Primary Care Physicians in Delaware 2011

by Tibor Tóth, Ph.D.

Center for Applied Demography &
Survey Research
University of Delaware

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2011

prepared for

Delaware Department of Health and Social Services
Division of Public Health

by

Tibor Tóth, Ph.D.

Center for Applied Demography & Survey Research
University of Delaware

Newark, Delaware 19716

Tel: 302-831-3320

May, 2012

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ACKNOWLEDGEMENTS

This report was primarily funded by the Delaware Division of Public Health/Bureau of Health Planning and Resources Management.

The author would also like to acknowledge the Delaware Division of Professional Regulation for providing the licensure data that served as the basis for the survey.

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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, 2008, and now in 2011. 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.

Up until the most recent (2011) data collection when 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 the previous reports were based, contained information gathered from 1995 through 2008 from physicians who held a Delaware medical license and provide clinical medical services in Delaware. Over the years, this approach has proven to produce reliable results. Despite the reliability of the results, in 2011 this approach was discontinued. The impetus to abandon this approach comes from the need to create a data file (with most recent survey responses and all personally identifiable information removed) for the federal shortage area designations system (ASAPS) operated by the Department of Health and Human Services Health Resources and Services Administration. For the purpose of validating this new approach, and ensuring that results from previous years can be compared to the results presented here, two sets of estimates for physician count a FTE physician count were produced. The first estimate, based on the summary approach used between 1995 and 2008 incorporated the

results from 2011. The second estimate was derived based on the 2011 responses only. The two resulting estimates were nearly identical. The approach used between 1995-2008, if applied to the data from 2011, would have overestimated both the physician count and the physician FTE by about three providers. Since the impact is minimal, in 2011, estimates derived and results reported in this document are solely based on the responses obtained during the most recent data collection (2011). In subsequent years we will continue comparing the results from the two approaches to ensure reliability of results.

The data collection for the current report took place during the Summer/Fall of 2011. The list of Physicians obtained from the Division of Professional regulation contained 4,796 physicians licensed to practice medicine in Delaware. Of those, 2,408 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 producing this report, 2,582 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, 915 responded to the survey and provided usable data.

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, and taking into account the geographical distribution of licensed physicians, the number of primary care physicians is estimated at 888.

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.[1] 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.[2] 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 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.

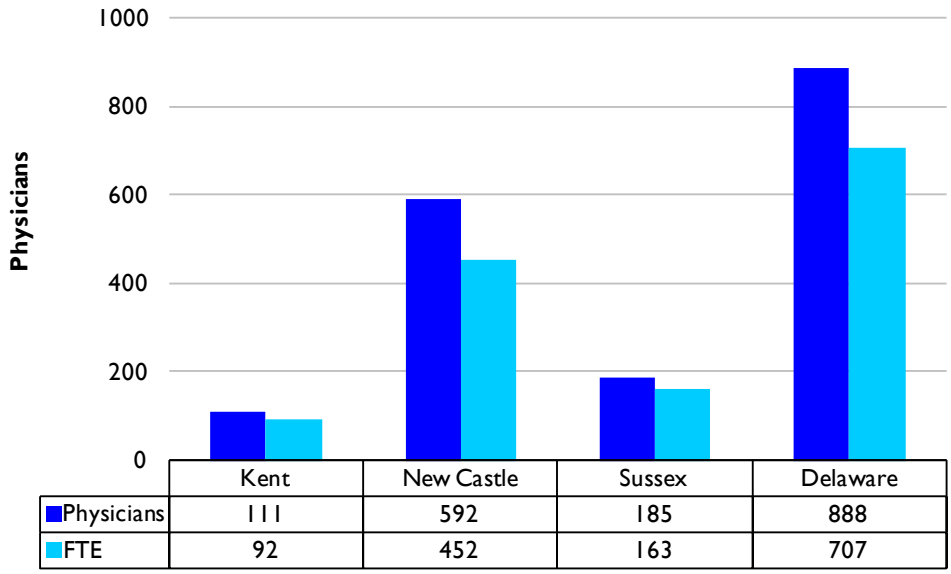
Figure 1.1 below summarizes the current number of primary care physicians in Delaware by county of practice. The number of physicians is provided along with estimates of full-time equivalents (FTE). Given Delaware's population at the end of 2010 of 897,934[3], there are about 1,274 persons served by each full-time equivalent primary care physician in 2011. For the three counties, the estimates are 1,764 for Kent County, 1,191 for New Castle County, and 1,274 for Sussex County.

[1] Federal Register/Vol.45, No.223/ Monday, November17, 1980, Part IV Department of Health and Human Services, 42 CFR Part 5, p.76002.

[2] Federal Register/Vol.45, No.223/ Monday, November17, 1980, Part IV Department of Health and Human Services, 42 CFR Part 5, p.76002.

[3] 2010 Demographic Profile Data, DP-1 - Profile of General Population and Housing Characteristics: 2010, http://factfinder2.census.gov/, Accessed January 2012.

Figure 1.1
Primary Care Physicians
by County

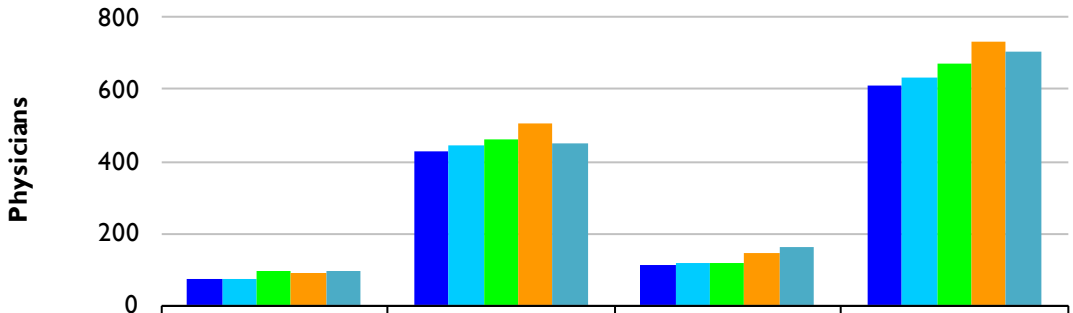


	Kent	New Castle	Sussex	Delaware
Physicians	111	592	185	888
FTE	92	452	163	707

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

Figure 1.2 compares the number of physicians for the last 5 survey periods. The number of FTE primary physicians in the state has decreased by 29 since the last survey in 2008. This decrease is not spread evenly among counties. The results of the current survey indicate a slight increase in the number of physicians in Kent County, an increase in Sussex County, while the number of FTE physicians has decreased by 50 in New Castle County.

Figure 1.2
FTE Primary Care Physicians
by County and Year



	Kent	New Castle	Sussex	Delaware
1998	72	429	109	610
2001	75	442	119	636
2006	93	463	115	671
2008	89	504	143	736
2011	92	452	163	707

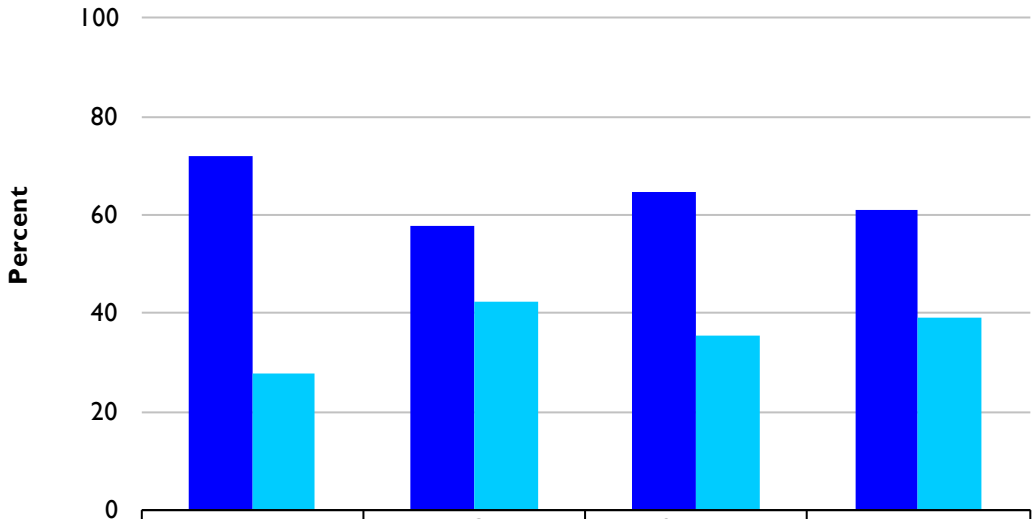
Source: Center for Applied Demography & Survey Research
University of Delaware

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 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



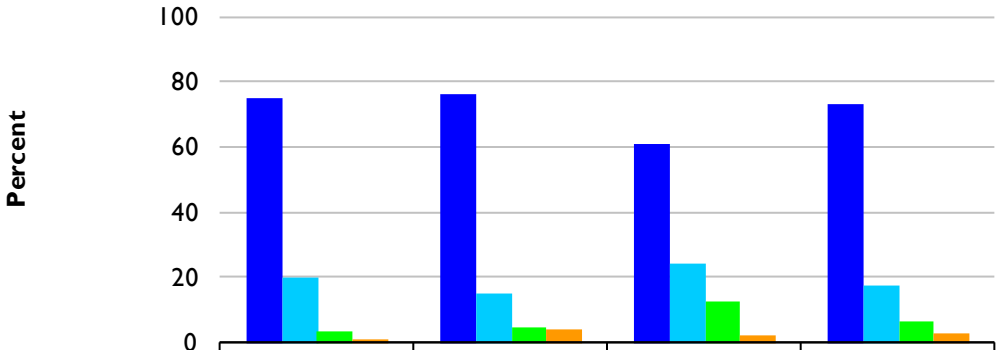
	Kent	New Castle	Sussex	Delaware
Male	72.1	57.7	64.7	61.1
Female	27.9	42.3	35.3	38.9

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 higher proportion of male primary care physicians than does New Castle County. The data provide no readily apparent explanation for this difference. Just like in previous years ,

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



	Kent	New Castle	Sussex	Delaware
Caucasian	75.3	76.3	61.3	73.1
Asian	20.0	15.1	23.9	17.6
African American	3.5	4.8	12.7	6.3
Other	1.2	3.7	2.1	3.1

