

Why is Population Health Important to Academic Medicine?

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What is population health?

- *Consider Dr. Nash's definition*
- A focus on the denominator instead of, or in addition to, the individual patient

What is “academic medicine”?

- Education/training
- Research

What is “important”?

- Sometimes in academic medicine, “important” means interesting
- In this context, “important” means relevant, and leading to improved health outcomes

Teaching and research in population health is important in several ways:

- Research provides the knowledge base that informs public health policy and preventive medical practice
- Education and training provides trainees with the requisite knowledge, skills, and attitudes to effectively perform their roles, including
 - clinicians
 - policy makers
 - researchers
 - educators
 - administrators

Population health research

- Informs clinical decision making, especially in prevention
- Informs public health policy

Preventive medicine

- Applies the results of population-based data and rigorous clinical studies to individual patients
- Clinical experience is *not* sufficient – or in many cases, not even relevant
 - Example: if a patient is found to have a high PSA, has a resection of a localized prostate Ca, and survives: did screening save his life?

Beta-carotene supplementation

- Was thought to lead to reduced risk of cancer (anti-oxidant)
- Was found in 2 randomized trials to *increase* lung cancer rate by 20% in smokers
- 3rd trial in non-smokers showed no effect

Public health policy

- The best available evidence is used to develop approaches to improving health and preventing disease
 - Smoking restrictions
 - Seat belt use
 - Dietary guidelines

Reducing dietary fat consumption

- Consistent dietary recommendation (since about 1980): reduce % calories from fat
- “Goal” achieved over time: significant reduction in % total calories from fat
- How was this achieved? What was the consequence?

ORIGINAL 'FOOD PYRAMID'

Fats, Oils & Sweets
USE SPARINGLY

KEY

● Fat (naturally occurring and added)

▼ Sugars (added)

These symbols show fats and added sugars in foods.

