HEALTH POLICY ANALYSIS
UCLA – School of Public Health
HPM M233/ CHS M252

Winter 2020
(syllabus v1 2019_1231)

Class Sessions: Monday and Wednesday, 10:00 – 11:50 am
Location: 61269 CHS

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Course Overview:

The course seeks to provide a conceptual foundation of, the rationales for, the tools for and limitations to public policy analysis. More bluntly, it seeks to help you think like an analyst, become familiar with the tools analysts use, and write like an analyst. The course uses lectures on economics, political science and statistics reinforced by case-method learning from real-world decision dilemmas faced by public health practitioners and policy makers. The focus of the course is on the analytic process and analytic methods, rather than political analysis.

Learning Objectives and MPH Competencies for the Course:

- Understand what policy analysis is and why it is done

- Develop usable conceptual frameworks in three area: defining problems, identifying and analyzing policy “solutions” appropriate to specific problems, understanding how public programs are financed and the issues in choosing specific financing strategies. At the end of the course, students should be able to grasp concepts of what constitutes market failure, the meaning of social surplus and the limits to government intervention.

- Develop a basic quantitative toolkit for analyzing policy issues: integrating research findings, decision-analysis, cost-benefit, growth models and cross sectional modeling.

- Understand how to do policy analysis: describing the problem, developing a solution and communicating your analyses.

- Write effective policy memos for clients on current public health issues. Learn how to discuss a case, interact with others and constructively critique a colleague’s ideas, and work collaboratively in the collection and interpretation of data and analysis.

Tools Addressed in the Class:

- Framework for policy analysis and problem analysis
- Economic framework for analyzing government action
- Decision analysis
- Introduction to cost-benefit and cost-effectiveness analysis
- Introduction to modeling

The course is divided into two parts. In the first part of the course, we discuss the issues policy must address and the conceptual frameworks for analysis. These sessions include an introduction to policy analysis, and frames for discussing what constitutes a “problem,” available policy tools, and the issue of financing public programs. In the second part, we focus on building a toolkit for quantitative analysis. We discuss thinking quantitatively and reviewing published research, introduce cost benefit and cost effectiveness and decision analysis, and modeling cross-sectional and longitudinal policy changes.

Prerequisites:

HS 236, Microeconomic Theory of the Health Sector, or an undergraduate level course on microeconomic theory, or permission of the instructor.

HS M287, Politics of Health Policy, or an undergraduate course on political science or public policy.

Introductory statistics

Readings:

Texts:


Reserves:

Additional readings will be available on line.

If you are attempting to access the materials from off-campus, you need to set up your browser to use the UCLA VPN.

Cases:

Most case materials will be made available on the ccle website. There are two exceptions: 699 Controlling Acid Rain, and 821 Matters of Life and Death: Defunding Organ Transplants in Arizona. These are available for purchase through the Harvard Business Publishing Site: [http://hbsp.harvard.edu/](http://hbsp.harvard.edu/)

How classes will be run:

This is the ninth year I have taught the course twice a week. In general, there will be a lecture class with a lecture that sets up the readings and case for the week’s topic. At the session after the lecture, we will discuss questions on the readings and analyze a case. The lectures are intended to briefly orient you to the readings and do not substitute for the readings. The case provides an opportunity to apply the lecture and
readings to a real world example. Because we have two Monday holidays, the course will have only 18 sessions. To accommodate this, the first session includes the lecture introducing the first case and readings in addition to introducing the class, and the last session includes both a review of the last assignment, a problem set, as well as a summary of the course. I have scheduled sessions so that the case discussion is always immediately after the weekend, allowing the Wed-Mon period for preparation. (The exception is the first two weeks, when we begin discussing the case in Session 2.) To accommodate this, however, the week of Feb 25 has two lectures, and the case discussions in sessions 15 and 17 do not immediately follow the lectures that relate to the case.

The first week is very heavy, and you are strongly urged to have reviewed all the material prior to the January 6 class. The readings are listed in the same session as the case, but you are encouraged to review them before the lecture session that precedes the case.

The class works best if you are engaged and active. I encourage you, indeed expect, that questions about the readings be shared with the class by using the ccle forum and by writing them on the whiteboard prior to the start of class. I will order the questions and discuss them prior to beginning the case.

