Advanced Practice Providers:

Results of the 2020 Survey

DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health

Acknowledgements

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Table of Contents

Background

The 2020 study follows up a 1998 survey of Physician Assistants and Nurse Practitioners in Delaware. Both surveys were conducted by the University of Delaware's Center for Applied Demography and Survey Research (CADSR) for the Delaware Department of Health and Social Services (DHSS), Division of Public Health (DPH). The 1998 study focused heavily on information related to the clinician (schooling, demographics etc.) as well as practice site information.

The goal for the 2020 study is to capture more detailed data about practice type, clients served, location, education, experience, compensation, and clinician satisfaction. This follow-up study also broadened the group of providers to include five distinct groups of Advanced Practice Providers (APP). Information was sought on reimbursement of services provided by those professions studied, which is important due to the ever-changing structure of paying for health care. In addition, the study delved into how APPs are providing primary care to patients, an area of importance to Delaware where a shortage of primary care providers exists.

One mission of this study is to gain an understanding of gaps in care and potential for improved opportunities for APPs who work directly with patients. The study inquired what steps APPs are taking to help Delaware lower the state's ranking as the second highest cancer incidence in the nation for the last seven five-year time periods even though incidence rates are declining. DPH staff contributed questions related to the strategies that APPs use in cancer screening and prevention methods. Additionally, information was collected about how APPs work to help provide care for patients with chronic health care conditions, including any barriers both APPs and patients faced when trying to deliver services to prevent and treat these conditions. The data may be used by state and health care entities in policy development and program planning.

Data collection for the 2020 study began in March 2020, right as the COVID-19 pandemic was taking hold of the state, causing shutdowns and increased demand on hospitals and medical professionals. While data collection continued through July, the timeframe in which respondents were contacted was adjusted to allow practitioners that may be overloaded by the pandemic more time to respond. Responses related to populations served and the use of telehealth may have some variance depending on the environment on the date of the response.

Methodology

There are 2,831 APPs currently licensed in Delaware. The original license file was obtained by DPH from the Department of Professional Regulation for the purpose of this study. APPs include the following certifications: Certified Nurse Practitioners, Certified Nurse Anesthetists, Certified Nurse Midwives, Clinical Nurse Specialists, and Physician Assistants. Out of these 2,831 a total of 2,649 APPs listed an address in Delaware or in

an adjacent state to Delaware and therefore were contacted. A total of 532 responses were received for a response rate of 20.1 percent. It is important to note that respondents answered certain sections or questions depending on various information given throughout the survey. These include the type of practice office, whether the respondent is retired or working outside of Delaware, or whether the respondent works in a direct patient care setting, among others. Many response groups are smaller for sections that did not apply to the respondent in which case the questions were subsequently skipped either by the respondent or by the survey.

Respondents were contacted up to three times. The first contact was a cover letter from DPH Director Karyl T. Rattay, MD, MS and then up to two follow-up reminder cards were sent to non-respondents. Due to the pandemic, all respondents were asked to complete the questionnaire online in place of the traditional paper survey. Respondents were additionally given the options to complete the survey in a fillable PDF format or in a paper form, which they could request by email or phone. While the survey was voluntary, respondents were not anonymous. Each survey had tracking information to allow processing of responses and to permit follow-up contacts to ensure the highest quality data and to avoid contacted those who already responded.

Each respondent had an identifying number (CADSR ID) which was used in place of any personal information like name, address, etc. that could be used to identify respondents on the master mailing list. The data set will be de-identified, and the mailing list will not have any connection to the dataset compiled and given to DPH at the end of the project. Additionally, all questions asked pertained to the respondent's work as an APP in Delaware.

The de-identified dataset will be stored indefinitely in an electronic format on CADSR servers at the University of Delaware (UD). Additionally, since this is contract work for DHSS/DPH, data will be made available to DHSS/DPH. The transfer of data from CADSR to DHSS/DPH will be in a form of an encrypted password-protected zip file utilizing the secure UD Dropbox Service. Once the study is completed, survey participants and the general population will have access to the aggregate report and aggregate tabulations.

Demographics

Of the 532 APPs who responded to the survey, 420 were working as APPs in Delaware either full-time, part-time, or as temporary workers on call to replace those who may be absent (Q9). Of the respondents, 87.1 percent were female, and 12.9 percent were male (Q62). The racial distribution was 87.7 percent white, 8.6 percent black, and 3.7 percent "Other" (Q63). APPs of Hispanic origin represented 2.6 percent of the respondents (Q64).

In all, 84.4 percent of respondents provided their year of birth (Q60). From that information, an approximate age distribution was computed. The median age of the APPs was 52.6 years. The youngest respondent was 24 and the oldest was 78. Approximately 15.6 percent of respondents were age 65 or older. When asked if they expected to be

active in health care delivery five years from now, 62.7 percent answered yes, 13.4 percent responded no, and 23.9 percent were unsure (Q59). For those 65 or over, only 14.5 percent answered yes while 46.4 percent responded no, and 39.1 percent were unsure.

Education and Employment

The first segment of the survey instrument was designed to better understand the characteristics of the APPs along several dimensions, including certifications, level of education, and attributes of their current employment. These are covered in the first 19 questions and sub-questions of the instrument. When specifying their certification (Q1), 61.4 percent are Certified Nurse Practitioners, 10.3 percent are Certified Nurse Anesthetists, 1.5 percent are Certified Nurse Midwives, 7.1 percent are Clinical Nurse Specialists, and 19.7 percent are Physician Assistants.

For participants who reported the source of their certification, 78.3 percent of the respondents selected a Master's program and 9.5 percent selected a Post Masters certificate (Q2). The median year for the completion of their certification was 2006 (Q4). For this group, the last three years (2017-2019) accounted for 12.4 percent of the respondents. In examining the years between 2000 and the present, the typical percentage of the respondents each year tends to be around 2.5 percent. The notable exceptions are 2002-2003 and 2009-2010, and 2015-2016; all were associated with economic downturns and an excellent time to pursue higher education. Overall, 86.1 percent of the APPs hold a Master's degree in Nursing or another field and an additional 5 percent have obtained a PhD or a Doctor of Nurse Practice (DNP).

When asked about the focus of their APP program (Q5), close to 60 percent fell within three focus areas: Family practice (41.1 percent), Pediatric/Child health practice (8 percent), and Anesthetist (10.5 percent). The "Other" category captured 17.3 percent of the responses and an examination of the alternatives showed a focus on acute care, emergency medicine, combinations of the listed groups, and general medicine, i.e. no specialization.

Respondents were asked in which states (multiple answers could be given) they are licensed as an APP (Q8). The majority reported they are licensed in Delaware (99 percent), 10.4 percent reported holding an additional license in New Jersey, 28.3 percent in Pennsylvania, 21 percent in Maryland, 1.8 percent in Virginia, and 7 percent reported being licensed in other states (of which New York at 4.1 percent was listed the most frequently). At the same time 17.7 percent respondents reported they did not work or worked less than 10 percent of their time in Delaware. In contrast, 71 percent reported that they worked all or nearly all (90 percent or more) of their time in Delaware. The remaining 11.3 percent of those licensed in Delaware split their time between Delaware and one or more of the surrounding states.