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

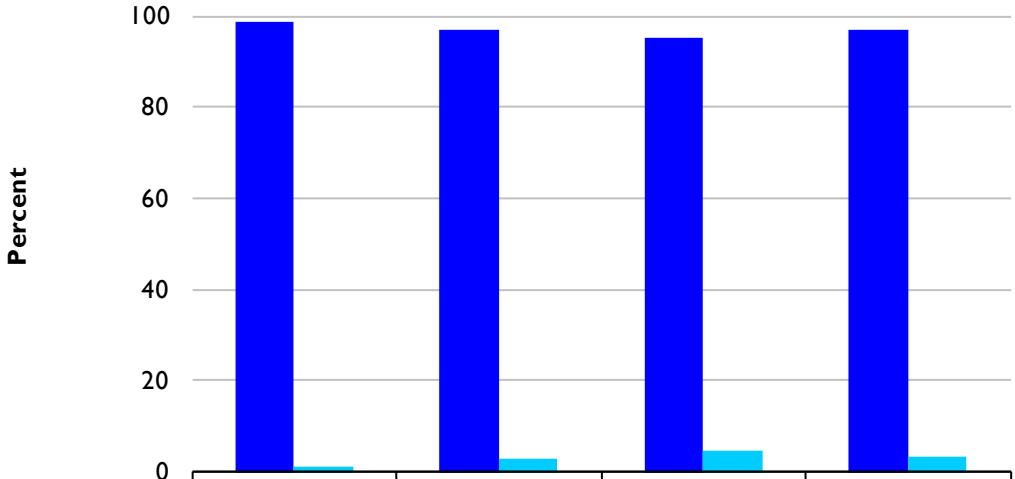
The racial distribution of primary care physicians by county is shown in Figure 2.2. The most interesting aspect of this table is the low proportion of African American primary care physicians and the preponderance of Asian American physicians compared to the population characteristics of the state.

The current survey indicates highest proportion of African American physicians to be in Sussex County, even though the proportion of African Americans in the general population is the lowest in Sussex County. The high proportion of Asian primary care physicians is consistent among all counties. At the state level, the ratio of Asian American physicians is about five times higher than the proportion of Asian Americans in the population. In Sussex County, the proportion of Asian American primary care physicians is 18 times higher than would be

expected based on the proportion of Asian Americans in the general population of Sussex County.

Hispanic origin has taken on a particular interest in Delaware with the rapid growth of that population, 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



	Kent	New Castle	Sussex	Delaware
Non-Hispanic	98.8	97.1	95.3	96.9
Hispanic	1.2	2.9	4.7	3.1

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

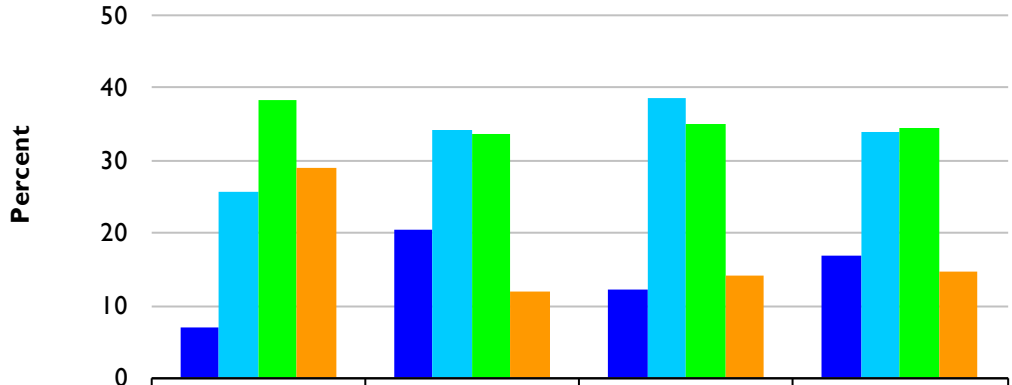
Today, Delaware's population is nearly 8.2%[4] Hispanic, and the physician population essentially mirrors that. The highest proportion of Hispanic physicians is found in Sussex County (5%). Overall, just over 41% of the practice sites in the state had someone available

[4] U.S. Census Bureau, DP-1 - Profile of General Population and Housing Characteristics: 2010

who could speak Spanish (not pictured here). This proportion was 43% in Sussex County with Kent and New Castle counties reporting around 40%.

The age of primary care physicians is ultimately a factor in their availability. The age distribution of primary care physicians is found in Figure 2.4. Kent County stands out – it has the lowest proportion of younger primary care physicians (7% under 40 and 26% between 40 and 50 years of age). Overall for the state about 17% of primary care physicians are under 40 years old.

Figure 2.4
Age of Primary Care Physicians
by County



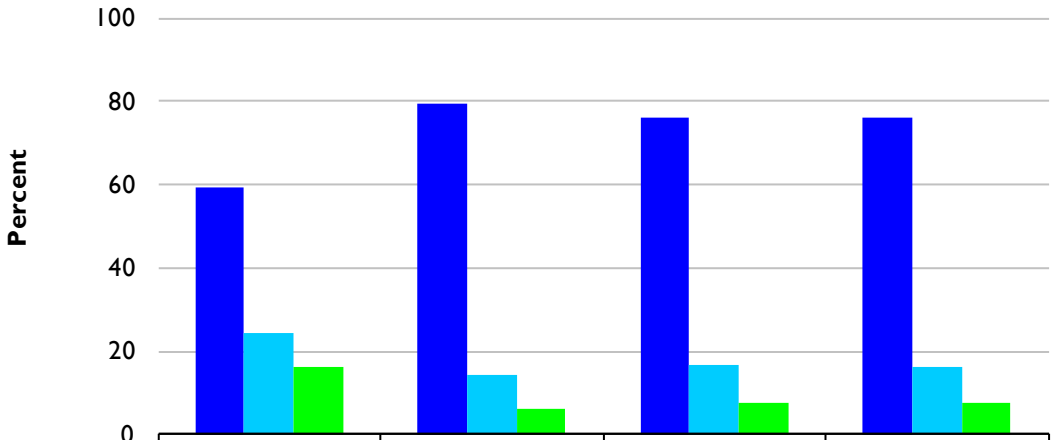
	Kent	New Castle	Sussex	Delaware
Under 40	7.0	20.4	12.2	16.9
40-49	25.6	34.1	38.5	34.0
50-64	38.4	33.6	35.1	34.6
65 and above	29.1	11.9	14.2	14.6

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, 76% of physicians expect to be active in five years. The highest proportion (79%) of physicians indicating that they will be active five years from now is found in New Castle County. Sussex County's physicians flowed closely – about 76% of them indicated that they will be active five years from now. The least optimistic

were primary care physicians in Kent County, where only 59% of physicians indicated that they will be active in the field.

Figure 2.5
Active Five Years from Now
by County



	Kent	New Castle	Sussex	Delaware
Yes	59.3	79.4	75.9	76.1
Unsure	24.4	14.4	16.5	16.1
No	16.3	6.2	7.6	7.8

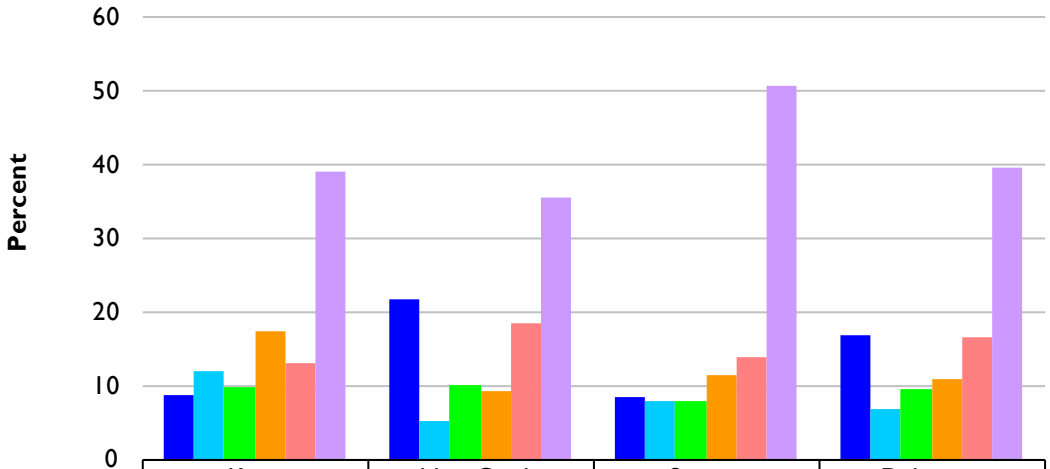
Source: Center for Applied Demography & Survey Research
University of Delaware

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 60% of Delaware's primary care physicians grew up in the region (DE, MD, PA, NJ and NY) and approximately 17% are from Delaware. However, these figures vary significantly across counties. Fifty-one percent of physicians practicing in Sussex County resided outside of the region at the time they graduated

high school, while only 35% of New Castle County's physicians come from outside the region. Over 22% of New Castle County's physicians resided in Delaware at the time of their graduation from high school, while only about 8-9% of Sussex and Kent county's physicians are from Delaware.

