

The MPH: Does It Play an Important Role for Radiology?

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No disclosures

Educational Objectives

- Define what constitutes public health
- Describe the advantages of acquiring an MPH during a career in radiology
- Explain potential applications of MPH in radiology
 - Clinical effectiveness
 - Health policy
 - Global health
 - Quantitative methods

Hippocrates 400 B.C.

“The function of protecting and developing health must rank even above that of restoring it when it is impaired.”

Abraham Flexner 1910

“...the physician’s function is fast becoming social and preventive, rather than individual and curative. Upon him society relies to ascertain, and through measures essentially educational to enforce, the conditions that prevent disease and make positively for physical and moral well-being.”

Public Health vs. Medicine

Public Health

Primary focus on population

Public service ethic, tempered by concerns for the individual

Emphasis on prevention, health promotion for the whole community

Public health paradigm employs a spectrum of interventions aimed at the environment, human behavior and lifestyle, and medical care

Multiple professional identities with diffuse public image

Medicine

Primary focus on individual

Personal service ethic, conditioned by awareness of social responsibilities

Emphasis on diagnosis and treatment, care for the whole patient

Medical paradigm places predominant emphasis on medical care

Well-established profession with sharp public image

Harvey Fineberg, M.D., Ph.D. 1990

Courtesy of Rika Maeshiro MD, AAMC, Washington D.C.

Public Health vs. Medicine

Public Health

Biological sciences central, stimulated by major threats to health of populations; move between laboratory and field

Numeric sciences an essential feature of analysis and training

Social sciences an integral part of public health education

- Clinical sciences peripheral to professional training

Medicine

Biological sciences central, stimulated by needs of patient; move between laboratory and bedside

Numeric sciences increasing in prominence, though still a relatively minor part of training

Social sciences tend to be an elective part of medical education

- Clinical sciences an essential part of professional training

10 Essential Public Health Services

- **Monitor** health status to identify community health problems.
- **Diagnose and investigate** health problems and health hazards in the community.
- **Inform, educate, and empower** people about health issues.
- **Mobilize** community partnerships to identify and solve health problems.
- **Develop policies and plans** that support individual and community health efforts.
- **Enforce** laws and regulations that protect health and ensure safety.
- **Link** people to needed personal health services and assure the provision of health care when otherwise unavailable.
- **Assure** a competent public health and personal healthcare workforce.
- **Evaluate** effectiveness, accessibility, and quality of personal and population-based health services.
- **Research** for new insights and innovative solutions to health problems.

Public Health and Radiology in 2011

- Multidisciplinary effort to protect and promote public health and well-being working collaboratively with specialists in:
 - Preventive medicine
 - Emergency medicine
 - Internal medicine
 - Family medicine
 - Obstetrics and gynecology
 - Psychiatry
 - Surgery
 - Pediatrics

Major Public Health Dilemmas in 2011

Infectious Disease

Cardiac Disease

Obesity

Addiction (alcohol, tobacco)

Cancer



My Story...

WHY?

WHEN?