Of the respondents who indicated they were licensed APPs, 57.3 percent report being employed full-time when asked about their employment status (Q9) in Delaware in a clinical setting. Another 15.6 percent reported being part-time (less than 36 hours per week) and 7.5 percent reported working in part-time, temporary/on-call positions (PRN). Those who reported working in full-time positions in another state accounted for 10 percent of the respondents. Similarly, 2.3 percent indicated they were employed in a health-related field. Some 4.4 percent were retired while 2.3 percent were simply unemployed.

One hundred of the 532 respondents reported not working in a clinical setting as an APP (Q10). When asked to identify the reason, 18 percent were retired, and 6 percent were currently seeking employment. However, 44 percent of the group selected the "Other" option, which allowed for a broader set of reasons than those provided by the survey. Semi-retirement was often mentioned, as were childcare and many types of family issues. Work life balance and personal choice were popular responses.

Respondents who indicated that they were working 100 percent as an APP in a clinical setting in another state but also had a Delaware license were asked why they were not working in Delaware (Q9-5). Of these respondents, the majority reported their primary reason for not working in Delaware was because they lived in another nearby state. Differences in compensation were frequently mentioned, particularly among those living and working in Pennsylvania. Many respondents indicated "there are no APP positions available in my area." In addition, several respondents mentioned practice restrictions in Delaware, compared to the nearby states of Pennsylvania and Maryland.

Respondents who reported working either full-time or part-time in a clinical setting in Delaware were also asked for the number of hours per week they worked in this setting (Q11). The most frequent group was 31 to 40 hours (33.4 percent). However, the 41 to 50 hours per week answer was nearly as large (31.1 percent). Nearly 9 percent of the participants indicated working more than 50 hours, while 30 hours or less accounted for 26.8 percent of respondents.

Respondents were asked to provide a time allocation estimate for six categories of work (Q12). Only 9.5 percent of APPs reported zero hours for direct patient care and services, while the balance reported a median just under 40 hours with a range from one to 100 hours. Time allocated for practice management and related paperwork was zero for more than half the APPs (51.9 percent). For the balance of the respondents (48.1 percent), the median was almost 10 hours, ranging from one to 102.5 hours. Most reported zero hours allocated to teaching (73.7 percent), while the remainder of the APPs (26.3 percent) reported hours ranging 0.5 to 90 hours with a median approaching 10 hours. Allocations in the research category were the smallest with 89.4 percent reporting zero hours. Those with some activity in research (10.6 percent) estimated between 1 and 40 hours with a median of about five hours. The administration category was zero hours for 76.7 percent of the respondents. About 23 percent reported hours in administration (a range from one to 100 hours was observed) with a median of 10 hours. Four percent chose the "Other" category with an estimated range of one to 100 hours and a median just under 10 hours.

The respondents were asked to estimate their time devoted to direct patient care and to split that time between primary care, specialty care, and other direct patient care (Q13). The total was restricted to 100 percent. This question is focused only on those of the 532 respondents who are working in Delaware in a clinical setting (480). Of those 480, 47 or 9.8 percent assigned all their time to the "Other" category. Some 123 of the respondents (25.6 percent) assigned all their time to primary care. Another 189 APPs (39.4 percent) assigned all of their time to specialty care. The remaining 121 (25.2 percent) split their time between two or three categories.

Annual salary and incentives will play a role in attracting and holding APPs in these positions. Respondents employed full time provided their annual salaries as an APP in eight categories (Q14). Not included in these data are 116 APPs (24.3 percent) who were not employed full-time and could not supply their annual salaries:

- Under $70,000 (1.4 percent)
- $70,000 to $80,000 (3.9 percent)
- $80,000 to $100,000 (15.0 percent)
- $100,000 to $120,000 (36.8 percent)
- $120,001 to $140,000 (21.3 percent)
- $140,001 to $160,000 (8.6 percent)
- $160,001 to 180,000 (5.3 percent)
- Greater than $180,000 (7.8 percent).

Apart from their annual salary, respondents were asked about other incentives associated with their employment (Q15). First, they were asked if they had an annual Cost of Living increase; 14.7 percent answered affirmatively. Second, they were asked about compensation based on relative value units (RVU) compensation which Medicare uses to adjust payments when costs for services performed vary geographically across the country. RVU bonuses were reported by 5.8 percent of the respondents. Third, "Pay for Performance" bonuses such as those found in Affordable Care Organizations (ACO) were offered to 18.1 percent of the APPs. Other incentives were offered to 7.5 percent of the respondents. Finally, 53.9 percent reported that they were not offered incentives of any kind.

Respondents were asked what type of patients they primarily served (Q17). Since a significant number checked more than one choice, the percentages provided are relative to the total number of APPs answering the question:

- Family Practice, 19.2 percent
- Adult/Geriatrics, 35.9 percent
- Pediatrics, 19.8 percent
- Women's/Ob-Gyn, 12.4 percent
- Psych/Mental Health, 0.9 percent
- "Other," 34.4 percent, encompassing specialty care practices such as Surgery, Emergency Medicine, Orthopedics, Urgent care, Cardiology, and many others.

The main form of APP employment (Q18) was split between self-employed (8.2 percent) and salaried workers (91.2 percent). For those who are self-employed, 21.1 percent are in a solo practice, 42.1 percent are in a group practice, and 36.8 percent are essentially working as contractors without the formal business organization (Q18-1). Salaried workers are employed by several different organizations (Q18-2): hospitals (39 percent), partnerships/group practices (25 percent), and "Individual Practitioner" (9.3 percent). The rest are scattered among government organizations (both state and federal), public schools, and a few non-governmental entities.

Direct Care Practice

This section covers respondents who provide direct care to patients. Recalling that 480 APPs are working in a clinical setting in Delaware, the number providing direct care is 420 (87.5 percent). Of the respondents asked about the number of sites where they provided direct care to patients (Q20), the largest proportion provided care at a single site (55.4 percent). Those who reported providing care at two sites accounted for 24.7 percent of the responses and 10.7 percent reported three sites. The remaining responses ranged from four to 10 (9.2 percent).

The patient care setting also has some importance. APPs were asked to select the setting where they spend most of their working hours (Q21). They responded that patients were cared for in an ambulatory setting 59.5 percent of the time, in an inpatient setting 19.5 percent of the time, in both of those two settings 19.8 percent of the time, and in a telehealth environment 19 percent of the time. Respondents could select more than one choice, so each option is treated as a separate estimate of yes or no.

Among the 12 response options possible for the questions about patient care settings, most selected "Hospital" (30.9 percent), followed by "Group practice" (21.1 percent) and "Individual practice" (9.6 percent). The other options listed were chosen at least once but none received more than 4 percent of the selections. Once again, the "Other" response received a large amount of selections (18.5 percent). Within the "Other" category there were many settings, including clinics, corrections, home health care, urgent care, surgery centers, and endoscopy, among others.

