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PHIL 20618 Biomedical Ethics and Public-Health Risks

Professor: Dr. Kristin Shrader-Frechette | Class Time: Tuesday/Thursday 5:00-6:15

Classroom: 230 Malloy | Website: http://www.nd.edu/~kshrader

To help the professor learn everyone's name, quickly, please sit in the same spot for every class.

Place of Office Hours: Decio 211 (sign-up sheet available on office door); phone 1-2647

Professor's Office Hours: Tuesday, Thursday: 4:00-5:00; Wednesday 3:00-4:00 p.m. or any other day and time, by prior appointment

Contact Information: Please see Doctor Shrader-Frechette during her office hours or after class. For appointments, please sign sheet on her office door. Dr. Shrader-Frechette's assistant handles her phone and emails, so neither are good ways to contact her. Because of the volume of emails and phone messages she receives, she cannot answer emails. In cases of emergency, leave a phone message.

Course Goals:
- to understand the relationships among biomedical science, ethical theory, public health, and contemporary laws and policies about all three;
- to evaluate the ethical assumptions underlying these relationships;
- to gain some philosophical and humanistic perspectives on how biomedicine, technology, and contemporary health policies affect our lives and health.

Course Overview

I. **PHP Severity**: How Serious Are Public-Health Problems (PHP)?

II. **PHP Causes**: Why Do Good People Do So Little About Public Health Problems (PHP)?

Ignorance about PHP	**Solution**: read NY Times; Thurs. paper
Spin of Special Interests	**Solution**: read Beder, Global Spin
Citizens' Weak Analytical Skills	**Solution**: Master the 5 Criteria and Fallacies

III. **PHP Ethical Analysis**: How Does Logical and Ethical Analysis Help Resolve PHP?

Solution: use Singer, How Are We to Live?
Solution: use 5 criteria; recognize the fallacies

IV. **PHP Issues**: How Does One Resolve Specific PHP? **Solution**: use ASPH, Ethics and Public Health

Required Books (total cost,under $ 65)

1. ASPH (Assn of Schools of Public Health), Ethics and Public Health; available to read or download online, free, at
2. Beder, Global Spin, available at bookstore or on Amazon for $ 19.95
3. Singer, How Are We to Live ?, available at bookstore or on Amazon for $ 14.96
4. New York Times subscription, M-F for 15 weeks = $ 30 Follow directions at http://homedelivery.nytimes.com/HDS/CollegeSearch.do?mode=SearchCollege&who=stud&SELECTED_MENU=24&SELECTED_MENU_PARENT=22. Bring copy of NY Times subscription proof with first Thursday paper.

Assignments

- 3 one-page **papers**, 1 on personal impact (P), 1 on science (S), and 1 on ethics (E)
- short **quizzes** (Q) Tuesdays on readings for Tues.-Thurs. that week; no other tests
- one-page **overview** (O) of some PHP, due Thursdays, from that week's NY Times
- classroom **analysis** (A) for each class and attendance at each class

Grades

Each item above counts 20 percent, as follows: P, S, E, Q, (O + A).
No assignments, at all, are accepted late, and no incompletes are given except when students have doctor's note and make prior arrangements, by phone or in person, before the due date.

Extra-Credit Projects

Due at the first class after Thanksgiving, these must be of form E, and topic must be approved by Professor, far ahead of time.

Assignment S (Scientific Controversy): Choose one of the topics below:

S1. Dr. Elizabeth Whelan, President of the American Council on Science and Health, in a 12-29-04 article, says one of the "Great Unfounded Health Scares of 2004" is that "mercury in seafood threatens health." Is she right? Why or why not?

S2. Dr. Elizabeth Whelan, President of the American Council on Science and Health, in a 12-29-04 article, says one of the "Great Unfounded Health Scares of 2004" is that "farmed salmon causes cancer" because of its higher levels of PCBs. Is she right? Why or why not?

S3. Dr. Elizabeth Whelan, President of the American Council on Science and Health, in a 12-29-04 article, says one of the "Great Unfounded Health Scares of 2004" is that "Teflon causes health problems." Is she right? Why or why not?

