

HEALTH POLICY & CLINICAL PRACTICE
SYLLABUS: SPRING 2010
MWF @ 10 – 11:05AM, THURSDAY X-PERIOD 12 – 12:50PM

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Dartmouth Medical School

Teaching Assistants:

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Course Description:

This course provides an overview of medical care in the United States. Students will receive an introduction to the common health problems facing Americans as well as the problems of the complex (and haphazard) system that has evolved to address them. In addition to the standard health policy concerns of access, cost and quality, the course will explore the question of how we know whether medical care improves health. After being provided some basic knowledge on study design and simple statistics (as well as some facility with spreadsheet software), students will develop their quantitative reasoning skills through the critical assessment of clinical data. Doing so will help prepare students to become both informed citizens -- and discerning consumers -- for the largest sector of the nation's economy.

10 weeks: 28 classes

Target Audience:

This is an introductory course on a topic not commonly taught to undergraduates -- how to critically evaluate U.S. medical care. While I believe the material is relevant to all students (as most all are destined to use the system), the course is targeted to those likely to be directly engaged in the system: either in a managerial role (business), political role (government) or clinical role (medicine or other health profession).

Disclaimer:

This is the first year of this course. I intend to cover a lot of ground. I plan to focus not simply on US health policy, but also on the effectiveness of clinical medicine in selected areas -- heart disease, cancer, birth, death -- areas which comprise the bulk of health care spending. Thus, in addition to examining the big policy picture, we will get into the mud of what doctors actually do: things that work, things that don't and the vast gray area in-between.

This means we will need to pull in material from multiple disciplines: health economics to clinical epidemiology, health care organization to the pathophysiology of disease, politics to scientific inference. One of the major themes will be the assessment of effectiveness: How do we know what works in medical care? (and how well it works?) Another will be measurement: what to measure, how to measure change and understanding the role of chance. And, of course, we will spend time exploring how the "Dartmouth School" of health policy has contributed to the health care debate.

So be prepared to be all over the place. And I'll be prepared to adjust the course as needed. Thus parts of this syllabus may be subject to change.

Objectives:

Knowledge-based – Students will become familiar with:

- common health problems and the common medical interventions to address them
- the basic structure of the system, its financing and its incentives
- how inferences are made about cause and effect (how we know what we know), basic study designs and their limitations
- the distinction between treatment of the sick vs prevention in the well, the problem of overdiagnosis.
- future policy options

Skills-based – Students will develop their ability:

- to think critically about measurement (both in terms of the construct being measured and how it is operationalized algebraically)
- to reason based on quantitative information
- to construct basic graphs (line / column) and perform simple data analyses in Excel

Policy & Procedures:

This is an introductory course; there are no prerequisites. With a fairly large class size, most of the presentation of course material will occur in a lecture format. The course is quantitative – we will use numbers a great deal. But there is no need for higher math, a facility with basic arithmetic and simple algebra is all that is required. I will expect student to develop their spreadsheet skills and to foster this, the TAs and I will be in the classroom each **x-period** – whether or not there is a lab or lecture. While the readings are central to the course, it will be very difficult to do well in this course without attending class. The Dartmouth College Honor Code is in effect – I will not tolerate cheating / plagiarism of any kind.

Required Texts

Bodenheimer TS, Grumbach K. **Understanding Health Policy**. McGraw-Hill 2007
Fletcher RH, Fletcher SW. **Clinical Epidemiology**. Lippincott William & Wilkins 2005
Welch HG. **Should I be tested for cancer?** University of California Press 2006
Relman A. **A Second Opinion: Rescuing America's Health Care**. Public Affairs 2007
(*journal articles and other media provided*)

Student Assessments

Three 1-page graphing assignments and a final graphing assignment in Week 1/2 – 20%

Three laboratory assignments (each involving Excel and Blackboard) – 25%
(Lab 2 – 10%, Lab 3 – 10%, Lab 4 – 5%)

Mid-term exam – 20%

Final exam – 35% (Op-ed 15%)

Tentative Schedule

| Date | Lecture/Lab | Reading |
|--------------|--|---|
| Mon - Mar 29 | Overview | |
| Wed - Mar 31 | Measuring health and disease burden in the US | |
| Thu - Apr 1 | Lab 1: Graphing in Excel | |
| Fri - Apr 2 | Health Services 1: Cost (1 st 1-page assignment due) | By the end of first two weeks, you should have read Chapters 1 thru 10 in Understanding Health Policy |
| Mon - Apr 5 | Health Services 2: Access (2 nd 1-page assignment due) | |
| Wed - Apr 7 | Health Services 3: Quality (3 rd 1-page assignment due) | |
| Thu - Apr 8 | extra help: Excel graphs | |
| Fri - Apr 9 | Paying for care: Insurance & Fee for Service (Final graphing assignment due) | |
| Mon - Apr 12 | Numbers in Health I - Absolute measures | By the end of the third week, you should have read Chapters 1, 2, 4 & 10 in Clinical Epidemiology – the essentials |
| Wed - Apr 14 | Numbers in Health II - Relative measures | |
| Thu - Apr 15 | Lab 2: Absolute & Relative risk / Rate to risk | |
| Fri - Apr 16 | Numbers in Health III - p values & 95% CIs (Lab 2 due, both paper and blackboard) | |
| Mon - Apr 19 | Dartmouth Contributions 1 - Geographic variation | Readings provided and you'll want to make sure you understand <u>all</u> that happened in Lab 2. |
| Wed - Apr 21 | Dartmouth Contributions 2 - Patient preferences & the Surgery vs Watchful Waiting decision in Prostate disease | |
| Thu - Apr 22 | extra help: Excel rates, risks, ratios | |
| Fri - Apr 23 | Dartmouth Contributions 3 - Wennberg on Wennberg | |
| Mon - Apr 26 | MID-TERM EXAM | |

