

II. RESOURCE ASSESSMENT

B. PHYSICIAN RESOURCES

1. WHAT ARE THE PHYSICIAN RESOURCES IN THE STATE OF DELAWARE?

The distribution of Delaware's physician supply generally mirrors that of the US, but with several distinctions. Delaware has slightly fewer physicians per 100,000 persons than in the U.S. and a smaller presence of several specialties. Also, Delaware has fewer dentists per 100,000 persons than in the U.S.

- **Physician supply:** Of the 1,875 physicians¹ in Delaware in 1997, 1,555 (83 percent) were engaged in direct patient care.
 - For every 100,000 persons in Delaware, roughly 194 physicians were practicing in 1997.
- **Primary care physicians:** Of direct patient care physicians practicing in Delaware in 1997, almost half (43.9 percent) provided primary care services.
 - For every 100,000 persons in Delaware, approximately 85 primary care physicians were practicing in 1997.
 - While 83 percent of full-time equivalent primary care providers indicated that they accepted new patients in 1997, only 65 percent accepted new patients with Medicare and less than 60 percent accepted those covered by Medicaid. Interestingly, primary care physicians reported spending more time with publicly-insured patients (about 58 percent of their time) than with privately-insured patients (roughly 20 percent of their time)².
 - Research from the Center for Applied Demography and Survey Research at the University of Delaware suggests that the proportion of primary care physicians in the state will likely increase in the next 10 years.
 - Less than half (nearly 40 percent) of the state's primary care physicians reported employing non-physician medical practitioners (e.g., advanced nurse practitioners, certified nurse midwives and physician assistants) in 1997³.

TECHNICAL NOTE

The analysis depends, in part, on the research conducted by the University of Delaware's Center of Applied Demography and survey research on Delaware's capacity for primary and dental care.

¹ Unless otherwise noted, physicians are not adjusted for full-time equivalency.

² Ratledge, E.C. *Primary Care Physicians in Delaware, 1998*. Center of Applied Demography and Survey Research, University of Delaware.

³ Ibid.

- In 1997, Delaware had slightly fewer OB/GYNs available to its female population (20.7 OB/GYNs per 100,000 women) than in the nation (24.7 OB/GYNs per 100,000 women). However, nearly 28 percent of full-time equivalent primary care physicians not specializing in OB/GYN reported providing obstetric or gynecological services⁴.
- Delaware had more pediatricians per 100,000 children under age 18 (74.4 pediatricians per 100,000 children under age 18) than the U.S. (64.2 pediatricians per 100,000 children under age 18) in 1997.
- **Specialty care physicians:** Over half (53 percent) of Delaware’s physicians engaged in direct patient care provided specialty services in 1997.
 - The proportion of general and plastic surgeons, emergency physicians, and public health physicians was slightly higher than in the U.S. as a whole, while the state had a slightly smaller proportion of anesthesiologists.
 - Psychiatrists, including child psychiatrists, comprised nearly seven percent of the total physician supply in Delaware in 1997. Roughly as many physicians practiced psychiatry as general surgery, the largest specialty group.
- **Dentists:** In 1997, an estimated 302 dentists practiced in Delaware⁵.
 - For every 100,000 persons in the state, fewer than 39 full-time dentists were practicing, 23 percent less than the standard of 50 full-time dentists for every 100,000 persons⁶.
 - The use of non-dentists resources (e.g., dental hygienists) among Delaware’s dentist was high (nearly 93 percent)⁷.
 - Roughly one-third of dentists in Delaware offer services in the evening, while far fewer (roughly 16 percent) offer services on the weekend⁸.
 - Over 94 percent of Delaware’s dentists were accepting new patients, while waiting time for an appointment for a new patient averaged roughly 13 days⁹.

ISSUE FOR FUTURE STUDY

Community stakeholders expressed concern that patients may seek physician care for unique conditions and cases outside of the State. We were unable to examine the magnitude of this migration and its impact on physician resources. However, migration slightly enlarges service volume for inpatient services with more people from other areas seeking care in Delaware than do residents leaving the area for care.

ISSUE FOR FUTURE STUDY

Delaware’s concerns regarding dentists extend beyond having fewer dentists per 100,000 persons than many of its neighboring states, according to community stakeholders. They contend that the lack of provider participation in insurance programs, increasing age of practicing dentists and complex licensure process also inhibit the availability of dentists. The state has undertaken several efforts to study and address these issues, including amending the licensure process.