S4. Dr. Elizabeth Whelan, President of the American Council on Science and Health, in a 12-29-04 article, says one of the "Great Unfounded Health Scares of 2004" is that "cell phones cause brain tumors." Is she right? Why or why not?

S5. Dr. Elizabeth Whelan, President of the American Council on Science and Health, in a 12-29-04 article (http://www.aboutmytalk.com/t175703/s&.html), says one of the "Great Unfounded Health Scares of 2004" is that thimerol- and mercury-containing "childhood vaccines cause autism." Is she right? Why or why not?

S6. In 1994, the Natural Resources Defense Council was given a "Pinochhio Prevaricator's Award by the ACSH for spreading false information about the health hazards to children of the pesticide Alar. Was the award deserved?

S7. On August 15,1991, New York Times Science writer K. Schneider ran a piece titled "US Officials Say Dangers of Dioyins Were Eyaggerated." Were the piece and its title accurate and likely not to mislead?

S8. Dr. Devra Davis, Carnegie Mellon University epidemiologist says that environmental estrogens, including chlorine compounds, are partly responsible for the increase in breast cancer. Is she right? Why or why not?

S9. Does the much higher incidence of breast cancer on Long Island likely have environmental causes?

S 10. New York Times science writer Richard Severo, nominated four times for Pulitzer Prizes, charged that he was reassigned to a lesser job because he offended corporate sensibilities with his articles, especially those on GE pollution of the Hudson River. Was he right?

S11. New York Times science writer K. Schneider ran pieces on Us Superfund sites that MIT's Mark Dowie says were biased against the environment and not adequately factual. Who is right?

S12. New York Times science writer Richard Severo, nominated four times for Pulitzer Prizes, charged that he was reassigned to a lesser job because he documented the fact that Dupont did genetic testing on African-American employees. Was he right?

S 13. New York Times science writer Philip Hilts, charged that he was reassigned because he wrote about 80 stories on tobacco and showed how the industry, especially Philip Morris, covered up the health effects of smoking. Was he right?

S14. MIT's Mark Dowie has charged that New York Times Science writer Gina Kolata has a pro-corporate/anti public-health bias, as revealed in her stories on breast implants. Who is right?

S15. MIT's Mark Dowie has charged that New York Times Science writer Gina Kolata has a pro-corporate/anti public-health bias, as revealed in her stories on food irradiation. Who is right?

S16. MIT's Mark Dowie has charged that New York Times Science writer Gina Kolata has a pro-corporate/anti public-health bias, as revealed in her stories on environmental hormones. Who is right?

Assignment E (Ethics Controversy): Choose one of the topics below:

E 2.1 **Consent**: Should medical experiments on children be allowed, provided their parents consent?

E 2.2. **Consent**: for national security reasons, should biological and chemical warfare experiments continue on military personnel who volunteer to take part in them, as occurred with A-bomb testing, provided military personnel receive full and perpetual health coverage?

E 3.1 **Equal Protection**: Is it acceptable to do clinical trials in Third World Nations, if subjects sign and understand the informed-consent forms?

E 3.2 **Equal Protection**: Is the WTO correct to allow pesticides banned in the US to be imported from other nations, into the US, on food ?

E 4.1 **Due Process and Fair Play**: Should citizens who serve on governmental public-health/environment-related boards or advisory groups receive full compensation for their time and expenses?

E4.2 **Conflicts of Interest**: Should scientists/medical doctors representing pharmaceutical companies, pesticide companies, and so on, serve on federal science-advisory boards that make recommendations about regulations and policy?

E 4.3 **Autonomy/Freedom**: Should US patients, who are terminally ill, have the right to choose to try whatever untested therapies they wish?

E 5.1 **Privacy**: Did government biological-weapons research plausibly play any role in the outbreak or spread of (the infectious) Lyme Disease ?

E 5.2 **Rights to Know**: Should all US cattle be tested for Mad Cow Disease, as they are in some other nations?

E 6.1 **Preventing Harm**: Should all illegal drugs be legalized, as in the Netherlands, and should the government provide maintenance drugs, so as to prevent drug-related crime and help care for the addicts?

E 6.2 **Preventing Harm**: Should all medical students be required to take 4 courses – in prevention, occupational illness, environmental illness, and nutrition – as part of their education?