The class with its extensive use of cases and substantial readings that extend beyond the case only works if you have done the work and case preparation. You should be prepared to start the discussion of a case by outlining the issues raised. At the end of the case discussion, you should be prepared to summarize the discussion, implications of the case and unresolved issues. Students may be called at random to start or close a case, or at any point in the discussion.

The first task in attacking these cases, as the Harvard case note assigned for week 1 states, is clarifying the issue. These cases are about making decisions and constructing analysis that will enable better decisions. It is critical that you develop your own understanding of the key issues on which decisions will turn/should turn. With this understanding, determine what data and analysis you need to address the issue, and prepare this analysis. Only then, write the memo. The alternative is to be whipsawed by how the issues are presented in the case. Cases are not written to highlight the issues or analytic tasks.

The class should make extensive use of the CCLE site for the course. Reference materials will be posted there. Beyond that, the CCLE site offers class members the opportunity to have a running conversation on topics of interest or concern. These might include discussion of readings, cases or assignments before class. You need to submit your own work but you are encouraged to discuss assignments among yourselves and to pool information on data or formal methods needed to write up cases. You are not in competition with one another. I will check the forum at least every other day, unless I let you know otherwise, and I encourage you to make use of the forum as well. The more students who regularly participate, the more useful the forum will be.

The group site is also used as the reserve site for the class, with articles and book chapters from resources available via the UCLA library that would otherwise be placed in the e-reserves of the UCLA library.

**Assignments/Grading and Deadlines**

Eight assignments, a combination of case write-ups and quantitative assignments.

You may skip one assignment after the first, except the problem set due in week 10. The grade for the lowest graded assignment handed in which has been seriously attempted will be dropped. (Those handing in all assignments will have the two lowest grades dropped.)

With the exception of the problem set, the write ups should be approximately 900-1000 words (no smaller than 11 point type, approximately 2 single spaced pages) plus tables. This puts a strong premium on setting up the problem or issue to be addressed quickly and putting analysis into tables. Tables can include word tables. Notes to tables should indicate 1) where original data was obtained from (e.g., “Vaccine effectiveness rate obtained from CDC website www.url, and 2) computational formula applied to construct a number from raw data (e.g., rate/1000 = deaths in column a/US population in 1976 from Census web page).
I strongly urge you to use tables and tabular displays in writing up your cases. They are more efficient for both writing up results and for communicating your analysis.

In years past, I have had the case write-ups submitted at the start of class at which the case is discussed in some years and on the Monday following discussion in others. Students have preferred submitting after discussion. This year assignments will be accepted by the end of the Monday after class discussion. I reserve the right to change this to prior to the discussion if you do not appear to be fully preparing analysis for the case discussion. Assignments should be submitted as word documents. No credit for late assignments, unless this has been negotiated with the instructor prior to the class. E-mail, phone, in-person discussion all acceptable.

Note: unlike the case write-ups, the problem set is due on March 11, the day it is discussed in class.

**Critical: How to name your submissions.** Submit papers in either .doc, or .docx format. No pdf's. Name the document with course number hpm233, followed by an underscore, followed by the number of assignment as identified in the syllabus, followed by an underscore, followed by your name. My submission for week 1, in word 2003 format, would be:

hpm233_1_needlemanjack.doc

**Assignment numbers are:**
1. Philadelphia: Root cause analysis and standard causes (1 memo but discussion in weeks 1 and 2)
2. Acid rain
3. Financing Medicare catastrophic
4. WIC research (interpreting and pooling research findings)
5. Cervical cancer screening in low resource countries (extrapolation of CE study)
6. Arizona transplant (CE analysis)
7. Swine flu decision analysis
8. Problem set (submit as excel spreadsheet, same naming convention): Note: Problem set is due on March 11, when it is discussed in class, rather than after discussion.

If you are going to miss a class, please let me know by e-mail.

Given the importance of full and effective oral communication in a graduate course – and even more so in the world of policy making – part of the course grade will be based on each student’s individual participation, especially during the case discussions. “Participation” includes such things as demonstrating preparation and familiarity with the course readings, offering valuable insights, speaking clearly about complex subjects, synthesizing relevant information, answering questions effectively, posing pertinent questions, as well as listening to other members of the class and building effectively upon their contributions. The beginning of each class will generally involve discussion of a specific case or issue. Students must be prepared at all times to be called upon during discussions.