Respondents that provide direct care and provide primary care estimate a median effort of 35.7 hours per week (Q23). They also reported providing primary care at a median of about 14 encounters per day, including office and hospital encounters (Q24). The number of encounters ranged from 0 to 74. The APPs categorized the primary care setting (Q25), where they provided care directly to clients, as:

- Family Practice, 15.8 percent
- Adult/Geriatrics (Internal medicine), 20.4 percent
- Pediatrics, 7.5 percent
- Women's Health/OB-GYN, 3.6 percent
- Psych/Mental health, 3.4 percent.

Forty-nine percent of APPs who work in a Delaware clinical setting and provide direct care do not provide primary care.

Some health care practices in Delaware offer fees based upon the patient's income (Q26). When APPs were asked if a sliding fee was used at their primary practice site, 13.5 percent responded yes, 46.2 percent responded no, and 40.3 percent reported they were unsure. In addition, some practices have hours in the evening (47.8 percent) or Saturday hours (37.2 percent). Further, 64.9 percent indicated that the practice they were associated with offered telehealth services (Q28). When the respondents were asked if they personally were telehealth providers, 46.8 percent answered affirmatively (Q29).

Some 75.3 percent of APPs reported providing care to Medicare patients (Q31); a median of 26 percent of their hours were directed toward this population (Q32). Similarly, 87.3 percent reported treating Medicaid patients (Q33) with a median of 18 hours directed toward this population (Q34).

The ability to speak to patients in their native language is important in the clinical setting. Twenty-one percent of the APPs could communicate with the patient in a language other than English (Q35):

- Spanish, 15.5 percent
- French, 6.4 percent
- Arabic, 4.5 percent
- Russian, 4.5 percent
- Other languages, 6.2 percent.

Question 36 asked if other medical professionals in their practice were able to serve as interpreters for patients speaking languages other than English (Q36). Some 74.6 percent of practices had that capability. The languages supported were Spanish (66.4 percent), French (14.0 percent), Arabic (12.1 percent), Russian (9.5 percent) and "Other" (12.9 percent).

Respondents were questioned about their use of communication tools other than language skills (Q37). They used:

- Language line, 66.2 percent
- Interpreters, 62.4 percent
- Phone translation app, 25.5 percent
- Other methods (IPAD apps, family members, and video conference), 9.3 percent
- Did not use any of these methods, 9.3 percent.

APPs were asked about the length of the delay for getting appointments for new and existing clients (Q38). For existing clients, the median delay was less than two days. For new clients the delay was slightly less than seven days. If a sick existing client calls for an appointment, 78.5 percent will have an appointment that same day (Q39). Practice

arrangements with respect to the APP and a physician (Q40) have many forms. Respondents indicated those arrangements in the following ways:

1) I do not work with a physician, 9.6 percent
2) Physician is available for consultation for a fee, 10.4 percent
3) Physician is available on-site majority of time, 56.1 percent
4) Physician is available by telecommunication, 19.8 percent
5) Other, 13.7 percent.

While 13.7 percent of respondents answered "Other" to this question, many of the responses given fit into the categories offered as answer choices. For instance, many respondents indicated a physician is available on site but could not specify the amount of time or it just was not for the majority of the time, so they chose to answer "Other". These responses indicated they have a collaborative agreement (without further specification) or they were self-employed.

When examining the breadth of direct patient care activities an APP can perform in Delaware practice settings (Q41), 77.3 percent reported they prescribe controlled substances and 14.3 percent reported they prescribe Medicated Assisted Treatment (MAT). The follow-up question (Q42), garnered a very long list of comments, many of which say that MATs are not relevant to the clinical setting, that a specialist would typically provide that service, or that the APP was not certified. Most APPs who prescribe MATs work in a hospital setting (31.6 percent), a group practice (19.3 percent) or a Federally Qualified Health Center (10.5 percent).

Respondents were asked if the practice is part of an Accountable Care Organization (Q43), to which they answered yes (30.2 percent), no (17.1 percent), and unsure (52.6 percent). When asked if the practice has contracts with insurers with value-based care models, 30.4 percent answered yes, 10.9 percent answered no, and 58.7 percent replied unsure (Q44). When asked if their compensation was related to value-based payment metrics (Q45) like patient satisfaction, EHR use, cost control, readmission rates, etc., 25.3 percent of APPs replied yes, 43 percent said no, and 31.6 percent replied unsure. The high number of unsure answers indicates that the value-based programs supplied were either too specific or were unknown. The median percent of total compensation tied to a value-based payment was estimated to be 10 percent (Q46).

The APPs were asked of their status relative to concierge and direct pay practice types (Q46). Some 2.7 percent said they were currently involved in a concierge/direct pay practice. A few (1.6 percent) said they were planning to transition. However, 95.7 percent reported having no plans to transition.

Barriers

The following section focuses on understanding barriers APPs may face. To further understand the clinical setting the APPs were operating within, they were presented with a list of 22 potential barriers they might be facing and would likely have to overcome for full job satisfaction. Respondents were asked if they had experienced one or more of the barriers listed.

When the barriers are arranged in terms of how many APPs reported the barrier, there is some order. Beyond factors related to reimbursement, it is clear the APPs believe there is a lack of understanding about their professional role by others with whom they work, including physicians and administrators. This is followed by the issues of reimbursement (which is related to the salary issue), inadequate benefits, and cost of malpractice insurance. Finally, a small number of APPs report a desire for increased experience and training for their specific roles. Fifty of the respondents (11.9 percent) selected "Other" as an answer. Many of these responses were no barriers encountered or responses such as "legislative barriers" and "salary lower than other health care fields". The remaining responses consisted of barriers such as APPs feeling they are expected to do more with less, unable to practice to the full extent of their licensed capability, feeling a lack of recognition of APP roles, and receiving less paid time off and bonuses compared to management and physicians (Table 1).

Table 1. Barriers Identified by Advanced Practice Providers in their Clinical Setting, Delaware (Q48), 2020

Percentage of Respondents	Number of Respondents	Barriers Faced by Advanced Practice Providers
31.40%	132	Salary lower than other health care related fields
29.80%	125	Lack of public knowledge about Advanced Practice Providers
27.90%	117	Lack of understanding/differentiation of all Advanced Practice Provider roles by other health professionals
21.00%	88	Lack of understanding of the insurance system
19.50%	82	No barriers
16.70%	70	Resistance from physicians
16.00%	67	Expected to assume other/administrative functions
13.10%	55	Poor reimbursement from commercial payers
12.10%	51	Legislative barriers to fulfilling Physician Assistant roles
11.90%	50	Other
11.70%	49	Poor reimbursement from Medicare
11.70%	49	Poor reimbursement from Medicaid
11.40%	48	Inadequate benefits
11.00%	46	Limitations on types of services reimbursed
9.30%	39	Lack of positions for Advanced Practice Providers
8.60%	36	High cost of malpractice insurance
7.10%	30	Lack of adequate educational preparation to function as expected
6.40%	27	Lack of experience to function as expected
6.40%	27	Lack of physician backup
5.50%	23	Resistance from registered nurses
2.40%	10	Overabundance of Advanced Practice Providers
1.20%	5	Surplus of physicians
0.00%	0	Inability to obtain malpractice insurance

Source: Center for Applied Demography & Survey Research, University of Delaware, 2020.