E 6.3 **Rights to Know**: Should the names and addresses of convicted child molesters, once they are released from prison, be available to all, in order to protect potential victims?

E 6.4. **Rights to Know**: Are current government rules, allowing polluters not to meet community right-to-know provisions, given National Security and terrorist threats, ethically defensible?

E 7.1 **Equal Protection**: Is the "Clear Skies" air-pollution plan ethically defensible on grounds of equity?

E 7.2 **Equal Protection**: Do 2005 and 2006 federal EPA budget cuts put some Americans at unequal risk from environmental injustice?

E 7.3 **Protection of the Vulnerable**: Should all US occupational-health standards be as strict as those in the strictest European countries?

E 7.4 **Protection of the Vulnerable**: Should pregnant women be kept from hazardous workplaces, as many chemical companies do and as some nuclear industries tried to do?

E 8.1 **: Autonomy**: Should employers have the right to perform genetic screening of all potential employees?

E 8.2 **Paternalism**: Should genetically susceptible individuals be kept from hazardous workplaces, as many chemical companies do and as the Navy did in its nuclear submarine program?

E 9.1 **Human Rights**: Does everyone have the same right to breathe clean air and drink clean water, as the UN says, regardless of where they live in the US?

E 9.2 **Human Rights**: Should there be federal funding of state/local departments of public health, emergency rooms, and of state/local educational systems, in areas where the poverty level (and tax base) mean that residents do not have equal access?

Assignment, Paper P (Personal Impacts of Public-Health Problems):

Discuss an ailment/disease/death of any family member or close friend and show that it might be plausibly related to environmental factors; give evidence that the disease, e.g., lung cancer, is caused by some environmental contaminant, e.g., smoking. Do not use anything connected to smoking, as these ties are well established. Possible diseases might be leukemia, multiple myeloma, thyroid cancer, liver cancer, breast cancer, prostate cancer, brain cancer, non-Hodgkins lymphoma, autoimmune diseases, asthma, ADHD, depression. Follow model below, and be sure to have all 3 parts of paper, as shown below, and at least 3 references from recent, first-rate scientific journals or recognized medical authorities or government, e.g., EPA (no mere web data), with references put in standard scientific format like that below. Do not pad the bibliography, and use only references that you cite in text. Do not make claims that you cannot back up with citations, and give several reasons for your claims.

Assignment, Paper S (Scientific Issue Re Public-Health Problems):

Choose which S paper topic you would most like, and follow model below. Be sure to have all 3 parts of paper (thesis, at least 5 arguments, at least 5 items in bibliography). References should be from recent, first-rate scientific journals, government, or recognized medical authorities (no mere web data), with references put in standard scientific format like that below. Do not pad the bibliography, and use only references that you cite in text. Do not make claims that you cannot back up with citations, and give several reasons for all claims.

Assignment, Paper E (Ethical Issue Re Public-Health Problems):

Choose which E paper topic you would most like, and follow model below. Be sure to have all 3 parts of paper (thesis, at least 5 arguments, at least 5 items in bibliography). References should be from recent, first-rate ethical and scientific journals/books, government sources, and recognized medical authorities (no mere web data), with references put in standard scientific format like that below. Do not pad the bibliography, and use only references that you cite in text. Do not make claims that you cannot back up with citations, and give reasons for all claims.

Sample Assignment P (Personal-Impact Paper)

1. What Happened to the Family Member or Friend: My mother died at age 43 of bone cancer, multiple myeloma.

2. What May Have Caused What Happened: At least 6 reasons suggest that my mother likely died of multiple myeloma (MM) because of unnecessary x-rays. Because she was a tiny woman, during each of 6 pregnancies her obstetrician x-rayed her pelvis to see if the child's head could pass through the birth canal.

First, MM tends to be a disease of blacks, of men, of those about age 70, and those exposed either to ionizing radiation or to petrochemical pollutants (Sorahan 2005; MayoClinic 2005), and my mother fits none of these risk factors except for the radiation exposures.

