Primary Care Physicians in Delaware 2021

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Executive Summary

The Primary Care Physicians in Delaware 2021 survey is in its ninth round and provides timely and up-to-date insights into the primary care profession within Delaware. The current report updates the report published in 2018. It supplements and updates the data on primary care physicians from 1995, 1998, 2001, 2006, 2008, 2011, 2013, and 2018. 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, employers, and educational institutions 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 2021, there were 865 active primary care physicians in Delaware. Accounting for the time they offer direct patient care, the estimated FTE is 660 physicians.

- While there are currently sufficient numbers of physicians, their numbers are at the upper range of what is desirable. Both Kent County (2,111:1 up from 2,069:1 in 2018) and Sussex County (2,162 up from 2,014:1 in 2018) are above that ratio of 2,000:1 which is used by the U.S. Department of Health and Human Services' Health Resources and Services Administration (HRSA) to designate shortage areas.

- Kent County physicians were least likely (58.0 percent) to report they will be active in the field five years from now, compared to 69.0 percent in Sussex County and 71.0 percent in New Castle County.

- Looking at the oldest age group (65 and above) of primary care physicians, over a quarter of Kent County physicians are in this age bracket, compared to 14.0 percent in New Castle County and 23 in Sussex County.

- About 63.0 percent of Delaware's physicians went to high school in the region; about half of them graduated from a medical school in the Mid-Atlantic region; and about 77.0 percent of them completed their medical residency in the region.

- Eighty-three percent of primary care physicians are accepting new patients, but the proportion accepting new Medicare and Medicaid patients (68.0 and 76.0 percent, respectively) is much lower.

- Over 70.0 percent of a primary care physician's time is devoted to serving Medicare and Medicaid patients, which represent less than 32.0 percent of the population.

- About 62.0 percent of primary care physicians employ non-physician services from advanced practice nurses, physician assistants, and others.

- Almost three quarters of Delaware's physicians started using telemedicine as a response to during the Coronavirus disease 2019 (COVID-19) pandemic.

- The most often cited impacts of the COVID-19 pandemic on physicians' practices were limiting visits by patients to reduce exposure, self-quarantining of nursing and front office staff, reduction of income, lack of supplies, and self-quarantining of clinicians.

- 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.

1. Methodology

In 1995, the Delaware Department of Health and Social Services, 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 ninth 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, 2018, and 2021. 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. While that approach proved to produce reliable results over the years, it was discontinued in 2011. The impetus to abandon that approach was 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 (HRSA). Just like in 2011, 2013, and 2018, the 2021 estimates and results reported in this document are solely based on the responses obtained during the most recent data collection period (2021).

Data collection for the current report took place during the Fall 2020/Spring of 2021. The list of licensed physicians obtained from the Division of Professional Regulation contained 6,000 unique entries. Researchers excluded one inactive provider and 11 that were on probation, resulting in 5,988 unique entries. Of these, 2,482 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, 2,687 physicians were contacted. This includes all physicians with an active license in Delaware with an address in Delaware (2,482) and physicians with an active license in Delaware reporting addresses with ZIP codes adjacent to Delaware (205).

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

Of those contacted, 799 responded to the survey and provided usable data. Additionally, 161 mailings were returned as undeliverable; one licensed physician explicitly refused to answer; and in one case, 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 applying weights for non-respondents and considering the geographical distribution of licensed physicians, the number of primary care physicians is estimated at 865.

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 considering the number of hours worked, the FTE number of primary care physicians is 660.

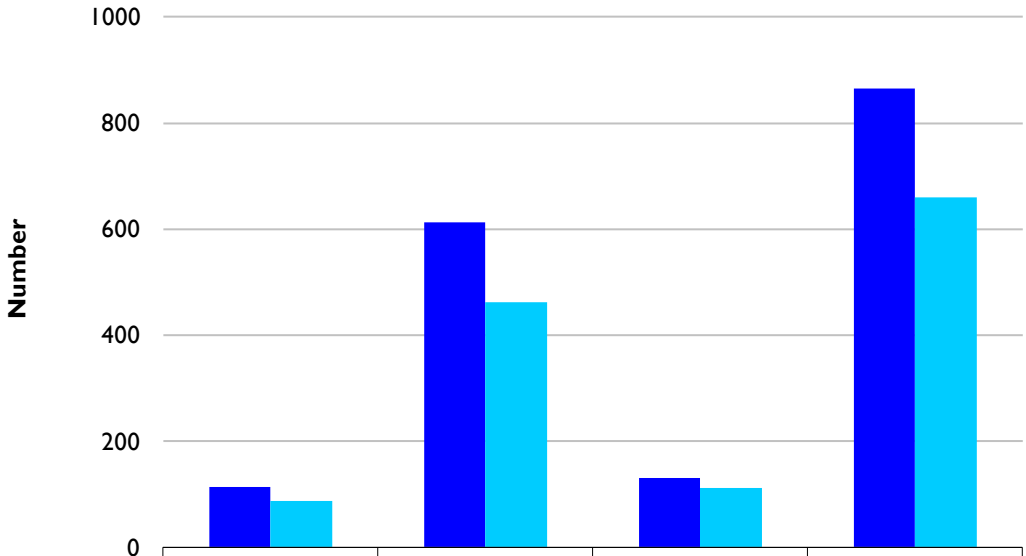
This report examines certain aspects of primary care physicians and their practices that affect the availability of primary care services; comparisons to previous years were made using tabulations based on FTEs. The next section discusses demographics of the primary care physician population. Of particular interest is the age distribution and diversity of these practitioners. The section about practice characteristics covers important issues such as patient appointment waiting times 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.

2. Demographics

The number and availability of primary care physicians and their demographic diversity are important as changes occur in Delaware's population. Some patients are more comfortable and communicate better with physicians having similar characteristics. Physicians with particular demographic characteristics may be more likely to train in one of the primary care specialties.

Figure 2.1
Number of Primary Care Physicians and Full-Time Equivalent (FTE) Primary Care Physicians by County, Delaware, 2021



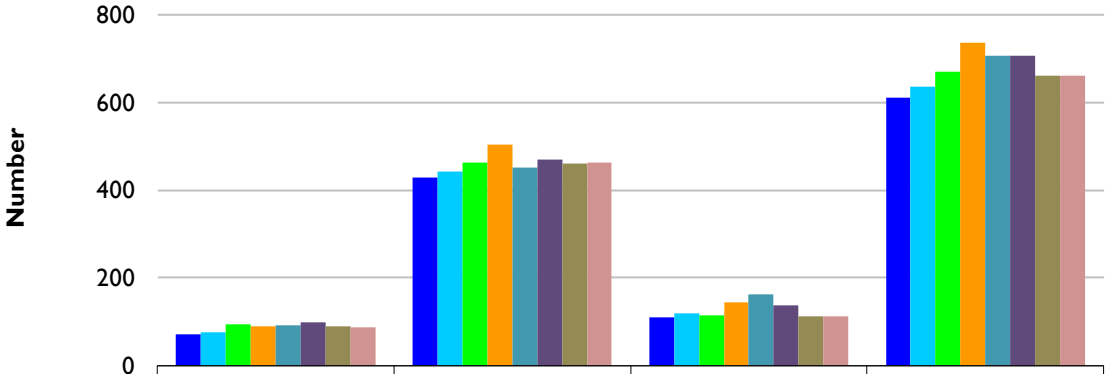
	Kent	New Castle	Sussex	Delaware
Physicians	113	612	130	865
FTE	87	462	111	660

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Figure 2.1 summarizes the current number of primary care physicians in Delaware by county of practice. In 2021, 865 individual primary care physicians were practicing in Delaware (up from 815

reported in 2018). After considering the number of hours worked by primary care physicians, the FTE count of Delaware's physicians stood at 660 in 2021. FTE primary care physicians are most numerous in New Castle County (462) followed by Sussex County (111) and Kent County (87). Given Delaware's 2021 population of 998,488[2], each FTE primary care physician served about 1,511 persons. By county, the estimated patient populations served by each FTE primary care physician are 2,111 for Kent County, 1,240 for New Castle County, and 2,162 for Sussex County.

Figure 2.2
Number Full-Time Equivalent Primary Care Physicians
by County and Year, Delaware, 1998-2021



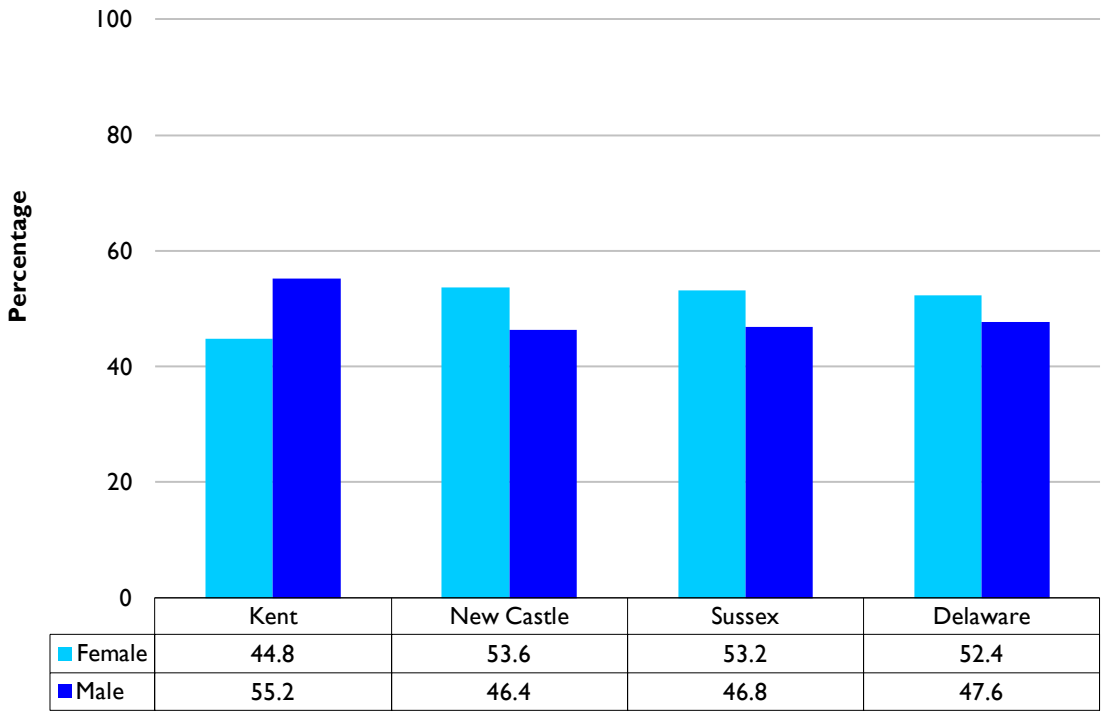
	Kent	New Castle	Sussex	Delaware
1998	72	429	109	610
2001	75	442	119	636
2006	93	463	115	671
2008	89	504	143	736
2011	92	452	163	707
2013	99	470	138	707
2018	89	461	112	662
2021	87	462	111	660

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

[2] 2015-2019 American Community Survey 5 YR Estimates S010, http://factfinder2.census.gov/, Accessed February 23, 2022 adjusted to Delaware Population Consortium Annual Population Projections Version 2021.0 from October 31, 2021, Accessed August 22, 2022.

Figure 2.2 compares the number of full-time physicians for the last seven survey periods. The estimated number of FTE primary care physicians across all counties in Delaware decreased marginally from 662 in 2018 to 660 physicians in 2021.

