Although evolution is often thought of as a slow process that proceeds on the time scale of millennia, in fact there are many very rapid evolutionary processes, often called contemporary evolution, that have profound effects on human health and welfare. For example: (1) In agriculture, plants and pests can rapidly evolve resistance to herbicides and pesticides, respectively; (2) The influenza virus, and other viruses and bacteria, often evolve within an individual host making treatment strategies difficult and/or temporary; (3) The evolution of bacteria to become resistant to most antibiotics poses a serious threat to mankind; (4) Some parasites, for example African trypanosomes, can change the proteins that they express on their surfaces and thus can become invisible to the immune system; and (5) Harvested populations may show rapid evolution in size or age at maturity, which affects both yield and recovery from depleted states.