

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 2008 Volume VI: Depicting and Analyzing Data: Enriching Science and Math Curricula through Graphical Displays and Mapping

## Monitoring an Epidemic: Analyzing through Graphical Displays Factors Relating to the Spread of HIV/AIDS

Guide for Curriculum Unit 08.06.04 by Heidi A. Everett-Cacopardo

This unit provides the framework for investigating the appropriate construction and use of graphs and generating graphical displays using data sets on HIV/AIDS cases from countries around the world. This unit is divided into two parts that may either be taught consecutively or at different times in the school year. The first section on creating graphs and determining the appropriate graph type for a data set is intended for the beginning of the school. Part two of the unit will be an extension of an established unit on comparing and contrasting population pyramids of developed and underdeveloped countries. The students will first be introduced to epidemiology, and then will learn to use HIV/AIDS databases to extract data in order to develop an appropriate graph using spreadsheet software programs. Students will use their graphing skills to determine the appropriate graphical display to use in depicting data on HIV/AIDS cases in developed and underdeveloped countries. The students will use the graphs to evaluate the relationship they have to the population pyramids of the selected countries. The students will present their graphs and findings in a multimedia presentation.

(Developed for AP Biology, grade 12, and Biology, grade 10; recommended for AP Biology and Biology, grades 9-10 and 12)

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