Figure 2.3
Percentage of Primary Care Physicians by Gender and County, Delaware, 2021

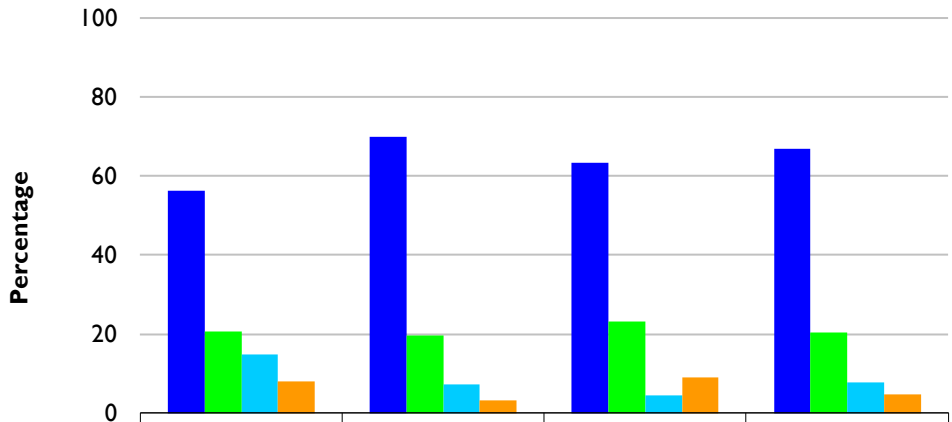


	Kent	New Castle	Sussex	Delaware
Female	44.8	53.6	53.2	52.4
Male	55.2	46.4	46.8	47.6

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Delaware's primary care physician community is 52.4 percent female (Figure 2.3). It is the first time in the survey's history that the proportion of female primary care physicians is greater than the proportion of male primary care physicians. Variation among counties exists; in Kent County, male primary care physicians outnumber female primary care physicians.

Figure 2.4
Percentage of Primary Care Physicians by Race and County, Delaware, 2021



	Kent	New Castle	Sussex	Delaware
Caucasian	56.3	70.0	63.4	67.0
Asian	20.7	19.7	23.2	20.5
African American	14.9	7.2	4.5	7.8
Other	8.0	3.1	8.9	4.7

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

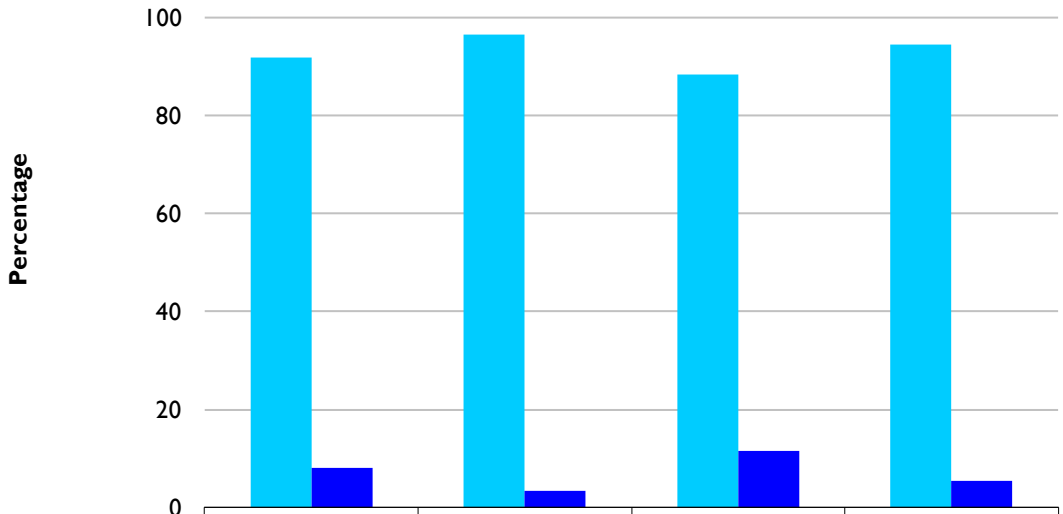
The racial composition of primary care physicians in the state is 67.0 percent Caucasian, 20.5 percent Asian, 7.8 percent African American, and 4.7 "other" (Figure 2.4).

The current survey indicates the highest proportion of African American physicians is in Kent County (14.9 percent), compared to New Castle County (7.2 percent) and Sussex County (4.5 percent).

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 at 23.2 percent, compared to Kent County (20.7 percent) and New Castle County (19.7 percent).

The survey also examined ethnicity. 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). Statewide, 5.5 percent of primary care physicians are Hispanic.

Figure 2.5
Percentage of Primary Care Physicians by Hispanic Origin and County, Delaware, 2021

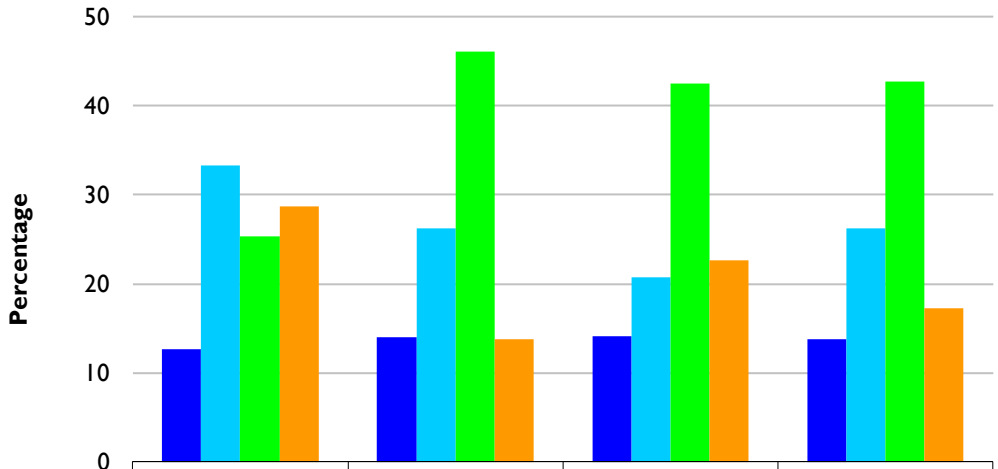


	Kent	New Castle	Sussex	Delaware
Non-Hispanic	91.9	96.5	88.4	94.5
Hispanic	8.1	3.5	11.6	5.5

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

The highest proportion of Hispanic physicians is in Sussex County (11.6 percent), compared to Kent County (8.1 percent) and the lowest proportion in New Castle County (3.5 percent).

Figure 2.6
Percentage of Primary Care Physicians by Age and County, Delaware, 2021



	Kent	New Castle	Sussex	Delaware
Under 40	12.6	14.0	14.2	13.8
40-49	33.3	26.2	20.8	26.3
50-64	25.3	46.1	42.5	42.7
65 and above	28.7	13.8	22.6	17.2

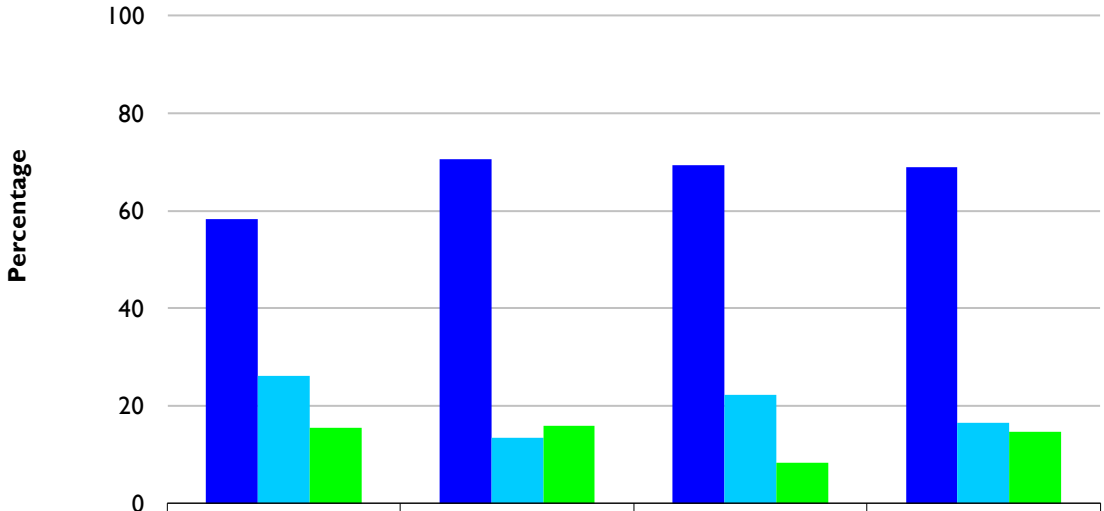
Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

The age of primary care physicians is ultimately a factor in their availability within the counties (Figure 2.6). Statewide, 13.8 percent of primary care physicians are younger than 40. The proportion of primary care physicians under 40 years old is evenly distributed across counties and stands between 12.6 percent in Kent County and 14.2 percent in Sussex County, with New Castle County in the middle with 14.0 percent. Kent County has the highest proportion of primary care physicians between 40 and 49 years of age (33.3 percent).

The state's largest provider age group, 50-64, varies significantly by county. The highest proportion of physicians ages 50 to 64 (46.1 percent) is in New Castle County and the lowest (25.3 percent) is in Kent County, with Sussex County in the middle at 42.5 percent. Over a quarter (28.7 percent) of Kent County's physicians are age 65 and older, compared to 13.8 percent in New Castle County and 22.6 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 70.0 percent of physicians expect to be active in the field by 2026. New Castle County has the highest proportion (70.6 percent) of physicians indicating that they will be active five years from now, compared to 69.4 percent in Sussex County and 58.3 percent in Kent County.

Figure 2.7
Percentage of Primary Care Physicians Active Five Years from Now by County, Delaware, 2021

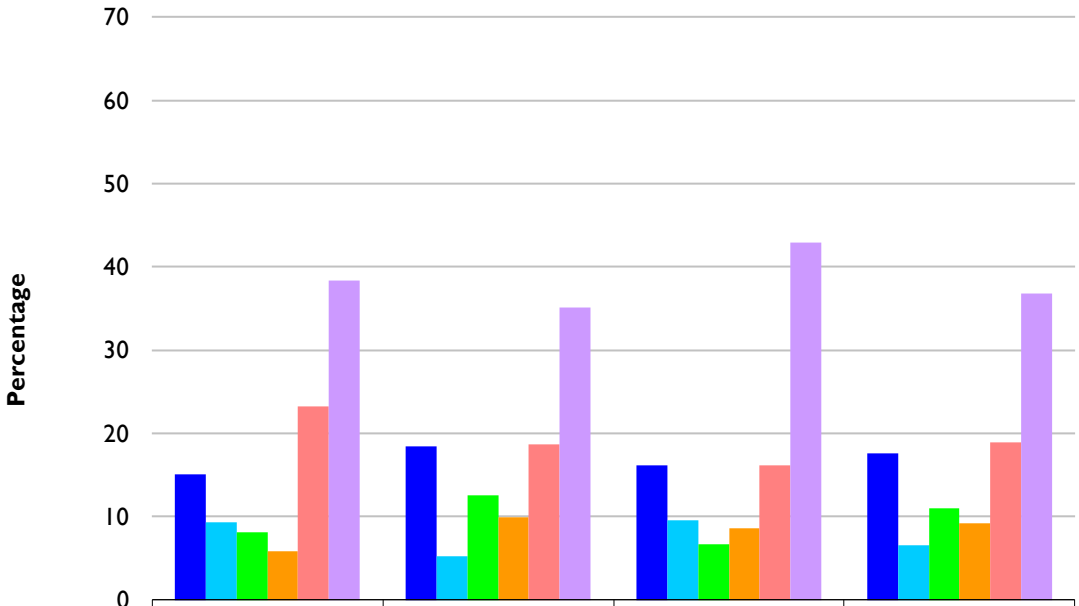


	Kent	New Castle	Sussex	Delaware
Yes	58.3	70.6	69.4	68.8
Unsure	26.2	13.5	22.2	16.6
No	15.5	15.9	8.3	14.6

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

To determine if the supply of physicians can adequately serve Delaware's residents, it is necessary to analyze why some physicians choose to practice in Delaware and others choose to practice in other states. Several pieces of information are useful for this purpose. First, where did the physician originally reside when he/she graduated from high school? Second, in what state did the physician attend medical school? A third key variable is the state in which the physician completed his/her residency.