Table 2 shows a count of the numbers of barriers that the APPs identified. Eighty-two of the respondents (19.5 percent of 420) did not identify any barriers. Twenty percent of the respondents selected only one barrier. Some 85 percent of respondents were in the range of five or less barriers identified. It is significant that 80 percent of the APPs working in Delaware in a clinical setting and delivering direct care to patients identified at least one barrier that must be overcome.

Table 2. Barriers Identified by Advanced Practice Providers (Q48), Delaware, 2020

Number of Barriers Selected by Respondent	Number of Advanced Practice Providers	Percent
0	82	19.5%
1	84	20.0%
2	64	15.2%
3	60	14.3%
4	39	9.3%
5	30	7.1%
6	21	5.0%
7	19	4.5%
8	13	3.1%
9	3	0.7%
10	2	0.5%
11	1	0.2%
12	1	0.2%
13	1	0.2%
Total	420	100.0%

Source: Center for Applied Demography & Survey Research, University of Delaware, 2020.

Each APP was asked to estimate the percentage of patients in their practice for whom they provide direct care within each chronic illness category (Q49). Only one response was required for each illness and many respondents simply did not answer this section. Some 41.6 percent of the respondents estimate that over 50 percent of their direct care patients have a diagnosis of hypertension and 27.5 percent have no patients being treated for hypertension (Table 3).

Table 3. Percentage of Patients in Practice by Chronic Illness (Q49), Delaware, 2020

Chronic Disease	> 50%	> 25%	< 5%	Do not provide care	Total
Diabetes	29.1%	26.4%	14.7%	29.8%	100.0%
Hyperlipidemia	36.1%	20.4%	11.0%	32.5%	100.0%
Hypertension	41.6%	19.9%	11.0%	27.5%	100.0%
Obesity	36.9%	33.0%	7.1%	23.0%	100.0%
Smoking	16.2%	36.1%	20.9%	26.7%	100.0%
Mental Health	23.3%	31.2%	19.4%	26.2%	100.0%
Substance Abuse Disorder	6.8%	19.9%	34.3%	39.0%	100.0%

Source: Center for Applied Demography & Survey Research, University of Delaware, 2020.

Question 50 required respondents to make a judgement on employing eight different methods when treating patients with six different chronic diseases. This required a substantial amount of effort and a significant number of the respondents decided to go to the next question. The raw data is supplied in Table 4. Overall, 290 respondents made

some effort to answer the question and 130 left it blank. Most of those respondents moved onto Q51 while others terminated the interview at this point.

Table 4. Methods Used by Advanced Practice Providers When Providing Care by Chronic Illness Category (Q50), Delaware, 2020

	Diabetes	Hypertension	Hyperlipidemia	Obesity	Smoking	Mental health
Patients self-monitor	149	158	66	116	101	105
Patient portal communication	83	92	71	78	67	79
Prescribe medication	150	168	145	82	134	151
Refer to inside physician	40	37	26	26	18	49
Refer to outside specialist	185	133	95	105	64	188
Recommend community program	75	38	35	101	123	143
Work with patient's pharmacist	93	83	65	43	51	80
Chronic disease education	187	184	166	188	175	157

Source: Center for Applied Demography & Survey Research, University of Delaware, 2020.

The next question addresses the "barrier" issue in a slightly different way. Respondents were asked to select one of four categories to measure how frequently they encounter the barrier. The results are presented in Table 5. There are significant differences between the barriers encountered by APPs. Five of the barriers are reported as either constant or frequent barriers by more than 50 percent of the APPs. In contrast, language barriers are reported as rare or none by 81 percent of the APPs responding.

Table 5. Frequency of Barriers When Caring for Patients with Chronic Illness, by Percent (Q51), Delaware, 2020

	Constant Barrier	Frequent Barrier	Rare Barrier	Not a Barrier
Patient appointment time	13.24%	27.87%	26.83%	32.06%
Cost of Medications	20.34%	45.76%	20.34%	13.56%
Patient low health Literacy	18.79%	47.99%	26.17%	7.05%
Language	2.70%	15.88%	58.11%	23.31%
Time for Patient Education	15.41%	35.27%	35.27%	14.04%
Scope of Practice Concern	7.29%	12.85%	39.24%	40.63%
Time to Keep Current with Meds/Treatments	3.50%	29.37%	45.45%	21.68%
Insurance Restrictions	17.30%	37.02%	27.68%	17.99%
Lack of community resources	11.07%	31.14%	38.75%	19.03%
Patient adherence resources	19.93%	46.05%	25.09%	8.93%
Housing	4.61%	18.09%	45.39%	31.91%
Transportation	7.72%	28.42%	43.51%	20.35%
Food	3.90%	17.38%	46.81%	31.91%

Source: Center for Applied Demography & Survey Research, University of Delaware, 2020.

The respondents were asked two additional questions to end this section. First, they were asked if they provided care for children with complex medical needs. Some 27.4 percent responded yes, and 72.6 percent replied no. The total respondents numbered N=379. In a subsequent question (Q53) those that answered no to Q52 were asked "Why Not" with the following options:

- I do not provide care for children, only adults (52.4 percent)
- I am not trained in caring for children with complex medical needs (6.2 percent)
- I am not comfortable providing specialized care required by children with complex medical needs (7.3 percent)
- No children with complex medical needs have presented in my practice (20.1 percent)
- Other (13.9 percent)

Screening

This section provides information about potential areas needing improvement to enhance cancer screening and cancer prevention in Delaware by addressing behavioral risk factors and social determinants of health. Respondents were asked how often they encounter seven potential issues when discussing four typical screening procedures (Breast Cancer, Cervical Cancer, Lung Cancer and Colorectal Cancer) with their clients. A sizeable number of APPs (about half) did not answer this section. Because of the large number of non-responses, each table indicates the number of respondents who answered each section.

The first type of screening was Breast Cancer. Of significance, nearly 70 percent of APPs responded "sometimes" or "usually" that the patient perceives this kind of cancer as a serious threat when discussing breast cancer screenings. The raw counts are provided in Table 6; Table 7 provides the percentage for the APPs that do have such discussions.

Table 6. Frequency of Breast Cancer Screening Discussion with Patients (Q54), Delaware, 2020

	Never	Rarely	Sometimes	Usually	Number of respondents
Not enough time	60	59	29	14	162
Patients refuse discussions	32	83	42	3	160
Patients don't understand information	40	75	38	6	159
Patients unaware of screening	50	66	35	9	160
Patients perceive serious health threat	18	30	35	73	156
Patient insurance doesn't cover	69	63	15	4	151
Patient can't afford	48	67	35	6	156

Source: Center for Applied Demography & Survey Research, University of Delaware, 2020.

Table 7. Percentage of Breast Cancer Screening Discussion with Patients (Q54), Delaware, 2020

	Never	Rarely	Sometimes	Usually
Not enough time	37.04%	36.42%	17.90%	8.64%
Patients refuse discussions	20.00%	51.88%	26.25%	1.88%
Patients don't understand information	25.16%	47.17%	23.90%	3.77%
Patients unaware of screening	31.25%	41.25%	21.88%	5.63%
Patients perceive serious health threat	11.54%	19.23%	22.44%	46.79%
Patient insurance doesn't cover	45.70%	41.72%	9.93%	2.65%
Patient can't afford	30.77%	42.95%	22.44%	3.85%

Source: Center for Applied Demography & Survey Research, University of Delaware, 2020.

