Primary Care Physicians in Delaware 2018

DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health

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Executive Summary

The Primary Care Physician in Delaware 2018 survey is in its eighth round and provides timely and up to date insights into the primary care profession within Delaware. The current report is an update of the report published in 2013. It supplements and updates the data on primary care physicians from 1995, 1998, 2001, 2006, 2008, 2011, and 2013. While the state has exact information on the number of physicians who are licensed to practice in Delaware, data and information on physicians actively providing direct patient care, their practice characteristics and their demographic profile is only available through these regular reports. These results are used to help local and state governments along with employers and educational institutions, to plan for an adequate supply of health professionals in Delaware. By learning where physicians practice, the form and setting of their employment, and how long they plan to stay active in their profession, resources can be targeted to ensure adequate health care for Delaware's residents.

The data collected allows the estimation of the number of active primary care physicians in the state, along with the full-time equivalent (FTE) count, demographic characteristics, practice attributes, and spatial distribution. In summary:

- In 2018, there were 815 active primary care physicians in Delaware. Accounting for the time they offer direct patient care, the estimated FTE is 662 physicians.
- In general, there are a sufficient number of primary care physicians in Delaware (1,475:1), although their location and specialty is probably not optimal.
- While there are currently sufficient numbers of physicians, their numbers are at the upper range of what is desirable. Both Kent County (2,069:1 up from 1,661:1 in 2013) and Sussex County (2,014 up from 1,422:1 in 2013) are above that ratio of 2,000:1 which is used by HRSA to designate shortage areas.
- Kent County's physicians were least likely (60 percent) to report they will be active in the field five years from now, compared with 78 percent in Sussex County and 70 percent in New Castle County.

- Looking at the oldest age group (65 and above) of primary care physicians, over a quarter of Kent County's physicians are in this age bracket compared with 13 percent in New Castle County and 16 in Sussex County.

- About 60 percent of Delaware's physicians went to high school in the region; over half of them graduated from a medical school in the region; and about 80 percent of them completed their medical residency in the region.

- Eighty-two percent of primary care physicians are accepting new patients, but the proportion accepting new Medicare and Medicaid patients (72 and 78 percent, respectively) is much lower.

- Over 70 percent of a primary care physician's time is devoted to serving Medicare and Medicaid patients, while these populations represent less than 25 percent of the population.

- About 62 percent 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 close to hospitals.

Methodology

In 1995, the Division of Public Health (DPH) began to measure the number and spatial distribution of primary care physicians practicing in Delaware. The objective was to identify medically underserved areas and understand existing or developing trends that could impact the supply of primary care services. This document is the eighth report that summarizes routine surveys of primary care physicians in the state.

In 1995, the method chosen to gather the information was a mail survey combined with telephone follow-up of non-respondents. Mail-only surveys were conducted in 1998, 2001, 2006, 2008, 2011, 2013, and 2018. Each time, the survey instrument was refined with the objective of reducing the burden on the responding physician and improving the quality and relevance of the data gathered.

Until 2011, when responses were received, these would 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 provided 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 the most recent survey responses and all personally identifiable information removed) for the federal shortage area designations system (ASAPS) operated by the U.S. Department of Health and Human Services' Health Resources and Services Administration. Just like in 2011 and 2013, the 2018 estimates and results reported in this document are solely based on the responses obtained during the most recent data collection period (2018).

Data collection for the current report took place during the Spring/Summer of 2018. The list of licensed physicians obtained from the Division of Professional Regulation contained 12,410 entries. We excluded 36 with addresses outside of the United States, resulting in 12,374 entries. Out of these, 6,684 were listed as having a active license to practice medicine in Delaware. After removing duplicates, 5,050 unique physicians were identified. Of those, 2,355 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, 2,533 physicians were contacted. This includes all physicians with an active license in Delaware with an address in Delaware (2,355) and physicians with an active license in Delaware reporting addresses with ZIP codes adjacent to Delaware (178).

Physicians were first contacted with a pre-survey letter, followed up by the first mailing of the survey instrument. In subsequent mailings, staff only contacted physicians who had not responded. Next, surveyors sent a reminder card, two more mailings of the survey instrument, and a final reminder card to non-respondents.

Of those contacted, 957 responded to the survey and provided usable data. Additionally, in 62 cases, mailings were returned as undeliverable; two licensed physicians explicitly refused to answer; and in three cases, staff was informed that the physician had passed away.

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 considering the geographical distribution of licensed physicians, the number of primary care physicians is estimated at 815.

Not all physicians practice full-time. Others practice full-time but do not deliver direct patient care on a full-time basis. To provide a more realistic view of the primary care physicians' availability, full-time equivalents (FTE) were calculated. Physicians who delivered primary care directly to patients for 40 or more hours per week were defined as full-time primary care physicians. Anything less than 40 hours was considered less than full-time. For each four hours less than 40 hours, 0.1 FTE was

deducted[1]. After taking into account number of hours worked, the FTE number of primary care physicians is 662.

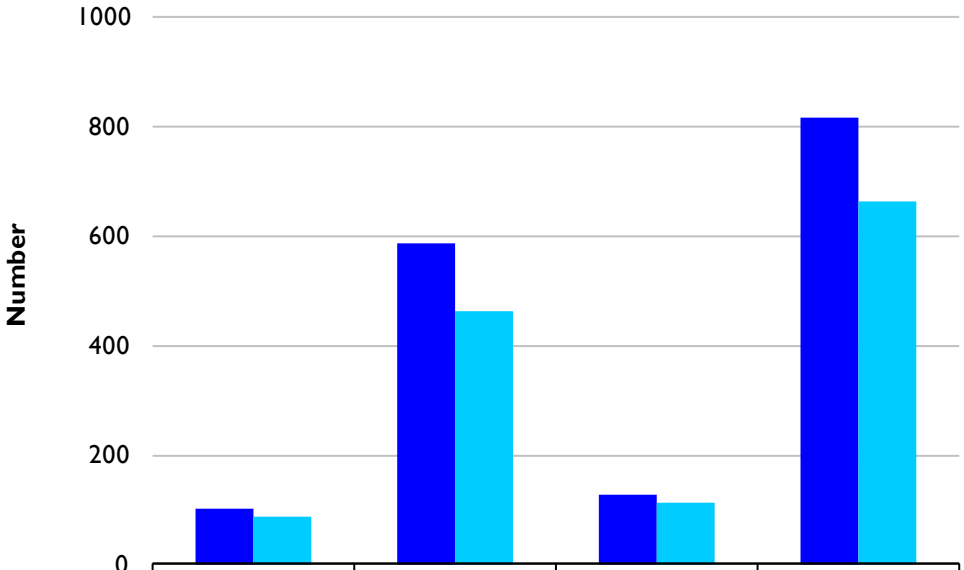
The remainder of this report examines different aspects of primary care physicians and their practices using presenting tabulations based on FTEs to allow comparisons across years. Overall, the objective is to touch on those attributes that affect the availability of primary care services. The following section discusses the basic demographics of the primary care physician population. Of particular interest is the age distribution and diversity of these practitioners. The section about practice characteristics covers important issues such as waiting times for patient appointments and the acceptance of new patients. The last section explains the spatial distribution of primary care physicians at the sub-county level in relation to the size and characteristics of the patient population.

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

Demographics

The number and availability of primary care physicians along with the demographic diversity within the primary care physician community are important as changes occur in Delaware's population. Some patients may feel more comfortable 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
Number and Full-Time Equivalent Count of Primary Care Physicians by County, Delaware, 2018



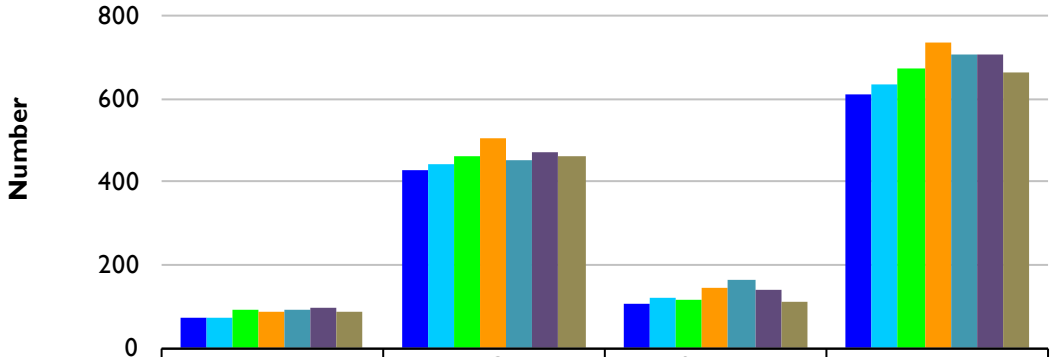
	Kent	New Castle	Sussex	Delaware
Physicians	102	587	126	815
FTE	89	461	112	662

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

Figure 2.1 summarizes the current number of primary care physicians in Delaware by county of practice. In 2018 there were 815 individual primary care physicians practicing in Delaware (down from

862 reported in 2013). After taking into account the number of hours worked by primary care physicians, the FTE count of Delaware's physician in 2018 stood at 662. FTE primary care physicians are most numerous in New Castle County (461) followed by Sussex County (112) and next followed by Kent County (89). Given Delaware's population in 2018 of 975,301[2], there are about 1,475 persons served by each full-time equivalent primary care physician in 2018. For the three counties, the estimates are 2,069 for Kent County, 1,231 for New Castle County, and 2,014 for Sussex County.

Figure 2.2
Full-Time Equivalent Primary Care Physicians
by County and Year, Delaware, 1998-2018



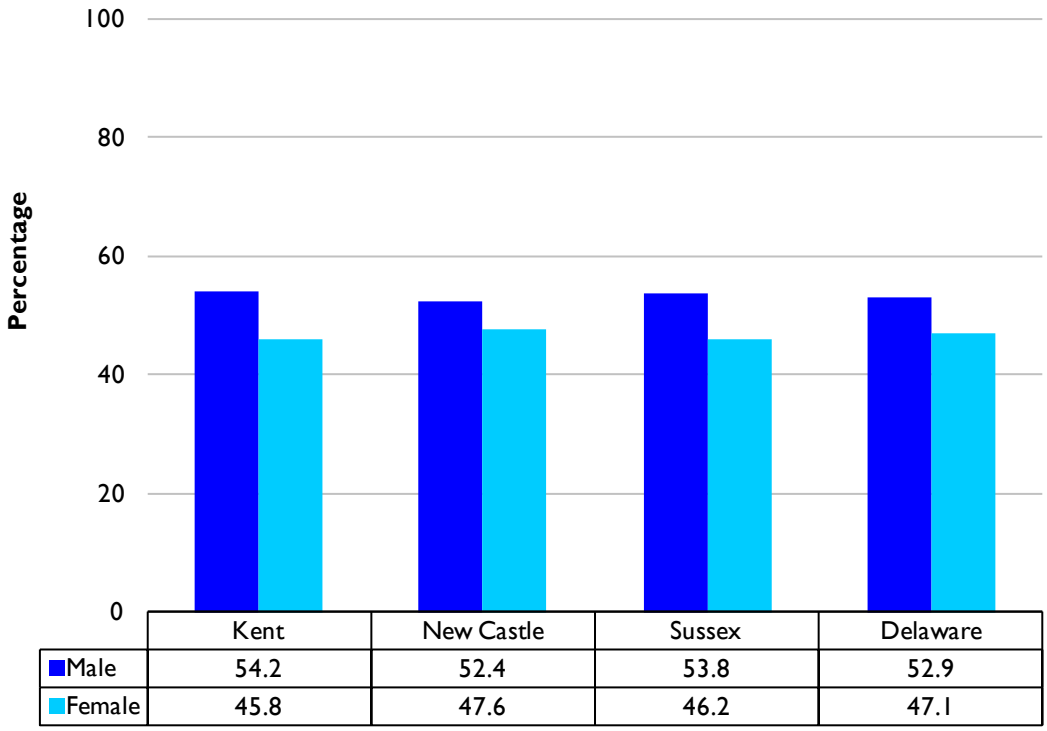
	Kent	New Castle	Sussex	Delaware
1998	72	429	109	610
2001	75	442	119	636
2006	93	463	115	671
2008	89	504	143	736
2011	92	452	163	707
2013	99	470	138	707
2018	89	461	112	662

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

[2] 2012-2016 American Community Survey 5 YR Estimates S010, http://factfinder2.census.gov/, Accessed August 3,

Figure 2.2 compares the number of full-time physicians for the last seven survey periods. The estimated number of FTE primary care physicians in the state decreased from 707 in 2013 and stands at 662 physicians in 2018. The results of the current survey indicate a slight decrease in the number of FTE physicians across all counties in Delaware.

