

*executive committee of  
the directing council*



PAN AMERICAN  
HEALTH  
ORGANIZATION

*working party of  
the regional committee*

WORLD  
HEALTH  
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PROGRESS REPORT ON PUBLIC HEALTH LABORATORIES

The Executive Committee at its 66th Meeting in 1971 requested the Director in Resolution VI (Annex I) to undertake a study on public health laboratories. The Director is pleased to report to the Committee on the progress made.

PAHO has a continuing program designed to improve and expand health laboratory services. Countries are being encouraged to establish central laboratories which can oversee and assist network laboratories within the country, or within defined areas in the country. To aid in achieving this goal, a revision outlining in general the functions of a central laboratory has been drawn up and is being presented to countries of the Region for their consideration. These functions (Annex II) cover in general all aspects of public health and clinical laboratory testing, including the control of diagnostic reagents, the development and distribution of practical test procedures, performance evaluation studies, teaching, to all levels, on laboratory testing and, finally, essential research in methodology, epidemiology and medical care.

In their reevaluation and reorganization of health services, a number of countries in the Region have recognized the importance of health laboratory services. For example, in Chile, Colombia, and Peru particular attention is being paid to improving and extending health laboratory services. Other countries, such as Argentina, Brazil, Mexico and Uruguay, also have programs designed to strengthen their public health laboratories.

A study on the availability and use of autoanalyzers in the Americas was completed in 1973. This review was of assistance in assessing the status and the place of autoanalyzers in this Region.

An increasing number of laboratories have invested or are investing in expensive automation equipment, even though in many instances there is

an incomplete understanding of its limitations and utilization. As a result, much of the equipment has been used improperly; it is frequently underused and in some instances has never been put into use.

The problem of selection of proper equipment is not a simple one, and actually has increased in complexity as newer, more effective, and at times more expensive equipment has been introduced. The number of companies specializing in the production of automation equipment has steadily increased, and the variety now available for selection can be bewildering to say the least. A thorough understanding of the use and limitations of available equipment is essential before a proper selection can be made.

Interest in automation in public health and clinical laboratories has been increasing markedly in recent years. It has been firmly established that automation, where properly used, has had a tremendous impact on the delivery of health services. Tests can be performed in greater numbers, with greater speed, and often with much more accuracy by automation than by conventional manual techniques.

To assist in this important field, PAHO has agreed to give its full cooperation and to cosponsor a symposium on this subject, which will be held in Mexico City from 3 to 5 March 1976. The symposium is being cosponsored by the Mexican authorities and the International Federation of Clinical Chemists. The symposium, which at first was planned for Mexico, was extended to include all other countries of the Region, but from the interest expressed and enquiries received from other countries it may well become international in scope.

The repair and maintenance of laboratory equipment still presents a major problem in the Americas. Plans for a special course that was to be held later in 1975 or in early 1976 are being held in abeyance, due to lack of funds. The principles and curriculum for such a course can, however, be made readily available should the necessary funds materialize.

Finally, it should be stressed that difficulties in obtaining accurate laboratory results are worldwide and are not confined to the Americas. Efforts to overcome these problems have been far from successful, even in some of the more developed countries. It should be recognized that PAHO's contribution to this field will be influenced by financial considerations.

Annexes



EXECUTIVE COMMITTEE OF  
THE DIRECTING COUNCIL

PAN AMERICAN  
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66th Meeting

WORKING PARTY OF  
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66th Meeting

RESOLUTION VI

PUBLIC HEALTH LABORATORIES

THE EXECUTIVE COMMITTEE,

Bearing in mind the need to increase and improve diagnostic laboratory facilities to provide the necessary support for improving and extending the health services of the countries; and

Considering that it is advisable for that purpose to use technological advances bearing in mind the needs and possibilities of each country,

RESOLVES:

1. To recommend to the Director that he continue to assist the Governments in their efforts to improve and extend the network of laboratory services in the countries.
2. To urge the Governments to give the necessary priority to the improvement of health laboratory services when formulating and executing national health plans.
3. To recommend to the Director that, subject to the availability of budgetary funds, he undertake a study on the usefulness of autoanalyzers in national diagnostic laboratories. That study will include information

on the type and capacity of this equipment, and advantages to be obtained from its use.

4. To request the Director to deal in this study with the problems involved in the maintenance of laboratory equipment.

5. To request the Director to report in due course to the Executive Committee the findings of the above-mentioned study.

(Approved at the thirteenth plenary session,  
14 July 1971)

FUNCTIONS OF A CENTRAL LABORATORY IN CLINICAL DIAGNOSTIC  
AND PUBLIC HEALTH LABORATORY SERVICES

It is first of all essential that the central laboratory have expertise in all aspects of clinical and public health laboratory testing and that it be completely familiar with all the specific test techniques and the problems involved. It is not necessary that the central laboratory be involved in routine testing, but it must be in a position to do such work if required. This knowledge is mandatory if the central laboratory is to carry out its main functions, which may be outlined as follows:

1. Control of Diagnostic Reagents

It is self-evident that, no matter how good the technician or how well equipped the laboratory, the results obtained will have little meaning if the diagnostic reagents are faulty. The central laboratory must thus be in a position to control as fully as possible all test reagents used in the country, whether made locally or imported.

2. Preparation and Distribution of Test Procedures

The central laboratory must be able to select or develop test procedures and provide these to all network laboratories. The methods provided should be practical. Different levels of tests and types of tests may have to be provided to individual laboratories depending on the personnel, laboratory space and equipment available at a particular center.

3. Teaching

Training courses should be devised and given for all levels of technical personnel.

4. Performance Evaluation

The central laboratory should be qualified and able to assess performance of individual laboratories, either by on site visits or by distribution of known test samples. The VDRL programs now in effect in many countries are excellent examples of successful evaluation studies.

5. Research

Research in methodology of test procedures should be a continuing program. In addition, the central laboratories should be capable of and willing to participate in special medical care and epidemiological studies.