The second set of data for screening comes from Q55-Cervical cancer and is provided in Tables 8 and 9. Nearly 60 percent of respondents responded "sometimes" or "usually" that the patient perceives this kind of cancer as a serious threat when discussing cervical cancer screenings. Additionally, 37.2 percent of APPs report "sometimes" or "usually" that patients don't understand the information.

Table 8. Frequency of Cervical Cancer Screening Discussion with Patients (Q55), Delaware, 2020

	Never	Rarely	Sometimes	Usually	Number of respondents
Not enough time	55	58	31	5	149
Patients refuse discussions	31	75	35	6	147
Patients don't understand information	28	65	48	7	148
Patients unaware of screening	38	68	29	14	149
Patients perceive serious health threat	20	40	48	38	146
Patient insurance doesn't cover	58	61	22	2	143
Patient can't afford	46	69	26	3	144

Source: Center for Applied Demography & Survey Research, University of Delaware, 2020.

Table 9. Percentage of Cervical Cancer Screening Discussion with Patients (Q55), Delaware, 2020

	Never	**Rarely**	**Sometimes**	**Usually**
Not enough time	36.91%	38.93%	20.81%	3.36%
Patients refuse discussions	21.09%	51.02%	23.81%	4.08%
Patients don't understand information	18.92%	43.92%	32.43%	4.73%
Patients unaware of screening	25.50%	45.64%	19.46%	9.40%
Patients perceive serious health threat	13.70%	27.40%	32.88%	26.03%
Patient insurance doesn't cover	40.56%	42.66%	15.38%	1.40%
Patient can't afford	31.94%	47.92%	18.06%	2.08%

Source: Center for Applied Demography & Survey Research, University of Delaware, 2020.

The third set of data for screening comes from Q56-Lung cancer and is provided in Tables 10 and 11. Again a high number (76 percent) of APPs report "sometimes" or "usually" the patient perceives this kind of cancer as a serious threat when discussing lung cancer screenings. In addition, 65 percent report "sometimes" or "usually" patients are unaware of lung cancer screenings.

Table 10. Frequency of Lung Cancer Screening Discussion with Patients (Q56), Delaware, 2020

	Never	**Rarely**	**Sometimes**	**Usually**	**Number of respondents**
Not enough time	47	50	37	10	144
Patients refuse discussions	27	57	54	4	142
Patients don't understand information	22	57	52	9	140
Patients unaware of screening	20	29	58	34	141
Patients perceive serious health threat	11	22	45	60	138
Patient insurance doesn't cover	34	45	43	11	133
Patient can't afford	32	39	51	10	132

Source: Center for Applied Demography & Survey Research, University of Delaware, 2020.

Delaware Department of Health and Social Services, Division of Public Health
Bureau of Health Planning and Resources Management

16

March 2021

Table 11. Percentage of Lung Cancer Screening Discussion with Patients, Delaware (Q56), 2020

	Never	Rarely	Sometimes	Usually
Not enough time	32.64%	34.72%	25.69%	6.94%
Patients refuse discussions	19.01%	40.14%	38.03%	2.82%
Patients don't understand information	15.71%	40.71%	37.14%	6.43%
Patients unaware of screening	14.18%	20.57%	41.13%	24.11%
Patients perceive serious health threat	7.97%	15.94%	32.61%	43.48%
Patient insurance doesn't cover	25.56%	33.83%	32.33%	8.27%
Patient can't afford	24.24%	29.55%	38.64%	7.58%

Source: Center for Applied Demography & Survey Research, University of Delaware, 2020.

The fourth and final set of data for screening comes from Q57-Colorectal cancer and is provided in Tables 12 and 13. Like the previous three screenings, a high number (67 percent) of APPs report "sometimes" or "usually" the patient perceives this kind of cancer as a serious threat when discussing colorectal cancer screenings. In addition, 49 percent report "sometimes" or "usually" patients refuse colorectal screening discussions.

Table 12. Frequency of Colorectal Cancer Screening Discussion with Patients (Q57), Delaware, 2020

	Never	Rarely	Sometimes	Usually	Number of respondents
Not enough time	63	64	29	7	163
Patients refuse discussions	27	54	65	13	159
Patients don't understand information	29	71	56	5	161
Patients unaware of screening	37	75	38	11	161
Patients perceive serious health threat	21	32	53	54	160
Patient insurance doesn't cover	55	55	41	2	153
Patient can't afford	39	60	48	4	151

Source: Center for Applied Demography & Survey Research, University of Delaware, 2020.

Table 13. Percentage of Colorectal Cancer Screening Discussion with Patients (Q57), Delaware, 2020

	Never	**Rarely**	**Sometimes**	**Usually**
Not enough time	38.65%	39.26%	17.79%	4.29%
Patients refuse discussions	16.98%	33.96%	40.88%	8.18%
Patients don't understand information	18.01%	44.10%	34.78%	3.11%
Patients unaware of screening	22.98%	46.58%	23.60%	6.83%
Patients perceive serious health threat	13.13%	20.00%	33.13%	33.75%
Patient insurance doesn't cover	35.95%	35.95%	26.80%	1.31%
Patient can't afford	25.83%	39.74%	31.79%	2.65%

Source: Center for Applied Demography & Survey Research, University of Delaware, 2020.

Finally, respondents were asked if they were aware of and have ever referred a patient to various smoking cessation services that are available in Delaware (Q58). A sizeable number of APPs (over half of those that responded) are aware of and have referred patients to both the 1-800-QUIT NOW Quitline and the Delaware Quitline (Table 14). In contrast, about half (47.6 percent) of respondents are not aware of the www.quitsupport.com website that is available to Delawareans.

Table 14. Percentage of Advanced Practice Providers that are Aware of and Have Referred Patients to Smoking Cessation Services (Q58), Delaware, 2020

Smoking Cessation Services	**Aware and Referred**	**Aware but did not Refer**	**Not Aware**	**Not Sure**
The 1-800-QUIT NOW Quitline	53.00%	15.75%	15.18%	16.04%
The Delaware Quitline 1-866-409-1858	55.07%	12.46%	14.78%	17.68%
www.quitsupport.com	20.23%	13.69%	47.61%	18.45%
Other	4.05%	5.40%	10.81%	79.72%

Source: Center for Applied Demography & Survey Research, University of Delaware, 2020.

Observations

- Delaware currently licenses 2,649 individual APPs including 1,967 nurse practitioners of various classifications and 682 physician assistants from the region encompassing Delaware, Maryland, New Jersey, and Pennsylvania. Of these, 244 providers are either retired, unemployed, or employed outside of a health-related field. Another 265 APPs are employed full-time in another state. The total number of APPs working as an APP within Delaware is 2,140.

- In this survey, 616 APPs are reported as part-time (less than 36 hours) or on-call (PRN). The APP workforce is roughly 1,832 FTE, of which 366 FTE are estimated to be PAs and 1,466 are nurse practitioners.

