

LESSON:

Bans, Bans, Good for the Heart!

Summary: Students read a brief article showing the positive impact on heart attacks of a local nonsmoking ordinance in Pueblo, Colorado; identify various factors that influence our decisions about health behavior; and describe situations that may justify a regulatory solution.

Lesson Type: Extension Lesson—This lesson extends a topic in the *EHP Student Edition* article.

EHP Article: "Bans, Bans, Good for the Heart!"
EHP Student Edition, June 2006, p. A154
<http://ehponline.org/docs/2006/114-3/forum.html#bans>

Objectives: By the end of this lesson, students should be able to:

1. name locations that have instituted smoking bans in public places;
2. describe the physiological link between smoking and heart attacks;
3. identify factors at the personal, interpersonal, and community/environmental levels that influence individuals' decisions about smoking; and
4. discuss the role of regulatory approaches to health promotion.

Class Time: 1 hour

Grade Level: 9–12

Subjects Addressed: Health, Government/Civics, Environmental Health

► Prepping the Lesson (15 minutes)

INSTRUCTIONS:

1. Download the entire June 2006 *EHP Student Edition* at <http://www.ehponline.org/science-ed/>, or download just the article "Bans, Bans, Good for the Heart!" at <http://ehponline.org/docs/2006/114-3/forum.html#bans>.
2. Review the Background Information and Student Instructions.
3. Make copies of the Student Instructions.

MATERIALS (per student):

- 1 copy of the *EHP Student Edition* article "Bans, Bans, Good for the Heart!"
- 1 copy of the Student Instructions

VOCABULARY:

- actuaries
- cardiac
- coagulation
- coronary thrombosis
- incidence
- observational study
- ordinance
- secondhand

BACKGROUND INFORMATION:

The study of how to effectively help people change negative health behavior began in the 1950s with a tight focus on the individual. It was thought that by changing an individual's knowledge, attitudes, and beliefs, you could improve health outcomes for the population as a whole. This focus on intrapersonal factors was ineffective at sustaining meaningful levels of behavior change, however, whether the desired change was stopping smoking or driving with a seatbelt. Health education researchers then shifted to helping individuals build their confidence by teaching simple skills such as calling 911 in case of



emergency or doing a breast self-exam. This proved somewhat helpful, but again, researchers wanted more “bang” for their intervention “buck.” The next wave of health promotion activity added efforts to alter social norms and utilize healthy role models. These methods did result in longer-lasting change among those targeted, but still lacked the desired populationwide benefits. Current approaches to health promotion address the individual, social, and community/environmental levels and increasingly make use of regulatory interventions such as taxes or bans to achieve desired health outcomes. Generally speaking, such health policy approaches are typically limited to problems that 1) have serious negative effects, 2) potentially impact those other than the person making the health choice, and 3) have not been effectively reduced with other methods.

Motorcycle helmet laws and smoking bans are typical of this approach. This approach can also be described as having an environmental focus in that it reduces the availability of unhealthy items such as sodas on elementary school campuses.

Various combinations of these approaches have shown real promise in creating measurable impacts on major health indicators such as cigarette smoking and stroke, and in the banning of severely toxic environmental health contaminants such as lead in gasoline and paint.

This lesson is intended to help students identify the various internal and external factors that influence their seemingly “independent” decisions about personal health matters. In turn, this will help them make fully conscious choices and take steps for positive change in their own lives.

References:

Glanz K, Rimer BK, Lewis FM. 2002. *Health Behavior and Health Education: Theory, Research, and Practice, 3rd Edition*. San Francisco, CA: Jossey-Bass.
Bensley RJ, Brookins-Fisher J, eds. 2003. *Community Health Education Methods, 2nd Edition*. Sudbury, MA: Jones and Bartlett.

RESOURCES:

Environmental Health Perspectives, Environews by Topic page, <http://ehp.niehs.nih.gov>. Choose Environmental Tobacco Smoke/Smoking, Laws/Regulations/Policy

American Cancer Society. Great American Health Check, http://www.cancer.org/docroot/PED/PED_13_Great_American_Health_Check.asp. A fun and interactive individual health risk assessment; also links to smoking cessation materials.

Campaign for Tobacco-Free Kids, <http://www.tobaccofreekids.org>. An excellent website that looks at the impact of smoking on teens and especially notes policy-based approaches that have worked to reduce rates of tobacco use among kids.

