

Dimensions in the training of an epidemiologist

- * **I. Epidemiologic perspective**
 - A. Public health aspects: -- History of epidemiology, epidemiology as a public health science, clinical and public policy implications.
 - B. Scientific aspects: -- Problem conceptualization, philosophy of inference, study designs, interpretation of data, concepts of bias and multicausality.
- * **II. Measurement and analysis** Measures of disease frequency and extent, study designs and strategies, control of sources of error, statistical inference, data analysis and interpretation.
- * **III. Weighing epidemiologic evidence** Critical reading and synthesizing of information.
- IV. Proposal development** Specification of research hypotheses, study populations, measurement tools, analysis strategies; human subjects protection; "grantsmanship".
- V. Study design and execution** Protocol development, subject recruitment, instrumentation, data collection, quality control, reporting and communications collaboration and working with oversight bodies, presentation of findings.
- VI. Data management** Manipulation and analysis of data using computers and statistical software packages.
- VII. Substantive knowledge** General background in health-related sciences and multidisciplinary understanding of specific areas of research.
- VIII. Epidemiologist roles** Development of skills for teaching, consultation, review of proposals and manuscripts, participation in professional meetings, leadership of multidisciplinary research teams, and continuing professional development.