⁴ Ratledge, E.C. *Dentists in Delaware, 1998*. Center for Applied Demography and Survey Research, University of Delaware.

⁵ Ibid.

⁶ This standard refers to a “commonly accepted standard” noted in Dental Health Administrative Consulting Services, Inc. *Study of Dental Health Services for Delaware Health and Social Services, 1997*.

⁷ Ratledge, E.C. *Dentists in Delaware, 1998*. Center for Applied Demography and Survey Research, University of Delaware.

⁸ Ibid.

- Nearly all dentists in Delaware (roughly 97 percent) served pediatric patients. Over 76 percent of dentists served patients aged 3 and under¹⁰.
- The number of dentists per 100,000 persons decreased by roughly eight percent between 1996 and 1998, while the population increased by about two percent in that same period.

2. HOW DO AREA RESOURCES COMPARE TO BENCHMARKS?

Delaware has fewer physicians per 100,000 persons than comparison states.

- For every 100,000 persons in Delaware, roughly 194 physicians were practicing in 1997, compared to between 195 physicians and 278 physicians per 100,000 persons in comparison states.
 - In 1997, Delaware had a comparable or slightly higher proportion of physicians engaged in direct patient care vis-à-vis comparison states¹¹.
 - Delaware had a smaller proportion of physicians practicing internal medicine, obstetrics and gynecology and general medicine than in the U.S. as a whole.
 - Delaware had roughly the same proportion physicians practicing family medicine and slightly more practicing pediatrics in 1997 than in the U.S.

3. HOW DO RESOURCES VARY BY COUNTY?

New Castle County contains most of the state's physician and dental resources, while Sussex County has the fewest pediatricians and dentists to serve its population.

- **Physicians:** Over 75 percent of Delaware's 1,555 physicians practice in New Castle County, while 15 percent and 10 percent practice in Sussex and Kent Counties, respectively.
 - New Castle County had the most primary care providers per 100,000 persons, with nearly 90 physicians per 100,000 persons in 1997. Sussex and Kent Counties had fewer physicians per 100,000 persons (roughly 79 physicians per 100,000 persons and 58 physicians per 100,000 persons, respectively).
 - In 1997, New Castle County contained a disproportionately higher share of younger primary care physicians, while Kent County has the highest concentration of physician between 50 and 64 years of age¹². This highlights the difficulty of Kent and Sussex Counties in attracting a younger workforce.

⁹ Ratledge, E.C. *Dentists in Delaware, 1998*. Center for Applied Demography and Survey Research, University of Delaware.

¹⁰ Ibid.

¹¹ AMA. *Physician Characteristics and Distribution in the US, 1999*.

¹² Ratledge, E.C. *Primary Care Physicians in Delaware, 1998*. Center of Applied Demography and Survey Research, University of Delaware.

- In 1997, OB/GYNs comprised less than nine percent of full-time equivalent primary care physicians in Sussex County compared to around 12 percent in other counties¹³.
- Pediatricians comprised roughly nine percent of full-time equivalent primary care physicians in Kent County in 1997, less than half of the proportion in other counties (approximately 19 percent to 25 percent)¹⁴.
- **Dentists:** Sussex County has the fewest dentists per 100,000 persons.
 - Sussex and Kent Counties had 18.5 dentists per 100,000 persons and 29.4 dentists per 100,000 persons, respectively in 1997.
 - New Castle County, with 52.6 dentists per 100,000 persons, had the most dentists per 100,000 persons and approximates the national ratio of 52.8 dentists per 100,000 persons.
 - The age distribution of dentists in the state mirrors that of primary care physicians, with New Castle County containing a higher proportion of dentist under 55 years of age. Kent County, on the other hand, has the fewest younger dentists and a larger proportion of dentists over 55 years of age¹⁵.
 - Over seven percent of dentists in Sussex County participated in Medicaid, compared to four percent in New Castle County and none in Kent County¹⁶.
 - Dentists in New Castle County were more than twice as likely than dentists in other counties to offer evening hours (approximately 38 percent in New Castle County compared to 10 percent in Sussex County and 19 percent in Kent County) and Saturday hours (approximately 19 percent in New Castle County compared to less than five percent in Sussex County and seven percent in Kent County)¹⁷.

ISSUE FOR FUTURE STUDY

Access to physician resources varies substantially at a local level. Community stakeholders identified several factors that limit access, notably a shortage of providers in rural areas and transportation. For instance, research by the Center for Applied Demography and Survey Research at the University of Delaware indicates that no dentists were reported in four of 27 census county divisions in 1997, most of these rural. However, being adjacent to a division with abundant resources does not necessarily imply increased access. The Center describes how most of the divisions adjacent to ones with abundant resources possess fewer than 33 primary care physicians per 100,000 persons in New Castle County.