Class participation counts and will be taken into consideration in grading as follows: Exceptional participation – e.g., repeated discussion leadership, insight into the analytic issues in the cases, active participation in the CCLE forum – will, at the discretion of the professor, result in a half-letter grade increase in your final grade. Repeated, demonstrated failure to be prepared to participate in class will result in a half-letter to full letter grade decrease in the final grade.

Letter grades are assigned to each completed assignment, and converted to numeric scores under the following rubric:
A+ 99, A 95, A- 92.5, A-/B+ 90, B+ 87.5, B 85, B- 82.5, C 75, F 0

Averaged grades are converted to letter grades under the following rule (subject to adjustment for participation):
Average at or above: Grade
You will get out of this course what you put into it. A’s mean excellent work; B’s are acceptable grades—they mean good work. It is possible to get a C in this course if you do not put in enough effort.

Note: The workload for the course is heavy and, unfortunately, uneven. If you haven’t read the material for week one before class, you will need to catch up even while moving forward. Assignments are due each week starting in week 2. Plan ahead.

Note 2: The course is set up so that there is an introductory lecture/discussion, followed by reading and a case and a case write up. Lecture slides will be posted by the weekend before the session at which they will be given.

Note 3: The readings have been selected to provide an overview of the topic. The cases may only address one dimension of a topic. It is easy to become focused on the case. You are encouraged to spend time with the full set of readings.

Some general comments on attacking cases and preparing papers:

1. When reviewing papers, I am generally focusing on the analytics, not the form or flow of the memo. Clarity matters as does hitting the key issues in the case from an analytic perspective, but I generally don’t downgrade because of awkward ordering or language. Let me offer some general comments on these issues based on prior years’ papers.

   The biggest weakness I have seen in papers is not establishing a clear outline, and the scope of the analysis that follows. I would suggest something like:
   i. Topic
   ii. Issues in reaching decision. At the end of this section, you can preview your recommendation, but by laying out the issues, the criteria you are using should be clear.
   iii. Analysis issue by issue, with subheads clearly related to the issues listed in ii. Tables are good.
   iv. Recommendation

   So, for example, in the acid rain case, the outline might include:
   • Brief description of the bill and its provisions (can be very brief in this class, how long in the world will depend on the style in the organization you work for).
   • List of issues influencing recommendation: 1) what are the costs the bill will impose? 2) what are the benefits and do they exceed the costs? How certain are these estimates? How does the uncertainty influence your conclusion? 3) are the higher costs associated with protecting jobs worth it or should these provisions be opposed? 4) optional: would taxes, or cap at the plant level, rather than cap and trade be preferable.
   • Analysis, with sections on each of the issues listed.
   • Recommendation, and brief criteria based justification.

2. The first task in attacking these cases, as the Harvard case note assigned for week 1 reminds us, is clarifying the issue. These cases are about making decisions and constructing analysis that will enable better decisions. It is critical that you develop your own understanding of the key issues on which decisions will turn/should turn. With this understanding, determine what
data and analysis you need to address the issue, and prepare this analysis. Only then, write the memo. The alternative is to be whipsawed by how the issues are presented in the case. Cases are not written to highlight the issues or analytic tasks. Often the case presentation obscures them.

The assignments are hard, especially the acid rain, Medicare catastrophic, cervical cancer, and Arizona transplant cases. They require parsing the case analytically, practicing specific analytic skills, finding or working around missing data, and then writing up the analysis in a limited space. I think the WIC case and swine flu cases are easier, in that they are more narrowly focused on carrying out a specific set of analyses and communicating the conclusion from these, but are also challenging. Based on my experience in Washington, the work required by these assignments reflects the work those in policy positions, advocacy groups and consulting are asked to do. The class is about acquiring skills, and few people pick up skills perfectly the first time they are asked to practice them. Struggle is part of the process. It gets easier with practice. I have been impressed by how past classes have tackled these difficult assignments, and am looking forward to being in class with you.

**Advice on writing policy memos:**

You will need to learn to write policy memos. These come in two flavors: analytic/decision support, and persuasive. The first are used internally to brief others on findings and analysis. Even when they make a recommendation, the goal is to allow the reader to reach his/her own conclusions. The second type of memo is to convince an external audience. There is a lot of advice on the web on how to write persuasive policy memos, but few examples of a short analytic memo. Look at the following:

Wilcoxen “Tips on Writing a Policy Memo” on the ccle group site and at: http://wilcoxen.cp.maxwell.syr.edu/pages/275.html

Imperial “Guidelines” available on the ccle group site and at: http://people.uncw.edu/imperialm/UNCW/PLS_308_Summer/PLS_308_Sum_guidelines.htm

Dobel, Elmore and Werner “Memoranda Writing” available on the ccle group site


Seriously, look at these documents before beginning the writing assignment for week 2.

