



# Case-Based Learning at the Mailman School of Public Health

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# Key Points

- Rationale for case method in general
- Motivation for using case method in public health at Columbia
- Columbia's formulation of the case approach in public health: the **Integration of Science and Practice (ISP)** course
- Preparing to launch
- Challenges
- Evaluation

*“The case method of teaching does not exist.”*

*Lee Shulman, 1992*

# Cases can...

- Exemplify or test principles/theories
- Serve as models for practice
- Model “how to think”
- Provide visions or images of the possible
- Motivate by posing provocative questions

Shulman, L. S. (1992). Toward a pedagogy of cases. *Case methods in teacher education*, 1-30.

**Cases are compelling stories with a protagonist and decision points.**

# In our experience\* ...

- Cases work when
  - Integrating disparate topics
  - Decision-making and prioritizing
  - Working with ambiguity
  - Authentic source material is crucial to your teaching goals and is readily available
  - Fostering classroom dialogue/debate

*\*Observations from CCNMTL, who served as partners in launch of the case method.*

# Why cases at Mailman?

- Learning from our friends in CU Journalism
  - Employers: grads were very good beat reporters, but not skilled at organizational management or poised to ascend leadership ladder
  - Cases provided a way to simulate real-world decision-making, priority-setting, teamwork, etc.
- Could something similar work for MPH students?



# A **new** component of the Columbia MPH curriculum

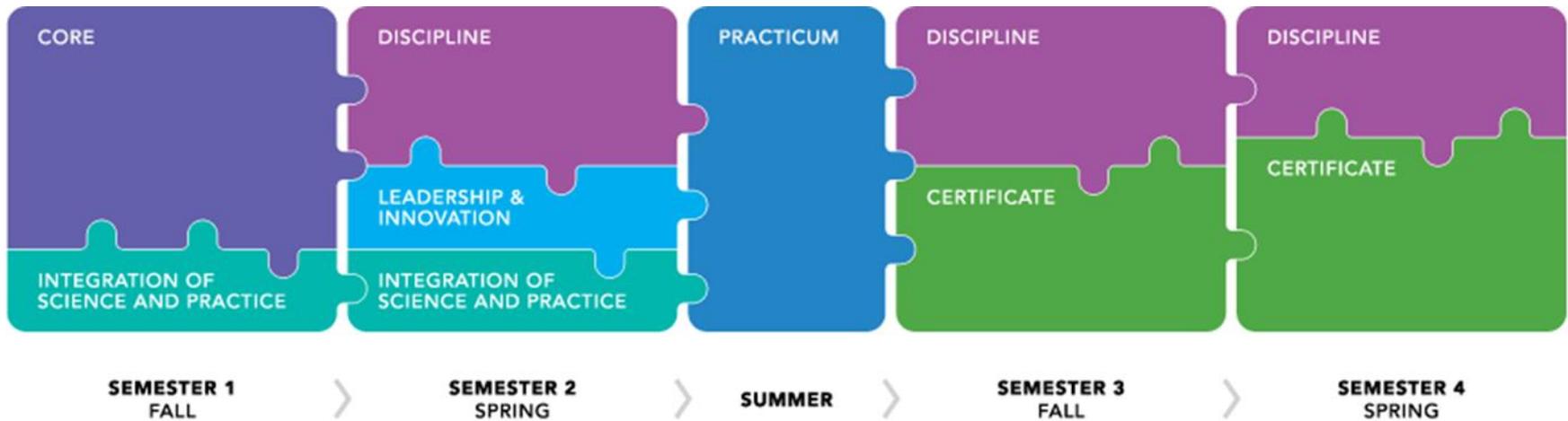
- **INTEGRATION OF SCIENCE AND PRACTICE:**

A new course designed to enable students to

- Synthesize information from multiple sources to advance population health practices and research.
- Identify knowledge gaps that hinder the development of health policy and health systems of the future.
- Evaluate potential responses to a population health problem.
- Weigh the risks and benefits inherent in public health decision making.

***NOTE: ISP complements but does not replace the core.***

# 2012 Columbia MPH Curriculum



# ISP: Sample Case



- **In 2005, when the New York City Board of Health was debating whether or not to propose a ban on trans fats in city restaurants, it had to weigh the pros and cons of what was guaranteed to be a controversial measure.**
  - Trans fats have increasingly become part of the American diet, often in the form of partially hydrogenated oils – a common ingredient in processed snacks –and cheap frying fats for commercial food chains.
  - At the same time, the negative health effects of trans fat have become increasingly known, including links to coronary heart disease, poor cholesterol ratios, and obesity. In fact, the New England Journal of Medicine in 2006 estimated that up to 100,000 cardiac deaths annually could be attributed to the consumption of trans fat.
  - The food service industry would label the measure as unfriendly to small businesses, which would be required to undergo an expensive transition. Others would no doubt argue that the city had overstepped its bounds.
- **Key questions for students to grapple with:**
  - Trans fat was permitted as an ingredient by the federal Food and Drug Administration; were city health officials claiming to know better?
  - Should individuals be allowed to make informed choices about their food intake, or should the state protect them from themselves?
  - Was New York City on its way to becoming a "nanny state" – or the most health-progressive city in the nation?
  - What, ultimately, would be the impact on both population health and small businesses' bottom line?

# How did we prepare faculty?

- Nine months, meeting 1.5 hours/monthly (more frequently towards launch date)
- Began with sessions led by in-house experts and case writers
- Faculty-led “practice sessions” with case presentation and a debrief session
- ISP faculty volunteered to select cases, write lesson plans, develop discussion questions
- TA’s underwent a similar but much shorter preparation

# Biggest challenges

- Faculty commitment (n=20)
- Adapting to a new teaching method
- Case selection (topics, length, content,...)
- Class size (20x20 cohort model)
- Concerns about student preparation
- Integration with core course materials

# Evaluation (as we speak...)

- Mid-semester written evaluation
- End-of-term written evaluation
- Longitudinal panel of 40 members of entering MPH class – focus groups and on-line surveys
- “Spot-check” surveys of programmatic effectiveness (random samples of students who are NOT in the longitudinal panel, taken every 2 weeks throughout the semester)