Making Sense of Social Statistics

CARLI Instruction Showcase, July 20th, 2016. Heartland Community College, Normal, IL.

Jeannette Moss and John Hernandez, Northwestern University Library

Some Background

Faculty-designed assignment (with Library input)
Professor Kathleen Carmichael, NU Writing Program

A new course
First-year writing seminar on addiction as a social problem

The Assignment

Where did these numbers come from??

National Institute on Drug Abuse
Advancing Addiction Science

Costs of Substance Abuse

Abuse of tobacco, alcohol, and illicit drugs is costly to our Nation, exacting more than $700 billion annually in costs related to crime, lost work productivity and health care.**

	Health Care	Overall
Tobacco	$130 billion	$295 billion
Alcohol	$25 billion	$224 billion
Illicit Drugs	$11 billion	$193 billion

Screenshot taken 7/15/16 from http://www.drugabuse.gov/related-topics/trends-statistics

Sources:

Aha!

** Costs:

- U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress. A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2014.
  www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf (PDF, 38MB)

- Centers for Disease Control and Prevention. Excessive Drinking Costs U.S. $223.5 Billion. www.cdc.gov/features/alcoholconsumption/. Updated April 17, 2014. Accessed March 9, 2015.

- National Drug Intelligence Center. National Drug Threat Assessment. Washington, DC: United States Department of Justice; 2011.
  www.justice.gov/archive/ndic/pubs44/44849/44849p.pdf (PDF, 8MB)

Learning Outcomes

1. To citation search backward to original research

2. To strategically and efficiently read scholarly research articles or reports for method and other important details

3. To critically evaluate statistical /numerical information rather than just accept it at face value

Four Groups of Four

Tobacco

Alcohol

Illicit Drugs

Place these numbers in broader context:
How does est. cost compare to annual U.S. healthcare costs total? To the U.S. GDP? Expenditures on treatment and research?
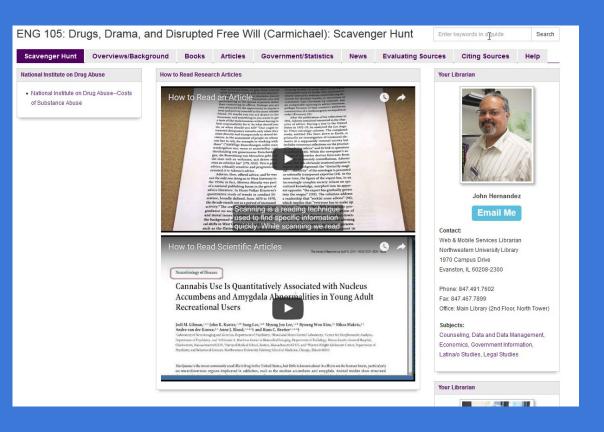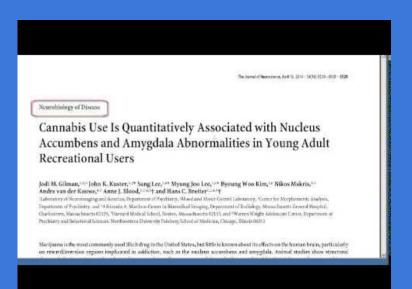
Week 1

Instruction session (50 min.)

Libguide intro

Short video

Group consultations with a librarian

Our approach

1. **Show video**

2. **Meet with groups, starting at NIDA web page:**

http://www.drugabuse.gov/related-topics/trends-statistics

Week 2

Student groups present on the following. Librarians invited to class!

Part 1: **The sources, methods, key assumptions, researchers, currency of data, populations surveyed, etc. that underpin the figures investigated.**

Part 2: **Gaps unfilled or questions remaining after investigation.**

Part 3: **"Lessons learned" from this exercise**

Part 4: **A final slide of sources**

(Informal) assessment

Perceived gaps and questions remaining:

Alcohol group : "'Independent' research firm, the Lewin Group, was one source for this study. However, the Lewin Group's parent company turned out to be United Health Group, one of the U.S.'s largest insurers."

Hilzenrath, D. S. (2009, July 23). Lewin Group, Insurer-Owned Consulting Firm, Often Cited in Health Reform Debate. *The Washington Post*. Retrieved from http://www.washingtonpost.com/wp-dyn/content/article/2009/07/22/AR2009072203696.html

Broader Context group: "Why is there such a big gap between the costs of treating mental health and the costs of treating substance abuse?"

Illicit Drugs group: "Victim costs do not include theft, future earnings, or compounded injuries."

Tobacco group: : "Many sources were compiled, but each samples from different years, and some data is old. Any inflation adjustments?"

(Informal) assessment

"Lessons learned" from this exercise:

Fall Quarter 2015

"Don't just trust and accept statistics you hear—question HOW they were made."

"Even from a trusted source, one cannot take data at its face value. You must investigate methods and potential flaws in the experiment in order to truly understand what the numbers represent."

"Knowing common statistical methods is very important for understanding research papers."

"How to receive help from NU librarians"
"Use library resources and databases to track down citations and sources"

Winter Quarter 2016

Purpose of research affects how figures are framed and presented.

It is exceedingly difficult to accurately estimate the true "cost" of the use of tobacco, especially as it relates to such abstract areas as "productivity loss"

Oftentimes, statistics can serve as a "shock factor" Effective in raising awareness, but ineffective in terms of how change could be brought about. i.e.: What are the true sources of the issue?

Framework….

Research as Inquiry

Knowledge practice= Formulate questions for research based on information gaps or on reexamination of existing, possibly conflicting, information.

Knowledge practice= Monitor gathered information and assess for gaps or weaknesses.

Scholarship as Conversation

Disposition= Recognize they are often entering into an ongoing scholarly conversation and not a finished conversation.

Disposition= Suspend judgment on the value of a particular piece of scholarship until the larger context for the scholarly conversation is better understood.

Augment... Adapt… Reproduce...

Time constraints or level of difficulty? Just pick one of the figures, alcohol for example.

Identify a statistic quoted in an article, website, or other source, relating to a course topic, that you feel needs further explanation, verification, etc.

- Footnotes or references? Sources pointing to a method? If not, can the class find sources to either support or refute the figure?
  Guide the class through the exercise.

Use some of the presentation prompts as quiz or worksheet questions, or other questions that interest you.