¹³ Ibid.

¹⁴ Ibid.

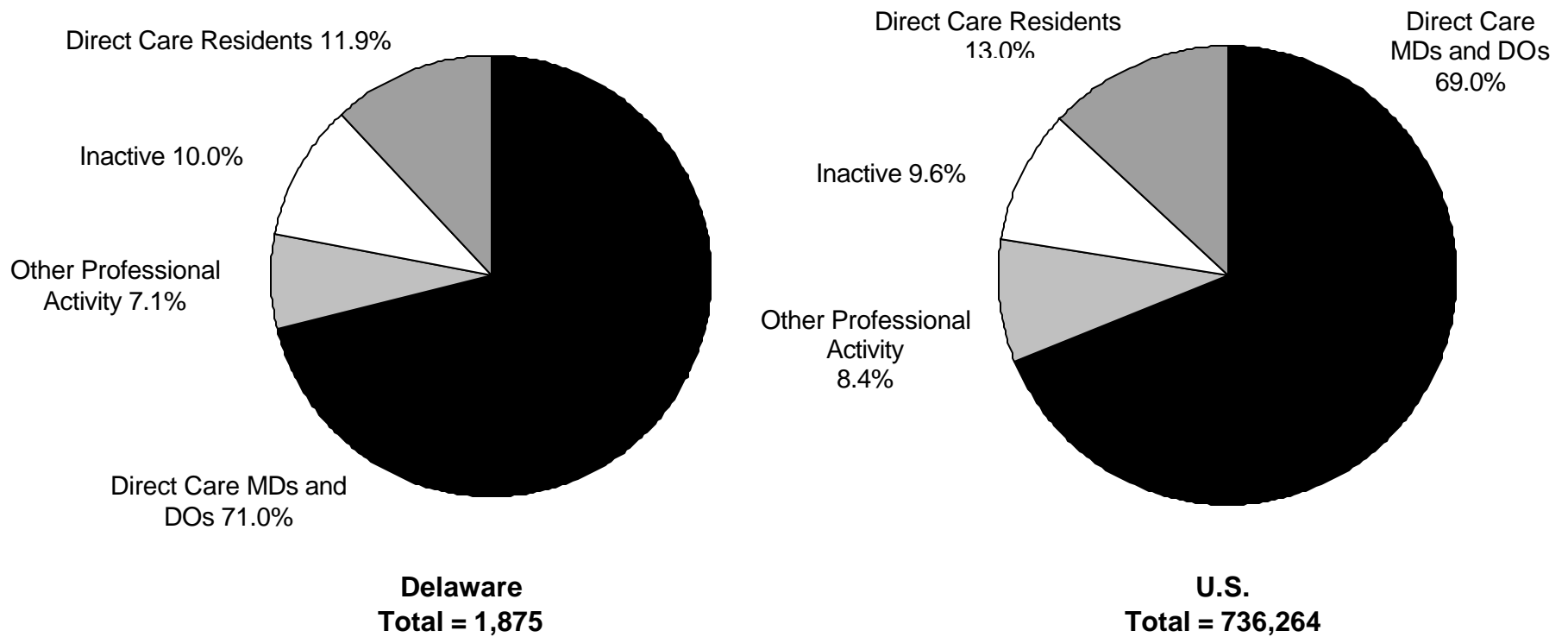
¹⁵ Ratledge, E.C. *Dentists in Delaware, 1998*. Center for Applied Demography and Survey Research, University of Delaware.

¹⁶ Ibid.

¹⁷ Ibid.

Exhibit II-B-1: Over 80 percent of Delaware's physicians engage in direct patient care, comparable to physicians in the U.S.