Figure 2.8
Percentage of Primary Care Physicians by State of High School Graduation of Primary Care Physicians and County, Delaware, 2021

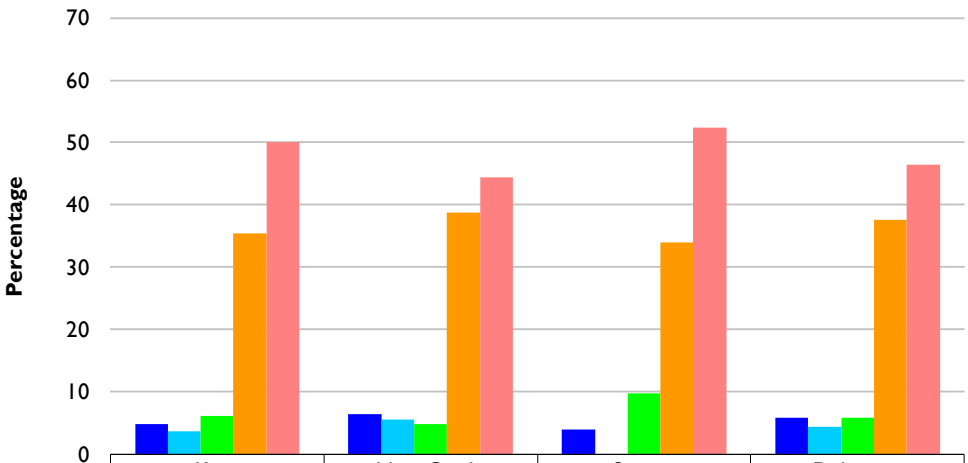


	Kent	New Castle	Sussex	Delaware
DE	15.1	18.5	16.2	17.6
MD	9.3	5.3	9.5	6.5
NJ	8.1	12.5	6.7	11.0
NY	5.8	9.9	8.6	9.1
PA	23.3	18.7	16.2	18.9
Other	38.4	35.2	42.9	36.8

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Sixty-three percent of primary care physicians grew up in the Mid-Atlantic region and approximately 18.0 percent are from Delaware. Statewide, primary care physicians graduated from high school in Delaware (17.6 percent), Maryland (6.5 percent), Pennsylvania (18.9 percent), New Jersey (11.0 percent), and New York (9.1 percent). However, these figures vary across counties. The percentage of primary care physicians who graduated from a Delaware high school was nearly 19.0 percent among New Castle County physicians, 15.1 percent among Kent County physicians, and 16.2 percent among Sussex County physicians. Of physicians who resided outside the region when they graduated from high school, 38.4 percent practice in Kent County, 35.2 percent practice in New Castle County, and 42.9 percent practice in Sussex County (Figure 2.8).

Figure 2.9
Percentage of Primary Care Physicians by State of Medical School Graduation and County, Delaware, 2021



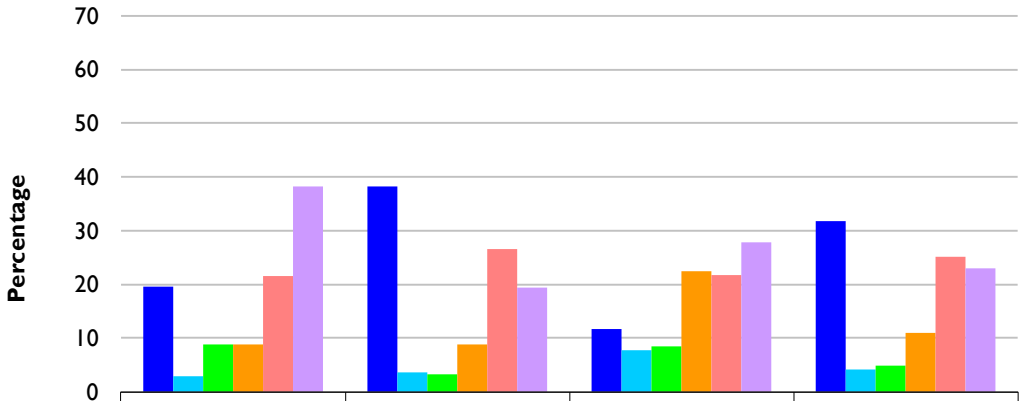
	Kent	New Castle	Sussex	Delaware
MD	4.9	6.4	3.9	5.8
NJ	3.7	5.5	0.0	4.4
NY	6.1	4.9	9.7	5.8
PA	35.4	38.8	34.0	37.6
Other	50.0	44.3	52.4	46.4

Note: Delaware does not have a medical school.

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

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 the Mid-Atlantic region locate in Sussex and Kent counties (52.4 and 50.0 percent, respectively) than in New Castle County (44.3 percent). Those from medical schools in Pennsylvania are more likely to locate in New Castle County (38.8 percent). Those from medical schools in New York are more likely to practice in Sussex County (9.7 percent).

Figure 2.10
Percentage of Primary Care Physicians by State of Medical Residency and County, Delaware, 2021



	Kent	New Castle	Sussex	Delaware
DE	19.6	38.2	11.6	31.8
MD	2.9	3.7	7.8	4.2
NJ	8.8	3.3	8.5	4.8
NY	8.8	8.8	22.5	11.0
PA	21.6	26.5	21.7	25.2
Other	38.2	19.4	27.9	23.0

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Similar patterns emerge with the state of the physician's medical residency (Figure 2.10). Slightly over 38.0 percent of New Castle County physicians completed their medical residency in Delaware, compared to 19.6 percent in Kent County and 11.6 percent in Sussex County. Statewide,

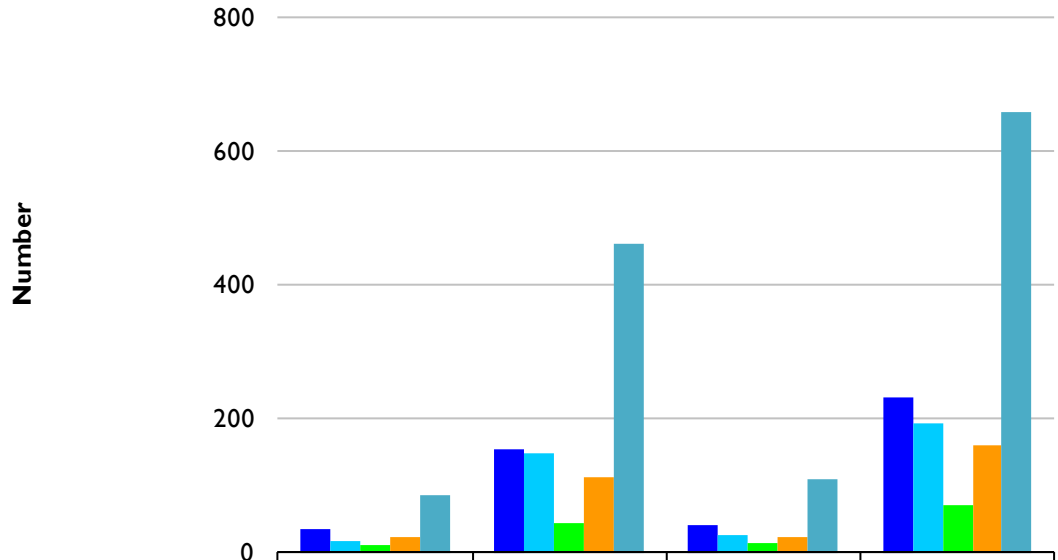
23.0 percent of primary care physicians completed their medical residency outside the region; Kent County has the highest proportion (38.2 percent).

It might prove valuable to those recruiting for new primary care physicians in Delaware to point out three facts. First, most of Delaware's primary care physicians (63.2 percent) resided in the Mid-Atlantic region at the time of high school graduation. Second, most of Delaware's primary care physicians (53.6 percent) went to medical school within several hundred miles of where they practice today. Third, 77.0 percent of Delaware's primary care physicians completed their medical residency in the Mid-Atlantic 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
Number of Primary Care Physicians by Specialty and County, Delaware, 2021



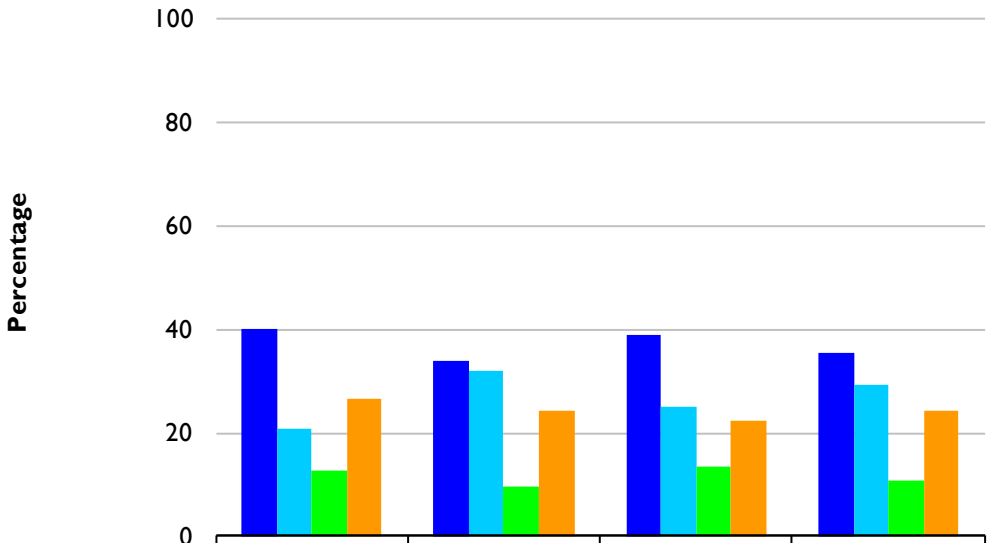
	Kent	New Castle	Sussex	Delaware
Family Practice & General Practice	35	156	43	234
Internal Medicine	18	148	28	194
Obstetrics & Gynecology	11	45	15	71
Pediatrics	23	113	25	161
Total	87	462	111	660

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Of Delaware's 660 primary care physicians, 234 are in family practice and general practice, 194 in internal medicine and pediatrics, 71 in obstetrics and gynecology, and 161 in pediatrics (Figure 3.1). In 2021, only a handful reported that they are general practitioners; within this report, they are

combined with family practice physicians. The number of New Castle County physicians greatly exceeds the other two counties in all specialties.

Figure 3.2
Percentage of Primary Care Physicians by Specialty and County, Delaware, 2021



	Kent	New Castle	Sussex	Delaware
Family Practice & General Practice	40.2	33.8	38.7	35.5
Internal Medicine	20.7	32.0	25.2	29.4
Obstetrics & Gynecology	12.6	9.7	13.5	10.8
Pediatrics	26.4	24.5	22.5	24.4

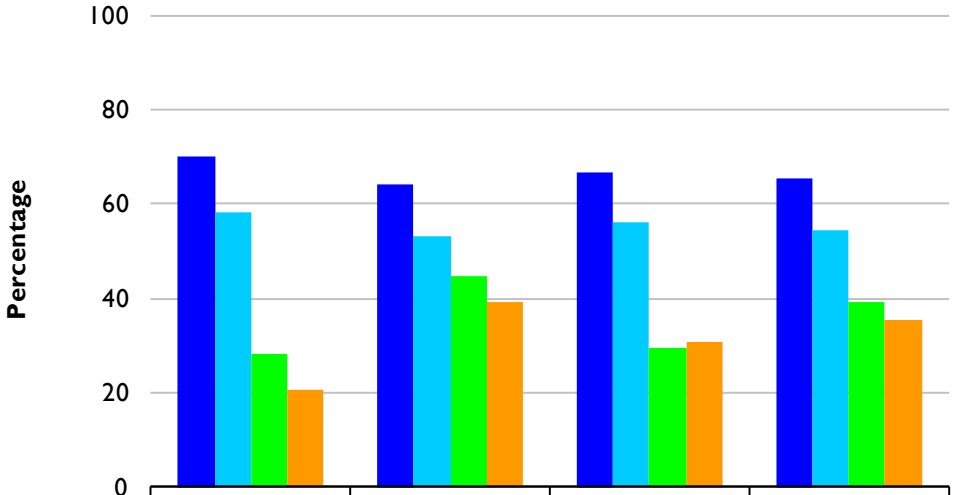
Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Primary care physicians are distributed essentially in three major groups (Figure 3.2). About 35.0 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 (Figure 3.3). Almost 70 percent of primary care physicians in Kent

County provide pediatric services. In addition, 58.3 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 smallest proportion (53.3 percent) of New Castle County's non-pediatric physicians provides pediatric services. The proportion of non-OBGYN physicians providing OBGYN services is highest (39.4 percent) in New Castle County, compared to 30.9 in Sussex County and 20.6 in Kent County.

