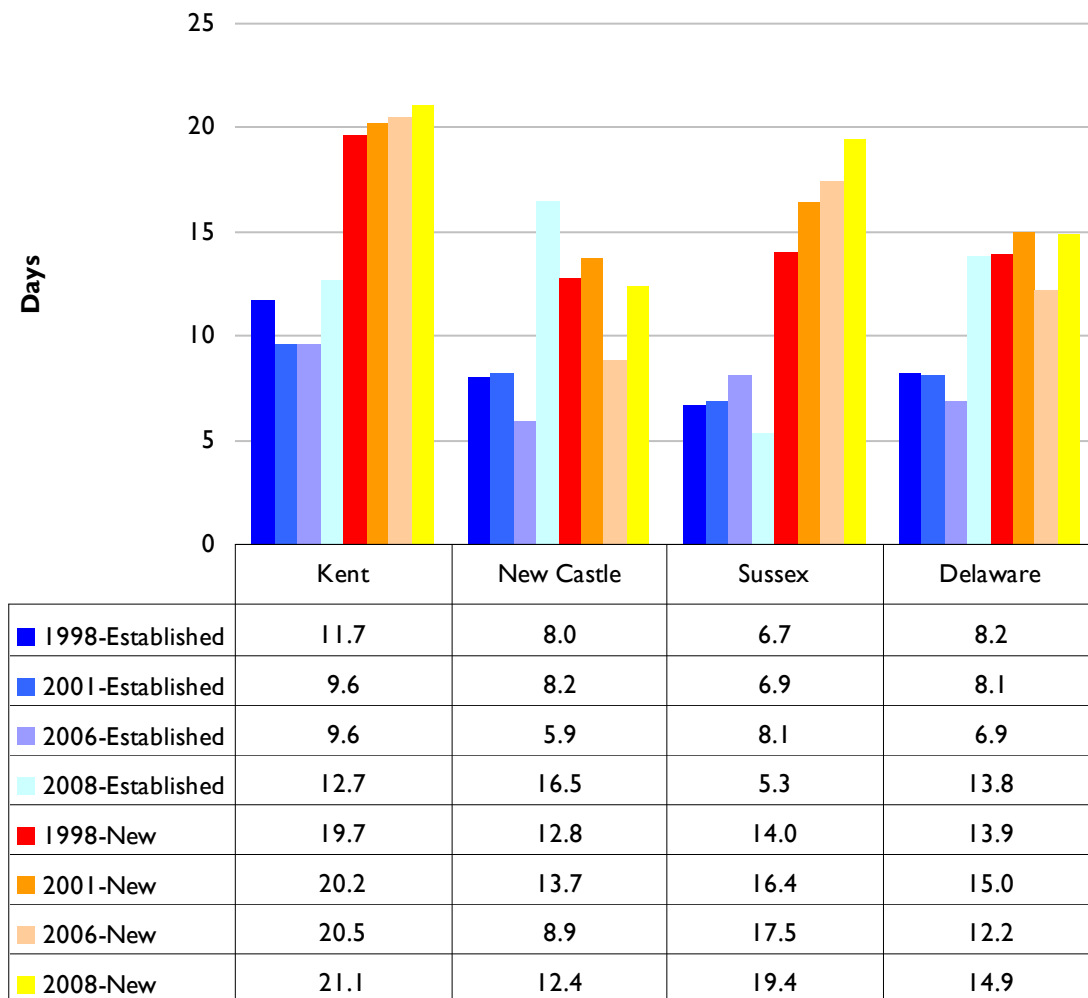
**Figure 3.8**  
**Practice Geriatrics as a Sub-specialty**  
**by County**



**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

Primary care physicians were also asked how long a person would have to wait for an appointment in a non-emergency situation (Figure 3.9). On the average, an established patient will wait almost two weeks. In contrast, the new patient will wait 15 days. Since the last survey in 2006, the situation for established patients has deteriorated significantly in New Castle and Kent counties but improved in Sussex County. In New Castle County, where there was the shortest wait in 2006, the situation is worse today. The wait time for new patients has deteriorated across the board for all counties. In Kent County today, the wait time for a new patient is 21 days.

**Figure 3.9**  
**Average Wait Time for Types of Patients**  
**by County**

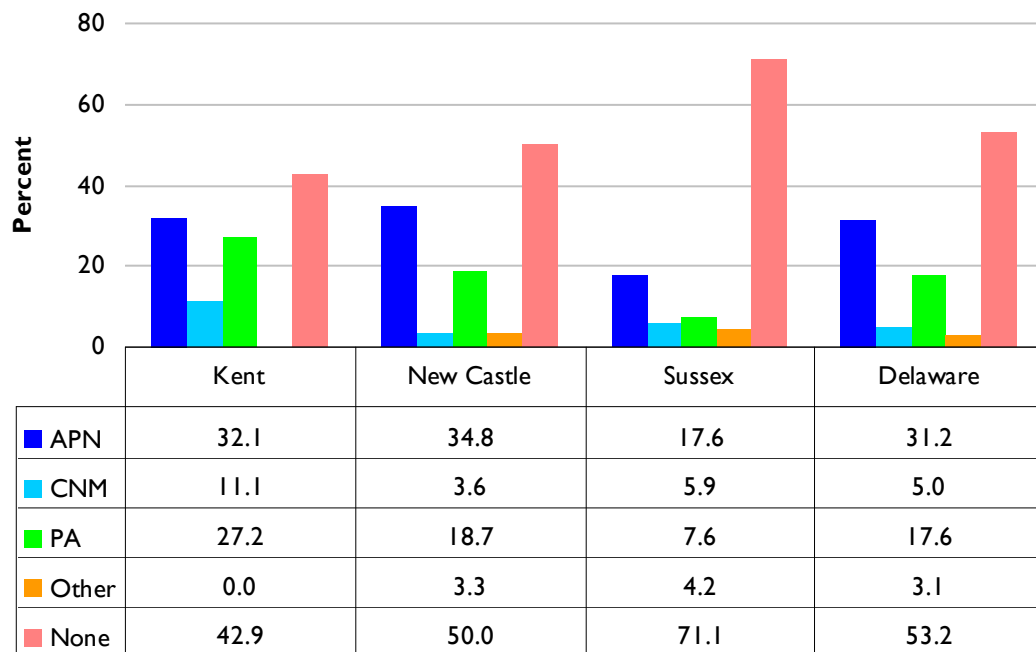


**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

Primary care physicians have available to them resources to extend their own abilities to serve patients. The advanced practice nurse (APN), the certified nurse midwife (CNM), and the physician's assistant (PA) are the most typical such resources. The responses of the primary care physicians on the use of these non-physician resources are tabulated in Figure 3.10. There are differences between the counties. Kent County, the county with the greatest need, is using alternative resources the most. Sussex County primary care physicians are using the alternative resources the least. There are significant differences between the specialties where the OBGYN

and pediatric primary care physicians are far more likely to employ any and all of these alternative resources.

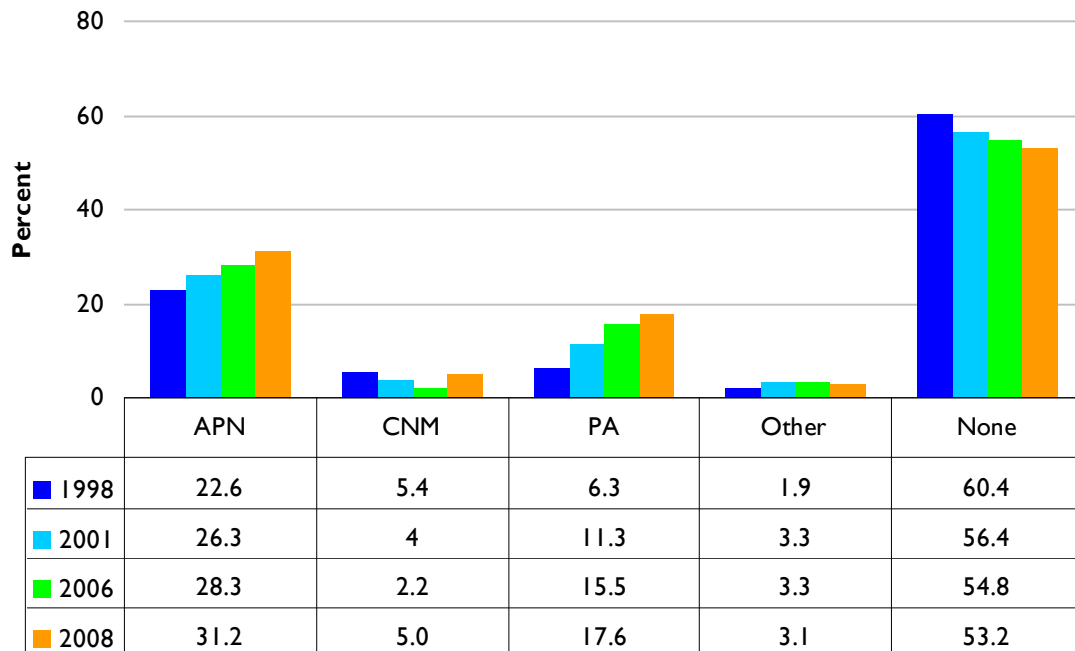
**Figure 3.10**  
**Use of Non-Physician Resources**  
**by County**



**Source:** Center for Applied Demography & Survey Research  
University of Delaware

A comparison of non-physician clinicians for the last four survey periods is shown in Figure 3.11. The data suggests a steady movement toward the uses of these alternative non-physician resources by primary care physicians in Delaware. Still, about half of physicians are not using these resources.

