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## DISTRIBUTION OF HEALTH SERVICES IN THE STRUCTURE OF STATE GOVERNMENT

### CHAPTER V—SANITATION BY STATE AGENCIES—Continued\*

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#### SANITATION OF FOODS AND DRUGS AND OF FOOD-HANDLING ESTABLISHMENTS

In contradistinction to the relatively well-defined programs for sanitation of water and sewerage, those which operate for control of foods and drugs are characterized by extreme diversity. Unlikeness obtains both in organization and in program content. Most striking, perhaps, is the lack of agreement as to what food and drug control should actually consist of. Administrative confusion is the natural result of this disagreement.

The over-all pattern for the several States bespeaks multiformity along three fronts: First, in the particular types of services encompassed by food and drug control; second, in the official agency or agencies charged with responsibility for carrying out the program; and third, in the control methods that are employed. The list of activities which appear under the designation "Food and Drug Control" or which, even if not so designated, are engaged in—either coordinately with, or subordinately to, the main program—can be described only as miscellaneous as one follows the range from State to State.

Food control may be limited to sanitation of food-manufacturing establishments or, as is more usual, it may extend to laboratory analysis of the finished product to determine the accuracy of branding and the sanitary quality. The types of food upon which attention is most sharply focused also vary from State to State. Whereas manu-

\*The first section of this chapter, Sanitation of Water Supplies and Sewerage Systems, was published in the PUBLIC HEALTH REPORTS, 57: 885-902 (June 12, 1942).

factured dairy products—ice cream, cheeses, butter, etc.—receive particular emphasis in some places, bakery and confectionery products are more closely observed in others; in a third group special effort may be directed toward canned food or bottled beverages.

Inspection of markets, stores, and other sales places either for cleanliness of the premises or for quality and purity of the food stock, or both, may or may not be included in the State program. Sanitary control of slaughterhouses is covered in over two-thirds of the States, and in about half of them provision is made for State supervision of cold storage warehouses. An additional step in the food work of some States pertains to supervision of hotels, restaurants, lunch counters, and any similar place preparing or serving food for immediate consumption. In nearly two-thirds of the States, hotel and restaurant inspection is an integral part of the State service for general food control. In about one-fifth of them it is set up as a separate entity, and in the remainder hotel and restaurant inspection is not a function of any State agency. Finally, prevention of mislabeling, adulteration, and false advertising of food is another control feature emphasized by some States and ignored by others. Such regulations are limited to package and label claims in some instances and, under other circumstances, are extended to newspaper, magazine, and handbill advertising.

Sanitation of shellfish producing areas is a problem which, because of geographic characteristics of the States, is confined to less than half of them. This work represents a portion of the general service of the food and drug division in 40 percent of the twenty-odd States which carry on shellfish sanitation activities; in the remainder, it is performed under other auspices.

Some aspect of milk sanitation is carried on at the State level in each of the jurisdictions surveyed. The States are almost evenly divided, however, in their practice of including milk sanitation as a part of the State food and drug set-up or of combining it with some other State service, such as general sanitary engineering.

The activity range for drug control usually pertains to their purity and potency, to the labeling thereof, and to the claims made therefor. Probably the major point of difference among the various States lies in the inclusion or exclusion of provisions governing the sale and dispensing of narcotic drugs. About one-third of the States include this item. Disagreement also exists as to the extension of drug control services to cover regulation of cosmetics and requirements for cosmeticians. Another point of variance is whether the States are responsible for any drug work or whether service within the State is left entirely to the resourcefulness of the Federal agency, as is done in nearly one-fourth of the jurisdictions contacted. Still a third

important difference is noted in the coordination of drug with food work in approximately 75 percent of the States providing both services, as opposed to the independent operation of the two programs in the other 25 percent.

If the State programs for food and drug control are characterized by disagreement or lack of accord as to content, the alliance of the State agencies for carrying out these programs is equally as haphazard. For the country as a whole, approximately a dozen separate types of State agencies either singly or jointly participate in some phase of the State's food and drug activities. An enumeration of these State agencies follows: Health department, department of agriculture, special food and dairy commission or hotel and restaurant commission, commission of domestic animals or livestock sanitary board, department of labor, department of conservation, board of pharmacy, State laboratory department or independent State laboratory, State university or college, and those termed "other," which cover the State fire marshal, department of registration and education, department of penology, agricultural experiment station, and board of district commissioners. It may be argued that the principal distinction between several of these agencies lies in terminology. Study of their organization and actual functioning, however, reveals more far-reaching differences in most instances. Naturally, the primary interest of these various agencies is not the same. As a result, their respective programs emphasize entirely different branches of the total problem. Whereas health significance of the work will be stressed in one State, in another the primary concern will be prevention of fraud or commercial control.

Wide dispersion of service among numerous agencies applies not only to the country as a whole, but also to service within separate States. The maximum number of agencies identified with food and drug work <sup>4</sup> in an individual State is five, a situation which exists four times. The most usual arrangement is a three-agency program. Such division of effort occurs in 20 States, while two agencies are involved in 15 States, and four agencies in 12. Only two jurisdictions report concentration of all food and drug activities under single administrative department. The health department and the department of agriculture are the agencies which most commonly participate in measures for food and drug control. Even when a special food and drug division is set up within the department of agriculture for administration of the main program, the health department generally plays some small part—restricted though that part might be to service which is advisory or educational in nature. Table 3 denotes the

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<sup>4</sup> Activities covered under "food and drug work" pertain to general food and drug control, to supervision of hotels and restaurants, to shellfish sanitation, and to milk control—including sanitation and eradication of bovine tuberculosis and Bang's disease.

agencies which participate in the food and drug activities of each separate State.

TABLE 3.—Official State agencies participating in the control of foods and drugs\* in each State and Territory, the District of Columbia, and the Virgin Islands\*\*

State or Territory	Department of State government									
	Health	Agriculture	Dairy and food commission, State dairy department, hotel and restaurant board, etc.	Commission on domestic animals, livestock sanitary board, etc.	Labor	Conservation	Board of pharmacy	Independent State laboratory, State chemist, etc.	State university or college	Other
Alabama	X	X		X			X	X		
Arizona	X		X	X						
Arkansas	X	X		X			X			
California	X	X			X			X		X
Colorado	X	X		X						
Connecticut	X		X	X						X
Delaware	X	X								
District of Columbia	X									X
Florida	X	X	X	X		X				
Georgia	X	X								
Idaho*	X	X						X		
Illinois	X	X								X
Indiana	X			X			X			
Iowa	X	X					X			
Kansas	X	X	X						X	
Kentucky	X			X						
Louisiana	X			X						
Maine*	X	X								X
Maryland	X	X				X				
Massachusetts	X	X				X				
Michigan	X	X			X		X			
Minnesota	X	X		X			X			
Mississippi	X			X				X		
Missouri	X	X					X			
Montana	X			X						
Nebraska		X								
Nevada	X								X	
New Hampshire	X	X					X			
New Jersey	X	X								
New Mexico	X			X	X					
New York	X	X				X	X			
North Carolina	X	X				X	X			
North Dakota	X	X		X				X		
Ohio	X	X								X
Oklahoma	X	X					X			
Oregon	X	X			X					
Pennsylvania	X	X					X			
Rhode Island	X	X								
South Carolina	X								X	
South Dakota	X	X		X			X		X	
Tennessee	X	X			X	X				
Texas	X	X								
Utah	X	X		X				X		X
Vermont	X	X								
Virginia	X	X					X			
Washington	X	X			X			X		
West Virginia	X	X					X			
Wisconsin	X	X								
Wyoming	X	X		X				X		
Alaska	X	X								
Hawaii	X	X								
Puerto Rico	X									X
Virgin Islands	X	X								

\* Activities herein summarized pertain to general food and drug control, to supervision of hotels, and restaurants, to shellfish sanitation, and to milk control—including sanitation and eradication of bovine tuberculosis and Bang's disease.

\*\* Any differences between information presented in this table and corresponding entries in table 1, ch. I, of this series are the result of combining several activities originally shown separately, or of further refinement of the data since publication of the initial article.

\* The department of health is really a division (Idaho) and bureau (Maine) of public health, subordinate to the department of welfare (Idaho) and the department of health and welfare (Maine).

Absolutely no uniformity exists in the division of labor when several departments, boards, or commissions contribute to the total food and drug service. In some States, matters of sanitation of food manufacturing, sales, and service establishments are assigned to the health department, while collection and laboratory analysis of food and drug samples for purity, quality, and accuracy of labeling represent the duties of the department of agriculture. In other States, as previously indicated, the division occurs between food and drugs. In still others, certain items of the food program—such as inspection of slaughter houses, of dairy farms and plants, or of hotels and restaurants, or the complete control of manufactured dairy products may be segregated from the general program and charged to one or more separate agencies. Occasionally, only the narcotic drug supervision is separated from all other food and drug activities. Again, the laboratory work will represent the sole contribution of an agency other than the one having major responsibility. (See table 4.) Still another method of assigning control is found in the arrangement which makes the health department responsible for regulation and administration of service and supervision of local work in all areas having organized health units, while some other State agency functions in the remainder of the State.

In general, however, supervision of food and drug work carried on by local inspectors is split on a basis of particular activity, with the responsible State agency extending its direct service functions to include supervision of local work of the same category. Financial grants-in-aid are not made by the State to local units for food and drug work as such, but usually some portion of the grants made by State health departments to local health units for generalized health work is spent for this purpose. When included, promotional and educational programs, varying in extent, are usually health department activities. Efforts of milk sanitarians attached to the several health departments to secure adoption of the United States Public Health Service standard milk ordinance by political subdivisions of the State (towns, cities, counties, etc.) rank among the more outstanding promotional and educational projects.

Perhaps the most anomolous system of divided control is that wherein one agency is held responsible by law, but, because nothing was done, certain functions of that department have gradually been absorbed by another, on a voluntary basis. Lack of legal authority and failure to receive financial support for these unauthorized activities, necessary though they may have been, naturally places serious limitations upon the second agency, and its services are usually confined to promotional, educational, and advisory channels.

TABLE 4.—*Department of State government\* responsible for specific activities for food and drug control\*\* in each State and Territory, the District of Columbia, and the Virgin Islands*

Activity	State or Territory							
	Alabama	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	District of Columbia
Promulgates and/or enforces State laws, rules, and regulations concerning one or more activities covered in this section	1, 2	1, 3, 7, 8	1	1, 2, 10	1, 2	1, 3, 4	1	11
Promotes local programs of control	1	1	1	1, 2	1	1		
Conducts educational programs	2			1	1			1
Supervises and/or provides consultation service to local organizations	1	1, 8	1	1, 2	1	1		
Distributes and/or administers financial grants-in-aid to local health units for food and drug control		1 *				1 *		
Operates a direct service program:								
Licenses and/or periodically inspects—								
Bakeries				1		3		
Confectioneries						3		
Ice cream, butter, and cheese factories		3		1		3	1	1
Bottling plants						3	1	
Cold storage warehouses				1				1
Slaughterhouses				2	1 <sup>d</sup>	4	1	1
Other and/or unspecified food manufacturing, packing, and sales establishments	1			1	1	3	1 *	1
Hotels	1	1 <sup>d</sup>	1					1
Food dispensing establishments		1 <sup>d</sup>		1	1		1	1
Dairy farms	1 <sup>b</sup> , 4	3, 4	1, 4	2	2, 4	3, 4	1, 2	1
Pasteurization plants	1 <sup>b</sup>	3	1	2	2	3	1	1
Shellfish production facilities (growing areas, storage systems, shucking and packing plants)	1			1		1	1	
Drug manufacturing plants, stores, and/or distributors	2	7		1	1	1	1 *	1
Inspects for—								
General sanitation and cleanliness of premises and equipment	1	1, 3	1	1, 2	1, 2	1, 3	1	1
Health of employees	1	1			1	3		1
Purity, quality, and condition of food or drug product handled; misbranding, mislabeling	2	7, 8			1	3	1 *	1
False advertising claims				1				1
Sale or distribution of narcotic drugs				10	1	1		
Water supply, plumbing, toilets, and/or sewage disposal facilities	1	1	1	1, 5	1	1	1	1
Health of dairy herds	4	4	4	2	4	4	2	
Construction and operation of pasteurization plants	1 <sup>b</sup>	3	1	2	2	3	1	1
Other purposes not covered in this classification	1	1		1, 5	1			
Collects samples of suspicious products	2	8		1	1	3		1
Provides facilities for laboratory analysis—								
Bacteriological—water (drinking, dish-washing solutions, shellfish areas)	1	8		1	1	1	1	1
Bacteriological—food		8		1	8	1	1 *	1
Chemical—food	2	8		1	8	10	1 *	1
Chemical—drugs	2			1	8	10	1 *	1
Physiological—drugs						10	1 *	
Bacteriological—milk	1	8				1	1	1
Chemical—milk	1	8		1		1	1	1
Participates in indemnities for condemned dairy animals	4	4	4	2	4	4		
Renders additional service not covered in this classification			1		1		1	1

See footnotes at end of table.

TABLE 4.—Department of State government responsible for specific activities for food and drug control in each State and Territory, the District of Columbia, and the Virgin Islands—Continued

Activity	State or Territory							
	Florida	Georgia	Idaho *	Illinois	Indiana	Iowa	Kansas	Kentucky
Promulgates and/or enforces State laws, rules, and regulations concerning one or more activities covered in this section.....	1, 2, 3, 6	2	1	1, 2, 10	1	2, 7	1, 2, 3	1
Promotes local programs of control.....	1, 3	1				1		1
Conducts educational programs.....		1				1		1
Supervises and/or provides consultation service to local organizations.....	1, 3	2 <sup>b</sup>		2	1		1	1
Distributes and/or administers financial grants-in-aid to local health units for food and drug control.....	1 <sup>c</sup>							1 <sup>c</sup>
Operates a direct service program:								
Licenses and/or periodically inspects—								
Bakeries.....		2	1			2		1
Confectioneries.....		2	1			2		1
Ice cream, butter, and cheese factories.....		2		2	1	2	2	1
Bottling plants.....	1	2				2	1	
Cold storage warehouses.....		2	1	2	1	2	1	
Slaughterhouses.....	1 <sup>c</sup>	2		2	1	2		1
Other and/or unspecified food manufacturing, packing, and sales establishments.....		2	1	2	1	2	1	1
Hotels.....	3	2	1	1		2	3	1
Food dispensing establishments.....	3	2	1	2	1	2	3	1
Dairy farms.....	1, 2, 4	2	1, 2	1, 2	1, 4	2	1, 2, 4	1, 4
Pasteurization plants.....	1, 2	1 <sup>b</sup> , 2	1	1	1	1 <sup>b</sup> , 2	1, 2	1
Shellfish production facilities (growing areas, storage systems, shucking and packing plants).....	1, 6	( <sup>d</sup> )						
Drug manufacturing plants, stores, and/or distributors.....	1	2	1	10	1, 7	7	1	1
Inspects for—								
General sanitation and cleanliness of premises and equipment.....	1, 2, 3	1, 2	1	1, 2	1	2, 7	1, 2, 3	1
Health of employees.....	1, 3	2 <sup>e</sup>	1		1	2 <sup>e</sup> , 7 <sup>e</sup>	1, 3	
Purity, quality, and condition of food or drug product handled; misbranding; mislabeling.....	1, 2, 3	2	1	2, 10	1	2, 7	1, 3	1
False advertising claims.....	2	2			1		1	
Sale or distribution of narcotic drugs.....	1			10 <sup>e</sup>		7		
Water supply, plumbing, toilets, and/or sewage disposal facilities.....	3			1		2	3	1
Health of dairy herds.....	4	2	2	2	4	2	4	4
Construction and operation of pasteurization plants.....	1, 2	1 <sup>b</sup> , 2	1	1	1	1 <sup>b</sup> , 2	1, 2	1
Other purposes not covered in this classification.....	3			1		2	3	1
Collects samples of suspicious products.....	1, 3	2	1	2	1	2, 7	1	1
Provides facilities for laboratory analysis—								
Bacteriological—water (drinking, dishwashing solutions, shellfish areas).....	1	1		1, 2	1	1		1
Bacteriological—food.....		2	1	2	1	2	1, 9	1
Chemical—food.....	2	2	1	2	1	2	1, 9	1
Chemical—drugs.....	2	2	1		1	2	1, 9	1
Physiological—drugs.....					1			1
Bacteriological—milk.....	1	2	1		1	1	1	1
Chemical—milk.....	1		8	2	1	2	1	1
Participates in indemnities for condemned dairy animals.....	4	2	2	2	4	2		4
Renders additional service not covered in this classification.....	1			1, 2	1		1	

See footnotes at end of table.