Milk, Yogurt &
Cheese Group
2-3 SERVINGS



Meat, Poultry, Fish, Dry Beans,
Eggs & Nuts Group
2-3 SERVINGS



Vegetable Group
3-5 SERVINGS



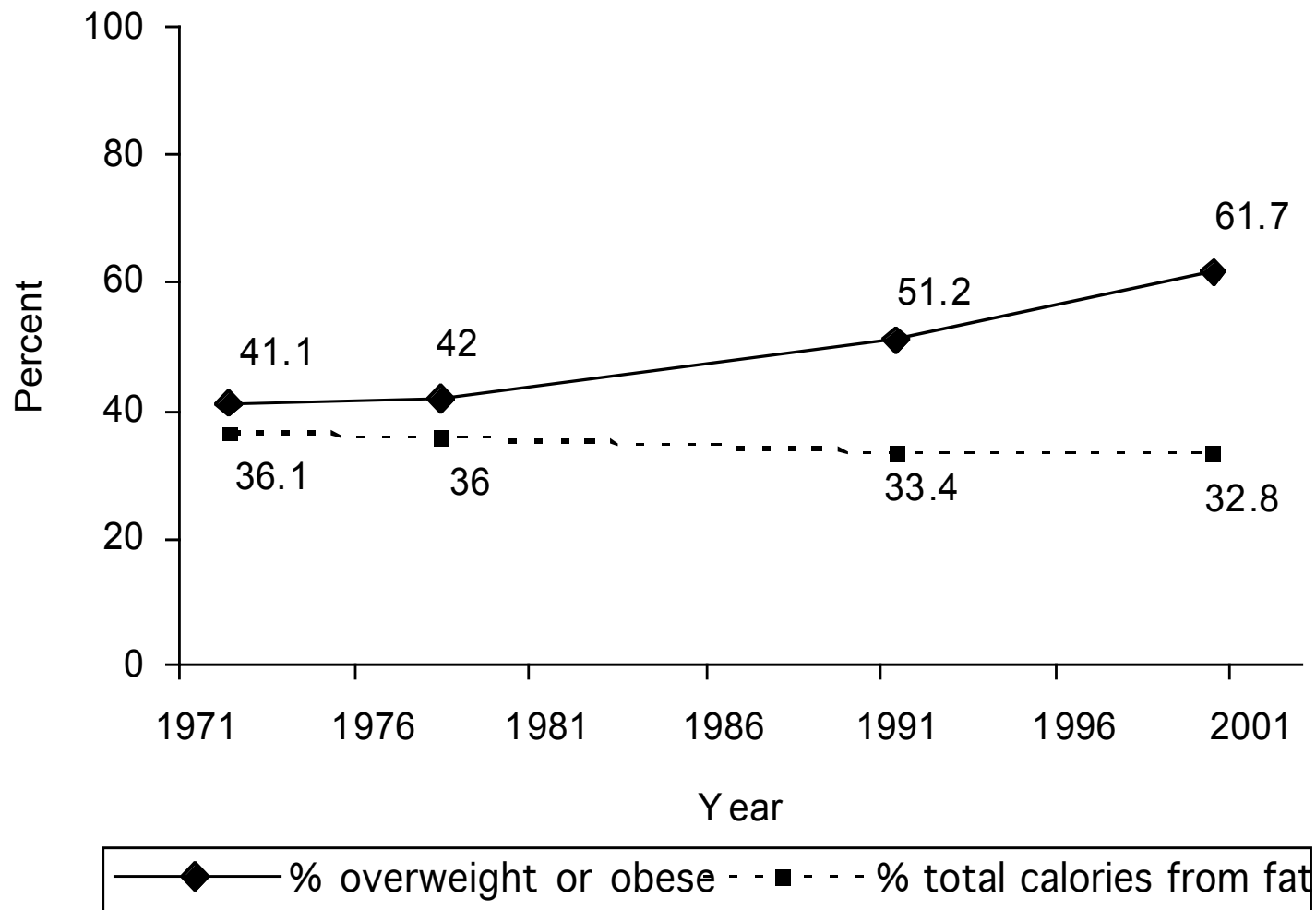
Fruit Group
2-4 SERVINGS



Bread, Cereal,
Rice & Pasta
Group
**6-11
SERVINGS**

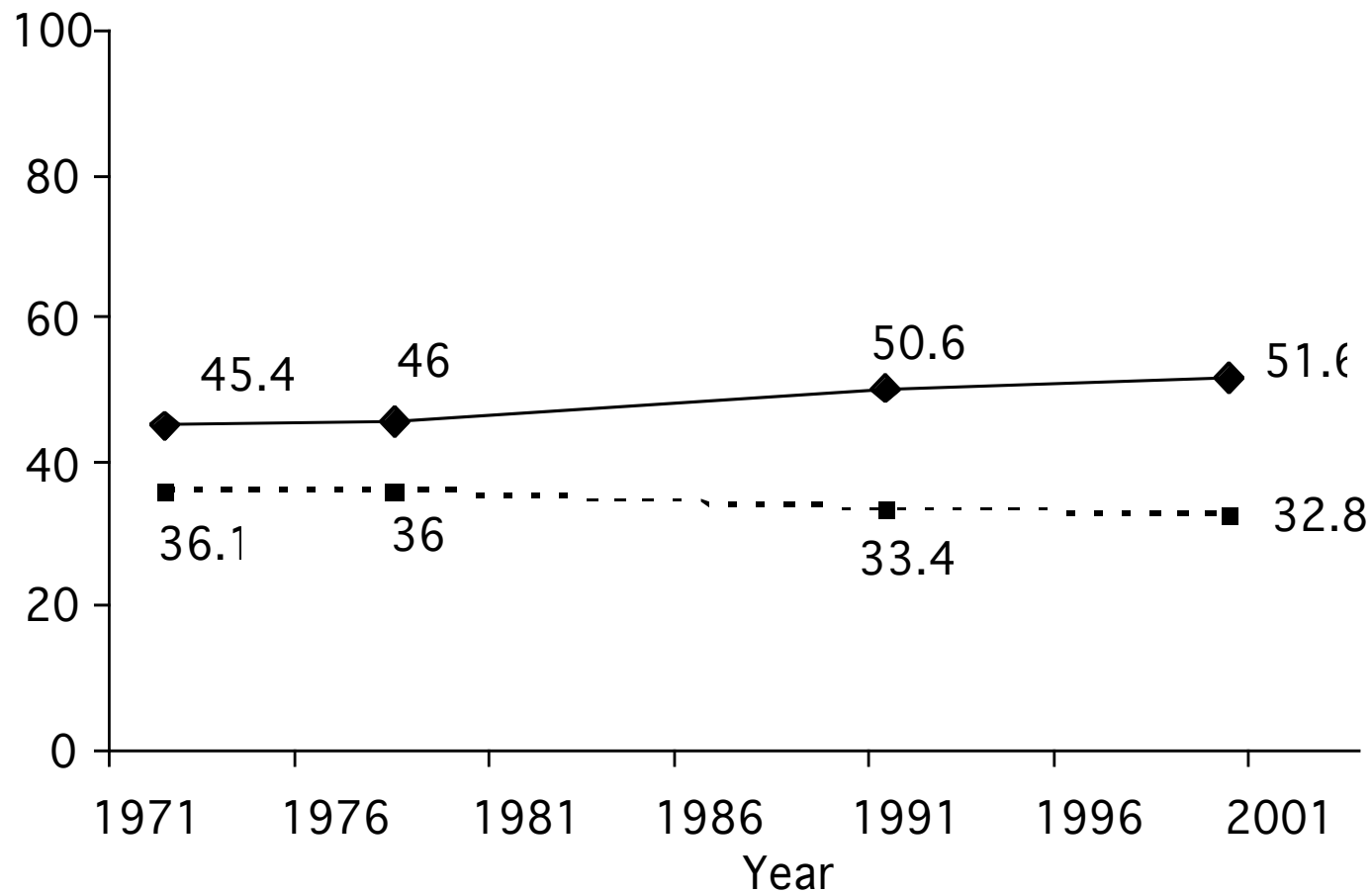


Fat intake and overweight in women



Marantz PR, Bird ED, Alderman MH. *Am J Prev Med* 2008 Mar;34(3):234-40.

