

The Future of Occupational and Environmental Medicine

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Mega-issues in OEM

Issues of overriding strategic importance, which reflect fundamental questions the field must answer and the major challenges the field will have to address in achieving its vision in the current environment.



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Selected Mega Issues in OEM

- Indicators of occupational health
- Relationship of OEM to broad public health issues
- Competence and size of the OEM workforce
- Ethical and social justice issues
- Others ... (EBM, NORA, Global Environment, Globalization)



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Indicators of Occupational Health



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Why Count Occupational Fatalities, Injuries and Illnesses?

- Describe social burden of work-related injuries and illnesses ... drives resources for research and management
- Target high morbidity/mortality business sectors for intervention/enforcement
- Track impact of interventions
- Prevent future occupational morbidity and mortality



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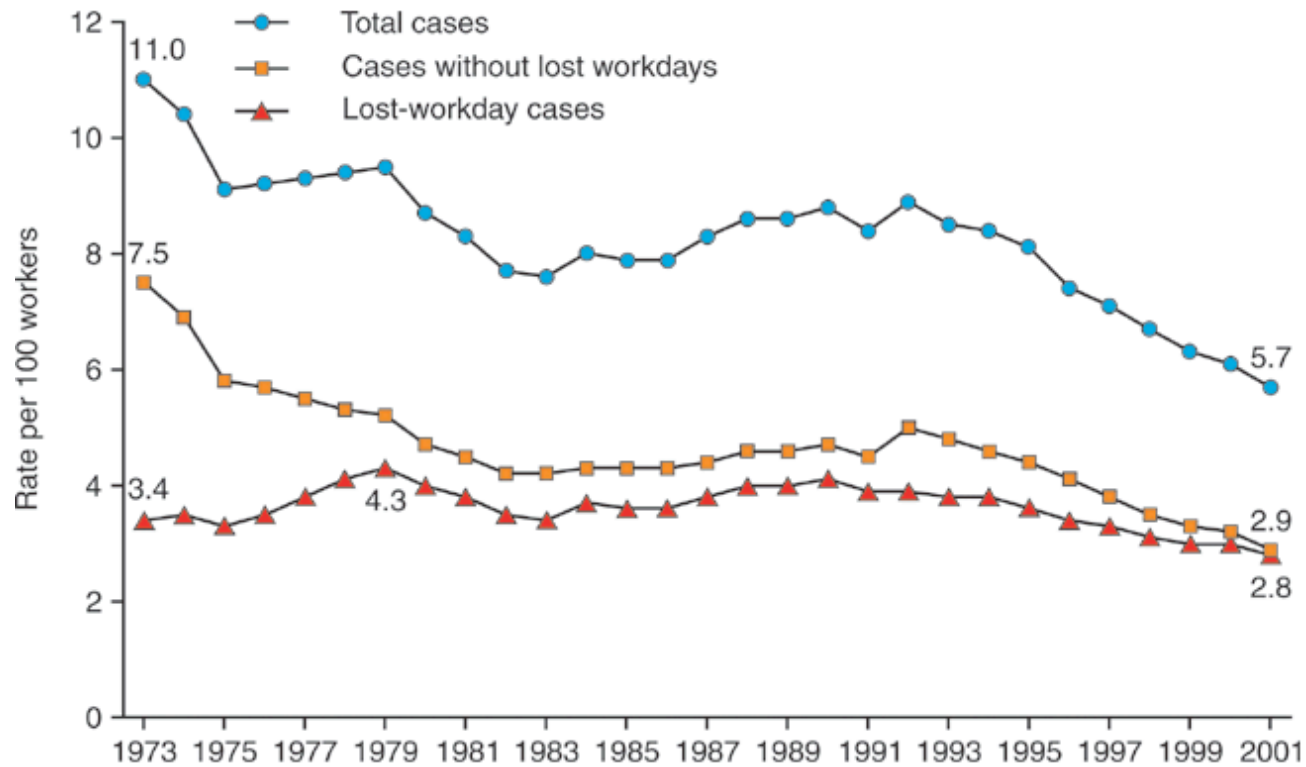
OSHA Log Reporting