TABLE 4.—Department of State government responsible for specific activities for food and drug control in each State and Territory, the District of Columbia, and the Virgin Islands—Continued

Activity	State or Territory							
	Louisiana	Maine *	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
Promulgates and/or enforces State laws, rules, and regulations concerning one or more activities covered in this section	1	1, 2, 10	1	1	2, 5, 7	1, 2	1, 3	1, 2
Promotes local problems of control	1	1, 2	1		1, 2	1	1	
Conducts educational programs					1	2		1
Supervises and/or provides consultation service to local organizations	1	1, 2	1	1	2, 7	1	1	1
Distributes and/or administers financial grants-in-aid to local health units for food and drug control	1 <sup>a</sup>		1 <sup>a</sup>				1 <sup>a</sup>	
Operates a direct service program:								
Licenses and/or periodically inspects—								
Bakeries	1 <sup>d</sup>			1		2		
Confectioneries	1 <sup>d</sup>			1		2		
Ice cream, butter, and cheese factories	1 <sup>d</sup>		1			2		2
Bottling plants	1 <sup>d</sup>		1	1	2	2		2
Cold storage warehouses	1 <sup>d</sup>		1	1	2	2		
Slaughterhouses	1 <sup>d</sup>	2	1	1	2			
Other and/or unspecified food manufacturing, packing, and sales establishments	1 <sup>d</sup>	2	1	1	2	2		2
Hotels	1 <sup>d</sup>	1			5	1	1 <sup>d</sup>	1
Food dispensing establishments	1 <sup>d</sup>	1, 2		1	2	1	1 <sup>d</sup>	1
Dairy farms	1 <sup>d</sup> , 4	2	1, 2	1, 2	2 <sup>d</sup>	1, 2, 4	1, 4	1 <sup>b</sup>
Pasteurization plants	1 <sup>d</sup>	2	1, 2	1	1 <sup>b</sup> , 2 <sup>d</sup>	1	1	1 <sup>b</sup>
Shellfish production facilities (growing areas, storage systems, shucking and packing plants)	1	2, 10	1, 6	1, 6			1	
Drug manufacturing plants, stores, and/or distributors	1	2	1	1	7	1, 7		7
Inspects for—								
General sanitation and cleanliness of premises and equipment	1	1, 2	1	1	2, 7	1, 2	1	1, 2
Health of employees	1	1 <sup>a</sup>	1					1
Purity, quality, and condition of food or drug product handled; misbranding; mislabeling	1	1, 2	1	1	2, 7	1, 2, 7	1 <sup>a</sup>	1, 2
False advertising claims	1			1	2	2		
Sale or distribution of narcotic drugs	1		1		7	1		
Water supply, plumbing, toilets, and/or sewage disposal facilities	1	1	1			1		1
Health of dairy herds	4	2	2	2	2	4	4	2
Construction and operation of pasteurization plants	1 <sup>d</sup>	2	1	1	1 <sup>b</sup> , 2 <sup>d</sup>	1	1	1 <sup>b</sup>
Other purposes not covered in this classification					5	1		1
Collects samples of suspicious products	1	2	1	1	2, 7	2		1
Provides facilities for laboratory analysis—								
Bacteriological—water (drinking, dish-washing solutions, shellfish areas)	1	1	1	1		1	1	
Bacteriological—food	1	1, 10	1	1		2	3	1
Chemical—food	1	1, 10	1	1	2	2	3	1
Chemical—drugs	1	1, 10	1	1			3	1
Physiological—drugs					1		3	
Bacteriological—milk	1	1, 10	1	1	1	1	1	1
Chemical—milk	1	10	1	1	1	2	1	1
Participates in indemnities for condemned dairy animals	4	2	2	2	2	4	4	2
Renders additional service not covered in this classification	1	1			1			

See footnotes at end of table.



TABLE 4.—Department of State government responsible for specific activities for food and drug control in each State and Territory, the District of Columbia, and the Virgin Islands—Continued

Activity	State or Territory							
	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	North Carolina
Promulgates and/or enforces State laws, rules, and regulations concerning one or more activities covered in this section	1, 4	2	1, 9	1, 2, 7	1, 5	1	1, 2, 4, 7	1, 2, 6, 7
Promotes local programs of control	1		1, 9		1	1	1, 2	1, 2
Conducts educational programs	1		1, 9				1	
Supervises and/or provides consultation service to local organizations	1	2	1, 9	1	1	1	1, 2	1, 2
Distributes and/or administers financial grants-in-aid to local health units for food and drug control						1 *	1 *	
Operates a direct service program:								
Licenses and/or periodically inspects—								
Bakeries	1				5			2
Confectioneries	1				1			
Ice cream, butter, and cheese factories	4	2			1			2
Bottling plants	1			1	1			
Cold storage warehouses		2		1	1		2	1
Slaughterhouses	4		9	1	1		2	1, 2
Other and/or unspecified food manufacturing, packing, and sales establishments	1		9	1	1	1 *	2	2
Hotels		2	9	1	1		1	1
Food dispensing establishments	1	2	1	1	1			1
Dairy farms	4	2	1, 2	1, 2	1, 2	1, 2, 4	1, 2	1
Pasteurization plants	4	2	1 *	1, 2	1	1 *	1	1
Shellfish production facilities (growing areas, storage systems, shucking and packing plants)				1	1		6	1, 6
Drug manufacturing plants, stores, and/or distributors	1		1	1, 7	1	1 *	1, 7	2, 7
Inspects for—								
General sanitation and cleanliness of premises and equipment	1, 4	2	1, 9	1, 2	1	1	6	6
Health of employees	1	2		1 *				1
Purity, quality, and condition of food or drug product handled; misbranding; mislabeling	1	2	1, 9	1	1	1 *	2, 7	2
False advertising claims				1			2	2
Sale or distribution of narcotic drugs			1		1		1	7
Water supply, plumbing, toilets, and/or sewage disposal facilities	1	2		1	1		1	1
Health of dairy herds	4	2	2	2	2	4	2	2
Construction and operation of pasteurization plants	4	2	1 *	1, 4	1	1 *	1	1
Other purposes not covered in this classification		2	9		5			1
Collects samples of suspicious products	1	2	9	1	1		2	1, 2
Provides facilities for laboratory analysis—								
Bacteriological—water (drinking, dish-washing solutions, shellfish areas)	1		1, 9	1	1	1	1	1
Bacteriological—food	1		9	1			2	2
Chemical—food	1	2	9	1	1	1	2	2
Chemical—drugs	1		9	1	1		2	
Physiological—drugs							2	
Bacteriological—milk	4	2	1	1	1	1		
Chemical—milk	4	2	9	1	1			
Participates in indemnities for condemned dairy animals	4	2	2	2	2	4	2	2
Renders additional service not covered in in this classification			9	1	1	1	1	1

See footnotes at end of table.

TABLE 4.—Department of State government responsible for specific activities for food and drug control in each State and Territory, the District of Columbia, and the Virgin Islands—Continued

Activity	State or Territory						
	North Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
Promulgates and/or enforces State laws, rules, and regulations concerning one or more activities covered in this section.	1, 2, 8	2, 7, 10	1, 2	1, 2	1, 2	1, 2	1
Promotes local programs of control.	8		1	1, 2			1
Conducts educational programs.							
Supervises and/or provides consultation service to local organizations.	8	2	1	1, 2	1	1 <sup>b</sup>	1
Distributes and/or administers financial grants-in-aid to local health units for food and drug control.							1 <sup>c</sup>
Operates a direct service program:							
Licenses and/or periodically inspects—							
Bakeries.	8	2		2	2	1	
Confectioneries.	8					1	2
Ice cream, butter, and cheese factories.	2	2			2	1	2
Bottling plants.	8	2			2		2
Cold storage warehouses.	8	2			2		
Slaughterhouses.	8	2	1	2	2	1	
Other and/or unspecified food manufacturing, packing, and sales establishments.	8	2	1	2	2	1	1
Hotels.	8	10	1	5	1		2
Food dispensing establishments.	8	10	1	2	1	1	2
Dairy farms.	1, 4, 8	1 <sup>b</sup> , 2 <sup>c</sup>	1, 2	1, 2	1, 2	2	1, 9
Pasteurization plants.	1	1 <sup>b</sup> , 2 <sup>c</sup>	1	1, 2	1	1	1
Shellfish production facilities (growing areas, storage systems, shucking and packing plants).				1		1	1
Drug manufacturing plants, stores and/or distributors.	8	2, 7	1		1, 7	1	1 <sup>b</sup>
Inspects for—							
General sanitation and cleanliness of premises and equipment.	1, 2, 8	2, 10	1, 2	1, 2	1, 2	1, 2	1
Health of employees.		10 <sup>c</sup>		2	1, 2	1	
Purity, quality, and condition of food or drug product handled; misbranding; mislabeling.	2, 8	2, 10	1	2	1, 2, 7	1	1 <sup>b</sup>
False advertising claims.	8		1		7	1	2, 7
Sale or distribution of narcotic drugs.		7			1	1	
Water supply, plumbing, toilets, and/or sewage disposal facilities.	8	10	1	2	1	1	2
Health of dairy herds.	4	2	2	2	2	2	9
Construction and operation of pasteurization plants.	1	1 <sup>b</sup> , 2 <sup>c</sup>	1	1, 2	1	1	1
Other purposes not covered in this classification.	8		1	2		1	1
Collects samples of suspicious products.	8	2	1	2	2, 7	1	
Provides facilities for laboratory analysis—							
Bacteriological—water (drinking, dish-washing solutions, shellfish areas).	1, 8		1		1	1	1
Bacteriological—food.	8	1	1	2	1	1	9
Chemical—food.	8	2	1	2	2	1	9
Chemical—drugs.	8	2	1		7	1	9
Physiological—drugs.	8		1			1	
Bacteriological—milk.	1, 8	1	1	1, 2	1	1, 2	1
Chemical—milk.	1, 8	1	1	2		1, 2	2
Participates in indemnities for condemned dairy animals.	4	2	2	2	2	2	9
Renders additional service not covered in this classification.			1		1		

See footnotes at end of table.

TABLE 4.—Department of State government responsible for specific activities for food and drug control in each State and Territory, the District of Columbia, and the Virgin Islands—Continued

Activity	State or Territory							
	Tennessee	Texas	Utah	Vermont	Virginia	Washington	West Virginia	Wisconsin
Promulgates and/or enforces State laws, rules, and regulations concerning one or more activities covered in this section	2, 5, 6	1, 2	2	1, 2	1, 2, 7	1, 2, 5	1, 2, 7	1, 2
Promotes local programs of control	2	1		1	2	1, 2	1, 2	1
Conducts educational programs		1					1	2
Supervises and/or provides consultation service to local organizations	2, 6	1		1		1, 2	1	1
Distributes and/or administers financial grants-in-aid to local health units for food and drug control		1 *			1 *			
Operates a direct service program:								
Licenses and/or periodically inspects:								
Bakeries		1	2					2
Confectioneries		1						2
Ice cream, butter, and cheese factories	2	1			2	2	2	2
Bottling plants		1						2
Cold storage warehouses	1	1, 2	2		2			2
Slaughterhouses	2	1	2		2	2	2 *	2
Other and/or unspecified food manufacturing, packing, and sales establishments	2	1		1	2			2
Hotels	5, 6			1	1, 2	5		1
Food dispensing establishments	5, 6	1		1	1, 2	2	1	1
Dairy farms	1, 2	1, 4	2	2	1, 2	1, 2	1, 2	2
Pasteurization plants	1, 2	1		2	1, 2	1, 2	1	2
Shellfish production facilities (growing areas, storage systems, shucking and packing plants)		1			1	1		
Drug manufacturing plants, stores, and/or distributors	2	1	2, 10	1	7	2	7 *	2 *
Inspects for—								
General sanitation and cleanliness of premises and equipment	2, 6	1, 2	2	1, 2	2	1, 2, 5	1	1, 2
Health of employees	5			1	2	1, 2	1	1
Purity, quality, and condition of food or drug product handled; misbranding; mislabeling	2, 6	1, 2	2	1	2, 7	2	2	2
False advertising claims		1	2	1	2, 7	2		2
Sale or distribution of narcotic drugs	2				7		7 *	
Water supply, plumbing, toilets, and/or sewage disposal facilities	6	1		1		2, 5	1	1
Health of dairy herds	2	4	2	2	2	2	2	2
Construction and operation of pasteurization plants	1, 2	1		2	1, 2	1, 2	1	2
Other purposes not covered in this classification	6	1		1				
Collects samples of suspicious products	2	1	2		2, 7	1, 2		2
Provides facilities for laboratory analysis:								
Bacteriological—water (drinking, dishwashing solutions, shellfish areas)	1			1		1		1
Bacteriological—food	2	1			1	1	1 *	2
Chemical—food	2	1	8	1	2	8		2
Chemical—drugs		1	8	1	2	8		2 *
Physiological—drugs		1						
Bacteriological—milk	1	1		1, 2	1, 2	1	1	1
Chemical—milk	1	1	8	1, 2	2	8	1	2
Participates in indemnities for condemned dairy animals	2		2	2	2	2	2	2
Renders additional service not covered in this classification	2			1				

See footnotes at end of table.