Tentative Schedule (continued)

| Date | Lecture/Lab | Reading |
|---------------------|--|--|
| Wed - Apr 28 | Randomized trials – Basic Medicine Treatment of High Blood Pressure | |
| Thu - Apr 29 | open | |
| Fri - Apr 30 | Randomized trials – High Tech Medicine Angioplasty & Bone Marrow Transplantation | By the end of week 5 and 6, you should have read Chapters 5, 6, 7, 8, 9, and 11 in Clinical Epidemiology – the essentials . Equally important is that you struggle with one of the most challenging concepts in epidemiology – confounding. |
| Mon - May 3 | Observational studies - Lung cancer | |
| Wed - May 5 | Observational studies – Observations about treatment effectiveness & Confounding | |
| Thu - May 6 | Lab 3: Confounding | |
| Fri - May 7 | Medicalization of Basic life events I: Birth (Lab 3 due) | |
| Mon - May 10 | Medicalization of Basic life events II: Death | In addition to the readings provided, you'll want read my book - Should I be tested for cancer? It's very important that you enjoy it thoroughly. |
| Wed - May 12 | Is more better? | |
| Thu - May 13 | Joint replacement: Surgery vs. Watchful Waiting Psychosis: Public Mental Health Systems | |
| Fri - May 14 | Prevention: health promotion, early detection & overdiagnosis | |
| Mon - May 17 | Prostate Cancer Screening | |
| Wed - May 19 | Breast Cancer Screening | Good time to make sure you understand the lead time and overdiagnosis biases as well as the distinction between survival and mortality |
| Thu - May 20 | Lung Cancer Screening, Incidental Detection, Survival & Mortality (Lab 4 due) | |
| Fri - May 21 | off | |
| Mon - May 24 | off | read Relman's book - A Second Opinion: Rescuing America's Health Care - here |
| Wed - May 26 | Commercialization: Less or More? | |
| Thu - May 27 | Paying Physicians – the options | |
| Fri - May 28 | Obama and the Future of Health Care Reform | TBA |
| Mon - May 31 | Holiday | |
| Wed - Jun 2 | Review | |
| Fri – June 4 | 8:00 AM FINAL EXAM | |

Final Op-ed (due June 4th)

Assignment: write an op-ed on “Why medical care costs so much more now than 50 years ago” that ties together the breadth of issues discussed in this course as well as your own take on them.

Constraints: you only get 1000 words to tell the story

Challenges:

1. Engage readers at the outset (reporters use the word "hook")
2. Assume your readers have little or no prior knowledge about the topic.
3. Be forceful and persuasive, but fair. Avoid hype or fear mongering.
4. Develop a logical flow of ideas.
5. Write simply and directly. Short sentences are good, so are short paragraphs.
6. Although there are no references, you need to have evidence for statements of fact. If you write a statement that is news to me, be ready to email me a reference. Editors do this too.

Strategy:

1. Start early

I know every professor probably says that. As you can see I don't expect you to write a lot of words, but I do expect you to write a lot (i.e. multiple drafts). Most importantly, I expect you to think a lot. Make sure you have the time to really reflect on what you are saying

2. Read some op-eds/essays from major papers

Mine are a reasonable place to start. For others dealing with health care see http://www.realclearpolitics.com/health_care/ (but recognize most will not fit the assignment of "arguing why medical care costs so much"). And read a couple that have to do with non-health issues as well (the economy, the war, etc). Just get the feel for the writing.

3. Structure your argument carefully

There's only one way I know to do this. Start early (did I say that?). Write a draft. Read it. Fix the structure. Step away for a couple of days. Read it again with fresh eye (try reading it out loud--I find that I notice a lot more problems when I do this). Fix it. Now show it to someone else (one of the nice things about writing something that is short is that you can get others to focus on the detail). Have a conversation with them. See where they get lost. Fix it. Show it to someone else. Fix it. Step away for a couple of days. Read it again with fresh eye. Read it out loud. You get the idea.

4. Finish strong

Don't worry about the word count too much until you get the argument right (if your first draft is 1500 words you are going to be fine. But as you get closer to finishing look for unnecessary and unimportant words. Simple sentences are more forceful. Look for unnecessary diversions (these are typically things you find interesting, but are not central to your argument)

I'll be evaluating these as an editor would (he or she wouldn't give a damn if it was only 700 words). They are interested in basic stuff: Is the argument/story interesting and important? Do you know what you are talking about? Do you make a good case? and Is it fun to read?

Did I mention that it helps to start early?