Figure 2.3
Gender of Primary Care Physicians
by County, Delaware, 2018



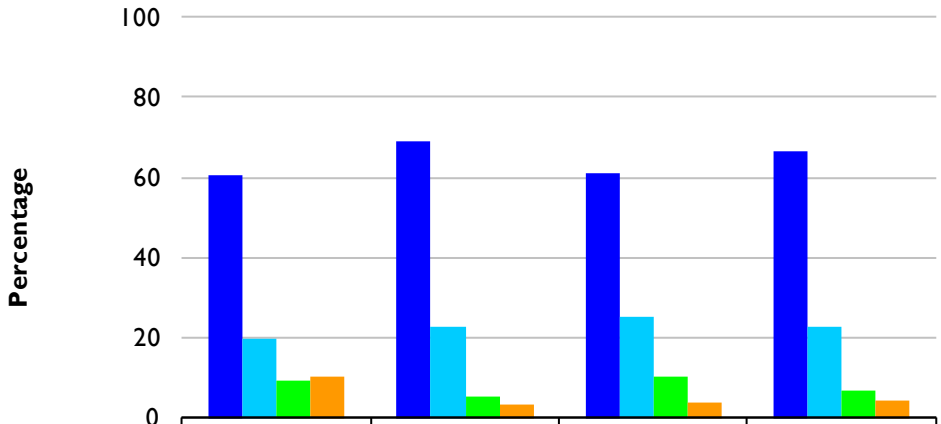
	Kent	New Castle	Sussex	Delaware
Male	54.2	52.4	53.8	52.9
Female	45.8	47.6	46.2	47.1

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

2018 adjusted to Delaware Population Consortium Annual Population Projections Version 2017.0 from October 26,2017, Accessed August 3, 2018.

The primary care physician community in Delaware is 52.9 percent male (Figure 2.3). The variation among counties is marginal. Just like in previous years, women are more likely to choose one of the primary care specialties. When looking at the entire physician database, 59 percent of women were in one of those specialties while only 35 percent of men chose primary care.

Figure 2.4
Race of Primary Care Physicians
by County, Delaware, 2018



	Kent	New Castle	Sussex	Delaware
Caucasian	60.5	69.1	61.1	66.7
Asian	19.8	22.6	25.0	22.6
African American	9.3	5.2	10.2	6.6
Other	10.5	3.0	3.7	4.1

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

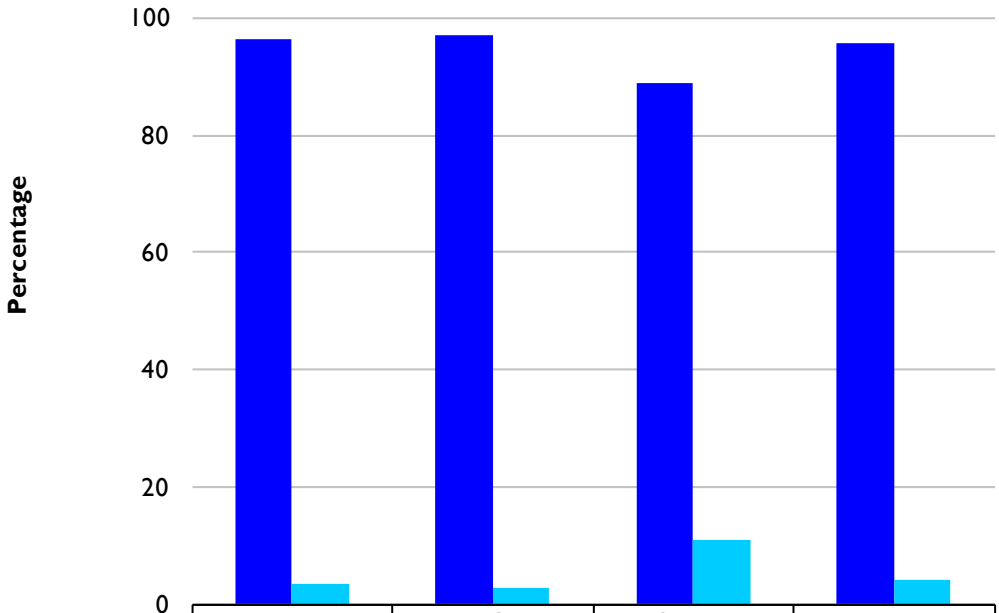
The racial distribution of primary care physicians by county is 66.7 percent Caucasian, 22.6 percent Asian, 6.6 percent African American, and 4.1 "other" (Figure 2.4).

The current survey indicates the highest proportion of African American physicians to be in Sussex County (10.2 percent), even though that county has the lowest proportion of African Americans in the general population. At the state level, the ratio of Asian physicians is about five times higher than

the proportion of Asians in the population. The proportion of Asian primary care physicians is the highest in Sussex County.

Identifying physicians of Hispanic origin in Delaware is of particular interest with the continued growth of that population, particularly in Sussex County (Figure 2.5).

Figure 2.5
Hispanic Origin of Primary Care Physicians
by County, Delaware, 2018

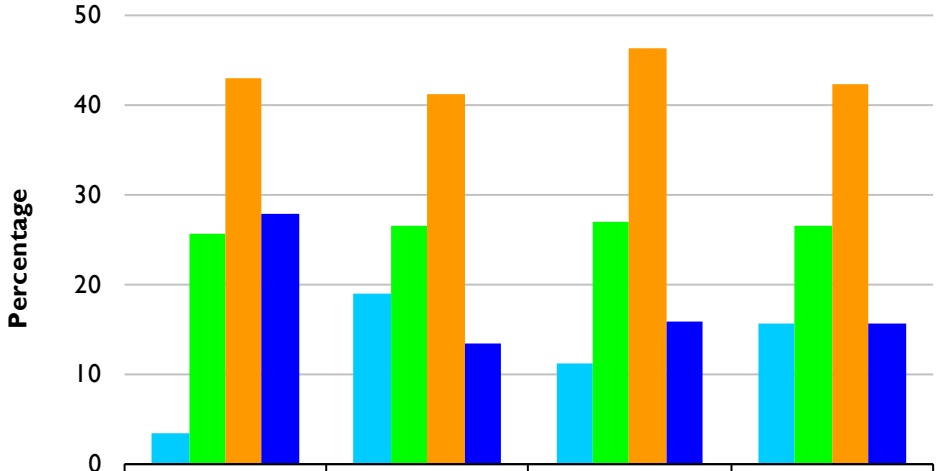


	Kent	New Castle	Sussex	Delaware
Non-Hispanic	96.5	97.1	89.0	95.7
Hispanic	3.5	2.9	11.0	4.3

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

The highest proportion of Hispanic physicians is in Sussex County (11 percent). The lowest proportion is in New Castle County (2.9 percent). Overall, the proportion of Hispanic primary care physicians in Delaware is 4.3 percent.

Figure 2.6
Age of Primary Care Physicians
by County, Delaware, 2018



	Kent	New Castle	Sussex	Delaware
Under 40	3.5	18.9	11.1	15.5
40-49	25.6	26.6	26.9	26.5
50-64	43.0	41.2	46.3	42.3
65 and above	27.9	13.3	15.7	15.7

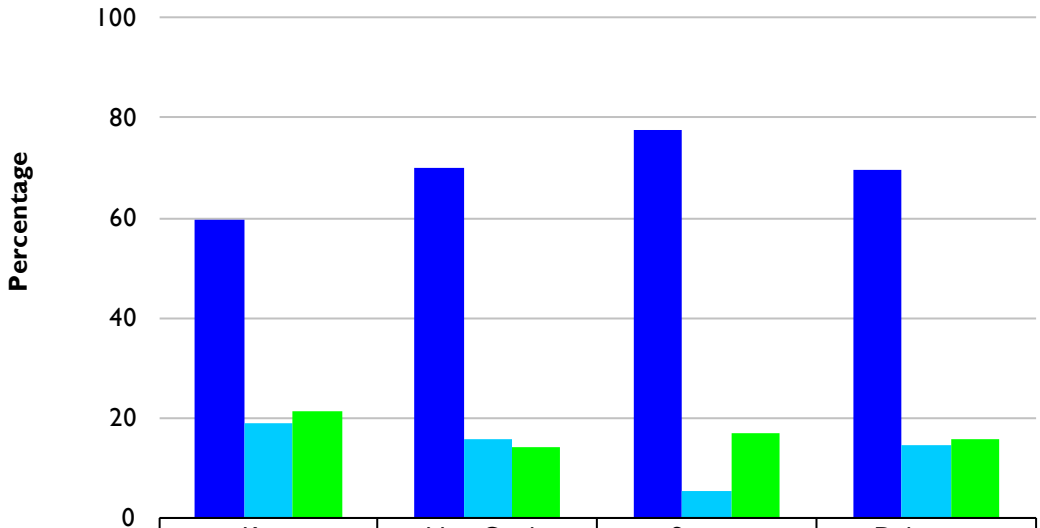
Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

The age of primary care physicians is ultimately a factor in their availability within the counties as physicians' adjust their availability for direct patient care as their practices change (Figure 2.6). Kent County stands out; it has the lowest proportion of younger primary care physicians (3.5 percent under 40 years of age). Overall for the state, 15.5 percent of primary care physicians are younger than 40. The proportion of primary care physicians between 40 and 49 years old is evenly distributed across counties and stands between 26 and 27 percent. There is some variation by county among physicians in

the 50-64 age group. The highest proportion (46.3 percent) is in Sussex County and the lowest (41.2 percent) is in New Castle County. Over a quarter of Kent County's physicians are age 65 and older, compared with 13.3 percent in New Castle County and 15.7 percent in Sussex County.

The survey asked physicians if they planned to be active in clinical medicine five years from now (Figure 2.7). Nearly 70 percent of physicians expect to be active in five years. The highest proportion (77.6 percent) of physicians indicating that they will be active five years from now is in Sussex County. In New Castle County, 69.9 percent indicated that they would be actively practicing five years from now. The least optimistic were primary care physicians in Kent County, where 59.6 percent of physicians indicated that they would be active in the field by 2023.

Figure 2.7
Primary Care Physicians Active Five Years from Now
by County, Delaware, 2018

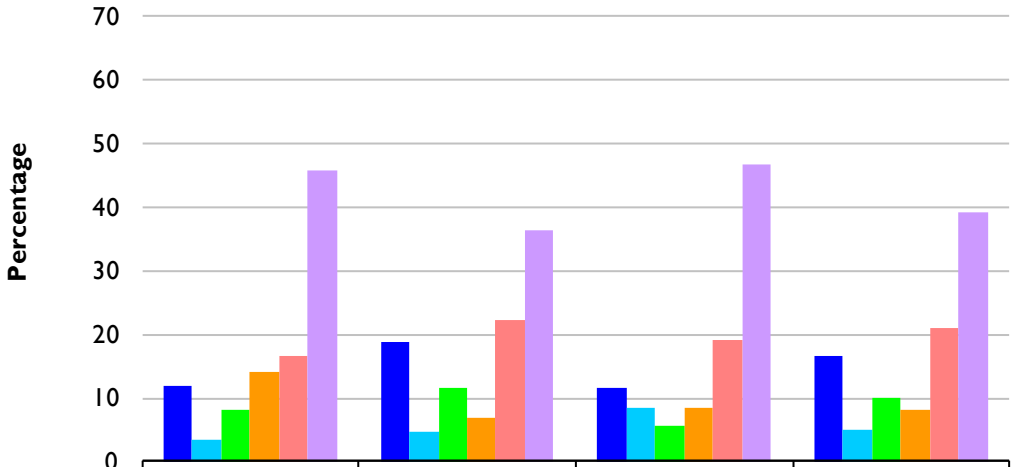


	Kent	New Castle	Sussex	Delaware
Yes	59.6	69.9	77.6	69.7
Unsure	19.1	15.9	5.6	14.7
No	21.3	14.2	16.8	15.6

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

It is necessary to analyze why some physicians choose to practice in Delaware and others choose to practice in other states to determine if the supply of physicians can adequately 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.

Figure 2.8
State of High School Graduation of Primary Care Physicians by County, Delaware, 2018



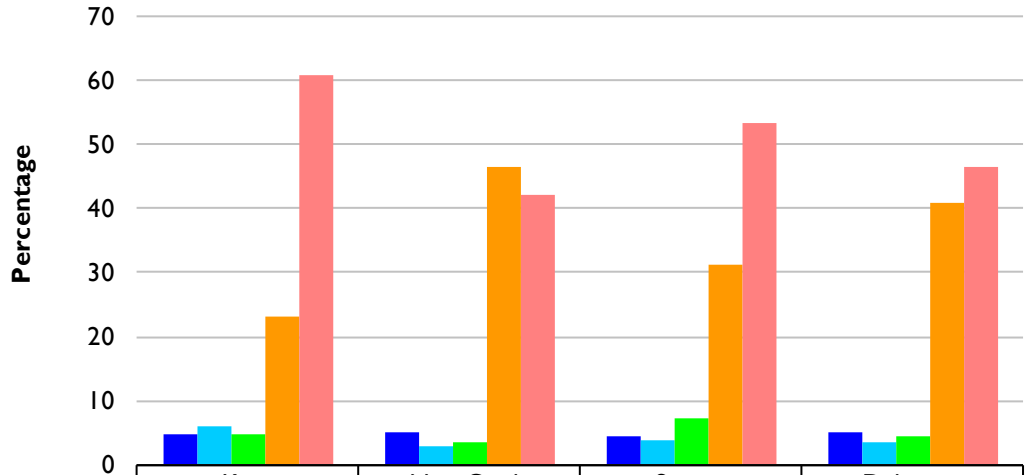
	Kent	New Castle	Sussex	Delaware
DE	11.8	18.7	11.4	16.6
MD	3.5	4.6	8.6	5.1
NJ	8.2	11.4	5.7	10.1
NY	14.1	6.8	8.6	8.1
PA	16.5	22.2	19.0	20.9
Other	45.9	36.3	46.7	39.2

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

Sixty-one percent of Delaware's primary care physicians grew up in the region (Delaware, Maryland, Pennsylvania, New Jersey, and New York). Approximately 17 percent are from Delaware.

