

by the Railroad Retirement Board; (5) extensive utilization of the Board's facilities in administering Medicare; and (6) expansion of the Social Security Administration health insurance statistical program to include data on the experience of railroad retirement beneficiaries under Medicare.

CONCLUSION

Coordination of the two systems has progressed to a point where it affects practically all of the operations of the railroad retirement system. The

outstanding features of this coordination are that it is not unilateral and that it has been achieved without impairing the independence of the railroad program. The success of the coordinating efforts has prompted inquiries concerning its possible adoption with respect to certain other retirement benefits.⁵ Whether or not there are such developments, this coordination has provided a significant chapter in the story of social insurance in the United States.

⁵ For an example of such an inquiry, see appendix H of the report, *Social Security and Federal Employment* (submitted to Committee of Ways and Means, U.S. Congress, House of Representatives, March 13, 1965).

Notes and Brief Reports

Health Insurance for the Aged: Participating Independent Laboratories*

Health insurance for the aged (Medicare) under the Social Security Act provides coverage of and reimbursement for diagnostic laboratory tests performed in an independent laboratory for persons enrolled in the supplementary medical insurance program (SMI). Diagnostic laboratory services furnished by an independent laboratory are covered under medical insurance if the laboratory is an independent clinical laboratory that is approved to participate in the Medicare program. Covered services of approved independent laboratories are reimbursed at 80 percent of their reasonable charges after the patient has incurred sufficient services to meet the SMI deductible of \$50.

This note defines participating (approved) independent laboratories and presents data on their number, location, and characteristics as of the end of November 1967.

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WHAT IS AN INDEPENDENT CLINICAL LABORATORY

An independent laboratory is one that is independent both of the attending or consulting physician's office and of a hospital that meets the conditions for coverage in the program. A laboratory operating under the direction of a physician primarily for the performance of diagnostic laboratory services for other physicians is considered to be an independent laboratory. The laboratory maintained by a physician for performing diagnostic tests in connection with his own practice is not considered to be an independent laboratory.

A clinical laboratory is a laboratory where microbiological, serological, chemical, hematological, biophysical, cytological, immunohematological, or pathological examinations are performed on materials derived from the human body, to provide information for the diagnosis, prevention, or treatment of a disease or assessment of a medical condition.¹

In order to participate in the Medicare program, a laboratory must be approved by the

¹ See section at end of note for specific definitions of the categories of diagnostic laboratory tests that are covered when they are performed by approved independent clinical laboratories.

Secretary of Health, Education, and Welfare as meeting the specific requirements for coverage under the program. Section 1861(s) of the Social Security Act stipulates that, where State or local laws provide for licensing laboratories, the laboratory be licensed in accordance with such law or be approved by the agency of the State or locality responsible for such licensure. As a further condition, the statute requires that the independent laboratory meet such standards as the Secretary of Health, Education, and Welfare finds necessary to assure the health and safety of individuals with respect to whom these tests are performed.²

The law provides for the designation of State health agencies, or other State agencies, to assist the Secretary in determining whether independent laboratories that apply to participate in the Medicare program comply with the conditions for coverage of services of independent laboratories. The designated State agencies certify to the Secretary those laboratories that meet the coverage conditions.

WHO OWNS THE LABORATORIES

Independent laboratories certified for participation under Medicare as of November 30, 1967, numbered 2,355. The Internal Revenue Service reports a total of 2,470 medical laboratories under sole proprietorships and partnerships in 1966. Medical laboratories under corporative and government ownership are not reported by the Internal Revenue Service.

For the most part, approved independent laboratories are operating under private ownership. Proprietary laboratories (with sole owner or in partnership) accounted for 19 out of every 20 laboratories certified for participation under the program. Corporations (either proprietary or not-for-profit) accounted for 66, or 3 percent of the total; only 22, or 1 percent, of the certified laboratories were under the control of State or local governments.

The figures below show the number of approved independent laboratories by type of control and

² For a detailed and complete description of the conditions of coverage, see Social Security Administration, *Federal Health Insurance for the Aged: Conditions for Coverage of Services of Independent Laboratories* (HIR-13), February 1968.

professional training of laboratory director, as of November 1967.