Second, MM is very well documented as being caused by workers' exposures to high or repeated doses of ionizing radiation – whose effects are cumulative and additive (Gluzman 2005) – and by soldiers' exposures to nuclear-weapons test fallout (Muirhead 2004), and my mother's doses were of the same levels as these workers and soldiers (Nussbaum et al 1990).

Third, MM is a relatively rare cancer, occurring in only about 1 percent of all cancers (Ashcroft 2003), and the rarity also suggests there must be something unusual – like repeated radiation exposures when she was in her twenties, that contributed to it.

Fourth, there is no family history of cancer, including MM, and my mother was a healthy, well educated, highly athletic woman who never worked outside the home except for teaching for several years – all of which suggests that diet and lifestyle likely did not contribute to the MM.

Fifth, the MM appeared first in her pelvis, precisely where she was X-rayed repeatedly.

Sixth, the MM appeared about 25 years after first exposure, consistent with MM's latency period (Muirhead 2004).

3. Bibliography

Ashcroft, A. 2003. Aetiology of bone disease and the role of bisphosphonates in multiple myeloma. **Lancet Oncology** 4 (5): 284-92.

Gluzman, D. 2005. Malignant diseases of hematopoietic and lymphoid tissues in Chernobyl clean-up workers. **Hematology Journal** 5 (7): 565-71.

Mayo Clinic Staff. 2003. Multiple myeloma, risk factors; accessed 5-31-05 at http://www.mayoclinic.com/invoke.cfm?objectid=214BA123-97CC-4F97-89A1344C33E12F05&dsection=4

Muirhead C. 2004. Epidemiological studies of UK test veterans: II. Mortality and cancer incidence. **Journal of Radiological Protection** 24 (3): 219-41.

Nussbaum, R., Belsey, R., and Koehnlein, W. 1990. Recent mortality statistics for distally exposed A-bomb survivors. **Medicina Nuclearis** 2 (1): 163-174.

Sorahan, T. 2005. Cancer risks in a historical UK cohort of benzene exposed workers. **Occupational and Environmental Medicine** 62 (4): 231-6.

Sample Paper E: Should the US pay for screening/treating all citizens for thyroid disease, since above-ground US nuclear-weapons testing has caused some of this disease?

Thesis: At least 6 ethical reasons suggest the US should, at least, pay for thyroid screening/treatment for all females who were ages 1-18 any time between 1953-1962, the time of the 200+ above-ground nuclear weapons' tests, because the US likely is responsible for their ailments.

1. Because thyroid ailments of females who fit these criteria are, more likely than not, caused by US tests (ACERER 1998); the government knew the harm the tests would cause and suppressed it (ACERER 1998, p. 10); and people bear responsibility for their harm (Beauchamp and Childress 1993, pp. 387-388), government should pay for this.

2. Because the government lied, violating citizens' rights to know about the effects of the tests (Shrader-Frechette 2004), and because such lies increase duties of compensation to victims (Beauchamp and Childress 1993, pp. 307-316), the government should pay for screening/treatment for those in this group.

3. Because government delayed releasing the NCI (1997) fallout report for more than 10 years (Hoffman 1998, pp. 421-439), causing fallout victims to be outside the 6-year statute of limitations, so that citizens were deprived of their due-process rights, government should pay to screen/treat this group (Shrader-Frechette 2004).

4. The objection, that the expense of the screening/treatment prohibits it (IOM/NAS 1998, p. ES-3), fails because government could screen only those females roughly 45-55 years old, since government bears greatest responsibility for these ailments (Beauchamp and Childress 1993, pp. 343-344), and this group needs the most protection.

5. The objection, that screening/treatment has minimal benefits since thyroid disease is rarely fatal (IOM/NAS 1998), fails because thyroid-disease can induce devastating depression, for example, and those without health insurance deserve equal treatment (Beauchamp and Childress 1993, pp. 257-274).

6. The objection, that screening would cause greater harm – false alarm in healthy citizens (IOM/NAS 1998), is ethically flawed in ignoring rights to know and to compensation, and it falsely assumes the IOM has the right to make paternalistic decisions, even when people have been treated unfairly (Mill 1910).

Advisory Committee for Energy-Related Epidemiologic Research (ACERER), HHS 1998. **Resolution with Regard to Exposures of the American People to Fallout from the Nevada Test Site**. Washington, DC, ACERER.