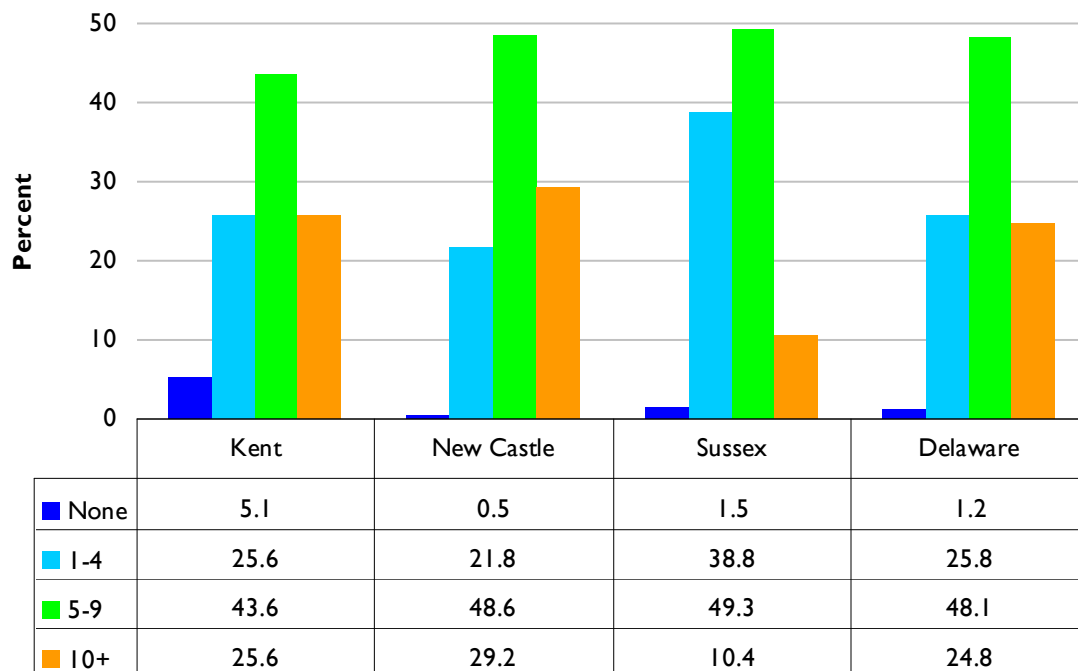
**Figure 3.11**  
**Use of Non-Physician Resources**  
**by Year**



**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

Access to primary care is impacted by the coverage that a patient presents to the physician. Membership in one or more managed care networks allows a primary care physician to extend services to a wider range of patients. The responses to this question are found in Figure 3.12. Only one percent of Delaware's primary care physicians do not belong to any of the networks (significant decrease from 2001 when 23% did not belong to a network). Proportion wise, the largest contingent is found in Kent County, where 5% of the primary care physicians do not belong to a managed care network.

**Figure 3.12**  
**Member of Managed Care Networks**  
**by County**



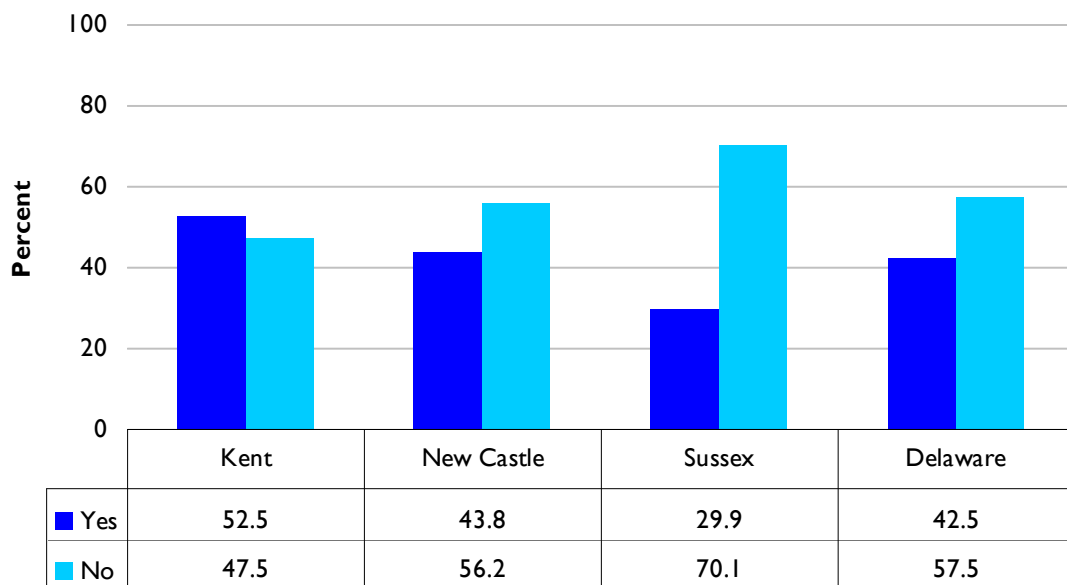
**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

Given the current developments in electronic access to patient's clinical health information, respondents were asked to indicate their familiarity with and interest in participating in the Delaware Health Information Network (DHIN). DHIN is a public-private partnership, which provides the organizational infrastructure to support a clinical information exchange across the State of Delaware. DHIN is designed to provide for the secure, fast and reliable exchange of health information among the many medical providers treating patients in the state.<sup>8</sup> This partnership allows participating physicians across Delaware to access their patient's clinical health information housed at other facilities. Across Delaware, 42% of primary care physicians indicate awareness of DHIN (Figure 3.13). Sussex County's primary care physicians are least likely to indicate (30%) that they are aware of DHIN.

<sup>8</sup> About DHIN, <http://www.dhin.org/AboutDHIN>, Accessed September 29<sup>th</sup>, 2008

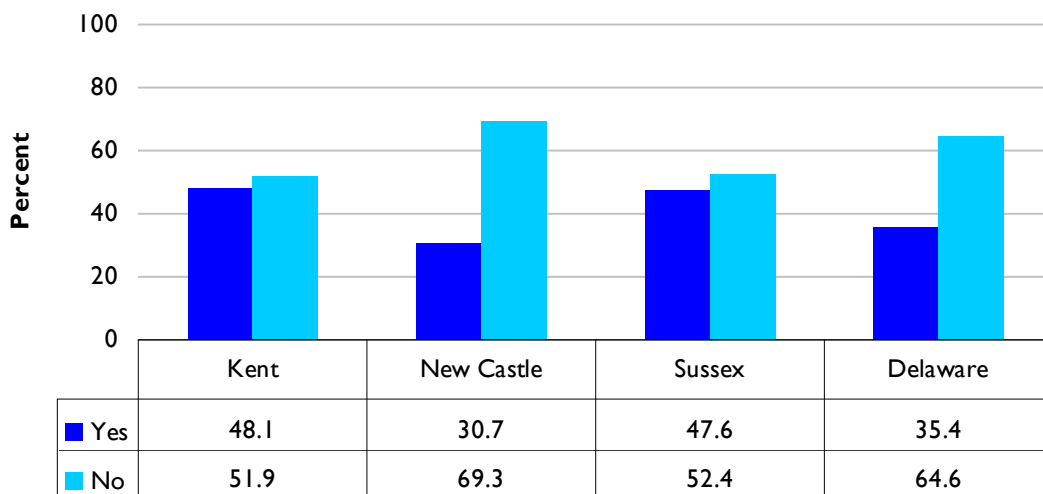


**Figure 3.13**  
**Awareness of the Delaware Health Information Network by County**



**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

**Figure 3.14**  
**If You Are Aware of the DHIN Does Your Office Participate? by County**



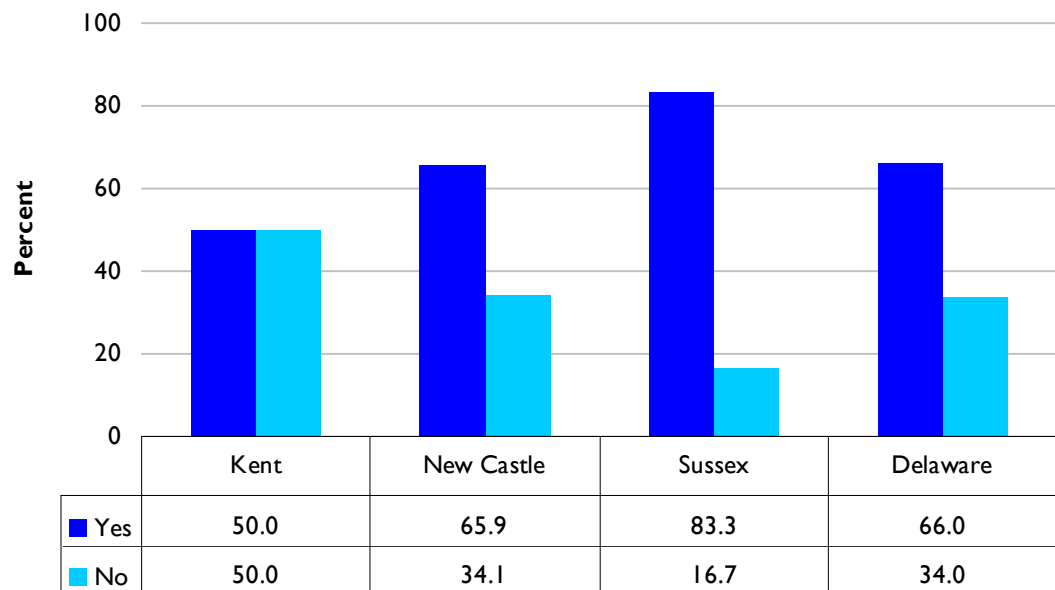
**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

Primary care physicians who are aware of the DHIN were next asked to indicate if their offices participate in the network (Figure 3.14). Across Delaware, 35% of those primary care physicians who are aware of DHIN participate in the partnership. Sussex and Kent county's

primary care physicians who are aware of DHIN are significantly more likely to participate than New Castle County's primary care physicians.

Those who are aware of DHIN and do not participate were asked to indicate if they plan to participate in the future (Figure 3.15). For the state as a whole, 66% of physicians aware of DHIN and currently not participating indicated interest to participate in DHIN in the future. Sussex County's physicians aware of DHIN were most likely (83%) compared with other counties to indicate that they will participate in the future.

