THE SNM MANPOWER SURVEY REPORT

THE SOCIETY OF NUCLEAR MEDICINE'S Manpower Survey Committee* has collected information on physicians, scientists and technologists performing nuclear medicine in the U.S., having surveyed more than 80% of facilities. This information, obtained during 1991, follows a previous SNM survey carried out in 1987 (see *Newsline*, January 1989, p. 1), in which 28% of institutions responded to mailed questionnaires. The individuals reporting from this group included 50% of American Board of Nuclear Medicine diplomates, suggesting that the study was more representative of full-time than part-time practitioners.

To obtain a more representative database, the Manpower Survey Committee conducted the current survey to determine the extent of work performed by the physician specialties that engage in nuclear medicine procedures: internal medicine, nuclear medicine, pathology, and radiology. The purposes of this survey were to document the extent to which nuclear medicine services are provided by nuclear medicine specialists, to build a database of practitioners and technologists in nuclear medicine for the Society's use, and to gather data applicable to reimbursement issues in nuclear medicine and radiology.

During the development of the resource-based relative value scale (RBRVS) for Medicare, nuclear medicine services were assigned values within radiology. Since it was advantageous for radiology to maximize decreases in fees for relatively low-volume procedures, and nuclear medicine procedures fell in this category, reductions under the RBRVS were regarded as unfair to full-time nuclear medicine specialists. The need for separating nuclear medicine procedures from radiology procedures became apparent.

ALL PHYSICIANS
Time Spent in Nuclear Medicine
(PERCENT OF TOTAL)

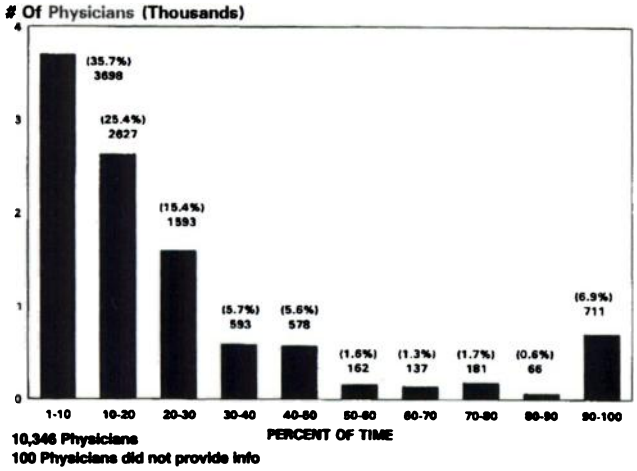

Figure 1

ALL PHYSICIANS
Total National FTEs by % of Individual Time Spent in Nuc. Med.
(PERCENT OF TOTAL)

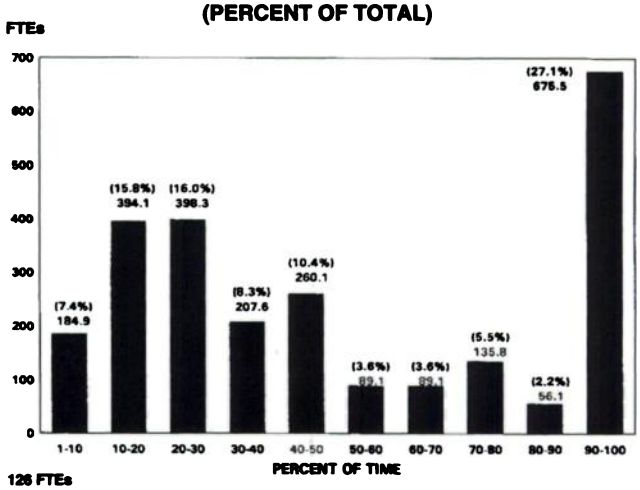

Figure 2

PRIMARY SPECIALTY REPORTED

Specialty	# of Physicians	# FTE's	% of Physicians	% FTE's	% FTE ÷ % Physicians
Cardiology	565	126	5.4	5.1	0.94
Internal Medicine	122	42	1.2	1.6	1.33
Miscellaneous	66	14	0.6	0.5	0.83
Nuclear Medicine	1301	728	12.5	29.2	2.34
Pathology	168	57	1.6	2.3	1.44
Radiology	8215	1527	78.7	61.3	0.78
Total	10,437	2,494	100%	100%	1.0