Beauchamp T., Childress J. 1993. **Principles of Biomedical Ethics**. New York: Oxford University Press.

Hoffman, O. 1998 "Statement," in US Congress 1998. **National Cancer Institute's Management of Radiation Studies**. Washington, DC, US Government Printing Office, pp. 421-439.

Institute of Medicine (IOM) 1998. **Exposure of the American People to Iodine 131 from Nevada Nuclear-Bomb Tests,** Washington, DC, National Academy Press.

Mill, J. S. 1910. **Utilitarianism, On Liberty, and Representative Government**. New York, Dutton.

National Cancer Institute (NCI). 1997. **Estimated Exposures and Thyroid Doses Received by the American People from Iodine-131 in Fallout Following Nevada Atmospheric Nuclear Bomb Tests**, NIH Publication 97-4264, Washington, DC, National Institutes of Health.

Shrader-Frechette, K. 2004. Comparativist rationality and epidemiological epidemiology. **Topoi** 23 (1): 153-163.

Sample Science (S) paper: Were US citizens harmed by exposure to Iodine from US nuclear weapons tests?

Thesis: At least 6 reasons suggest many US citizens, especially children, were harmed by the nuclear tests.

1. Many US children were harmed – especially women about 45-55 old and those who drank milk from backyard cows/goats – because such doses induce thyroid disease; many received lethal radiation doses, above160 rads (IOM 1998, p. 42); 3.5 million US children received doses 50 times above annual background; and all doses are risky (US Congress 1998, pp. 421-439).

2. Although the National Academy of Sciences (IOM 1998) and National Cancer Institute (NCI 1997) minimize fallout-caused cancers, they underestimate them because they calculated only average risk from fallout, ignored the higher risks to children and to the medically sensitive 25 % of the population, ignored all non-cancer thyroid diseases/ deaths, and all effects not caused by I-131 (NCI 1999, pp. B-8 through B-29; Shrader-Frechette 2004).

3. Objectors say average fallout risk was low (IOM 1998), but other groups, like Physicians for Social Responsibility (Rush and Geiger 1997-1998, pp. 1-2), say I-131 cancers are 600-700 % higher than IOM says, and MIT scientists estimate global, US-fallout-caused fatal cancers at one million (Makhijani, Hu, Yi 1995).

5. Although objectors claim that I-131 fallout likely caused only several hundred thousand additional cancers, even IOM (1998, p. ES-2) says I-131 doses were "too uncertain" to be used in estimating risk (IOM 1998, p. ES-2); as a result, the I-131 risks are at best uncertain, not low.

6. Objectors say fallout had no obvious effects, but this ignores statistically significant increases in childhood leukemias and other cancers (US Congress 1998) and the fact that test-era radiation-risk estimates have been shown to be massive underestimates (Abbott and Barker 1996).

Abbott A, Barker S. 1996. Chernobyl damage underestimated. **Nature** 380 (6576): 658-659.

Institute of Medicine (IOM). 1998. **Exposure of the American People to Iodine 131 from Nevada Nuclear-Bomb Tests**, Washington, DC, National Academy Press.

Makhijani, A. Hu, H., and Yih, K. 1995. **Nuclear Wastelands**, Cambridge, MIT Press.

National Cancer Institute (NCI). 1997. **Estimated Exposures and Thyroid Doses Received by the American People from Iodine-131 in Fallout Following Nevada Atmospheric Nuclear Bomb Tests**, NIH Publication 97-4264, Washington, DC, National Institutes of Health.

Rush, D, Geiger, J. 1997-1998. NCI study on I-131 exposure from nuclear testing: a preliminary critique, **Physicians for Social Responsibility** 4 (3, Winter): 1-5.

Shrader-Frechette, K. Comparativist rationality and epidemiological epidemiology. **Topoi** 23 (1): 153-163.

US Congress. 1998. **National Cancer Institute's Management of Radiation Studies**. Washington, DC, US Government Printing Office.