However, these figures vary across counties. Of physicians residing outside of the region at the time they graduated from high school, 45.9 percent practice in Kent County and 46.7 percent practice in Sussex County, compared to 36.3 percent in New Castle County (Figure 2.8). Nearly 19 percent of New Castle County's physicians resided in Delaware at the time of their graduation from high school, compared to 11.8 percent in Kent County and 11.4 percent in Sussex County.

Figure 2.9
State of Medical School Graduation of Primary Care Physicians by County, Delaware, 2018



	Kent	New Castle	Sussex	Delaware
MD	4.9	5.0	4.6	4.9
NJ	6.1	2.8	3.7	3.4
NY	4.9	3.5	7.3	4.3
PA	23.2	46.4	31.2	40.9
Other	61.0	42.3	53.2	46.5

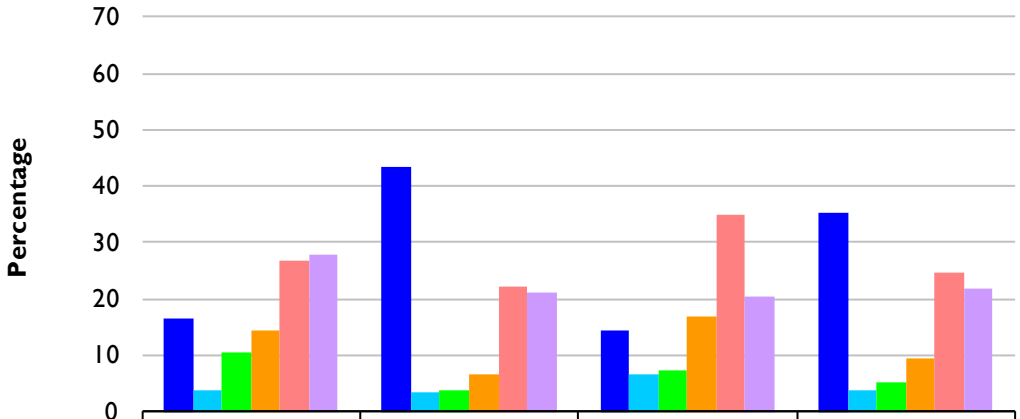
Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

The pattern observed for the state of high school graduation is replicated in part for the state of medical school graduation (Figure 2.9). Significantly more primary care physicians who graduated from medical schools outside of the region locate in Kent County (61 percent). Those from medical schools in Pennsylvania are more likely to locate in New Castle County (46.4 percent). While more than half of primary care physicians in Sussex graduated from a medical school outside of the region, 7.3 percent

graduated from a medical school in New York, while only 4.9 percent of Kent County physicians and 3.5 percent of New Castle County physicians graduated from a New York medical school.

There clearly is a geographic orientation exhibited by these responses. Similar patterns emerge with the state of the physician's medical residency (Figure 2.10). Slightly over 43 percent of New Castle County's physicians completed their medical residency in Delaware, compared to 16.3 percent of primary care physicians in Kent County and 14.5 percent in Sussex County. Overall, 21.8 percent of Delaware's physicians completed their medical residency outside of the region. The proportion of primary care physicians who completed their residency outside of the region is highest in Kent County (27.9 percent).

Figure 2.10
State of Medical Residency of Primary Care Physicians
by County, Delaware, 2018



	Kent	New Castle	Sussex	Delaware
DE	16.3	43.3	14.5	35.1
MD	3.8	3.2	6.5	3.9
NJ	10.6	3.7	7.2	5.2
NY	14.4	6.6	16.7	9.3
PA	26.9	22.0	34.8	24.7
Other	27.9	21.1	20.3	21.8

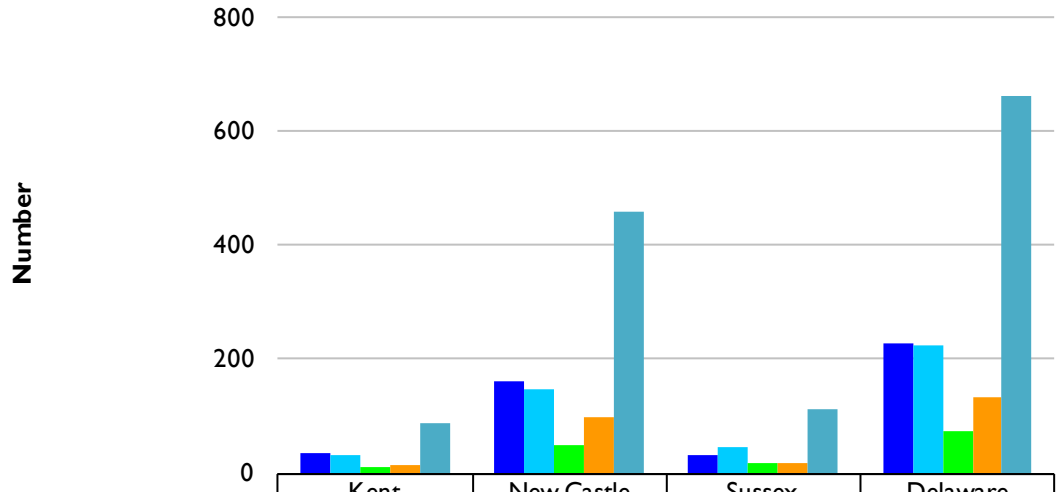
Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

It might prove valuable to those recruiting for new primary care physicians in Delaware to point out that these demographics reflect three facts. First, most of Delaware's primary care physicians (61 percent) resided in the region at the time of high school graduation. Second, most of Delaware's primary care physicians (53 percent) went to medical school within several hundred miles of where they practice today. Third, about 78 percent 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. The attributes selected for analysis largely relate to capacity and availability for patient care.

Figure 3.1
Specialty of Primary Care Physicians
by County, Delaware, 2018



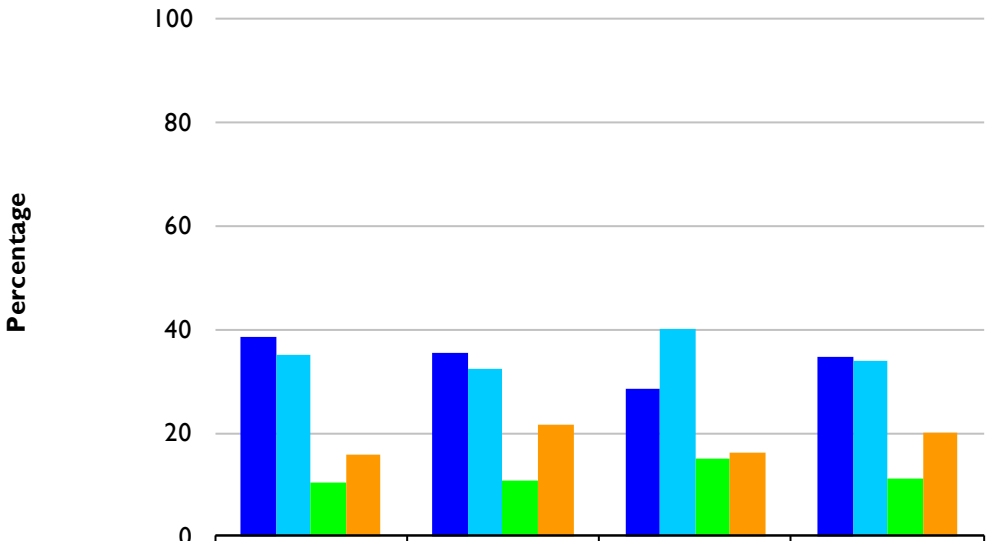
	Kent	New Castle	Sussex	Delaware
Family Practice & General Practice	34	163	32	229
Internal Medicine	31	149	45	225
Obstetrics & Gynecology	9	49	17	75
Pediatrics	14	100	18	132
Total	88	461	112	661

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

In general, 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, again by full-time equivalents. Physicians in family practice are most populous, followed closely by physicians in internal medicine and pediatrics. In 2018, only six of Delaware's primary care physicians reported that

they are general practitioners; within this report, they are combined with family practice physicians (Figure 3.1).

Figure 3.2
Specialty Distribution of Primary Care Physicians
by County, Delaware, 2018



	Kent	New Castle	Sussex	Delaware
Family Practice & General Practice	38.6	35.4	28.6	34.6
Internal Medicine	35.2	32.3	40.2	34.0
Obstetrics & Gynecology	10.2	10.6	15.2	11.3
Pediatrics	15.9	21.7	16.1	20.0

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

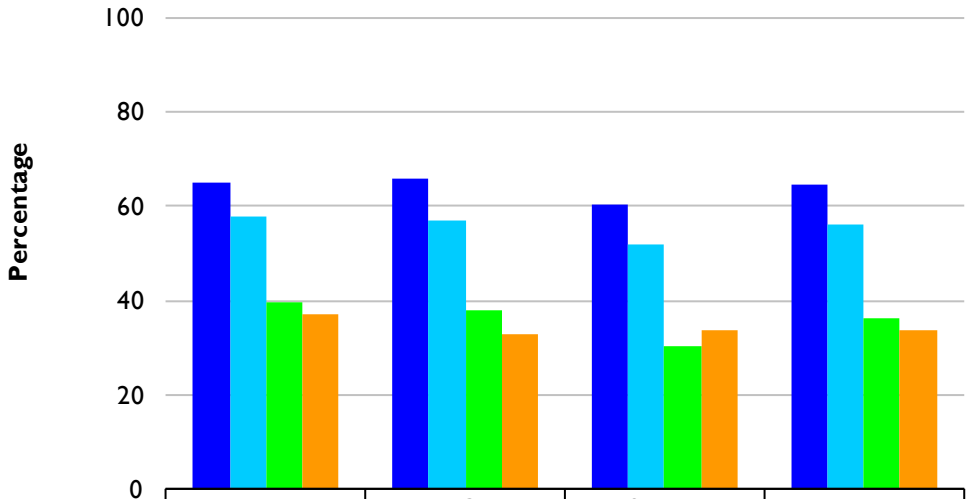
Primary care physicians are distributed essentially in three major groups (Figure 3.2). About 35 percent are family/general practitioners; one-third are internists who focus on adults; and one-third are primary care physicians focused on smaller groups of patients such as obstetrics and gynecological patients (OBGYN) and pediatric patients (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. Within Figure 3.3, the lines labeled ***Pediatric: All PCPs*** and ***OBGYN: All PCPs*** include all primary care physicians. The lines directly beneath exclude the specialists in those areas.

Sixty-six percent of primary care physicians in New Castle County provide pediatric services, and 57 percent 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 (58 percent) of Kent County's non-pediatric physicians provides pediatric services. The proportion of non-OBGYN physicians providing OBGYN services is again highest (37.3 percent) in Kent.

Figure 3.3
Provision of Selected Specialty Services by Primary Care Physicians by County, Delaware, 2018



	Kent	New Castle	Sussex	Delaware
Pediatrics: All PCPs	65.1	65.8	60.4	64.7
Non-Pediatricians	58.0	57.0	51.8	56.2
OBGYN:All PCPs	39.8	37.8	30.2	36.3
Non-OBGYNs	37.3	33.0	33.7	33.8

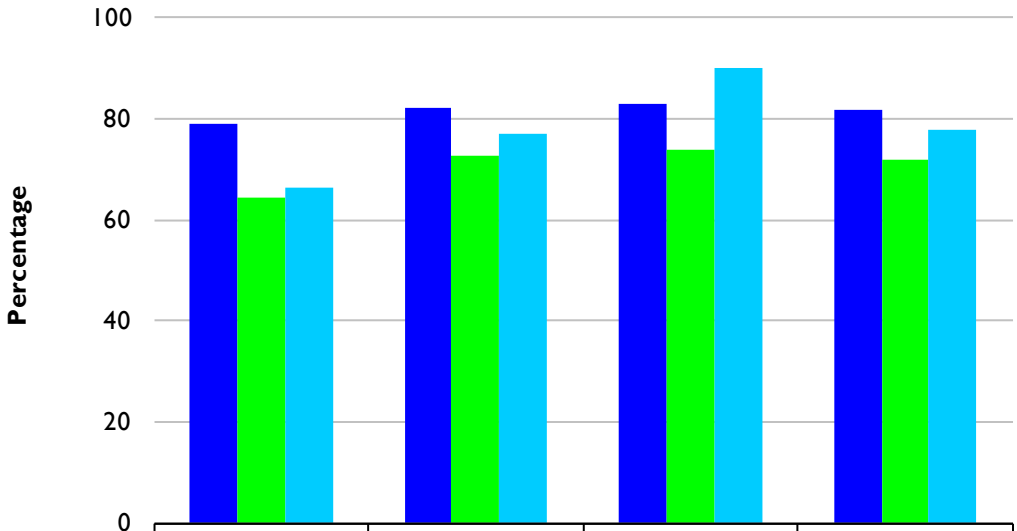
Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

One of the most critical issues with respect to the capacity of primary care physicians is whether they are accepting new patients (Figure 3.4). Between 79 percent and 83 percent of primary

care physicians report that they are accepting new patients. The proportion is lowest in Kent County at 78.9 percent.

