



Core Competencies to Build Healthcare Capacity in the Developing World

Based on 108 years of experience in health care innovation, BD (Becton, Dickinson and Company) has developed deep institutional knowledge in the fields of diagnostic and clinical medicine relevant to healthcare infrastructure and capacity building. BD is responding to these and other needs in the developing world through advocacy, knowledge transfer, training, cross sector collaboration and volunteerism.

BD has invested and continues to invest in products and technologies specifically designed to meet the needs of the developing world. The Company is committed to creating access to these vitally needed technologies on an affordable and sustainable basis.

Effective Diagnosis and Monitoring

In addition to basic diagnosis, diagnostic testing is used as a quality control to know when drugs should be administered and whether they are working. The absence of diagnostics can lead to the inappropriate provision of medications, which, in turn, can lead to drug resistance. This is especially common in TB patients, but has also emerged in first line therapies for HIV/AIDS and malaria.

Immune system monitoring is an essential component of treating people living with HIV/AIDS. Accurate measurement of a patient's CD4 count enables clinicians to determine when to initiate antiretroviral (ARV) treatment. ARV treatment minimizes susceptibility to opportunistic and potentially lethal infections, enabling HIV/AIDS patients to sustain a productive life. CD4 testing is also useful in evaluating the effectiveness of and adherence to ARV therapy.

BD's flow cytometers, which monitor HIV/AIDS progression and evaluate treatment through CD4 counts, have been used for decades in laboratories worldwide for immune system monitoring of HIV patients, and for HIV vaccine research. BD's diagnostic technologies also include an automated blood culture system that dramatically shortens TB culture recovery time and a rapid HIV test. In the coming months, BD plans to introduce a rapid malaria test.

Safe Clinical Practice

Reuse of single use injection devices is a leading cause of disease spread. According to World Health Organization estimates, in the year 2000 alone, reused medical devices led to 260,000 new cases of HIV/AIDS, two million hepatitis C infections and 21 million hepatitis B infections.

In response to this issue, BD developed the first "auto-disable" injection device to be placed in WHO field trials, in 1988. These low-cost devices have been utilized for over 3.5 billion immunizations in Africa, Asia and Latin America. BD has also introduced a portfolio of curative injection devices to help prevent reuse in acute care and district health settings, and is the leader in providing needle-based devices with safety-engineered features to protect clinicians from accidental injuries which can transmit disease.