OUTLINE OF LECTURES AND ASSIGNMENTS

I. How Serious Are Public-Health Problems?

TU 8-23-05 Lecture:Overview of Course; Syllabus Overview
Overview of Public Health Problems
Effects of Poor Air on Children and Minorities: Chicago
Genetically Engineered Seeds and Non-Hodgkins Lymphoma

ND student-football-scholarship student, Chicago: family asthma
two ND students with scrotal cancer
Jake my 4-year-old neighbor

Assignment for Next Time: Do Paper P; bring copies for all.

TH 8-25 Lecture: Public-Health Effects of Ionizing Radiation: Background + Human Made
Public-Health Effects of Air Pollution (D. Davis)

Students turn in Paper P, Personal-Impact Paper, Providing Copies for All in Class, plus 2 for Professor, and Present Them.

✷ Assignment Due Today: Paper P

✷ Assignment for Next Time: Read Singer, ch.7, on how our biology makes us cooperators.

✷ Assignment for 9-13-05: Watch ABC-Moyers video, Trade Secrets and NOVA video, A Plague on Our Children, and fill out both videos forms (from my website under "course materials"); turn in both video sheets on 9-13-05. (This makes up for 2 classes.)

TU 8-30 Lecture: Quiz + Students present remaining P Papers + Plato on ethics

Plato's Republic, ch. 2 and the Ring of Gyges
Game Theory and Cooperation
Biologically People Are Cooperators, Yet Our PHP Are Killing Us.

✷ Assignment Due Today: Read Singer, ch.7, on how our biology makes us cooperators

✷ Assignment for Next Time: Read Singer, ch. 8, on how people are good and seek the good; do NYT paper (and do every Thursday).

II. Why Do Good People Do So Little About Public H. Problems?

TH 9-1 Lecture: Aquinas on Why People Are Good and Seek What Is Good
People Want What Is Good, Yet Our PHP Are Bad, Are Killing Us.

Students Turn in Proof of NYT subscription, with first Thursday paper.

✷ Assignment Due Today: Read Singer, ch. 8, on how people are good and seek the good

✷ Assignment for Next Time: Read Singer, chs. 2, 4 on how and why people are self interested. This misguided self interest can cause PHP

II. Why Do Good People Do So Little About Public H. Problems? (continued)

TU 9-6 Lecture: Quiz + Singer, Self Interest, Lynn White, and the Tragedy of the Commons

✷ Assignment Due Today: Read Singer, chs. 2, 4 on how and why people are self interested. This misguided self interest can cause PHP.

✷ Assignment for Next Time: Read Beder, ch. 1, on how "spin" by special interests can cover up PHP.

TH 9-8 **NO CLASS/LECTURE**; "CHILDREN" VIDEO MAKES UP FOR NO CLASS

✷ Assignment for Next Time: Read Beder, chs. 2, 4, + Beder, pp. 227-229 on GE, on how SLAPPS and "spin" by special-interest front groups discourage attention to PHP.

TU 9-13 Lecture: Quiz + 2 Videos Show How Greed Helps Cause PHP; turn in 2 video sheets.
Greed Turns Dirty, as when SLAPPs attack Carson, Lappe, Needleman

Consider The logical fallacies and flaws in what one front group, the American Council on Science and Health, says about PCBs.

How to Use the 5 criteria and logical fallacies (see "course materials" on website www.nd.edu/~kshrader) to detect spin.

✷ Assignment Due Today:Read Beder, chs. 2, 4, on how SLAPPS and "spin" by special-interest front groups discourage attention to PHP.

✷ Assignment for Next Time: Read Ames and Gold article on website, **and** Epstein article on website and be prepared to critique it (using fallacies and 5 criteria) in class.

III. How Does Logical and Ethical Analysis Help Resolve PHP?

TH 9-15 Lecture: Using the 5 logical criteria and recognizing logical fallacies to adjudicate "The Cancer Wars"

Practice identifying fallacies and criticizing arguments via the 5 criteria

✷ Assignment Due for Today: Read Ames and Gold article on website, **and** Epstein article on website and be prepared to critique it (using fallacies and 5 criteria) in class.

✷ Assignment for Next Time: Do S papers.

TU 9-20 Lecture: Quiz + Student Presentations of S papers S1-S6 on ACSH claims:

✷ Assignment Due Today: Everyone turn in S papers, but S1-S6 students bring copies for entire class, and present in 5-10 minutes.

