# Assessing and measuring health status at the population level
**(March 2022)**

## Rationale

Knowing the health status of a population allows for better planning and evaluation of health programs and tailoring of interventions to meet patient and community needs. Physicians are also active participants in disease surveillance programs, encouraging them to address health needs in the population and not merely health demands.

## Key Objectives

Given a defined population, the candidate will describe its health status and measure and record the factors that affect its health status with respect to the principles of causation.

## Enabling Objectives

Given a defined population, the candidate will

- know how to access and collect health information to describe the health of a population, including

    a. describing the types of data and common components (both qualitative and quantitative) used in creating a community health needs assessment;

    b. being aware of important sources of clinical- and population-level health data and recognizing the advantages and disadvantages of each;

    c. critically evaluating possible sources of data to describe the health of a population, including the importance of accurate coding and recording of health information;

    d. describing the uncertainty associated with capturing data related to events and at-risk populations; and

e. discussing surveillance systems and the role of physicians and public health in reporting and responding to disease;

- analyze population health data using appropriate measures, including

    a. applying the principles of epidemiology in analyzing common office and community health situations;

    b. describing the concepts of incidence, prevalence, attack rates, and case fatality rates, calculating them, and discussing the principles of standardization; and

    c. discussing different measures of association, including relative risk, odds ratios, attributable risk, and correlations; and

- interpret and present the analysis of health status indicators, including

    a. demonstrating an ability to use practice-based health information systems to monitor the health of patients and to identify unmet health needs;

    b. discussing the appropriate use of different graphical presentations of data;

    c. describing criteria for assessing causation;

    d. demonstrating an ability to critically appraise and incorporate research findings with particular reference to the following elements:

        - characteristics of study designs (randomized controlled trial, cohort, case-control, cross-sectional);

        - measurement issues (validity, sensitivity, specificity, positive predictive value, negative predictive value, bias, confounding, error, reliability);

        - measures of health, disease (incidence and prevalence rates, distributions, measures of central tendency), and sampling; and

    e. applying the principles of epidemiology by accurately discussing the implications of the measures.