- The availability of part-time positions seems to be an issue both for younger APPs with (perhaps) childcare issues and for those who are older and semi-retired or heading to retirement. The hours reported by some of the APPs seem to suggest that the current workforce needs to be expanded although this could be simply the pressures caused by the COVID-19 global pandemic. The risk of burnout may be rising, given that an estimated 40 percent of APPs worked more than 40 hours per week under stressful conditions.

- There were indications that the APPs' work may be allocated less efficiently than desired. Ten percent of APPs report not engaging in any direct patient care and 48 percent report that a quarter of their workload is spent on practice management/paperwork, suggesting that some review is needed. Other respondent answers suggested that 10 percent of their time was spent on areas other than primary or specialty care. Given the salary costs of the APPs, it might be useful to consider other types of jobs to free up valuable hours for the APPs to apply their training. Nearly 30 percent of APPs pointed to a lack of understanding as to how APPs should be utilized, and 16 percent were concerned about the administrative tasks they were asked to assume.

- There are indications in the survey that the APPs are employed without an adequate job description. However, the setting that an APP will be confronted with can vary considerably from a sole practitioner, a group practice, a clinic, or a hospital. The amount of supervision, staff support, supporting equipment, and working hours can vary substantially across those settings and the APP must consider that before taking a position. In addition, the employer needs to clearly specify their expectations in the job description.

- The programs that train APPs need to lay out the environment the APPs will face and the nature of the culture that exists in those settings.

- Today, 41.9 percent of the APPs are under 50 years of age. APPs between 50 and 69 years of age account for 54.8 percent of the group. It appears that there is a

need to recruit and train a significant number of new APPs and encourage existing personnel to upgrade to these advanced grades.

- The data suggests that a significant portion of the current group of APPs (37.3 percent) is expecting to leave the field in the next five years. Given that 59.1 percent of APPs are age 50 or older, it may be prudent to increase efforts to expand the younger cohort and improve the retention rate for existing APPs.

- DPH should monitor this class of licenses on an annual basis and measure changes in the license types.

APPENDIX A

2020 DELAWARE
ADVANCED PRACTICE PROVIDER SURVEY
Commissioned by Delaware Health and Social Services

Enter your ID number here: _____

- 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 302-831-8406.

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 Delaware. Your answers will be presented in an aggregate form in a report and utilized for the designation of advanced practice provider shortage areas in Delaware.

SCOPE – All advanced practice providers (APP and APRN) that 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.

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1. **What is your current APP certification:**
   1 [ ] Certified Nurse Practitioner
   2 [ ] Certified Nurse Anesthetist
   3 [ ] Certified Nurse Midwife
   4 [ ] Clinical Nurse Specialist
   5 [ ] Physician Assistant

2. **Indicate the type of program in which you received your APP certification:**
   1 [ ] Bachelor's
   2 [ ] Master's
   3 [ ] Certificate
   4 [ ] Post Master's Certificate
   5 [ ] DNP
   6 [ ] Other (specify) _____

3. **Name and location of institution that is associated with your APP education:**
   Institution: _____
   City/State: _____

4. **What year did you graduate from your APP program?**
   _____

5. **What was the major focus of your program?**
   Check ONE answer
   1 [ ] Family   7 [ ] Adult
   2 [ ] Pediatric/Child health   8 [ ] Women's health/OB
   3 [ ] School Health   9 [ ] Neonatal
   4 [ ] Gerontology   10 [ ] Public Health
   5 [ ] Psychiatric/mental health   11 [ ] Other (specify)
   6 [ ] Nurse Anesthetist   _____

6. **What is your highest awarded degree?**
   1 [ ] Nursing Master's   4 [ ] Nursing PhD
   2 [ ] Non-nursing Master's   5 [ ] Other Nursing doctorate
   3 [ ] DNP   6 [ ] Non-nursing doctorate

7. **Please list any other current healthcare certifications you hold:** _____

8. **In which states are you licensed as an APP and what percentage of your time is spent working there?**
   1 [ ] Delaware   % time _____
   2 [ ] New Jersey   % time _____
   3 [ ] Pennsylvania   % time _____
   4 [ ] Maryland   % time _____
   5 [ ] Virginia   % time _____
   6 [ ] Other State(s) % time _____
      (specify) _____

9. **Are you currently working as an APP in Delaware in a clinical setting? (i.e. seeing patients and/or doing tasks necessary for the care of patients, this includes telehealth):**
   1 [ ] Yes, full time (36+ hours/wk) **(GO TO QUESTION 11)**
   2 [ ] Yes, part time (<36 hours/wk) **(GO TO QUESTION 11)**
      Why part time? _____
      _____
   3 [ ] Yes, PRN **(GO TO QUESTION 11)**
      Why PRN? _____
   4 [ ] No, but employed in a health related field
   5 [ ] No, employed in another state 100% of my time
      Which state? _____
      Why are you not working in DE? _____
      _____
      _____
      _____
   6 [ ] No, not employed
   7 [ ] No, recent graduate and not yet employed
   8 [ ] No, retired

10. **Which of the following best describes the reason you are not currently working in a clinical setting as an APP:**
Check all that apply
1 [ ] I choose not to for personal reasons
2 [ ] There are no APP positions available in my area
3 [ ] I can get a better employment package in another position
4 [ ] Compensation is too low
5 [ ] Work life balance
6 [ ] Practice restrictions not present in other states
7 [ ] Resources not present to help me grow my career in Delaware
8 [ ] Unable to get resources needed to develop my own practice
9 [ ] Currently seeking employment
10 [ ] Retired
11 [ ] Other (specify) _____

IF ANSWERED NO TO QUESTION 9 OR YOU ARE NOT PRACTICING IN DELAWARE, PLEASE SKIP TO QUESTION 59 ON PG 7

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11. **On average, how many hours do you work per week as an APP?** *Circle ONE answer*
0-20   21-30   31-40   41-50   51-60   61-70   71-80   81+

12. **On average, how many hours per week do you spend on the following:**
____ Hours – Direct patient care or services
____ Hours – Practice management and related paperwork
____ Hours – Teaching
____ Hours – Research
____ Hours – Administration
____ Hours – Other (please specify):
_____

13. **What percentage of your time is devoted to direct patient care?** *Total time should add up to 100%*
____ % direct patient care – ***Primary care***
____ % direct patient care – ***Specialty care***
____ % other activities (please specify):
_____

14. **If you are currently employed full time as an APP, please indicate the range which captures your annual salary:**
1 [ ] Less than $70,000   5 [ ] $120,001 - $140,000
2 [ ] $70,001 - $80,000   6 [ ] $140,001 - $160,000
3 [ ] $80,001 - $100,000   7 [ ] $160,001 - $180,000
4 [ ] $100,001 - $120,000   8 [ ] Greater than $180,000
          [ ] I am not employed full time

15. **Does your income include:**
1 [ ] Annual COL increase
2 [ ] RVU bonus
3 [ ] Pay for performance, quality incentive or shared savings; e.g. an ACO bonus
4 [ ] Other incentive (specify) _____
5 [ ] Not Applicable (Income does not include any bonus or incentives)