Physicians by Major Reported Activity 1997

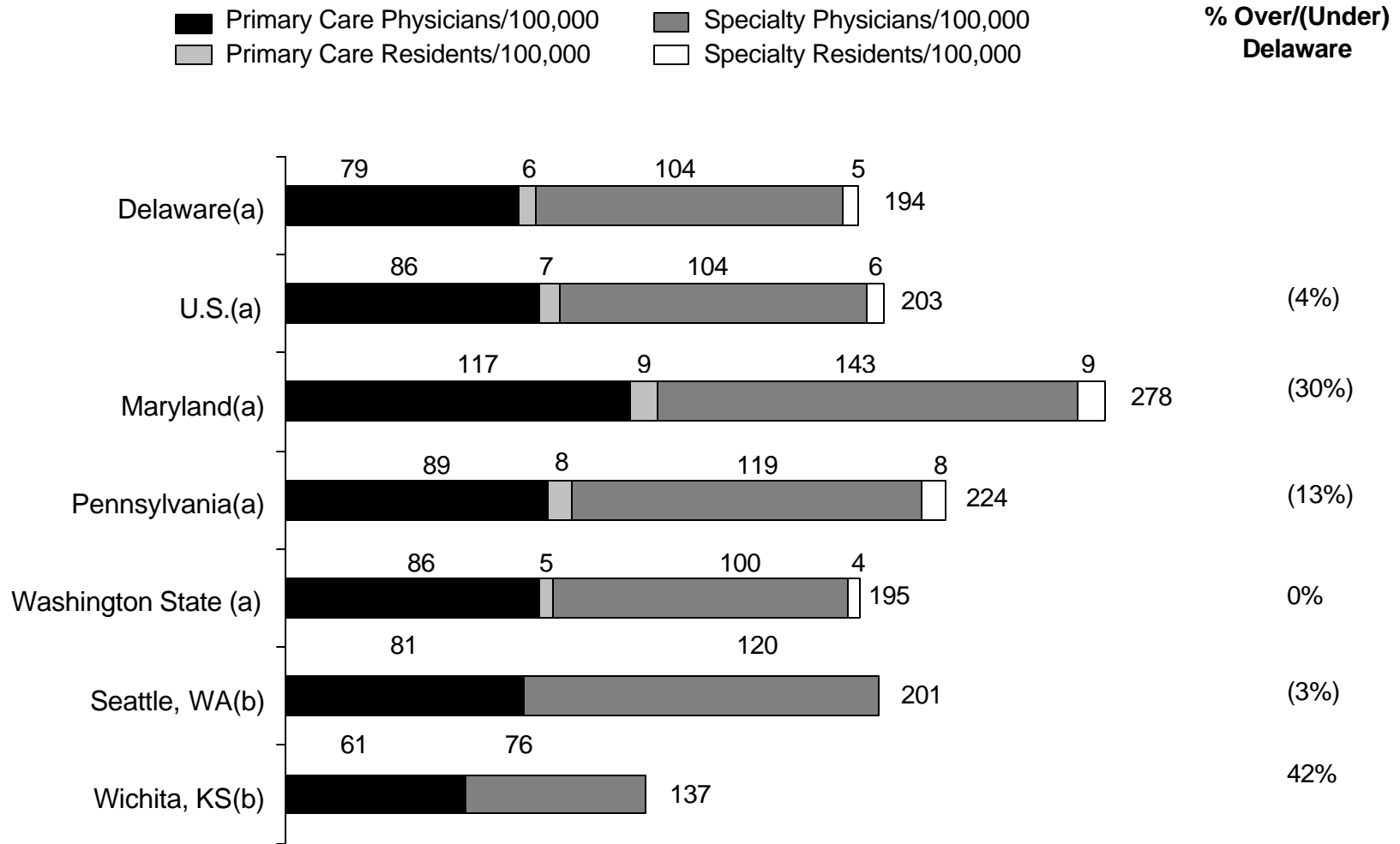


Source: AMA Physician Characteristics and Distribution in the U.S., 1999.
 Note: Other professional activity refers to administration, teaching and research. Physician residents are counted at full equivalency.

HEALTH	RESOURCE	VALUE
Hospital	Physician	Diagnostic Technology

Exhibit II-B-2: Delaware has fewer physicians per 100,000 persons than the U.S. and all comparison communities except Wichita, KS.

Physicians per 100,000 Persons 1997



Sources: *AMA Physician Characteristics and Distribution in the U.S., 1999*. Dartmouth Medical School, Center for Evaluative Clinical Sciences. *The Dartmouth Atlas of Health Care in the United States, 1998*. The Center for Evaluative Sciences, Dartmouth Medical School.