- BLS Survey of OSHA 300 Logs (SOII) - published
 - Sample of 174,000 (3%) of 5.5 million covered private industry establishments
 - 90-95% compliance with this voluntary self-report
- OSHA Data Initiative (ODI)- unpublished
 - Voluntary annual survey of 80,000 high hazard establishments with > 40 employees used to target inspections
 - Audit and Verification Program (involuntary)
 - Recordkeeping Audit 250 employers
 - 93-94% record “correctly” per OSHA



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Trends in Injury and Illness Incidence and Severity



NIOSH Worker Health Chartbook 2004



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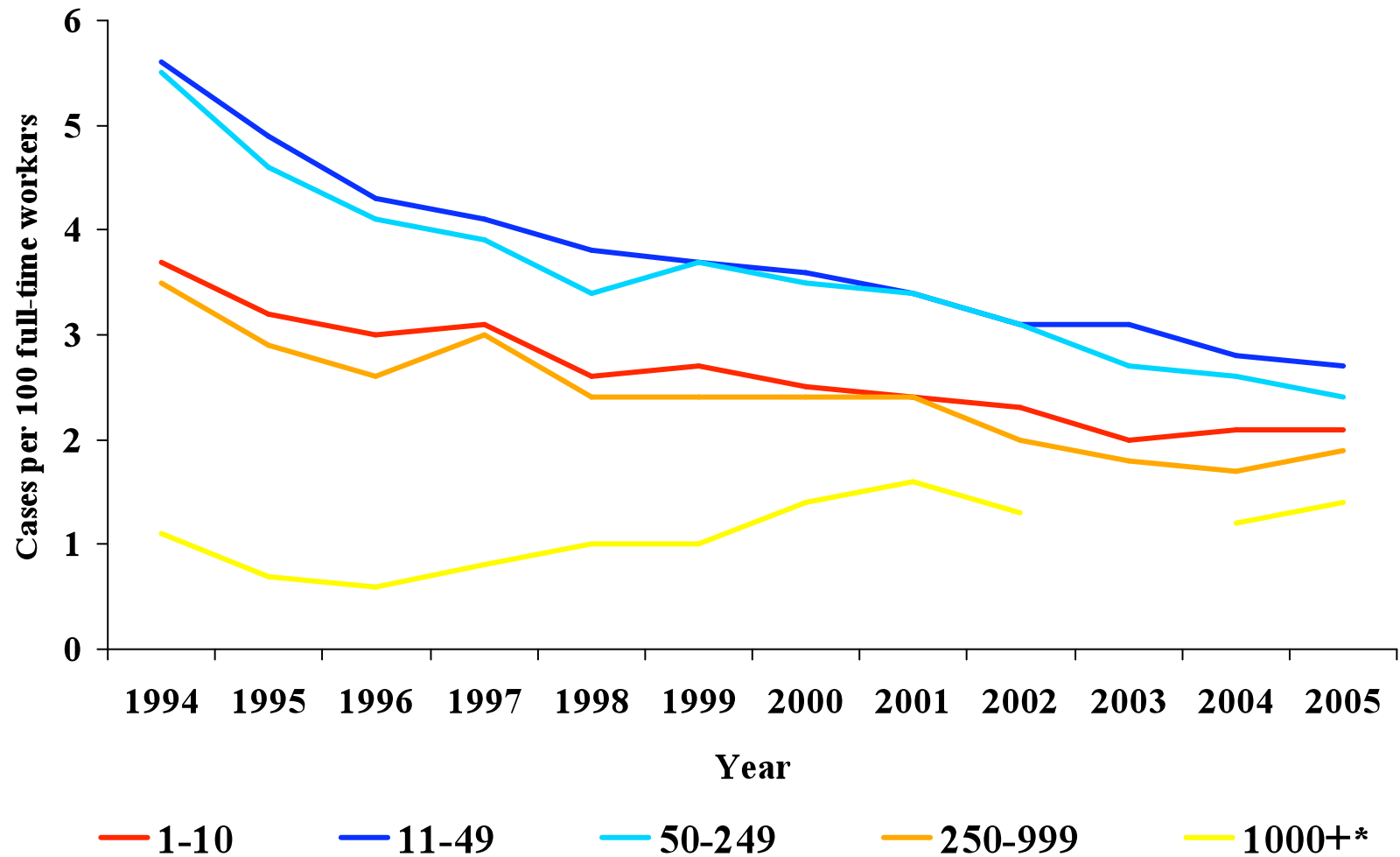
Census of Fatal Occupation Injuries