**TABLE 4.—Department of State government responsible for specific activities for food and drug control in each State and Territory, the District of Columbia, and the Virgin Islands—Continued**

Activity	State or Territory				
	Wyoming	Alaska	Hawaii	Puerto Rico	Virgin Islands
Promulgates and/or enforces State laws, rules, and regulations concerning one or more activities covered in this section	2	1	1	1, 10	1
Promotes local programs of control	2	1	1	1	
Conducts educational programs					
Supervises and/or provides consultation service to local organizations	2	1 <sup>b</sup>	1	1	
Distributes and/or administers financial grants-in-aid to local health units for food and drug control					
Operates a direct service program:					
Licenses and/or periodically inspects—					
Bakeries		1			1
Confectioneries		1			
Ice cream, butter, and cheese factories		1	1		
Bottling plants		1			
Cold storage warehouses			1	1	
Slaughterhouses	2			1	1
Other and/or unspecified food manufacturing, packing, and sales establishments		1	1	1	
Hotels	2	1	1	1	
Food dispensing establishments	2	1	1	1	
Dairy farms	2*, 4	1	1, 2	1, 2	1, 2
Pasteurization plants	2*	1	1	1	1
Shellfish production facilities (growing areas, storage systems, shucking and packing plants)		1			
Drug manufacturing plants, stores, and/or distributors			1	1	
Inspects for—					
General sanitation and cleanliness of premises and equipment	2	1	1	1	1
Health of employees	2	1 <sup>b</sup>	1	1	1
Purity, quality, and condition of food or drug product handled; misbranding; mislabeling	2	1	1	1	
False advertising claims				1	
Sale or distribution of narcotic drugs					
Water supply, plumbing, toilets, and/or sewage-disposal facilities	2	1	1	1	
Health of dairy herds	4		2	1, 2	2
Construction and operation of pasteurization plants		1	1	1	1
Other purposes not covered in this classification	2		1	1	
Collects samples of suspicious products	2		1	1	
Provides facilities for laboratory analysis—					
Bacteriological—water (drinking, dishwashing solutions, shellfish areas)	1	1	1	1	
Bacteriological—food			1	1	
Chemical—food			1	1	
Chemical—drugs			1	1	
Physiological—drugs					
Bacteriological—milk	1*	1	1	1	
Chemical—milk	4		1	1	
Participates in indemnities for condemned dairy animals	8				
Renders additional service not covered in this classification	2				

\*Code:

1. Department of health
2. Department of agriculture, agriculture and industries, agriculture and inspection, agriculture and markets, labor and agriculture, commissioner of agriculture, dairy, and food, etc
3. Dairy and food commission, dairy commission, State dairy department, hotel and restaurant commission, hotel and restaurant board
4. Commission on domestic animals, livestock sanitary board, State veterinarian, etc.
5. Department of labor, industrial relations, labor and industry, State labor commission, industrial commissioner
6. Department of conservation
7. Board of pharmacy
8. Independent State laboratory, State laboratory department, State chemist, State toxicologist
9. State university or college
10. Other departments or offices of State government

\*\*Activities herein described pertain to general food and drug control, to supervision of hotels and restaurants, to shellfish sanitation, and to milk control—including sanitation and eradication of bovine tuberculosis and Bang's disease.

\* The department of health is really a division (Idaho) and bureau (Maine) of public health, subordinate to the department of public welfare (Idaho) and the department of health and welfare (Maine).

<sup>b</sup> Service chiefly advisory.

\* As part of grant-in-aid to local health units for general health work.

<sup>d</sup> In absence of local service.

<sup>e</sup> Has authority, but little is done.

<sup>f</sup> Temporarily no State program.

<sup>g</sup> Considers health of employees but makes no thorough check.

<sup>h</sup> Service voluntary because agency having authority for this function is inactive.

In some instances the language of the State food and drug law is vague enough to cause complete uncertainty as to who should be responsible for solution of a specific problem. A slightly different circumstance, yet an equally restrictive one, is that described above in which the legally responsible department of State government is given no appropriation for operation.

Like program content and assignment of regulatory responsibility, methods of food and drug control may also be described as miscellaneous. A resumé of the measures taken appears in table 4. If direct service is provided by the State agency, the State's function may include licensing, registration, or certification of establishments or of products. Such licensure may entail observance of a strict sanitary code in one State, while in the neighboring State it represents little more than the collection of inspection fees. Direct State service sometimes covers collection and bacteriological and/or chemical laboratory analysis of samples, followed by removal from sale or destruction of food or drug stocks if necessary. Under other circumstances, it means periodic inspection only.

Even the purpose of inspections is not constant for all States. Such inclusive observations as general sanitation of premises, sanitation of equipment, and general cleanliness of employees are almost always noted, but the presence of screens, methods of ventilation, condition of plumbing, bacterial counts on utensils and glassware, construction of walls and floors, and the like, are less likely to be observed by the inspectors of a number of States. A check on the health of employees varies from the most superficial glance to a thorough physical (including laboratory) examination or rigid requirement that the employee possess a certificate of recent physical examination by a physician. Approval of water supplies and sewage disposal facilities for establishments not connected with municipal conveniences sometimes falls within the province of food and drug, or hotel and restaurant inspectors; more often it is a service delegated to the engineering staff of the health department. In this connection, it should be said that tourist camps have some characteristics in common with hotels and that their control might be expected to be treated in the same section of the report. However, since the items covered in tourist camp supervision are largely restricted to water supplies and sewage disposal facilities, these establishments were covered in the preceding section of this report.

It is recognized, of course, that some of the variation in items covered in inspection is based upon the particular type of food or drug establishment under consideration. From table 4 it is impossible to link the purpose of inspection with the specific type of premises visited, but, broadly speaking, it might be said that general sanitation and cleanliness of premises and equipment; methods of handling or dis-

playing food; cleanliness of employees; condition of water supply, plumbing, and sewage disposal facilities; and practices of garbage disposal are pertinent to practically every food business covered. On the contrary, examination of the purity, quality, and state of the food itself is reserved largely for those places handling types of food which are likely to deteriorate rapidly or to become polluted from careless methods employed in preparation. Cream-filled bakery goods, manufactured dairy products (ice cream, butter, and cheese), delicatessen products, and uncured meats are examples of food of this class. Retail groceries, markets, and drug stores are the sources from which are sought misbranded and mislabeled canned, bottled, and packaged foods and drugs. Finally, the health of milk handlers, shellfish handlers, bakery employees, and restaurant employees appears to have a more direct bearing upon the public health than does the physical condition of other types of food handlers.

State control of fluid milk involves certain specialized procedures which are not entirely applicable to general food and drug control. More specifically, a safe milk supply is the product of two distinct types of service, namely, sanitation and eradication of bovine tuberculosis and Bang's disease. Sanitary control involves conditions under which the milk is produced on the dairy farm as well as methods of pasteurization and distribution. Much conflict appears to exist between the departments of agriculture and health concerning administration of this element of the milk control program. According to one system, it is the function of the health department to introduce grading and rating techniques based upon special surveys of milk sheds and to promote adoption of a suitable milk ordinance in as many local areas as possible. Thereafter, control of the sanitary quality of milk produced in those sections of the State becomes a health department responsibility, while the department of agriculture maintains jurisdiction in the remaining territory. By another plan, the health department exercises authority over that portion of the State having organized local health service, while the department of agriculture operates in the unorganized sections. A third arrangement is that whereby supervision of dairy farms is delegated to the department of agriculture and control of pasteurization is a health department problem. Frequently the health department prefers to depend upon local personnel for routine inspectional service, thus reserving the limited State staff for promotional, educational, consultatory; and supervisory activities.

In reviewing the reports of the several types of agencies it is apparent that State health departments stress the health aspects of milk sanitation, whereas departments of agriculture emphasize economic considerations.

Activities for eradication of diseases among dairy herds which are transmissible to man are practically standardized inasmuch as there is always Federal participation in this phase of milk control. As a rule, State veterinarians assist in testing dairy herds for bovine tuberculosis and Bang's disease and the State shares in payment of indemnities for reactors which are ordered destroyed. In some areas, Bang's disease programs are still being conducted on a voluntary basis, but tuberculin testing is done on a State-wide schedule in every instance. There is some difference, too, in the State agency charged with this function. The department of agriculture operates in three-fifths of the States, and a special livestock sanitary board or domestic animals commission in nearly all of the remainder.

Certification of the sanitary quality of shellfish is another branch of food control which involves rather special procedures. As previously indicated, less than half of the States produce shellfish; nevertheless, for these particular States, shellfish sanitation is an important public health activity. Furthermore, it is predominantly a health department activity inasmuch as only two States have control programs in which the health department fails to participate, either exclusively or in cooperation with another State agency, notably the department of conservation. Activities engaged in with more or less uniformity as a basis for certification include inspection of growing areas of shellfish, of floats, and of storage, shucking, and packing plants; laboratory analysis of samples of shellfish and of the overlying waters; and closing of condemned areas. Sanitation of shellfish-producing waters is often covered by activities for prevention of general stream pollution. Because of the ease with which certain diseases may be transmitted through shellfish, more rigid requirements are apt to be established regarding the health of shellfish handlers than of general food handlers.

#### MISCELLANEOUS SANITATION ACTIVITIES

As the scope of sanitation has broadened, new fields of activity have been opened. Table 5 indicates some of the miscellaneous sanitation measures engaged in by State agencies of various types. Only the methods most frequently employed for handling these varied problems have been tabulated.

Recognition of the relationship which exists between housing and health has led to some effort toward housing control by 20 State governments. State participation in the control of water supplies and sewage disposal at private homes has already been discussed. Other items of concern are proper lighting, ventilation, fire prevention, elec-

trical wiring, screening, space allowance, and general sanitation. The authority of relatively few States extends to all of these items or to all types of dwellings. In 6 of the 20 jurisdictions referred to, only buildings which, because of their purpose, constitute fire hazards are subject to State regulation or correctional measures. Authority to order repairs and improvements or to condemn and raze buildings classed as unfit for human habitation is based upon structural defects or fire hazards. Four other States limit most of their activities to dwellings in cities of certain size or to apartments or tenements housing more than two families. Surveys of substandard dwellings are sometimes made as the first approach to solution of the housing problem. Agencies which participate in housing control are: State housing boards, or alley-dwelling authorities, State fire marshals, departments of labor, and, occasionally, departments of health. State housing codes are in effect in 13 jurisdictions, but as a rule these codes apply only to incorporated areas or to cities of specified size. Operation of "model housing" developments and relocation of families moved from condemned dwellings has been undertaken by only 2 States.

In practically all States some items of plumbing control fall within health department supervision, since the installation and maintenance of safe plumbing is so closely allied with sanitation of water supplies and sewage disposal facilities. At the same time, operation of plumbing inspection programs as a distinct enterprise is reported by 16 health departments and 3 boards of plumbing commissioners or examiners. Twenty-one States have adopted plumbing codes, some of which apply to cities of certain size, to public buildings, or to installations on public water systems only. Approval of plans or issuance of permits for new installations, routine plumbing inspections, and training of local inspectors are the several means by which control is exercised. State licensing or certification of plumbers is practiced in 16 jurisdictions. This phase of the program is more likely to be the function of the board of plumbing examiners than of the health department.

Reduction of smoke, fumes, and disagreeable odors is regarded primarily as a nuisance abatement procedure. Through their broad powers to abate nuisances, nine health departments extend their authority to ordering correction of the cause of excessive smoke, fumes, or odors. Occasionally a department of labor, independent department of engineering, or department of public utilities functions in a similar capacity. As a rule, this problem is handled on an individual case basis, the State agency furnishing technical information and recommendations following investigation of specific situations.



TABLE 5.—*Department of State government\* responsible for miscellaneous sanitation activities in each State and Territory, the District of Columbia, and the Virgin Islands*

Activity	State or Territory							
	Alabama	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	District of Columbia
<b>HOUSING CONTROL:</b>								
Has regulatory authority for housing control	8 b		8	4				15
Makes surveys to determine the number of sub-standard dwellings which are occupied				4	1			7
Orders repairs and improvements, condemns, and/or razes buildings	8 b		8	4				1, 6, 7
Approves plans for new dwellings			8	4				6
Operates "model housing" developments			8	4				7
Serves in an advisory capacity only								
<b>PLUMBING CONTROL:</b>								
Has regulatory authority for plumbing control					1	1		15
Approves plans or issues permits for new plumbing					1			
Inspects plumbing installations					1			6
Trains and/or approves local plumbing inspectors								
Certifies or licenses plumbers	10							10
Serves in an advisory capacity only							1	
<b>SMOKE, FUMES, AND ODORS CONTROL:</b>								
Has authority to order elimination of smoke, fumes, and odors under nuisance abatement power				1	4			15
Restricts location of industrial plants that give rise to disagreeable fumes and odors								15
Furnishes technical information and recommendations following investigation of specific problems				1	1			6
Serves in an advisory capacity only								
<b>CONTROL OF GARBAGE COLLECTION AND DISPOSAL:</b>								
Has regulatory authority over garbage collection and disposal under nuisance abatement power						1		15
Approves construction plans for garbage disposal plants						1		
Inspects garbage disposal plants								
Participates in collection and disposal of garbage								6
Serves in an advisory capacity only	1			1	1		1	
<b>RODENT CONTROL:</b>								
Has regulatory authority for rodent control	1	1, 3						
Conducts educational programs for rat extermination and rat proofing	1			1				
Makes studies in individual communities and assists in planning effective control programs				1				
Serves in an advisory capacity only								
<b>MALARIA MOSQUITO CONTROL (covered in chapter II of this series):</b>								
<b>PEST MOSQUITO CONTROL:</b>								
Engages in pest mosquito control through anti-malaria measures only	1		1	1				6, 15
Has regulatory authority for control of pest mosquitoes as such						11	15	
Makes routine inspections or special investigations of prevalence and distribution of mosquitoes							5	
Participates in drainage and/or larvicidal projects for control of pest mosquitoes						15	15	
Serves in an advisory capacity only								
<b>SWIMMING POOL SANITATION:</b>								
Establishes and/or enforces standards of construction and maintenance of swimming pools	1	1	1	1	1	1	1	1
Approves plans and specifications for construction	1		1		1	1		1
Periodically inspects swimming pools		1	1	1	1	1	1	1
Serves in an advisory capacity only			1					
<b>SANITATION OF BARBER SHOPS AND BEAUTY PARLORS:</b>								
Periodically inspects barber shops for sanitation of premises and equipment			12	12	12	12	1 •	12
Periodically inspects beauty parlors for sanitation of premises and equipment			13		13	1	1 •	13
Certifies or licenses barbers		12	12	12	12	12	12	12
Certifies or licenses cosmeticians		13	13	13	13	1		13

See footnotes at end of table.