**Figure 3.15**  
**If You Are Aware of DHIN and You Currently Do Not Participate,**  
**Do You Plan On Participating In The Future?**  
**by County**

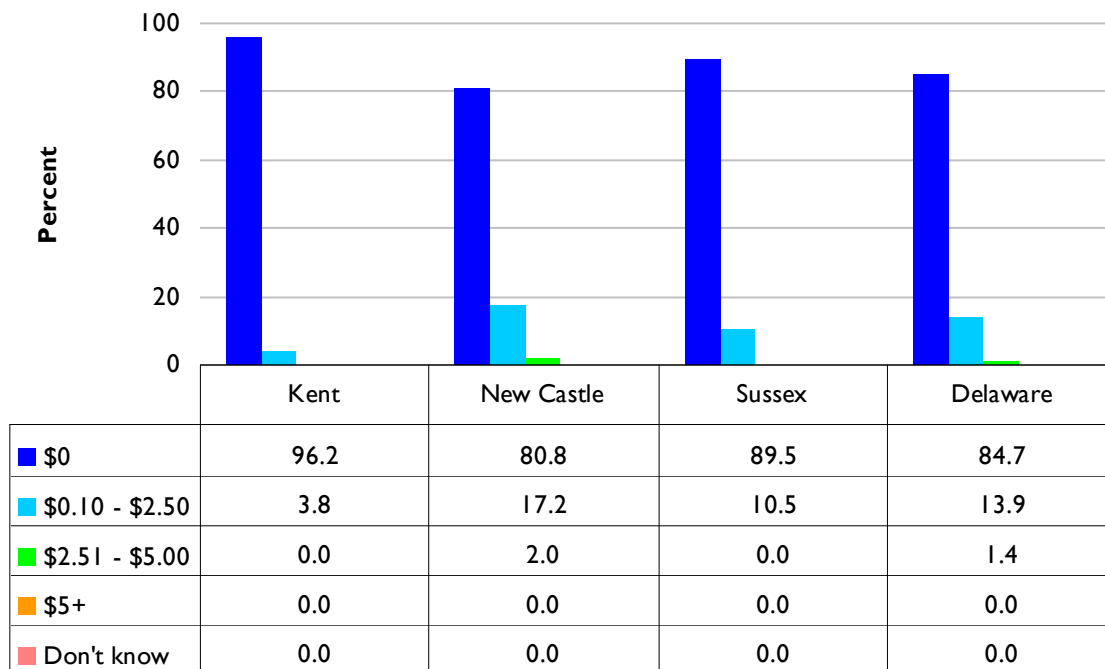


**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

Primary care physicians (those who are aware, those who do participate and those who do not participate but plan on participating in the future) were also asked to indicate the amount of money they would be willing to pay for each transaction (Figure 3.16). The tabulation of respondents indicates that an overwhelming majority (85%) would be willing to pay \$0 per

transaction. Approximately 14% would pay between \$0.1 and \$2.50 per transaction to access their patients' clinical information at other facilities. Only around 1% of respondents indicated that they would be willing to pay between \$2.51 and \$5.00 per transaction.

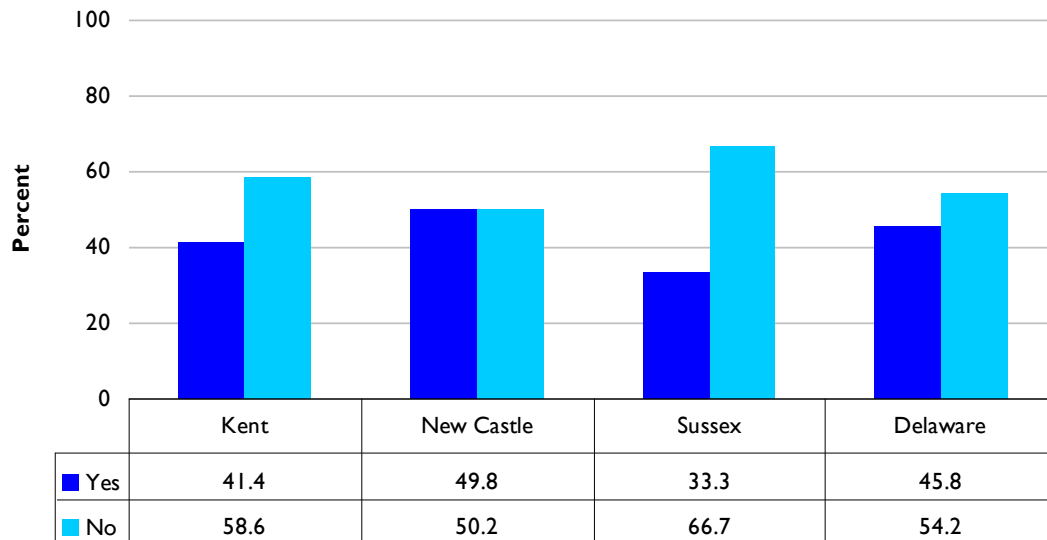
**Figure 3.16**  
**If You Are Aware of the DHIN What is The Amount You Are**  
**Wiling to Pay Per Transaction to Access Clinical Information**  
**by County**



**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

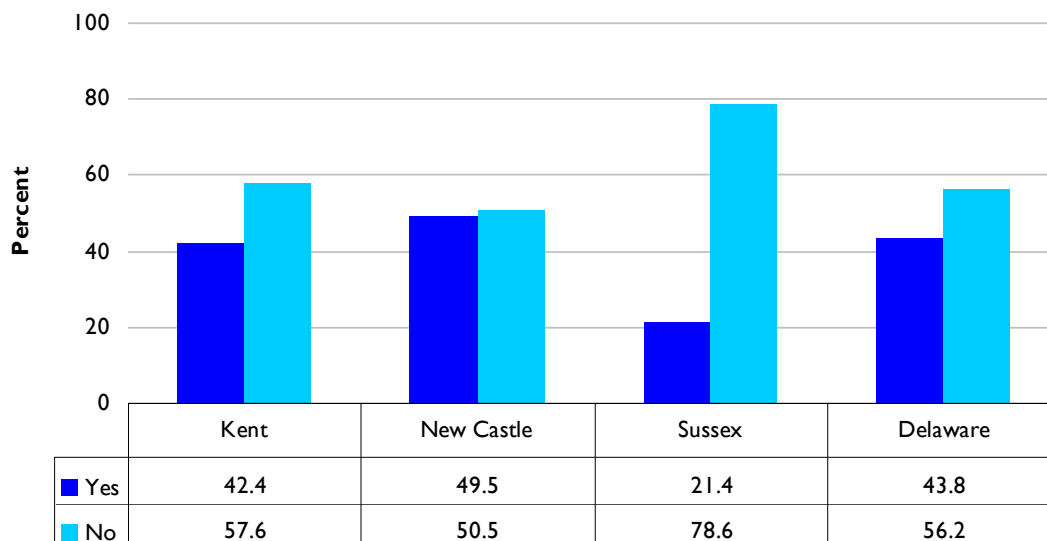
Primary care physicians were next asked to indicate if they refer their patients to specific **prenatal** and **post partum** care service providers (Christiana Care's Healthy Beginnings, Westside Health, Delmarva Rural Ministries, St. Francis' Tiny Steps, St. Francis' Center of Hope, La Red Health Center, Henrietta Johnson Health Clinic and DAPI). For the state, 46% of primary care physicians indicated that they refer their patients to the above providers (Figure 3.17). The responses vary significantly among counties. Sussex County's physicians are least likely (33%) and New Castle County's physicians most likely (49%) to indicate that they refer patients to the above providers for prenatal and postpartum care services.

**Figure 3.17**  
**Do You Refer Patients to Prenatal**  
**And Postpartum Care Service Providers?**  
**by County**



**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

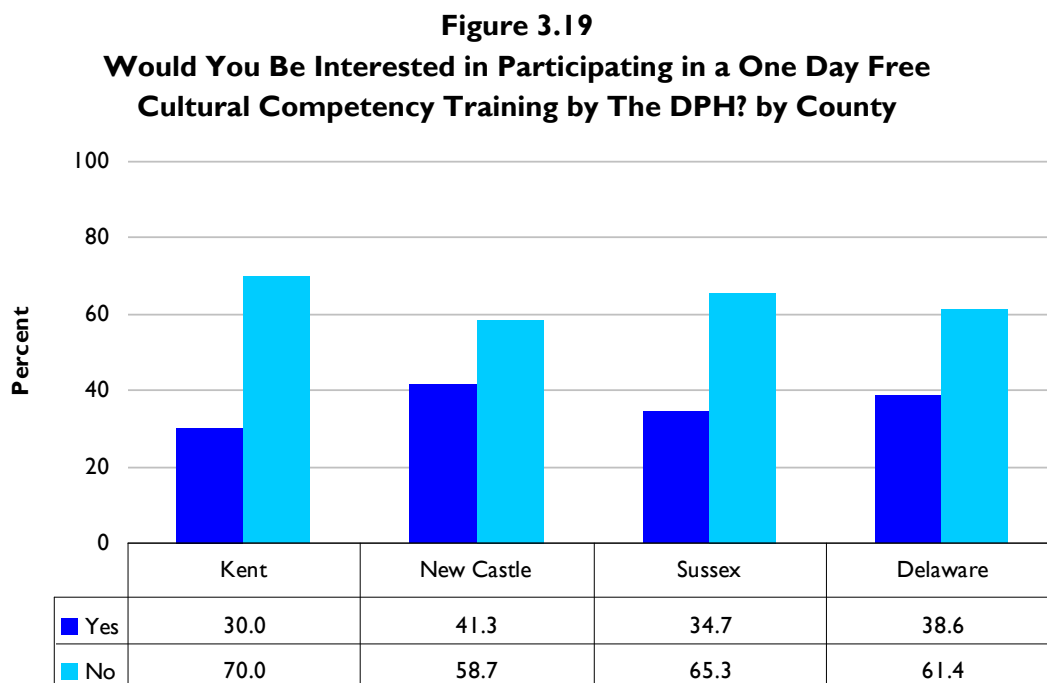
**Figure 3.18**  
**Do You Refer Patients To Preconception Care Service Providers?**  
**by County**



**Source:** Center for Applied Demography & Survey Research  
 University of Delaware

Next, primary care physicians were asked to indicate if they refer their patients to specific **preconception** care providers (Christiana Care's Healthy Beginnings, Westside Health, Delmarva Rural Ministries, Planned Parenthood of Delaware, Children and Families First ARC program). The responses tabulated in Figure 3.18 basically mirror the responses for the previous question on referrals to specific prenatal and post partum care services. Overall in Delaware, 48% of respondents indicated that they refer their patients to the above providers. New Castle County's primary care physicians are more likely (49%) and Sussex County's primary care physicians are least likely (21%) to refer their patients to the preconception care services identified.

