



Yale-New Haven
Teachers Institute®

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
2010 Volume I: Interdisciplinary Approaches to Consumer Culture

Numeropharma: America's Powerful Legal Drug Culture and the Math Behind It

Guide for Curriculum Unit 10.01.11
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The language of statistics has become a ubiquitous part of the modern consumer culture: economic statistics, weather statistics, sports statistics and the omnipresent medical studies. "The study" with its catch phrases "Four out of five doctors recommend..." and "Studies show..." is the voice of a pseudo governmental presence. This voice counsels an attentive consumer public in the belief that a cure for all ills is through buying.

Pharmaceuticals are not merely a multi-million-dollar industry or even a multi-billion-dollar one. This industry dwarfs almost all other industries. It competes with big oil and the (too big to fail) commercial banks to be among the top three overall of the nation's most profitable industries. The consumer protections implemented throughout the 20th century resulted in "Big Pharma." The FDA not only approves drugs for market but controls the marketing of those approved drugs. This relationship has created a centralized pharmaceutical industry with de facto government-approved monopolies.

This unit will introduce students of high-school statistics to the historical and contemporary role of statistics in the biopharmaceutical industry. We will examine sampling methods and experimental design in the context of clinical trials.

(Developed for Statistics, grades 11-12; recommended for Statistics, grades 11-12)

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