**TABLE 5.—Department of State government responsible for miscellaneous sanitation activities in each State and Territory, the District of Columbia, and the Virgin Islands—Continued**

Activity	State or Territory						
	Florida	Georgia	Idaho *	Illinois	Indiana	Iowa	Kansas
<b>HOUSING CONTROL:</b>							
Has regulatory authority for housing control.....				8 b	1, 2		
Makes surveys to determine the number of substandard dwellings which are occupied.....					1	1 *	
Orders repairs and improvements, condemns, and/or rases buildings.....				8 b f	1, 8 b		
Approves plans for new dwellings.....					1, 2, 8		
Operates "model housing" developments.....							
Serves in an advisory capacity only.....							
<b>PLUMBING CONTROL:</b>							
Has regulatory authority for plumbing control.....	1				1		1
Approves plans or issues permits for new plumbing.....							1 d
Inspects plumbing installations.....					1 d		1 d
Trains and/or approves local plumbing inspectors.....							
Certifies or licenses plumbers.....	10			14			1
Serves in an advisory capacity only.....						1	
<b>SMOKE, FUMES, AND ODORS CONTROL:</b>							
Has authority to order elimination of smoke, fumes, and odors under nuisance abatement power.....							
Restricts location of industrial plants that give rise to disagreeable fumes and odors.....							
Furnishes technical information and recommendations following investigation of specific problems.....				1			
Serves in an advisory capacity only.....				1			
<b>CONTROL OF GARBAGE COLLECTION AND DISPOSAL:</b>							
Has regulatory authority over garbage collection and disposal under nuisance abatement power.....	1				1		
Approves construction plans for garbage disposal plants.....	1					1	
Inspects garbage disposal plants.....	1				1		
Participates in collection and disposal of garbage.....							
Serves in an advisory capacity only.....		1		1			1
<b>RODENT CONTROL:</b>							
Has regulatory authority for rodent control.....		1					
Conducts educational programs for rat extermination and rat proofing.....		1					
Makes studies in individual communities and assists in planning effective control programs.....		1					
Serves in an advisory capacity only.....							1
<b>MALARIA MOSQUITO CONTROL (covered in chapter II of this series).</b>							
<b>Pest mosquito control:</b>							
Engages in pest mosquito control through antimalaria measures only.....	1			1	1		
Has regulatory authority for control of pest mosquitoes as such.....							
Makes routine inspections or special investigations of prevalence and distribution of mosquitoes.....							
Participates in drainage and/or larvicidal projects for control of pest mosquitoes.....							
Serves in an advisory capacity only.....							1
<b>SWIMMING POOL SANITATION:</b>							
Establishes and/or enforces standards of construction and maintenance of swimming pools.....			1	1	1	1	
Approves plans and specifications for construction.....	1	1	1	1	1	1	1
Periodically inspects swimming pools.....	1	1	1	1	1	1	
Serves in an advisory capacity only.....							
<b>SANITATION OF BARBER SHOPS AND BEAUTY PARLORS:</b>							
Periodically inspects barber shops for sanitation of premises and equipment.....	12	12	1	14	12	1	12
Periodically inspects beauty parlors for sanitation of premises and equipment.....	13	13	1	14	12	1	12
Certifies or licenses barbers.....	12	12	14	14	12	1	12
Certifies or licenses cosmeticians.....	13		14	14	13	1	12

See footnotes at end of table.

TABLE 5.—Department of State government responsible for miscellaneous sanitation activities in each State and Territory, the District of Columbia, and the Virgin Islands—Continued

Activity	State or Territory							
	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri
<b>HOUSING CONTROL:</b>								
Has regulatory authority for housing control.....	8 <sup>b</sup>			7	1, 8 <sup>b</sup>			
Makes surveys to determine the number of sub-standard dwellings which are occupied.....	8 <sup>b</sup>							
Orders repairs and improvements, condemns, and/or razes buildings.....	8 <sup>b</sup>			9				
Approves plans for new dwellings.....	8			7 <sup>d</sup>				
Operates "model housing" developments.....				7				
Serves in an advisory capacity only.....								
<b>PLUMBING CONTROL:</b>								
Has regulatory authority for plumbing control.....	1	1	1	1, 10	10	1		
Approves plans or issues permits for new plumbing.....				10 <sup>d</sup>	10 <sup>d</sup>	1		
Inspects plumbing installations.....	1 <sup>d</sup>	1		10 <sup>d</sup>	10 <sup>d</sup>	1 <sup>d</sup>		
Trains and/or approves local plumbing inspectors.....	1 <sup>f</sup>	1		10	10	1		
Certifies or licenses plumbers.....	10	10	10	10	10	1		1 <sup>f</sup>
Serves in an advisory capacity only.....								
<b>SMOKE, FUMES, AND ODORS CONTROL:</b>								
Has authority to order elimination of smoke, fumes, and odors under nuisance abatement power.....		1		6 <sup>d</sup>				
Restricts location of industrial plants that give rise to disagreeable fumes and odors.....								
Furnishes technical information and recommendations following investigation of specific problems.....		1		6 <sup>d</sup>				
Serves in an advisory capacity only.....								
<b>CONTROL OF GARBAGE COLLECTION AND DISPOSAL:</b>								
Has regulatory authority over garbage collection and disposal under nuisance abatement power.....	1		1			1	1	
Approves construction plans for garbage disposal plants.....	1 <sup>f</sup>		1			1		
Inspects garbage disposal plants.....	1		1					
Participates in collection and disposal of garbage.....				1 <sup>f</sup>	1 <sup>f</sup>			
Serves in an advisory capacity only.....								
<b>RODENT CONTROL:</b>								
Has regulatory authority for rodent control.....	1						15	
Conducts educational programs for rat extermination and rat proofing.....	1							
Makes studies in individual communities and assists in planning effective control programs.....	1						15	
Serves in an advisory capacity only.....						15 <sup>f</sup>		
<b>MALARIA MOSQUITO CONTROL (covered in chapter II of this series).</b>								
<b>PEST MOSQUITO CONTROL:</b>								
Engages in pest mosquito control through anti-malaria measures only.....	1					1, 5	1	
Has regulatory authority for control of pest mosquitoes as such.....			3					
Makes routine inspections or special investigations of prevalence and distribution of mosquitoes.....			3, 5	1				
Participates in drainage and/or larvicidal projects for control of pest mosquitoes.....			3	3				
Serves in an advisory capacity only.....		1						
<b>SWIMMING POOL SANITATION:</b>								
Establishes and/or enforces standards of construction and maintenance of swimming pools.....	1	1	1		1	1	1	1
Approves plans and specifications for construction.....	1	1	1		1	1	1	1
Periodically inspects swimming pools.....	1	1	1	1	1		1	1
Serves in an advisory capacity only.....								
<b>SANITATION OF BARBER SHOPS AND BEAUTY PARLORS:</b>								
Periodically inspects barber shops for sanitation of premises and equipment.....	12	12		12	12	12	1	
Periodically inspects beauty parlors for sanitation of premises and equipment.....	13	12		13	12	13	1	1
Certifies or licenses barbers.....	12	12	12	14	12	12	12	12
Certifies or licenses cosmeticians.....	13	12	13	14		13		

See footnotes at end of table.

**TABLE 5.—Department of State government responsible for miscellaneous sanitation activities in each State and Territory, the District of Columbia, and the Virgin Islands—Continued**

Activity	State or Territory							
	Montana	Nebraska	Nevada	New Hampshire	New Jersey	New Mexico	New York	North Carolina
<b>HOUSING CONTROL:</b>								
Has regulatory authority for housing control.....					7 •		15	
Makes surveys to determine the number of sub-standard dwellings which are occupied.....					7 †		15	
Orders repairs and improvements, condemns, and/or razes buildings.....					7 •			
Approves plans for new dwellings.....					7 †		15	
Operates "model housing" developments.....								
Serves in an advisory capacity only.....			1					
<b>PLUMBING CONTROL:</b>								
Has regulatory authority for plumbing control.....				1				
Approves plans or issues permits for new plumbing.....								
Inspects plumbing installations.....				1 †				
Trains and/or approves local plumbing inspectors.....								
Certifies or licenses plumbers.....			1 †				1	
Serves in an advisory capacity only.....								
<b>SMOKE, FUMES, AND ODORS CONTROL:</b>								
Has authority to order elimination of smoke fumes, and odors under nuisance abatement power.....				1				
Restricts location of industrial plants that give rise to disagreeable fumes and odors.....								
Furnishes technical information and recommendations following investigation of specific problems.....				1				
Serves in an advisory capacity only.....			1					
<b>CONTROL OF GARBAGE COLLECTION AND DISPOSAL:</b>								
Has regulatory authority over garbage collection and disposal under nuisance abatement power.....	1						1	
Approves construction plans for garbage disposal plants.....								
Inspects garbage disposal plants.....								
Participates in collection and disposal of garbage.....			1	1		1		
Serves in an advisory capacity only.....								
<b>RODENT CONTROL:</b>								
Has regulatory authority for rodent control.....			1					1
Conducts educational programs for rat extermination and rat proofing.....								1
Makes studies in individual communities and assists in planning effective control programs.....								1
Serves in an advisory capacity only.....								
<b>MALARIA MOSQUITO CONTROL</b> (covered in chapter II of this series).								
<b>PEST MOSQUITO CONTROL:</b>								
Engages in pest mosquito control through anti-malaria measures only.....								
Has regulatory authority for control of pest mosquitoes as such.....			1		15			
Makes routine inspections or special investigations of prevalence and distribution of mosquitoes.....			1		15			
Participates in drainage and/or larvicidal projects for control of pest mosquitoes.....					15			
Serves in an advisory capacity only.....								
<b>SWIMMING POOL SANITATION:</b>								
Establishes and/or enforces standards of construction and maintenance of swimming pools.....	1		1	1		1	1	1
Approves plans and specifications for construction.....	1	1	1	1		1	1	1
Periodically inspects swimming pools.....	1	1	1	1			1	
Serves in an advisory capacity only.....					1			
<b>SANITATION OF HARBOR SHOPS AND BEAUTY PARLORS:</b>								
Periodically inspects barber shops for sanitation of premises and equipment.....	12	1	12	12	12			
Periodically inspects beauty parlors for sanitation of premises and equipment.....	13	1	13	13	13			
Certifies or licenses barbers.....	12	1	12	12	12	12		12
Certifies or licenses cosmeticians.....	13	1	13	13	13	13		13

See footnotes at end of table.

TABLE 5.—Department of State government responsible for miscellaneous sanitation activities in each State and Territory, the District of Columbia, and the Virgin Islands—Continued

Activity	State or Territory						
	North Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina
<b>HOUSING CONTROL:</b>							
Has regulatory authority for housing control.....		4 b, 8 d	8 b		1		
Makes surveys to determine the number of sub-standard dwellings which are occupied.....					1		
Orders repairs and improvements, condemns and/or razes buildings.....		8 b	8 b				
Approves plans for new dwellings.....		4 d			1		
Operates "model housing" developments.....							
Serves in an advisory capacity only.....							
<b>PLUMBING CONTROL:</b>							
Has regulatory authority for plumbing control.....		1		1			
Approves plans or issues permits for new plumbing.....		1 d					
Inspects plumbing installations.....		1 d					
Trains and/or approves local plumbing inspectors.....							
Certifies or licenses plumbers.....				1			
Serves in an advisory capacity only.....	1		1				
<b>SMOKE, FUMES, AND ODORS CONTROL:</b>							
Has authority to order elimination of smoke, fumes, and odors under nuisance abatement power.....	1				1		
Restricts location of industrial plants that give rise to disagreeable fumes and odors.....					1		
Furnishes technical information and recommendations following investigation of specific problems.....	1				1		
Serves in an advisory capacity only.....							
<b>CONTROL OF GARBAGE COLLECTION AND DISPOSAL:</b>							
Has regulatory authority over garbage collection and disposal under nuisance abatement power.....			1		1	1	1
Approves construction plans for garbage disposal plants.....		1 f					1
Inspects garbage disposal plants.....							
Participates in collection and disposal of garbage.....							
Serves in an advisory capacity only.....	1			1			
<b>RODENT CONTROL:</b>							
Has regulatory authority for rodent control.....							
Conducts educational programs for rat extermination and rat proofing.....							
Makes studies in individual communities and assists in planning effective control programs.....							1
Serves in an advisory capacity only.....							
<b>MALARIA MOSQUITO CONTROL (covered in chapter II of this series)</b>							
<b>PEST MOSQUITO CONTROL:</b>							
Engages in pest mosquito control through anti-malaria measures only.....		1		1			1
Has regulatory authority for control of pest mosquitoes as such.....						3	
Makes routine inspections or special investigations of prevalence and distribution of mosquitoes.....						3	
Participates in drainage and/or larvicidal projects for control of pest mosquitoes.....						3	
Serves in an advisory capacity only.....	1						
<b>SWIMMING AND SANITATION:</b>							
Establishes and/or enforces standards of construction and maintenance of swimming pools.....	1	1	1	1	1	1	1
Approves plans and specifications for construction.....	1	1 d	1	1	1	1	1
Periodically inspects swimming pools.....	1		1	1	1	1	
Serves in an advisory capacity only.....							
<b>SANITATION OF BARBER SHOPS AND BEAUTY PARLORS:</b>							
Periodically inspects barber shops for sanitation of premises and equipment.....	12	12		12		1	1
Periodically inspects beauty parlors for sanitation of premises and equipment.....	13	13	13	13		1	1
Certifies or licenses barbers.....	12	12	12	12	15	1	12
Certifies or licenses cosmeticians.....	13	13	13	13	15	1	13

See footnotes at end of table.

**TABLE 5.—Department of State government responsible for miscellaneous sanitation activities in each State and Territory, the District of Columbia, and the Virgin Islands—Continued**

Activity	State or Territory							
	Tennessee	Texas	Utah	Vermont	Virginia	Washington	West Virginia	Wisconsin
<b>HOUSING CONTROL:</b>								
Has regulatory authority for housing control.								4d
Makes surveys to determine the number of sub-standard dwellings which are occupied.								4d
Orders repairs and improvements, condemns, and/or raze buildings.		4b						4d
Approves plans for new dwellings.								4d
Operates "model housing" developments.					1			
Serves in an advisory capacity only.								
<b>PLUMBING CONTROL:</b>								
Has regulatory authority for plumbing control.			10	1				1
Approves plans or issues permits for new plumbing.				1				
Inspects plumbing installations.				1				1*
Trains and/or approves local plumbing inspectors.								1
Certifies or licenses plumbers.			14					1
Serves in an advisory capacity only.		1						
<b>SMOKE, FUMES, AND ODORS CONTROL:</b>								
Has authority to order elimination of smoke, fumes, and odors under nuisance abatement power.						1, 3, 4		1
Restricts location of industrial plants that give rise to disagreeable fumes and odors.								1
Furnishes technical information and recommendations following investigation of specific problems.						1		1
Serves in an advisory capacity only.					1			
<b>CONTROL OF GARBAGE COLLECTION AND DISPOSAL:</b>								
Has regulatory authority over garbage collection and disposal under nuisance abatement power.		1				1		1
Approves construction plans for garbage disposal plants.		1						1
Inspects garbage disposal plants.								1
Participates in collection and disposal of garbage.					1			
Serves in an advisory capacity only.								
<b>RODENT CONTROL:</b>								
Has regulatory authority for rodent control.								
Conducts educational programs for rat extermination and rat proofing.								
Makes studies in individual communities and assists in planning effective control programs.		1						
Serves in an advisory capacity only.								
<b>MALARIA MOSQUITO CONTROL</b> (covered in chapter II of this series).								
<b>PEST MOSQUITO CONTROL:</b>								
Engages in pest mosquito control through anti-malaria measures only.		1			1			1
Has regulatory authority for control of pest mosquitoes as such.								
Makes routine inspections or special investigations of prevalence and distribution of mosquitoes.								
Participates in drainage and/or larvicidal projects for control of pest mosquitoes.								
Serves in an advisory capacity only.								
<b>SWIMMING POOL SANITATION:</b>								
Establishes and/or enforces standards of construction and maintenance of swimming pools.	1	1	1	1		1	1	1
Approves plans and specifications for construction.	1	1	1	1		1	1	1
Periodically inspects swimming pools.		1	1	1		1	1	1
Serves in an advisory capacity only.								

