



## Health Care Around the World

### Medical Research

Research is one of the most important fields of medicine. It provides health care professionals with new knowledge and technology for better diagnosis, treatment, and prevention of disease.

Medical research often combines medicine with related fields of biology, and is called biomedical research. Research can be basic or applied. Basic, or fundamental, research has no immediate practical application. Basic cancer research, for instance, may try to identify gene mutations that turn a healthy cell malignant. While this information does not have immediate clinical value, it generates knowledge that often leads to better care for patients. Applied research has a specific practical goal, such as development of a better drug for breast cancer. The early stages of biomedical research usually occur in a laboratory. As scientists gain more knowledge in a particular area, they begin studies on humans. These studies often take place in hospitals or clinics and are called clinical research.

Clinical research usually is performed by multidisciplinary teams, rather than by individual scientists working alone. These groups of men and women have knowledge and skills in different areas, or disciplines, of science. A multidisciplinary biomedical research team may include biochemists, geneticists, physiologists, and physicians. Each team member approaches the problem from a different side and shares knowledge with the group. This multidisciplinary approach increases the chances of solving a problem or developing a new treatment.