16. **Please indicate the approximate amount of student debt you incurred to obtain your APP degree(s) or certification:**
_____

17. **What types of patients do you primarily see?**
1 [ ] Family Practice   4 [ ] Women's Health/Ob-Gyn
2 [ ] Adult/geriatrics   5 [ ] Psych/Mental Health
   (Internal Medicine)   6 [ ] Other (please specify)
3 [ ] Pediatrics
                               _____

18. **Which best describes your main form of employment?**
Check all that apply
1 [ ] Self Employed:
    1 [ ] Solo practice
    2 [ ] Partner or Group Practice
    3 [ ] Other (specify) _____
2 [ ] Salaried:
    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 [ ] School Based Wellness Center
    10 [ ] Other (specify) _____

19. **What is the City, State and zip-code of the main location in Delaware where you practice health care?** *(Main location defined as the location where you spend the most time delivering care)*

Practice site 1
_____   _____   _____
City   State   ZIP code

Do you have a second practice site?
Practice site 2
_____   _____   _____
City   State   ZIP code

20. **(a) Are you providing direct patient care? YES / NO**
    (b) At how many sites do you provide direct patient care as an APP?
    _____ site(s)

The next questions are about your primary practice site. Please provide the following information for the patient care setting you spend the most hours per week.

21. **This patient care setting is:**
    1 [ ] Ambulatory
    2 [ ] Inpatient
    3 [ ] Both Ambulatory and Inpatient
    4 [ ] Telehealth

22. **Which of the following best describes this patient care setting:** *Check ONE answer*
    1 [ ] Emergency Department   7 [ ] Corporate
    2 [ ] Hospital   8 [ ] School Based Wellness Center
    3 [ ] Other Institutions   9 [ ] Military
       (Skilled Nursing Facilities)   10 [ ] Public Health
    4 [ ] Individual practice   11 [ ] Telehealth
    5 [ ] Group practice   12 [ ] Other (specify):
    6 [ ] Federally Qualified Health Center   _____

23. **What is the average number of hours per week that you spend providing care, both ambulatory and hospital follow-up, to patients in the areas of adult/geriatric (internal medicine), general/family practice, pediatrics, psych/mental health or OB/GYN?**
    _____ hours per week devoted to primary care

24. **On average, how many patients do you see per day (include office and hospital encounters)?** _____ patients

25. **If you provide *primary care* directly to clients, select the category of primary care in which you are chiefly involved:**
    1 [ ] Family Practice
    2 [ ] Adult/Geriatrics (Internal Medicine)
    3 [ ] Pediatrics
    4 [ ] Women's Health/Ob-Gyn
    5 [ ] Psych/Mental Health
    8 [ ] I do not provide primary care

26. **Is a sliding fee based upon the patient's income offered at your primary practice site?**
    1 [ ] Yes
    2 [ ] No
    3 [ ] Unsure

27. **Does your practice offer Saturday and/or Evening hours?**
    How many Saturdays per month? _____

    How many evenings per week? _____

28. **Does your practice offer telehealth services?**
    1 [ ] Yes
    2 [ ] No

29. **Do you work as a telehealth provider?**
    1 [ ] Yes
    2 [ ] No **(GO TO QUESTION 31)**

30. **Are you practicing telehealth at an:**
    Originating site (if yes, list states): _____
    Distance site (if yes, list states): _____
    Both originating and distance sites (if yes, list states):
    _____

31. **Are you providing care for MEDICARE patients at your primary practice site?**
    1 [ ] Yes
    2 [ ] No **(GO TO QUESTION 33)**

32. **About what percentage of your total hours per week is spent providing care to MEDICARE patients at this site?**

    Percentage of total hours _____ %

33. **Are you providing care for MEDICAID patients at your primary practice site?**
    1 [ ] Yes
    2 [ ] No **(GO TO QUESTION 35)**

34. **About what percentage of your total hours per week is spent providing care to MEDICAID patients at this site?**

    Percentage of total hours _____ %

35. **Do you personally have the ability to communicate with patients in a language other than English?**
    1 [ ] Yes
     Which languages? *Check all that apply*
       1 [ ] Spanish   4 [ ] Russian
       2 [ ] French   5 [ ] Other language (specify):
       3 [ ] Arabic   _____
    2 [ ] No

36. **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

    Which languages? *Check all that apply*
        1 [ ] Spanish   4 [ ] Russian
        2 [ ] French   5 [ ] Other language (specify):
        3 [ ] Arabic
                        _____
    2 [ ] No

37. **Do you utilize any of the following methods to communicate with patients:**
    1 [ ] Language line
    2 [ ] Interpreters
    3 [ ] Phone translation app
    4 [ ] Other method (specify) _____
    5 [ ] I do not use any of these methods

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

    New patients: _____   8 [ ] Not applicable

    Existing patients: _____   8 [ ] Not applicable

39. **Do you provide SAME DAY appointments for existing patients who call for a sick appointment?**
    1 [ ] Yes
    2 [ ] No

40. **Which of the following practice arrangements best describes this site?** *Check ONE answer*
    1 [ ] I do not work with a physician
    2 [ ] Physician is available for consultation for a fee
    3 [ ] Physician is available on-site for majority of time
    4 [ ] Physician is available by telecommunication
    5 [ ] Other (specify) _____

41. **Do you prescribe controlled substances?**
    1 [ ] Yes
    2 [ ] No

42. **Do you prescribe Medication Assisted Treatment (MAT)'s?**
    1 [ ] Yes
    2 [ ] No => **Why not?** _____
    _____

43. **Is your practice part of an Accountable Care Organization (ACO)?**
    1 [ ] Yes
    2 [ ] No
    3 [ ] Unsure

44. **Do you participate in a practice that has reimbursement contracts (with insurers) with value-based are models?**
    1 [ ] Yes
    2 [ ] No
    3 [ ] Unsure

45. **Is any of your compensation tied to "value-based" payment metrics such as patient satisfaction, EHR use, cost control, readmission rates, etc.**
    1 [ ] Yes => **Which ones?** _____
    2 [ ] No **(GO TO QUESTION 46)**
    3 [ ] Unsure

46. **What percent of your TOTAL compensation is tied to "value-based" payment metrics?** _____ percent

47. **Which best describes your status relative to concierge and/or direct pay medicine?**
    1 [ ] I now practice some form of concierge/direct pay medicine
    2 [ ] I am planning to transition fully to this model
    3 [ ] I am planning to transition in part to this model
    4 [ ] I have no plans to transition to this model

48. **If you are <u>currently working</u> as an APP, which (*if any*) of the following barriers are you experiencing?**
    Check all that apply
    1 [ ] Salary lower than other health care related fields
    2 [ ] Overabundance of APP's
    3 [ ] Lack of positions for APP's
    4 [ ] Surplus of physicians
    5 [ ] Lack of adequate educational preparation to function as expected
    6 [ ] Lack of experience to function as expected
    7 [ ] Lack of understanding of the insurance system
    8 [ ] Resistance from registered nurses
    9 [ ] Resistance from physicians
    10 [ ] Lack of physician backup
    11 [ ] Expected to assume other/administrative functions
    12 [ ] Lack of understanding/differentiation of all APP roles by other health professionals
    13 [ ] Lack of public knowledge about APP's
    14 [ ] High cost of malpractice insurance
    15 [ ] Inability to obtain malpractice insurance
    16 [ ] Limitations on types of services reimbursed
    17 [ ] Legislative barriers to fulfilling PA role
    18 [ ] Inadequate benefits
    19 [ ] Poor reimbursement from commercial payers
    20 [ ] Poor reimbursement from Medicaid
    21 [ ] Poor reimbursement from Medicare
    22 [ ] Other (specify) _____