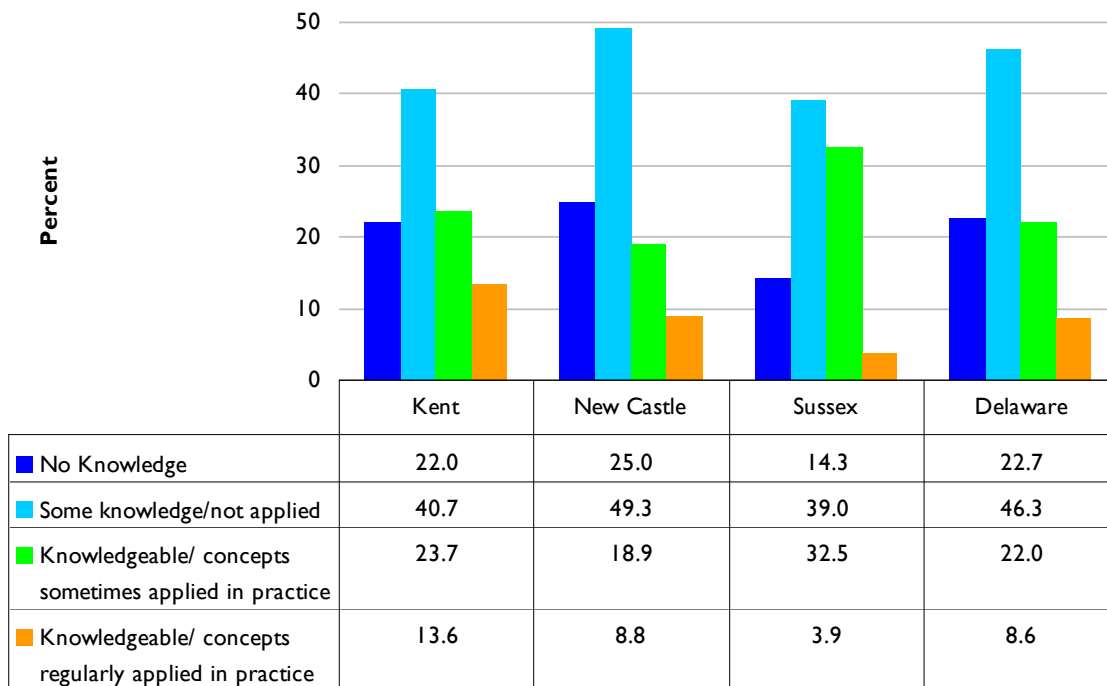
As a response to the increasing interest and importance of cultural competency in the medical field, primary care physicians were asked if they would be interested in participating in a one day cultural competency if it was offered by the Division of Public Health. Almost 40% of Delaware's primary care physicians indicated that they would be interested in participating (Figure 3.19).



**Source:** Center for Applied Demography & Survey Research  
University of Delaware

The American Academy of Pediatrics describes the medical home as a model of delivering primary care that is accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective care<sup>9</sup>. Delaware's physicians were asked to identify their familiarity with and use of the concept of medical home in their practice (figure 3.20). Looking at Delaware as a whole, around 23% of physicians indicated no knowledge of the concept, while around 9% of respondents regularly apply the concept in their practice. New Castle County's physicians are most likely (25%) to indicate no knowledge of the concept and at the same time they are least likely to regularly or sometimes apply the concept in their practice.

**Figure 3.20**  
**Familiarity With The Concept of a Medical Home**  
**as Defined by The American Academy of Pediatrics by County**



**Source:** Center for Applied Demography & Survey Research  
University of Delaware

<sup>9</sup> AAP National Center of Medical Home Initiatives for Children with Special Needs,  
<http://www.medicalhomeinfo.org/>, Accessed October 1<sup>st</sup>, 2008.

## Spatial Distribution

Delaware as a whole has a sufficient supply of primary care physicians if they were spatially distributed with the population. According to the Council on Graduate Medical Education (CGME), a ratio of 1,250:1 of persons per primary care physician corresponds to the lower end of the acceptable range for supply of primary care providers. Delaware currently has a ratio of 1,187:1 without considering nonphysician providers or international medical school graduates holding J-1 visas. The ratios are 1,718:1, 1,059:1, and 1,310:1 for Kent, New Castle, and Sussex counties respectively. As such, Delaware exceeds CGME acceptable ratio in Kent and Sussex counties and is within the acceptable ration in New Castle County.

The federal government recognizes the importance of having an adequate number of primary care physicians in areas smaller than states or even counties. In their program for medically underserved areas and populations (MUA/P), “rational areas for the delivery of primary medical care services” can be counties, parts of counties, and even neighborhoods within metropolitan areas with a strong identity and a population of 20,000.<sup>10</sup> In general, an underserved area will have a ratio of 3,500:1 (in special cases 3,000:1) or higher to qualify. Obviously, none of the counties would qualify if they were the spatial areas considered.

The distance criterion, which defines such areas in Delaware, is roughly 20 miles between centers. Good examples for such markets in Sussex County would include Lewes/Rehoboth, Georgetown, Milford, Millsboro, and Seaford. In Delaware, these general areas are census county divisions. These work well in Sussex County because of the number of distinct town centers. The distinctions are not quite as clear in Kent County where Dover and

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<sup>10</sup> In the September 1, 1998 Federal Register DHHS proposed new regulations for medically underserved populations (MUP) and health professional shortage areas (HPSA), the Department of Health and Human Services generally recognizes a ratio of 3000:1 as sufficient for an area to be classified as a HPSA. To be classified as an MUP an index of primary care shortage (IPCS) is computed utilizing a number of factors: (1) population to primary care ratio, (2) percent below 200% of the poverty level, (3) infant mortality rate, (4) low birth weight rate, (5) percent of a racial minority, (6) percent of Hispanic ethnicity, (7) percent linguistically isolated, and (8) population density.

its suburbs are paramount. The Smyrna and Harrington areas are the best examples since they both have town centers. The issue is just as murky in New Castle County because of the dominance of population in unincorporated areas. Wilmington, Newark, New Castle, and Middletown are the most distinct areas, although their suburban fringes are not well defined. Given these characteristics the census county divisions, of which there are 27 in Delaware, are useful for this spatial examination. Before looking at these sub-county differences, some caveats are in order.

The characteristics of the population do matter. Two areas with equal populations and equal numbers of primary care physicians are not necessarily in the same condition. For example, one area may have a much larger proportion of persons who are over the age of 74. Survey data suggests that this elderly group will require three times as many physician encounters as do those who are 18 to 64. Similarly the very young, less than five years of age, will require twice as much medical care compared to those in the 5-17 age group.<sup>11</sup> When the populations of the counties are adjusted to reflect the age distribution, the adjusted population is actually lower in all three counties. This suggests that, at least at the county level, the ratios are even more favorable.

Age is not the only demographic area that can make a difference. Traditionally, people who live in households that are under the poverty line will likely need more medical care than those who are above it. Further, higher infant mortality in an area may suggest less access to primary care physicians. Additional variables currently being considered are low birth weight births, percent of a racial minority, percent Hispanic, percent linguistically isolated, and population density. Many of these variables are also correlated with poverty and infant mortality. Even if everything else is equal (i.e. population, population characteristics, and the number of primary care physicians), the more spread out the population is in the medical service area, the harder it is to serve.

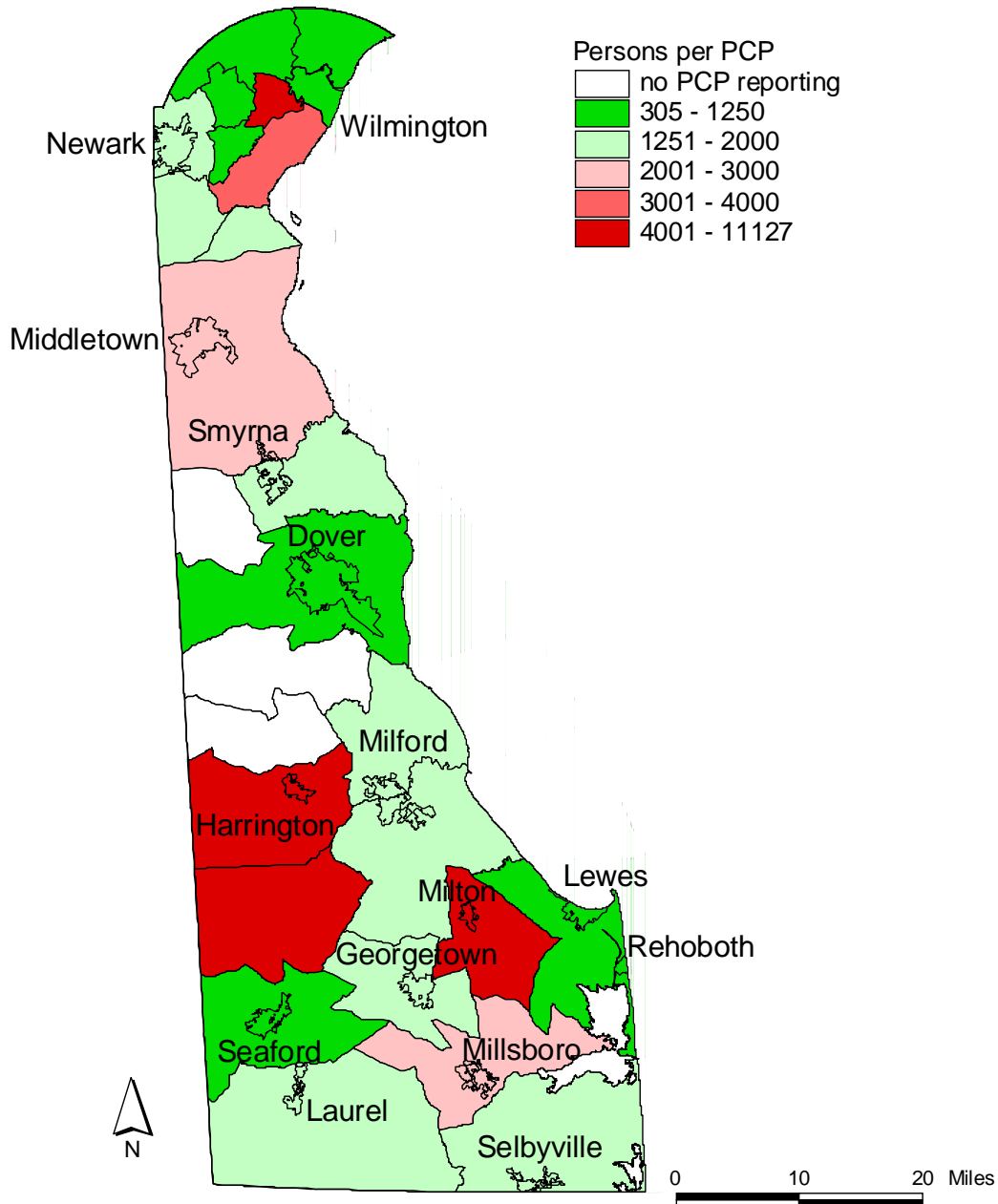
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<sup>11</sup> 1992 National Health Interview Survey.



