

CHAPTER 27

Health Research Facilities*

A. NATURE AND COMPOSITION OF HEALTH RESEARCH FACILITIES

1. DESCRIPTION OF HEALTH RESEARCH FACILITIES

(a) *General Physical Characteristics*

Structure and equipment: Structures constructed under the health research facilities program, consist of modern, equipped research laboratories. Most of the laboratories contain laboratory work benches for the researchers, cabinets, tablets, outlets for gas, electricity, water and suction, the arrangement, spacing and equipment of which are suited to the particular discipline of research. For example, a laboratory for biomedical research will be structured quite differently from a laboratory designed for research in anatomy. While some movable laboratory equipment will be contained in each laboratory, larger, more expensive, highly specialized equipment such as spectrophotometers, recording and monitoring equipment, sterilizers, X-ray equipment, etc., will generally be located in a centralized area serving the core needs of several researchers, frequently of different disciplines.

In addition to these types of laboratories, there are those for highly specialized purposes which may bear little or no resemblance to the types just described. These would include biotrons in which tropical, arctic, or any intermediate atmospheric condition can be simulated; high altitude chambers for studies of man's reaction to the of flight in space; hyperbaric chambers, isolation systems, biomedical engineering laboratories, cold rooms, special purpose animal facilities, radioactive chemical and counting rooms, special electronic monitoring systems, specialized clinical research centers, laboratories for microscopy, etc. Health research facilities today must be structured with many built-in features which were not done in of 20 years ago. Today, a facility must be readily adaptable the swift changes of direction in research. Sufficient electrical must be provided; special air conditioning and environmental must be built into the facilities; core laboratory arrangements efficient research design must be arranged. With the trend f scale, complex laboratories, capable of serving not only several ciplines, but entire departments, the design of modern research tories has become a new architectural and engineering speciality, in which the scientist and the architect are only beginning to constructively together and to understand each other's problems.

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