Type of laboratory control	Professional training of laboratory director			
	Total	Pathologist	Other physician	Non-physician
All laboratories.....	2,355	874	602	879
Proprietary.....	2,267	834	574	859
Corporation.....	66	24	25	17
State and local government..	22	16	3	3

WHERE ARE THE INDEPENDENT LABORATORIES

The number of approved laboratories varies considerably by region and State (table 1). Nearly half the approved laboratories were concentrated in two geographic areas: 679 or 29 percent were in the Pacific States, and 462 or 20 percent were in the Middle Atlantic States. Fifteen percent were located in the East North Central States, and the remaining third were scattered throughout the country. The East South Central States had the lowest number of laboratories—55 or only 2 percent of the total.

California ranked first in the State distribution of approved laboratories, with 571 or 24 percent of all approved laboratories, followed by New York with 227 or 10 percent of the total. Other States with more than 100 approved laboratories were Texas, Illinois, Pennsylvania, and New Jersey. These six States accounted for 1,324 or 56 percent of all approved laboratories. Idaho, Maine, New Hampshire, and South Carolina each had only one approved independent laboratory.

WHO ARE THE LABORATORY DIRECTORS

Pathologists served as directors in 37 percent of the independent laboratories, 26 percent of the directors were other types of physicians, and 37 percent were nonphysicians.

Among the States there is considerable variation in the professional training of laboratory directors. In the West North Central States, 65 percent of the laboratories had pathologists serving as their directors. Sixty percent of the directors in the East South Central States and 50 percent in the South Atlantic States were pathologists. The New England and Middle Atlantic

TABLE 1.—Number of approved independent laboratories by professional training of director, and total and average number of technical staff, by State, at end of November 1967

Division and State	Number of laboratories	Professional training of director			Technical staff	
		Pathologist	Other physician	Non-physician	Total number ¹	Average per laboratory
Total.....	2,355	874	602	879	11,824	5
New England.....	156	27	23	106	578	4
Maine.....	1		1		21	21
New Hampshire.....	1			1	5	5
Vermont.....	4		2	2	8	2
Massachusetts.....	83	18	15	50	262	3
Rhode Island.....	17	1	2	14	46	3
Connecticut.....	50	8	3	39	236	5
Middle Atlantic.....	462	131	65	266	1,951	4
New York.....	227	74	33	120	1,258	6
New Jersey.....	117	23	20	74	282	2
Pennsylvania.....	118	34	12	72	411	3
East North Central.....	348	107	93	148	1,863	5
Ohio.....	96	23	30	43	393	4
Indiana.....	31	19	5	7	271	9
Illinois.....	140	28	46	66	692	5
Michigan.....	65	23	11	31	322	5
Wisconsin.....	16	14	1	1	185	12
West North Central.....	137	89	25	23	1,084	8
Minnesota.....	10	7	3		76	8
Iowa.....	16	12	2	2	119	7
Missouri.....	56	35	8	13	379	7
North Dakota.....	8	5	3		67	8
South Dakota.....	4	4			24	6
Nebraska.....	19	15	2	2	227	12
Kansas.....	24	11	7	6	192	8
South Atlantic.....	123	62	23	38	833	7
Delaware.....	4	3		1	34	9
Maryland.....	32	16	9	7	205	6
District of Columbia.....	5	4	1		80	16
Virginia.....	19	15		4	147	8
West Virginia.....	7	1	3	3	20	3
North Carolina.....	2		2		5	3
South Carolina.....	1	1			5	5
Georgia.....	18	15	3		191	11
Florida.....	35	7	5	23	146	4
East South Central.....	55	33	11	11	419	8
Kentucky.....	20	10	7	3	63	3
Tennessee.....	22	11	3	8	200	9
Alabama.....	11	11			142	13
Mississippi.....	2	1	1		14	7
West South Central.....	207	90	72	45	1,155	6
Arkansas.....	13	8	5		108	8
Louisiana.....	19	10	8	1	142	7
Oklahoma.....	24	11	9	4	132	6
Texas.....	151	61	50	40	773	5
Mountain.....	139	63	29	47	515	4
Montana.....	8	4	2	2	35	4
Idaho.....	1	1			9	9
Wyoming.....	3	3			21	7
Colorado.....	31	12	3	16	128	4
New Mexico.....	21	7	7	7	67	3
Arizona.....	51	23	11	17	146	3
Utah.....	11	5	2	4	44	4
Nevada.....	13	8	4	1	65	5
Pacific.....	679	267	253	159	3,298	5
Washington.....	60	37	11	12	328	5
Oregon.....	30	20	2	8	214	7
California.....	571	201	232	138	2,657	5
Alaska.....	2	1	1		21	11
Hawaii.....	16	8	7	1	78	5
Other areas.....	49	5	8	36	128	3
Puerto Rico.....	48	4	8	36	126	3
Virgin Islands.....	1	1			2	2