There is one other factor that is potentially important, especially in Sussex County. There is a significant number of part-year residents who live in their vacation homes during the summer. For most, this is largely a weekend activity; for others it may be full-time during the summer or during their vacation. In addition, there is a very large number of tourists who come on the weekends or perhaps for a week. All of these visitors are potentially in need of medical services, although at a much lower frequency than are full-time residents. These populations are not considered in the spatial distributions that follow.

**Figure 4.1**  
**Number of Persons per Primary Care Physician**  
**by Census County Division**



Source: Center for Applied Demography & Survey Research,  
University of Delaware

The spatial distribution of primary care physicians relative to population by census county division in Delaware is found in Figure 4.1. The important areas to look at are those in pink and shades of red. The pink areas may be close to crossing the 3000:1 threshold. Those dark red are already too high with too few primary care physicians per population. It's important to point out that only one census county division falls in the 3,001-4,000 (red) range; this is the New Castle census county division. In general, there are a total of seven (out of 27) census county divisions with a potential shortage, shortage or a significant shortage. These shortage areas are each adjacent to areas that have a sufficient if not abundant number of primary care physicians. While the distances are short and certainly within the federal 20-mile criteria, there may still be reason for concern as transportation, personal finances and convenience of physician office hours may be a barrier to access in some areas and populations.

This does not mean that there may not be isolated pockets within the other census county divisions that are medically underserved. Wilmington, for example, seemingly has a sufficient supply of primary care physicians but they also see patients from outside the city. This may leave the minority community with too few physicians to meet their needs.

In New Castle County there are two census county divisions (Lower Christiana and New Castle) with a need for additional primary care physicians. Both of these divisions meet the 20,000+ population criteria to be considered a rational primary care medical service area. This map primarily shows that physicians are unevenly distributed across New Castle County.

Kent County has a very different profile. Most of the primary care physicians appear to be focused around Dover, Smyrna and Milford. None of the physicians surveyed reported working in three of the census county divisions (Kenton, Central Kent and Felton); those were the only CCDs in the state without any primary care physicians reporting. With the exception of Dover and Central Kent, none of the other census county divisions reaches a population of 20,000. Central Kent (the white area just south of Dover) contains over 22,000 persons but is so close to Dover, physicians are more likely to locate in the city. The Harrington census

county division is clearly lacking in primary care physicians but is smaller (14,000) and is adjacent to areas with more physicians.

Primary care physicians are unevenly distributed throughout Sussex County. Seaford and Lewes census county divisions are all well supplied with primary care physicians. Georgetown, Selbyville, Laurel-Delmar and Milford South census county divisions also have an adequate number of primary care physicians. Milton and Bridgeville-Greenwood census county divisions cross the 3,000:1 ratio and are significantly underserved. Millsboro is at the edge of crossing the adequacy ratio and it is expected that the summertime populations could well place strain on the supply of their primary care physicians there.

Figures 4.2 through 4.4 show the distribution by primary care specialty. There are no specific standards related to these specialties like there are for primary care physicians in general. Therefore the scale and associated colors vary between maps and differ from Figure 4.1, above (however the scales are the same as in the Primary Care Physician 2006 report).

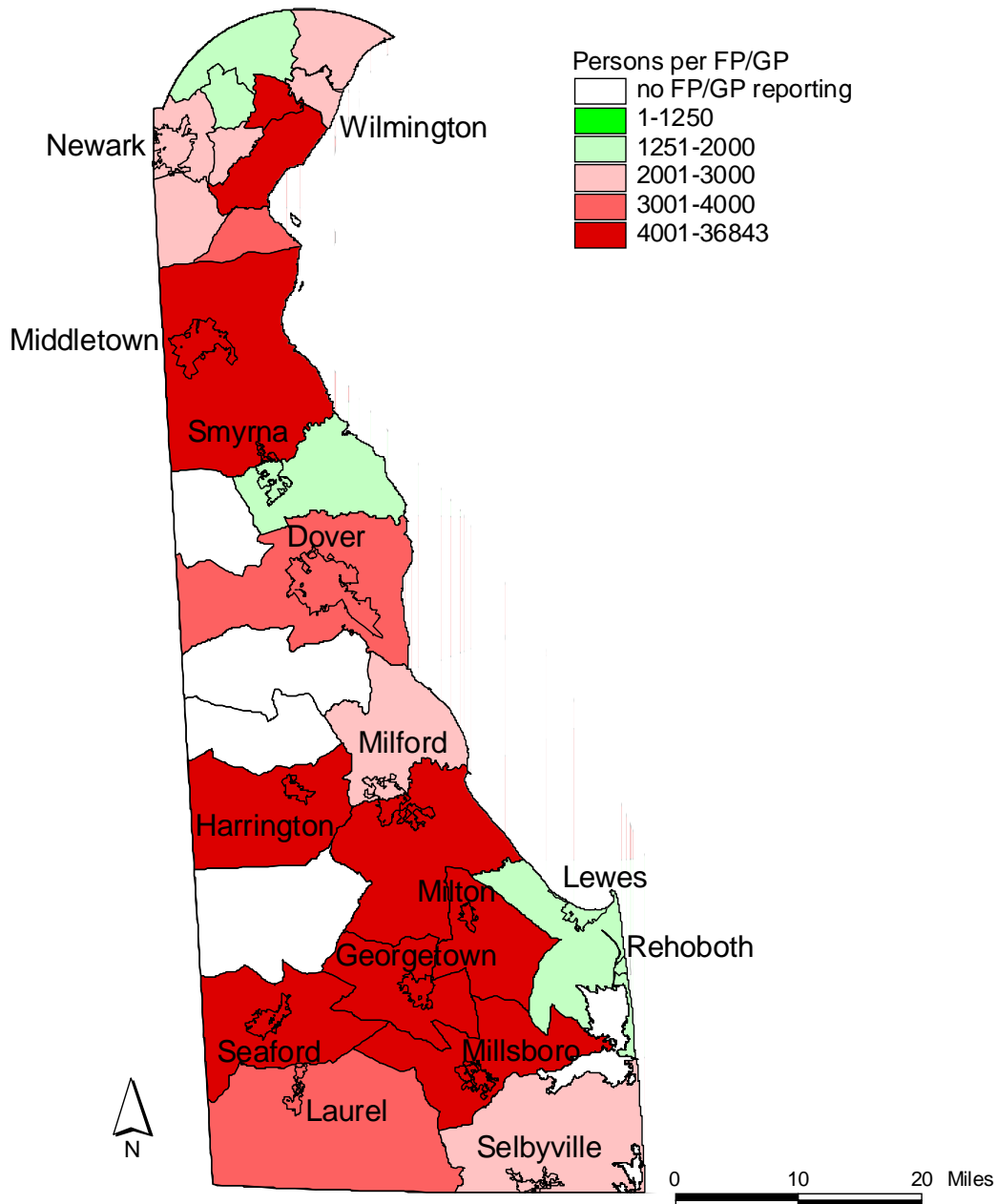
Family practice physicians, who are about one third of all primary care physicians, are distributed similarly to primary care physicians in general (Figure 4.2). Thus, one would expect a general movement from a dark green/pink map to a red/dark red map. Assuming that the adequacy ratio of population to Family practice/General practice is between 1,250-2,000:1 (light green), there are only four census county divisions that meet this criterion. Interestingly, each county has at least one census county division that meets this criterion.

OBGYNs are spatially much more concentrated than all other primary care physicians according to this survey. Only 13 of the 27 CCDs had OBGYN practice sites. These practice sites were likely to be associated with a CCD that had a hospital or was adjacent to a CCD with a hospital. There were a few exceptions in New Castle County, but the ratios were low. Undoubtedly, both the type of practice and the need to have immediate access to a hospital influences this spatial relationship. It also suggests that women requiring the services of an

OBGYN can expect to travel. The unevenness of the spatial distribution will also impact the accessibility of OBGYNs as primary care physicians of which there are 11%.

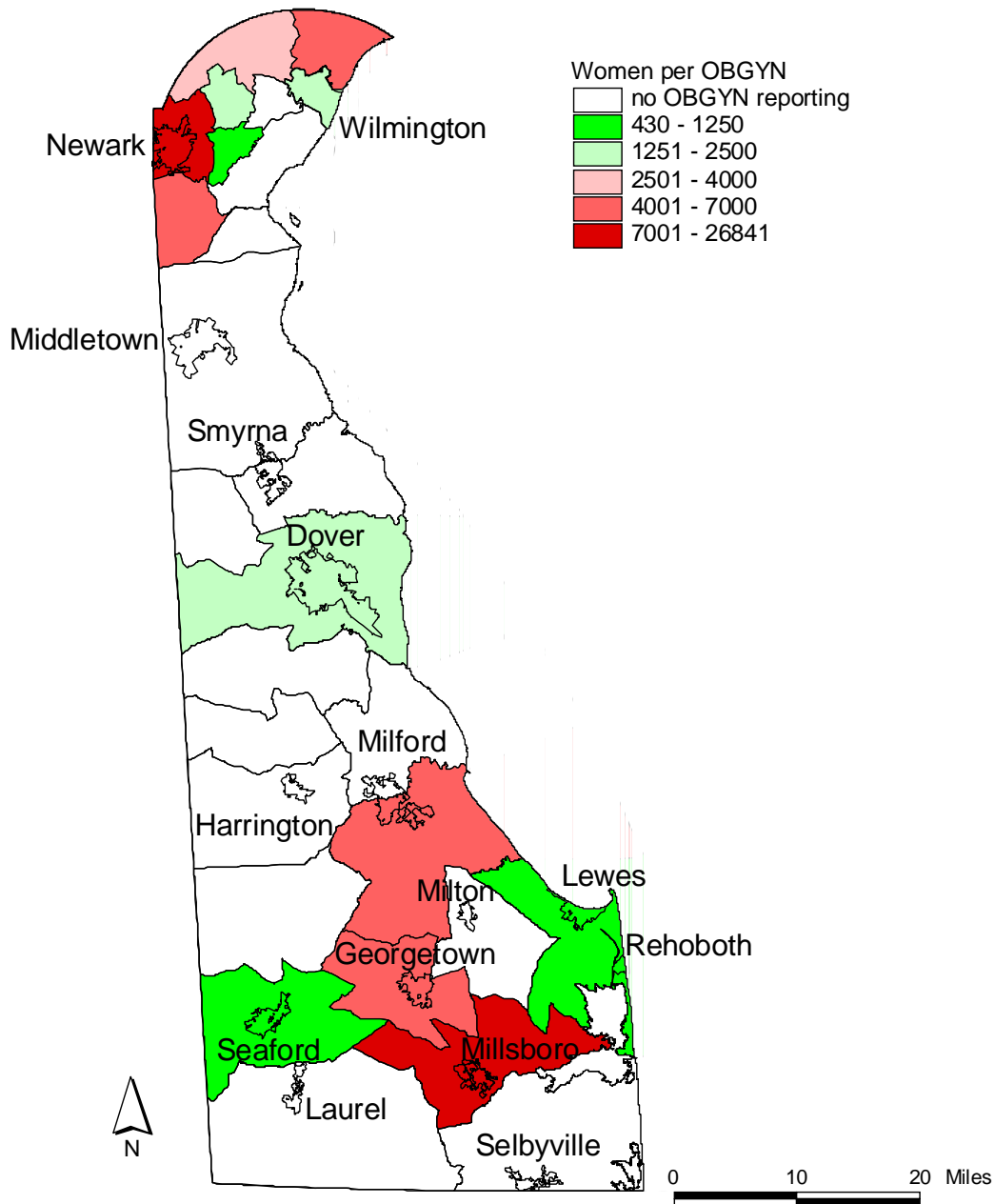
In Figure 4.4, the ratio of pediatricians to the youth population is displayed. Pediatricians are almost 20% of the primary care physicians. They are spatially distributed more broadly than OBGYNs (15 CCDs compared to 13) but less so than primary care physicians in general. There is an orientation toward hospitals but not anywhere near the degree of OBGYNs. Probably the most underserved areas with respect to this specialty are southern Kent and southern Sussex counties.