Primary care physicians were also asked if they were accepting new Medicare and/or Medicaid patients (Figure 3.4). Those interpreting the Medicare results should do so with caution. Pediatricians comprise almost 20 percent of primary care physicians. However, they only see a very small set of Medicare patients, such as in situations where one of the special programs allows a child to have access to Medicare through Social Security Insurance (SSI). The proportion of physicians reporting that they accept new Medicare patients is highest in Sussex County (73.8 percent) and lowest in Kent County (64.2 percent).

Figure 3.4
Accepting New Primary Care Patients by Primary Care Physicians by County, Delaware, 2018



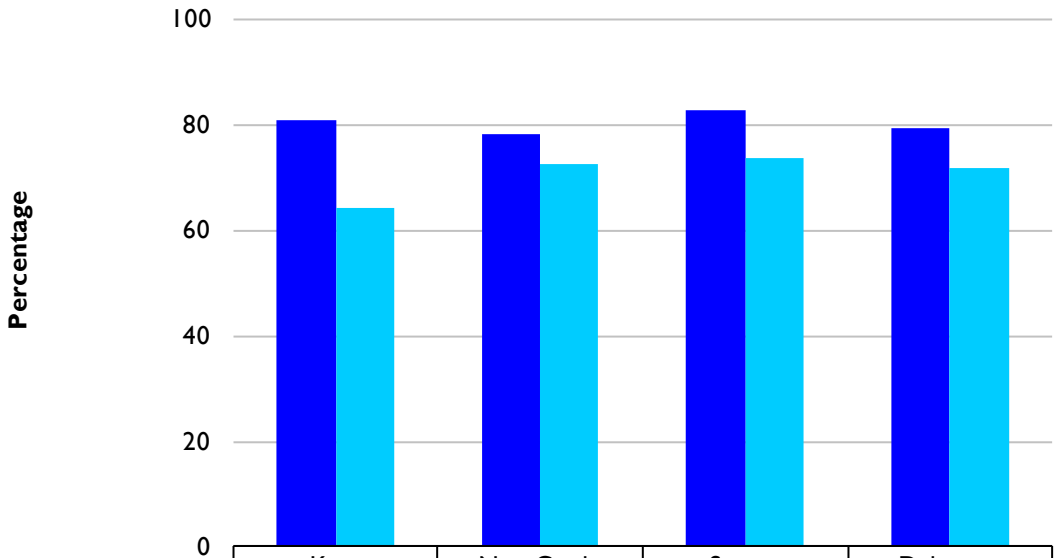
	Kent	New Castle	Sussex	Delaware
All	78.9	82.2	82.8	81.9
Medicare	64.2	72.6	73.8	71.7
Medicaid	66.3	77.1	90.0	77.9

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

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 Sussex County who report being most willing to accept new patients of this type.

Figure 3.5 shows the difference between primary care physicians who are currently treating Medicare patients and accepting new Medicare patients. The spread between these two estimates for Delaware is eight percentage points (71 to 79 percent). These differences are most severe in Kent County where the difference is 17 percent. This suggests that those migrating to Kent County or those who lose their current physician for any number of reasons in that county could face more difficulty in finding a new primary care physician.

Figure 3.5
Accepting New Medicare Patients by Primary Care Physicians
by County, Delaware, 2018

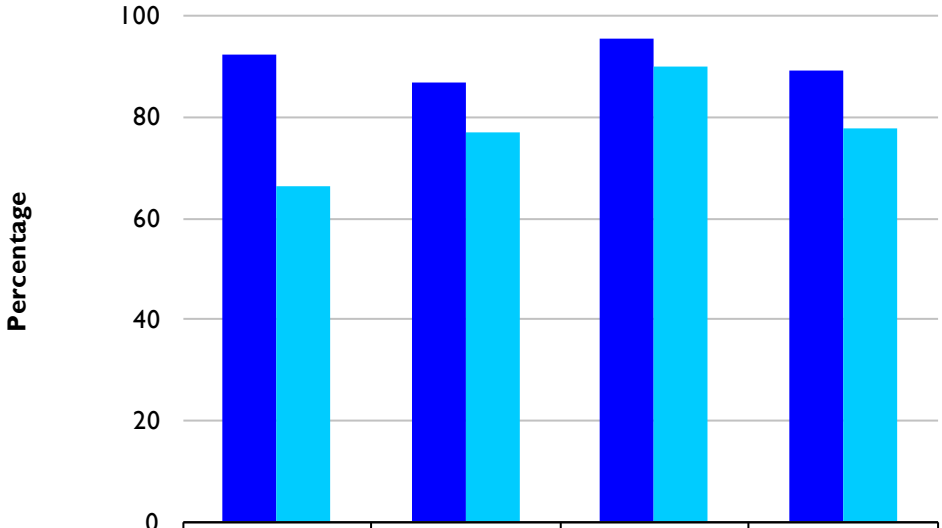


	Kent	New Castle	Sussex	Delaware
Treating Medicare	80.9	78.1	82.7	79.3
Accepting New Medicare	64.2	72.6	73.8	71.7

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

The situation for Medicaid patients is probably just as difficult (Figure 3.6). Statewide, there is a difference of about 11 percentage points between primary care physicians who are currently treating Medicaid patients and those who will accept new Medicaid patients. In Kent County, this difference jumps to 25.8 percent.

Figure 3.6
Accepting New Medicaid Patients by Primary Care Physicians by County, Delaware, 2018



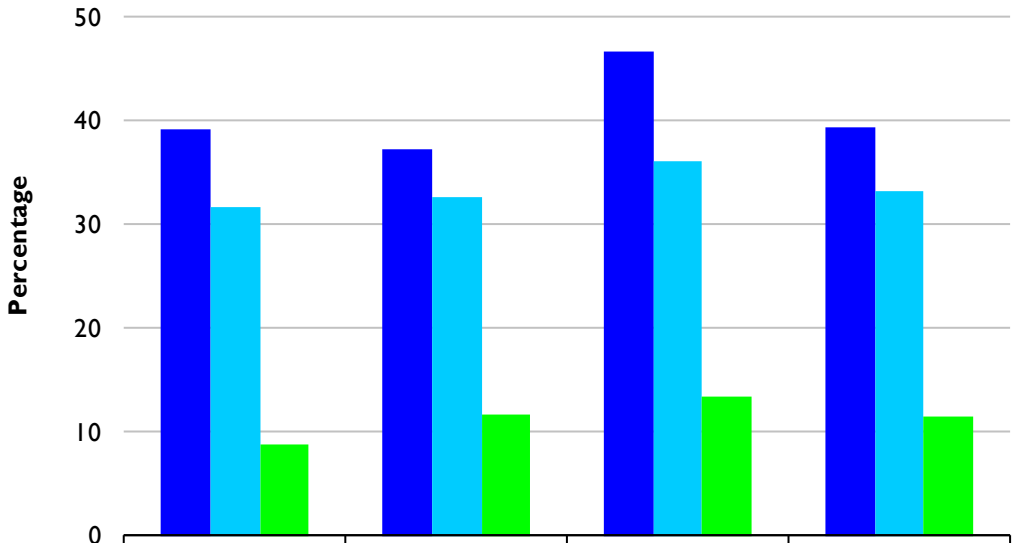
	Kent	New Castle	Sussex	Delaware
Treating Medicaid	92.1	86.9	95.5	89.1
Accepting New Medicaid	66.3	77.1	90.0	77.9

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

Part of the explanation for the lower number of physicians 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). About 40 percent of physician time is devoted to Medicare patients -- about 2.5 times more than would be expected given their share of the general population. However, older people, which are the primary age group covered under Medicaid, need significantly larger amounts of physician time. As a typical physician's clientele ages, the physician's ability to absorb new

patients declines. The percentage in Sussex County is highest (46.7 percent), because the older population is relatively higher there. Statewide, the time spent on providing care to patients with Medicaid stands at around 33.2 percent. Medicaid patients use 36.1 percent of primary care physician's time in Sussex County, 31.8 percent of a physician's time in Kent County, and 32.7 percent of a physician's time in New Castle County.

Figure 3.7
Percentage of Time Serving Selected Patient Groups by Primary Care Physicians by County, Delaware, 2018



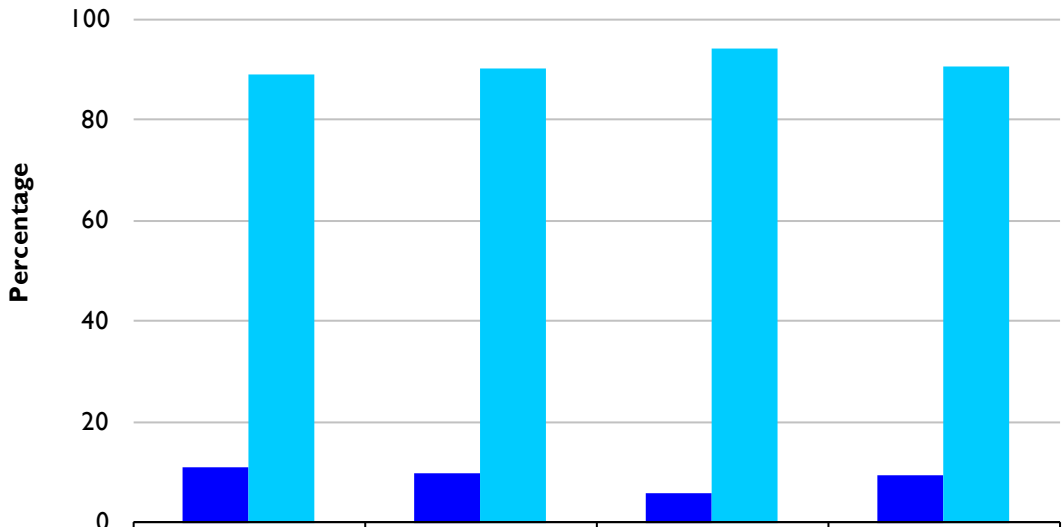
	Kent	New Castle	Sussex	Delaware
Medicare	39.2	37.3	46.7	39.5
Medicaid	31.8	32.7	36.1	33.2
Self-Pay	8.9	11.7	13.4	11.6

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

Primary care physicians were asked to indicate whether they practice geriatrics as a sub-specialty since it will take on greater importance in future years as baby boomers age. Overall, 9.3 percent of primary care physicians have this sub-specialty (Figure 3.8). The lowest proportion (6

percent) of physicians practicing this specialty is in Sussex County despite the higher proportion of elderly patients there.

Figure 3.8
Practice Geriatrics as a Sub-specialty by Primary Care Physicians by County, Delaware, 2018



	Kent	New Castle	Sussex	Delaware
Yes	10.8	9.9	6.0	9.3
No	89.2	90.1	94.0	90.7

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

Primary care physicians were surveyed about how long a person would have to wait for an appointment in a non-emergency situation (Figure 3.9). In 2013, there was a significant spike in waiting times for both new and existing patients. Average waiting times for 2018 have somewhat corrected to the 2011 level for established patients, but they continue to exceed the 2011 average waiting times for new patients. On average, an established patient will wait about six days, compared to 23 days for a new patient. It will be important to watch if waiting times for new patients stay at this new level or if they adjust in future surveys.

Figure 3.9
Average Wait Time in Days for Types of Patients reported by Primary Care Physicians by County and Year, Delaware, 1998-2018

	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
2013-Established	19.1	16.4	17.3	17.0
2018-Established	12.1	5.5	5.1	6.4
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
2013-New	36.6	27.2	45.0	32.1
2018-New	32.4	20.3	28.4	23.5

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

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 of non-physician resources used (Figure 3.10). There are differences between counties. Kent County, the county with the greatest need, is using alternative resources the most (78 percent). PAs are more often used by primary care physicians in Kent County (38.6 percent) and least often by those practicing in Sussex County (15.2 percent). Physicians in Sussex County are twice as likely to utilize certified nurse midwives (10.1 percent) than the 4.9 percent of physicians each in Kent and New Castle counties.