National Center for Chronic Disease Prevention and Health Promotion. Tobacco Information and Prevention Source (TIPS), <http://www.cdc.gov/tobacco>. A great source of information for adults and teens about tobacco and current government-sponsored programs targeting behavior change.

► Implementing the Lesson

INSTRUCTIONS:

1. Have students read the article “Bans, Bans, Good for the Heart!”
2. Complete the worksheet with “I statements” based on the examples provided. You may want to come up with a couple of statements as a class. You may also want to discuss the various personal factors (attitudes, interpersonal, community/environmental).
3. Lead a discussion about the effects of smoking on heart attacks and how antismoking laws have helped reduced the incidence of heart attacks. Have students share and compare their worksheet responses and have a class discussion on the final question, OR complete the whole assignment as homework.

NOTES & HELPFUL HINTS:

- Point out to students that they don’t necessarily need to make “I statements” that apply to themselves, but rather that apply to individuals generally. Whenever an assignment refers to health, overpersonalizing the lesson can lead to embarrassment or disclosures of information that are inappropriate for a classroom setting.
- This lesson can be extended by asking students to develop an antismoking program that would target a certain level of influence (e.g., peer pressure or lack of refusal skills).
- Another extension would be to view TV spots produced by the “Truth” campaign (<http://www.thetruth.com/>) and identify some positive “I statements” implicit in the campaign, such as “I won’t let ‘Big Tobacco’ ruin my health” or “I am not fooled by false tobacco advertising.”



▶ Aligning with Standards

SKILLS USED OR DEVELOPED:

- Classification
- Communication (oral, written—including summarization)
- Comprehension (listening, reading)
- Critical thinking and response

SPECIFIC CONTENT ADDRESSED:

- Health promotion methods
- Tobacco control efforts
- Health impacts of smoking
- Factors that impact an individual's decision about smoking

NATIONAL SCIENCE EDUCATION STANDARDS MET:

Science Content Standards

Science in Personal and Social Perspectives Standard

- Personal and community health
- Environmental quality
- Natural and human-induced hazards
- Science and technology in local, national, and global challenges

History and Nature of Science Standard

- Science as a human endeavor
- Nature of scientific knowledge
- Historical perspectives

▶ Assessing the Lesson

Step 3: Students' answers will vary widely but should reflect a correct classification by level of influence (personal, interpersonal, community/environmental). Students should explain or provide an example of why they think one level of influence may be greater than another. Students should write clearly and in complete sentences using logical arguments to explain their answer. You may consider encouraging students to rewrite any answers that are unclear or incomplete, giving them important practice in writing and effectively communicating their thoughts and ideas.

Step 4: Answers to the final question should reflect a mix of the following issues: freedom, right to privacy, limits on harm to others, social costs, environmental degradation, personal responsibility, and enforcement difficulty/impracticality. Again, students should write clearly and in complete sentences using logical arguments to explain their answer. You may consider encouraging students to rewrite any answers that are unclear or incomplete, giving them important practice in writing and effectively communicating their thoughts and ideas.

▶ Authors and Reviewers

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Give us your feedback! Send comments about this lesson to ehpscienceed@niehs.nih.gov.



STUDENT INSTRUCTIONS:
Bans, Bans, Good for the Heart!

Step 1: Read the article "Bans, Bans, Good for the Heart!"

Step 2: Many factors influence people's decisions about their behavior. Health-related behaviors are no exception. The article discusses one type of influence on our behavior—laws that are enforced, perhaps by means of a fine, a ticket, or other form of "disincentive." But there are many other factors that play a role.

Using the following chart, write two or three "I statements" about how each of the listed factors encourages or discourages smoking.

Personal Factors
What an individual thinks, believes, and can do (i.e., knowledge, beliefs, skills, and attitudes) about smoking Example involving attitude: "I don't want to smoke because it gives me bad breath."
Interpersonal Factors
What the people close to an individual (i.e., family, friends, culture) feel about smoking Example involving family: "I smoke because my older sister does."
Community/Environmental Factors
Things in the community/environment that can encourage or limit smoking (i.e., laws, costs, access) Example involving law: "I can't smoke in my favorite coffee shop."

Step 3: Describe the differences between personal, interpersonal, and community/environmental factors. Do you think one of this has greater influence compared to another? Explain.

Step 4: Given the wide range of factors that influence our health choices, when do you think it makes sense to make laws limiting or prohibiting health-related behaviors? Are there areas that you think should never be subject to legal regulation? If so, why?