See footnotes at end of table.

**TABLE 5.—Department of State government responsible for miscellaneous sanitation activities in each State and Territory, the District of Columbia, and the Virgin Islands—Continued**

Activity	State or Territory						
	Tennessee	Texas	Utah	Vermont	Virginia	Washington	West Virginia
<b>SANITATION OF BARBER SHOPS AND BEAUTY PARLORS:</b>							
Periodically inspects barber shops for sanitation of premises and equipment	12	12		12			1
Periodically inspects beauty parlors for sanitation of premises and equipment	13	13		13			1
Certifies or licenses barbers	12	12	14	12		14	13
Certifies or licenses cosmeticians	13	13	14	13		14	12

  

Activity	State or Territory				
	Wyoming	Alaska	Hawaii	Puerto Rico	Virgin Islands
<b>HOUSING CONTROL:</b>					
Has regulatory authority for housing control			1	1	
Makes surveys to determine the number of substandard dwellings which are occupied			1	1	
Orders repairs and improvements, condemns, and/or razes buildings			1	1	
Approves plans for new dwellings			1	1, 9	
Operates "model housing" developments					
Serves in an advisory capacity only					
<b>PLUMBING CONTROL:</b>					
Has regulatory authority for plumbing control			1	1	15
Approves plans or issues permits for new plumbing			1	1	
Inspects plumbing installations				1	
Trains and/or approves local plumbing inspectors					
Certifies or licenses plumbers			10	10	
Serves in an advisory capacity only		1			
<b>SMOKE, FUMES, AND ODORS CONTROL:</b>					
Has authority to order elimination of smoke, fumes, and odors under nuisance abatement power			1	1	
Restricts location of industrial plants that give rise to disagreeable fumes and odors			1		
Furnishes technical information and recommendations following investigation of specific problems			1	6	
Serves in an advisory capacity only					
<b>CONTROL OF GARBAGE COLLECTION AND DISPOSAL:</b>					
Has regulatory authority over garbage collection and disposal under nuisance abatement power		1	1	1	1, 15
Approves construction plans for garbage disposal plants				1	
Inspects garbage disposal plants					15
Participates in collection and disposal of garbage					
Serves in an advisory capacity only	1				
<b>RODENT CONTROL:</b>					
Has regulatory authority for rodent control			1	1	
Conducts educational programs for rat extermination and rat proofing			1		
Makes studies in individual communities and assists in planning effective control programs			1		
Serves in an advisory capacity only					

See footnotes at end of table.

**TABLE 5.—Department of State government responsible for miscellaneous sanitation activities in each State and Territory, the District of Columbia, and the Virgin Islands—Continued**

Activity	State or Territory				
	Wyoming	Alaska	Hawaii	Puerto Rico	Virgin Islands
<b>MALARIA MOSQUITO CONTROL</b> (covered in chapter II of this series).					
<b>PEST MOSQUITO CONTROL:</b>					
Engages in pest mosquito control through antimalaria measures only.....			1	1	1
Has regulatory authority for control of pest mosquitoes as such.....					
Makes routine inspections or special investigations of prevalence and distribution of mosquitoes.....					
Participates in drainage and/or larvicidal projects for control of pest mosquitoes.....					
Serves in an advisory capacity only.....					
<b>SWIMMING POOL SANITATION:</b>					
Establishes and/or enforces standards of construction and maintenance of swimming pools.....	1		1	1	
Approves plans and specifications for construction.....			1	1	
Periodically inspects swimming pools.....	1		1	1	
Serves in an advisory capacity only.....		1			
<b>SANITATION OF BARBER SHOPS AND BEAUTY PARLORS:</b>					
Periodically inspects barber shops for sanitation of premises and equipment.....	12	1	1	1	1
Periodically inspects beauty parlors for sanitation of premises and equipment.....	13	1	1	1	1
Certifies or licenses barbers.....	12				
Certifies or licenses cosmeticians.....	13	13	13		

\*Code:

1. Department of health
  2. Department of welfare, social security, emergency relief, general assistance, etc.
  3. Department of agriculture
  4. Department of labor, labor and industry, labor and immigration, industrial relations, etc.
  5. State university or college
  6. Independent department of engineering, department of public utilities
  7. State housing board, State board of tenement house supervision, alley-dwelling authority, etc.
  8. State fire marshal
  9. Department of public safety, superintendent of security
  10. State plumbing board, board of plumbing examiners, etc.
  11. Mosquito control board
  12. Barbers' examining board, barbers' sanitary commission, board of barbers and hairdressers, etc.
  13. Board of cosmetic therapy, State board of beauty culture examiners, etc.
  14. Board of registration and education, department of law enforcement, department of civil service and registration
  15. Other departments of State government
- The department of health is really a division (Idaho) and bureau (Maine) of public health, subordinate to the department of public welfare (Idaho) and the department of health and welfare (Maine).
- Insofar as fire hazards are concerned.
- Two agencies of this classification serve in this capacity.
- Restricted to special conditions: To dwellings of more than two families; to public and semipublic buildings; to towns of 5,000 or more population; to first- and second-class cities; to State-owned or State-used buildings; to hospitals, hotels, etc.
- In the absence of local service; occasionally.
- Upon request or complaint.

Twenty-two States report some jurisdiction over the disposition of garbage. This number does not take into account 17 additional health departments which offer advisory service only. For the most part, State activity for garbage collection and disposal is centered in regulatory control, intimate supervision being delegated to local health units. In a few instances, however, State engineers examine and approve construction plans for garbage disposal plants, and personnel of State agencies inspect their operation. In others, inspec-



tions of sanitary fills are included as a function of the State staff. Only a few departments stress the association between proper garbage disposal and prevention of trichinosis, but regulated disposal is recognized as an important factor in rodent control.

Rodent control as a public health measure is an outgrowth of campaigns for reduction and eventual eradication of plague and endemic typhus fever. Only 12 States report official action leading to rodent control, and among these the methods selected are variant. In several jurisdictions demonstration projects have been conducted to determine the relative effectiveness of different rodent extermination measures. To a large extent State agencies function in a promotional, educational, or advisory capacity. Members of the State staff make studies in individual communities and on the basis of their findings help organize local control programs for immediate rat extermination and permanent rat-proofing of buildings.

Operations of State agencies for malaria control were described in chapter II of this series.<sup>5</sup> However, since the engineering features involved in the control of this communicable disease represent an important activity of several State sanitary engineering divisions, it seems appropriate at this point to refer again to State activities in connection with drainage and larvicidal operations for the eradication of anopheline mosquitoes. Nearly half of the States make investigations of suspected anopheline breeding areas, while somewhat less than a third of them participate in corrective measures. Correction largely consists of constructing or repairing drainage ditches and—where drainage is impractical—of applying larvicides to the surface of bodies of water. For the most part, the exact function of the State agency in these correctional projects is developmental, promotional, supervisory, and advisory. Indeed, though actual construction activities usually represent a joint local and Federal project, initiation and guidance of the performance rests with the State. The health department is the agency primarily responsible, but occasionally agricultural experiment stations, boards of entomology, State universities or colleges, and independent departments of engineering cooperate.

It was pointed out in chapter II<sup>6</sup> that measures for the control of pest mosquitoes are apt to be included in the general malaria program and that only nine States list pest mosquito control as a separate entity. It is the activities of these nine States—and of a tenth, which extends its pest mosquito program beyond its antimalaria measures—that are under discussion at this point. State participation in pest mosquito control as such is limited principally to investigation of prevalence and distribution of the insects and to supervision of local

<sup>5</sup> See text footnote \*.

<sup>6</sup> See text footnote \*.

drainage and/or larvicidal projects for their destruction. Several States actively engage in such projects, but the more general policy is for the State agency to supervise and make recommendations. In addition to health departments, mosquito control boards, State entomologists, and State agricultural experiment stations participate in one way or another in pest mosquito control.

Among the branches of sanitation which have been categorized as miscellaneous, that which pertains to swimming pools is perhaps the most uniformly administered. Swimming pool sanitation is concentrated within the health department, and all but eight of them require that pools be constructed and maintained according to established standards. In about three-fourths of the States, approval of plans and specifications is required prior to construction, while in practically the same number, periodic inspection of the operation of pools is a responsibility of health department personnel. Irregularity typifies the frequency of inspection.

Sanitation of barber shops and beauty parlors is promoted chiefly through inspectional service, although licensure of the operators is another outstanding control feature which a few States depend upon exclusively, and more combine with inspections. Items covered in inspection may be grouped under the broad designation of cleanliness of premises and equipment. General operating procedures such as use of individual combs, towels, and the like, and methods of sterilization are also observed. Inspection is a health department function in about one-fourth of the States, while it is the duty of independent boards of barber and cosmetician examiners in about half of them. Even among this latter group, however, it is not unusual for the health department either to establish or approve the rules and regulations governing sanitation. In the remaining quarter of the jurisdictions inspection of barber shops and beauty parlors is not a State activity except as it is included under the broad power of the health department to abate nuisances and general insanitary conditions.

#### EXPENDITURES FOR SANITATION

Wide diversity among the States in number, kind, and intensity of activities which make up their respective programs of sanitation has been emphasized throughout this discussion. Likewise, the dispersion of such services among numerous agencies of State government has been delineated. In view of these combined circumstances, it is obvious that a complete and accurate expenditure figure, which might serve as an indicative measure of the extent of over-all State efforts toward public health sanitation, is difficult if not impossible to determine. For instance, laboratory service is a vital part of all effective sanitation programs; yet expenditures for laboratories also

cover some services which are not allied with sanitary engineering; consequently, it was decided that this item should be reported separately and not included in expenditures for sanitation. Furthermore, sanitary engineers are apt to be employed on the staffs of State health district offices, but financial figures for operation of these State health districts are not broken down according to services rendered by the personnel thereof. Finally, as pointed out earlier, financial aid given local health units by State health departments includes some allowance for sanitation activities but the exact proportion is immeasurable.

Besides the aforementioned factors, the practice of including different items under like terminology adds confusion to the expenditure picture. As an example, expenditures for such miscellaneous sanitation activities as housing control, rodent control, plumbing control, or sanitation of barber shops and beauty parlors are sometimes shown separately, but more often included under general sanitation. Likewise, in some States expenditures for milk sanitation are included under the broad heading "sanitary engineering." In a neighboring State only water and sewerage may be covered by this designation and milk work possibly is included under sanitation of foods. Still a third State is apt to report its entire program of food control, which may also include hotel and restaurant sanitation, under one common listing.

Stated briefly, there is no accepted pattern of reporting expenditures for sanitation activities, and the absence of an entry for any particular type of service by no means implies that such service is not provided by the State. More often than not it is lumped with some related activity. Therefore, while determination of the cost of each particular branch of sanitation is most desirable, inconsistent accounting practices make such analysis wholly unreliable. Summation of the many inconsistencies in recording and reporting practices results in the conclusion that available data represent the best approximation possible instead of absolutely exact expenditures for sanitation, and that the figures submitted lend themselves to gross statements for over-all endeavor rather than to break-down by the specific type of service afforded.

With these qualifications, it is believed that the figures obtained, crude though they may be, are more nearly representative of the actual situation than any which appear in the literature at the present time. This statement is based on the fact that the survey herewith reported includes expenditures of all State agencies participating in sanitation activities, whereas those made previously were confined to services of the health department only.

By including every expenditure item designated for any activity covered by this article it is found that State agencies spend a total of approximately 16½ million dollars annually for sanitation activities.

It is interesting to note that only one-fourth of this amount represents health department outlay. In fact, the health department does not even rank highest from the standpoint of single-agency expenditures for activities falling within the scope of this discussion; it is surpassed by the department of agriculture. This is a particularly significant observation when it is linked with the knowledge that, to a large extent, departments of agriculture are prone to place health considerations secondary to economic concern in their administration of the several programs under study. Another agency which reported an outstandingly high expenditure for sanitation is the independent department of engineering which functions in the District of Columbia. It must be borne in mind, however, that this figure is somewhat atypical inasmuch as control of water, sewerage, and other sanitation problems in the District represents direct municipal service rather than State administrative control.

As to source of the funds which are designated as disbursements by State agencies for sanitation, those derived from State appropriating bodies constitute about seven-eighths of the total, and thus far outrank those obtained from any other source. License and inspection fees and Federal grants-in-aid, principally from funds made available under Title VI of the Social Security Act of 1935, make up the remainder of the sum in almost equal proportions.

There is marked variation among the States in both total and per capita expenditures for sanitation. Total expenditures range from 10 thousand to over 4 million dollars. When converted to expenditures per capita, the range is defined by extremes of less than two cents and over six dollars. The abnormally high expenditure, from both total and per capita standpoints, was reported by the District of Columbia where the sanitation program includes extensive direct municipal service. The average per capita expenditure for the Nation as a whole is \$0.125, while that for the State occupying the median position is \$0.112. From table 6 may be determined total and per capita expenditures of each State for its complete sanitation activities. This tabulation shows also that per capita expenditures for sanitation of the middle 50 percent of the States range from fifteen cents to five cents.

Investigation of the effect of a State's wealth upon the amount it expends for sanitation reveals a close relationship. By arraying the States in descending order of per capita income payments,<sup>7</sup> grouping them into quarters, and computing for each level the median per capita expenditure for State sanitation activities, it is found that the resulting figures reflect the position of the group which they represent. In other words, the median State of the wealthiest quarter

<sup>7</sup> Martin, John L., National Income Division, Department of Commerce: *Income Payments to Individuals by States, 1929-30*. Survey of Current Business, October 1940.

spends \$0.131 per capita, while corresponding figures for the other three brackets are \$0.118, \$0.083, and \$0.035 in accordance with diminishing wealth of the States.