	# of Scientists	% of Scientists
Chemistry	43	6.0
Miscellaneous	60	8.4
Physics	584	81.3
Unknown	31	4.3

Figure 3

For the current survey, the committee collected data on physicians, scientists and technologists involved in the practice of nuclear medicine in any setting, including of-

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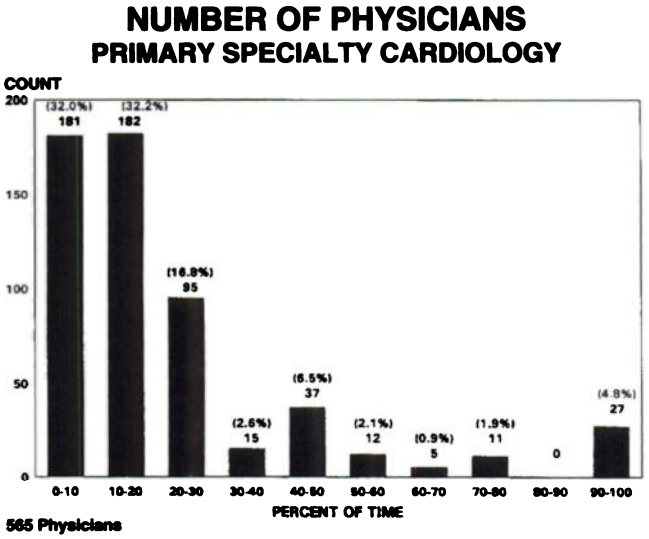

Figure 4

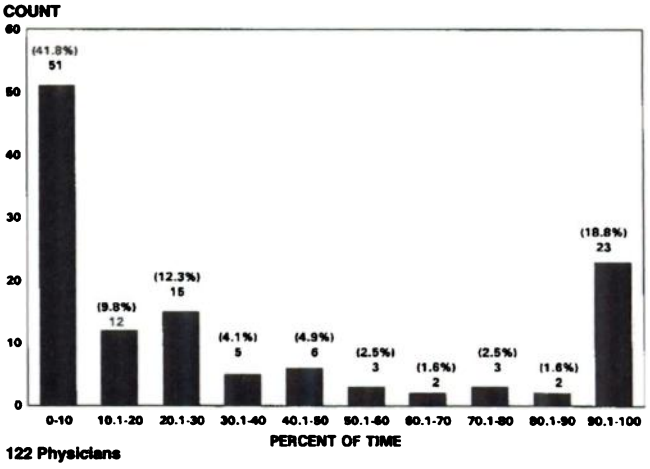

Figure 6

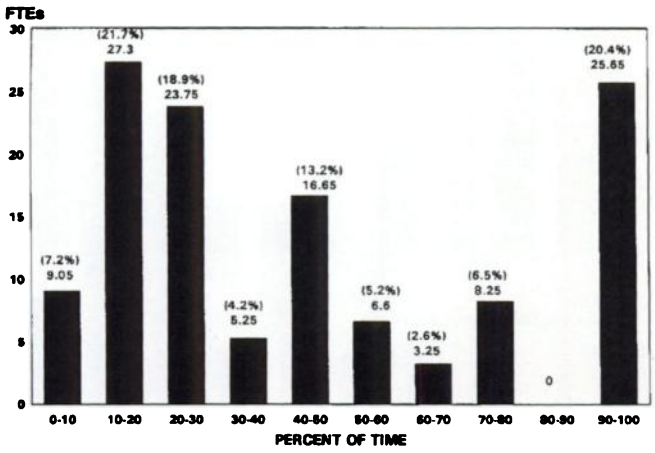

Figure 5

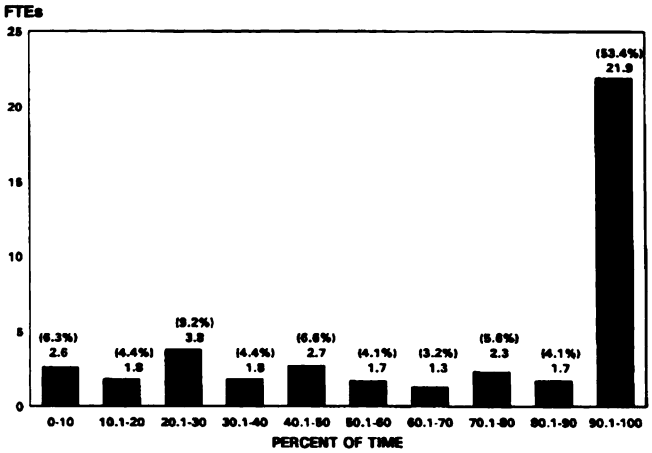

Figure 7

fices, and the amount of time spent by each. Since the survey was conducted by telephone, it involved less detailed and fewer questions than the 1987 survey.