For the most part, I am looking for analytic, not persuasive, memos. Two examples of well written case write-ups for HBS case 1857 Liquor Tax Reform in Thailand and my comments on the case write-ups are on the ccle site.

**Advice on thinking quantitatively in a policy context**

It is useful when approaching a policy issue or case to implement a 4 step process:

1. **Identify the decision to be made**
2. ** Develop a decision rule.** For this course, most decision rules will be quantitative. E.g., choose option A of A or B if the cost of A is less than the cost of B. \[\text{costA < costB}\]
3. **What information is needed to implement the decision rule.** Write an algorithm that embodies the rule. Let me repeat that. Write an algorithm that embodies the rule. Algorithms can be a single line of calculation (cost A1 + avoided costs A2 compared to cost B1 + avoided costs B2) or a series of structured steps that will ultimately provide the input to the decision rule you have selected. Thinking algorithmically is one of the key ways to organize and simplify your analytic work.
4. **Find and plug in the data needed into the algorithm.** There may be substantial imprecision in these data, because of divergent estimates across sources or differences in assumptions. Making
decisions in the face of data uncertainty is one of the challenges in policy analysis. Three suggestions:

First, think about what numbers will drive your results. These are the numbers that need to be more precise. For example, if you are comparing the costs of option A and option B, and option A has two items you need to cost out, one which is potentially in the millions of dollars, and the second which is in tens of thousands, the cost of the first item is more important to estimate than the second. $5,010,000 is substantially different from $600,300 because $5 million is substantially different from $600 thousand, not because $10,000 is different from $300.

Second, use sensitivity analysis to examine how your decision would be influenced by differences in estimates or calculations.

Third, consider whether your decision rule is based on an estimate being greater than a minimum value or less than a maximum value $X$. If it is, you do not need to get an exact estimate of that value, only determine whether under reasonable assumptions the $A<X$ or $A>X$ condition is met.

The weekly sessions are:

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<th>Date</th>
<th>HPM233</th>
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<td>1/06/18</td>
<td>Role of Analysis &amp; Framework for Policy Analysis</td>
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<td>2</td>
<td>1/08/18</td>
<td>Case: Philadelphia A</td>
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<td>3</td>
<td>1/15/18</td>
<td>Case: Philadelphia A continued</td>
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<td>4</td>
<td>1/20/18</td>
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<td>5</td>
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<td>Policy Tools: Do, Regulate, Tax, Subsidize, Educate</td>
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<td>6</td>
<td>1/27/18</td>
<td>Case: Controlling Acid Rain</td>
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<td>7</td>
<td>1/29/18</td>
<td>Ways and Means: Taxes and Tax Incidence</td>
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<td>8</td>
<td>2/3/18</td>
<td>Case: Medicare Catastrophic</td>
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<td>9</td>
<td>2/5/18</td>
<td>Reading Research and Thinking Quantitatively</td>
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<td>10</td>
<td>2/10/18</td>
<td>Case: WIC</td>
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<td>11</td>
<td>2/12/18</td>
<td>Measuring social surplus and intro to cost benefit</td>
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<td>12</td>
<td>2/17/18</td>
<td>Holiday</td>
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<td>13</td>
<td>2/19/17</td>
<td>Case: Cervical cancer screening in low resource countries</td>
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<td>14</td>
<td>2/24/18</td>
<td>Cost Benefit and Cost Effectiveness (Note change in sequence)</td>
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<td>15</td>
<td>2/26/18</td>
<td>Decision Analysis</td>
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<td>16</td>
<td>3/3/18</td>
<td>Case: Arizona transplants</td>
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<td>17</td>
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<td>Difference equations and modeling</td>
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<td>18</td>
<td>3/10/18</td>
<td>Case: Swine Flu</td>
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<td>19</td>
<td>3/12/18</td>
<td>Problem Set &amp; Closing Thoughts</td>
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The assignments and due dates are (see additional details in following pages):