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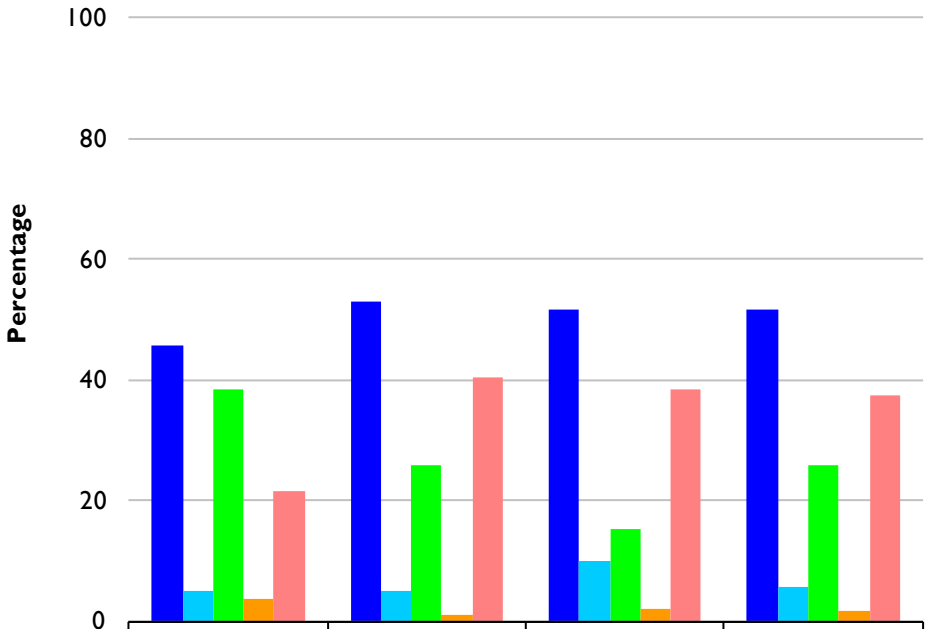
Figure 3.10
Use of Non-Physician Resources by Primary Care Physicians
by County, Delaware, 2018

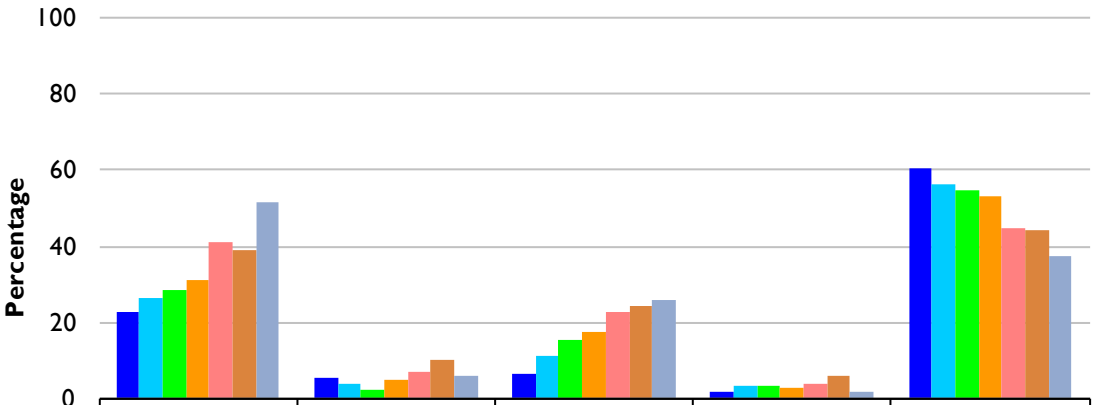


	Kent	New Castle	Sussex	Delaware
Advanced Practice Nurse	45.8	53.0	51.5	51.6
Cetified Nurse Midwife	4.9	4.9	10.1	5.8
Physician Assistant	38.6	25.9	15.2	25.9
Other	3.6	1.1	2.0	1.6
None	21.7	40.5	38.4	37.3

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

When the use of non-physician clinicians is studied over the last four survey periods (Figure 3.11), the data suggests a steady movement toward use of these alternative non-physician resources. For example, in 1998, 22.6 of Delaware's primary care providers reported using APNs, compared to 51.6 in 2018. The use of CNMs (5.4 in 1998) peaked at 10.2 in 2013 but fell to 5.8 in 2018. The use of PAs (6.3 in 1998) steadily rose to 25.9 in 2018.

Figure 3.11
Use of Non-Physician Resources by Primary Care Physicians
by Year, Delaware, 1998-2018

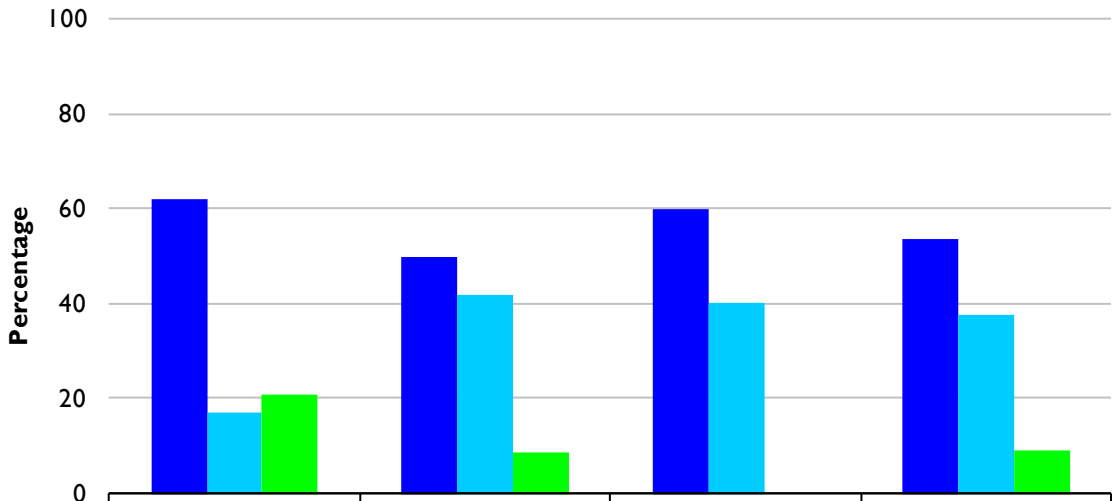


	Advanced Practice Nurse	Certified Nurse Midwife	Physician Assistant	Other	None
1998	22.6	5.4	6.3	1.9	60.4
2001	26.3	4	11.3	3.3	56.4
2006	28.3	2.2	15.5	3.3	54.8
2008	31.2	5.0	17.6	3.1	53.2
2011	41.3	7.3	22.6	3.7	44.7
2013	38.9	10.2	24.2	6.2	44.1
2018	51.6	5.8	25.9	1.6	37.3

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

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 (Figure 3.12). The distribution of Kent County's primary care physicians' participation is different than the distribution in Sussex and New Castle counties. In Kent County, 17.2 percent of respondents indicated that they belong to between five and nine managed care networks, compared to 41.7 percent of respondents in New Castle County and 40 percent in Sussex County. Conversely, Kent Count led the state for physicians reporting membership in 10 or more managed care networks at 20.7 percent, compared with 8.7 percent in New Castle County and none reported membership in this category from Sussex County.

Figure 3.12
Membership in Managed Care Networks by Primary Care Physicians
by County, Delaware, 2018

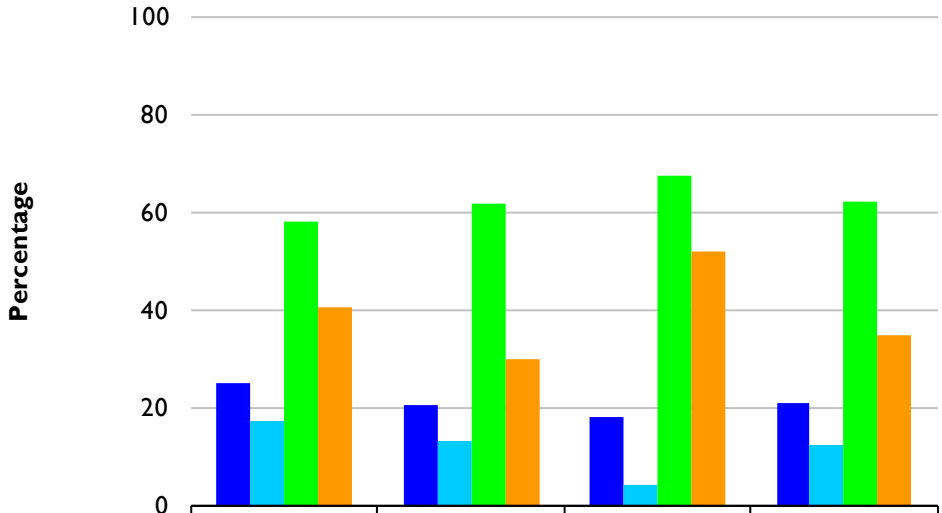


	Kent	New Castle	Sussex	Delaware
1-4	62.1	49.6	60.0	53.4
5-9	17.2	41.7	40.0	37.7
10+	20.7	8.7	0.0	8.9

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

In 2018, primary care physicians were asked to identify participation in specific network-based organizations (Figure 3.13). Overall for the state, among those who responded to this question (68 percent), participation in accountable care associations was identified most often (62.3 percent) by physicians, followed by patient-centered medical homes (35 percent), independent practice associations (21 percent), and physician hospital associations (12.5 percent). Participation in physician hospital associations was lowest in Sussex County (4.2 percent). Patient-centered medical home participation was lowest in New Castle County (29.9 percent).

Figure 3.13
Participation in Network Based Organizations by Primary Care Physicians by County, Delaware, 2018



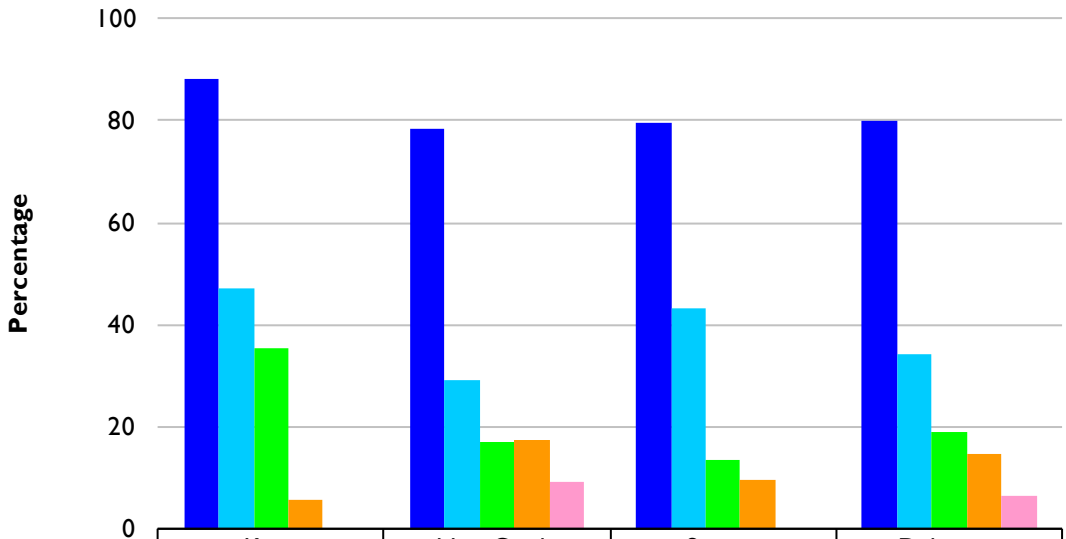
	Kent	New Castle	Sussex	Delaware
Independent Practice Association	25.0	20.8	18.3	21.0
Physician Hospital Association	17.4	13.3	4.2	12.5
Accountable Care Association	58.0	62.0	67.6	62.3
Patient Centered Medical Home	40.6	29.9	52.1	35.0

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

The changing nature of health care cost reimbursement prompted the addition of a question in 2018, to assess participation in value-based reimbursement payment methods (Figure 3.14). Some of these methods have been around for a while; others, such as the concierge model, are just gaining recognition. While not out of the ordinary, about 69 percent of respondents completed this question. Out of these, 80 percent reported participation in pay-for-performance reimbursement, followed by shared savings (34.2 percent) and shared risk (19.1 percent). Participation in the capitation model was reported by 14.5 percent of primary care physicians, compared to participation in the concierge model (6.4 percent).

Some differences exist among counties. Participation in shared savings was reported least frequently by primary care physicians in New Castle County (29.3 percent), compared to physicians in Kent and Sussex counties (47.1 percent and 43.2 percent, respectively). Participation in the concierge model was reported by 9.2 percent of primary care physicians in New Castle County. While no physicians in Sussex and Kent counties reported participation in the concierge reimbursement method, it is important to interpret these results with caution. Future iteration of the survey is needed to document the use of this reimbursement payment method.

Figure 3.14
Participation in Value Based Reimbursement Payment Methods by Primary Care Physicians, by County, Delaware, 2018

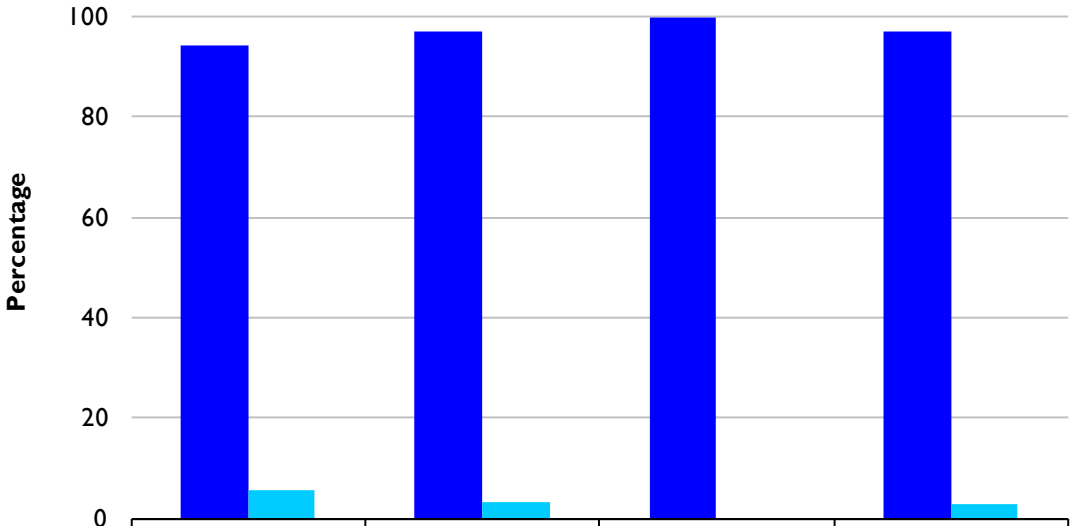


	Kent	New Castle	Sussex	Delaware
Pay for Performance	88.2	78.3	79.5	80.0
Shared Savings	47.1	29.3	43.2	34.2
Shared Risk	35.3	16.9	13.5	19.1
Capitation Model	5.9	17.6	9.6	14.5
Concierge Model	0.0	9.2	0.0	6.4

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

Given steady developments in electronic access to patients' 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 that provides the organizational infrastructure to support a clinical information exchange throughout 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.[3] This partnership allows participating physicians in Delaware to access their patients' clinical health information housed at other facilities. Across Delaware, 97 percent of primary care physicians indicate awareness of DHIN (Figure 3.15).