✷ Assignment for Next Time: Read Beder, chs. 5-6 on how special-interest-funded think tanks discourage attention to PHP.

III. How Does Logical and Ethical Analysis Help Resolve PHP? (continued)

TH 9-22 Lecture: The Cato Institute and Cancer
Learning to Recognize Logical Fallacies and to Use the 5 Criteria

✷ Assignment Due for Today: Read Beder, chs. 5-6 on how biased think tanks discourage attention to PHP.

✷ Assignment for Next Time: Read Beder, chs. 7-8 on how biased PR discourages attention to PHP.

TU 9-27 Lecture: Quiz + PR, VNR, and the Ethics of Nuclear Coverup: What You Don't Know

✷ Assignment Due for Today: Read Beder, chs. 7-8 on how biased PR discourages attention to PHP.

✷ Assignment for Next Time: Read Beder, ch. 9 on how spin influences what people think about dioxin.

TH 9-29 **NO CLASS/LECTURE**; "Trade Secrets" VIDEO MAKES UP FOR CLASS

✷ Assignment for Next Time: Read Beder, ch. 13 on how PR discourages attention to PHP, esp. re dioxin, chlorine, and GE.

TU 10-4 Lecture: Quiz + Logical Errors and Dioxin Spin

✷ Assignment Due Today: Read Beder, chs. 9, 13 on how spin influences what people think about dioxin

✷ Assignment for Next Time: Read Beder, ch. 10 advertisers' private-interest influence on public-health education

TH 10-6 Lecture: Logical Fallacies and Advertisers' Influence on What We Know:
Breast Cancer and Astra-Zeneca

Student S presentations S7-10 on dioxin, chlorine, GE; S7-S10 students bring copies for entire class, and present in 5-10 minutes

✷ Assignment Due for Today: Read Beder, ch. 10 advertisers' private-interest influence on public-health education

✷ Assignment for Next Time: Read Beder, chs. 11-12 on media influence on PHP

TU 10-11 Lecture: Quiz + Logical Fallacies and Media Influence on What We Know or Possible lecture by nuclear expert, Dr. Judith Johnsrud

✷ Assignment Due for Today: Read Beder, chs. 11-12 media influence on PHP

✷ Assignment for Next Time: Read ASPH, ch. 1 on intro to public health and ethics, esp. funding cancer research

IV. Public-Health Issues

TH 10-13 The National Health Tracking Act and Overview of Public-Health Ethics Issues

Student papers S11-16: Media and Ethics and (New York Times). S11-S16 students bring copies for entire class, and present in 5-10 minutes.

✷ Assignment for Today: Read ASPH, ch. 1 on intro to public health and ethics, esp. funding cancer research

✷ Assignment for Next Time: Read ASPH ch. 2 on Tuskegee Syphilis Experiment and Consent; **Prepare Your Own Ethics Paper**

FALL BREAK

TU 10-25 Quiz + Consent, the Tuskegee Experiment, Clouds of Secrecy, and Zinc-Cadmium-Sulfide Experiments

All students turn in E papers. E 2.1 and E 2.2 students bring copies for all in class and be ready to present these papers in 10 minutes.

✷ Assignment for Today: Read ASPH ch. 2 on Tuskegee Syphilis Experiment and Consent; Turn in Your Own Ethics Paper

✷ Assignment for Next Time: Read ASPH ch. 3 on International Research and Equal Protection

TH 10-27 Equal Protection and Changes in Acceptance of Pesticide Research Abroad

E 3.1 and E 3.2 students bring copies for all in class and be ready to present these papers in 10 minutes.

✷ Assignment for Today: Read ASPH ch. 3 on International Research and Equal Protection

✷ Assignment for Next Time: Read ASPH ch. 4 on Community-Based Research, Fair Play, and Conflicts of Interest.

TU 11-1 Quiz + Community-Based Research and Fair Play: TRI and Drug-Trial Data: Krimsky
The NAS Redbook and Fair Play

E 4.1 and E 4.2 students bring copies for all in class and be ready to present these papers in 10 minutes.