Figure 3.3
Percentage of Primary Care Physicians Providing of Selected Specialty Services by County, Delaware, 2021



	Kent	New Castle	Sussex	Delaware
Pediatrics: All PCPs	69.9	64.2	66.7	65.4
Non-Pediatricians	58.3	53.3	56.3	54.5
OBGYN:All PCPs	28.4	44.9	29.5	39.1
Non-OBGYNs	20.6	39.4	30.9	35.4

Note: 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

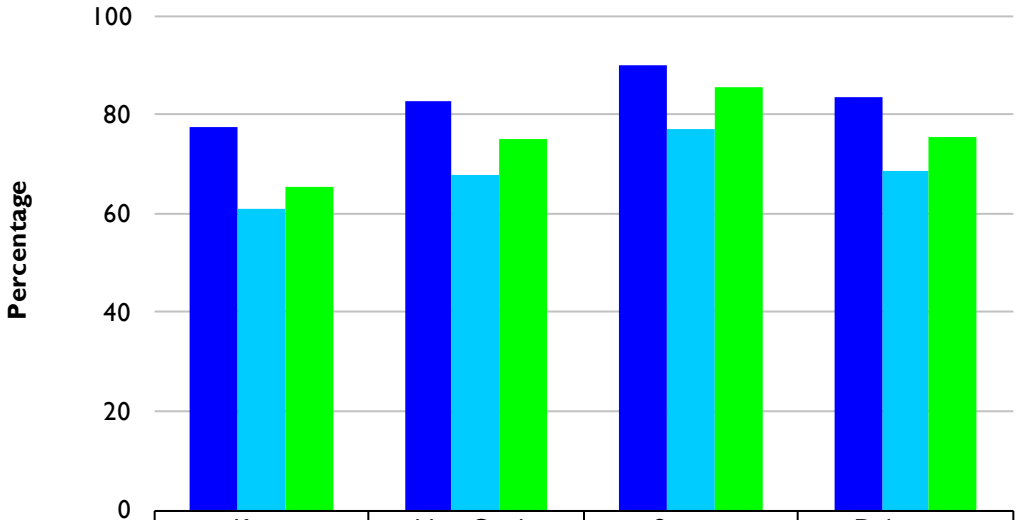
Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

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 78.0 percent and 90.0 percent of

primary care physicians report that they are accepting new patients. The proportion is lowest in Kent County at 77.5 percent.

Primary care physicians were also asked if they were accepting new Medicare and/or Medicaid patients (Figure 3.). The number of physicians reporting that they were accepting new Medicare patients is highest in Sussex County (77.2 percent) and lowest in Kent County (60.9 percent), with New Castle County in between at 68.0 percent. Those interpreting the Medicare results should do so with caution. Pediatricians comprise 25.0 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).

Figure 3.4
Percentage of Primary Care Physicians Accepting New Primary Care Patients by Type of Insurance and County, Delaware, 2021



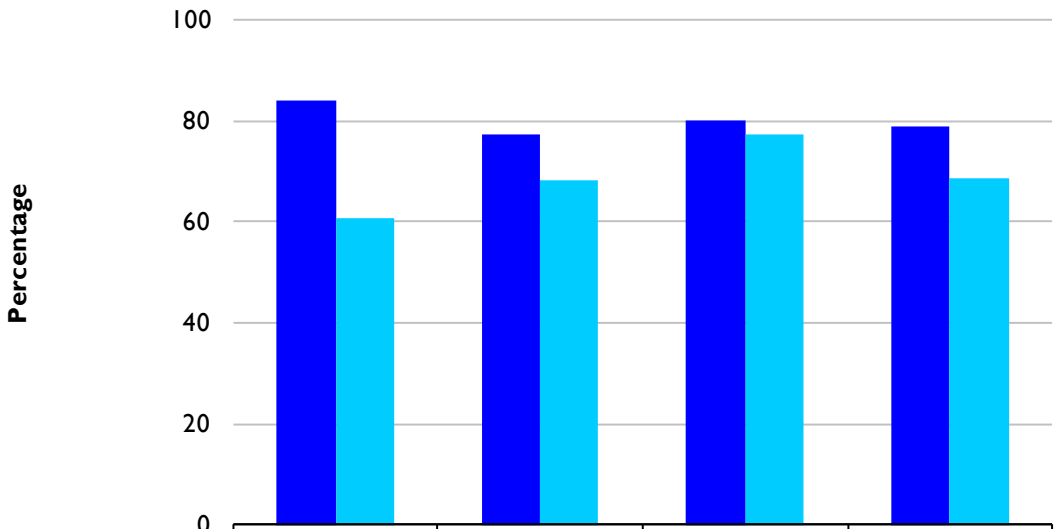
	Kent	New Castle	Sussex	Delaware
All	77.5	82.9	90.1	83.4
Medicare	60.9	68.0	77.2	68.5
Medicaid	65.5	75.2	85.6	75.6

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

The results regarding the acceptance of new Medicaid patients are similar to those for Medicare but without the cautionary note. Physicians in Sussex County report being most willing to accept new Medicaid patients (85.6 percent), compared to New Castle County physicians (75.2 percent) and Kent County physicians (65.5 percent).

There is a 10 percentage point spread (68.5 to 78.8 percent) between primary care physicians who are currently treating Medicare patients and accepting new Medicare patients (Figure 3.5). These differences are largest in Kent County, where the difference is 23.0 percent. This finding suggests that individuals with Medicare who move to Kent County or who lose their current physician in that county could face more difficulty in finding a new primary care physician there.

Figure 3.5
Percentage of Primary Care Physicians Accepting New Medicare Patients by County, Delaware, 2021

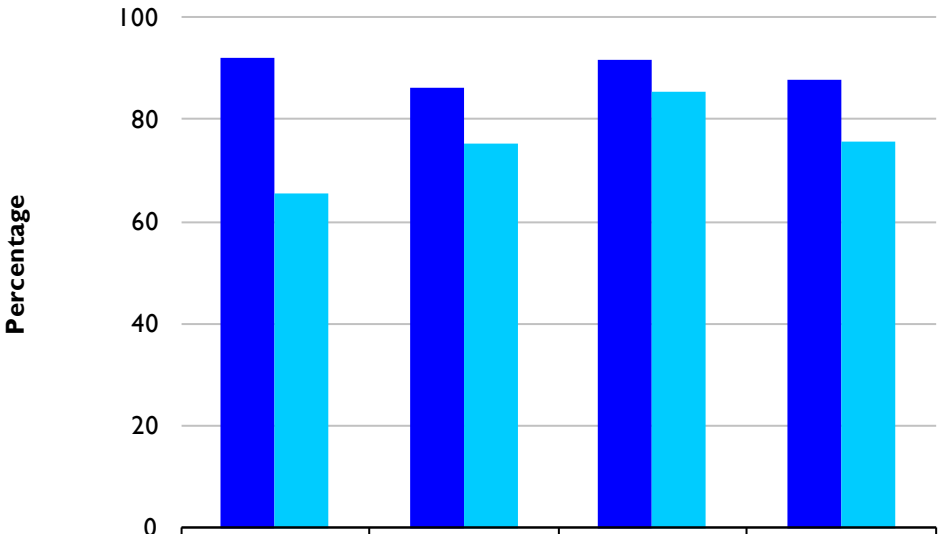


	Kent	New Castle	Sussex	Delaware
Treating Medicare	83.9	77.5	80.2	78.8
Accepting New Medicare	60.9	68.0	77.2	68.5

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

The situation for Medicaid patients is probably just as difficult (Figure 3.6). Statewide, there is a 12-point percentage difference between primary care physicians who are currently treating Medicaid patients and those who will accept new Medicaid patients. In Kent County, there is a difference of 26.5 percent.

Figure 3.6
Percentage of Primary Care Physicians Accepting New Medicaid Patients by County, Delaware, 2021



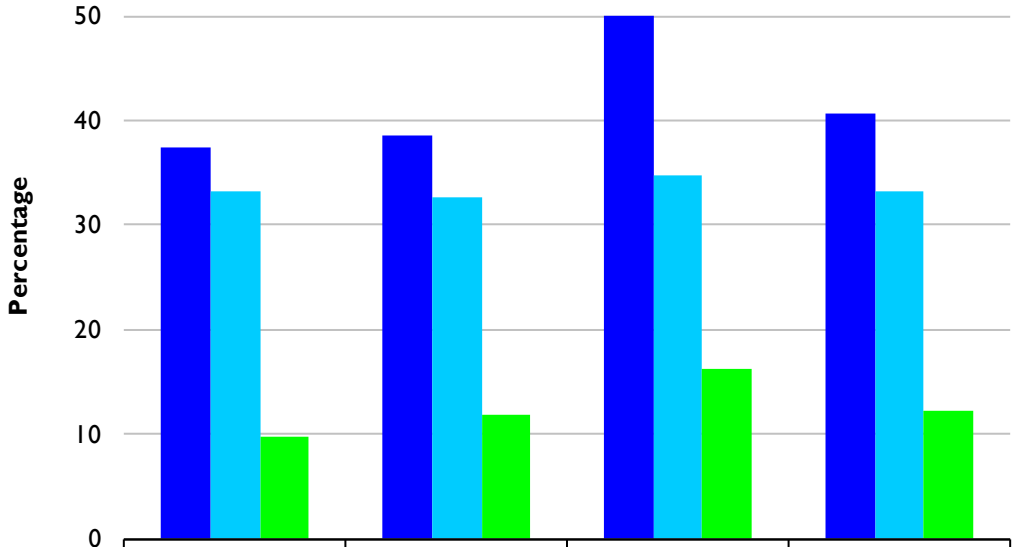
	Kent	New Castle	Sussex	Delaware
Treating Medicaid	92.0	86.1	91.5	87.8
Accepting New Medicaid	65.5	75.2	85.6	75.6

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

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 41.0 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, 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 (52.6 percent) because the older population is highest there. Statewide, the time spent on providing care to patients with Medicaid stands at around 33.2 percent. Medicaid patients use 34.7 percent of primary care physician's time in Sussex County, 33.3 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, 2021



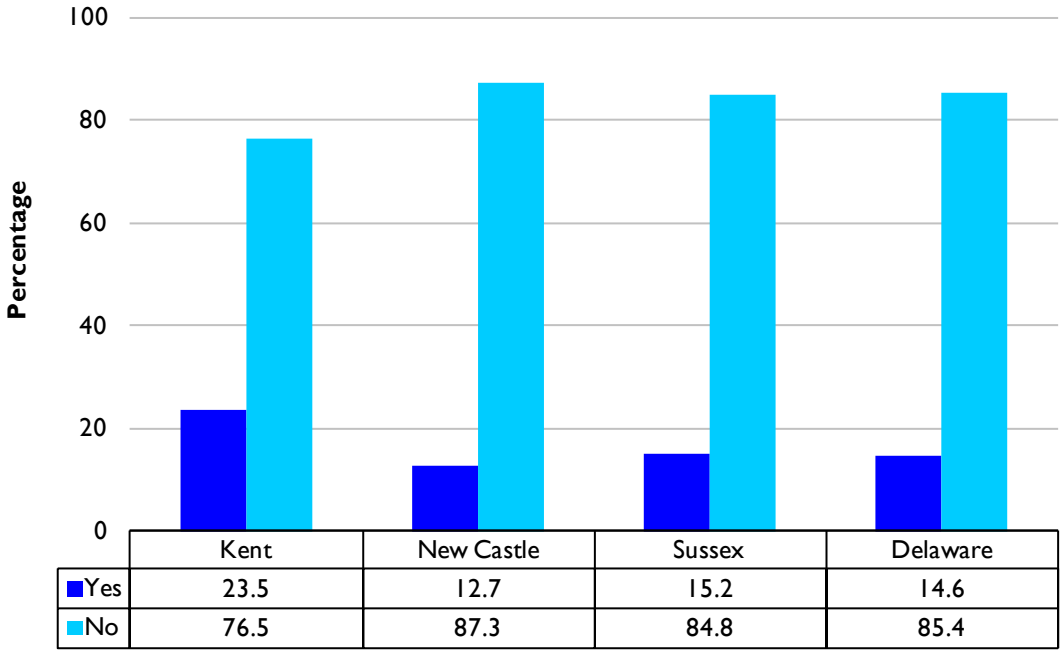
	Kent	New Castle	Sussex	Delaware
Medicare	37.3	38.5	52.6	40.7
Medicaid	33.3	32.7	34.7	33.2
Self-Pay	9.8	11.8	16.3	12.3

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

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, 14.6 percent of primary care physicians have this sub-specialty (Figure 3.8). The highest proportion (23.5 percent) of physicians practicing this specialty is in Kent County despite the higher proportion of elderly

patients in Sussex County, where 15.2 percent of primary care physicians report practicing a geriatric subspecialty.

