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

Priscilla J. Slanetz MD, MPH, FACR
Associate Professor of Radiology,
Harvard Medical School
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.”
“...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

<table>
<thead>
<tr>
<th>Public Health</th>
<th>Medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary focus on population</td>
<td>Primary focus on individual</td>
</tr>
<tr>
<td>Public service ethic, tempered by concerns for the individual</td>
<td>Personal service ethic, conditioned by awareness of social responsibilities</td>
</tr>
<tr>
<td>Emphasis on prevention, health promotion for the whole community</td>
<td>Emphasis on diagnosis and treatment, care for the whole patient</td>
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<tr>
<td>Public health paradigm employs a spectrum of interventions aimed at the environment, human behavior and lifestyle, and medical care</td>
<td>Medical paradigm places predominant emphasis on medical care</td>
</tr>
<tr>
<td>Multiple professional identities with diffuse public image</td>
<td>Well-established profession with sharp public image</td>
</tr>
</tbody>
</table>

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

Courtesy of Rika Maeshiro MD, AAMC, Washington D.C.
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<th>Public Health</th>
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<tr>
<td>Biological sciences central, stimulated by major threats to health of populations; move between laboratory and field</td>
<td>Biological sciences central, stimulated by needs of patient; move between laboratory and bedside</td>
</tr>
<tr>
<td>Numeric sciences an essential feature of analysis and training</td>
<td>Numeric sciences increasing in prominence, though still a relatively minor part of training</td>
</tr>
<tr>
<td>Social sciences an integral part of public health education</td>
<td>Social sciences tend to be an elective part of medical education</td>
</tr>
<tr>
<td>•Clinical sciences peripheral to professional training</td>
<td>•Clinical sciences an essential part of professional training</td>
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Courtesy of Rika Maeshiro MD, AAMC, Washington D.C.
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.

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

Data courtesy of S. Zapatka, Associate Registrar, HMS and Roberta Gianfortoni, HSPH
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!