**Figure 4.2**  
**Number of Persons per Family Practice Physician**  
**by Census County Division**



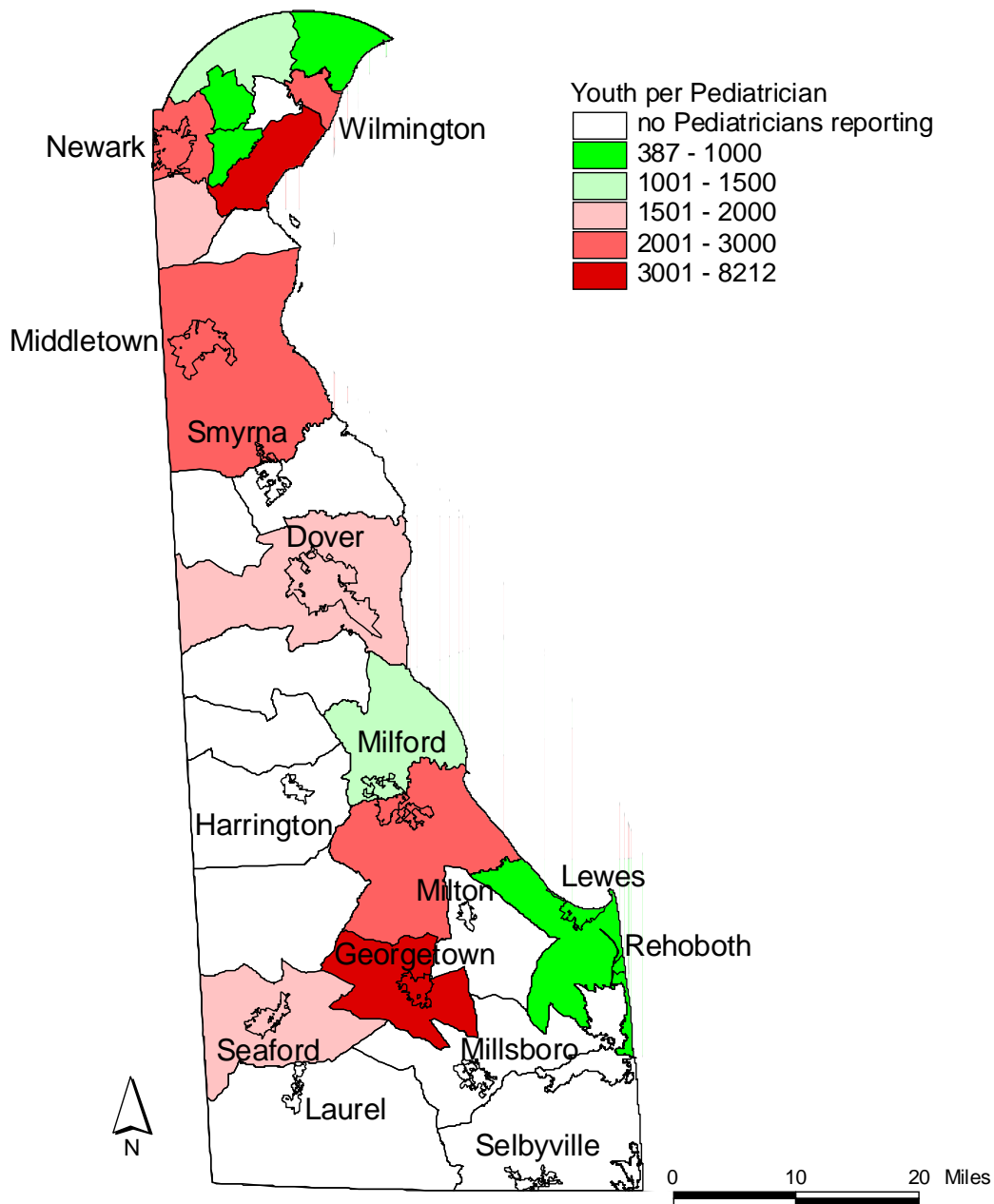
Source: Center for Applied Demography & Survey Research,  
University of Delaware

**Figure 4.3**  
**Number of Women (15-64) per OBGYN**  
**by Census County Division**



Source: Center for Applied Demography & Survey Research,  
University of Delaware

**Figure 4.4**  
**Number of Youth (0-19) per Pediatrician**  
**by Census County Division**



Source: Center for Applied Demography & Survey Research,  
University of Delaware



## Observations

The Delaware Physicians Survey in its sixth round provides timely and up to date insights into the primary care profession across Delaware. The data collected allows the estimation of the number of active primary care physicians in the State, along with the full time equivalent count, demographic characteristics, practice attributes and spatial distribution of Delaware's primary care physicians. A summary of the selected findings is presented here:

- In general, there are a sufficient number of primary care physicians in Delaware (1,187:1, down from 1,278:1 in 2006) although their location and specialty is probably not optimal.
- While today, there are sufficient numbers of physicians, their numbers are at the upper range of what is desirable (1,250:1). Both Kent County (1,718:1 up from 1,575:1 in 2006) and Sussex County (1,310 down from 1,565:1 in 2006) are above that target.
- Almost 60% of Delaware's physicians went to high school in the region; over half of them graduated from a medical school in the region, and 75% of them completed their medical residency in the region.
- Eighty-eight percent of primary care physicians are accepting new patients but the proportion accepting new Medicare and Medicaid patients (70-65%) is much lower.
- Sixty percent of primary care physician's time is devoted to serving Medicare and Medicaid patients while these populations represent less than 20% of the population.
- Wait times for appointments vary significantly between established and new patients and by county. New Castle County's primary care physicians report that established patients have to wait on average about 16 days for an appointment. Kent County's physicians report that new patients have to wait about 21 days for an appointment.
- About 47% of primary care physicians employ non-physician services from advanced practice nurses, physician assistants, and others.
- About 1% of Delaware's primary care physicians do not belong to any managed care network. The rate of physicians that do not belong to any managed care network is highest in Kent County (5%).
- Primary care physicians are fairly well distributed in sub-areas of Delaware's counties. The only exception to this finding is for OBGYNs that tend to be located in close proximity to hospitals.

## **APPENDIX**



# DELAWARE PHYSICIAN SURVEY 2008

Commissioned by Delaware Health and Social Services

(ID)

## INSTRUCTIONS

- **Mail your completed form** in the attached prepaid envelope or mail it to:

University of Delaware  
CADSR - Graham Hall  
Newark, DE 19716

- Use either a pen or pencil when completing the questionnaire.
- Follow all "SKIP" instructions after answering a question. If no instructions are provided, continue to the next question.
- If you have any questions, contact the **Center for Applied Demography & Survey Research** at the **University of Delaware** by calling **302-831-3320**.

**PURPOSE** – Results from the survey will be used to help state and local governments along with employers and educational institutions to plan for an adequate supply of health professionals in the state.

**SCOPE** – All physicians licensed to practice in the State of Delaware. **Even if you do not practice in Delaware please complete the questionnaire.**

**PARTICIPATION** – Your participation is voluntary. However, your responses are important to ensure adequate health care for Delaware's residents.

If you would like to see a copy of the report based on the survey conducted in 2006, point your browser to:

<http://www.cadsr.udel.edu/DOWNLOADABLE/DOCUMENTS/phy0604.pdf>

### 1. Are you currently active in clinical medicine in Delaware? (i.e.: seeing patients and/or doing things necessary for the care of patients):

- 1 ☐ Yes, in training
- 2 ☐ Yes, working full time
- 3 ☐ Yes, working part time
- 4 ☐ No, retired (**GO TO QUESTION 31**)
- 5 ☐ No, inactive (**GO TO QUESTION 31**)
- 6 ☐ No, other (*specify*): \_\_\_\_\_ (**GO TO QUESTION 31**)
- 7 ☐ Not practicing in Delaware (**GO TO QUESTION 31**)

**IF RETIRED, INACTIVE, OTHER, OR NOT PRACTICING IN DELAWARE, PLEASE SKIP TO PAGE 4, QUESTION 31**

### 2. Were you active in clinical medicine 12 months ago:

- 1 ☐ No
- 2 ☐ Yes, at the same location as now
- 3 ☐ Yes, but at a different location (*specify location below*):

\_\_\_\_\_  
City State ZIP code

### 3. On average, how many hours per week do you spend on each of the following activities:

- \_\_\_\_ Hours - Direct patient care or services and related paperwork
- \_\_\_\_ Hours - Administration and related paperwork
- \_\_\_\_ Hours - Teaching medical courses
- \_\_\_\_ Hours - Research
- \_\_\_\_ Hours - Other (*specify*): \_\_\_\_\_