Figure 2.6
State of High School Graduation
by County

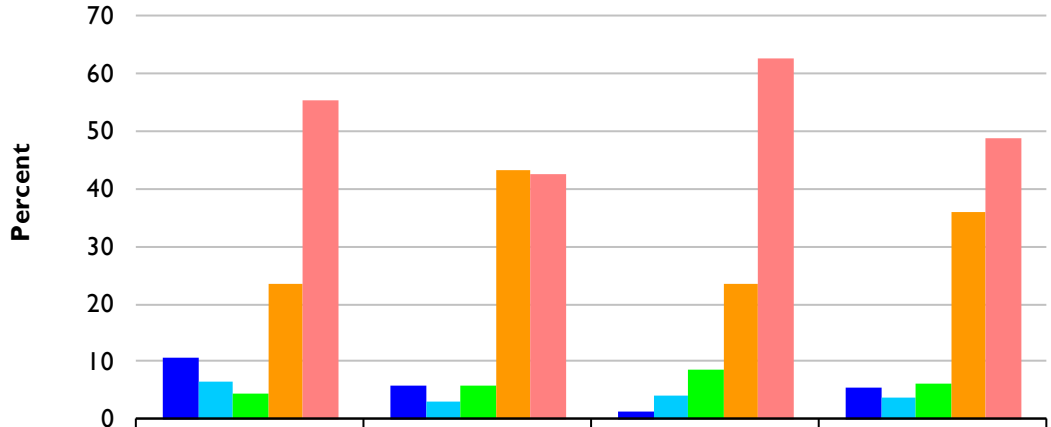


	Kent	New Castle	Sussex	Delaware
DE	8.7	21.6	8.4	16.9
MD	12.0	5.3	7.8	6.8
NJ	9.8	9.9	7.8	9.4
NY	17.4	9.3	11.4	10.8
PA	13.0	18.3	13.9	16.6
Other	39.1	35.5	50.6	39.5

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

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

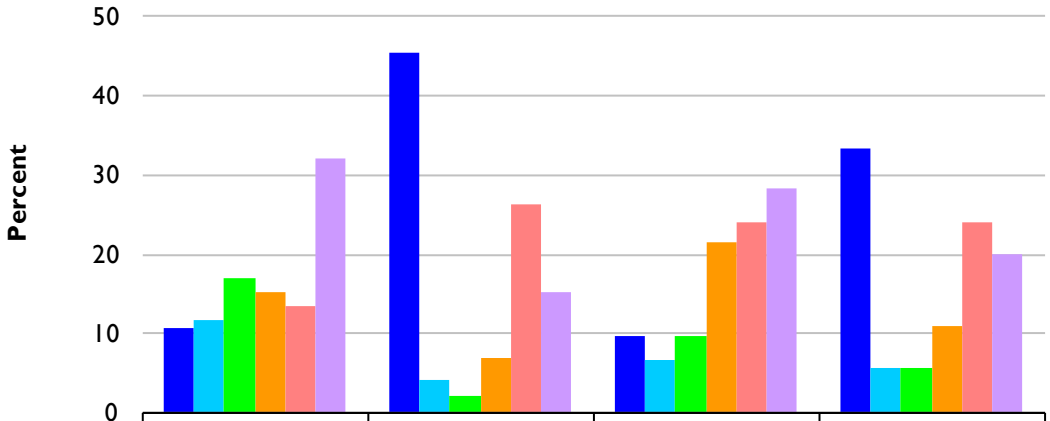


	Kent	New Castle	Sussex	Delaware
MD	10.6	5.7	1.2	5.3
NJ	6.4	2.9	4.2	3.6
NY	4.3	6.0	8.4	6.3
PA	23.4	43.0	23.5	35.9
Other	55.3	42.4	62.7	48.8

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 five percent of New Castle County's physicians completed their medical residency in Delaware, while only 11% of primary care physicians in Kent County and 10% of Sussex County physicians completed their residency in Delaware. Overall, 20% of Delaware's physicians completed their medical residency outside of the region.

Figure 2.8
State of Medical Residency
by County



	Kent	New Castle	Sussex	Delaware
DE	10.7	45.5	9.7	33.3
MD	11.6	4.3	6.7	5.7
NJ	17.0	2.0	9.7	5.6
NY	15.2	6.8	21.5	11.1
PA	13.4	26.2	24.1	24.2
Other	32.1	15.2	28.2	20.1

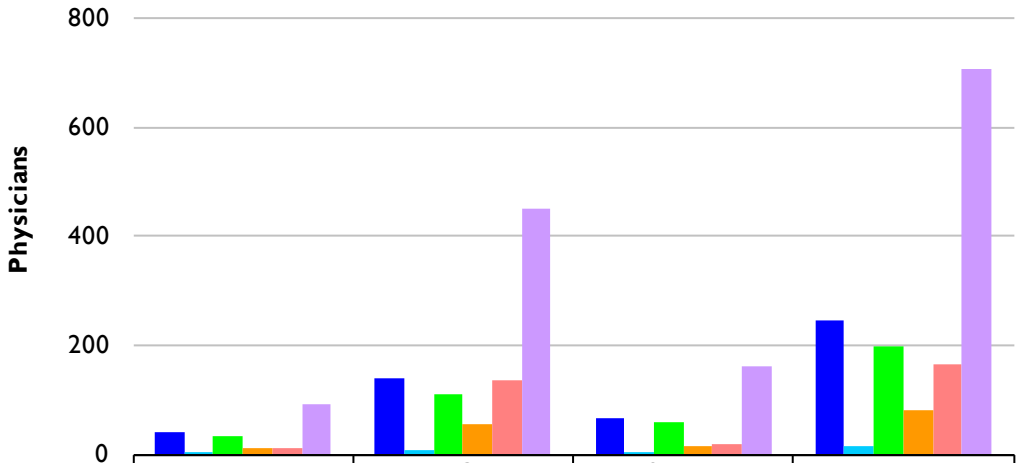
Source: Center for Applied Demography & Survey Research
University of Delaware

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 (60%) resided in the region at the time of high school graduation. Second, most of Delaware's primary care physicians (51%) went to medical school within several hundred miles of where they practice today. Third, almost 80% of Delaware's primary care physicians completed their medical residency in the region.

Practice Characteristics

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



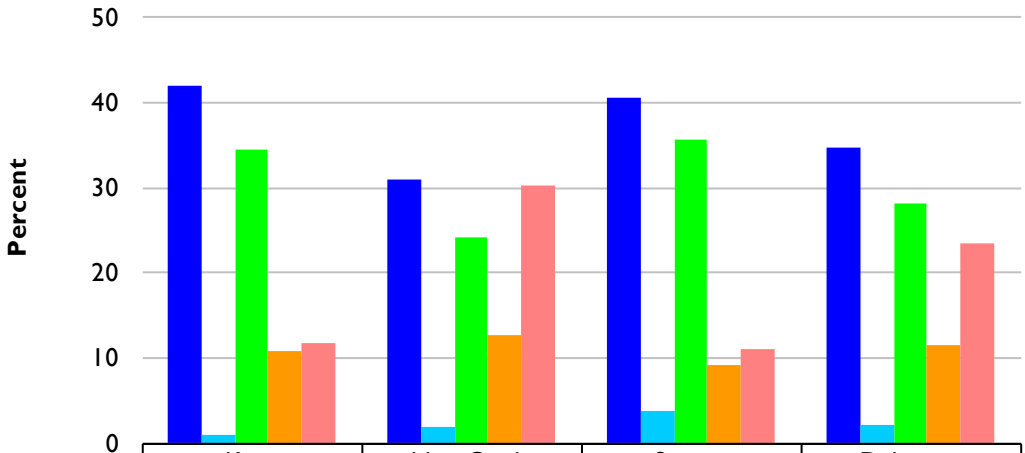
	Kent	New Castle	Sussex	Delaware
FP	39	140	66	245
GP	1	9	6	16
IM	32	109	58	199
OBGYN	10	57	15	82
PD	11	137	18	166
Total	93	452	163	708

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



	Kent	New Castle	Sussex	Delaware
FP	41.9	31.0	40.5	34.6
GP	1.1	2.0	3.7	2.3
IM	34.4	24.1	35.6	28.1
OBGYN	10.8	12.6	9.2	11.6
PD	11.8	30.3	11.0	23.4

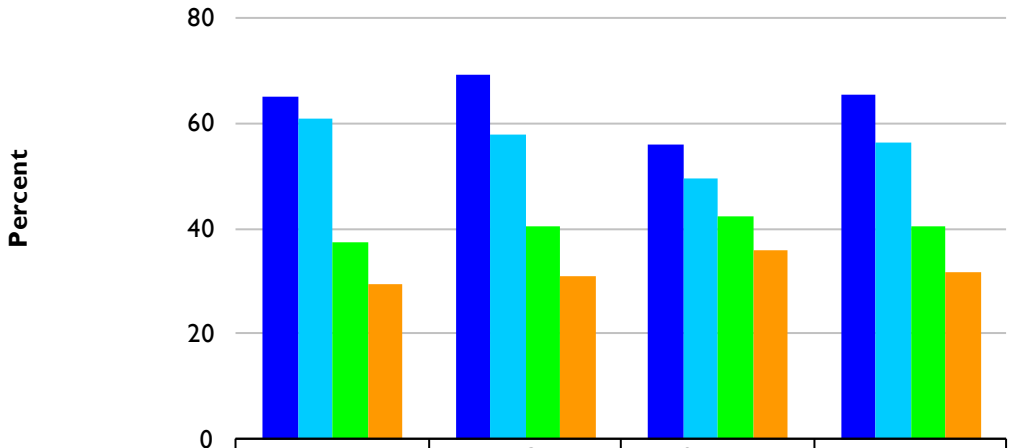
Source: Center for Applied Demography & Survey Research
University of Delaware

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).

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, 69% of primary care physicians in New Castle County provide

pediatric services, and 60% 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 Sussex County's non-OBGYN physicians is providing OBGYN services. 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



	Kent	New Castle	Sussex	Delaware
Pediatrics: All PCPs	64.8	69.1	55.7	65.4
Non-Pediatricians	60.8	57.8	49.6	56.2
OBGYN:All PCPs	37.5	40.5	42.3	40.5
Non-OBGYNs	29.5	30.9	35.8	31.9

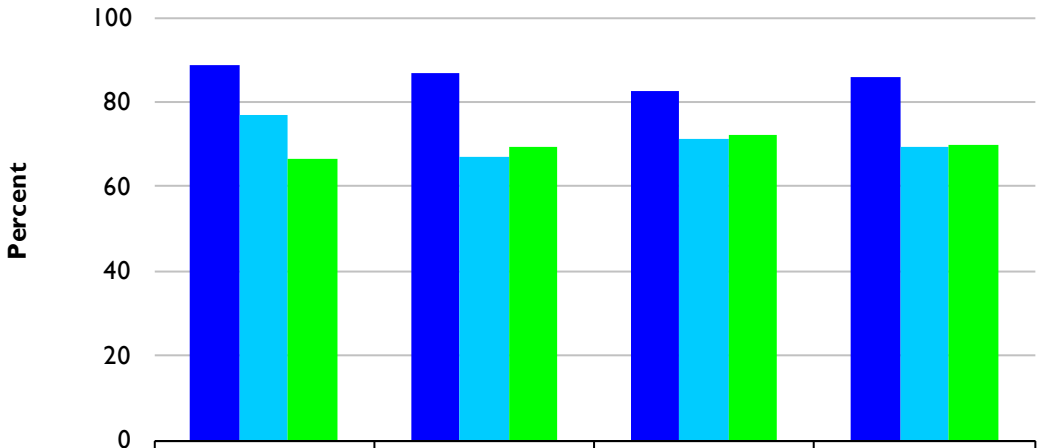
Source: Center for Applied Demography & Survey Research
University of Delaware