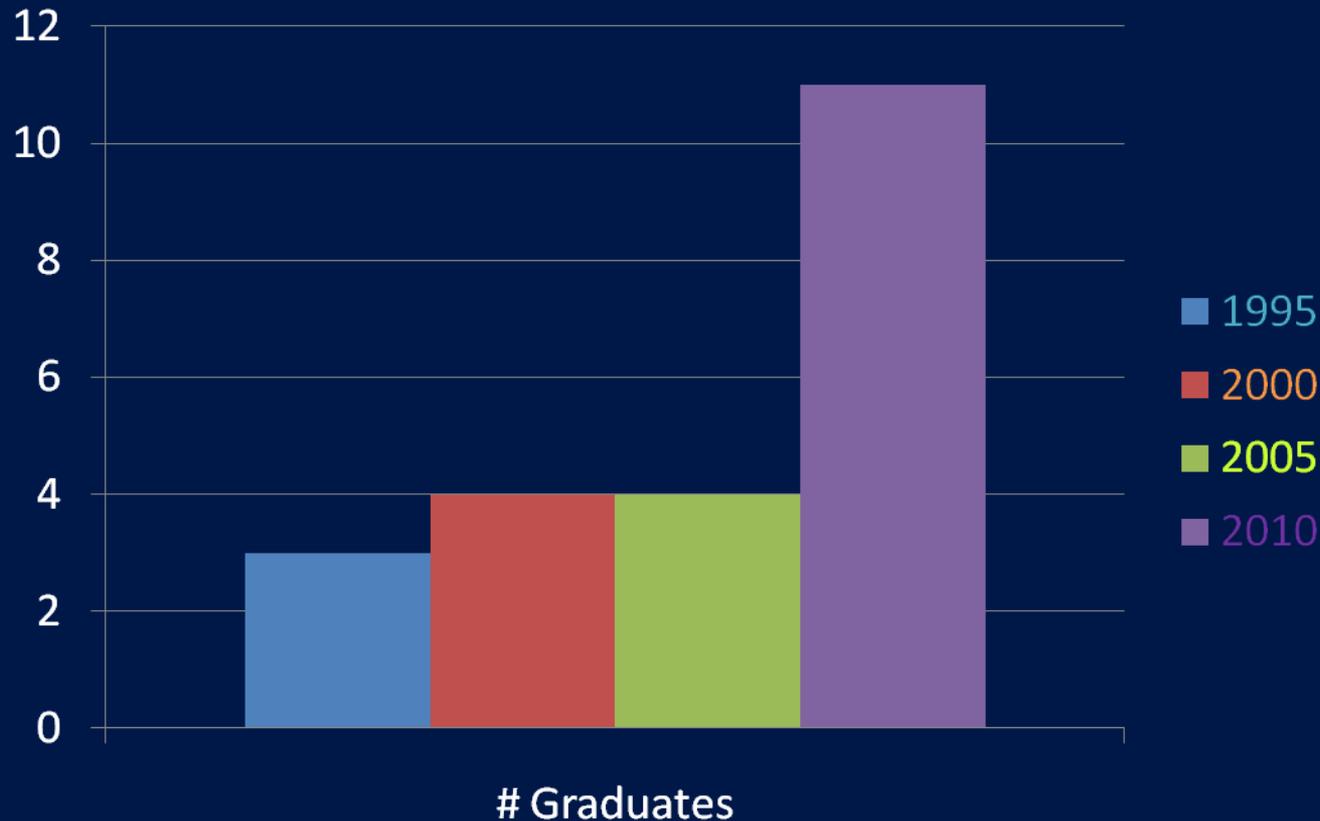
PROS

CONS

Combined MD-MPH Degrees

- Majority obtain during residency or mid-career; some during medical school
- Increasing options
 - More schools offering combined MD-MPH (accept outside students)
 - On-line and summer-only options (three consecutive 7 week sessions)
 - Off-site practicum often part of degree (application to real-time environment)
 - More residency programs and academic hospitals supportive

Combined MD-MPH Program at Harvard 1995-2010



2011: 85-90 medical student applicants to HSPH annually, of which 35-40 enroll in MPH

So Should You Get An MPH?

Timing is Critical

Perspective vs. Specific Skill Set

Availability of Funding

Potential Applications in Radiology

- **Clinical effectiveness**
 - Identify the most appropriate, ethical, and cost-effective means of providing health care through prevention, early detection or treatment
 - Focus in clinical epidemiology, biostatistics, cost-effectiveness, medical decision analysis, health services research, quality improvement, and measurement of health-related quality of life

Impact in radiology:

Appropriate utilization of imaging

Quality improvement

Potential Applications to Radiology

- Global health and outreach
 - Knowledge about and comparative perspectives of different health care systems and resources
 - Epidemiologic and biostatistical concepts

Impact in radiology:

Successful integration of imaging into low and middle resource countries resulting in earlier detection and improved outcomes

Potential Applications in Radiology

- **Health policy and management**
 - Management Focus
 - Accounting, finance, operations, marketing, information systems, quality improvement, people management and strategy
 - Policy Focus
 - Health economics, political science, and applied policy (payment systems, insurance, mental health, and substance abuse)
 - Bottom-Line: Knowledge about health care systems and economics plus business skill set

Impact in radiology:

Appropriate reimbursement of services

Patient access to appropriate diagnostic tools

Keep radiology at forefront of political arena

Potential Applications in Radiology

- **Quantitative Methods**
 - Analytical and statistical skills for population-based research and practice
 - Typically based in academic medicine
 - Application of skills locally, nationally, and internationally

Impact in radiology:

Conduct statistically sound prospective analyses of imaging techniques/modalities

Perform needs assessment for imaging and implement action plans in developing countries

So Should You Pursue an MPH?

- YES if:

- Interested in global health, health care systems, health policy, quality improvement, or cost-effectiveness
- Desire a broader view of health care and health care systems

OR

- Incorporate public health thought processes into daily clinical practice and to approach health care from a population-basis, not only individual basis

How To Get Started...

- 133 accredited medical schools and 46 accredited public health schools nationally
 - 22 have joint MD-MPH programs
 - Each school has specific strengths



Thank You for Your Attention!