- 1987 NAS report – BLS annual survey missed 50% of acute work-related deaths
- CFOI
 - Complete census using multiple data sources and covers all workers
 - Not dependent on employer awareness or report



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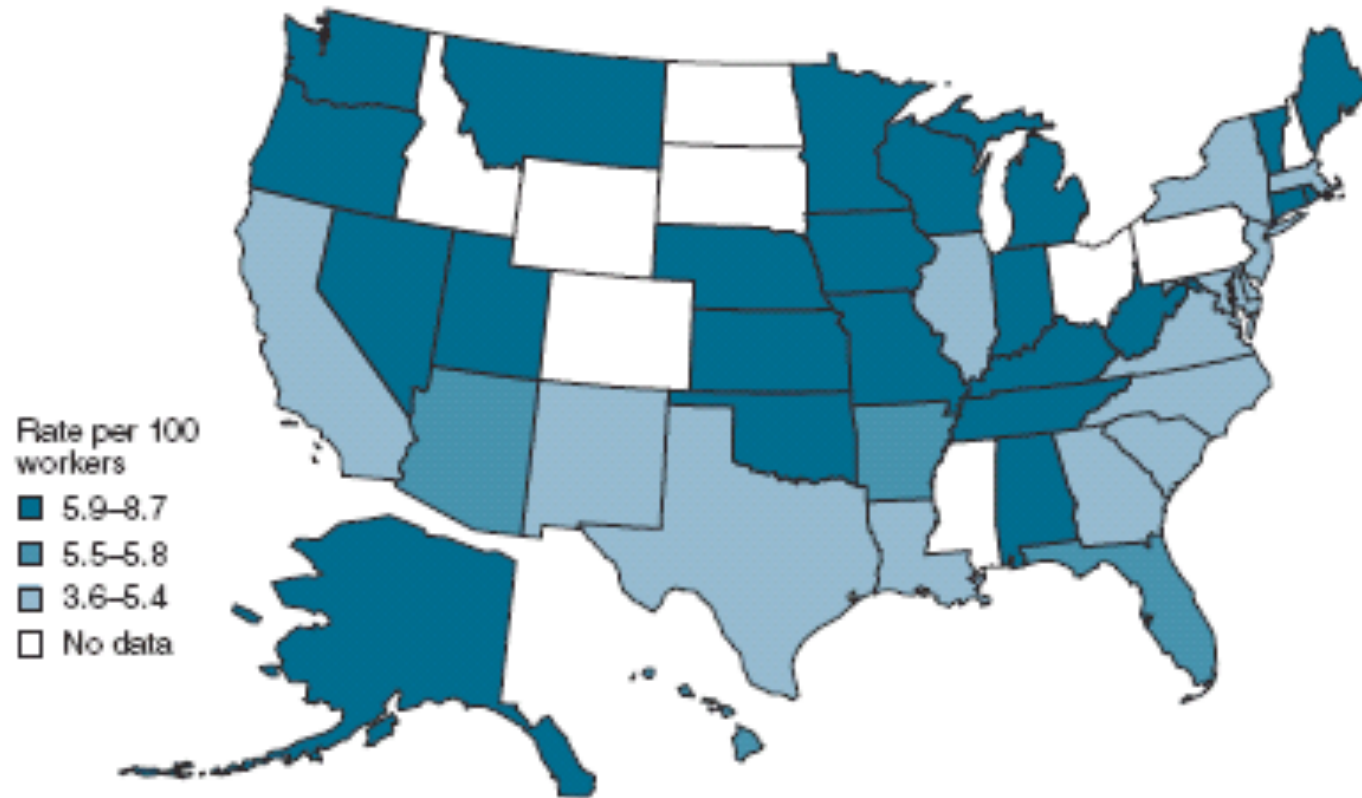
33c. Rate of nonfatal work-related injuries and illnesses in construction resulting in days away from work, by establishment size, 1994-2005



33a. Number of deaths from work-related injuries in construction, by employment status, 1992-2005



Variation in Injury/Illness Rates by State



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What's Wrong With This Picture?

- Are Louisiana and Texas 3 times safer than Maine and Vermont?
- Why have rates of work-related emergency room visits and fatalities remained stable while the rates for less serious injuries and illnesses plummeted?