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 87% of primary care physicians report that they are accepting new patients. The proportion is lowest in Sussex 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 82% of non-pediatric primary care physicians are accepting new Medicare patients in contrast to the 69% 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



	Kent	New Castle	Sussex	Delaware
All	88.5	86.6	82.8	86.0
Medicare	77.1	66.8	71.1	69.2
Medicaid	66.7	69.3	72.3	69.7

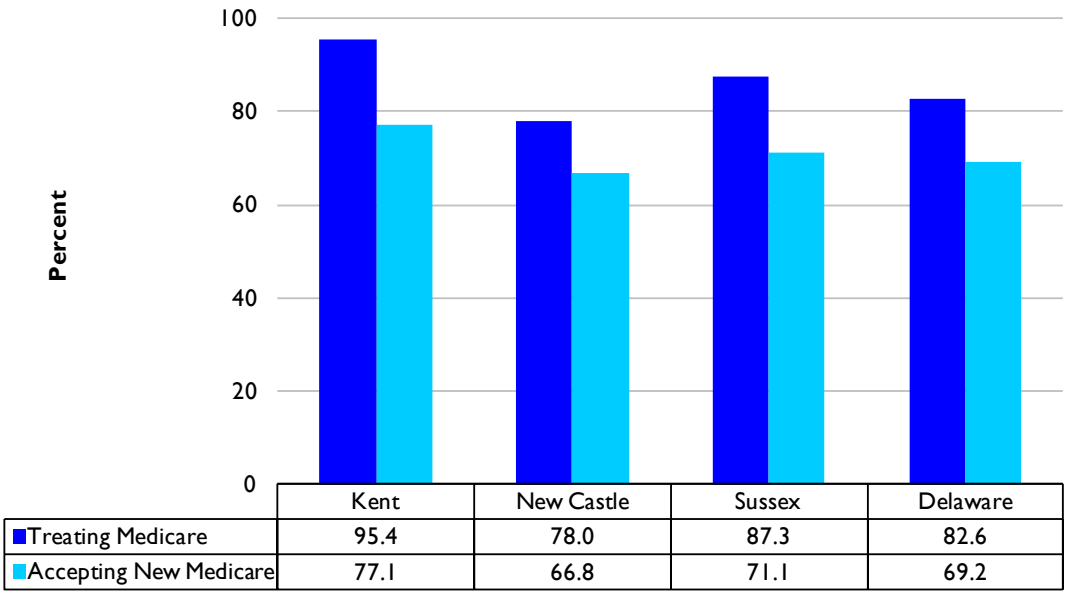
Source: Center for Applied Demography & Survey Research
University of Delaware

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 fourteen percentage points. These differences are most severe

in Kent and Sussex counties where the difference is 16-17%. 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

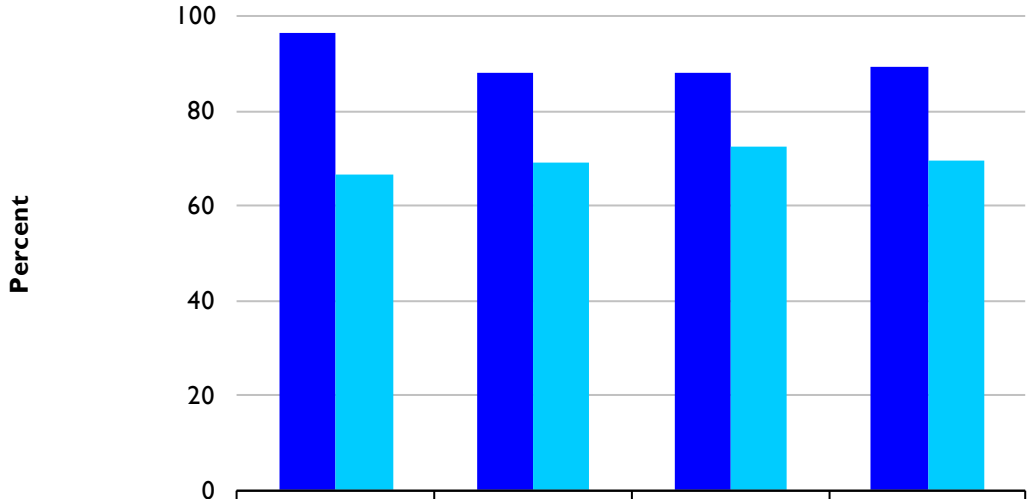


	Kent	New Castle	Sussex	Delaware
Treating Medicare	95.4	78.0	87.3	82.6
Accepting New Medicare	77.1	66.8	71.1	69.2

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 almost 20 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

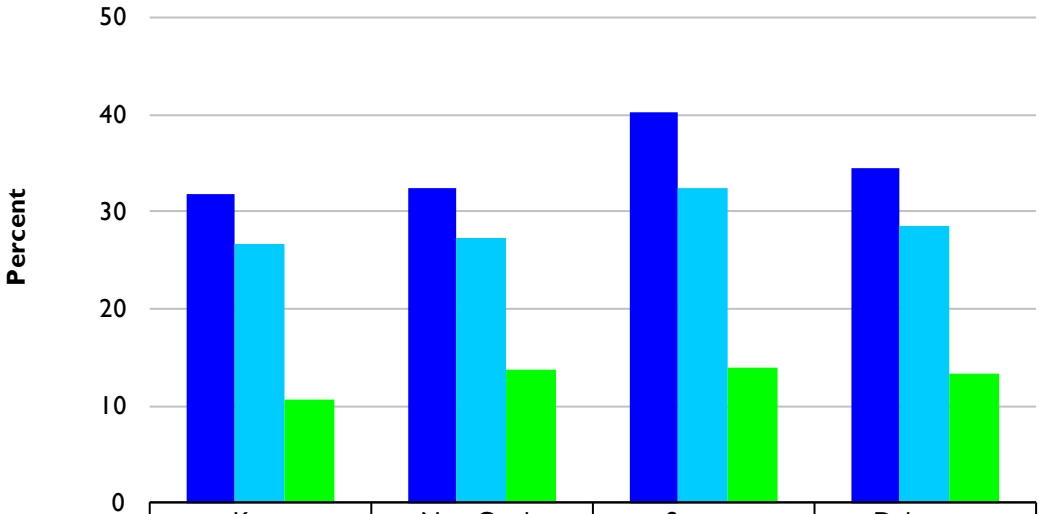


	Kent	New Castle	Sussex	Delaware
Treating Medicare	96.6	88.1	88.0	89.3
Accepting New Medicaid	66.7	69.3	72.3	69.7

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 (40%) because the older population is relatively higher there.

Figure 3.7
Percent of Time Serving Selected Patient Groups
by County



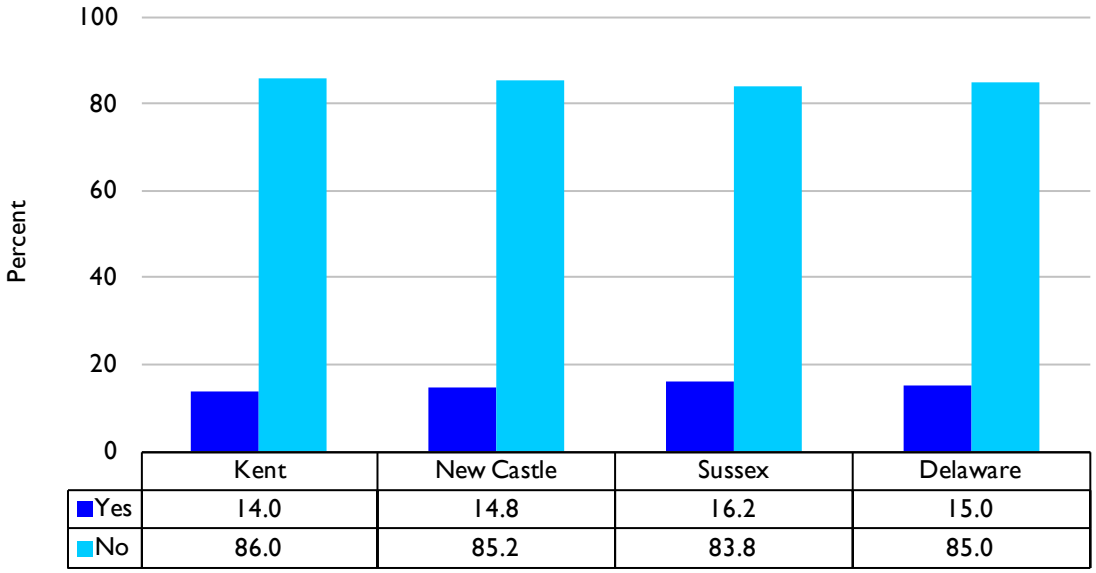
	Kent	New Castle	Sussex	Delaware
Medicare	31.7	32.4	40.2	34.4
Medicaid	26.7	27.2	32.4	28.4
Self-Pay	10.7	13.8	13.9	13.4

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 28% of a physician's time.

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, 15% of primary care physicians have this sub-specialty (see Figure 3.8). The highest proportion (15%) is in Sussex County, in light with the higher proportion of elderly in that county.

Figure 3.8
Practice Geriatrics as a Sub-specialty
by County

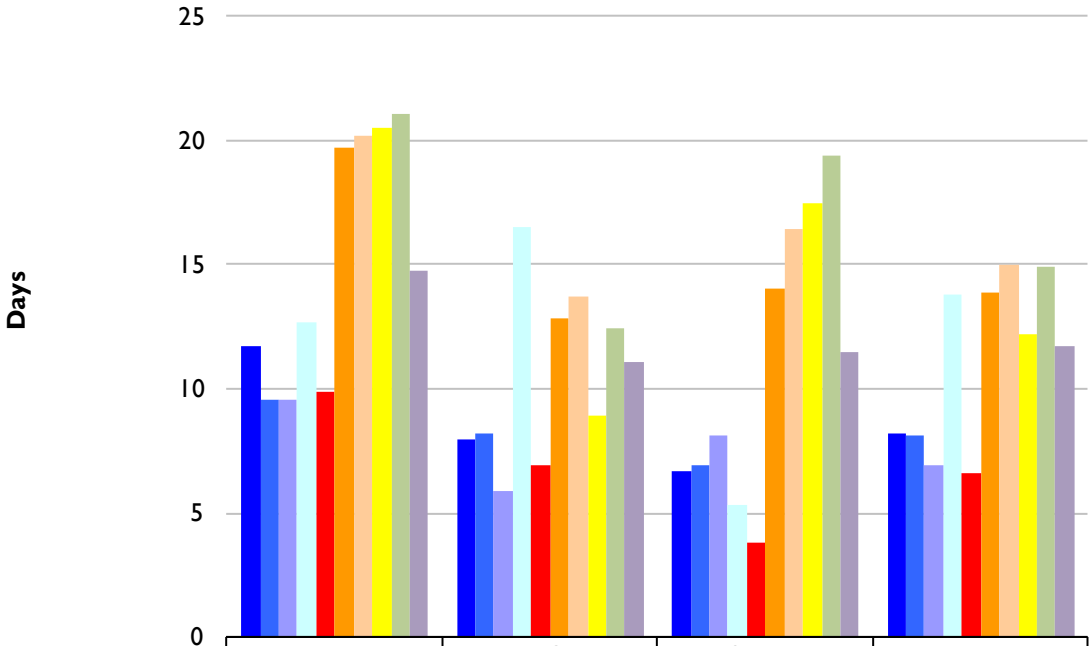


	Kent	New Castle	Sussex	Delaware
Yes	14.0	14.8	16.2	15.0
No	86.0	85.2	83.8	85.0

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 about a week. In contrast, the new patient will wait 12 days. Since the last survey in 2008, the situation for established patients has improved across the board and wait times are actually more in line with those measured in 2006.