### 4. Setting of primary employment is (*check all that apply*):

- 1 ☐ **Clinical Care Settings:**
  - 1 ☐ Practitioner's Office (solo, partner of group practice)
  - 2 ☐ Hospital (except federal)
  - 3 ☐ Nursing Home
  - 4 ☐ Freestanding Clinic (administratively distinct from a hospital, nursing home, etc.)
  - 5 ☐ Federally Qualified Health Center
  - 6 ☐ Treatment Facility for the Handicapped or Disabled
  - 7 ☐ Other (*specify*): \_\_\_\_\_
- 2 ☐ **Federal Health Facility:**
  - 1 ☐ Veterans' Administration (VA hospital)
  - 2 ☐ Other (*specify*): \_\_\_\_\_
- 3 ☐ **School:**
  - 1 ☐ School-Based Health Clinic
  - 2 ☐ Primary or Secondary School Site; School District
  - 3 ☐ School of Medicine
  - 4 ☐ Other University or College
  - 5 ☐ Other (*specify*): \_\_\_\_\_
- 4 ☐ **Miscellaneous Setting:**
  - 1 ☐ Medical Research Institution or Establishment
  - 2 ☐ Professional Association
  - 3 ☐ Administrative Duties in a Managed Care Setting (e.g.: HMO, PPO, etc.)
  - 4 ☐ Manufacturing or Industrial Establishment
  - 5 ☐ Other (*specify*): \_\_\_\_\_

CONTINUE ON PAGE 2

**5. Form of primary employment is (check all that apply):**

- 1 ☐ **Self-Employed:**
- 1 ☐ Solo Practice
- 2 ☐ Partner of Group Practice
- 3 ☐ Other (specify): \_\_\_\_\_
- 2 ☐ **Salaried, Employed by:**
- 1 ☐ Individual Practitioner
- 2 ☐ Partnership or Group Practitioners
- 3 ☐ Group Health Plan Facility (HMO, PPO, etc.)
- 4 ☐ Other Non-Government Employer (hospital, school, etc.)
- 5 ☐ Federal Government
- 6 ☐ Federally Qualified Health Center
- 7 ☐ State Government
- 8 ☐ Other (specify): \_\_\_\_\_

**6. What are the practice name, facility name, address and zip code for each of the locations in Delaware where you practice medicine?**1 ☐ **Primary Location (most time delivering care)**

Practice Name (example: Bear-Glasgow Dental)

Facility Name (People's Plaza)

Street Address

City

State

ZIP code

2 ☐ **Secondary Location**

Practice Name (example: Bear-Glasgow Dental)

Facility Name (People's Plaza)

Street Address

City

State

ZIP code

3 ☐ **Tertiary Location**

Practice Name (example: Bear-Glasgow Dental)

Facility Name (People's Plaza)

Street Address

City

State

ZIP code

**7. What percentage of your working hours in Delaware do you spend at each of the locations listed above?**

- 1 \_\_\_\_\_ Percent – Primary Location
- 2 \_\_\_\_\_ Percent – Secondary Location
- 3 \_\_\_\_\_ Percent – Tertiary Location
- 100 Percent – Total

**QUESTIONS BELOW PERTAIN TO YOUR PRIMARY LOCATION IN DELAWARE ONLY****8. What type of site is at the primary location?**

- 1 ☐ Practice Office
- 2 ☐ Clinic
- 3 ☐ Hospital
- 4 ☐ Other (specify): \_\_\_\_\_

**9. Using the medical specialty codes found on page 6, please identify all medical specialties practiced at this site. Also, for each medical specialty, indicate: (a) the average number of hours per week spent delivering direct patient care and (b) if you are Board certified or eligible.**

Specialty Code	Hours of Direct Care per Week:	Status for Each Specialty:
_____	_____	<input type="checkbox"/> Board Certified <input type="checkbox"/> Board Eligible
_____	_____	<input type="checkbox"/> Board Certified <input type="checkbox"/> Board Eligible
_____	_____	<input type="checkbox"/> Board Certified <input type="checkbox"/> Board Eligible

**10. Have you changed the scope of your practice within the last year, or are you planning to do so within the next year?**

- 1 ☐ Yes
- 2 ☐ No

If YES, what was the primary reason?

**IF YOU SPEND NO TIME DELIVERING PRIMARY CARE AT THIS SITE (i.e.: internal medicine (IM), pediatrics (PD), general practice (GP), family practice (FP) or obstetrics &/or gynecology (OB/GYN)), PLEASE SKIP TO PAGE 4, QUESTION 31, OTHERWISE COMPLETE THE FOLLOWING:**

**11. On average, about how many hours per week do you spend providing primary care, both ambulatory and hospital follow-up, in one or more of the following areas ONLY**

Primary Care Specialty	Hours of Direct Care per Week
Internal Medicine (IN)	_____
Pediatrics (PD)	_____
General Practice (GP)	_____
Family Practice (FP)	_____
Obstetrics & gynecology (OB/GYN)	_____

**12. Do you see obstetrical and/or gynecological patients at this site?**

- 1 ☐ Yes  
2 ☐ No

**13. Do you see pediatric patients at this site?**

- 1 ☐ Yes  
2 ☐ No

If YES, to what age do you continue to see pediatric patients? (Please check the box which reflects the oldest pediatric patient you typically accept)

- 1 ☐ 0-3 year-olds 5 ☐ 14-16 year-olds  
2 ☐ 4-5 year-olds 6 ☐ 17-18 year-olds  
3 ☐ 6-10 year-olds 7 ☐ 19-21 year-olds  
4 ☐ 11-13 year-olds

**14. Do you offer Saturday and Evening hours?**

Saturday 1 ☐ Yes  
2 ☐ No

Evening 1 ☐ Yes  
2 ☐ No

**15. When a patient calls your office to request a routine (non-emergency) appointment, what is the usual elapsed time between the request and the resulting appointment for new and established patients (days)?**

New patients  1 ☐ Not Applicable  
Days

Existing Patients  1 ☐ Not Applicable  
Days

**16. Are you currently accepting new patients?**

- 1 ☐ Yes  
2 ☐ No

**17. Are you currently treating MEDICAID patients at this site?**

- 1 ☐ Yes  
2 ☐ No

If YES, about what percentage of your total hours is spent delivering primary care to MEDICAID patients at this site? (please chose one number, below)

- 1 ☐ 0% 5 ☐ 40% 9 ☐ 80%  
2 ☐ 10% 6 ☐ 50% 10 ☐ 90%  
3 ☐ 20% 7 ☐ 60% 11 ☐ 100%  
4 ☐ 30% 8 ☐ 70%

If YES, which of the following MEDICAID managed care plans do you accept? (check all that apply)

- 1 ☐ Diamond State Partners  
2 ☐ Delaware Physicians Care, Inc.

**18. Are you accepting new MEDICAID patients at this site?**

- 1 ☐ Yes  
2 ☐ No

If YES, about what percentage of your total hours do you anticipate you will spend delivering primary care to MEDICAID patients at this site, 12 months from now? (chose one number, below):

- 1 ☐ 0% 5 ☐ 40% 9 ☐ 80%  
2 ☐ 10% 6 ☐ 50% 10 ☐ 90%  
3 ☐ 20% 7 ☐ 60% 11 ☐ 100%  
4 ☐ 30% 8 ☐ 70%

**19. Are you currently treating MEDICARE patients at this site?**

- 1 ☐ Yes  
2 ☐ No

If YES, about what percentage of your total hours is spent delivering primary care to MEDICARE patients at this site? (please chose one number, below)

- 1 ☐ 0% 5 ☐ 40% 9 ☐ 80%  
2 ☐ 10% 6 ☐ 50% 10 ☐ 90%  
3 ☐ 20% 7 ☐ 60% 11 ☐ 100%  
4 ☐ 30% 8 ☐ 70%

**20. Are you accepting new MEDICARE patients at this site?**

- 1 ☐ Yes  
2 ☐ No

If YES, about what percentage of your total hours do you anticipate you will spend delivering primary care to MEDICARE patients at this site, 12 months from now? (chose one number, below):

- 1 ☐ 0% 5 ☐ 40% 9 ☐ 80%  
2 ☐ 10% 6 ☐ 50% 10 ☐ 90%  
3 ☐ 20% 7 ☐ 60% 11 ☐ 100%  
4 ☐ 30% 8 ☐ 70%

**21. Do you practice geriatrics as a subspecialty?**

- 1 ☐ Yes  
2 ☐ No

**22. Does this site employ any non-physician clinicians: including advanced practice nurses (APN), certified nurse midwives (CNM), physician assistants (PA) or similar advanced practitioners in primary care (check all that apply)?**

- 1 ☐ APN 4 ☐ Other  
2 ☐ CNM 5 ☐ None  
3 ☐ PA

**23. If non-physician clinicians are employed, what percentage of the practice is treated by them?**

- 1 ☐ 0% 5 ☐ 40% 9 ☐ 80%  
2 ☐ 10% 6 ☐ 50% 10 ☐ 90%  
3 ☐ 20% 7 ☐ 60% 11 ☐ 100%  
4 ☐ 30% 8 ☐ 70%

**24. Are there people at this site who have the ability to communicate with patients in a language other than English?**

- 1 ☐ Yes  
2 ☐ No

If YES, which one (check all that apply)?

- 1 ☐ Spanish 4 ☐ Asian  
2 ☐ French 5 ☐ Sign Language  
3 ☐ Arabic 6 ☐ Other (specify):

**25. On average, what percentage of your time is spent delivering primary care to self-paying patients? (chose one number below):**

- 1 ☐ 0% 5 ☐ 40% 9 ☐ 80%  
2 ☐ 10% 6 ☐ 50% 10 ☐ 90%  
3 ☐ 20% 7 ☐ 60% 11 ☐ 100%  
4 ☐ 30% 8 ☐ 70%

**26. Do you offer a sliding fee scale, in which the professional fee is a percentage based on the patient's family income?**

- 1 ☐ Yes  
2 ☐ No

**27. Do you provide charity care (no fee expected) inside your office?**

- 1 ☐ Yes  
2 ☐ No

**28. Do you provide charity care (no fee expected) outside your office?**

- 1 ☐ Yes  
2 ☐ No

**29. Do you offer flexible or installment payment plans, which would allow patients to pay for services over a period of time?**

- 1 ☐ Yes  
2 ☐ No

**30. Do you belong to a managed care provider network?**

- 1 ☐ Yes  
2 ☐ No

If YES, how many different networks do you belong to? (number)

**31. Do you expect to be active in clinical medicine in Delaware 5 years from now?**

- 1 ☐ Yes  
2 ☐ No  
3 ☐ Unsure

If YES, use the medical specialty codes (located on page 6) to indicate what you expect your primary and, if applicable, secondary and tertiary specialties to be and the percentage of clinical time you plan to spend in each:

Specialty Code	Percentage	Expected Status for Each Specialty
<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Board Certified <input type="checkbox"/> Board Eligible
<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Board Certified <input type="checkbox"/> Board Eligible
<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Board Certified <input type="checkbox"/> Board Eligible

If NO, or UNSURE, what are the primary reasons you might not be practicing in Delaware?