¹ Includes all technical personnel other than directors. Expressed in full-time equivalents.

States, however, had only 17 percent and 28 percent, respectively, of their covered laboratories under the directorship of pathologists.

The proportion of laboratories directed by nonphysicians also varies considerably on a

geographic basis. In New England, for example, more than two-thirds of the approved laboratories were directed by nonphysicians, and 58 percent of the approved laboratories in the Middle Atlantic States were directed by nonphysicians. In con-

trast, only 17 percent of the directors of approved laboratories in the West North Central States were not physicians.³

WHICH TESTS ARE APPROVED

Clinical laboratories are certified to perform only those laboratory tests and procedures that are within the specialties or subspecialties in which the laboratory director or supervisors are qualified. Thus not all approved laboratories may perform all of the tests in the seven reimbursable categories of clinical tests or procedures. Table 2 shows that about one-fourth of the 2,355 approved laboratories were approved for all seven types of procedures. The two groups of tests for which most of the laboratories were approved were clinical chemistry and hematology—86 percent and 84 percent, respectively. Tissue pathology and exfoliative cytology were approved in the fewest laboratories—29 percent and 31 percent, respectively.

The number of types of clinical tests or procedures that laboratories were approved to perform varies according to the professional training of the directors.

More than 58 percent of the laboratories directed by pathologists were approved to perform all seven diagnostic procedures. Only about 8 percent of the laboratories with directors who were physicians other than pathologists and 3 percent of the non-physician-directed laboratories had been approved for the performance of all types of procedures.

The specific kind of procedures for which the laboratories had approval to perform also varies with the professional training of their directors. About 68 percent of the pathologist-directed laboratories were approved for tissue pathology tests, for example, compared with 10 percent of

the laboratories directed by other physicians and 3 percent of those directed by nonphysicians.

There is also geographic variation in the proportion of laboratories approved for the various procedures (table 3). About 65 percent of all participating laboratories in the West North Central region, compared with less than 20 percent in the New England, Middle Atlantic, and Pacific States, were approved for all seven types of tests. Much of this geographic variation, however, results from the variation in the types of director within an area.

HOW LARGE ARE THE LABORATORIES

The conditions for coverage also define the duties and qualifications of technical laboratory staff (other than the director), including technologists and technicians.⁴ Each laboratory submits an application form requesting approval to participate in Medicare that provides information on the number (in full-time equivalents) of technical personnel that can be used as an index of the size of the laboratory. Such "size" information, relating the numbers of technical staff to the numbers of approved laboratories in each State, is shown in table 1.

Nationally, approved laboratories employed almost 12,000 full-time technical personnel, with an average of 5 for each approved laboratory. The State distribution shows that the number employed, on the average, varied from 16 technical personnel per laboratory in the District of Columbia to 2 per laboratory in New Jersey (States with less than five approved laboratories are omitted from this range).

The continental regions with the smallest numbers of laboratories approved (the West North Central, South Atlantic, and East South Central regions) also had the largest average number of technical employees per laboratory. In States and regions with relatively few approved laboratories, these laboratories appeared to be larger (as measured by number of staff members) than the average laboratory in the other States.

³ Nonphysician laboratory directors may include holders of doctoral degrees from accredited institutions with a major in clinical, physical, or biological science together with either (a) certification by a national accrediting board in one of the laboratory specialties or (b) 4 or more years of general clinical laboratory training and experience after graduation. For a detailed description of those requirements and certain permissible exceptions, see Social Security Administration, *Conditions for Coverage* . . . *ibid.*, section 405.1312.