Location of a State within a particular geographic area appears to have some influence upon a State's sanitation expenditures also. Four major divisions of the country, which have previously been established for analysis of public health data<sup>8</sup> form the base for studying influence of this State characteristic. It is recognized, of course, that there is interrelationship between a State's wealth and its geographic location and that the effect of neither of these factors can be regarded as exclusive of the other. In spite of this mutual overlapping which cannot be measured, States of the several geographic locations display differences which are sufficiently great to merit separate attention. When considered as a group, the Northeastern States spend approximately four times as much per capita for sanitation as do those of the Southern area. States of the Central and Western regions occupy intermediate positions, there being relatively little difference in the figures representing expenditure by the median State of each of these geographic sections. The median per capita disbursement for sanitation in each of the established geographic areas is as follows: Northeastern, \$0.146; Central, \$0.114; Western, \$0.093; and Southern, \$0.037.

Variability in local sanitation programs which complement State activities is believed to be a third factor which operates in determining the wide range of expenditures by State agencies for sanitation. It is impossible to ascertain the exact weight of supplementary local programs, however, as no investigation was made of services conducted at this level.

Numerous allusions have been made to the expansion, over a period of years, in sanitation programs, which include sanitary engineering and allied activities. Perhaps the most impressive measure of this expansion is found in the increased allotments for the purposes under study. From the earlier edition of Public Health Bulletin 184<sup>9</sup> it is possible to arrive at 1930 cost figures which lend themselves to comparison with those most recently collected for the several categories of service covered by the broad term "sanitation." Certain adjust-

<sup>8</sup> Mountin, Joseph W., Pennell, Elliott H., and Pearson, Kay: The distribution of hospitals and their financial support in southern States. *So. Med. J.*, vol. 33, No. 4, April 1940.

The established geographic areas with the States contained therein are as follows:

Northeastern: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, and the District of Columbia.

Southern: Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas.

Central: Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas.

Western: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, and California.

<sup>9</sup> See footnote 1.

ments in the two sets of data were necessary, of course, before comparability could be established. In the first place, 1930 financial information pertained to the health department only; consequently, only within this agency could growth of programs be traced. Secondly, it was necessary to exclude the District of Columbia, the Territories of Alaska, Hawaii, and Puerto Rico, and the Virgin Islands from the comparative study because no 1930 figures were reported for these jurisdictions. Finally, several tabulations shown separately in the earlier publication had to be combined before totals corresponding with those compiled from the 1940 data were obtained.

TABLE 6.—*Approximate total and per capita annual expenditures\* by all official State agencies for over-all sanitation activities designated as such\*\* in each State and Territory, the District of Columbia, and the Virgin Islands*

State or Territory	Approximate annual expenditure* for over-all sanitation activities designated as such**		State or Territory	Approximate annual expenditure* for over-all sanitation activities designated as such**	
	Total	Per capita		Total	Per capita
Total .....	\$16,757,400	\$0.125	Nevada .....	\$32,800	\$0.298
Alabama .....	265,700	.073	New Hampshire .....	105,100	.214
Arizona .....	41,200	.083	New Jersey .....	520,100	.125
Arkansas .....	49,600	.025	New Mexico .....	10,000	.019
California .....	644,300	.093	New York .....	1,568,900	.116
Colorado .....	74,800	.067	North Carolina .....	116,500	.033
Connecticut .....	360,400	.216	North Dakota .....	199,100	.310
Delaware .....	36,800	.138	Ohio .....	368,200	.053
District of Columbia .....	4,056,500	6.407	Oklahoma .....	49,400	.021
Florida .....	348,400	.184	Oregon .....	99,900	.092
Georgia .....	248,100	.079	Pennsylvania .....	1,536,100	.155
Idaho .....	42,300	.081	Rhode Island .....	97,000	.136
Illinois .....	1,031,000	.131	South Carolina .....	63,500	.033
Indiana .....	356,000	.104	South Dakota .....	75,400	.117
Iowa .....	291,600	.115	Tennessee .....	109,000	.037
Kansas .....	149,400	.083	Texas .....	105,600	.016
Kentucky .....	106,300	.037	Utah .....	61,700	.112
Louisiana .....	324,499	.137	Vermont .....	43,200	.120
Maine .....	223,000	.263	Virginia .....	143,100	.053
Maryland .....	77,200	.042	Washington .....	202,400	.117
Massachusetts .....	705,800	.164	West Virginia .....	113,200	.060
Michigan .....	282,500	.044	Wisconsin .....	462,000	.147
Minnesota .....	319,800	.115	Wyoming .....	26,600	.106
Mississippi .....	43,100	.020	Alaska .....	10,300	.141
Missouri .....	175,600	.046	Hawaii .....	126,500	.299
Montana .....	75,600	.135	Puerto Rico .....	124,800	.067
Nebraska .....	149,600	.114	Virgin Islands .....	21,100	.848

\*Expenditures for the health services considered represent index rather than absolute amounts. Because of variations in fiscal practices, figures cover the most recent year for which information was available at the date of interview. In some instances, because of overlapping and interweaving of activities, estimates were accepted in the absence of precise expenditure records. All funds disbursed by official State agencies for sanitation activities are included, irrespective of their source. State-appropriated money\* constitute about seven-eighths of the total, and the remainder is derived in almost equal proportions from license or inspection fees and Federal grants-in-aid.

\*\*Insofar as they could be separated, figures for sanitation activities include all fields of public health engineering, specifically sanitation of water supplies and sewage disposal facilities and of food and drug supplies (including general food and drug control, hotel and restaurant supervision, shellfish sanitation, and milk control, which extends to sanitation and eradication of bovine tuberculosis and Bang's disease), and such miscellaneous activities as swimming pool sanitation, housing and plumbing control, sanitation of barber shops and beauty parlors, garbage collection and disposal, rodent and pest mosquito control, and control of smoke, fumes, and odors. Expenditures for malaria control, including engineering activities, were reported under costs of communicable disease control, chapter II of this series.

Results of the test applied show that, for the country as a whole, current sanitation activities of health departments cost more than two and one-third times the amount expended for like purposes in 1930.

Within individual States, all but 4 reported increased expenditures. Indeed, a decade ago 10 State health departments listed no expenditure for sanitation as a separate entity. In 1940, every one set aside a specific fund for such work. In the 34 States where expansion has taken place, sanitation programs cost from one and one-tenth to over nine times as much at the end of the 1930-1940 decennary as at the beginning. Increases in expenditures are particularly noticeable among the Western States.

#### DISCUSSION

The wide range of activities which are encompassed by sanitation is largely responsible for the complexity of organization and function which distinguishes this branch of the total public health program. However, this complexity is not particularly manifest insofar as the two main objectives of the public health engineer are concerned, since programs for protection of public water supplies and prevention of stream pollution from improper methods of sewage and waste disposal are relatively well-defined. Usually the health department is the State agency responsible for attainment of these two objectives, though in some instances several other departments of State government—most notably the State university or college and special sanitary authorities or water boards—participate in certain features of the program. Engineers of the State health departments' central and district staffs operate through exercising regulatory authority, promoting extension of municipal water and sewerage systems, reviewing and approving plans for new and enlarged plants and systems, training plant operators, inspecting the operation of plants, and periodically testing samples obtained therefrom. The extent and intensity of inspectional service furnished is dependent upon size of the State staff, as well as upon the amount of direct service which can be delegated to local health units.

Control of semipublic water supplies and sewerage systems by State health departments is both less concentrated and less uniform than the supervision maintained over municipal facilities. While the regulatory authority of all States extends to water and sewerage of camps and, of most of them, to schools, industries, or other institutions, the direct service afforded these semipublic installations by State personnel is apt to be somewhat limited. In most jurisdictions, the State agency functions through its local subdivisions for this purpose and acts as supervisor and consultant to local personnel. Departments of labor and education, respectively, participate in industrial and school sanitation in a number of States.

Control of home sanitation beyond the point of offering direct advice and distributing recommended standards and specifications for

private wells, springs, and sewage disposal facilities is rarely undertaken at the State level. However, the State agency does promote and supervise local programs of home sanitation, foremost among which are Work Projects Administration enterprises for construction of privies, installation of septic tanks, and repair of wells.

Accessory to the protection of general water supplies are such related activities as regulation of the sale of bottled waters, control of water used as ice supplies, and certification of drinking water used by interstate carriers. Health department jurisdiction of more than three-fourths of the States extends to all or part of these functions.

The acme of complexity in sanitation activities occurs in that portion of the program which involves food and drug control (including milk and shellfish sanitation) and restaurant supervision. Confusion is due to disagreement regarding what should be covered, who should be responsible, and how the desired results should be attained. As a result, the division of authority and variation in procedures are so heterogeneous that they almost defy classification and description in accordance with any pattern that could be devised. Functional overlapping and interweaving apply principally to the health departments and the departments of agriculture. To a lesser degree, they involve many other State agencies among which the dairy and food commissions, hotel and restaurant commissions, livestock sanitary boards, departments of labor, departments of conservation, boards of pharmacy, State universities and colleges, and independent State laboratories are outstanding. Control methods of agencies other than the health department are usually limited to inspections, laboratory analysis of suspected products, and law enforcement. In addition to these approaches, the health department stresses educational measures.

Besides the sanitation of water and food supplies in their many ramifications, State programs of sanitation have gradually been extended to include a number of miscellaneous environmental sanitation activities. Among these are found swimming pool sanitation, malaria and pest mosquito control, housing and plumbing control, garbage collection and disposal, rodent control, and prevention of smoke, fumes, and odors. The extent of State authority over this miscellaneous group varies. In many instances the State agency functions only in an advisory capacity.

Over-all State programs of sanitation are costing the Nation in excess of 16½ million dollars annually, or an average of \$0.125 per capita. Of this amount, 25 percent represents health department expenditure, while 37 percent is expended by the department of agriculture. Health department expenditures alone have more than doubled during the past 10 years.



**DEATHS DURING WEEK ENDED JUNE 6, 1942**

(From the Weekly Mortality Index, issued by the Bureau of the Census, Department of Commerce)

	Week ended June 6, 1942	Correspond- ing week, 1941
<b>Data from 88 large cities of the United States:</b>		
Total deaths.....	8, 155	8, 046
Average for 3 prior years.....	8, 069	
Total deaths, first 22 weeks of year.....	194, 328	197, 606
Deaths per 1,000 population, first 22 weeks of year, annual rate.....	12.3	12.5
Deaths under 1 year of age.....	552	486
Average for 3 prior years.....	481	
Deaths under 1 year of age, first 22 weeks of year.....	12, 423	11, 513
<b>Data from industrial insurance companies:</b>		
Policies in force.....	64, 976, 525	64, 469, 440
Number of death claims.....	10, 802	11, 772
Death claims per 1,000 policies in force, annual rate.....	8.5	9.5
Death claims per 1,000 policies, first 22 weeks of year, annual rate.....	9.9	10.3

# PREVALENCE OF DISEASE

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*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

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## UNITED STATES

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### REPORTS FROM STATES FOR WEEK ENDED JUNE 13, 1942

#### Summary

The number of reported cases of meningococcus meningitis increased from 68 to 75 during the current week. More than one-half of the cases (41) were reported in the Middle and South Atlantic areas, where the disease is largely confined to a few States. For the current week the largest numbers of cases were reported from New York (19) and Maryland (12). A total of 1,791 cases has been reported to date this year, a larger number than that reported for the corresponding period of any other year since 1937, when 3,516 cases had been reported for this period.

The incidence of influenza remains low, though slightly above the 5-year (1937-41) median. The number of cases of poliomyelitis increased from 17 to 23, but both the current figure and the cumulative cases to date are below the 5-year medians as well as below the figures for the corresponding periods of all other years since 1938.

A total of 7 scattered cases of smallpox was reported. Only 514 cases have been reported to date this year, which is only one-half the number reported for the same period last year, when the lowest incidence on record was recorded for the United States.

Other reports include 2 cases of anthrax (1 in New Jersey and 1 in Pennsylvania), 4 cases of leprosy (2 in California and 1 each in New York and Illinois), 28 cases of amebic, 212 bacillary (139 in Texas), and 134 unspecified dysentery, 26 cases of Rocky Mountain spotted fever (16 in the northwestern States), 18 cases of tularemia, and 42 cases of endemic typhus fever (14 in Georgia, 10 in Alabama).

Dysentery has been reported above the median expectancy in Texas each week during the current year, and both dysentery and malaria have recently shown a significant increase in that State.

The death rate for the current week for 88 large cities in the United States is 11.3 per 1,000 population, as compared with 11.4 for the preceding week and a 3-year (1939-41) average of 10.9. The cumulative rate to date (first 23 weeks) is 12.3 as compared with 12.4 for the corresponding period last year.

*Telegraphic morbidity reports from State health officers for the week ended June 13, 1942, and comparison with corresponding week of 1941 and 5-year median*

In these tables a zero indicates a definite report, while leaders imply that, although none were reported, cases may have occurred.

Division and State	Diphtheria			Influenza			Measles			Meningitis, meningococcus		
	Week ended		Med- ian 1937- 41	Week ended		Med- ian 1937- 41	Week ended		Med- ian 1937- 41	Week ended		Med- ian 1937- 41
	June 13, 1942	June 14, 1941		June 13, 1942	June 14, 1941		June 13, 1942	June 14, 1941		June 13, 1942	June 14, 1941	
NEW ENG.												
Maine.....	0	0	0	-----	4	2	113	155	147	4	0	0
New Hampshire.....	0	0	0	-----	-----	-----	5	20	20	1	0	0
Vermont.....	0	1	0	-----	-----	-----	163	74	74	0	0	0
Massachusetts.....	7	3	3	-----	-----	-----	856	1,038	1,038	2	5	2
Rhode Island.....	0	1	0	-----	-----	-----	170	1	69	0	0	0
Connecticut.....	0	0	1	2	1	3	324	631	130	0	0	0
MID. ATL.												
New York.....	8	13	22	13	12	14	1,268	2,205	1,856	19	4	4
New Jersey.....	5	6	6	-----	4	3	568	1,343	1,123	2	0	1
Pennsylvania.....	14	11	25	-----	-----	-----	715	3,477	1,727	5	3	6
E. NO. CEN.												
Ohio.....	2	3	9	3	3	7	361	1,371	997	1	3	3
Indiana.....	2	13	6	3	8	8	73	328	279	1	0	1
Illinois.....	19	11	26	44	5	10	222	761	457	1	2	2
Michigan.....	1	3	7	4	2	1	461	1,242	793	1	1	1
Wisconsin.....	0	1	1	21	27	19	1,207	1,690	1,111	1	0	0
W. NO. CEN.												
Minnesota.....	1	3	3	-----	2	2	309	17	86	0	0	0
Iowa.....	3	2	2	-----	3	-----	235	257	167	0	0	0
Missouri.....	0	2	7	3	1	1	496	324	56	3	0	0
North Dakota.....	1	0	1	2	-----	7	19	21	17	0	0	0
South Dakota.....	1	0	0	-----	-----	-----	7	2	2	0	0	0
Nebraska.....	0	1	1	2	-----	-----	89	20	20	0	0	0
Kansas.....	4	5	1	3	4	3	177	203	203	1	0	1
SO. ATL.												
Delaware.....	0	1	1	-----	-----	-----	7	29	20	0	0	0
Maryland.....	4	3	3	-----	3	2	178	473	195	12	2	0
Dist. of Col.....	1	2	2	-----	-----	-----	42	184	93	1	0	0
Virginia.....	2	6	6	86	85	34	83	796	339	0	1	1
West Virginia.....	2	2	3	5	7	7	25	453	39	0	4	3
North Carolina.....	5	3	6	5	-----	-----	262	852	296	2	0	0
South Carolina.....	0	12	3	89	105	95	60	514	63	0	0	1
Georgia.....	3	4	4	6	4	4	33	207	43	0	0	0
Florida.....	5	1	2	2	11	2	71	84	69	0	1	1
E. SO. CEN.												
Kentucky.....	4	3	6	3	1	2	33	420	144	3	1	1
Tennessee.....	3	0	3	16	24	18	77	242	94	2	0	0
Alabama.....	1	8	8	18	14	14	26	149	80	2	1	2
Mississippi.....	2	3	3	-----	-----	-----	-----	-----	-----	0	1	1
W. SO. CEN.												
Arkansas.....	4	6	3	12	4	9	68	125	28	0	0	0
Louisiana.....	6	0	10	2	4	9	70	18	7	2	2	1
Oklahoma.....	2	3	5	23	15	16	38	116	116	0	0	1
Texas.....	11	13	16	145	237	143	225	489	437	2	2	2
MOUNTAIN												
Montana.....	1	2	2	-----	-----	-----	148	26	50	0	0	0
Idaho.....	0	0	0	-----	1	-----	54	4	23	0	0	0
Wyoming.....	0	3	1	13	1	-----	15	8	21	0	0	0
Colorado.....	9	8	8	22	21	-----	166	162	143	0	0	0
New Mexico.....	5	3	1	2	-----	-----	12	79	67	0	0	0
Arizona.....	0	1	2	23	52	43	64	96	53	0	0	0
Utah.....	0	3	0	-----	14	-----	634	23	105	0	0	0
Nevada.....	0	0	-----	-----	1	-----	25	101	-----	0	0	-----

See footnotes at end of table.