Figure 3.8
Percentage of Primary Care Physicians Practicing Geriatrics as a Sub-specialty by County, Delaware, 2021



	Kent	New Castle	Sussex	Delaware
Yes	23.5	12.7	15.2	14.6
No	76.5	87.3	84.8	85.4

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

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 details the average wait time reported by primary care physicians by county since 1998. In 2013, there was a significant spike in waiting times for both new and existing patients. Average waiting times for both 2018 and 2021 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 nine days, compared to 26 days for a new patient.

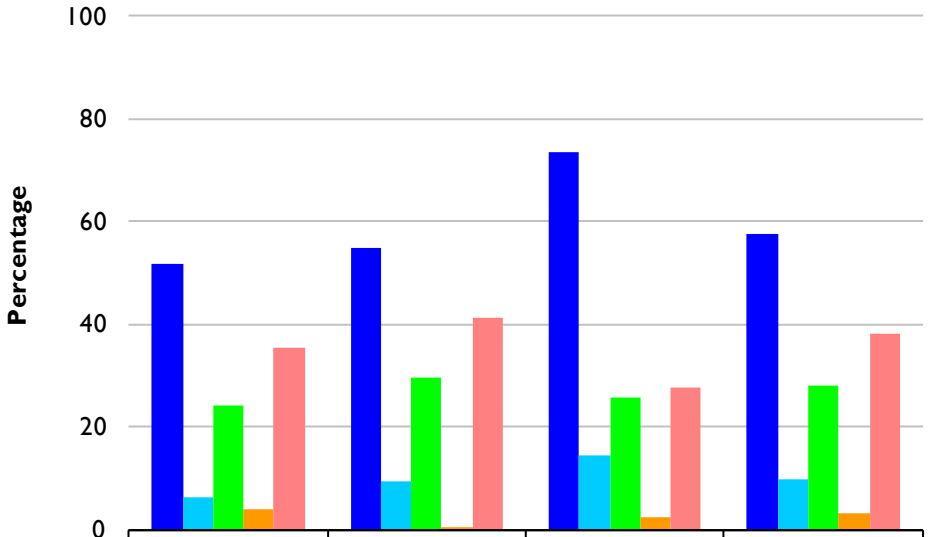
Figure 3.9
Average Wait Time in Days for Types of Patients reported by Primary Care Physicians by County and Year, Delaware, 1998-2021

	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
2021-Established	14.8	7.0	10.5	8.7
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
2021-New	58.3	19.1	27.4	25.9

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Primary care physicians can use alternative resources to extend their own abilities and 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. New Castle County is using alternative resources the least (59 percent). PAs are more often used by primary care physicians in New Castle County (29.6 percent) and least often by those practicing in Kent County (24.1 percent). Physicians in Sussex County are about twice as likely to use certified nurse midwives (14.4 percent) than the physicians in Kent County (6.3 percent) and physicians in New Castle County (9.3 percent). APNs are most used by Sussex County physicians (73.3 percent).

Figure 3.10
Percentage of Primary Care Physicians by the Use of Non-Physician Resources and County, Delaware, 2021

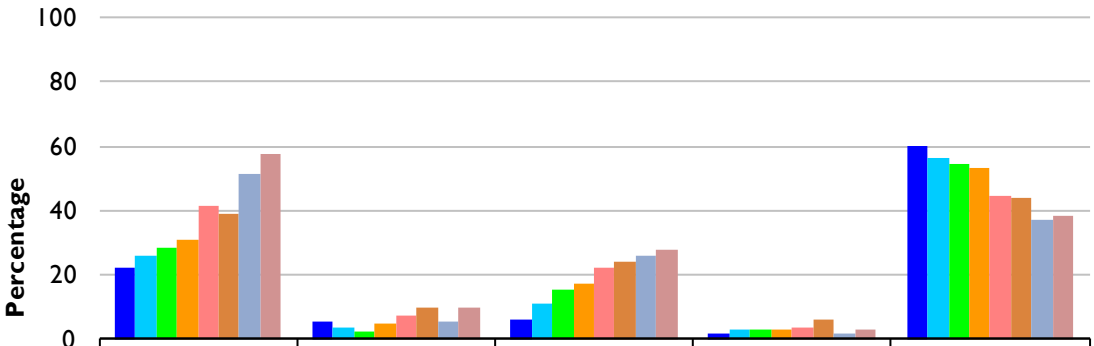


	Kent	New Castle	Sussex	Delaware
Advanced Practice Nurse	51.9	54.8	73.3	57.5
Certified Nurse Midwife	6.3	9.3	14.4	9.7
Physician Assistant	24.1	29.6	25.6	28.1
Other	3.8	0.3	2.2	3.2
None	35.4	41.4	27.8	38.2

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Data over the last eight survey periods suggest a steady movement toward the use of alternative non-physician resources (Figure 3.11). For example, in 1998, 22.6 of Delaware's primary care providers reported using APNs, compared to 57.5 in 2021. The use of CNMs (5.4 in 1998) peaked at 10.2 in 2013 and stands at 9.7 percent in 2021. The use of PAs (6.3 in 1998) steadily rose to 28.1 in 2021.

Figure 3.11
Percentage of Primary Care Physicians by the Use of Non-Physician Resources by Year, Delaware, 1998-2021

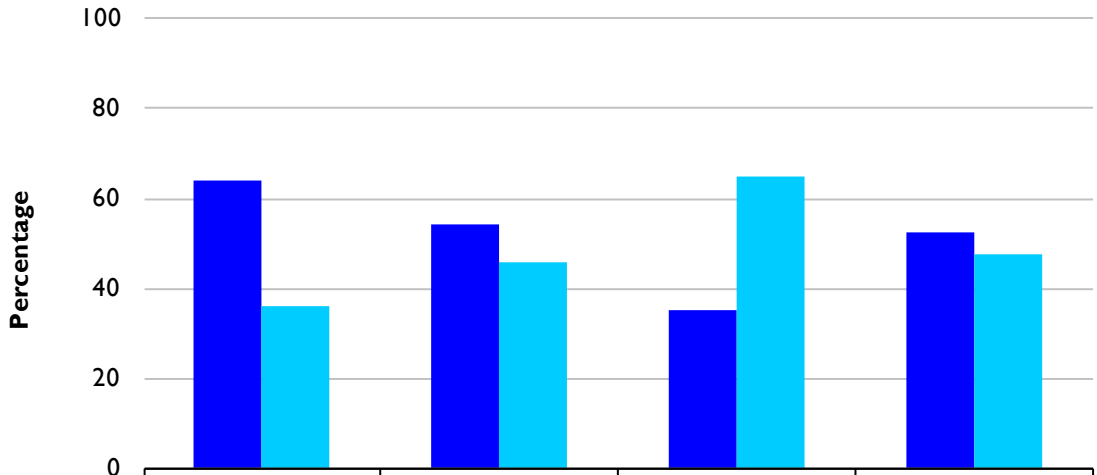


	Advanced Practice Nurse	Certified Nurse Midwife	Physician Assistant	Other	None
1998	22.6	5.4	6.3	1.9	60.4
2001	26.3	4	11.3	3.3	56.4
2006	28.3	2.2	15.5	3.3	54.8
2008	31.2	5.0	17.6	3.1	53.2
2011	41.3	7.3	22.6	3.7	44.7
2013	38.9	10.2	24.2	6.2	44.1
2018	51.6	5.8	25.9	1.6	37.3
2021	57.5	9.7	28.1	3.2	38.2

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Access to primary care is impacted by the coverage that a patient presents to the physician. Membership in managed care networks allows a primary care physician to extend services to a wider range of patients (Figure 3.12). Sixty-four percent of responding Kent County primary care physicians indicated that they belong to managed care networks, compared to 54 percent in New Castle County and 35 percent in Sussex County.

Figure 3.12
Percentage of Primary Care Physicians by Membership in Managed Care Networks and County, Delaware, 2021



	Kent	New Castle	Sussex	Delaware
Yes	64.0	54.4	35.1	52.3
No	36.0	45.6	64.9	47.7

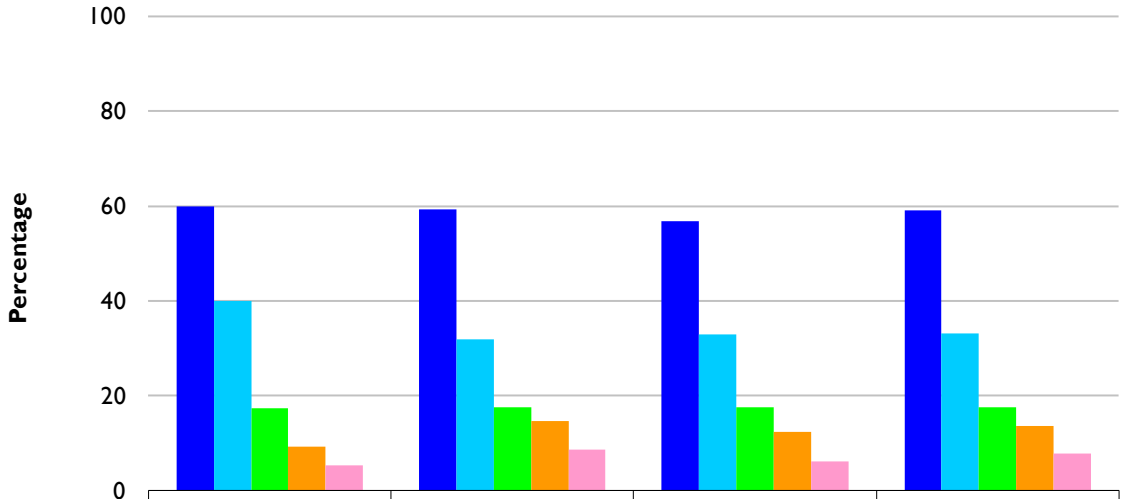
Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

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 3.13). Some of these methods have been around for a while; others, such as the concierge model, are just gaining recognition. About 60.0 percent of primary care physicians reported participation in pay-for-performance reimbursement, followed by shared savings (33.2 percent) and shared risk (17.6 percent). Most primary care physicians reported participating in the capitation model (13.6 percent), compared to the concierge model (7.8 percent).

Some differences exist among counties. Participation in shared savings was reported most frequently by primary care physicians in Kent County (40.0 percent), compared to physicians in Sussex

County (33.2 percent), and in New Castle County (31.9 percent). Participation in the concierge model was reported by 8 percent of primary care physicians in Delaware.

Figure 3.13
Percentage of Primary Care Physicians Participating in Value-Based Reimbursement Payment Methods by County, Delaware, 2021



	Kent	New Castle	Sussex	Delaware
Pay for Performance	60.0	59.4	56.7	59.0
Shared Savings	40.0	31.9	33.0	33.2
Shared Risk	17.3	17.7	17.5	17.6
Capitation Model	9.3	14.8	12.4	13.6
Concierge Model	5.3	8.7	6.2	7.8

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

As in 2018, primary care physicians were asked a series of questions regarding long-acting reversible contraceptives (LARCs), including intrauterine devices (IUDs) and contraceptive implants (e.g. Nexplanon®). In 2021, the same questions were fielded again. First, physicians were asked to indicate what contraceptive services they provided to their patients during the last year (Figure 3.14). Among

the contraceptive services listed, contraceptive counseling was reported as the most frequent (50.2 percent) reproductive service, followed by contraception other than IUDs and implants (38.0 percent) and referral (37.9 percent) (Figure 3.14). Kent County's primary care physicians are less likely (26.8 percent) to provide referrals for reproductive care than physicians in New Castle County (39.3) or Sussex County (41.3). Similarly, a lower proportion of Kent and Sussex County primary care physicians (14.1 percent and 14.6 percent, respectively) report the insertion of IUDs (same day or otherwise), compared to primary care physicians in New Castle County (19.1 percent). Same day insertion of IUDs or implants is lowest in Sussex County (9.5 percent) compared to Kent and New Castle counties (14.1 and 13.8 percent, respectively).

