# Intrastate Evaluations of Syphilis Serology

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At the request of the National Advisory Serology Council of the Public Health Service, a survey was conducted in 1951 to determine the current status of intrastate serology evaluations. The emphasis placed on the National Evaluation of State Serologic Laboratories since its initiation in 1937 has, to some extent, tended to obscure in the minds of public health workers the importance of State programs in this field. It is the purpose of this report to call attention to the activities of State laboratories in improving the quality of serology in their respective areas.

Information was collected by questionnaires addressed to directors of State and Territorial public health laboratories. Replies were received from the 48 States, from the Territories of Alaska, Hawaii, and Puerto Rico, and from the cities of New York and St. Louis. Forty of the 53 laboratories reporting had active intrastate serology evaluation programs involving the intrastate exchange of samples for examination. The extent and duration of these programs in 36 States, 2 Territories, and 2 cities are summarized in the table. The numbers of laboratories participating are given first, 4,200 in all—3,810 hospital, clinic, or private laboratories, 312 city, county, or regional laboratories, and 78 Federal laboratories.

The questionnaire called for a statement of the average, the minimum, and the maximum number of specimens submitted to each participating laboratory per year. Less than half of the laboratories indicated that the number of specimens per laboratory varied; commonly, a fixed number was sent to each participant. Hence, if stated, the average number of specimens is given in the table. Ohio recorded the minimum only and Oregon the maximum, and these figures were used for those States. Oklahoma gave the maximum and the minimum numbers only and the latter are shown. The number of specimens distributed to each laboratory in that State varied from 10 to 240. Fourteen State laboratories submitted from 10 to 25 specimens to each local laboratory, 10 from 40 to 96, while 16 submitted 100 or more specimens.

The total numbers of specimens distributed in each area were computed from the information given. Over 200,000 specimens of blood or serum are prepared and distrubuted annually in the intrastate serology evaluation programs. Eight States distributed less than a total of 1,000 specimens each; 21, from 1,000 to 9,999; and 7, more than 10,000. The largest number of specimens (34,600) was distributed by Ohio, which sent a minimum of 200 to each of 173 participating laboratories.

The number of years during which the program has been in progress is given in the final column of the table. The program was initiated first in New York, Michigan, Connecticut, and California. An evaluation program has been in operation for 15 years or more in these States. In four States it has been in effect for less than 5 years.

Serum specimens only were distributed by 29 States, some blood and some serum specimens by 4, and blood only by 7 States.

The Venereal Disease Research Laboratory was used as the reference or control laboratory

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## Intrastate serology evaluation programs in 1951

| State or Territory | Number and type of laboratories participating | | | Number of specimens distributed | | Number of years program has been in progress |
|---|---|---|---|---|---|---|
| | Hospital, clinic, and private | City, county, and regional | Federal | To each laboratory per year | Approximate total | |
| Alabama | 20 | 8 | 0 | 200 | 5,000 | 1 |
| California | 650 | 43 | 1 | 20 | 13,880 | 15 |
| Colorado | 32 | 2 | 0 | 75 | 2,550 | 10 |
| Connecticut | 66 | 6 | 3 | 10 | 750 | 15 |
| Delaware | 5 | 1 | 0 | 100 | 600 | 4 |
| Florida | 104 | 7 | 8 | 60 | 7,140 | 4 |
| Georgia | 48 | 12 | 3 | 200 | 12,600 | 12 |
| Idaho | [1] | [1] | [1] | 40 | [1] | 8 |
| Illinois | 294 | 13 | 6 | 15 | 4,695 | 13 |
| Indiana | 85 | 4 | 3 | 96 | 8,832 | 11 |
| Iowa | 18 | 1 | 1 | 200 | 4,000 | 10 |
| Kansas | 42 | 1 | 3 | 240 | 11,040 | 11 |
| Kentucky | [1] | [1] | [1] | 15 | [1] | 11 |
| Louisiana | 0 | 5 | 0 | 120 | 600 | 10 |
| Maryland | 5 | 27 | 1 | 220 | 7,260 | 5 |
| Massachusetts | 34 | 3 | 0 | 120 | 4,440 | 14 |
| Michigan | 170 | 22 | 1 | 10 | 1,930 | 18 |
| Minnesota | 27 | 2 | 1 | 144 | 4,320 | 11 |
| Missouri [2] | 68 | 6 | 4 | 50 | 3,900 | 9 |
| St. Louis | 32 | 0 | 0 | 50 | 1,600 | 13 |
| Nebraska | 17 | 2 | 2 | 150 | 3,150 | 10 |
| New Jersey | 100 | 13 | 1 | 25 | 2,850 | 4 |
| New York [3] | 52 | 31 | 10 | 10 | 930 | 35 |
| New York City | 235 | 1 | 0 | 20 | 4,752 | 14 |
| North Carolina | 125 | 11 | 1 | 100 | 13,700 | 10 |
| Ohio | 160 | 11 | 2 | 200 | 34,600 | 10 |
| Oklahoma | 96 | 7 | 1 | 20 | 2,080 | 5 |
| Oregon | 84 | 3 | 0 | 50 | 4,350 | 13 |
| Pennsylvania | 249 | 4 | 1 | 20 | 5,080 | 11 |
| Rhode Island | 20 | 0 | 1 | 10 | 210 | 13 |
| South Dakota | 13 | 4 | 0 | 175 | 2,975 | 5 |
| Tennessee | 74 | 5 | 0 | 94 | 7,426 | 10 |
| Texas | 678 | 22 | 19 | 20 | 14,380 | 13 |
| Utah | [1] | [1] | [1] | 100 | [1] | 10 |
| Virginia | [1] | [1] | 0 | 210 | [1] | 11 |
| Washington | 66 | 15 | 4 | 50 | 4,250 | 10 |
| West Virginia | 100 | 5 | 0 | 180 | 18,900 | 12 |
| Wyoming | 15 | 0 | 1 | 50 | 800 | 9 |
| Hawaii | 26 | 5 | 0 | 15 | 465 | 6 |
| Puerto Rico | 0 | 10 | 0 | 20 | 200 | 10 |
| Total | 3,810 | 312 | 78 | ---------- | 216,835 | ---------- |