Survey Design

A list of 4,598 facilities involved in nuclear medicine was purchased from Technology Management Group. The list included 3,880 hospitals and 718 outpatient facilities. A system of group leaders appointed by SNM chapter presidents recruited volunteer callers in each state. The callers contacted facilities statewide to obtain information about individuals working in nuclear medicine departments, as well as individuals performing nuclear medicine procedures in other departments, such as cardiology. Further calling from the SNM central office was repeated until a minimum 80% of facilities were contacted in each state. In six states the response rate was 100%, and overall response for all 50 states was 81%.

Data were entered into the SNM membership database on an IBM System 38, and downloaded to a PC database program for analysis. The information collected will be updated from annual membership renewals and other sources. All data can be broken down into regional and state data for chapter use. Sorts other than those presented can be arranged. The list of facilities may be rented.

An important goal of the study was to define how much of the work of nuclear medicine is contributed by various groups, whether distinguished by specialty, by certification, or by the amount of time spent in nuclear medicine. This was considered critical because of undocumented claims that have been made by various organizations. The best approximation of work performed by a group is the number of

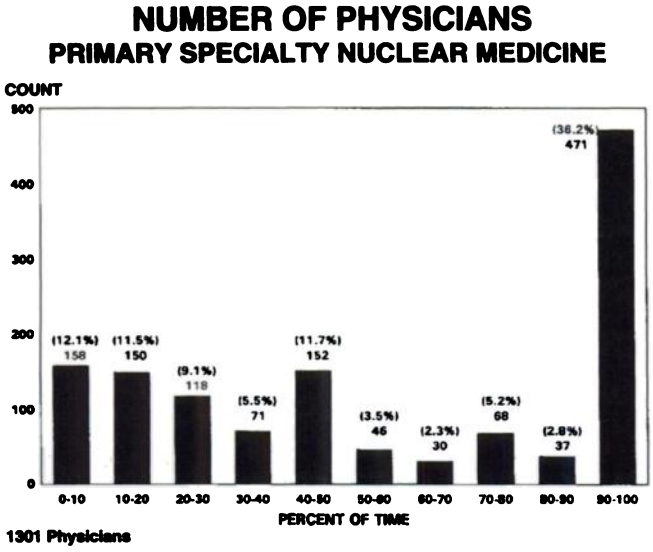

Figure 8

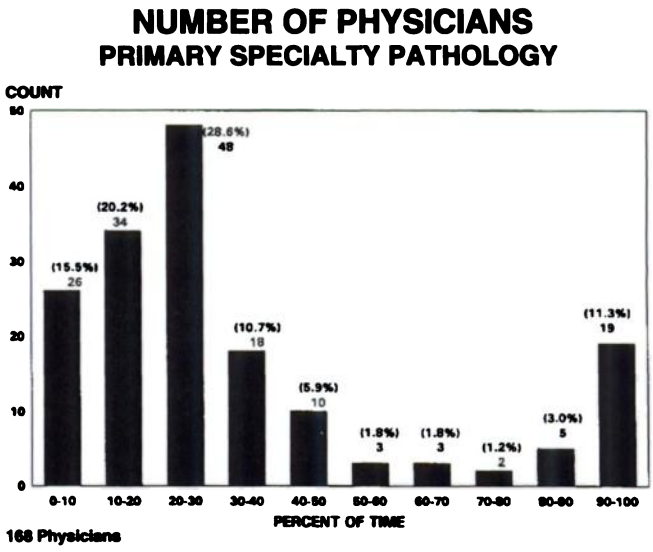

Figure 10

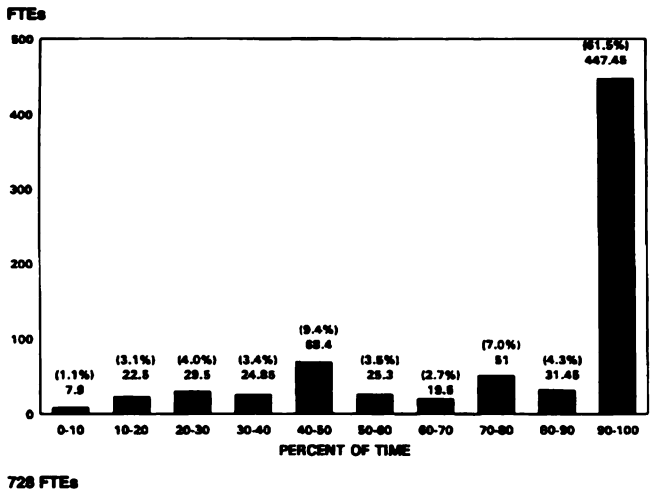

Figure 9

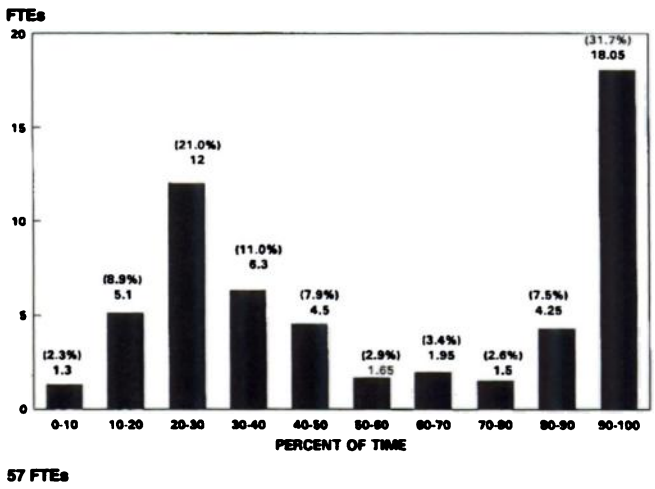