Telegraphic morbidity reports from State health officers for the week ended June 13, 1942, and comparison with corresponding week of 1941 and 5-year median—Con.

Division and State	Diphtheria			Influenza			Measles			Meningitis, meningococcus		
	Week ended		Me- dian 1937- 41	Week ended		Me- dian 1937- 41	Week ended		Me- dian 1937- 41	Week ended		Me- dian 1937- 41
	June 13, 1942	June 14, 1941		June 13, 1942	June 14, 1941		June 13, 1942	June 14, 1941		June 13, 1942	June 14, 1941	
PACIFIC												
Washington.....	3	2	2	1	-----	-----	992	14	93	1	0	0
Oregon.....	0	0	1	9	3	10	49	52	52	2	0	0
California.....	13	11	25	49	126	23	3,367	555	555	4	3	3
Total.....	154	182	289	616	798	512	14,662	21,453	11,609	75	36	36
23 weeks.....	5,897	5,897	9,556	76,675	482,457	156,231	423,156	765,295	312,854	1,791	1,099	1,099

Division and State	Poliomyelitis			Scarlet fever			Smallpox			Typhoid and paratyphoid fever		
	Week ended		Median 1937-41	Week ended		Median 1937-41	Week ended		Median 1937-41	Week ended		Median 1937-41
	June 13, 1942	June 14, 1941		June 13, 1942	June 14, 1941		June 13, 1942	June 14, 1941		June 13, 1942	June 14, 1941	
NEW ENG.												
Maine.....	1	0	0	3	4	13	0	0	0	0	1	1
New Hampshire.....	0	0	0	9	3	1	0	0	0	0	0	0
Vermont.....	0	0	0	5	3	2	0	0	0	0	0	0
Massachusetts.....	0	0	0	197	157	157	0	0	0	4	1	1
Rhode Island.....	0	0	0	2	6	6	0	6	0	1	0	0
Connecticut.....	1	0	0	18	45	48	0	0	0	0	0	1
MID. ATL.												
New York.....	2	2	1	239	348	389	0	0	0	5	15	9
New Jersey.....	0	1	1	83	139	102	0	0	0	2	6	2
Pennsylvania.....	0	3	1	210	186	223	0	0	0	10	16	8
E. NO. CEN.												
Ohio.....	0	0	0	196	170	170	1	2	2	3	7	7
Indiana.....	0	0	0	20	43	43	0	0	10	0	4	3
Illinois.....	3	3	1	75	154	291	1	2	15	2	5	5
Michigan <sup>1</sup> .....	0	2	0	178	191	276	0	1	1	4	2	2
Wisconsin.....	0	0	0	93	82	94	0	1	1	2	0	0
W. NO. CEN.												
Minnesota.....	1	0	0	24	48	44	0	1	3	0	3	0
Iowa.....	1	0	0	14	26	45	0	10	14	1	0	1
Missouri.....	0	0	0	132	40	46	0	1	8	1	2	7
North Dakota.....	0	0	0	6	3	5	0	0	7	0	0	0
South Dakota.....	1	0	0	8	3	3	0	3	3	0	0	0
Nebraska.....	0	0	0	6	14	14	0	0	1	0	2	2
Kansas.....	0	0	0	17	14	29	0	0	5	1	1	1
SO. ATL.												
Delaware.....	0	0	0	7	10	6	0	0	0	0	0	0
Maryland <sup>1</sup> .....	0	0	0	39	32	21	0	0	0	3	5	3
Dist. of Col.....	0	0	0	6	5	6	0	0	0	1	0	0
Virginia.....	1	0	0	17	9	10	0	0	0	3	2	3
West Virginia.....	0	0	0	9	9	23	0	0	0	3	2	3
North Carolina.....	0	1	0	17	9	16	0	0	0	10	7	7
South Carolina.....	1	1	1	1	2	0	0	0	0	1	6	6
Georgia.....	0	0	0	4	9	6	0	0	0	13	5	13
Florida.....	1	2	1	1	1	3	0	0	0	4	2	2

See footnotes at end of table.

*Telegraphic morbidity reports from State health officers for the week ended June 13, 1942, and comparison with corresponding week of 1941 and 5-year median—Con.*

Division and State	Poliomyelitis			Scarlet fever			Smallpox			Typhoid and paratyphoid fever		
	Week ended		Median 1937-41	Week ended		Median 1937-41	Week ended		Median 1937-41	Week ended		Median 1937-41
	June 13, 1942	June 14, 1941		June 13, 1942	June 14, 1941		June 13, 1942	June 14, 1941		June 13, 1942	June 14, 1941	
E. SO. CEN.												
Kentucky.....	0	0	0	35	34	20	0	0	1	2	5	9
Tennessee.....	1	1	1	24	29	26	0	1	0	6	1	3
Alabama.....	1	0	1	4	10	6	0	0	1	1	0	4
Mississippi <sup>1</sup> .....	1	2	2	3	0	2	1	0	0	2	5	5
W. SO. CEN.												
Arkansas.....	1	0	0	5	2	4	2	0	0	1	5	7
Louisiana.....	3	1	1	4	5	6	0	0	0	4	16	11
Oklahoma.....	0	0	0	4	9	9	0	2	2	4	1	9
Texas.....	1	2	3	12	18	22	1	0	2	17	11	18
MOUNTAIN												
Montana.....	0	0	0	4	9	9	0	0	2	0	0	0
Idaho.....	0	0	0	2	5	5	0	0	1	0	0	0
Wyoming.....	0	0	0	5	1	3	0	0	0	0	0	0
Colorado.....	0	0	0	11	22	22	0	0	1	1	2	2
New Mexico.....	0	0	0	2	3	7	0	0	0	1	3	3
Arizona.....	0	0	0	0	3	3	0	0	0	0	2	2
Utah <sup>1</sup> .....	0	0	0	2	3	9	0	0	0	0	0	0
Nevada.....	0	0	-----	0	0	-----	0	0	-----	0	0	-----
PACIFIC												
Washington.....	0	0	0	16	20	25	0	1	1	0	1	3
Oregon.....	2	0	0	5	9	14	1	0	4	0	3	1
California.....	0	6	4	85	84	123	0	0	8	3	5	9
Total.....	23	28	38	1,859	2,031	2,325	7	25	148	116	161	209
23 weeks.....	476	523	523	80,809	80,877	106,053	514	1,025	6,898	1,939	2,032	2,815

Division and State	Whooping cough		Week ended June 13, 1942									
	Week ended—		An- thrax	Dysentery			En- ceph- alitis, infec- tious	Lep- rosy	Rocky Mt. spot- ted fever	Tula- remia	Ty- phus fever	
	June 13, 1942	June 14, 1941		Ame- bic	Bacil- lary	Un- spec- ified						
NEW ENG.												
Maine.....	65	20	0	0	0	0	0	0	0	0	0	
New Hampshire.....	2	11	0	0	0	0	0	0	0	0	0	
Vermont.....	50	10	0	0	0	0	0	0	0	0	0	
Massachusetts.....	187	267	0	0	0	0	4	0	0	0	0	
Rhode Island.....	32	33	0	0	0	0	0	0	0	0	0	
Connecticut.....	86	81	0	0	1	0	0	0	0	0	0	
MID. ATL.												
New York.....	368	293	0	1	4	0	1	1	0	0	1	
New Jersey.....	432	110	1	0	0	0	0	0	1	0	0	
Pennsylvania.....	215	294	1	0	0	0	0	0	0	0	0	
E. NO. CEN.												
Ohio.....	196	305	0	0	0	0	1	0	0	1	0	
Indiana.....	34	34	0	0	0	0	0	0	0	0	0	
Illinois.....	275	82	0	2	0	0	0	1	1	1	0	
Michigan <sup>1</sup> .....	218	240	0	0	0	0	0	0	0	0	0	
Wisconsin.....	206	144	0	0	0	0	0	0	0	0	0	

See footnotes at end of table.

*Telegraphic morbidity reports from State health officers for the week ended June 13, 1942—Continued*

Division and State	Whooping cough		Week ended June 13, 1942									
	Week ended—		An- thrax	Dysentery			En- ceph- alitis, infect- ious	Lep- rosy	Rocky Mt. spot- ted fever	Tula- remia	Ty- phus fever	
	June 13, 1942	June 14, 1941		Ame- bic	Bacil- lary	Un- spec- ified						
W. NO. CEN.												
Minnesota.....	20	94	0	1	0	0	0	0	0	0	0	0
Iowa.....	29	33	0	0	0	0	0	0	0	0	0	0
Missouri.....	20	10	0	0	0	0	0	0	0	0	0	0
North Dakota.....	8	17	0	0	0	0	2	0	0	0	0	0
South Dakota.....	4	3	0	0	0	0	0	0	0	0	0	0
Nebraska.....	16	10	0	0	0	0	0	0	0	0	0	0
Kansas.....	55	142	0	0	0	0	0	0	0	0	0	0
SO. ATL.												
Delaware.....	1	1	0	0	0	0	0	0	0	0	0	0
Maryland <sup>1</sup> .....	34	76	0	0	0	0	0	0	1	0	0	0
Dist. of Col.....	24	16	0	0	0	0	0	0	0	0	0	0
Virginia.....	41	67	0	0	0	91	0	0	4	1	0	0
West Virginia.....	17	49	0	0	0	0	0	0	0	0	0	0
North Carolina.....	160	251	0	0	0	0	0	0	2	0	0	0
South Carolina.....	50	131	0	0	0	0	0	0	0	0	0	2
Georgia.....	14	18	0	4	14	0	0	0	0	3	14	9
Florida.....	10	32	0	0	1	0	0	0	0	1	0	0
E. SO. CEN.												
Kentucky.....	80	33	0	0	0	0	1	0	0	0	0	0
Tennessee.....	67	86	0	0	0	12	0	0	0	1	0	0
Alabama.....	71	51	0	0	0	0	0	0	0	0	10	0
Mississippi <sup>2</sup> .....			0	0	0	0	0	0	0	0	0	0
W. SO. CEN.												
Arkansas.....	42	33	0	2	48	0	0	0	0	5	0	0
Louisiana.....	12	3	0	0	0	0	0	0	0	0	1	0
Oklahoma.....	9	25	0	0	0	18	0	0	1	0	0	0
Texas.....	138	401	0	14	139	0	1	0	0	0	4	0
MOUNTAIN												
Montana.....	18	13	0	0	0	0	0	0	1	2	0	0
Idaho.....	1	21	0	0	0	0	0	0	1	0	0	0
Wyoming.....	7	13	0	0	0	0	0	0	6	2	0	0
Colorado.....	29	173	0	0	0	0	1	0	0	0	0	0
New Mexico.....	20	13	0	0	0	0	0	0	0	0	0	0
Arizona.....	10	52	0	0	0	31	0	0	0	0	0	0
Utah <sup>1</sup> .....	42	97	0	0	0	0	0	0	3	1	0	0
Nevada.....	6	0	0	0	0	0	0	0	1	0	0	0
PACIFIC												
Washington.....	67	127	0	0	0	0	0	0	2	0	0	0
Oregon.....	16	17	0	0	0	0	0	0	2	0	0	0
California.....	274	735	0	4	5	0	2	2	0	0	1	0
Total.....	3, 778	4, 767	2	28	212	152	13	4	26	18	42	0
23 weeks.....	88, 081	107, 829										

<sup>1</sup> New York City only.<sup>2</sup> Period ended earlier than Saturday.

## WEEKLY REPORTS FROM CITIES

City reports for week ended May 30, 1942

This table lists the reports from 87 cities of more than 10,000 population distributed throughout the United States, and represents a cross section of the current urban incidence of the diseases included in the table.