Figure 3.15
Awareness of the Delaware Health Information Network by Primary Care Physicians by County, Delaware, 2018



	Kent	New Castle	Sussex	Delaware
Yes	94.4	97.0	100.0	97.1
No	5.6	3.0	0.0	2.9

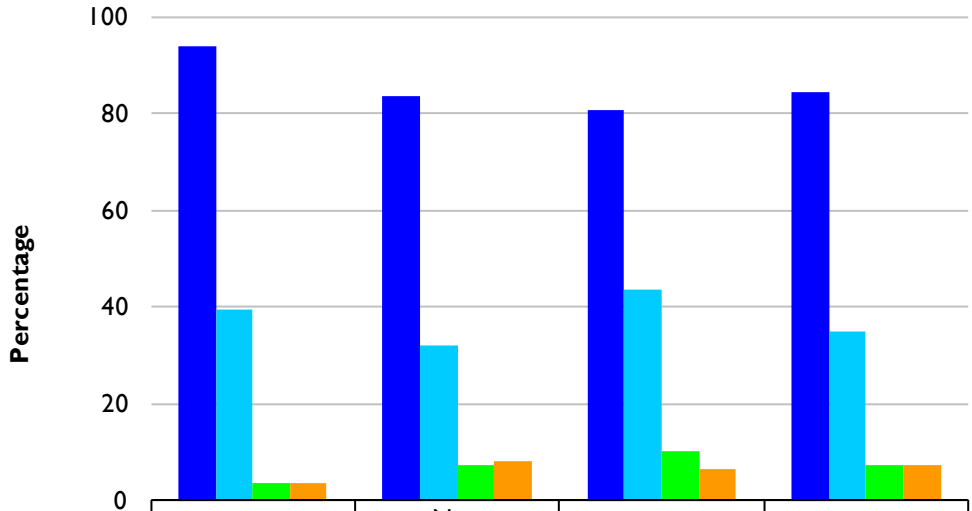
Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

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

In 2018, primary care physicians who are aware of the DHIN were asked a new question that inquired as to how their offices participate in the network (Figure 3.16). Throughout Delaware, nearly 85 percent of primary care physicians use DHIN to view/access patient data from DHIN. Thirty-five percent of primary care physicians report sending patient data to DHIN; 7.4 percent of physicians do not view, access, or send data to DHIN. Additionally, 7.2 percent of physicians were unaware how their offices use DHIN.

Primary care physicians who are aware of DHIN are more likely to view or access patient data from DHIN in Kent County (93.8 percent) than physicians from New Castle (83.8 percent) and Sussex County (80.7 percent). Physicians in Sussex County report sending data to DHIN most often (43.4 percent), compared to 39.7 percent in Kent County and 32.1 percent in New Castle County.

Figure 3.16
Use of the Delaware Health Information Network by Primary Care Physicians by County, Delaware, 2018



	Kent	New Castle	Sussex	Delaware
To View/Access data from DHIN	93.8	83.8	80.7	84.6
To Send data to DHIN	39.7	32.1	43.4	35.0
None of the above	3.7	7.4	10.2	7.4
Unsure	3.7	8.1	6.5	7.2

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

In 2018, primary care physicians were asked a new set of questions regarding the long-acting reversible contraceptives (LARCs), including intrauterine devices (IUDs) and contraceptive implants (e.g. Nexplanon®). First, physicians were asked to indicate what contraceptive services they provided to their patients during the last year (Figure 3.17). Among the services listed, contraceptive counseling was reported as the most frequent (46.9 percent) reproductive service, followed by referral (34.7 percent) and contraception other than IUDs and implants (35 percent). Kent County's primary care physicians are more likely (42.5percent) to provide referrals for reproductive care than physicians in New Castle or Sussex counties. Similarly, the insertion and removal of IUDs (same day or otherwise), along with insertion and removal of contraception implants, is reported by a lower proportion of Kent County physicians (about 8 percent) than by physicians in New Castle and Sussex counties.

Figure 3.17
Provisions of Contraceptives by Primary Care Physicians by County, Delaware, 2018

	Kent	New Castle	Sussex	Delaware
Insertion of IUDs	7.5	20.8	22.2	19.0
Removal of IUDs	7.5	23.5	22.2	20.9
Insertion of Contraception implants	7.5	17.5	21.1	16.6
Removal of Contraception Implants	7.5	18.3	18.7	16.7
Same Day Insertion of IUDs or Implants	7.5	12.5	16.7	12.4
Same Day Removal of IUDs or Implants	7.5	11.6	16.7	11.9
Contraception other than IUDs and Implants	27.5	36.7	35.2	35.0
Contraceptive Counseling	48.8	45.7	50.0	46.9
Referral	42.5	33.8	31.1	34.7
None of the above	0.5	0.5	0.4	0.5

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

Another survey question was if primary care physicians discuss with female patients of reproductive age their interest in getting pregnant, and when those discussions occur (Figure 3.18). Nearly 32 percent of responding primary care physicians discusses this topic with female patients at every visit. About 17 percent of physicians indicated that they rarely or never discuss interest in getting pregnant with their female patients of reproductive age. County differences in responses are apparent: New Castle County physicians discuss this during every visit at a higher rate (35 percent), while 45.5 percent of physicians from Sussex County discuss it only at well visits.

Figure 3.18
Asking Female Patients if "Interested in Getting Pregnant"
by County, Delaware, 2018

	Kent	New Castle	Sussex	Delaware
At every visit	25.0	35.0	25.5	31.7
Only at well visits	27.1	25.7	45.5	29.4
Only at reproductive health visits	4.2	7.3	7.3	6.8
When the patient brings it up	22.9	15.5	9.1	15.5
Rarely or never	20.8	16.5	12.7	16.5

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

Figure 3.19
Mention of Long-Acting Reversible Contraceptives by Primary Care Physicians
by County, Delaware, 2018

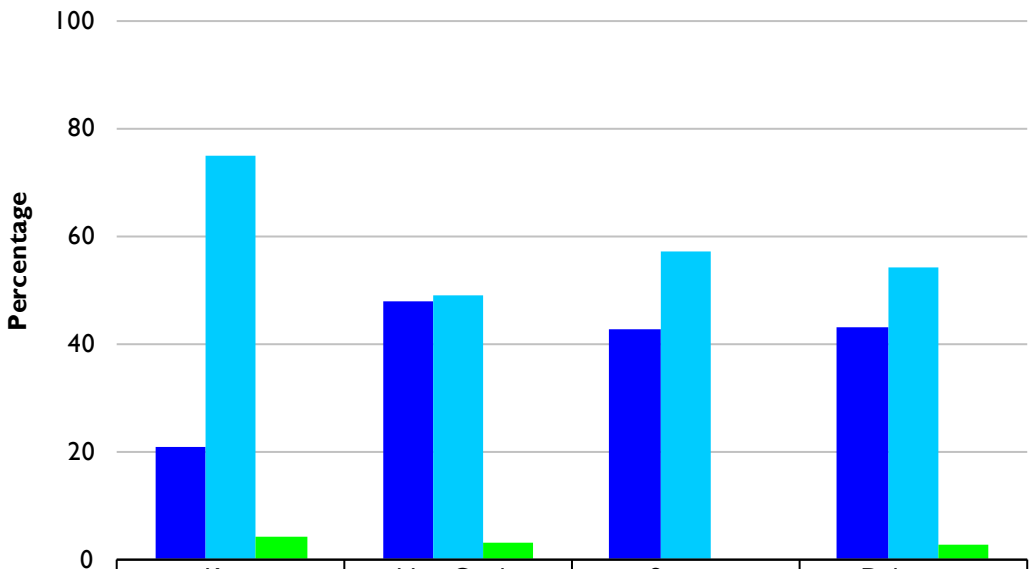
	Kent	New Castle	Sussex	Delaware
When the patient asks about it	71.7	52.6	69.6	58.5
When a patient is not currently using a method	33.3	48.8	41.1	45.2
When the patient is using a method other than LARC	28.9	35.2	28.6	33.1
When the patient is an adolescent	28.9	42.4	35.7	39.2
Whenever a patient expresses a desire to avoid pregnancy	53.3	76.1	69.1	71.5

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

The survey inquired about mentioning LARCs to patients (Figure 3.19). About 72 percent of responding primary care physicians discusses LARCs with their patients when patients express a desire to avoid pregnancy. The least frequent occasion (33.1 percent) to discuss LARCs is when patients are already using other contraceptive methods. The proportion of physicians discussing LARCs only when patients ask about it is highest in Kent County (71.7 percent).

Participation in LARCs and family training offered through Upstream USA's Delaware CAN network is tabulated in Figure 3.20. Overall, 43 percent of responding primary care physicians indicated that they participated in this training. By county, the proportion of those who participated in LARC training was highest (47.9 percent) in New Castle County and lowest (20,8 percent) in Kent County.

Figure 3.20
Participation in Long-Acting Reversible Contraceptives Training by Primary Care Physicians by County, Delaware, 2018



	Kent	New Castle	Sussex	Delaware
Yes	20.8	47.9	42.9	43.0
No	75.0	48.8	57.1	54.2
Unsure	4.2	3.2	0.0	2.8

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

Barriers to providing same-day LARCs insertion were addressed (Figure 3.21). Overall for the state, physicians most frequently report inadequate training (41.6 percent), followed by time constraints (38.8 percent). Concerns by patients regarding LARCs (4 percent) and patient preference (9.6 percent), along with difficulties maintaining inventory (10.2 percent), are the other same-day LARC insertion barriers. As expected, given the lower participation on LARCs training in Kent County, primary care physicians reporting from that county are more likely to list inadequate training (60 percent) and inadequate experience (45.7 percent) as major barriers to same-day LARC insertions than physicians in New Castle and Sussex counties. Interestingly, Kent County's physicians are also more likely to list time constraint (54.3 percent) as a barrier to same-day LARC insertions than those from New Castle and Sussex counties.

Figure 3.21
Observation of Limits to Provide Same Day Long-Acting Reversible Contraceptives Insertions by Primary Care Physicians by County, Delaware, 2018

	Kent	New Castle	Sussex	Delaware
Time constraint	54.3	33.9	38.2	38.8
Inadequate Training	60.0	43.1	17.6	41.6
Inadequate experience	45.7	30.3	23.5	32.0
Patients prefer other methods	14.3	8.3	8.8	9.6
Patients have concerns	8.6	3.7	0.0	4.0
Difficulties with billing	14.3	15.6	23.5	16.9
Staffing and workflow issues	28.6	22.2	8.8	20.9
Difficulties maintaining inventory	22.9	3.7	17.6	10.2
Other reason	37.1	32.1	44.1	35.4

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

Changes experienced over the last two years as they pertain to contraception use are addressed (Figure 3.22). Overall for the state, 45.7 percent of the primary care physicians reported that they experienced no change in the number of women seeking other family planning methods. At the same

time, 41.6 percent of physicians reported an increase in the number of women seeking LARCs and 28.9 percent experienced no change. As expected, the results diverge across counties. Kent County primary care physicians reported no change in other methods (60 percent) and in number of women seeking LARCs (42.9 percent), compared to New Castle County (40.4 percent and 28.4 percent, respectively) and Sussex County (48.3 percent and 13.8 percent, respectively). The highest increase in seeking LARCs is reported in New Castle County (53.2 percent). "Increase seeking other methods" is reported as being between 3.7 percent in New Castle County and 8.6 percent in Kent County.

Figure 3.22
Changes Experienced Over the Last Two Years by Primary Care Physicians by County, Delaware, 2018

	Kent	New Castle	Sussex	Delaware
Increase seeking LARCs	11.4	53.2	34.5	41.6
Decrease seeking LARCs	0.0	0.9	10.3	2.3
No changes in LARCs	42.9	28.4	13.8	28.9
Increase in LARC insertions	0.0	18.3	0.0	11.6
Decrease in LARC insertions	0.0	0.0	10.3	1.7
Increase seeking other methods	8.6	3.7	6.9	5.2
Decrease seeking other methods	0.0	0.0	0.0	0.0
No changes in other methods	60.0	40.4	48.3	45.7

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

Spatial Distribution

Delaware as a whole would have a sufficient supply of primary care physicians if they were spatially distributed with the state 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. The Federal Health Resources and Services Administration (HRSA) uses the threshold of 2,000:1 to identify shortage areas. Delaware currently has a ratio of 1,475:1 without considering non-physician providers. The ratios are 2,069:1 in Kent County, 1,231:1 in New Castle County, and 2,014:1 in Sussex County. As such, Delaware exceeds the HRSA-acceptable ratio in Kent and Sussex counties and is within the acceptable ratio 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.[4] In general, an underserved area will have a ratio of 3,500:1 (in special cases 3,000:1) or higher to qualify. None of the counties would qualify if counties were the spatial geography considered.