Figure 3.14
Percentage of Primary Care Physicians Reporting Provisions of Contraceptives by County, Delaware, 2021

	Kent	New Castle	Sussex	Delaware
Insertion of IUDs	14.1	19.1	14.6	17.6
Removal of IUDs	14.1	23.5	20.9	21.7
Insertion of Contraception implants	18.4	19.1	14.7	18.2
Removal of Contraception Implants	14.1	20.2	16.2	18.6
Same Day Insertion of IUDs or Implants	14.1	13.8	9.5	13.0
Same Day Removal of IUDs or Implants	10.4	15.9	12.3	14.5
Contraception other than IUDs and Implants	29.7	38.6	42.3	38.0
Contraceptive Counseling	47.1	50.5	51.5	50.2
Referral	26.8	39.3	41.3	37.9
None of the above	50.6	43.2	35.0	42.8

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Another survey question asked was if primary care physicians discuss with female patients of reproductive age their pregnancy plans, and when those discussions occur (Figure 3.15). About 29.0 percent of responding primary care physicians discuss this topic with female patients at every visit. About 11.0 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 (35.0 percent), while 34.3 percent of physicians from Sussex County and 50.0 percent of physicians in Kent County discuss it only when patients bring it up.

Figure 3.15
Percentage of Primary Care Physicians by Discussing Pregnancy Plans with Female Patients, by County, Delaware, 2021

	Kent	New Castle	Sussex	Delaware
At every visit	28.9	34.8	11.9	29.2
Only at well visits	15.8	29.0	22.4	26.0
Only at reproductive health visi	0.0	9.0	10.4	8.3
When the patient brings it up	50.0	18.1	34.3	25.4
Rarely or never	5.3	9.0	20.9	11.1

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Figure 3.16
Percentage of Primary Care Physicians Mentioning Long-Acting Reversible Contraceptives by County, Delaware, 2021

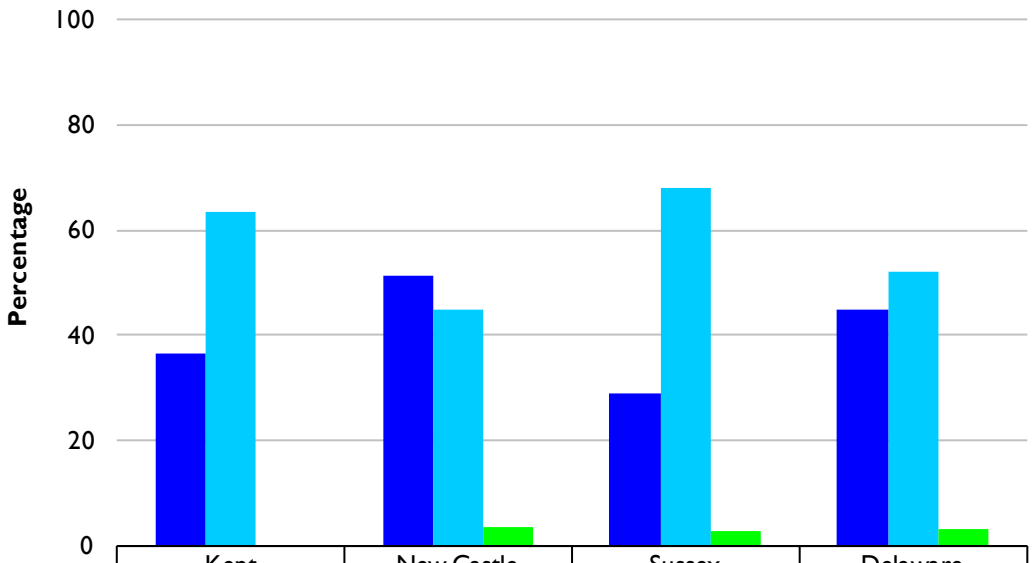
	Kent	New Castle	Sussex	Delaware
When the patient asks about it	46.0	61.1	67.7	60.6
When a patient is not currently using a method	30.8	52.3	61.1	51.5
When the patient is using a method other than LARC	8.2	41.8	49.3	39.2
When the patient is an adolescent	37.8	33.4	44.8	36.3
Whenever a patient expresses a desire to avoid pregnancy	61.1	83.6	65.1	77.1

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

The survey inquired about mentioning LARCs to patients (Figure 3.16). About 77.0 percent of responding primary care physicians discusses LARCs with their patients when patients express a desire to avoid pregnancy. The least frequent occasion (36.3 percent) to discuss LARCs is when patients are adolescents. The proportion of physicians discussing LARCs only when patients ask about it is highest in Sussex County (67.7 percent).

Participation in LARCs and family training offered through Upstream USA's Delaware CAN network is tabulated in Figure 3.17. Overall, 45.0 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 (51.4 percent) in New Castle County and lowest (29.0 percent) in Sussex County.

Figure 3.17
Percentage of Primary Care Physicians Participating in Long-Acting Reversible Contraceptives Training by County, Delaware, 2021



	Kent	New Castle	Sussex	Delaware
Yes	36.6	51.4	29.0	44.7
No	63.4	44.8	68.1	52.2
Unsure	0.0	3.8	2.9	3.1

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Barriers to providing same-day LARCs insertion were addressed (Figure 3.18). Statewide, physicians most frequently report time constraint (49.4 percent), followed by inadequate training (29.0 percent). Additional same-day LARC insertion barriers are inadequate experience (32.5 percent), staffing/workflow issues (31.3 percent), and other unlisted difficulties (28.3 percent). As expected, given

the lower participation on LARCs training in Sussex County, primary care physicians reporting from that county are more likely to list inadequate training (34.3 percent) and inadequate experience (38.6 percent) as major barriers to same-day LARC insertions than physicians in New Castle and Kent counties. Interestingly, New Castle County physicians are more likely to list time constraint (54.7 percent) as a barrier to same-day LARC insertions than those from Kent and Sussex counties.

Figure 3.18
Percentage of Primary Care Physicians Reporting Limits to Provide Same Day Long-Acting Reversible Contraceptives Insertions by County, Delaware, 2021

	Kent	New Castle	Sussex	Delaware
Time constraint	46.2	54.7	34.1	49.4
Inadequate Training	27.1	27.7	34.3	29.0
Inadequate experience	33.7	30.5	38.6	32.5
Patients prefer other methods	0.4	17.8	14.1	14.9
Patients have concerns	4.9	14.4	19.5	14.3
Difficulties with billing	4.5	16.2	12.6	14.0
Staffing and workflow issues	25.2	34.0	26.1	31.3
Difficulties maintaining inventory	16.1	12.5	5.2	11.5
Other reason	15.5	29.1	33.3	28.3

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Changes experienced over the last two years as they pertain to contraception use are addressed (Figure 3.19). Overall, 37.4 percent of primary care physicians reported that they experienced an increase in women seeking LARCs. At the same time, 36.5 percent of physicians reported no change in the number of women seeking other family planning methods. As expected, the results vary across counties. The percentage of primary care physicians reporting no changes in other methods was 48.8 percent in Sussex County, 41.3 percent in Kent County, and 31.9 percent in New Castle County. Physicians reporting the number of women seeking no changes in LARCs was 44.0 percent in Kent County, 33.4 percent in Sussex County, and 27.9 percent in New Castle County. New

Castle County physicians had the highest increase in seeking LARCs (45.5 percent) compared to 21.6 percent in Sussex County and 19.4 percent in Kent County. "Increase seeking other methods" is reported as around 11.0 percent across all counties in Delaware.

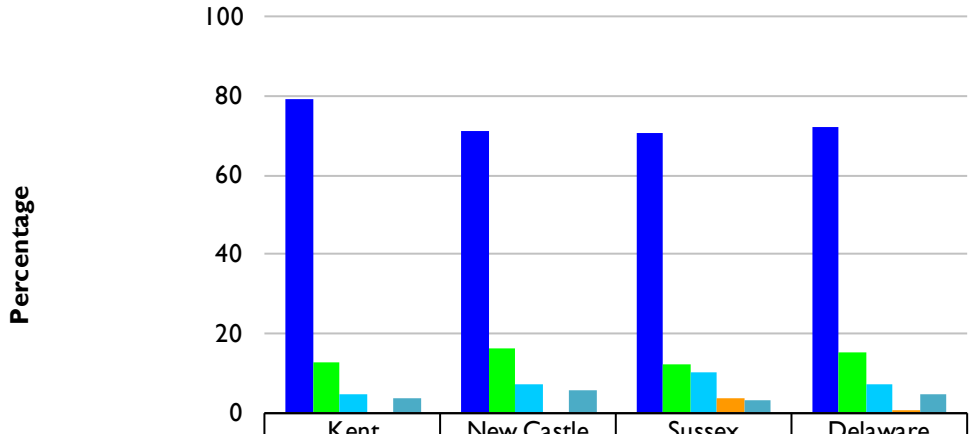
Figure 3.19
Percentage of Primary Care Physicians Reporting Changes Experienced Over the Last Two Years by County, Delaware, 2021

	Kent	New Castle	Sussex	Delaware
Increase seeking LARCs	19.4	45.5	21.6	37.4
Decrease seeking LARCs	0.0	3.6	2.7	3.0
No changes in LARCs	44.0	27.9	33.4	31.0
Increase in LARC insertions	15.7	11.9	0.0	9.9
Decrease in LARC insertions	0.0	4.3	4.7	3.8
Increase seeking other methods	11.2	11.9	10.5	11.5
Decrease seeking other methods	0.0	2.2	6.6	2.8
No changes in other methods	41.3	31.9	48.8	36.5

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

As the survey was conducted during the COVID-19 pandemic (Fall 2020/Winter2021), questions were added to the study to understand the primary care physicians' response to this public health crisis. Physicians were asked to indicate how their use of telemedicine changed as a response to the pandemic (Figure 3.20). Slightly more than 72.0 percent of primary care physicians began using telemedicine: 79.1 percent in Kent County, 71.3 percent in New Castle County, and 70.8 percent in Sussex County. About 15.0 percent of all respondents reported increasing their use of telemedicine. The decision not to use telemedicine at all was reported by 7.3 percent of respondents and was highest in Sussex County (10.4 percent).

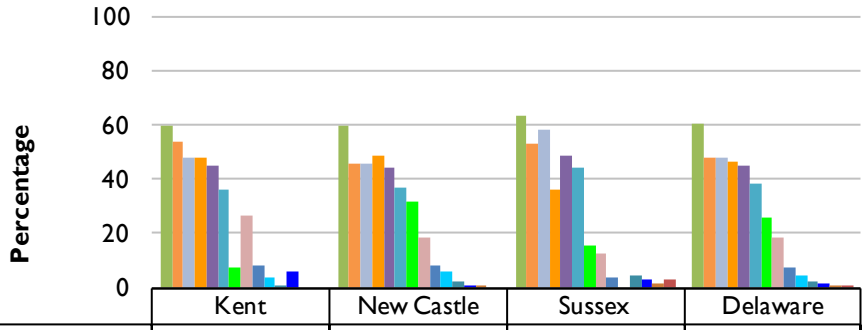
Figure 3.20
Percentage of primary Care Physicians Reporting Changes in the Use of Telemedicine Technologies Due to the COVID 19 Outbreak
by County, Delaware, 2021



	Kent	New Castle	Sussex	Delaware
Started using telemedicine	79.1	71.3	70.8	72.2
Increased the use of telemedicine	12.8	16.1	12.3	15.0
Have not started and will not use telemedicine	4.7	7.1	10.4	7.3
Have not started but I am moving towards the use of telemedicine	0.0	0.0	3.8	0.6
Other	3.5	5.5	2.8	4.8

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Figure 3.21
Percentage of Primary Care Physicians reporting Impacts of the COVID 19 Outbreak on their Practice by County, Delaware, 2021



	Kent	New Castle	Sussex	Delaware
Limited visits to reduce exposure	60.0	59.5	63.8	60.3
Nursing staff in practice in self-quarantine	53.6	45.7	53.4	48.0
Front office staff in self-quarantine	48.1	45.6	58.6	48.1
Experienced reducton of income	47.8	48.6	36.2	46.4
Experienced a lack of supplies	45.1	44.6	48.5	45.3
Clinicians in practice in self-quarantine	36.3	37.3	44.6	38.3
Reduced staff	7.8	31.5	15.4	25.7
Experienced lack of space for sick	26.7	18.6	12.5	18.6
Switched to a primarily telemedicine position	8.0	7.8	3.5	7.1
Increased staff	3.9	5.6	0.0	4.4
Moved to new employment situation	0.9	2.4	4.5	2.5
Closed practice	5.7	0.8	3.2	1.8
Moved from direct patient to a non-patient care	0.0	0.9	1.8	0.9
Moved from a permanent practice to locum tenens	0.0	0.0	3.3	0.5

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Respondents were also asked to identify the different types of impacts the COVID-19 pandemic had on their practice as primary care physicians (Figure 3.21). Most often reported impacts were the

need for both nursing staff and front office staff self-quarantines (48.0 percent, respectively). Here, some county level differences were observed. In New Castle County, 45.7 percent of physicians reported nursing staff self-quarantines, while in Sussex and Kent counties, a higher level of nursing staff self-quarantines were reported (about 53.0 percent). Front office staff self-quarantines was highest in Sussex County (58.6 percent). Clinician self-quarantines were highest in Sussex County (44.6 percent) than in New Castle (37.3 percent) and Kent (36.3 percent) counties.