Figure 11

full-time equivalents (FTEs) it provides. To determine this value for the group, the percent of full time spent by each physician in it was summed, and the resulting FTE numbers may be compared. For example, 150 physicians listed nuclear medicine as their primary specialty and reported spending 10%-20% of their time in nuclear medicine, which amounts to 22.5 FTEs furnished by this group. By extension, the large group (3,647) of physicians who spend less than 10% of their time in nuclear medicine comprise 35% of all physicians, but account for only 7.5% of the total hours contributed, and presumably perform about 7.5% of the total work of nuclear medicine.

Physician Specialty and Certification Component

The regional distribution of nuclear medicine physicians and technologists is roughly proportional to the population (within a range of 0.8-1.3, the ratio given by the percent of the nation's physicians in that region divided by the percent of national population). Regional distribution of scientists was also proportional to population, except for an increased ratio (1.8) in the region comprising Colorado, Utah, Wyoming, South Dakota, North Dakota, and Montana. And scientists showed a decrease of the percentage ratio in the region comprising Washington, Oregon, Idaho, and Alaska (0.6), and the region comprising California, Nevada, Arizona, and Hawaii (0.5).

The accompanying tables provide information in two formats, by headcount and by FTE, the latter to determine the total number of full-time equivalents performing nuclear medicine procedures overall and by specialty.

Almost two-thirds (63%) of the 10,346 responding physicians who practice nuclear medicine do so less than 20% of

