The Future of Occupational Health

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Outline

- Traditional occupational disease paradigms
- What is needed
  - Institute of Medicine
  - European Community
  - WHO
  - NIOSH
- The precarious workforce
The Dose Makes the Poison

-Paracelsus*

*born Philippus Aureolus Theophrastus Bombastus von Hohenheim
1493 - 1541
Hazards of lead, mercury, viscous rayon, CO, among immigrant workers in Chicago.

First female faculty member of Harvard University, Dept. of Industrial Medicine, 1919

The Occupational Disease Paradigm

- Exposure
  - Exposure monitoring

- Early Biologic Effects
  - Biological monitoring

- Subclinical health effects
  - Health effects monitoring

- Clinical Disease
Genetic Susceptibility in Occupational Disease Development

Christiani D C et al. Occup Environ Med
2008;65:430-436
Problems with this Paradigm

- It ignores host susceptibility factors
  - Psychosocial, behavioral, economic factors
- It ignores work organization
- It treats disease as a mechanistic, dose-dependent phenomena
- It ignores non-workplace factors
Safe Work in the 21st Century: Education and Training Needs for the Next Decade's Occupational Safety and Health Personnel

Institute of Medicine National Academy Press, 2000
Safe Work in the 21st Century

- Changing demographics of the workforce
  - Aging, women, African Americans, Hispanics, Asians
- Changing workplace
  - Decreased manufacturing, mining
  - Increased service sector
- Changing organization of work
  - Globalization, increased computer tech
- Changing delivery of health care

IOM, 2000
Overall OSH Priorities of European Union (2000)

◆ Psycho-social risk factors
◆ Ergonomic risk factors
◆ Chemical risk factors
◆ Safety risks
Priorities Within Main Categories

- Society & work organization
- Small & medium-sized enterprises
- Subcontracted labour
- Aging workers
- People with reduced working ability
- Self-employed
- Temporary workers
II. Healthy workplaces: a new way of thinking

A comprehensive approach that embraces:

- Traditional & emerging occupational health – minimizing workers' exposure to job-related physical & psychosocial risks
- Health promotion – promoting healthy behaviours among workers, both job- and lifestyle-related
- Enterprise involvement in community – to address broader social & environmental determinants of workers health
Paradigm shift

From: Labour approach

Occupational health

To: Public health approach

Workers' health

Action at workplace

Action to include workers' families & communities

Work-related health issues only

Include all health determinants

Work under labour contract

Include all workers (self-employed, informal workers)

Employers' responsibility

All stakeholders' responsible (insurance, health & environment authorities, a.o.)

Negotiation between workers and employers

Health protection is a non-negotiable
“Our nationwide health system must ensure that all sections of the community, particularly those who are most vulnerable, can access mainstream services and that, where necessary, specialist interventions are made.”

john.harrison@imperial.nhs.uk
NIOSH
Since 2006 has Developed:
- 90 sector “strategic” goals
- 31 outcome cross-sector “strategic” goals
- 80 additional cross-sector goals
- Numerous subgoals and objectives

Result of stakeholder and staff input
Much overlap
Changing nature of the Workforce

- Older
- More women and Hispanics
- More prevalent chronic disease
- Increase in mental disorders (e.g. anxiety, depression)
- Less unionization
- Grow at only 0.6%/year
From the Director’s Desk

John Howard, M.D.
Director, NIOSH

The Changing Employment Relationship and Its Impact on Worker Well-Being
NIOSH Underlying Premises

- NIOSH should be doing the most important work to protect the nation’s workforce
- NIOSH priorities should be fundamentally based on burden, need, and potential impact

Diagram:
- Burden
- Priorities
- Need
- Potential Impact
NIOSH Priority Research Goals
October, 2013

- Sector
  - Agriculture, construction, health care, etc

- Health outcome, cross sector
  - Cancer, hearing loss, respiratory, etc

- Non-health outcomes, cross sector
  - Economics, personal protective, surveillance, total worker health
Immigrant Workers
See, I told you we need tougher enforcement at the border...
I. Immigrants are a growing part of the labor force

Immigrants make up 13% of the population but 16% of the labor force.

Foreign-born share of total population and labor force, 1970 – 2010

Figure 3
Distribution of U.S. Labor Force by Race/Ethnicity, 2005 and 2050

- **2005**
  - White non-Hispanic: 69.6%
  - Hispanic: 13.3%
  - Other non-Hispanic: 17.1%

- **2050**
  - White non-Hispanic: 51.4%
  - Hispanic: 24.3%
  - Other non-Hispanic: 24.3%

*Projected*
Temporary Workers

- 3 million temp workers in the U.S.
  - 17 million workers have tenuous employer ties: contract, consultant, freelancers, etc.
- Accounts for largest job growth since 2009
- Avg salary 25% less than permanent workers
- No unionization, fewer benefits
- Used by major US employers, e.g. Walmart, GM
- Similar to farm labor contractor system in agriculture
ProPublica Investigative Report
Temporary Workers

- Incidence of workplace injuries in 5 states 36 – 72 % higher than for non-temporary workers.
- US has weakest temp worker protection in developed world
- More hazardous jobs done by temp workers
- Retribution occurs for reporting injuries

www.propublica.org
Social protections are reduced for the majority of immigrant and temporary workers

- Less preventive (public) health care
- Less financial protection for health care
- Wage and benefit (WC) abuse
Factors Associated with Increased Injuries Among Immigrants

- More hazardous jobs and tasks
  - Agriculture, construction, transportation, domestic services, garment
- Linguistic and cultural barriers
- Recent arrival
- Lack of safety training and equipment
- Precarious job (= Undocumented status)
  - Unwilling to complain
  - Risk taking
HARDWORKING:

UNDOCUMENTED

NOT SO MUCH:

IMMIG. REFORM
Summary, Needed Future Directions for Occupational Health

- Increase emphasis on work organization and vulnerable/precarious workers
  - Aging, temporary, immigrant workers
- A public health approach
  - Social determinants, workplace hazards
- Equitable treatment of all workers
- Improved access to health care
Thank you!
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http://mahrc.ucdavis.edu/