About 46.0 percent of Delaware's physicians reported a reduction in income. The proportion of physicians reporting decreased income was 48.6 percent in New Castle County, 47.8 percent in Kent County, and 36.2 percent in Sussex County. About 45.0 percent of physicians across Delaware reported a shortage of supplies.

About a quarter of Delaware's primary care physicians reported reduced staff due to the COVID-19 pandemic. Reduced staff was highest (31.5 percent) in New Castle County and lowest (7.8 percent) in Kent County.

Lack of space for the sick was reported by 18.6 percent of Delaware's primary care physicians. Kent County's physicians experienced space limitations at a higher frequency (26.7 percent) than providers in New Castle County (18.6 percent) and in Sussex County (12.5 percent). All other impacts of the COVID-19 pandemic (switching to primarily telemedicine position, increased staff, move to a new employment arrangement, closure of a practice, move from a direct patient care to a non-patient care, movement from a permanent to a locum tenens (temporary location) were reported in single digit percentages across Delaware.

4. Spatial Distribution

The State of Delaware would have a sufficient supply of primary care physicians if they were spatially distributed mirroring the distribution of the state's population. According to the Council on Graduate Medical Education (CGME), a ratio of 1,250:1 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 primary care physician ratio of 1,511:1 without considering non-physician providers. The ratios are 2,111:1 in Kent County, 1,240:1 in New Castle County, and 2,162:1 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.[3] 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 are Lewes/Rehoboth, Georgetown, Milford, Millsboro, and Seaford. In Delaware, these general areas are census county divisions. The census county divisions work well in Sussex County because of the number of distinct town centers.

[3] 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.

The distinctions are not quite as clear in Kent County where Dover and its suburbs are paramount. The Smyrna and Harrington areas are the best examples since they both have town centers. The issue of distinct town centers 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 studying these sub-county differences, some caveats are in order:

1. 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.[4] 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.

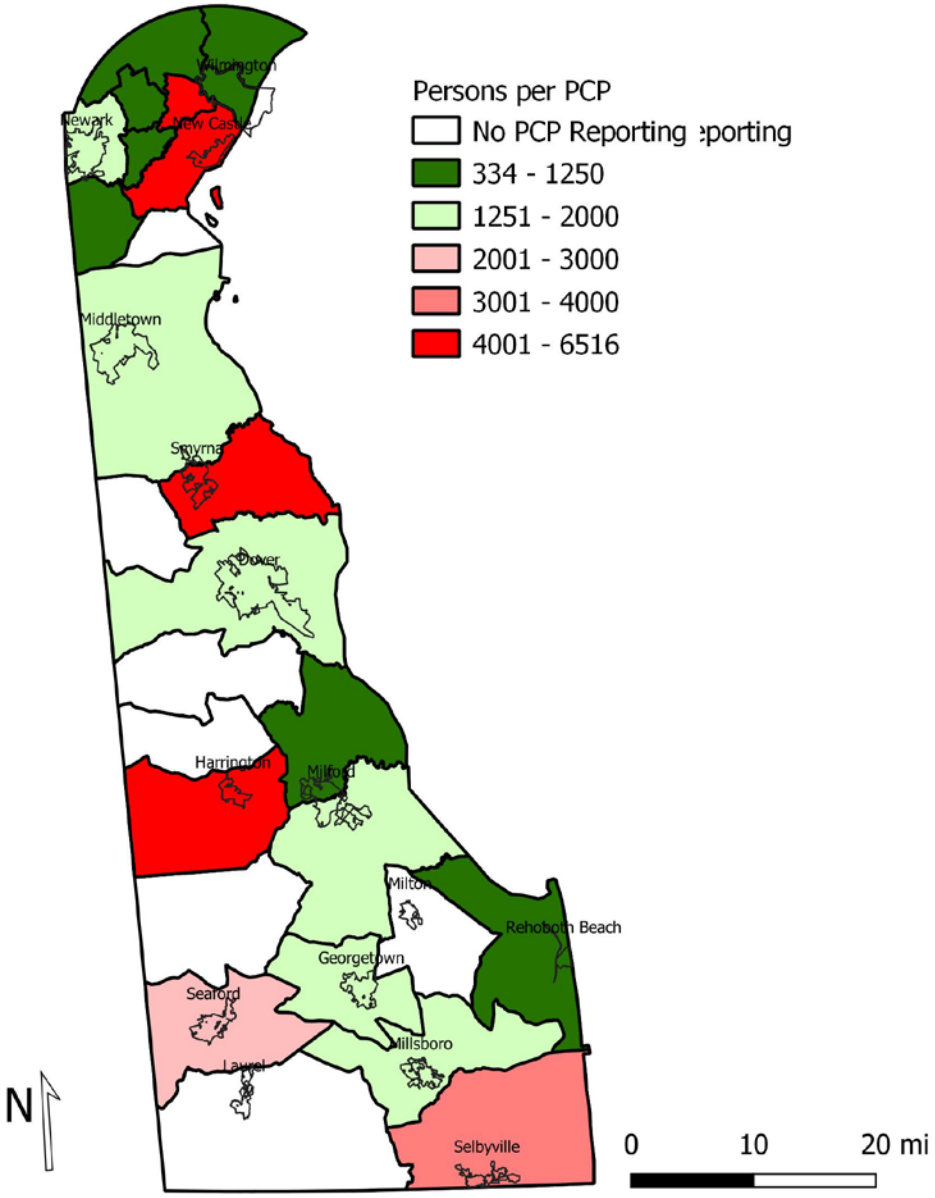
2. Age is not the only demographic area that can make a difference. Traditionally, people who live in households that are under the poverty line will likely need more medical care than those who are above it. Further, higher infant mortality in an area may suggest less access to primary care physicians.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

[4] 1992 National Health Interview Survey.

3. Especially in Sussex County, a significant number of part-year residents 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, a very large number of tourists arrive in Sussex County on the weekends or perhaps for a week. These visitors potentially need medical services. These populations are not considered in the spatial distributions that follow.

4. While looking at the distribution of physicians by Census County Division (CCD), it is important to point out that the federal government's shortage area designations consider not just the availability of physicians in rational service areas but 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), may not qualify for federal designation as a shortage area.

Figure 4.1
Number of Persons per Primary Care Physician by Census County Division, Delaware, 2021



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

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 four CCDs fall in the 4,000+ (red) range: Harrington, Smyrna, Lower Christiana, and New Castle census county divisions. In general, six out of 27 CCDs have a potential shortage (pink), shortage (dark pink), or a significant shortage (red). Seven 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 primary care providers 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, two CCDs (Lower Christiana, New Castle) 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: Central Kent, Kenton, and Felton, and Harrington. Each of these CCDs are clearly lacking in primary care physicians but are adjacent to areas with more physicians. Additionally, the ration in the Smyrna CCD is over the 4,000 level threshold.

Primary care physicians are unevenly distributed throughout Sussex County. Georgetown, Lewes, Milford South, Millsboro, and Seaford CCDs are all well supplied with primary care physicians.

Selbyville-Frankford CCDs crosses the 3,000:1 and is significantly underserved. No physicians reported from the Bridgeville, Laurel-Delmar, and Milton CCDs.

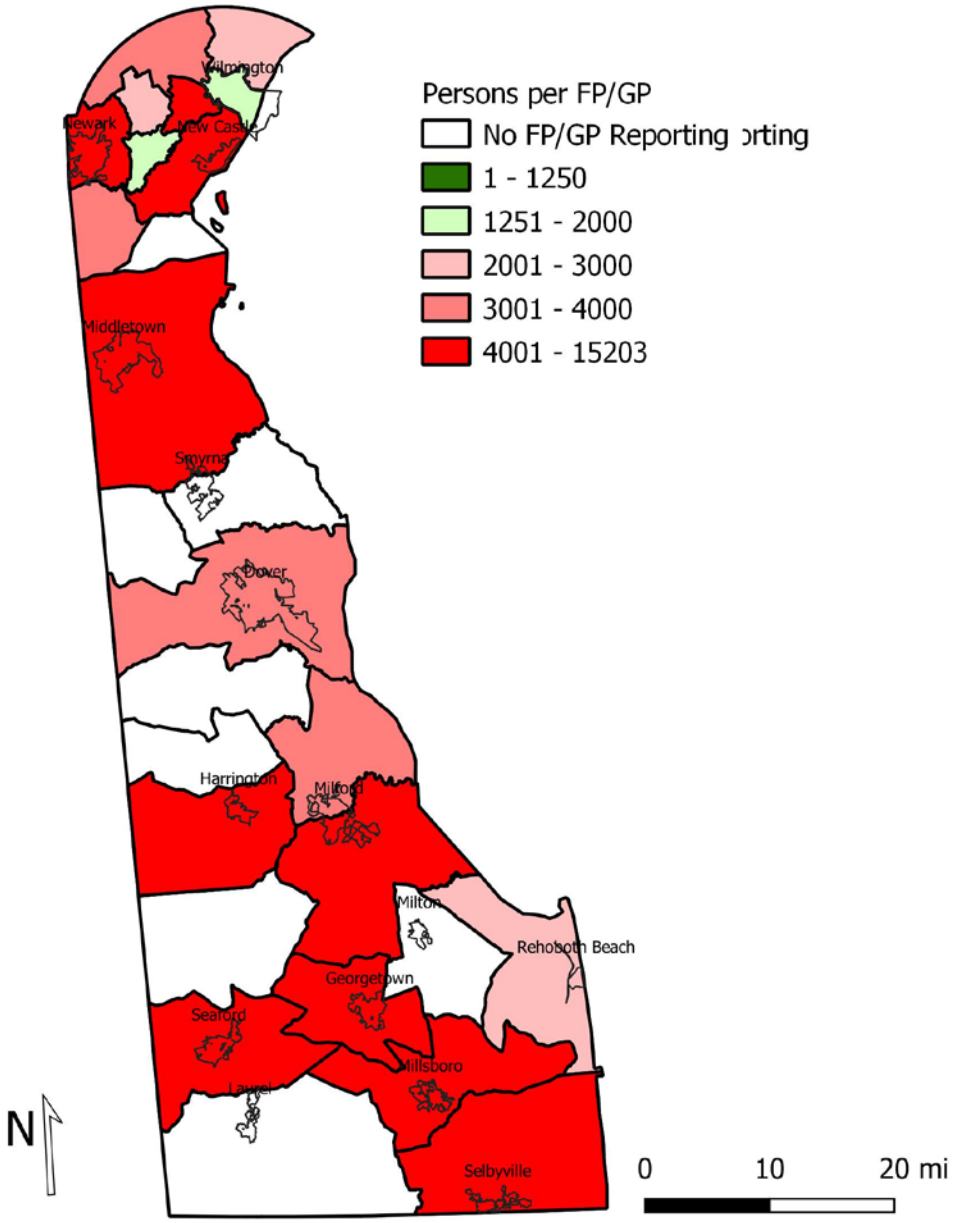
Figures 4.2 through 4.4 show the distribution by primary care specialty. There are no specific standards related to these specialties like there are for primary care physicians in general. Therefore, the scale and associated colors vary between maps and differ from Figure 4.1. (The scales are the same as in the Primary Care Physician 2006, 2008, 2011, 2013 and 2018 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 Wilmington CCDs in New Castle County.