Figure 3.9
Average Wait Time for Types of Patients
by County



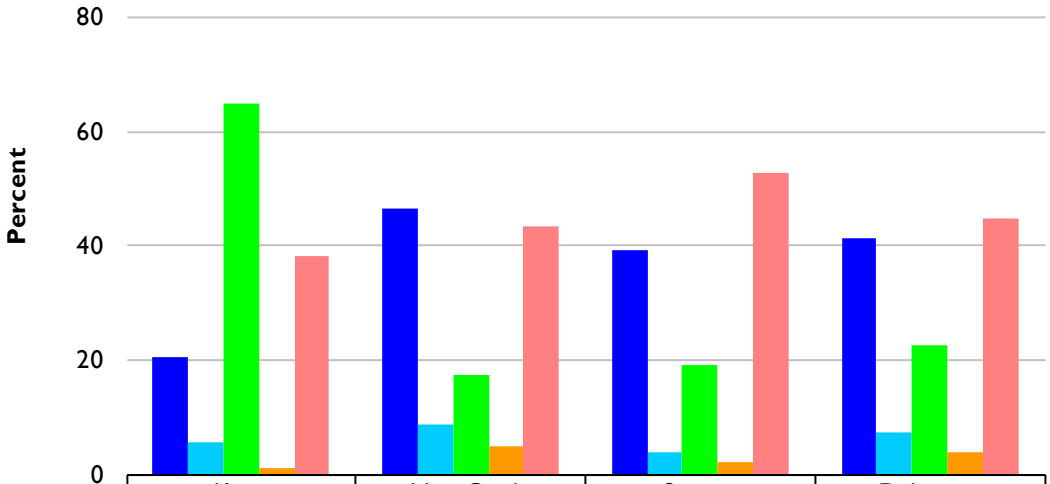
	Kent	New Castle	Sussex	Delaware
1998-Established	11.7	8.0	6.7	8.2
2001-Established	9.6	8.2	6.9	8.1
2006-Established	9.6	5.9	8.1	6.9
2008-Established	12.7	16.5	5.3	13.8
2011-Established	9.9	6.9	3.8	6.6
1998-New	19.7	12.8	14.0	13.9
2001-New	20.2	13.7	16.4	15.0
2006-New	20.5	8.9	17.5	12.2
2008-New	21.1	12.4	19.4	14.9
2011-New	14.7	11.1	11.5	11.7

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

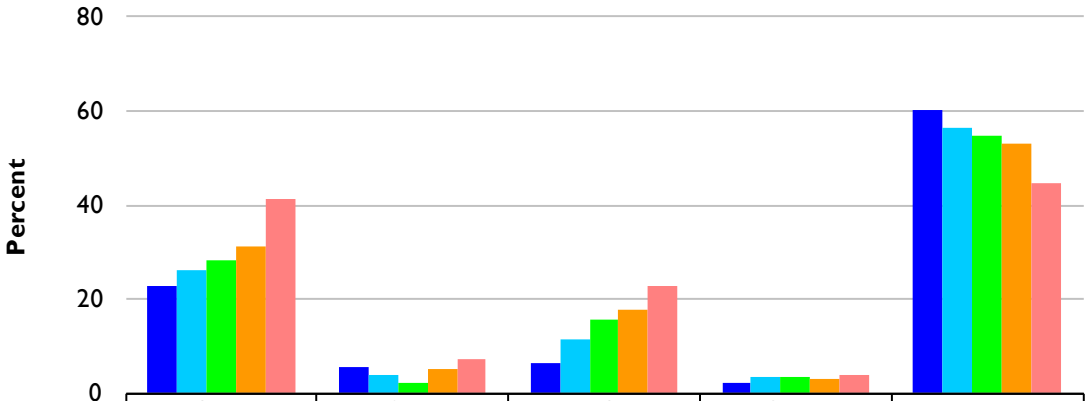


	Kent	New Castle	Sussex	Delaware
APN	20.5	46.6	39.3	41.3
CNM	5.7	8.8	4.0	7.3
PA	64.8	17.3	19.0	22.6
Other	1.1	4.9	2.0	3.7
None	38.2	43.2	52.7	44.7

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. First time since the data has been collected in this fashion, the proportion of those using these non-physician resources is now larger than the proportion of those who do not use these resources.

Figure 3.11
Use of Non-Physician Resources
by Year



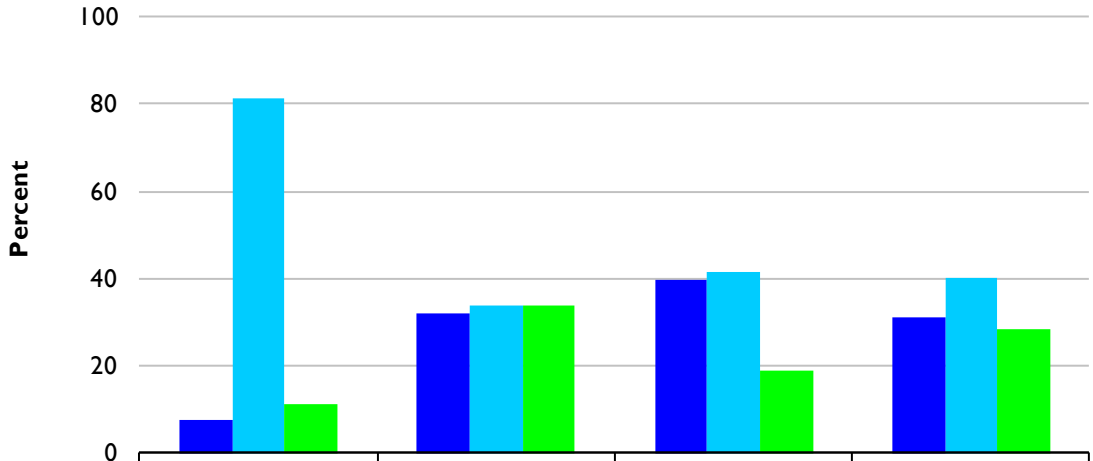
	APN	CNM	PA	Other	None
1998	22.6	5.4	6.3	1.9	60.4
2001	26.3	4	11.3	3.3	56.4
2006	28.3	2.2	15.5	3.3	54.8
2008	31.2	5.0	17.6	3.1	53.2
2011	41.3	7.3	22.6	3.7	44.7

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. The distribution of Kent County's primary care physicians' participation is different than that of primary care physicians in Sussex and New Castle Counties. In Kent County, about

81% of respondents indicated that they belong to 5-9 managed care networks compared with 34-41% in the remaining counties.

Figure 3.12
Member of Managed Care Networks
by County



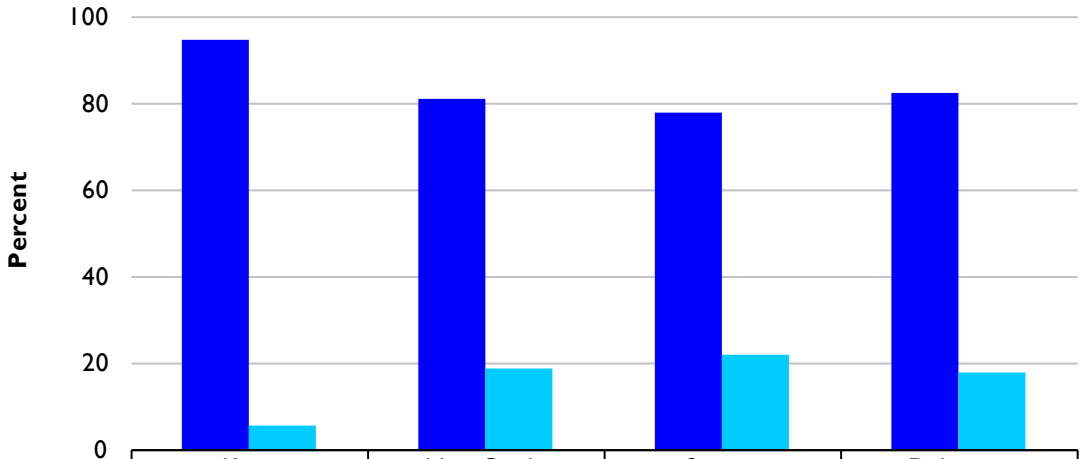
	Kent	New Castle	Sussex	Delaware
1-4	7.4	31.9	39.7	31.2
5-9	81.5	34.0	41.4	40.2
10+	11.1	34.0	19.0	28.6

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.[5] This partnership allows participating physicians across Delaware to access their patient's clinical health information housed at other facilities. Across Delaware, 82% of primary care physicians indicate awareness of DHIN (Figure 3.13). Sussex County's primary care physicians are least likely to indicate (78%) that they are aware of DHIN.