✷ Assignment for Today: Read ASPH ch. 4

✷ Assignment for Next Time: Read ASPH ch. 5 on Infectious Disease and Privacy; see Video on “American Ground Zero” and turn in sheet 11-8.

IV. Public-Health Issues (continued)

TH 11-3 Infectious Disease, Privacy, Chemicals, Radiation, MCS, and the Myth That Incidence of Infectious Diseases Is Decreasing

E 5.1 and E 5.2 students bring copies for all in class and be ready to present these papers in 10 minutes.

✷ Assignment for Today: Read ASPH ch. 5 on International Research and Equal Protection

✷Assignment for Next Time: Read ASPH ch. 6 on Prevention.

TU 11-8 Quiz + Prevention and Paternalism
Turn in video sheets for "American Ground Zero.

E 6.1 and E 6.2 students bring copies for all in class and be ready to present these papers in 10 minutes.

✷ Assignment for Today: Read ASPH ch. 6 on International Research and Equal Protection

✷ Assignment for Next Time: Read ASPH ch. 7 on Environmental and Occupational Health

TH 11-10 Environmental Health, Environmental Injustice, and Burden of Proof

E 7.1 and E 7.2 students bring copies for all in class and be ready to present these papers in 10 minutes.

✷ Assignment for Today: Read ASPH ch. 7

✷ Assignment for Next Time: Read ch. 7 from S-F, Environmental Justice

TU 11-15 Quiz + Occupational Public Health, Compensation, and the CWD: Nuclear Workers

E 7.3 and E 7.4 students bring copies for all in class and be ready to present these papers in 10 minutes.

✷ Assignment for Today: Read ch. 7 from EJ

✷ Assignment for Next Time: Read ASPH ch. 8 on Health-Screening Testing.

TH 11-17 Screening and the Case of Weapons Testing and TMI Data

E 8.1 and E 8.2 students bring copies for all in class and be ready to present these papers in 10 minutes.

✷ Assignment for Today: Read ch. 8 ASPH.

✷ Assignment for Next Time: Read ch. 9 on Public-Health Reform.

V. How We Can Help PHP

TU 11-22 **NO CLASS/LECTURE;** "American Ground Zero" Video makes up for no class.
Read Singer, chs. 10, 11.

TU 11-29 Public Health Reform and Democracy
All extra-credit papers due.

E 9.1 and E 9.2 students bring copies for all in class and be ready to present these papers in 10 minutes.

- ✷ Assignment for Today: Read ch. 9 ASPH.
- ✷ Assignment for Next Time: Read ch. 10, Singer, on Living for a Purpose

TH 12-1 Living for a Purpose and Rawls' Aristocracy of Virtue

- ✷ Assignment for Today: Read ch. 10, Singer.
- ✷ Assignment for Next Time: Read ch. 10, Singer, on Spira and the Good Life.

TH 12-6 Duties to Be Public-Health Advocates

ABOUT THE PROFESSOR

Kristin Shrader-Frechette has degrees in mathematics and in philosophy and has done 3 post-docs, one in hydrogeology, one in economics, and one in population biology/community ecology. Author of 350 professional papers and 14 books, her work has been translated into 11 languages and has appeared in science journals such as Science, BioScience, Health Physics and Quarterly Review of Biology, as well as in philosophy journals such as Ethics, Philosophy of Science, and Journal of Philosophy. Her latest book is Environmental Justice: Creating Equality, Reclaiming Democracy. Shrader-Frechette has done environmental justice work in the Americas, Europe, Africa, and throughout the US. She had addressed the national academies of science in 3 nations and advised various foreign and US governments, the UN, and the WHO on issues of quantitative risk assessment and nuclear waste disposal. Shrader-Frechette is a member of the US EPA Science Advisory Board and Chair of the US Bioethics Committee of the US EPA. She also has served on many committees and boards of the US National Academy of Sciences, the UN, the WHO, and the International Commission on Radiological Protection. Her research has been funded continuously by NSF since 1982, and she is Past President of the Risk Assessment and Policy Association and the International Society for Environmental Ethics. Her husband is a software engineer and mathematician. Their children have just graduated from Princeton. All are avid scuba divers and kayakers. See her website at www.nd.edu/~kshrader.