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Undercounting Occupational Injuries and Illnesses

- Multiple peer reviewed studies point to significant undercounting by BLS survey
 - Azaroff AJPH 2002 – “several hundred percent”
 - Rosenman JOEM 2006 – “undercounts 68% of Michigan injuries/illnesses”
 - Friedman OEM 2007 – “83% of decline 1992-2003 due attributed to changes in OSHA recordkeeping rules
 - Boden Ann Epid 2008 – “ BLS missed 340,000 and WC missed 180,000 lost time cases in 6 states



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Undercounting Occupational Injury and Disease

- No comprehensive national surveillance system
 - Under the table employment or regulatory exclusion of $> 1/3$ of private work force
 - Bureau of Labor Statistics annual survey, Workers Comp, and other data bases not integrated
 - BLS SOII Relies on employer report
- Complexity of recordkeeping rule leads to errors
- Practical, legal and scientific challenges in establishing causation
- Potential adverse consequences for reporting: employees, employers, physicians
- At best represents a body count, lost opportunities for prevention



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Other Data Bases

- Workers compensation data bases
 - State based
 - Definitions of work-relatedness vary
- BLS population survey of employment and unemployment
- National Hospital Discharge Survey
- Census of Fatal Occupational Injuries
- National Center for Health Statistics
- American Association of Poison Control Centers
- National Cancer Institute SEER data
- Adult blood lead epidemiology Surveillance (ABLES)
- Census Bureau County Business Patterns
- OSHA Office of Statistics
- National Academy of Social Insurance (NCCI)
- Black Lung Benefit Awards
- Coal Worker X-ray Surveillance
- OSHA's Integrated Information Management System (IMIS)
- MSHA Non-Metal Mine Data from MSHA
- Occupational and Environmental Disease Surveillance Database Case Reports, AOEC
- Sentinel Event Notification Systems for Occupational Risks (SENSOR), NIOSH
- New data bases for first aids, exposure, near misses?



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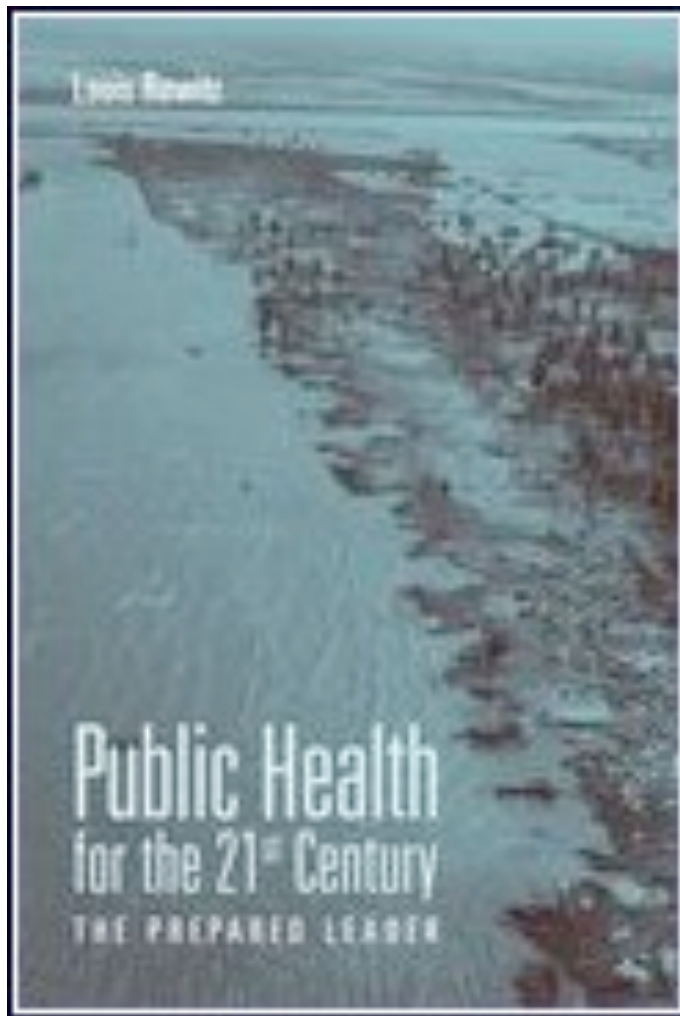
Working on Improving the Surveillance of Occupational Health