OBGYNs are spatially much more concentrated than all other primary care physicians, according to the 2021 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.

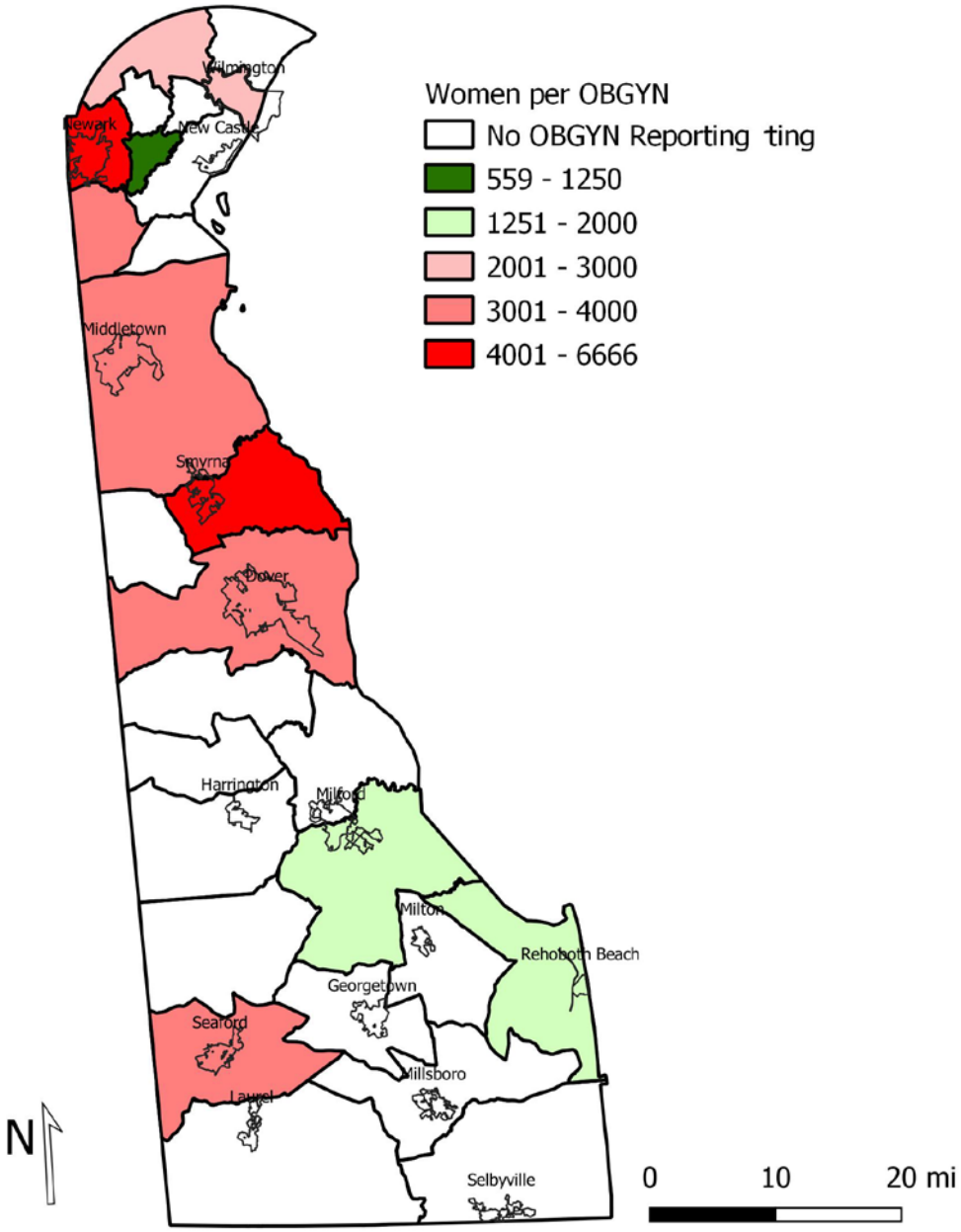
In Figure 4.4, the ratio of pediatricians to the youth population is displayed. Pediatricians make up almost 20.0 percent of the primary care physicians. They are spatially distributed like OBGYNs (17 CCDs compared to 11) but less so than primary care physicians in general. There is an orientation toward 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, 2021



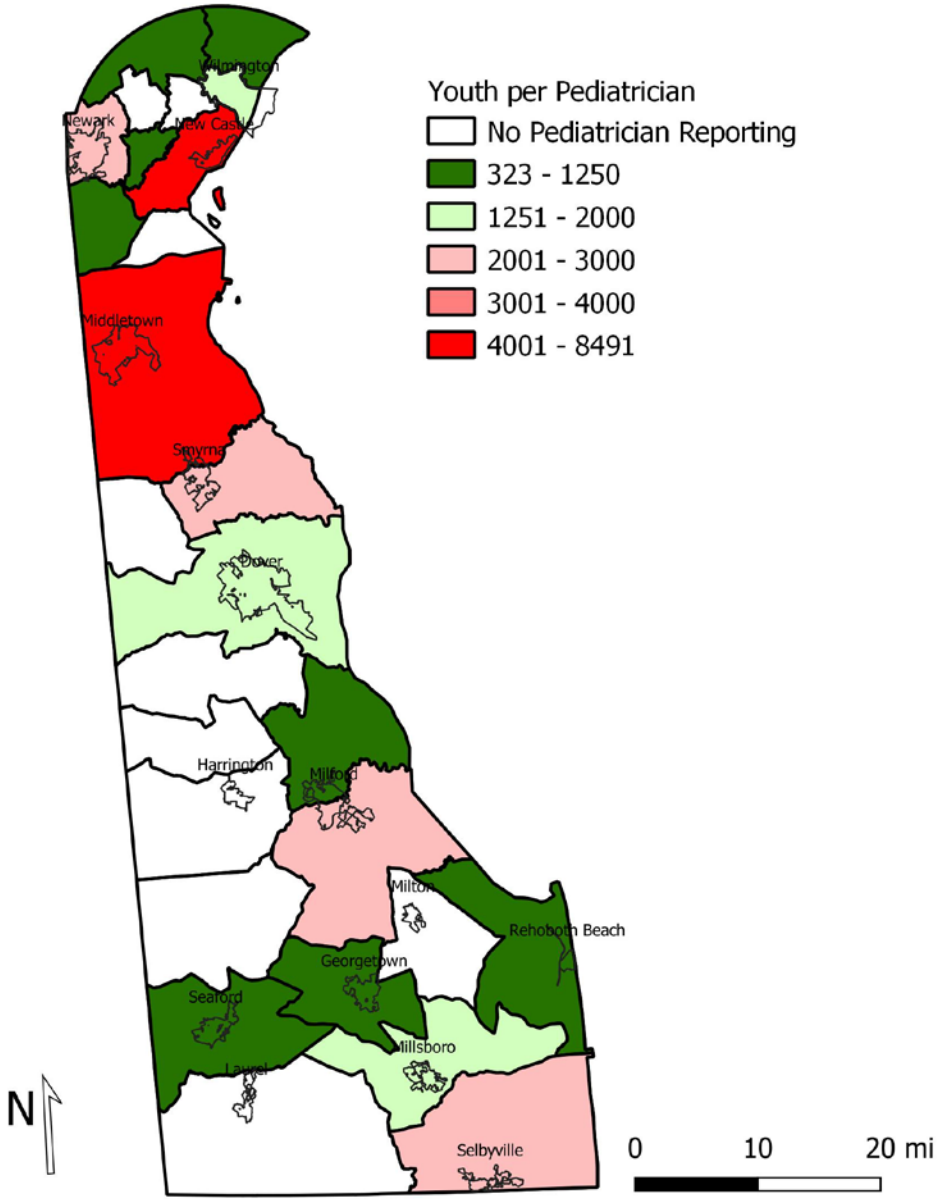
Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Figure 4.3
Number of Women (ages 15-64) per OBGYN by Census County Division, Delaware, 2021



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

Figure 4.4
Number of Youth (ages 0-19) per Pediatrician by Census County Division, Delaware, 2021



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Primary Care & Specialist Physicians Survey 2021

APPENDIX

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UNIVERSITY OF DELAWARE

DELAWARE PRIMARY CARE & SPECIALIST PHYSICIANS STUDY 2020/21

Commissioned by Delaware Health and Social Services

(#ID#)

INSTRUCTIONS

- **Mail your completed form** in the attached prepaid envelope or send it to:
  University of Delaware
  Physician Capacity Study 2020-2021
  292 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 University of Delaware Physician Capacity Study by emailing: **tibl@udel.edu.**

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 2018, point your browser to:

https://www.dhss.delaware.gov/dhss/dph/hsmi/files/pcpinde2018.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

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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 SKIP 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

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

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

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

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

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

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 Long Acting Reversible Contraceptives (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 on</u> LARCs and Family planning <u>offered through Upstream USA's Del-CAN program</u>?

1 ☐ Yes
2 ☐ No
3 ☐ Unsure

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*): ____

CONTINUE ON PAGE 4

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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. Since the COVID-19 outbreak, have you changed your use of telemedicine technologies in your clinical practice? (*check one*)

1 ☐ I have started using telemedicine
2 ☐ I have increased the use of telemedicine
3 ☐ I have decreased the use of telemedicine
4 ☐ I have not started and will not use telemedicine
5 ☐ I have not started but I am moving towards the use of telemedicine
6 ☐ Other

30. Since the COVID-19 outbreak, have you done or experienced any of the following as a result of COVID-19? (*check all that apply*)

1 ☐ Closed my practice
2 ☐ Reduced staff
3 ☐ Increased staff
4 ☐ Experienced a reduction in income
5 ☐ Moved to a new employment situation or practice
6 ☐ Moved from direct patient to a non-patient care
7 ☐ Switched to a primarily telemedicine position
8 ☐ Moved from a permanent practice to locum tenens
9 ☐ Limited visits to reduce exposure
10 ☐ Experienced a lack of supplies
11 ☐ Clinicians in practice in Self-Quarantine
12 ☐ Nursing staff in practice in Self-Quarantine
13 ☐ Front office staff in Self-Quarantine
14 ☐ Experienced lack of space for sick

31. 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 care to MEDICAID patients at this site? (*please chose one number, below*)

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

32. Are you accepting new MEDICAID patients at this site?

1 ☐ Yes
2 ☐ No

33. 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 care to MEDICARE patients at this site? (*please chose one number, below*)

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

34. Are you accepting new MEDICARE patients at this site?

1 ☐ Yes
2 ☐ No

35. 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

36. 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

37. 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

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

1 ☐ Yes
2 ☐ No

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

1 ☐ Yes
2 ☐ No

40. 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

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

1 ☐ Yes
2 ☐ No

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

1 ☐ Yes
2 ☐ No

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

43. **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

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

1 ☐ Yes
2 ☐ No

45. **Considering your work over the past 12 months, indicate your level of agreement or disagreement with the following statements:**

	Strongly Agree	Agree	Disagree	Strongly Disagree
It is hard adjusting my therapeutic strategies with ethnic minority clients	☐	☐	☐	☐
I am effective in my verbal communication with clients whose culture is different from mine	☐	☐	☐	☐
I feel confident that I can learn about my clients' cultural background	☐	☐	☐	☐
I am effective in my nonverbal communication with clients whose culture is different from mine	☐	☐	☐	☐
I feel that I have limited experience working with ethnic minority clients	☐	☐	☐	☐
It is difficult to practice skills related to cultural competence	☐	☐	☐	☐
I do not feel that I have the skills to provide services to ethnic minority clients	☐	☐	☐	☐
I would find it easy to work competently with ethnic minority clients	☐	☐	☐	☐

46. **Do you expect to be active in clinical medicine in Delaware 5 years from now? (*Complete questions 46-55 even if you are currently not active in Delaware*)**

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 survey

Return the completed form to:

University of Delaware
Physician Study 2020/21
292 Graham Hall
Newark, DE 19716

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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 Hematology/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	F3M	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)		