[5] About DHIN, http://www.dhin.org/AboutDHIN, Accessed September 29th, 2008

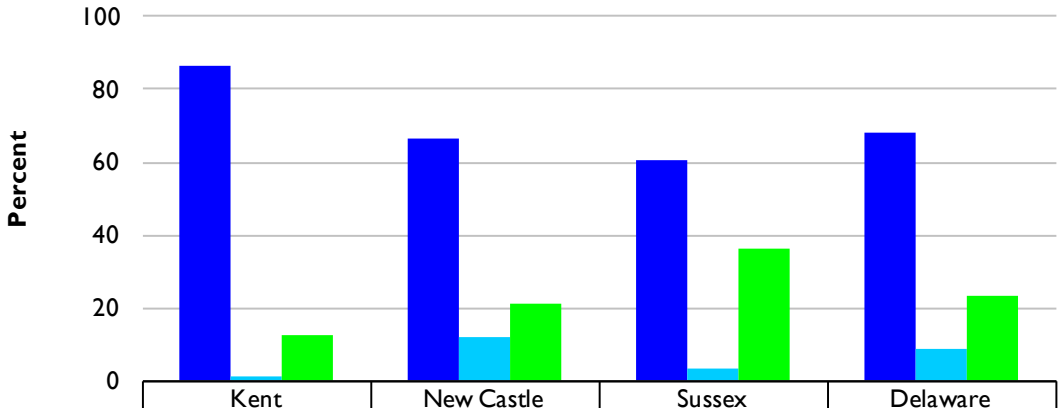
Figure 3.13
Awareness of the Delaware Health Information Network by County



	Kent	New Castle	Sussex	Delaware
Yes	94.6	81.3	78.1	82.3
No	5.4	18.8	21.9	17.7

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



	Kent	New Castle	Sussex	Delaware
Yes	86.4	66.7	60.8	68.2
No	1.2	12.1	3.2	8.6
Unsure	12.3	21.2	36.0	23.2

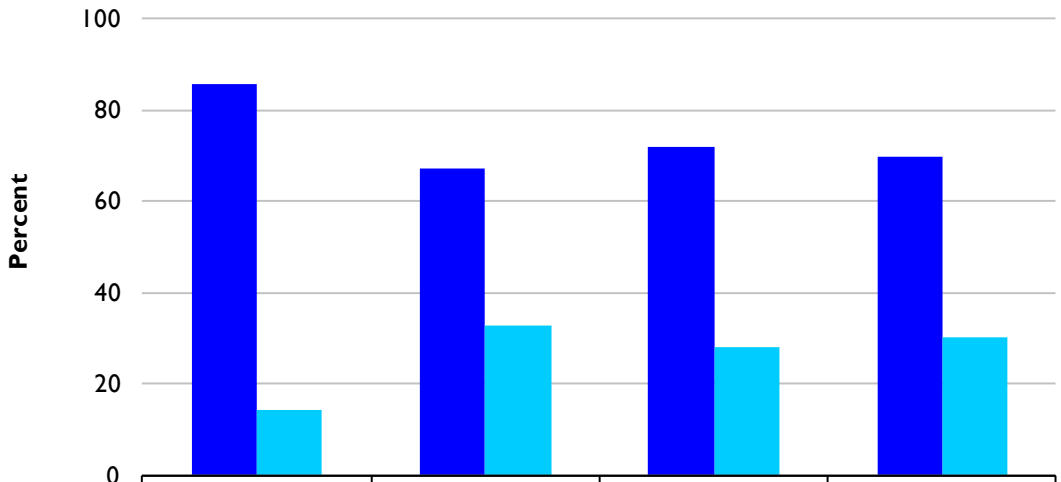
Source: Center for Applied Demography & Survey Research
University of Delaware

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, 68% of those primary care physicians who are aware of DHIN participate in the partnership. Kent County's primary care

physicians who are aware of DHIN are significantly more likely to participate than primary care physicians in Sussex and New Castle counties.

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, 70% of physicians aware of DHIN and currently not participating indicated interest to participate in DHIN in the future. Kent County's physicians aware of DHIN were most likely (86%) 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



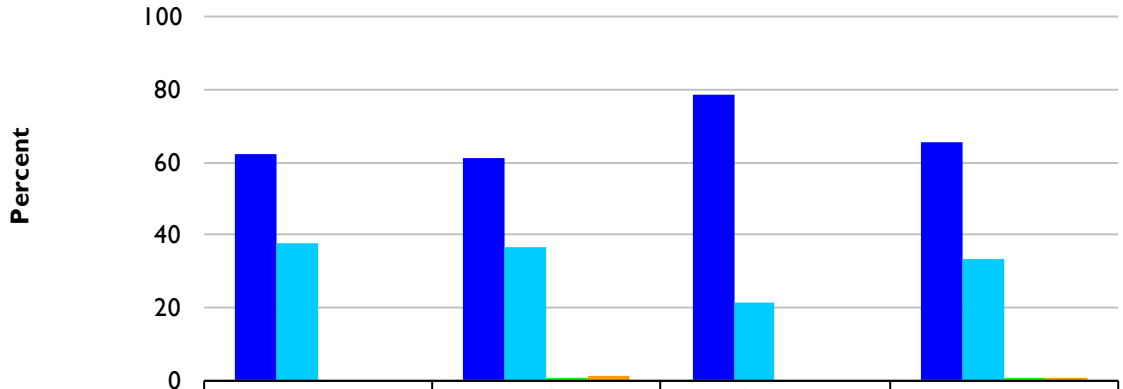
	Kent	New Castle	Sussex	Delaware
Yes	85.7	67.1	71.8	69.7
No	14.3	32.9	28.2	30.3

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 access to clinical information (Figure 3.16). Please note that this is different than in 2008 when we asked about willingness to pay per

transaction. The tabulation of respondents indicates that a majority (66%) would be willing to pay $0 to access DHIN. Approximately 33% would pay between $1 and $250 to access their patients' clinical information at other facilities. Slightly over 1% of respondents indicated that they would be willing to pay more than $250 for access. Interestingly, physicians in Sussex County, which has the lowest participation, are least likely to pay for access.

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



	Kent	New Castle	Sussex	Delaware
$0	62.2	61.1	78.7	65.7
$1 to $250	37.8	36.9	21.3	33.1
$251 to $500	0.0	0.7	0.0	0.4
More than $500	0.0	1.3	0.0	0.8

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

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 1,274:1 without considering nonphysician providers or international medical school graduates holding J-1 visas. The ratios are 1,764:1, 1,191:1, and 1,274:1 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.[6] 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

[6] In the September 1,1998 Federal Register DHSS 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 an equal number 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.[7] 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.

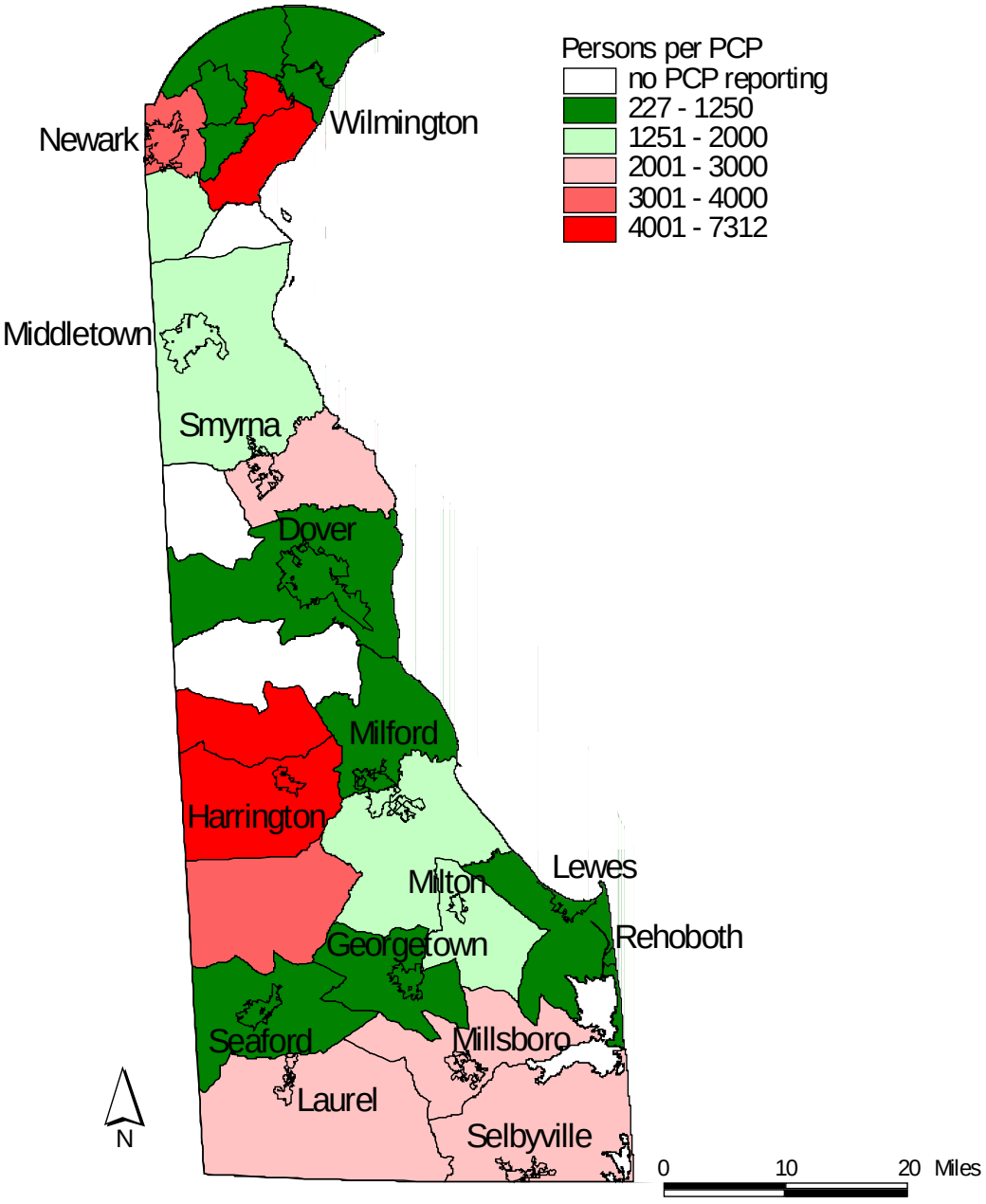
Age is not the only demographic area that can make a difference. Traditionally, people who live in households that are under the poverty line will likely need more medical care than those who are above it. Further, higher infant mortality in an area may suggest less access to primary care physicians. 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.

[7] 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.

While looking at the distribution of physicians by CCD, it is important to point out that shortage area designations through the federal government take into account not just the availability of physicians in rational service areas but also the access to care in areas adjacent to these geographies. Thus, areas that show to be underserved but are within reasonable driving distance (rural areas) or reasonable time travel by public transportation (urban areas) might not qualify for federal designation as a shortage area.