- CSTE advocates a suite of 19 indicators – now used in 13 states
- RAND Center for Health and Safety in the Workplace
- Congress
 - House Committee on Education and Labor
 - Call for GAO investigation
- ACOEM initiatives



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OEM and the Public Health Crisis



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General Health Trends – A Public Health Crisis

- Obesity and sedentary lifestyle and associated diseases are epidemic and will drive disability (SSDI and medicare)
- Health care premiums rising at twice the inflation rate
- Number of uninsured Americans continues to rise
 - 46.6 million or 15.9% of population
 - Health insurance coverage for working families – has declined annually for 6 years. Now at 62%
- The Silver Tsunami



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“...if current trends persist, sometime between 2016 and 2020 existing federal revenues will cover only health entitlements, Social Security, debt service and a smaller defense budget, leaving nothing for anything else....”

Health Affairs 2008



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NIOSH Worklife 2007: What's the Buzz?

- Evidence highlights inter-relationship of work environment, or  of work, and “personal” health s/conditions
- Workforce protection through integration of traditional health and safety, health and productivity management and disaster preparedness



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HPDM: An OEM Opportunity

- OEM physicians are *public health professionals for the employed population.*
- OH services – a “triple threat”?
 - Protect and promote the health of workers and their families
 - Support work force productivity
 - Prevent insolvency of social welfare systems



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Health and Productivity: ACOEM as Thought Leader

- Building the evidence base
- Membership tools and outreach to physicians, employers, and payors.
- ACOEM advocacy in the National Health Crisis Debate: The Role of HPDM in Addressing the Nation's Health Care Crisis



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Right Sizing the OEM Workforce



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OEM Workforce

- Total Occupational Health and Safety Professionals
 - 75,000 – 125,000
- AMA estimates 10,000 physicians practice some OM
- 3,332 Board-certified occupational medicine physicians since 1955
- Only 1,500 - 1,800 are actually in practice today
- ACOEM
 - 4900 members
 - Mean age 55; 93% > 40
 - 40% board certified in OM



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OEM Training

- Declining number of residency programs
 - 1994: 42
 - 2007: 31
- Declining number of graduates
 - 1994 : 168
 - 2007: 101
- Educational Resource Centers
 - Flat, unstable funding



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Redefining Core OEM Competencies

- Clinical Occupational and Environmental Medicine
- OEM Related Law and Regulations
- Environmental Health
- Work Fitness and Disability Integration
- Toxicology
- Hazard Recognition, Evaluation, and Control
- Disaster Preparedness and Emergency Management
- Health and Productivity
- Public Health, Surveillance, and Disease Prevention
- OEM Related Management and Administration



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Future of OEM Training- ACOEM Initiatives

- Develop educational programs, including distance learning that support ACOEM's competencies, especially "hands-on" skills required in clinical practice with consideration of "official recognition" of this training.
- Explore new models leading to occ med board certification, assuring that this path leads to equivalent educational experience and acquisition of skills as the current standard residency program.



Future of OEM Training – ACOEM Initiatives

- Promote OEM specialty through outreach to medical students, residents and other physicians
- Advocate for appropriate funding of OEM Residency Programs
- Formulate mechanisms to operationalize these decisions



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Excellence in Health Care: Ethics and Social Justice

- Respond to ethical challenges
 - Confidentiality
 - Conflict of interest
 - Code of Ethics
- Address maldistribution of risk and burden of poor health
 - Protection of vulnerable groups
 - Section for Underserved Populations



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Emulate the Heroes of Our Field

- Align worker protection with themes of health and human rights
- Achieve 100% “coverage” of all workers by competent OEM and OHS programs
- Create a zero injury and illness culture
- Form coalitions around issues of importance to business, labor, environmental groups, community groups, public health professionals

Silverstein 2007 & Rantanen 2007



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Where the Future?

- Improved systems of occupational injury and illness surveillance to support prevention
- Engagement of OEM as part of the solution to the looming public health crisis
- New training, funding systems and regulatory reform
- Improvement in quality of care through development of evidence-based occupational medicine practice guidelines
- Research to identify and control new occupational and environmental hazards
- Consult our ethical and moral compass



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ACOEM Vision

- ACOEM is the pre-eminent organization of physicians who *champion* the health and safety of workers, workplaces, and environments



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