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<tr>
<th>ASSIGNMENT</th>
<th>DUE DATE</th>
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<tbody>
<tr>
<td><strong>Assignment 1, “Philadelphia” (Discussion January 9, 16):</strong></td>
<td>Wednesday, 1/22/18</td>
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<tr>
<td>Prepare a 2 page paper addressing the following: What are the root causes of the problems have to be addressed by Philadelphia, and how should these be recast in terms of the market failure/equity/government failure frames discussed in the lecture last week?</td>
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<td><strong>Assignment 2, “Acid Rain” (Discussion Jan 28):</strong></td>
<td>Monday, 2/3/18</td>
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<td>You are the aide to a Senator from a southwestern state whose constituents are not directly affected by acid rain or the coal mining industry. Your boss wants to know whether the costs imposed by this legislation are worth it, both for the overall program and the protection of jobs. Write a memo to your boss presenting the issues in the Waxman-Sikorski bill with a recommendation on how she should vote. (Remember Wilcoxen on memo writing).</td>
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<tr>
<td><strong>Assignment 3, “Catastrophic” (Discussion February 4):</strong></td>
<td>Monday, 2/10/18</td>
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<td>You are a legislative aide to a Midwestern member of Congress, a state with a higher than average proportion of population 65+. Prepare a 2 page policy memo assessing the financing the Medicare Catastrophic Health Insurance Plan, focusing on the incidence of the enacted financing. Assess 1) the adequacy of financing, 2) the equity of the financing approach (define your criteria for equity!), 3) economic distortions, if any, associated with the option, and 4) political acceptability or problems associated with the option.</td>
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<td><strong>Assignment 4, “WIC” (Discussion February 11):</strong></td>
<td>Tuesday, 2/18/18</td>
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<td>You are Louis Bird, committee staff. Write a 2 page memo with your assessment of the findings from the GAO report and implications for committee action. What is your estimate of the impact of WIC of low birth weight, and what is the implication. Take the closing question in the case as your task.</td>
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<td><strong>Assignment 5, “Cervical Cancer” (Discussion February 20):</strong></td>
<td>Wednesday, 2/26/18</td>
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<td>You are the health advisor to the President of Haiti. Write a 2 page memo extrapolating the results of this study to Haiti and making recommendations on what, if anything, should be done in response to this study. You will need to think about: 1) What factors drive the Goldie results? 2) How do the assumptions and cost/benefit drivers in Goldie’s analysis match the circumstances in Haiti? 3) The Goldie model is a black box, using sophisticated statistical and analytic methods. How might the results be extrapolated? What assumptions can you make that enable this extrapolation.</td>
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<td><strong>Assignment 6, “Arizona Transplants” (Discussion March 4):</strong></td>
<td>Monday, 3/10/18</td>
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<td>You are a member of the legislative analyst’s staff in Arizona. Write a memo analyzing the impact of the proposed policy. What is the trade-off between transplants and prenatal care? Numbers? Impacts? How should these trade-offs be valued? What analysis based recommendations would you make about expansion of prenatal care and reductions in some or all transplants? You may need to research/ballpark some numbers. You are encouraged to use the class group to share information</td>
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<tr>
<td><strong>Assignment 7, “Swine Flu” (Discussion March 11):</strong></td>
<td>Monday, 3/17/18</td>
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<td>Write a 2 page memo assessing whether a national swine flu inoculation program should be implemented based on an assessment of the consequences of acting or not acting. A decision tree should be attached to this analysis. What are the tipping points that would change your recommendation (e.g., difference in likelihood of pandemic, rate of injuries due to vaccination, cost of the program).</td>
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<tr>
<td><strong>Assignment 8, Problem Set:</strong> due at beginning of class March 13 <strong>(NOTE: different from other assignments)</strong></td>
<td>Wednesday, 3/12/18</td>
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The session by session syllabus begins on the next page.
Week 1 Monday  A. Role of Analysis in the Policy Process

Skills/Learnings:

- How to prepare a case
- How to write a policy memo
- Policy analysis framework
- Developing frameworks for getting the “appropriate” number

Readings for week:

**Munger:** Chapter 1: Policy Analysis as a Profession and a Process
Chapter 5: Experts and Advocacy: The Limits of Policy Analysis
Chapter 12: Conclusion
Chapter 3: A Benchmark for Performance: The Market (skim if have solid microeconomics background)