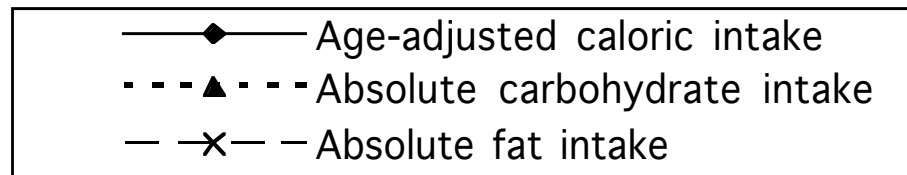
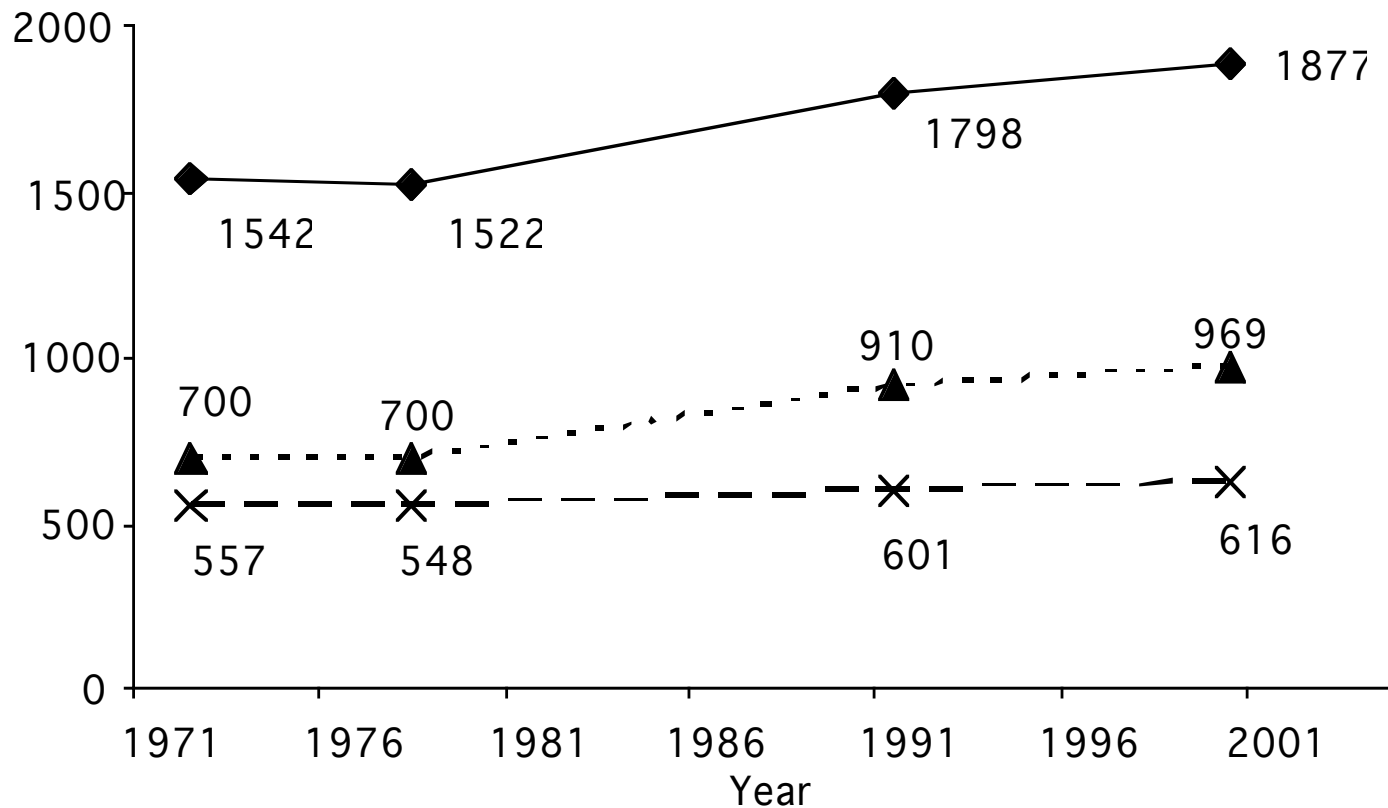
Dietary changes in women (%)



—◆— % calories from carbohydrates ···■··· % calories from fat

Marantz PR, Bird ED, Alderman MH. *Am J Prev Med* 2008 Mar;34(3):234-40.