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 two census county divisions fall in the 3,001-4,000 (red) range; this is the Newark census county division and the Bridgeville-Greenwood census county division. In general, there are a total of ten (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 four census county divisions (Lower Christiana, New Castle, Newark and Red Lion) with a need for additional primary care physicians. In general, this is indicative that the 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). The Harrington census county division is clearly lacking in primary care physicians but is adjacent to areas with more physicians.

Primary care physicians are unevenly distributed throughout Sussex County. Seaford Georgetown and Lewes census county divisions are all well supplied with primary care

physicians. Milton and Milford South census county divisions also have an adequate number of primary care physicians. Bridgeville-Greenwood census county divisions cross the 3,000:1 ratio and are significantly underserved. Laurel, Milsboro and Selbyville are on the edge of crossing the adequacy ratio, and it is expected that the summertime populations could well place strain on the supply of the primary care physicians there.

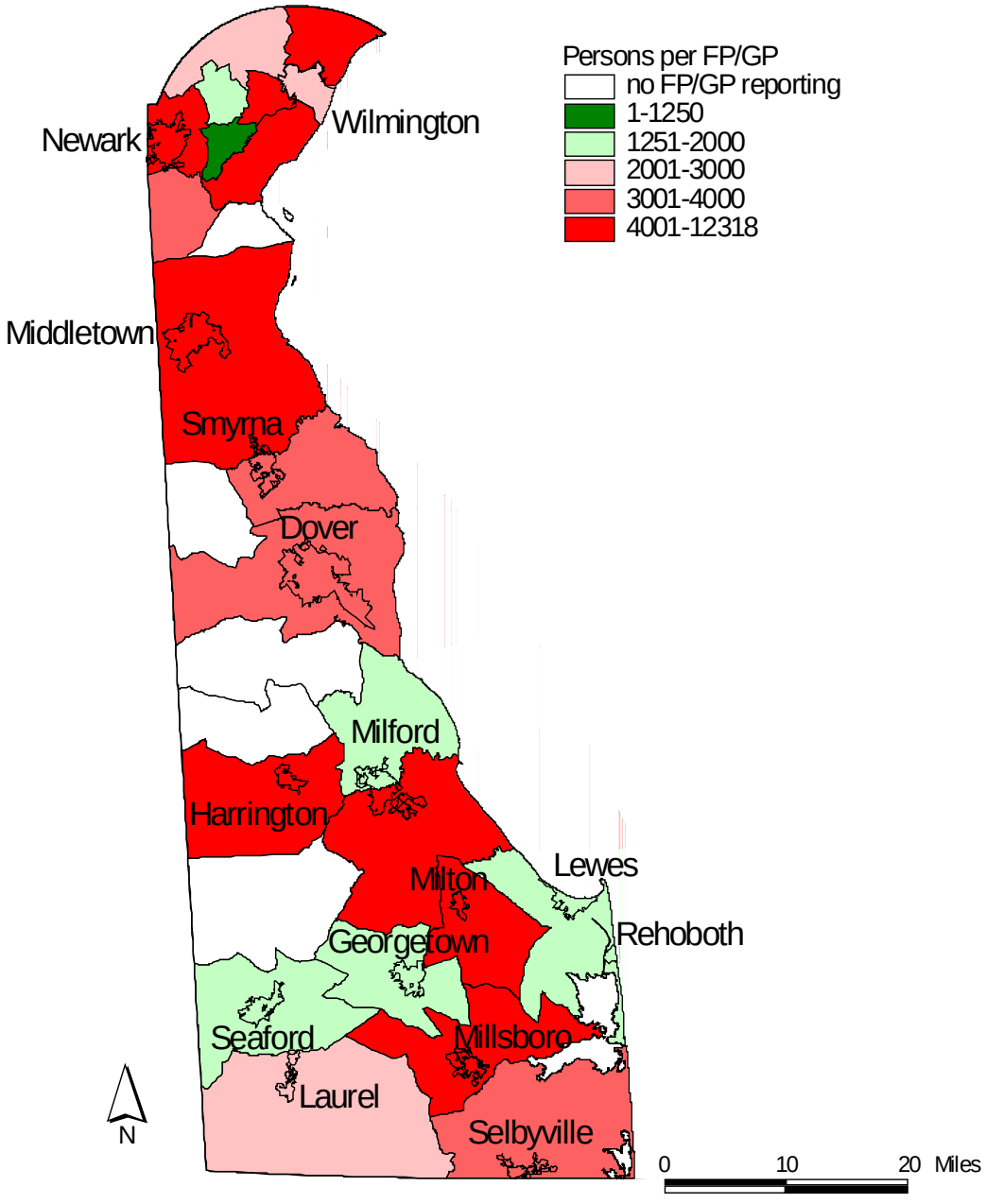
Figures 4.2 through 4.4 show the distribution by primary care specialty. There are no specific standards related to these specialties like there are for primary care physicians in general. Therefore the scale and associated colors vary between maps and differ from Figure 4.1, above (however the scales are the same as in the Primary Care Physician 2006 and 2008 reports).

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 under 2,000:1 (dark green & light green), there are only six census county divisions that meet this criterion. Interestingly, each county has at least one census county division that meets this criterion. Also, the most adequately served CCD by family practice physicians is Upper Christina in New Castle County.

OBGYNs are spatially much more concentrated than all other primary care physicians according to this survey. Only 10 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 must expect to travel. The unevenness of the spatial distribution will also impact the accessibility of OBGYNs as primary care physicians of which there are 12%.

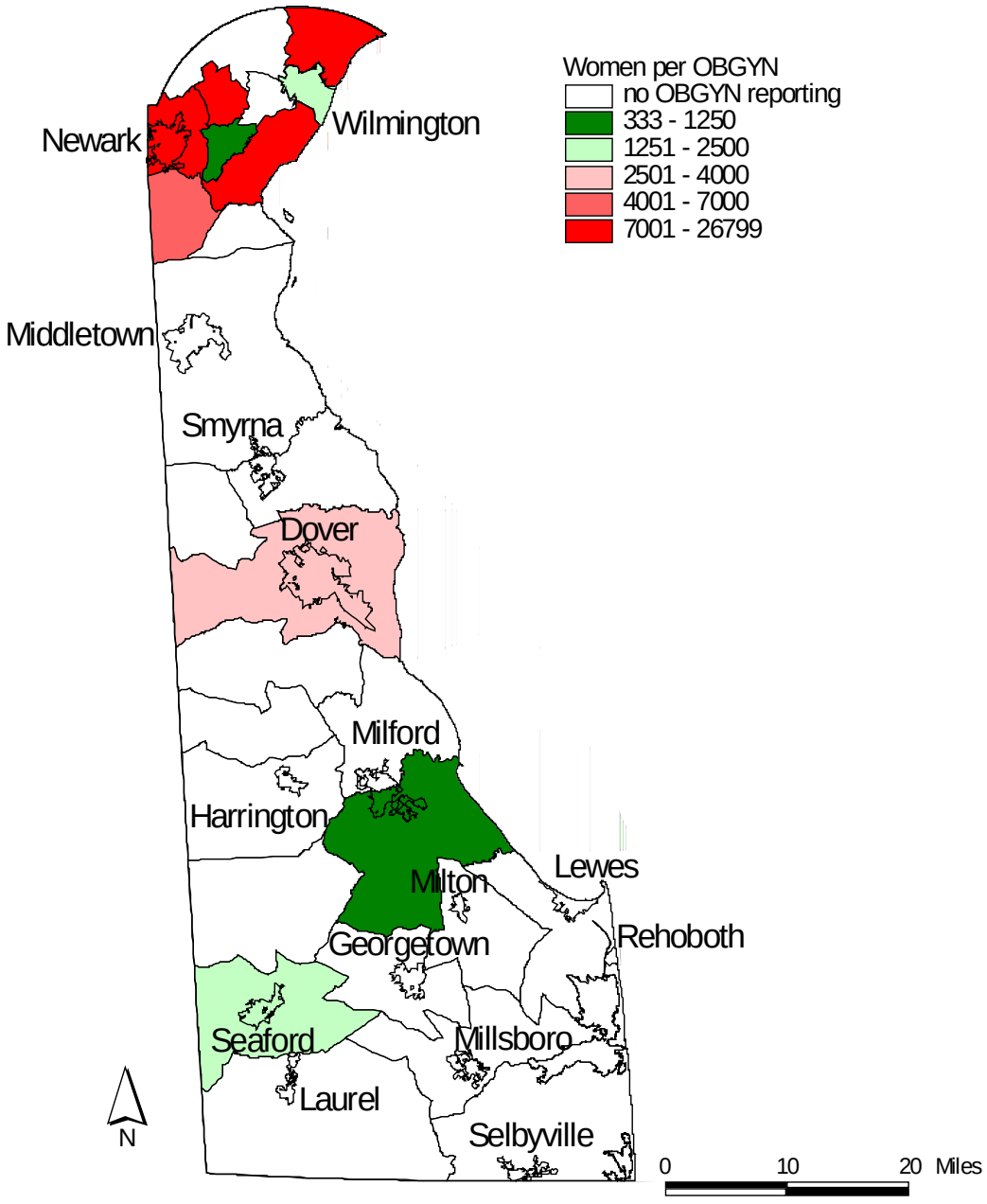
In Figure 4.4, the ratio of pediatricians to the youth population is displayed. Pediatricians are almost 23% of the primary care physicians. They are spatially distributed more broadly than OBGYNs (17 CCDs compared to 10) but less so than primary care physicians in general. There is an orientation toward 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