**SZ:** Chapter 3: The Model of Choice, Chapter 15: Putting Analysis to Work

**Group Site:** Needleman, Creating a Statement of the Problem

**Recommended:**

**Group Site:** Stone, *Policy Paradox*, Chapter 1: The Market and the Polis

Case:

**Web:** Fermi Problems [http://www.ph.utexas.edu/~gleeson/httb/section1_3_3_5.html](http://www.ph.utexas.edu/~gleeson/httb/section1_3_3_5.html) and [http://www.vendian.org/envelope/dir0/fermi_questions.html](http://www.vendian.org/envelope/dir0/fermi_questions.html)
Be prepared to address the question:
1) How many pediatricians are there in LA county? (Treat this as a Fermi problem, not a data finding exercise)

Other questions presented in class.

**Also review the following CBO paper as an example of a high quality policy analysis**


Lecture:

- Framework for Policy Analysis
- How to analyze a case
- How to write a policy memo
Week 1 Wednesday: Framework for Policy Analysis

Readings: KSG case 1136. Learning by the Case Method
Web: Root Cause Analysis http://www.systems-thinking.org/rca/rootca.htm

Case:
Discussion January 8
KSG case 1649. Public Takes on Private: The Philadelphia Behavioral Health System

In this week’s case, focus on analyzing the problem, not the proposed solutions. Begin with statements of potential problems as they have been put forward in the case. Then think about root causes, the issues or circumstances that create the problem. This may be different from the presenting symptoms or statements of the problems as presented by advocates or the press.

What information/analysis would you conduct to assess how accurate these assertions are and seriousness of underlying problems? For each, you will need to consider explanation, the underlying causes, and prognosis, what will happen if nothing changes. Consider how much uncertainty there is in the prognoses and what will influence the actual outcome. What goals or criteria for evaluating options would you propose? Who would support or reject each goal/criterion. Critical to this assignment is moving your thinking from the presenting symptom or problem to an understanding of underlying causes and dynamics. In the quality improvement field, those trying to understand why problems occur are encouraged to ask “Why?” five times. It’s a good way to force yourself to think more deeply about what you are observing.

You may need to augment the case with other readings.

Note: No separate write-up of this discussion is required for next week. The root cause analysis we will discuss this week and the standard problem models we will discuss next week are to be written up in a single paper due at the start of Week 3.

Week 2 Monday: What Problem Are We Trying to Solve

Skills/Learnings:

Problem Analysis
Economic and political arguments for public policy interventions

Lecture: Rationales for Public Action: Market Failure, Inequity, and Government Failure (See readings for next week)

Week 2 Wednesday: What Problem Are We Trying to Solve

Readings:
Munger: Chapter 4: Evaluation and Market Failure
Chapter 7: The Welfare Economics Paradigm
SZ: Chapter 3: The Model of Choice
Reserve: Stone, Policy Paradox, Chapter 2: Equity

Case:
Continuation of KSG 1649 Philadelphia Behavioral Health

Assignment 1 (Discussion continued January 15, Write-up due January 22):
Prepare a 2 page paper addressing the following: What are the root causes of the problems have to be addressed by Philadelphia, and how should these be recast in terms of the market failure/equity/government failure frames discussed in the lecture last week? Graphs (handwritten if necessary) or tables are always welcome if they make your argument clearer.

Week 3 Monday: MLK Holiday, no class

Week 3 Wednesday: Policy Tools: Do, Regulate, Tax, Subsidize, Educate

Skills/Learnings:

Economic and political arguments for public policy interventions

Lecture: Policy Tools: Do, Regulate, Tax, Subsidize, Educate

Week 4 Monday: Policy Tools: Do, Regulate, Tax, Subsidize, Educate

Readings:

Munger: Chapter 8: Choice of Regulatory Form
Group Site: Weimer and Vining, Chapter 10: Correcting Market and Government Failure: Generic Policies
SZ: Chapter 13: Public Choice: To What Ends (skim)
Web: Tientenberg, The Tradable Permits Approach to Protecting the Commons: What Have We Learned? Written for the National Research Council Institutions for Managing the Commons Problem. Available at (use link to get PDF): http://www.colby.edu/personal/t/thtieten/TT.NRC4.pdf and posted to the group web site.
Group Site: Stone, Policy Paradox, Introduction to Part IV: Solutions

Case:

KSG case 699: Controlling Acid Rain, 1986

Assignment 2 (Discussion Jan 27; Write up due February 3):