⁴ Social Security Administration, *Conditions for Coverage* . . . *ibid.*, section 405.1315.

TABLE 2.—Number of approved independent laboratories, by type of procedure approved, by State, at end of November 1967

Division and State	Number of laboratories	Type of procedure							
		Microbiology	Serology	Clinical chemistry	Hematology	Immunohematology	Tissue pathology	Exfoliative cytology	All procedures
Total.....	2,355	1,730	1,120	2,020	1,985	1,019	683	740	579
New England.....	156	111	70	153	150	70	18	26	16
Maine.....	1			1	1				
New Hampshire.....	1	1		1	1				
Vermont.....	4	2	1	4	4	1	1	1	1
Massachusetts.....	83	53	21	80	77	58	12	15	12
Rhode Island.....	17	17	2	17	17	1	1	1	1
Connecticut.....	50	38	46	50	50	10	4	9	2
Middle Atlantic.....	462	289	291	372	370	100	101	114	69
New York.....	227	162	151	208	203	48	57	60	29
New Jersey.....	117	47	98	53	58	19	19	20	17
Pennsylvania.....	118	80	42	111	109	33	25	34	23
East North Central.....	348	244	215	303	306	149	103	117	93
Ohio.....	96	45	56	70	70	30	20	23	19
Indiana.....	31	24	30	30	30	22	21	22	20
Illinois.....	140	103	87	128	131	58	30	35	27
Michigan.....	65	59	32	61	61	26	23	23	18
Wisconsin.....	16	13	10	14	14	13	9	14	9
West North Central.....	137	122	91	127	127	104	92	96	88
Minnesota.....	10	7	5	7	9	6	7	8	5
Iowa.....	16	15	11	15	15	13	12	12	11
Missouri.....	56	52	38	54	54	45	35	37	35
North Dakota.....	8	7	6	8	7	7	6	6	6
South Dakota.....	4	4	4	4	4	4	4	4	4
Nebraska.....	19	16	14	17	16	14	15	16	14
Kansas.....	24	21	13	22	22	15	13	13	13
South Atlantic.....	123	96	67	108	106	73	56	61	49
Delaware.....	4	4	4	4	4	4	3	3	3
Maryland.....	32	22	23	26	26	23	14	18	10
District of Columbia.....	5	4	4	4	4	4	4	5	4
Virginia.....	19	11	10	16	13	13	12	12	10
West Virginia.....	7	6	1	6	6	3	1	1	1
North Carolina.....	2	1	1	1	2	1	1	1	1
South Carolina.....	1	1	1	1	1	1	1	1	1
Georgia.....	18	16	16	16	16	16	17	17	16
Florida.....	35	31	7	34	34	8	4	4	4
East South Central.....	55	30	18	32	31	17	18	18	17
Kentucky.....	20	15	6	16	15	6	6	7	6
Tennessee.....	22	9	6	10	10	5	6	5	5
Alabama.....	11	4	4	4	4	4	4	4	4
Mississippi.....	2	2	2	2	2	2	2	2	2
West South Central.....	207	165	90	164	169	127	92	91	82
Arkansas.....	13	13	10	13	13	13	10	10	10
Louisiana.....	19	15	12	17	17	12	12	12	11
Oklahoma.....	24	18	8	19	21	16	11	11	5
Texas.....	151	119	60	115	118	86	59	58	56
Mountain.....	139	89	41	98	94	49	39	39	35
Montana.....	8	8	5	7	7	6	5	5	5
Idaho.....	1			1					
Wyoming.....	3	3	3	3	3	3	3	3	3
Colorado.....	31	29	12	31	30	14	12	12	12
New Mexico.....	21	17	3	19	18	7	7	7	3
Arizona.....	51	16	9	17	15	8	4	4	4
Utah.....	17	7	4	8	10	4	4	4	4
Nevada.....	13	9	5	12	11	7	4	4	4
Pacific.....	679	541	234	618	587	326	159	172	129
Washington.....	60	32	16	50	51	36	17	18	14
Oregon.....	30	2	1	28	2	1			
California.....	571	502	213	534	528	284	138	148	113
Alaska.....	2	2	2	2	2	2	2	2	2
Hawaii.....	16	3		4	4	3	2	3	
Other areas.....	49	43	3	45	45	4	5	6	1
Puerto Rico.....	48	42	2	44	44	3	4	5	1
Virginia Islands.....	1	1	1	1	1	1	1	1	1

EXPLANATION OF TESTS AND PROCEDURES IN INDEPENDENT LABORATORIES

Under the SMI program at the present time, payment can be made for the seven classes of laboratory tests and procedures listed below, by type.

