

course, is in Alaska. These small problem-oriented laboratories, with staffs ranging from 10 to 100 persons are two-thirds Federal facilities and one-third leased from universities or other organizations.

Most BDPEC laboratories are devoted to routine surveillance and research missions involving basic microbiological and chemical methodologies. Their work, in conjunction with State and local agencies, constitutes a network for surveillance of health hazards and for control activities.

A few laboratories are specialized and are unique resources. The injury control program's Human Factors Laboratory in Providence, R.I., determines the human characteristics affecting a person's ability to anticipate danger and prevent injury. The National Center for Air Pollution Control operates a laboratory in Ypsilanti, Mich., where devices for the control of emissions from automobiles are tested to determine compliance with performance standards. These facilities are made available to others when additional activities can be accommodated.

There are many examples where the laboratories serve the health-related work of other Federal agencies. The Las Vegas laboratory of the National Center for Radiological Health provides surveillance of atomic testing. Food protection laboratories of the National Center for Urban and Industrial Health have conducted studies during the past 5 years on such matters as bacterial contamination of space vehicles for NASA and a study of marine toxins for the Army, and for other agencies.

The occupational health laboratory of the National Center for Urban and Industrial Health provides a significant pharmacological and toxicological resource to other parts of PHS, other agencies, and to industry. The Arctic Health Services Laboratory has helped the Defense Department in problems of water supply, sewage disposal, and disease vector control.

There are severe limitations on the capabilities of BDPEC laboratories serving the missions of other Federal agencies. The laboratories have limited resources for meeting their primary health missions. Numerous public health problems cannot be undertaken because of these limitations. Time can only be diverted from the major mission when the problem of another agency has major public health implications.

For much of its research and surveillance activities, the Bureau depends on contractual arrangements with academic institutions, industrial organizations, and agreements with other Federal agencies. There is a constant search for organizations with competence to conduct specific research, surveillance, and developmental activities.

The Bureau's laboratories have strong relationships with academic institutions. Many of the laboratories share central maintenance services with a university or buy services from the university. For example, the National Communicable Disease Center located on the edge of the campus of Emory University in Atlanta has developed extensive relationships with the university which have been enriching experiences for both. These relationships with universities have helped in attracting high quality professional personnel to Federal laboratories.