You are the aide to a Senator from a southwestern state whose constituents are not directly affected by acid rain or the coal mining industry. Your boss wants to know whether the costs imposed by this legislation are worth it, both for the overall program and the protection of jobs. Write a memo to your boss presenting the issues in the Waxman-Sikorski bill with a recommendation on how she should vote. (Remember Wilcoxen on memo writing). Among the issues you will have to think about in preparing your memo are:

1. What are the costs of acid rain control?
2. What are the principal sources of uncertainty in forecasting the benefits of control and placing the correct dollar values on those benefits? How should uncertain costs or benefits be taken into account?
3. Did the NAPAP study evaluate the appropriate benefits of control and place the correct dollar value on those benefits? What costs or benefits drive the analysis?
4. Based on current information, what level of program would you recommend, and would you the program constraints that would preserve jobs in high sulfur coal states?

All these may not go into your memo in detail but be prepared to discuss in class.

Week 4 Wednesday: Ways and Means: Taxes and Tax Incidence

Skills/Learnings:

Issues in determining how to finance public programs

Lecture: Taxes and Tax Incidence: How States Finance Health Care

Week 5 Monday: Ways and Means: Taxes and Tax Incidence

Readings:
Group Site: Feldstein, Chapter 29: Medical Research, Medical Education, Alcohol Consumption and Pollution: Who Should Pay?
Group Site: Feldstein, Chapter 33: Financing Long-Term Care
Group Site: CBO report on Medicare catastrophic with additional detail on impacts

Case:
KSG case 1278: Catastrophic Health Insurance for the Elderly

Assignment 3 (Discussion February 3; Write up due February 10):

You are a legislative aide to a Midwestern member of Congress, a state with a higher than average proportion of population 65+. Prepare a 2 page policy memo assessing the financing the Medicare Catastrophic Health Insurance Plan, focusing on the incidence of the enacted financing. Assess 1) the adequacy of financing, 2) the equity of the financing approach (define your criteria for equity!), 3) economic distortions, if any, associated with the option, and 4) political acceptability or problems associated with the option. Would you recommend your member of Congress maintain their support for the current financing? Propose an alternative financing model that is “better” on the grounds of adequacy, equity, distortion or political acceptability and doesn’t make matters too much worse along the other dimensions. Present an analysis of your proposed financing in each of the four categories and an explanation of why your approach should be considered better.

Week 5 Wednesday: Reading Research and Thinking Quantitatively

Skills/Learnings:

Lecture:
Reading research
Regression coefficients, odds ratios, risk ratios, and elasticities
Week 6 Monday: Reading Research and Thinking Quantitatively

Readings:

**Group site:** Needleman, Critiquing a research article.

**Group site:** Needleman, Stats Overview

**Group site:** Weimer and Vining, Chapter 18: When Statistics Count: Revising the Lead Standard for Gasoline

For those with a limited background in statistics and regression, the Federal Judicial Center’s Reference Manual on Scientific Evidence has two useful chapters:

- Reference Guide on Statistics
- Reference Guide on Multiple Regression

Available at:

**Group site:** Original published research for most of the studies in the GAO report table.

Case: KSG case 680: Conflicting Findings: Evaluating WIC

Assignment 4 (Discussion February 10; Write up due February 18):

You are Louis Bird, committee staff. Write a 2 page memo with your assessment of the findings from the GAO report and implications for committee action. What is your estimate of the impact of WIC of low birth weight, and what is the implication. Take the closing question in the case as your task. Most of the studies cited as strong studies are on the CCLE site.

Week 6 Wednesday: Measuring Social Surplus and Intro to Cost Benefit Analysis

B:

Skills/Learnings:

- Economic measures of benefit and social surplus
- Cost-benefit analysis

Lecture: Introduction to Cost-Benefit Analysis

Week 7 Monday: Presidents’ Day holiday, no class

Week 7 Wednesday: Measuring Social Surplus and Intro to Cost Benefit Analysis

A:

Readings:

- **SZ:** Chapter 9: Project Analysis: Benefit-Cost Analysis
- **Munger:** Chapter 10: Discounting II: Time
- **Munger:** Chapter 11: Cost Benefit Analysis
- **Web:** Implementing QALYs, at: http://www.evidence-based-medicine.co.uk/ebmfiles/ImplementQALYs.pdf
- **Web:** Ubel, Peter A, Erik Nord, Marthe Gold, et al. Improving Value Measurement in Cost Effectiveness Analysis, Medical Care 38(9):892-901. Available on-line through UCLA library