Microbiology—Identification of micro-organisms that cause disease in human beings.

Serology—Examination of the sera (liquid) component of blood to determine whether antibodies of certain diseases identifiable through blood analysis are present.

Clinical chemistry—Examination of chemical properties of specimens (usually blood) to determine the presence of abnormal substances or to determine pathological amounts of "normal" components of the human organism.

TABLE 3.—Number of approved independent laboratories, by type of procedure approved and professional training of director, at end of November 1967

Type of procedure	Total		Professional training of director					
	Number	Percent of total	Pathologist		Other physician		Nonphysician	
			Number	Percent of total	Number	Percent of total	Number	Percent of total
Total laboratories.....	2,355	100.0	874	100.0	602	100.0	879	100.0
Microbiology.....	1,730	73.4	643	73.6	443	73.6	644	73.3
Serology.....	1,120	47.6	565	64.6	198	32.9	357	40.6
Clinical chemistry.....	2,020	85.8	718	82.2	525	87.2	777	88.4
Hematology.....	1,985	84.3	698	79.9	524	87.0	763	86.8
Immunohematology.....	1,019	43.3	620	70.9	294	48.8	105	11.9
Tissue pathology.....	683	29.0	595	68.1	60	10.0	28	3.2
Exfoliative cytology.....	740	31.4	631	72.2	76	12.6	33	3.8
All procedures.....	579	24.6	511	58.5	45	7.5	23	2.6

Hematology—Examination of the cellular structures of the blood and bone marrow to identify and classify such diseases as anemias, leukemias, and blood-clotting disorders.

Immunohematology—Examination of immune bodies in blood by procedures (a) blood group typing, (b) Rh studies, and (c) cross-matching of blood for transfusions.

Tissue pathology—Examination of abnormal characteristics of human tissues—detection of cancer by the use of biopsy, etc. Tissue is analyzed by the use of both gross and microscopic procedures.

Exfoliative cytology—Examination of cells that detach themselves from the linings of passages in the body. Abnormal cells can thereby be detected in the preliminary stages of carcinomas, preceding the actual development of tumors or the emergence of their symptoms.

workers. The program will be administered by the (Puerto Rico) Bureau of Employment Security, the agency that administers the unemployment insurance program.

The act establishes a publicly operated program supported by a payroll tax. As an alternative, however, employers are allowed to “contract” out of the program by providing the benefits through private plans. A private plan can be underwritten through a contract with an insurance carrier or may be self-insured. Employees must consent to the private plan if they are to contribute.

Benefits are to be paid under the new law with the eighth day of disability, or from the first day for those hospitalized within the first 3 days of disability. Wage-related benefits are paid up to a maximum of \$78 a week (under unemployment insurance the maximum is \$33) except for agricultural workers, for whom a \$20 maximum applies. Benefits may be paid for up to 26 weeks depending on the worker’s previous employment record. Benefits payable under a private plan must be equal to or more favorable than those payable under the publicly operated program.

The program is to be financed by an employee tax on wages of 0.5 percent, up to 75 cents a week, and an employer tax of 1 percent minus the worker contribution, on wages up to \$7,800 per year. Private plans cannot require contributions from employees any greater than those required under the publicly operated program for the statutory benefits.

New Puerto Rico Law Provides Income-Loss Protection Against Illness*

On June 26, 1968, Puerto Rico enacted a Disability Benefits Act to establish a program of income replacement for short-term non-work-connected illness. This is the first mandatory program of temporary disability insurance to be legislated since 1949 when the State of New York initiated its program. There are in addition three other State sickness insurance programs, and a national program covering railroad workers. Payments will start July 1, 1969, under the Puerto Rican law; protection will be extended to 400,000

* Prepared in Interprogram Studies Branch. Division of Economic and Long-Range Studies.