Support Services

Coordination for better laboratory services
M.M. El-Nageh

In developing countries the organization of health laboratory services commonly leaves much to be desired. Poor coordination and the absence of clear policies often inhibit efficiency and efficacy. Ways of remedying such situations are examined in the present article.

Health laboratory services are often inefficiently run and resources are consequently wasted, particularly in developing countries. In this connection there is a clear need for the closest possible cooperation and coordination between laboratories and health programmes, as well as between and within the laboratories themselves, including those not under the authority of health ministries.

Role of coordination

Within a health ministry the optimal utilization of laboratory services is best achieved by taking over the laboratory aspects of vertical single-disease systems and integrating them into the health laboratory services. It is generally acceptable to decentralize such services in conjunction with the establishment of a central laboratory serving as a reference institute, provided that extensive coordination and cooperation take place. Where regionalization is pursued there is a need for improved horizontal coordination with other laboratory facilities.

Health is affected by a wide range of factors, many of which are not within the terms of reference of health ministries. Coordination with other sectors is therefore essential and is best achieved by establishing intersectoral committees.

Coordination between laboratories leads to increased economy in the use of staff and equipment, contributes to the widest possible access to specialized knowledge, and helps to improve quality and maintain credibility. It is not the same as integration but may lead to it. It involves cooperation and understanding while stimulating creative effort. It may be achieved by bringing together the activities of autonomous programmes or services through joint planning and implementation. It is not a matter for one-way communication. Laboratory services should be seen as part of a system including all mutually compatible components and infrastructures.

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Dr El-Nageh is Regional Adviser, Quality of Care and Health Care Technology, World Health Organization Regional Office for the Eastern Mediterranean, P.O. Box 1517, Alexandria, Egypt.
Coordination within laboratories means sharing equipment, interdisciplinary information, training and emergency services.

**Disease surveillance**

Both vertical and horizontal coordination between health laboratory services and communicable disease programmes is necessary in the field of disease surveillance. The early detection of infectious diseases requires health laboratories to have good facilities, especially at the peripheral and regional levels. The methods employed at the periphery should be as reliable, simple, rapid and inexpensive as possible.

**Expanded Programme on Immunization**

The facilities in many laboratories should be improved in a coordinated manner so that there is effective support for the Expanded Programme on Immunization, particularly in clinical diagnosis, surveillance, serosurveys, environmental surveys, vaccine potency testing and quality assurance.

**Food hygiene**

Regional and district laboratories should coordinate activities aimed at the early detection and identification of the causative agents of foodborne diseases, which are increasingly important because of both microbial and chemical contamination. Intersectoral and interprofessional collaboration have a prominent part to play in this area.

**Environmental health**

The monitoring of environmental pollution is a complex matter demanding teamwork. Traditionally it has been dealt with by the public health authorities through a central reference institute for complex analyses and regional laboratories for routine sampling. Today, however, a multisectoral approach is necessary. Under the guidance of interministerial committees, field sampling and follow-up activities should be undertaken in addition to laboratory collaboration and coordination.

**Veterinary laboratory services**

There should be close links and sharing of expertise between medical and veterinary laboratory services, especially in connection with food hygiene, some aspects of environmental protection, and the diagnosis of zoonotic diseases.

**Benefits of coordination**

The benefits of coordination among laboratory services can be expected to include the following.

- Better use of dispersed resources, leading to the development of activities and improved self-reliance.
- Improved management techniques, involving teamwork and the deployment of staff at separate levels of responsibility.
- Improved choice of equipment and methods.
- Harmonization of policies for maintenance of equipment.
- Redistribution of surplus equipment to laboratories needing it.
- Standardization of equipment, diagnostic material and diagnostic methods.
- Promotion of quality assurance programmes.
- Upgrading of services and improvement of quality and credibility.
- Introduction of automation and electronic data processing.

The capacity to coordinate may be limited by a lack of expertise, gaps in intersectoral communication, misunderstandings and other factors.

**Policy establishment**

In each country a national coordination committee, comprising representatives of all the bodies concerned and chaired by the director-general of health laboratory services, should plan and supervise interlinked activities. The health ministry should be responsible for implementation. Regional or provincial subcommittees should have representation and functions paralleling those of the national committee.

Initially, existing and potential coordination and collaboration should be assessed and needs should be considered against the background of established services. Phased development and implementation should take place in accordance with the availability of resources so that significant progress can be made in a few key areas.

Within each region, senior staff in every laboratory should be encouraged to acquaint themselves with the facilities, organization and activities of other laboratories. Information should be exchanged continuously between laboratories.

**Strategy development**

In order to develop a strategy the following steps have to be taken.

- Needs, objectives and priorities have to be defined.
- A work plan has to be prepared, with reference to tasks, who shall carry them out, how and when they shall be performed, and resources.
- Information, guidelines and manuals have to be prepared.
- Channels of communication have to be established at all levels.
- The programme may be started in one region and gradually expanded as experience and resources are accumulated.
- A decision has to be taken as to who will be responsible for follow-up.

**Evaluation**

Evaluation requires:

- checking whether major needs have been met;
- determining the cost / benefit ratio;
- assessing gains in health status;
- defining problems that remain to be solved;
- assessing gains in the efficacy and credibility of laboratory services.