49. The following lists a number of chronic illnesses found in patients for which many APPs provide care. Please indicate which patient chronic illness you diagnose and treat, as well as the approximate percentage of patients in your practice from which you provide care: *Check one box on each line*

	Greater than 50% of Patients	Greater than 25% of Patients	Less than 5% of Patients	I do not provide care for patients with this chronic illness
Diabetes	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Hyperlipidemia	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Hypertension	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Obesity	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Smoking	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Mental Health	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Substance Use Disorder	1 [ ]	2 [ ]	3 [ ]	4 [ ]

50. For the patients in your practice for whom you diagnose and treat chronic illness, please indicate all of the methods you use in providing treatment for patients in your practice: *Check all that apply*

	Diabetes	Hyper-tension	Hyper-lipidema	Obesity	Smoking	Mental Health
Have patients self-monitor and report information	1 [ ]	2 [ ]	3 [ ]	4 [ ]	5 [ ]	6 [ ]
Use a patient portal for communication about care	1 [ ]	2 [ ]	3 [ ]	4 [ ]	5 [ ]	6 [ ]
Prescribe medication	1 [ ]	2 [ ]	3 [ ]	4 [ ]	5 [ ]	6 [ ]
Refer to a physician in my practice	1 [ ]	2 [ ]	3 [ ]	4 [ ]	5 [ ]	6 [ ]
Refer to a specialist for this chronic illness	1 [ ]	2 [ ]	3 [ ]	4 [ ]	5 [ ]	6 [ ]
Recommend a community based program	1 [ ]	2 [ ]	3 [ ]	4 [ ]	5 [ ]	6 [ ]
Collaborate with patient's pharmacist	1 [ ]	2 [ ]	3 [ ]	4 [ ]	5 [ ]	6 [ ]
Chronic disease education	1 [ ]	2 [ ]	3 [ ]	4 [ ]	5 [ ]	6 [ ]

51. For the patients in your practice for whom you diagnose and treat chronic illness, please identify any barriers to care that prevent you from providing evidence-based treatment for patients in your practice:
Check one box on each line

	Constant Barrier	Frequent Barrier	Rare Barrier	Not a barrier
Available time for patient appointments	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Cost of Medications	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patient low health literacy/ knowledge base	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Language	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Time for patient education	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Scope of practice concern	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Time to keep current with new medication and treatments	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Insurance restrictions	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Lack of community resources in my area	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patient adherence resources	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Housing	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Transportation	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Food	1 [ ]	2 [ ]	3 [ ]	4 [ ]

52. Do you provide care for children with complex medical needs?
1 [ ] Yes **(GO TO QUESTION 54)**
2 [ ] No

53. If no, why not?
1 [ ] I do not provide care for children, only adults
2 [ ] I am not trained in caring for children with complex medical needs
3 [ ] I am not comfortable providing specialized care required by children with complex medical needs
4 [ ] No children with complex medical needs have presented in my practice
5 [ ] Other (specify) _____

54. How often do you encounter the following when discussing BREAST cancer screenings with your patients:

Check ONE answer for each question

	Never	Rarely	Sometimes	Usually
Not enough time to discuss screenings with patients	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients refuse screening discussions	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients have difficulty understanding the information about screening	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients are unaware of screening	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients perceive this kind of cancer as a serious health threat	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patient's insurance does not cover screenings	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patient says they cannot afford screenings	1 [ ]	2 [ ]	3 [ ]	4 [ ]

56. How often do you encounter the following when discussing LUNG cancer screenings with your patients:

Check ONE answer for each question

	Never	Rarely	Sometimes	Usually
Not enough time to discuss screenings with patients	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients refuse screening discussions	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients have difficulty understanding the information about screening	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients are unaware of screening	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients perceive this kind of cancer as a serious health threat	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patient's insurance does not cover screenings	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patient says they cannot afford screenings	1 [ ]	2 [ ]	3 [ ]	4 [ ]

55. How often do you encounter the following when discussing CERVICAL cancer screenings with your patients:

Check ONE answer for each question

	Never	Rarely	Sometimes	Usually
Not enough time to discuss screenings with patients	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients refuse screening discussions	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients have difficulty understanding the information about screening	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients are unaware of screening	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients perceive this kind of cancer as a serious health threat	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patient's insurance does not cover screenings	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patient says they cannot afford screenings	1 [ ]	2 [ ]	3 [ ]	4 [ ]

57. How often do you encounter the following when discussing COLORECTAL cancer screenings with your patients:

Check ONE answer for each question

	Never	Rarely	Sometimes	Usually
Not enough time to discuss screenings with patients	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients refuse screening discussions	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients have difficulty understanding the information about screening	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients are unaware of screening	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patients perceive this kind of cancer as a serious health threat	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patient's insurance does not cover screenings	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Patient says they cannot afford screenings	1 [ ]	2 [ ]	3 [ ]	4 [ ]

58. Are you aware of, and have ever referred a patient to, any of the following smoking cessation services?

Check all that apply

	Aware of it and Referred	Aware of it, Never Referred	Not aware of it	Not sure/not applicable
The 1-800-QUIT-NOW Quitline	1 [ ]	2 [ ]	3 [ ]	4 [ ]
The Delaware Quitline 1-866-409-1858	1 [ ]	2 [ ]	3 [ ]	4 [ ]
The www.quitsupport.com website	1 [ ]	2 [ ]	3 [ ]	4 [ ]
Other (specify) _____	1 [ ]	2 [ ]	3 [ ]	4 [ ]

ALL RESPONDENTS

PLEASE ANSWER THE NEXT SECTION

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59. Do you expect to be active in healthcare delivery in Delaware 5 years from now?

1 [ ] Yes
2 [ ] No
3 [ ] Unsure

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

_____
_____

60. What is your year of birth? _____

61. State (or country of residence if applicable) of residence at time of high school graduation: _____

62. What is your gender?

1 [ ] Male
2 [ ] Female
3 [ ] Other

63. What is your race?

1 [ ] African American or Black
2 [ ] Asian or Pacific Islander
3 [ ] Caucasian or White
4 [ ] Multi-Racial
5 [ ] Native American or Alaskan
6 [ ] Other (please specify) _____

64. Are you of Hispanic origin?

1 [ ] Yes
2 [ ] No

65. Please indicate the county, state and ZIP code of your current residence:

_____   ____   _____
County   State   ZIP code

66. If you have any comments about the questionnaire or your experiences, please include them in the space below:

_____
_____
_____
_____

Thank you for taking the time to complete the Delaware Advanced Practice Provider Survey!