Case:
**Cervical Cancer Screening Strategies in Low-Resource Settings**

**Assignment 5 (Discussion February 19; Write up due February 26):**

Read the following cost-effectiveness analysis, comment, and letters


Correction, *JAMA* (2001), 286:9, 1026

Letters, *JAMA*(2001), 286:24, 3079-3081

Note 1: The Goldie modeling approach uses Markov models to estimate the long term risk of entering various disease states. Look at the SZ chapter on Markov Models to get a feel for how these models work. You needn’t work through the math, just get the general ideas.

Note 2: A later article by Goldie and her colleagues provides a more extensive analysis. It can be found at:


You are the health advisor to the President of Haiti. Write a 2 page memo extrapolating the results of this study to Haiti and making recommendations on what, if anything, should be done in response to this study. You will need to think about: 1) What factors drive the Goldie results? 2) How do the assumptions and cost/benefit drivers in Goldie’s analysis match the circumstances in Haiti? 3) The Goldie model is a black box, using sophisticated statistical and analytic methods. How might the results be extrapolated? What assumptions can you make that enable this extrapolation.

**Week 8: Monday:  Cost Benefit and Cost Effectiveness Analysis**

**Skills/Learnings:**
Cost-benefit and cost effectiveness analysis: issues and methods

**Lecture:** Cost-Benefit and Cost-Effectiveness 2

**Week 8 Wednesday: Decision Analysis**

**Skills/Learnings:**
Decision analysis
Combining Cost-Benefit and Decision Analysis

**Lecture:**
Choice Under Uncertainty
Decision analysis
**Week 9 Monday:**  Benefit and Cost Effectiveness Analysis: Case

**Readings:**

Group site: Weimer & Vining Chap 16: Cost-Benefit Analysis (pay special attention to pages 413-425, An Illustration: Taxing Alcohol to Save Lives

**Case:** KSG case 821. Matters of Life and Death: Defunding Organ Transplants in the State of Arizona

**Assignment 6 (Discussion March 2; Write up due March 9):**

You are a member of the legislative analyst’s staff in Arizona. Write a memo analyzing the impact of the proposed policy. What is the trade-off between transplants and pre-natal care? Numbers? Impacts? How should these trade-offs be valued? What analysis based recommendations would you make about expansion of prenatal care and reductions in some or all transplants? You may need to research/ballpark some numbers. You are encouraged to use the class group to share information.

**Week 9 Wednesday: Difference Equations and Modeling**

**Skills/Learnings:**

Difference equations and growth models  
Modeling and Simulation

**Lecture:**

Difference equations, modeling and simulation

**Week 10 Monday:**

A: Decision Analysis

**Readings:**

**SZ:** Chapter 12 Decision Analysis pages 201-229  
**Munger:** Chapter 9: Discounting I: Expected Values, Probability and Risk  
**Web:** Detsky et al. Primer on Medical Decision Making, Parts I-V, Medical Decision Making, 1997, 17, 125-159. Available on web at:  
http://umg.umdnj.edu/smdm/pdf/17-02-142.pdf  
http://umg.umdnj.edu/smdm/pdf/17-02-152.pdf

**Case:** KSG Case 313 Swine Flu (A)  
KSG Case 314 Swine Flu (Appendix)

**Assignment 7 (Discussion March 9; Write up due March 16):**

Write a 2 page memo assessing whether a national swine flu inoculation program should be implemented based on an assessment of the consequences of acting or not acting. A decision tree should be attached to this analysis. What are the tipping points that would change your
recommendation (e.g., difference in likelihood of pandemic, rate of injuries due to vaccination, cost of the program).

**Week 10 Wednesday:**

**A. Difference Equations and Modeling: Problem Set**

**Readings:**
- **Group site:** Quade, *Analysis for Public Decisions*, Chapter 9 Models
- **SZ:** Chapter 2: Models: A General Discussion, Chapter 4: Difference equations

**Case:**
- **Assignment 8: Problem Set 1 due at beginning of class March 11** (NOTE: different from other assignments)

**B. Closing Thoughts**

**Readings:**

**Discussion:**
- Closing Thoughts
  Be prepared to discuss the key lessons, learning from the class and how they relate to your education, the work you want to do, your role as a citizen and decision making in your personal life.