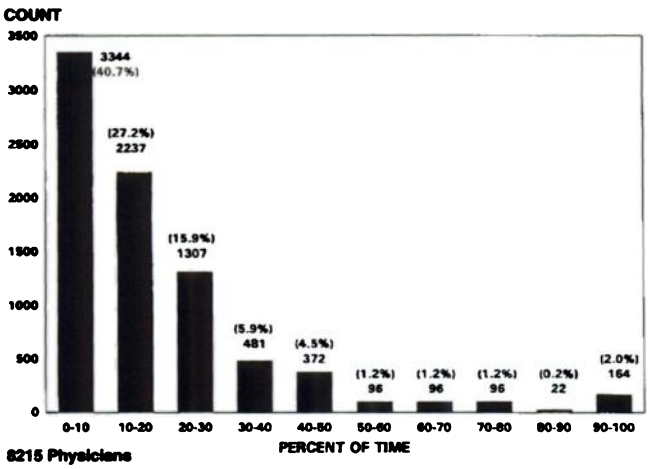

Figure 12

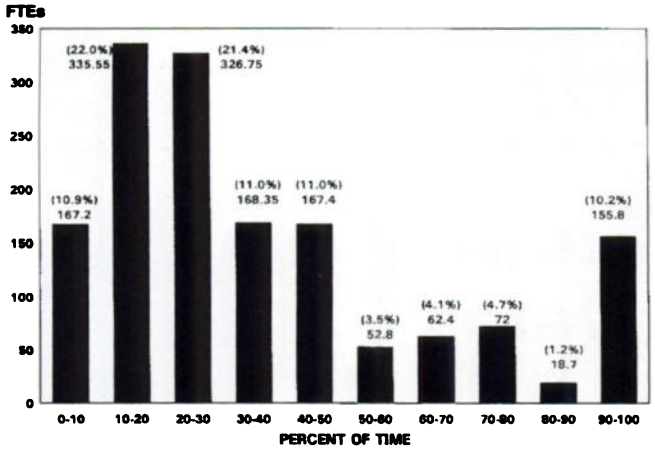

Figure 13

their time (figure 1); this large group provides less than a quarter (23%) of the total 2,491 nuclear medicine FTEs reported (figure 2). Conversely, though less than one-tenth (9%) of the physicians practice nuclear medicine more than 70% of their time, they constitute more than one-third (35%) of the total FTEs.

The total and relative number of physicians in each specialty and the total and relative amount of nuclear medicine FTEs they provide is summarized in figure 3. Relative to the percentage of physicians reporting from each specialty, increased numbers of FTEs are provided by nuclear medicine (234%), pathology (144%) and internal medicine (133%), while proportionately smaller numbers are provided by cardiology (94%) and radiology (78%). Although nuclear medicine specialists comprise 12.5% by headcount of the total percentage of the population of physicians engaged in nuclear medicine, they perform 30% of the total work done in nuclear medicine.

CERTIFICATION

	Without ABNM	With ABNM	Total
ABNM	0	2477*	2477
ABR	6572	1408	7980
ABR(NR)	385	0	385
ABIM	153	452	605
ABIM(CV)	391	64	455
ABP	94	86	180
ACOI	8	5	13
ACOR	47	19	66
Other	11	8	19
Total:	7661	4519	12,180

*2040 with second board certification

Figure 14

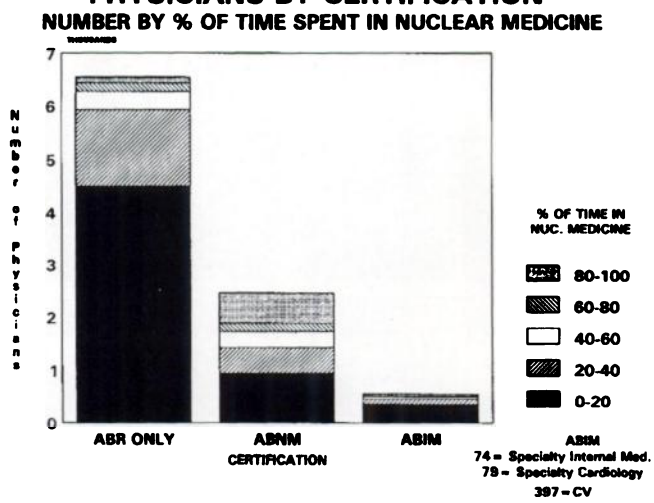

Figure 15

For five reported specialties, the distribution of physicians by the percentage of time they practice nuclear medicine and the corresponding distribution of FTEs are shown in figures 4-13.

Half (652) of those who consider themselves nuclear medicine physicians (1,301) practice their specialty more than half-time and constitute 575 FTEs (figures 8,9). In contrast, 6,066 of the 9,070 physicians in the other specialties practice nuclear medicine less than 20% of the time and together constitute 549 FTEs (figures 4-7,10-13).