**32. State (or country if applicable) of residence at time of high school graduation.**

State (country if applicable)

**33. From which medical school did you graduate?**

Name of medical school Year (YYYY)  
  
State (country if applicable)

**34. Please indicate the hospital(s) and state(s) where you did your residency**

Hospital name State (country if appl.)  
   
Hospital name State (country if appl.)  
   
Hospital name State (country if appl.)

**35. What is your race?**

- 1 ☐ Caucasian or White  
2 ☐ African American or Black  
3 ☐ Native American or Alaskan  
4 ☐ Asian or Pacific Islander  
5 ☐ Multi-Racial

6 ☐ Other (specify):

**36. Are you of Hispanic origin?**

- 1 ☐ Yes  
2 ☐ No

**37. Gender?**

- 1 ☐ Male  
2 ☐ Female

**38. Date of Birth?**

/  /   
Month (MM) Day (DD) Year (YYYY)

**39. Do you have a Delaware business license?**

- 1 ☐ Yes  
2 ☐ No

**40. Please describe the type of internet connection you have in your practice office.**

- 1 ☐ Dial up 5 ☐ No internet access  
2 ☐ High Speed Internet 6 ☐ Other  
3 ☐ Cable 7 ☐ No computer in Office  
4 ☐ Satellite  
(GO TO QUESTION 43)

**41. Does your practice use computers for any of the following (check all that apply):**

- 1 ☐ Billing  
2 ☐ Scheduling  
3 ☐ E-mail  
4 ☐ Internet  
5 ☐ Electronic patient records  
6 ☐ Electronic order entry  
7 ☐ E-prescribing  
8 ☐ Electronic laboratory/radiology result reporting  
9 ☐ Other (specify):

**42. Is your office computer(s) connected to a local area network (LAN)?**

- 1 ☐ Yes  
2 ☐ No

**43. Are you aware of the Delaware Health Information Network (DHIN) that offers a service allowing physicians to access their patients' clinical health information, housed at other facilities (i.e., hospitals, labs, radiology facilities, pharmacies, etc.), via a secured web browser in one standard format?**

- 1 ☐ Yes  
2 ☐ No (GO TO QUESTION 47)

**44. Does your office practice currently participate in DHIN?**

- 1 ☐ Yes (GO TO QUESTION 46)  
2 ☐ No (GO TO QUESTION 45)

**45. If you currently do not participate in DHIN, do you plan to participate in the future?**

- 1 ☐ Yes  
2 ☐ No

**If YES, would you like someone from DHIN to contact you to enroll?**

- 1 ☐ Yes (if you chose YES, your name and address will be provided to DHIN, no other information reported on this survey will be disclosed)  
(GO TO QUESTION 46)

- 2 ☐ No

**If NO, why not?:**

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(GO TO QUESTION 47)

**46. If a fee was assessed for the ability to retrieve new information from the system, how much would you be willing to pay per transaction?**

- 1 ☐ \$0  
2 ☐ Up to 2.50  
3 ☐ 2.51 to 5.00  
4 ☐ More than \$5.00

**47. Is your facility compliant with the Americans with Disabilities Act (ADA) (e.g., do you have access ramps, doors wide enough for a wheelchair and exam tables that lower to accommodate persons in wheelchairs)?**

- 1 ☐ Yes  
2 ☐ No

**48. How familiar are you with the concept of a medical home as defined by the American Academy of Pediatrics?**

- 1 ☐ No knowledge of concept  
2 ☐ Some knowledge/not applied  
3 ☐ Knowledgeable/concept sometimes applied in practice  
4 ☐ Knowledgeable/concept regularly applied in practice

**49. Do you refer your patients to any of the following Prenatal and Postpartum Care service providers (Christiana Care's Healthy Beginnings, Westside Health, Delmarva Rural Ministries, St. Francis' Tiny Steps, St. Francis' Center of Hope, La Red Health Center, Henrietta Johnson Health Clinic, DAPI)?**

- 1 ☐ Yes  
2 ☐ No

**50. Do you refer your patients to any of the following Preconception Care service providers (Christiana Care's Healthy Beginnings, Westside Health, Delmarva Rural Ministries, Planned Parenthood of Delaware, Children and Families First ARC Program)?**

- 1 ☐ Yes  
2 ☐ No

**51. Culturally competent health care providers that are respectful of and responsive to the health beliefs, practices and cultural and linguistic needs of patients can help bring about positive health outcomes for diverse populations. Would you be interested in participating in a 1 day free cultural competency training program if the Division of Public Health offered one?**

- 1 ☐ Yes  
2 ☐ No

**52. If you have any comments, please feel free to include them in the space provided below.**

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**Thank you for completing the Delaware Physician Survey 2008.**

**Return the completed form to: University of Delaware, CADSR, Graham Hall, Newark, DE 19716**

**AMA Self-Designated Practice Specialty Codes**

(Listed alphabetically by specialty name)

AS	Abdominal Surgery	GP	General Practice	PMD	Pain Medicine
ADM	Addiction Medicine	GPM	General Preventive Medicine	PDA	Pediatric Allergy
ADP	Addiction Psychiatry	VS	General Vascular Surgery	PDC	Pediatric Cardiology
ADL	Adolescent Medicine	GS	General Surgery	CCP	Pediatric Critical Care Medicine
OAR	Adult Reconstructive Orthopedics	FPG	Geriatric Medicine (Family Practice)	PEM	Pediatric Emergency Medicine
AM	Aerospace Medicine	IMG	Geriatric Medicine (internal Medicine)	PDE	Pediatric Endocrinology
A	Allergy	PYG	Geriatric Psychiatry	PG	Pediatric Gastroenterology
AI	Allergy & Immunology	GYN	Gynecology	PHO	Pediatric Hernatology/Oncology
ALI	Allergy & Immunology/Clinical and Laboratory Immun.	GO	Gynecological Oncology	PN	Pediatric Nephrology
PTH	Anatomic/Clinical Pathology	HSO	Hand Surgery (Orthopedic Surgery)	PO	Pediatric Ophthalmology
ATP	Anatomic Pathology	HNS	Head & Neck Surgery	POO	Pediatric Otolaryngology
OP	Pediatric Orthopedics	HEM	Hematology (Internal)	PIP	Pediatric Pathology
AN	Anesthesiology	HMP	Hematology Pathology)	POP	Pediatric Pulmonology
BBK	Blood Banking Transfusion Medicine	HEP	Hepatology	PDR	Pediatric Radiology
ICE	Cardiac Electrophysiology	IG	Immunology	PPR	Pediatric Rheumatology
CD	Cardiovascular Disease	PIP	Immunopathology	NSP	Pediatric Surgery (Neurology)
CDS	Cardiovascular Surgery	ID	Infectious Disease	PDS	Pediatric Surgery (Surgery)
PCH	Chemical Pathology	IM	Internal Medicine	UP	Pediatric Urology
CHP	Child and Adolescent Psychiatry	LM	Legal Medicine	PD	Pediatrics
CHN	Child Neurology	MFM	Maternal & Fetal Medicine	PM	Physical Medicine & Rehabilitation
CEIG	Clinical Biochemical Genetics	MG	Medical Genetics	PS	Plastic Surgery
CCG	Clinical Cytogenetics	MM	Medical Microbiology	P	Psychiatry
CG	Clinical Genetics	ON	Medical Oncology	PYA	Psychoanalysis
DDL	Clinical and Laboratory Dermatological Immunology	ETX	Medical Toxicology (Emergency Medicine)	PH	Public Health and General Preventive Medicine
ILI	Clinical and Laboratory Immunology (internal Medicine)	PDT	Medical Toxicology (Pediatrics)	PUD	Pulmonary Disease
PLI	Clinical and Laboratory Immunology (Pediatrics)	PTX	Medical Toxicology (Preventive Medicine)	RO	Radiation Oncology
CMG	Clinical Molecular Genetics	OMO	Musculoskeletal Oncology	RP	Radiological Physics
CN	Clinical Neurophysiology	NPM	Neonatal-Perinatal Medicine	R	Radiology
CLP	Clinical Pathology	NEP	Nephrology	RIP	Radioisotopic Pathology
PA	Clinical Pharmacology	N	Neurology	REN	Reproductive Endocrinology
CRS	Colon & Rectal Surgery	NS	Neurological Surgery	RHU	Rheumatology
CCA	Critical Care Medicine (Anesthesiology)	NP	Neuropathology	ESM	Sports Medicine (Emergency Medicine)
CCM	Critical Care Medicine (Internal Medicine)	RNR	Neuroradiology	F.3M	Sports Medicine (Family Practice)
NNC	Critical Care Medicine (Neurological Surgery)	NM	Nuclear Medicine	ISM	Sports Medicine (Internal Medicine)
OCC	Critical Care Medicine (Obstetrics & Gynecology)	NR	Nuclear Radiology	OSM	Sports Medicine (Orthopedic Surgery)
PCP	Cytopathology	NTR	Nutrition	PSM	Sports Medicine (Pediatrics)
D	Dermatology	OBS	Obstetrics	HSP	Surgery of the Hand (Plastic Surgery)
DMP	Dermatopathology	OBG	Obstetrics & Gynecology	HSS	Surgery of the Hand (Surgery)
DIA	Diabetes	OM	Occupational Medicine	CCS	Surgical Critical Care (Surgery)
DR	Diagnostic Radiology	OPH	Ophthalmology	TS	Thoracic Surgery
EM	Emergency Medicine	ORS	Orthopedic Surgery	TRS	Traumatic Surgery
END	Endocrinology, Diabetes and Metabolism	OSS	Orthopedic Surgery of the Spine	LIM	Underseas Medicine
FPS	Facial Plastic Surgery	OTR	Orthopedic Trauma	U	Urology
FP	Family Practice	OTO	Otolaryngology		Vascular and Interventional Radiology
FOP	Forensic Pathology	OT	Otology	VIR	Other (i.e., a specialty other than those appearing above)
GE	Gastroenterology	APM	Pain Management (Anesthesiology)	OS	



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