ABSTRACT

Public Health and Sustainability: An Ecosystem Approach to Human Health

by

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An ecosystem is defined as the ensemble of the physical environment, living organisms and the interaction among them. It is considered healthy as long as it can maintain its organization and autonomy over time, rebound from stress and remain active; in other words as long as it is sustainable. The elements of human ecosystems are linked by a very vital characteristic: the health of their population, or “public health.” A condition of human sustainability is conservation and improvement of human health. These concepts: ecosystem, public health and sustainability will be examined in the context of the mission of the university as provider of public services to the region in the field of human health. The study and application of these concepts have been an important task of the U.Mass Lowell Public Health Initiative in the last three years.

A model of human health and public health will be discussed that proposes a view of how the health, social sciences and engineering academic resources at U.Mass. Lowell could be integrated to function as the key for optimizing human health in the region. Research can help us to characterize the links between environmental degradation and impacts on human health. Ecosystem research in human health requires contributions of many disciplines in an integrated manner. The implications are that our academic work should be cooperative rather than competitive, and that our research should be organized around problems rather than around disciplines. Some examples of this research approach are currently taking place at U.Mass. Lowell, such as Environmental Justice (New Visions) and PHASE-In Health Care. These examples illustrate the trans-disciplinary and participatory methods that characterize human healthy ecosystem research, and reflect the appreciation of the links between the health of individuals and their physical, social and economic environments. They represent the ecosystem approach to human health.