The distance criterion, which defines such areas in Delaware, is roughly 20 miles between town 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 its suburbs are paramount. The

[4] 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 percent 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.

Smyrna and Harrington areas are the best examples since they both have town centers. The issue is murky in New Castle County because its dominant population resides 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, Delaware's 27 census county divisions are useful for this spatial examination. Before looking at these sub-county differences, some caveats are in order.

The characteristics of the population 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 older than 74. Survey data suggests that this elderly group will require three times as many physician encounters as those between the ages of 18 and 64. Similarly, the very young (less than five years old), will require twice as much medical care compared to those in the 5-17 age group.[5] When the county populations are adjusted to reflect the age distribution, the adjusted state 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.

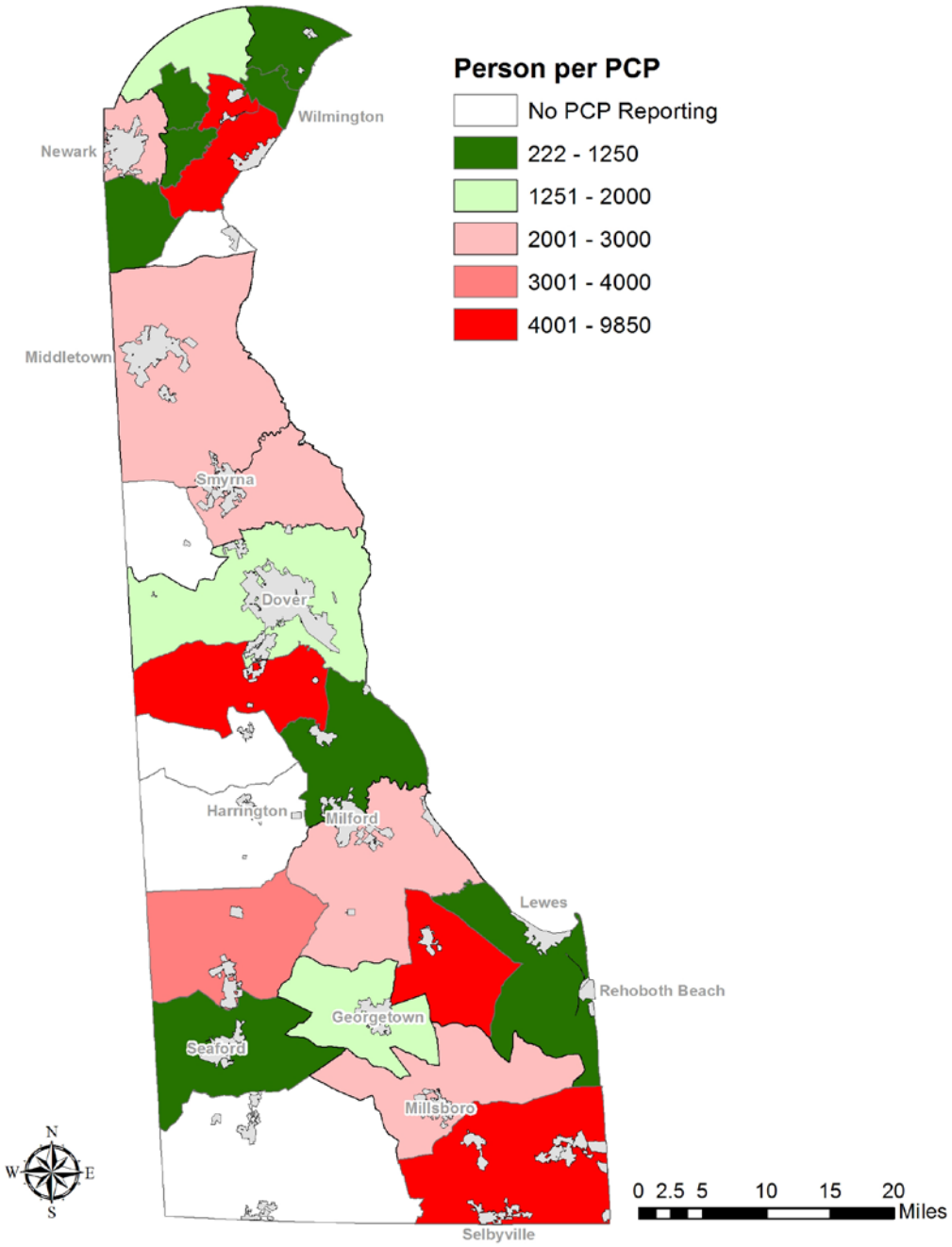
There is one other factor that is potentially important, especially in Sussex County. There are a significant number of part-year residents who live in their vacation homes during the summer. For most, this is largely a weekend activity; for others it may be full time during the summer or during their

[5] 1992 National Health Interview Survey.

vacation. In addition, a very large number of tourists arrive in Sussex County 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 Census County Division (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 appear to be underserved here, 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, Delaware, 2018



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

The spatial distribution of primary care physicians relative to population by CCD 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 3,000:1 threshold. The dark red areas have too few primary care physicians per population. It is important to point out that five CCDs fall in the 4,000+ (red) range: Lower Christiana, New Castle, Central Kent, Milton, and Selbyville-Frankford census county divisions. In general, 11 out of 27 CCDs have a potential shortage (pink), shortage (dark pink), or a significant shortage (red). Five CCDs had no physicians respond to the survey.

In general, the shortage areas are each adjacent or relatively close 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 barriers 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, four CCDs (Lower Christiana, New Castle, Newark, and Middletown-Odessa) need additional primary care physicians. Generally, this indicates 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 and north Milford. None of the physicians surveyed reported working in three CCDs: Kenton, Felton, and Harrington. Each of these CCDs are clearly lacking in primary care physicians but are adjacent to areas with more physicians.

Primary care physicians are unevenly distributed throughout Sussex County. Seaford, Georgetown, and Lewes CCDs are all well supplied with primary care physicians. Milford South and Millsboro CCDs also have adequate numbers of primary care physicians. The Bridgeville-Greenwood

CCD crosses the 3,000:1 ratio and is underserved. Milton and the Selbyville-Frankford CCDs are significantly underserved.

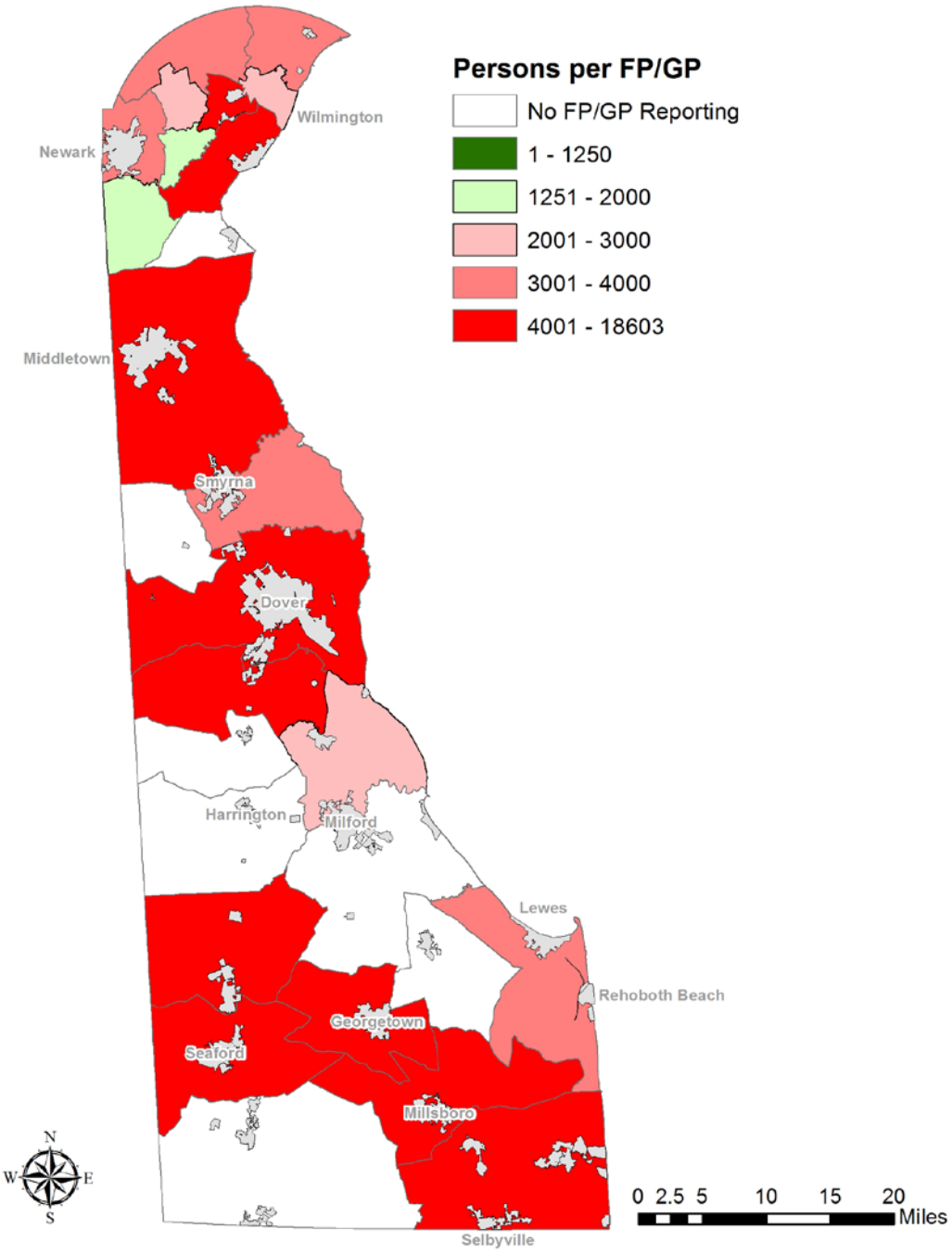
Figures 4.2 through 4.4 show the distribution by primary care specialty. There are no specific standards related to these specialties like there are for primary care physicians in general. Therefore, the scale and associated colors vary between maps and differ from Figure 4.1. (The scales are the same as in the Primary Care Physician 2006, 2008, 2011, and 2013 reports).

Family practice physicians, who make up 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 and light green), only two CCDs meet this criterion. Interestingly, only New Castle County has CCDs that meet this criterion. Also, the most adequately served CCDs by family practice physicians are the Upper Christiana and Central Pencader CCDs in New Castle County.

OBGYNs are spatially much more concentrated than all other primary care physicians, according to the 2018 survey. Only 11 of the 27 CCDs had OBGYN practice sites reporting. These practice sites were likely to be associated with a CCD that had a hospital or was adjacent to a CCD with a hospital. 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 uneven spatial distribution will also impact the accessibility of the OBGYNs.

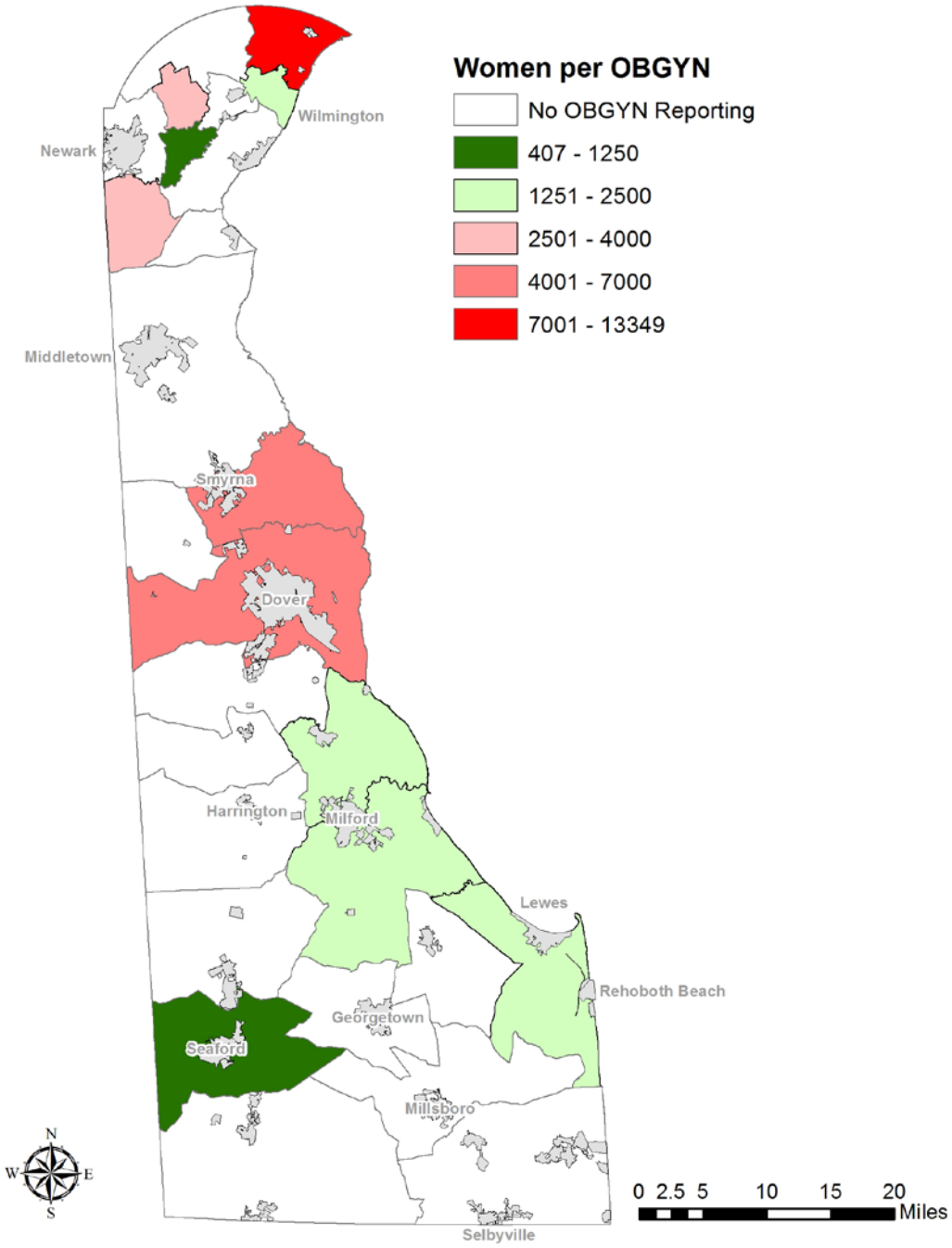
In Figure 4.4, the ratio of pediatricians to the youth population is displayed. Pediatricians make up almost 20 percent of the primary care physicians. They are spatially distributed like OBGYNs (12 CCDs compared to 11) but less so than primary care physicians in general. There is an orientation toward hospitals but not to the same degree as with OBGYNs. The 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, Delaware, 2018



