Emerging infectious diseases pose challenges for the medical, veterinary, research, and public health communities in the United States and around the world. Reviews of the historical experience indicate that no country is free of the risk of disease emergence, and that two-thirds to three-quarters of recent emerging events have involved vector borne or zoonotic diseases, with the majority of those originating in wildlife. Recent examples include hantavirus pulmonary syndrome, Nipah virus encephalitis, West Nile encephalitis, SARS, monkeypox, H5N1 influenza, pandemic H1N1 influenza, MERS, Chikungunya, Zika, and Ebola virus disease. Health workers (e.g., physicians, veterinarians, microbiologists, public health officials, pathologists, wildlife biologists) have played important roles in the initial recognition of many of these events. This presentation will review factors contributing to disease emergence, discuss some recent illustrative examples, describe challenges in emerging disease detection and response, and review current efforts to strengthen global capacity for early detection, response, and control of emerging diseases.