Almost all (91%) of the 7,661 reported physician specialty certifications without American Board of Nuclear Medicine certification are by the American Board of Radiology (6,957 physicians, see figures 14 and 17). Certification by the American Board of Internal Medicine (7.1%), including subspecialty certification in cardiovascular medicine, and the American Board of Pathology (1.2%) comprise the significant remainder of single specialty certifications (figure 17). Comparison with the listing of all certi-

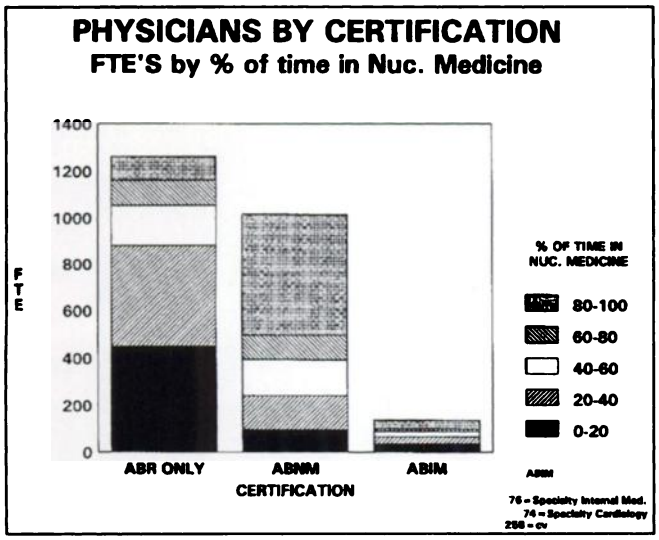

Figure 16

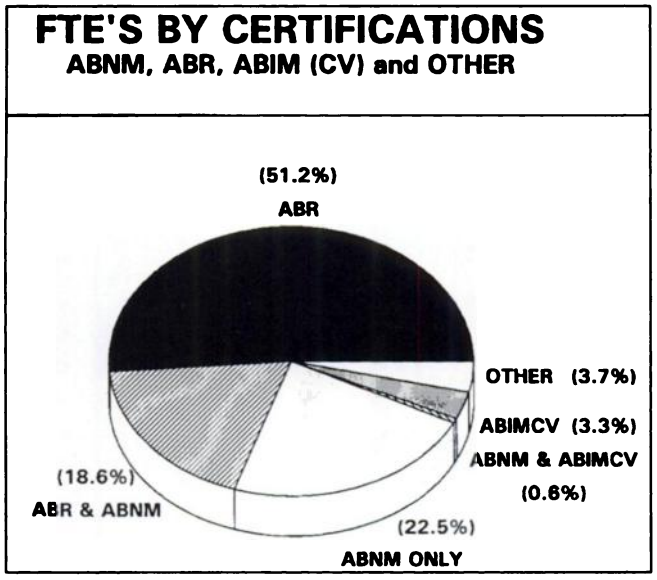

Figure 17

fications demonstrates that many physicians practicing nuclear medicine are multiple boarded. Of the 2,477 physicians certified by ABNM, 1,408 are certified by ABR, 516 by ABIM, 86 by ABP, and 435 certified solely by the ABNM (figure 14).

The FTEs provided by physicians certified by ABR only, ABNM and ABIM according to the percentage of time they practice nuclear medicine (figure 15) and the corresponding distribution of FTEs (figure 16) are similar to those of the primary specialties of radiology, nuclear medicine and internal medicine (including cardiology).

Assuming that the 81% response to this survey is representative of the practice of nuclear medicine in the U.S., the current total national nuclear medicine workload corresponds to 3,075 (2491/0.81) FTEs. As seen in figures 15-17, approximately half (51%) of these FTEs are provided by radiologists without ABNM certification who practice nuclear medicine approximately 20% of the time. Most of the other half (42%) of FTEs are provided by ABNM-certified physicians, most of whom are also certified in radiology, internal medicine, or pathology and practice nuclear medicine more than 80% of the time. The remaining 7% of FTEs are provided by other physicians who practice nuclear medicine less than 20% of the time. It should be noted that the work performed by radiologists without ABNM certification (51.2%) and radiologists with ABNM certification (18.6%) comprise 70% (69.8%) of the work performed in nuclear medicine.

Physician and Technologist Staffing

The survey also gathered data to compare nuclear medicine physician and technologist staffing levels at institutions of different types and sizes, as well as at outpatient facilities. Among other trends, the survey showed that at the 200-599 bed level, university hospitals approach twice the mean physician staffing levels of community and government facilities. Cardiology and pathology departments perform most of the small percentage of hospital imaging that is not done in nuclear medicine departments. Future Newsline coverage will include more details of this data on physician and technologist staffing at hospitals and outpatient facilities.

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