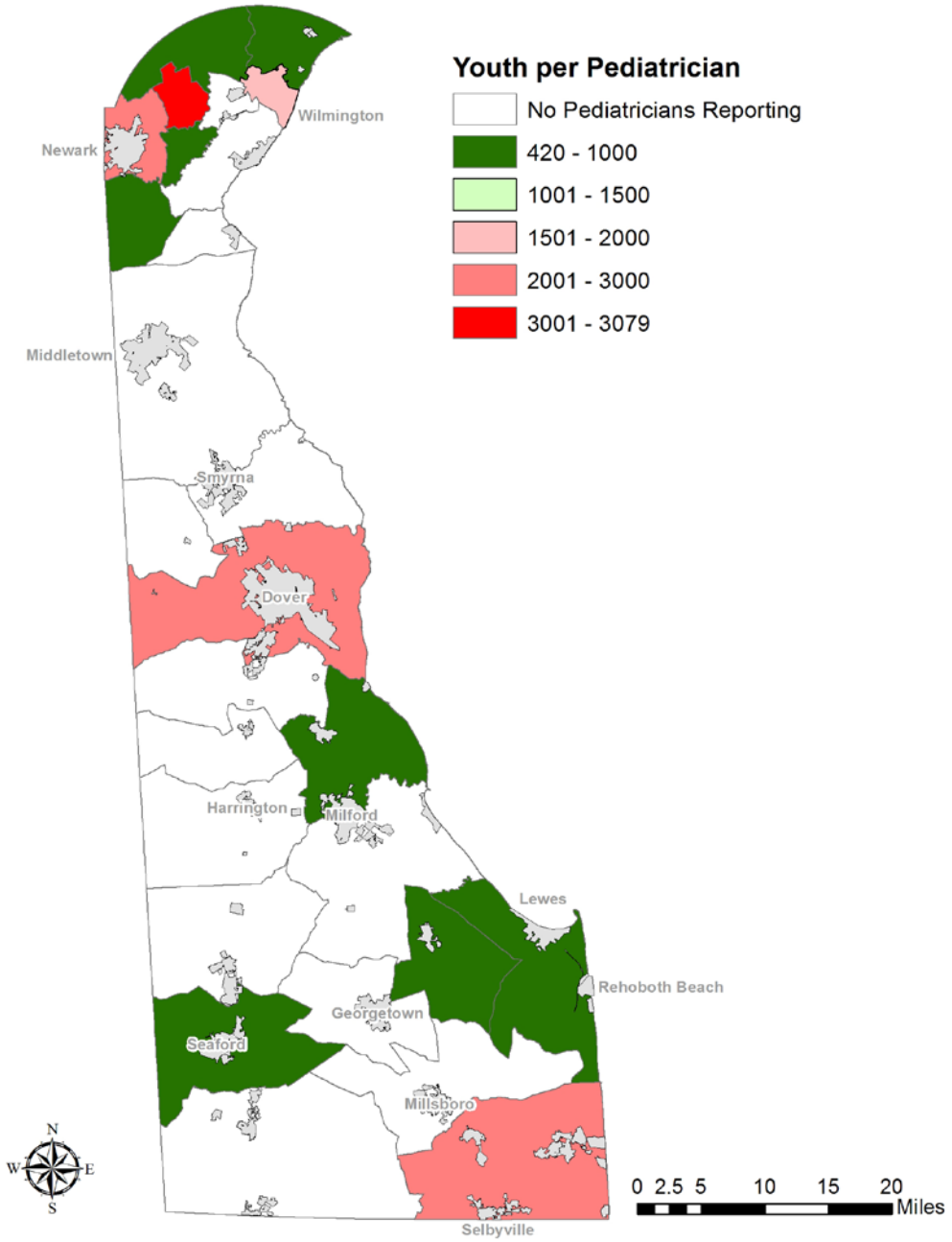
Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

Figure 4.3
Number of Women (ages 15-64) per OBGYN
by Census County Division, Delaware, 2018



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

Figure 4.4
Number of Youth (ages 0-19) per Pediatrician
by Census County Division, Delaware, 2018



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2018

APPENDIX

DELAWARE PRIMARY CARE & SPECIALIST PHYSICIANS SURVEY 2018

Commissioned by Delaware Health and Social Services

(#CADSRID#)

INSTRUCTIONS

- **Mail your completed form** in the attached prepaid envelope or send 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 2013, point your browser to:

http://www.cadsr.udel.edu/projects/DOCUMENTS/phy1302.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 46)**
5 ☐ No, inactive **(GO TO QUESTION 46)**
6 ☐ No, other (*specify*): _____ **(GO TO QUESTION 46)**
7 ☐ Not practicing in Delaware **(GO TO QUESTION 46)**

IF RETIRED, INACTIVE, OTHER, OR NOT PRACTICING IN DELAWARE, PLEASE SKIP TO QUESTION 46 ON PAGE 5.

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 main 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 main employment? (*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. In which of the following network based organizations do you currently participate? (*check all that apply*):

1 ☐ Independent Practice Association (IPA)
2 ☐ Physician Hospital Association (PHA)
3 ☐ Accountable Care Association (ACO)
4 ☐ Patient Centered Medical Home (PCMH)

7. What are the practice name, facility name, address and zip code for your *main* location <u>in Delaware</u> where you practice medicine? (Main location defined as the location where you spend most time delivering care)

Practice Name (example: Bear-Glasgow Dental)

Facility Name (People's Plaza)

Street Address

City | State | ZIP code

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

8. What type of site is the above main 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)),

<u>PLEASE GO TO QUESTION 29 ON PAGE 4,</u>

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 Code:	Hours of Direct Care per Week:
Internal Medicine (IM)	
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

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 <u>oldest</u> 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/or 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

CONTINUE ON PAGE 3

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. **On average, what percentage of your time is spent delivering primary care to migrant farm workers? (*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. **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%

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

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

1 ☐ APN
2 ☐ CNM
3 ☐ PA
4 ☐ Other
5 ☐ None **(GO TO QUESTION 23)**

22. **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%

Questions 23 through 28 are about long acting reversible contraceptives (LARCs), which include intrauterine devices (IUDs) and contraceptive implants (e.g. Nexplanon).

They refer to your female patients of reproductive age. Please answer these questions based on your experiences as a physician in your main Delaware practice site over the past year.

23. **Which of the following have you provided for patients under your care during the last year? (*check all that apply*):**

1 ☐ Insertion of IUDs
2 ☐ Removal of IUDs
3 ☐ Insertion of contraceptive implants (e.g. Nexplanon)
4 ☐ Removal of contraceptive implants (e.g. Nexplanon)
5 ☐ Same day insertion of IUDs or implants (LARCs)
6 ☐ Same day removal of IUDs or implants (LARCs)
7 ☐ Contraception other than IUDs and implants
8 ☐ Contraceptive counseling
9 ☐ Referral for patients seeking IUDs and implants (LARCs)
10 ☐ None of the above **(GO TO QUESTION 29)**

24. **When do you ask female patients of reproductive age if they are interested in getting pregnant within the next year? (*check one*)**

1 ☐ At every visit
2 ☐ Only at well visits
3 ☐ Only at reproductive health visits
4 ☐ When the patient brings it up
5 ☐ Rarely or never

25. **When talking with patients about contraception, when do you most commonly discuss LARCs? (*check all that apply*):**

1 ☐ When the patient asks about it
2 ☐ When the patient is not currently using a method
3 ☐ When the patient is currently using a method other than LARC
4 ☐ When the patient is an adolescent
5 ☐ Whenever a patient expresses a desire to avoid pregnancy

26. **Have you participated in a <u>training</u> on Long Acting Reversible Contraceptives (LARCs) and family planning <u>offered through Upstream USA's Del-CAN program</u>?**

1 ☐ Yes **(GO TO QUESTION 29)**
2 ☐ No
3 ☐ Unsure

CONTINUE ON PAGE 4

27. **Which of the following limits or barriers to providing <u>same day LARC insertion</u> for your patients have you experienced? (*check all that apply*):**

1 ☐ Time constraints
2 ☐ Inadequate *training* in LARC insertion or removal
3 ☐ Inadequate *experience* with LARC insertion or removal
4 ☐ My patients prefer other contraceptive methods
5 ☐ My patients have concerns about side effects of LARCs
6 ☐ Difficulties with billing for LARCs
7 ☐ Staffing or workflow limitations that make same day insertion difficult
8 ☐ Difficulties with maintaining inventory
9 ☐ Other reason (*specify*): _____

28. **Which of the following changes have you noticed over the last two years? (*check all that apply*):**

1 ☐ I have noticed an increase in the number of women seeking LARCs
2 ☐ I have noticed an increase in the number of women seeking other family planning methods
3 ☐ I have noticed an increase in the number of LARCs I have inserted for patients
4 ☐ I have noticed a decrease in the number of women seeking LARCs
5 ☐ I have noticed a decrease in the number of women seeking other family planning methods
6 ☐ I have noticed a decrease in the number of LARCs I have inserted for patients
7 ☐ I have not noticed a change in the number of women seeking LARCs
8 ☐ I have not noticed a change in the number of women seeking other family planning methods

29. **Are you <u>currently treating</u> MEDICAID patients at this site?**

1 ☐ Yes
2 ☐ No

If YES, about what percentage of your total hours is spent delivering 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%

30. **Are you <u>accepting new</u> MEDICAID patients at this site?**

1 ☐ Yes
2 ☐ No

31. **Are you <u>currently treating</u> MEDICARE patients at this site?**

1 ☐ Yes
2 ☐ No

If YES, about what percentage of your total hours is spent delivering 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%

32. **Are you <u>accepting new</u> MEDICARE patients at this site?**

1 ☐ Yes
2 ☐ No

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

1 ☐ Yes
2 ☐ No

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

_____
Percent

34. **Do you personally 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 ☐ Sign Language
2 ☐ French 5 ☐ Other (*specify*): _____
3 ☐ Arabic

35. **Are there medical professionals (other than yourself) 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 ☐ Sign Language
2 ☐ French 5 ☐ Other (*specify*): _____
3 ☐ Arabic

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

1 ☐ Yes
2 ☐ No

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

1 ☐ Yes
2 ☐ No

38. **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

CONTINUE ON PAGE 5

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

1 ☐ Yes
2 ☐ No

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

1 ☐ Yes
2 ☐ No

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

41. **In which of the following value based reimbursement payment methods do you currently participate? (*check all that apply*):**

1 ☐ Pay for Performance
2 ☐ Shared Savings
3 ☐ Shared Risk
4 ☐ Capitation Model
5 ☐ Concierge Model

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

1 ☐ Yes
2 ☐ No

43. **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 2018?

1 ☐ Yes
2 ☐ No

If NO, why not?:

44. **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 46)**

45. **How does your office currently use DHIN? (*check all that apply*):**

1 ☐ To view/access data from DHIN
2 ☐ To send data to DHIN (using EMR)
3 ☐ None of the above
4 ☐ Unsure

46. **Do you expect to be active in clinical medicine in Delaware 5 years from now? (<u>*Complete questions 46-54 even if you are currently not active in Delaware*</u>)**

1 ☐ Yes
2 ☐ No
3 ☐ Unsure

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

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

State (country if applicable)

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

Name of medical school | Year (YYYY)

State (country if applicable)

49. **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.)

50. **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*):

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

1 ☐ Yes
2 ☐ No

52. **What is your gender?**

1 ☐ Male
2 ☐ Female

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

Year (YYYY)

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

Thank you for completing the 2018 PRIMARY CARE & SPECIALIST PHYSICIANS SURVEY

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	VIR	Vascular and Interventional Radiology
FOP	Forensic Pathology	OT	Otology	OS	Other (i.e., a specialty other than those appearing above)
GE	Gastroenterology	APM	Pain Management (Anesthesiology)		