Dietary changes in women (absolute)



Marantz PR, Bird ED, Alderman MH. *Am J Prev Med* 2008 Mar;34(3):234-40.

How good is the evidence base for dietary guidelines?

- Largely based on indirect evidence and inference
- New research, and perhaps novel research methods, needed
- For now, new guidelines issued and food pyramid revised

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Education/training in population health

- Clearly important for those practicing population health (e.g., public health officials, health plan administrators)
- Also important for “personal encounter physicians,” since population health concepts translate to clinical decision making and patient counseling

POPULATION HEALTH CONCEPTS CAN BE UNDERSTOOD BY PATIENTS *AND* PHYSICIANS



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Article by Gary
Taubes

(excellent
overview of
research
methods in
population
health)

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Giuliani's Prostate Cancer Figure Is Disputed

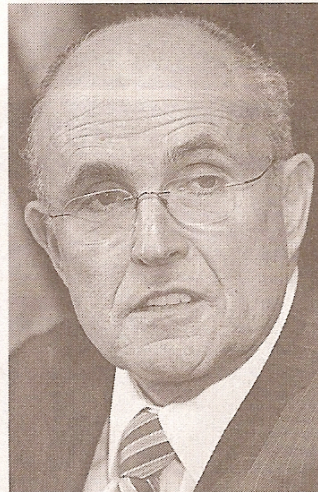
By JULIE BOSMAN

In a radio advertisement playing in New Hampshire and in speeches along the campaign trail, Rudolph W. Giuliani has cited statistics to cut at the heart of his Democratic rivals' health care proposals, which he has derided as European-style "socialist" plans that will lower the standard of care in the United States.

"I had prostate cancer five, six years ago," Mr. Giuliani, a Republican presidential candidate, said in a speech that has been turned into the radio commercial. "My chance of surviving prostate cancer — and, thank God, I was cured of it — in the United States? Eighty-two percent. My chance of surviving prostate cancer in England? Only 44 percent under socialized medicine."

Mr. Giuliani's Democratic rivals would argue that they are not advocating government-run health care in their plans to extend coverage to the uninsured. But, beyond that, the 44 percent figure that Mr. Giuliani has been citing is in dispute.

The Office for National Statistics in Britain says the five-year survival rate from prostate cancer there is 74.4 percent. And doctors also say it is unfair to compare prostate cancer statistics in Britain with those in the United States because in the United States the cancer is more likely to be diagnosed in its early stages.



CHERYL SENTER/ASSOCIATED PRESS

Rudolph W. Giuliani has used statistics on prostate cancer in advertisements and speeches.

"Certainly, if you intensively screen for prostate cancer, you will find early disease," said Dr. Ian M. Thompson, chairman of the department of urology at the University of Texas at San Antonio. "And simply because you find it earlier, you will always have longer survival after the disease is diagnosed."

Maria Comella, a spokeswoman for Mr. Giuliani, said yesterday that the 44 percent figure came from an article in *City Journal*, a publication of the Manhattan Institute, a conservative re-

search organization.

"The citation is an article in a highly respected intellectual journal written by an expert at a highly respected think tank which the mayor read because he is an intellectually engaged human being," Ms. Comella said in an e-mail message.

That article, titled "The Ugly Truth About Canadian Health Care," was written by Dr. David Gratzer, a senior fellow at the Manhattan Institute and an adviser to the Giuliani campaign.

In an interview, Dr. Gratzer said the statistic came from the Commonwealth Fund, a nonprofit group in New York specializing in health care policy issues, but he acknowledged that it was seven years old and "crude."

But the Commonwealth Fund said yesterday that Dr. Gratzer had misused its research by calculating a five-year survival rate based on data on prostate cancer incidence and mortality rates in the United States and Britain.

"Five-year survival rates cannot be calculated from incidence and mortality rates, as any good epidemiologist knows," the group said in a statement.

Dr. Gratzer dismissed the Commonwealth Fund's statement, saying the group had "an ideological bias." Asked if Mr. Giuliani would continue to repeat the statistic, and if the advertisement would continue to run, Ms. Comella responded by e-mail: "Yes. We will."

The New York Times

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NEW YORK, WEDNESDAY

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What did Dr. Thompson mean?

- Was asked in an unscientific survey, N of 5: 2 practicing physicians, 2 professors of medicine, 1 administrator
- All said: “early detection saves lives”
- Same question posed to a professor of epidemiology and a medical student
- Both said: “lead time bias”

The importance of population health (academic context)

- Research needed to inform policy and practice
- Practitioners need to be able to apply denominator-based thinking to patient care