[1] Number of laboratories participating not stated.
[2] Exclusive of St. Louis.
[3] Exclusive of New York City.

by 30 of the States, and in 12 it was the only reference laboratory. The State, Territorial, or city laboratory handling the program was the only reference laboratory in eight instances. Two States used as a control the average findings of the participating laboratories. Authorserologists were used as a reference laboratory in four instances in States which used multiple laboratories in this capacity.

All of the 40 State laboratories "offer an educational program or consultive service to laboratories desiring or needing assistance."

Eight others which do not distribute specimens are prepared to aid in this manner. The educational approach differs. Some laboratories provide special training and experience individually or in small groups in the State laboratory; some aid by arranging group refresher courses, usually with the assistance of the Venereal Disease Research Laboratory, while others give emphasis to an annual visit of a serology consultant to each participating laboratory. Judging by the appended notes on the questionnaires, the intrastate serology programs are being increasingly recognized as an important educational activity.

Some of the laboratories having no intrastate evaluation program explained that they either lacked staff or had a limited need (as in States with few laboratories performing serology).

Massachusetts has a supplementary program for laboratories which perform tests on blood donors only. "There are 110 laboratories in this group and 30 specimens are sent to each during the year."

Specific information on methods used by the laboratories was not requested, but it was apparent that they use different methods to measure the reliability of performance. This is done in terms of specificity and sensitivity by some laboratories though, obviously, this procedure cannot be used by those submitting a small number of pooled serum specimens only. No information was obtained which could be used to assess the relative value of these varying programs.

The importance of the national serology evaluation is widely acclaimed, but participation is limited to the central public health laboratory of each State and Territory and to author-serologists. It is not generally appreciated that the intrastate evaluations are much more extensive. Many laboratories participate in these, and few local laboratories have serologists of wide experience on their staffs. For these reasons the intrastate serology programs have high importance in improving the quality of serology testing available to health officers, physicians, and patients.

## Dr. Shannon Succeeds Dr. Topping

Dr. Norman H. Topping, associate director of the National Institutes of Health, Public Health Service, has been appointed vice president in charge of medical affairs of the University of Pennsylvania, effective November 1. Named by Surgeon General Leonard A. Scheele to succeed Dr. Topping is Dr. James A. Shannon.

Dr. Topping, a member of the commissioned corps of the Public Health Service since 1936, was assigned to research work at the National Institutes of Health in 1937. In 1946, he became assistant chief of its Division of Infectious Diseases, and in 1948, was named associate director, which carries the rank of Assistant Surgeon General. Dr. Topping is noted especially for the development of the first effective treatment for Rocky Mountain spotted fever. His research activities have included many studies of viral and rickettsial diseases.

For the past 3½ years, Dr. Shannon has served as associate director of the National Heart Institute, National Institutes of Health. He is recognized for his research in kidney function, chemotherapy, and malaria. He has served as guest investigator at the physiological laboratory at the University of Cambridge, England, and as a member of the staff of the Marine Biological Laboratory at Woods Hole, Mass. Before coming to the Public Health Service, Dr. Shannon was director of the Squibb Institute for Medical Research, New Brunswick, N. J.