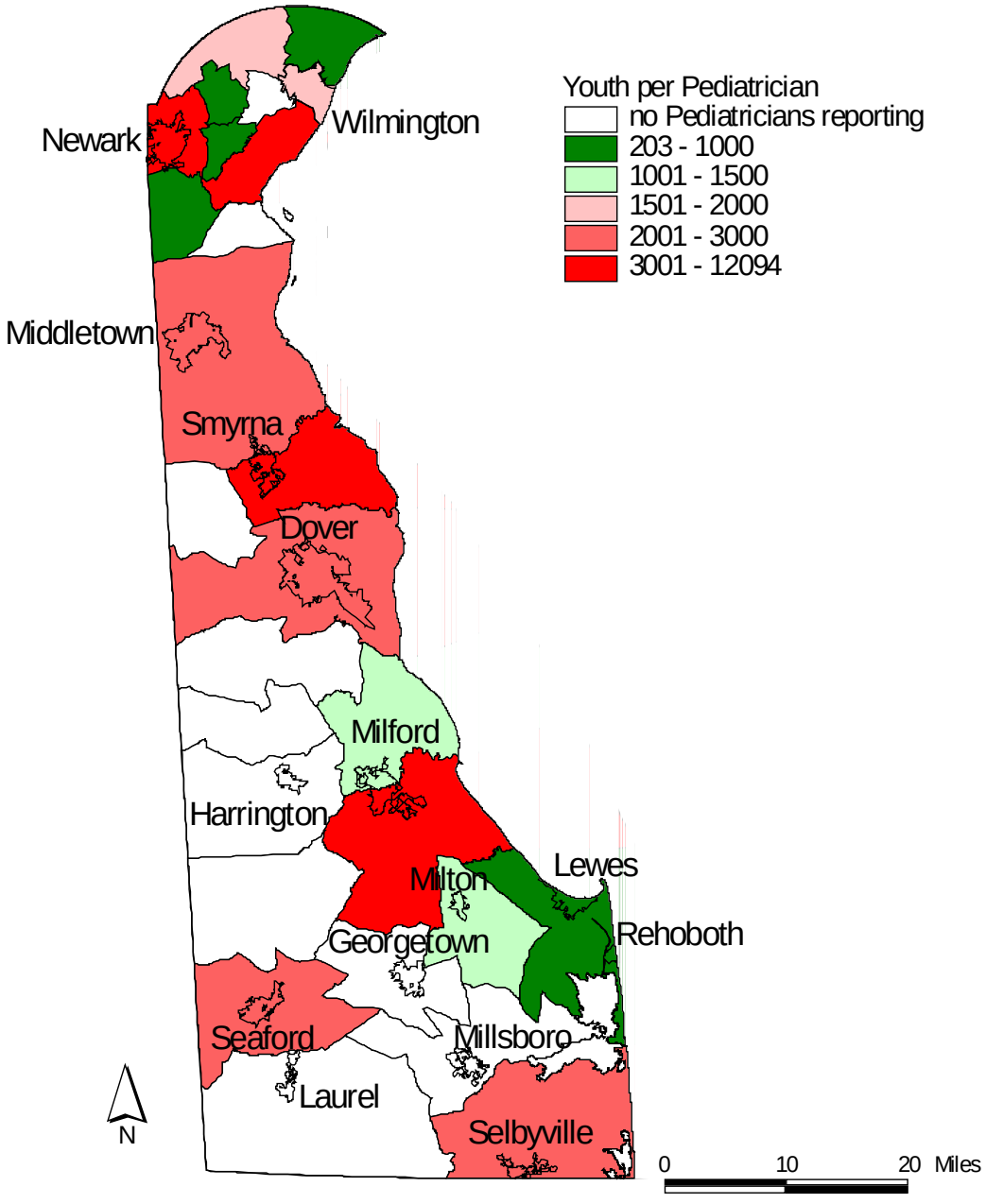
Source: Center for Applied Demography & Survey Research,
University of Delaware

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 seventh 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 2011 there were 888 active primary care physicians in Delaware. Accounting for the time they offer direct patient care, the estimated Full Time Equivalent is 707 physicians.

- In general, there are a sufficient number of primary care physicians in Delaware (1,274:1, up from 1,187:1 in 2008) 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 (1,764:1 up from 1,718:1 in 2008) and Sussex County (1,225 down from 1,310:1 in 2008) 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 80% of them completed their medical residency in the region.

- Eighty-six percent of primary care physicians are accepting new patients but the proportion accepting new Medicare and Medicaid patients (69-70%) is much lower.

- Over 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 7 days for an appointment. Kent County's physicians report that new patients have to wait about 14 days for an appointment.

- About 55% of primary care physicians employ non-physician services from advanced practice nurses, physician assistants, and others.

- 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 2011

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 2008, point your browser to:

http://www.cadsr.udel.edu/projects/DOCUMENTS/phy0803.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 34)**
5 ☐ No, inactive **(GO TO QUESTION 34)**
6 ☐ No, other (*specify*): _____ **(GO TO QUESTION 34)**
7 ☐ Not practicing in Delaware **(GO TO QUESTION 34)**

IF RETIRED, INACTIVE, OTHER, OR NOT PRACTICING IN DELAWARE, PLEASE SKIP TO PAGE 4, QUESTION 34

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 ☐ Hospital
- 5 ☐ Other Non-Government Employer (school, etc.)
- 6 ☐ Federal Government
- 7 ☐ Federally Qualified Health Center
- 8 ☐ State Government (public health, etc.)
- 9 ☐ Other (*specify*): _____

6. What are the practice name, facility name, address and zip code for *each* of the locations <u>in Delaware</u> 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 <u>in Delaware</u> do you spend at each of the locations listed above?

1 ____ Percent – Primary Location

2 ____ Percent – Secondary Location

3 ____ Percent – Tertiary Location

<u>100</u> Percent – Total

QUESTIONS BELOW PERTAIN TO YOUR <u>PRIMARY LOCATION IN DELAWARE</u> ONLY

8. What type of site is 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 you practice 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:
		☐ Board Certified ☐ Board Eligible
		☐ Board Certified ☐ Board Eligible
		☐ Board Certified ☐ Board Eligible

IF YOU SPEND <u>NO TIME DELIVERING PRIMARY CARE</u> 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 34, OTHERWISE COMPLETE THE FOLLOWING:

10. 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)	

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

1 ☐ Yes
2 ☐ No

CONTINUE ON PAGE 3

12. **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
2 ☐ 4-5 year-olds
3 ☐ 6-10 year-olds
4 ☐ 11-13 year-olds
5 ☐ 14-16 year-olds
6 ☐ 17-18 year-olds
7 ☐ 19-21 year-olds

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

1 ☐ Yes
2 ☐ No

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

Saturday
1 ☐ Yes
2 ☐ No

If YES, how many Saturdays a month? _____ Saturdays per month

Evening
1 ☐ Yes
2 ☐ No

If YES, how many days a week? _____ Days per week

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 _____ Days — 1 ☐ Not Applicable

Existing Patients _____ Days — 1 ☐ Not Applicable

16. **Do you provide SAME DAY appointments for existing patients who call for a sick appointment?**

1 ☐ Yes
2 ☐ No

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

1 ☐ Yes
2 ☐ No

18. **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%
2 ☐ 10%
3 ☐ 20%
4 ☐ 30%
5 ☐ 40%
6 ☐ 50%
7 ☐ 60%
8 ☐ 70%
9 ☐ 80%
10 ☐ 90%
11 ☐ 100%

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

1 ☐ Yes
2 ☐ No

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

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

1 ☐ Yes
2 ☐ No

22. **On average, what percentage of your time is spent delivering primary care to migrant farm workers? (*chose one number below*):**

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

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

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

24. **On average, what percentage of your time is spent delivering primary care to patients who are charged on a sliding fee scale based on the patient's family income? (*please chose one number, below*):**

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

25. **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
2 ☐ CNM
3 ☐ PA
4 ☐ Other
5 ☐ None

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

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

27. **Do you treat patients who have difficulty understanding English?**

1 ☐ Yes
2 ☐ No

If YES, about what percentage of your time is spent delivering primary care to these patients?

_____ Percent

CONTINUE ON PAGE 4

28. **Are there medical professionals 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
2 ☐ French
3 ☐ Arabic
4 ☐ Sign Language
5 ☐ Other (*specify*): _____

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

1 ☐ Yes
2 ☐ No

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

1 ☐ Yes
2 ☐ No

31. **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

32. **Do you allow patients to negotiate charges for services rendered?**

1 ☐ Yes
2 ☐ No

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

1 ☐ Yes
2 ☐ No

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

_____

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

1 ☐ Yes
2 ☐ No
3 ☐ Unsure

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

_____

_____

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

_____
State (country if applicable)

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

_____ _____
Name of medical school Year (YYYY)

_____
State (country if applicable)

37. **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.)

38. **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*): _____

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

1 ☐ Yes
2 ☐ No

40. **What is your gender?**

1 ☐ Male
2 ☐ Female

41. **What is your year of birth?**

_____
Year (YYYY)

42. **Do you have a Delaware <u>business</u> license?**

1 ☐ Yes
2 ☐ No

43. **Does your practice use computers/information technology for any of the following (*check all that apply*):.**

1 ☐ Billing
2 ☐ Scheduling
3 ☐ E-mail or Messaging with patients
4 ☐ Electronic order entry
5 ☐ E-prescribing
6 ☐ Electronic laboratory/radiology result reporting
7 ☐ Other (*specify*): _____

44. **Does your office <u>currently</u> use Electronic Health Records (EHR) for your patients?**

1 ☐ Yes
2 ☐ No

If NO, do you expect to be using them by the end of the year 2011?

1 ☐ Yes
2 ☐ No

If NO, why not?:

_____

_____

_____

(GO TO QUESTION 45)

CONTINUE ON PAGE 5

45. **Are you aware of the Delaware Health Information Network (DHIN), a service that provides physicians electronic access to clinical health information from the majority of Delaware's hospitals and reference laboratories using one standard format?**

1 ☐ Yes
2 ☐ No **(GO TO QUESTION 49)**

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

1 ☐ Yes **(GO TO QUESTION 48)**
2 ☐ Unsure **(GO TO QUESTION 48)**
3 ☐ No **(GO TO QUESTION 47)**

47. **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 48)**

2 ☐ No

If NO, why not?:

_____

_____

(GO TO QUESTION 49)

48. **If a fee was assessed for the ability to have unlimited access to clinical results and reports on your patients from multiple sources (labs, radiology, transcriptions, medications) through the DHIN, how much would you be willing to pay per month for that service?**

1 ☐ $0
2 ☐ Between $1 to $250
3 ☐ Between $251 to $500
4 ☐ More than $500

49. **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

50. **How familiar are you with the concept of a patient centered medical home?**

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

51. **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

52. **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

53. **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

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

_____

_____

_____

_____

_____

_____

_____

_____

Thank you for completing the Delaware Physician Survey 2011.

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

Center for Applied Demography & Survey Research

College of Arts and Sciences
University of Delaware
287 Graham Hall
Newark, DE 19716

phone: **302-831-8406** fax: **302-831-6434**

www.cadsr.udel.edu

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