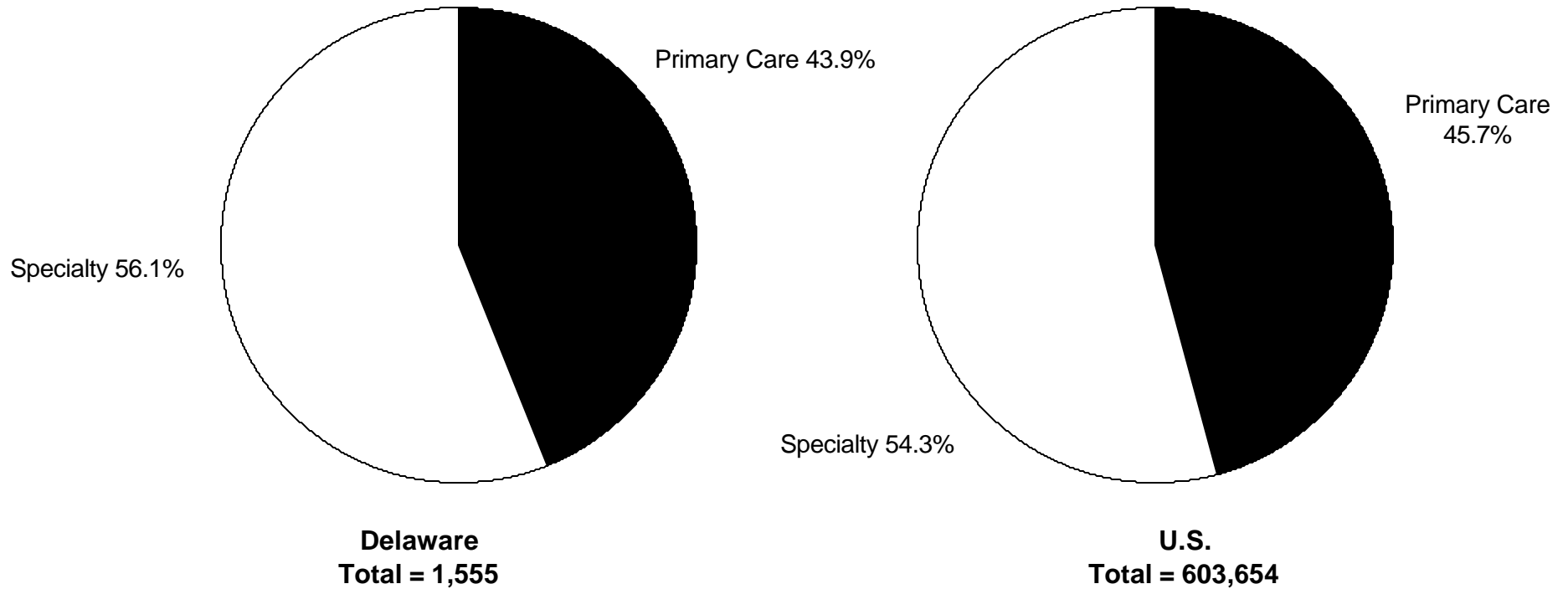
Note: (a) Data for Delaware, U.S., Maryland, Pennsylvania and Washington are recent as of December 31, 1997. Data reported on non-federal physicians who provided direct patient care in 1997 and do not include physicians categorized as "not classified." Primary care includes internal medicine, family practice, pediatrics, general practice and obstetrics/gynecology. Specialty care includes primary care subspecialties. Physician residents are counted at 35% equivalency to reflect their lower productivity. Physician-to-population ratios are not adjusted for migration.

(b) Data for Wichita and Seattle data represent 1993 and are taken from Dartmouth Medical School, Center for Evaluative Clinical Sciences. *The Dartmouth Atlas of Health Care in the United States, 1998*. The Center for Evaluative Sciences, Dartmouth Medical School. Data reflect "hospital referral regions," not the MSA definition used elsewhere. Physician-to-population ratios are adjusted for migration between referral regions. Primary care does not include OB/GYN. Physician residents are included at 35% equivalency to reflect their lower productivity.

HEALTH	RESOURCE	VALUE
Hospital	Physician	Diagnostic Technology

Exhibit II-B-3: Roughly 44 percent of active physicians in Delaware are primary care physicians, similar to in the U.S.

Direct Patient Care Physicians by Primary and Specialty Care 1997



Source: *AMA Physician Characteristics and Distribution in the U.S., 1999*

Note: Recent as of December 31, 1997. Data report on non-federal physicians who provided direct care in 1997 and do not include physicians categorized as "not classified". Primary care includes internal medicine, family practice, pediatrics, general practice and obstetrics/gynecology. Specialty care includes primary care subspecialties. Physician residents are counted at 35% equivalency to reflect their lower productivity.

HEALTH	RESOURCE	VALUE
Hospital	Physician	Diagnostic Technology