	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Polymyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
Atlanta, Ga.	0	0		0	1	0	3	0	4	0	0	6
Baltimore, Md.	2	0		0	149	6	6	0	24	0	2	31
Barre, Vt.	0	0		0	0	0	0	0	0	0	0	2
Billings, Mont.	1	0		0	23	0	0	0	0	0	0	2
Birmingham, Ala.	0	0	2	0	2	0	1	0	0	0	0	5
Boise, Idaho	0	0		0	4	0	0	0	1	0	0	0
Boston, Mass.	1	0		0	261	0	13	0	55	0	0	29
Bridgeport, Conn.	0	0		2	13	0	1	0	2	0	0	1
Brunswick, Ga.	0	0		0	20	0	0	0	0	0	0	0
Buffalo, N. Y.	0	0		0	22	0	5	0	18	0	0	5
Camden, N. J.	1	0		0	1	0	3	0	5	0	1	2
Charleston, S. C.	0	0	6	0	28	0	0	0	0	0	0	3
Charleston, W. Va.	0	0		0	0	0	0	0	1	0	0	0
Chicago, Ill.	19	0	2	2	40	0	15	1	62	0	0	137
Cincinnati, Ohio	0	0	2	1	10	0	1	0	22	0	0	9
Cleveland, Ohio	0	1	3	0	5	0	3	0	43	0	0	19
Columbus, Ohio	0	0		0	39	0	2	0	4	0	0	13
Concord, N. H.	0	0		0	0	0	1	0	0	0	0	0
Cumberland, Md.	0	0		0	0	0	0	0	0	0	0	0
Dallas, Tex.	2	0		0	13	0	1	0	2	0	1	0
Denver, Colo.	2	0	11	0	139	0	6	0	2	1	1	9
Detroit, Mich.	1	0		0	34	0	7	0	122	0	0	84
Duluth, Minn.	0	0		0	5	1	1	0	6	0	0	0
Fall River, Mass.	4	0		0	23	0	0	0	16	0	0	2
Fargo, N. Dak.	0	0		0	4	0	0	0	1	0	0	0
Flint, Mich.	0	0		0	1	0	0	0	2	0	1	7
Fort Wayne, Ind.	0	0		0	0	0	2	0	0	0	1	0
Frederick, Md.	0	0		0	0	0	0	0	1	0	0	0
Galveston, Tex.	0	0		0	7	0	2	0	0	0	0	4
Grand Rapids, Mich.	0	0		0	0	0	0	0	2	0	0	9
Great Falls, Mont.	0	0		0	25	0	0	0	2	0	0	3
Hartford, Conn.	0	0		0	52	1	3	0	3	0	0	15
Helena, Mont.	0	0		0	27	0	0	0	5	0	0	2
Houston, Tex.	1	0		0	14	0	14	0	5	0	4	4
Indianapolis, Ind.	1	0		0	74	0	5	0	12	0	0	22
Kansas City, Mo.	5	0		0	97	2	5	0	19	0	0	1
Kenosha, Wis.	0	0		0	5	0	0	0	2	0	0	16
Little Rock, Ark.	0	0	3	0	1	0	0	0	1	0	0	0
Los Angeles, Calif.	1	0	12	2	401	2	15	0	17	0	3	16
Lynchburg, Va.	1	0		0	2	0	1	0	0	0	0	24
Memphis, Tenn.	0	0	3	0	20	0	4	0	1	0	0	9
Milwaukee, Wis.	0	0		0	365	0	4	0	28	0	0	48
Minneapolis, Minn.												
Missoula, Mont.	0	0		0	3	2	0	0	1	0	0	0
Mobile, Ala.	0	0		1	0	0	0	0	0	0	0	0
Nashville, Tenn.	0	0		0	4	0	2	0	0	0	0	1
Newark, N. J.	0	0	1	1	296	1	4	0	17	0	0	60
New Haven, Conn.	0	0		0	53	0	1	0	0	0	0	2
New Orleans, La.	0	0	3	1	40	0	6	1	2	0	0	1
New York, N. Y.	13	3	6	2	148	7	30	2	159	0	3	167
Omaha, Nebr.	0	0		0	58	0	1	0	2	0	0	0
Philadelphia, Pa.	0	0	1	0	35	4	12	0	134	0	3	116
Pittsburgh, Pa.	2	0		1	7	1	6	0	12	0	0	15
Portland, Maine	0	0		0	10	0	2	0	0	0	0	2
Providence, R. I.	0	0		0	126	0	4	0	2	0	0	21

See footnotes at end of table.

## City reports for week ended May 30, 1943—Continued

	Diphtheria cases	Encephalitis, infections, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Pollomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
Pueblo, Colo.....	0	0	-----	0	1	0	0	0	2	0	0	0
Racine, Wis.....	0	0	-----	0	254	0	0	0	9	0	0	24
Raleigh, N. C.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Reading, Pa.....	0	0	-----	0	2	0	1	0	2	0	0	11
Richmond, Va.....	1	0	-----	0	14	0	3	1	1	0	0	1
Roanoke, Va.....	0	0	-----	0	3	0	0	0	0	0	0	0
Rochester, N. Y.....	0	0	-----	0	10	0	0	0	7	0	0	11
Sacramento, Calif.....	2	0	-----	0	43	0	0	0	4	0	0	26
Saint Joseph, Mo.....	0	0	-----	0	1	0	0	0	1	0	0	0
Saint Louis, Mo.....	1	0	1	1	45	0	10	0	8	0	1	4
St. Paul, Minn.....	0	0	-----	0	56	0	1	0	1	0	0	10
Salt Lake City, Utah.....	0	0	-----	0	308	0	5	0	5	0	0	8
San Antonio, Tex.....	0	0	2	1	7	0	6	0	0	0	0	4
San Francisco, Calif.....	1	0	3	0	617	1	7	1	6	0	0	24
Savannah, Ga.....	0	0	1	0	1	1	0	0	1	0	0	12
Seattle, Wash.....	1	0	-----	0	269	0	4	0	4	0	0	15
Shreveport, La.....	0	0	-----	0	3	0	2	0	1	0	0	0
South Bend, Ind.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Spokane, Wash.....	0	0	-----	0	60	0	2	0	1	0	0	1
Springfield, Ill.....	0	0	-----	0	13	0	7	0	4	0	0	1
Springfield, Mass.....	0	0	-----	0	58	1	3	0	9	0	0	10
Superior, Wis.....	0	0	-----	7	3	0	0	0	0	0	0	2
Syracuse, N. Y.....	0	0	-----	0	542	0	1	0	3	0	0	27
Tacoma, Wash.....	0	0	-----	0	28	0	1	0	0	0	0	4
Tampa, Fla.....	0	0	-----	0	25	0	3	0	0	0	0	2
Terre Haute, Ind.....	1	0	-----	0	2	0	1	0	1	0	0	0
Topeka, Kans.....	0	0	-----	0	23	0	1	0	1	0	0	0
Trenton, N. J.....	0	0	1	1	0	0	1	0	5	0	0	2
Washington, D. C.....	0	0	-----	0	60	0	9	0	5	0	0	17
Wheeling, W. Va.....	0	0	-----	0	1	1	2	0	3	1	0	0
Wichita, Kans.....	0	0	-----	0	61	0	0	0	1	0	0	6
Wilmington, Del.....	0	1	-----	0	10	0	0	0	1	0	0	0
Wilmington, N. C.....	0	0	-----	0	3	0	3	0	0	0	0	9
Winston-Salem, N. C.....	0	0	-----	0	9	0	2	0	1	0	1	0
Worcester, Mass.....	0	0	-----	0	6	0	7	0	8	0	0	47

*Anthrax.*—Cases: Philadelphia, 1.

*Dysentery, amebic.*—Cases: Birmingham, 1; New York, 1.

*Dysentery, bacillary.*—Cases: Dallas, 1; Los Angeles, 1; Richmond, 1; Syracuse, 1.

*Typhus fever.*—Cases: Philadelphia, 1.

*Rates (annual basis) per 100,000 population, for the group of 87 cities in the preceding table (estimated population, 1942, 33,485,219)*

Period	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Typhoid fever cases	Whooping cough cases
		Cases	Deaths						
Week ended May 30, 1942....	9.97	9.81	3.58	812.85	42.67	142.33	0.31	3.43	187.17
Average for week, 1937-41....	14.16	8.65	3.30	1655.71	59.80	237.61	1.89	4.09	190.09

<sup>1</sup> Median.



## FOREIGN REPORTS

### CANADA

*Provinces—Communicable diseases—Week ended May 16, 1942.*—During the week ended May 16, 1942, cases of certain communicable diseases were reported by the Dominion Bureau of Statistics of Canada as follows:

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Cerebrospinal meningitis			1	6	12			2	1	22
Chickenpox		5		130	264	35	34	31	94	593
Diphtheria		11	2	21		8	4	1	1	48
Dysentery				9						9
Encephalomyelitis							2			2
German measles		1		5	62	9	17	6	23	123
Influenza					3		12		24	39
Measles		2	1	441	165	138	9	14	12	782
Mumps		24	1	209	400	57	156	46	445	1,338
Pneumonia		2			13	3	3		32	53
Scarlet fever	2	32	12	64	208	35	20	97	37	507
Tuberculosis	3	1	19	69	60	56	27	2	108	345
Typhoid and paratyphoid fever			1	9	2		2			14
Undulant fever					3		1		1	5
Whooping cough		4	1	163	77	1		11	62	319
Other communicable diseases		1		7	223	56		1	26	314

### NEW ZEALAND

*Notifiable diseases—4 weeks ended February 23, 1942.*—During the 4 weeks ended February 23, 1942, certain notifiable diseases were reported in New Zealand as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Actinomycosis	1		Puerperal fever	7	1
Cerebrospinal meningitis	27	3	Scarlet fever	27	
Diphtheria	61		Tetanus	1	
Dysentery (bacillary)	11	1	Trachoma	1	
Erysipelas	17	1	Tuberculosis	160	44
Food poisoning	34	1	Typhoid fever	4	1
Poliomyelitis	1		Undulant fever	1	

## SWITZERLAND

*Notifiable diseases—Year 1941.*—During the year 1941, cases of certain notifiable diseases were reported in Switzerland as follows:

Disease	Cases	Disease	Cases
Anthrax.....	1	Mumps.....	973
Cerebrospinal meningitis.....	250	Paratyphoid fever.....	87
Chickenpox.....	2,008	Poliomyelitis.....	1,479
Diphtheria.....	1,116	Scarlet fever.....	3,311
Dysentery.....	5	Trachoma.....	5
German measles.....	1,374	Tuberculosis.....	3,477
Influenza.....	545	Typhoid fever.....	70
Lethargic encephalitis.....	8	Typhus fever.....	2
Malaria.....	3	Undulant fever.....	129
Measles.....	3,629	Whooping cough.....	1,786

## TURKEY

*Notifiable diseases—Year 1941.*—During the year 1941, certain notifiable diseases were reported in Turkey as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax.....	723	49	Paratyphoid fever.....	198	13
Cerebrospinal meningitis.....	476	164	Puerperal fever.....	94	28
Chickenpox.....	8	-----	Scarlet fever.....	610	7
Diphtheria.....	936	144	Smallpox.....	7	2
Dysentery (amebic).....	422	48	Tetanus.....	43	17
Dysentery (bacillary).....	175	46	Trachoma.....	1	-----
Encephalitis, epidemic.....	1	1	Typhoid fever.....	3,139	294
Erysipelas.....	18	5	Typhus fever.....	950	108
Leprosy.....	74	1	Undulant fever.....	8	-----
Measles.....	5,030	245	Whooping cough.....	12	1

# REPORTS OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER RECEIVED DURING THE CURRENT WEEK

NOTE.—Except in cases of unusual prevalence, only those places are included which had not previously reported any of the above-named diseases, except yellow fever, during the current year. All reports of yellow fever are published currently.

A cumulative table showing the reported prevalence of these diseases for the year to date is published in the PUBLIC HEALTH REPORTS for the last Friday of each month.

(Few reports are available from the invaded countries of Europe and other nations in war zones.)

## Plague

*Morocco.*—During the week ended May 23, 1942, 35 cases of plague were reported in Morocco.

## Typhus Fever

*Algeria.*—During the period May 1–10, 1942, 1,641 cases (167 in Algiers; 17 in Bone; 61 in Oran) of typhus fever were reported in Algeria.

*Bulgaria.*—During the week ended May 9, 1942, 43 cases of typhus fever were reported in Bulgaria.

*Morocco.*—During the week ended May 23, 1942, 1,050 cases of typhus fever were reported in Morocco.

*Spain.*—During the week ended May 9, 1942, 70 cases (7 in Madrid; 13 in Barcelona) of typhus fever were reported in Spain. During the week ended May 2, 1942, 46 cases were reported.

*Tunisia.*—During the week ended May 9, 1942, 485 cases of typhus fever were reported in Tunisia.

## COURT DECISION ON PUBLIC HEALTH

*Manufacturer of bakery products held not liable in action based on illness resulting therefrom.*—(Massachusetts Supreme Judicial Court; *Johnson v. Stoddard et al.* (2 cases), 37 N.E.2d 505; decided October 31, 1941.) A wife and husband each sued two individuals, as manufacturers of bakery products, to recover damages for illness resulting from eating cream puffs which were alleged to have been unfit for human consumption because infected with dangerous germs from one of the defendants' employees. In each case the judge directed a verdict in favor of one of the defendants while the jury returned a verdict against the other defendant. The judge reported the cases to the supreme court of Massachusetts upon the stipulation that, if they were properly submitted to the jury, judgments were to be entered in accordance with the verdicts; otherwise, judgment in each case was to be entered for the defendant against whom the verdicts had been returned.

There was evidence that the wife purchased four cream puffs for herself and her husband at a store which procured bakery products, including cream puffs, from the defendant. The plaintiffs ate these puffs on the day purchased, April 1, 1937, there being nothing wrong in their appearance and taste. One of the plaintiffs became ill on April 8 and the other on April 10. The appellate court said that it could be found that they were suffering from paratyphoid B.

On April 29 the defendant was informed by a physician who was apparently connected with the State department of health that he was suspicious that an employee of the defendant had this disease and the defendant immediately laid off the employee. This employee had worked 5 years for the defendant and during that time was never sick. In 1936 he had been immunized against the disease. There was other evidence by physicians who were also health officials, and the supreme court said that the question before it was whether the evidence was sufficient to warrant the verdicts for the plaintiffs.

According to the court the manufacturer of an article of food for human consumption owed a duty to the ultimate consumer to exercise care in its preparation and output in order that his product would not cause injury to the consumer, and the degree of care that had to be exercised was commensurate with the danger to the life and health of the consumer that might probably result from the lack of such care. The court assumed, without deciding, that the evidence would warrant an inference that the employee was a carrier of paratyphoid B when the puffs were manufactured and that in some way germs from him were imparted to the puffs, but it went on to say that there was no evidence that the defendant knew or reasonably could be expected to know that one of his employees was in such

physical condition that it was dangerous to permit him to handle food. "Indeed, the testimony is to the contrary and clearly demonstrates that it was not until April 29, 1937, that the defendant had or should have had any knowledge concerning this condition of the employee."

In the next place it was the court's view that the evidence would not support a contention that the employee on April 1 knew or ought to have known that he was afflicted with a dangerous disease which might be transmitted to others through the food that he handled and that there was nothing upon which liability could be imposed upon the defendant on the ground that the employee was negligent.

In an attempt to prove negligence of the defendant the plaintiffs relied upon a violation of a State statute which provided, in part, that there should not be used in bakery products or in the ingredients thereof any ingredient or material, including water, which was spoiled or contaminated or which might render the product unwholesome, unfit for food or injurious to health, and that there should not be used in any bakery product any ingredient likely to deceive the consumer or which lessened the nutritive value of such product. The law also provided that the said ingredients and the sale and offering for sale of the said products should otherwise comply with certain specified sections of the statutes. The court said that the purpose of the statute was to require the manufacturer to use only pure and wholesome materials and such as would not be injurious to health and that there was no contention that the use of any of the materials that went into the cream puffs was contrary to the statute. "The primary concern of the statute is to insure the wholesomeness of the finished product by the use of proper ingredients. It deals specifically with the ingredients as distinguished from the manufactured product." Regarding the plaintiffs' contention that some of the ingredients were impregnated by disease germs emanating from the employee, the court stated that the plaintiffs had not sustained the burden upon them of showing that the ingredients used did not comply with the statute.

The judgment in each case was in favor of the defendant.

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