

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



Alice Hamilton, MD (1869 - 1970)



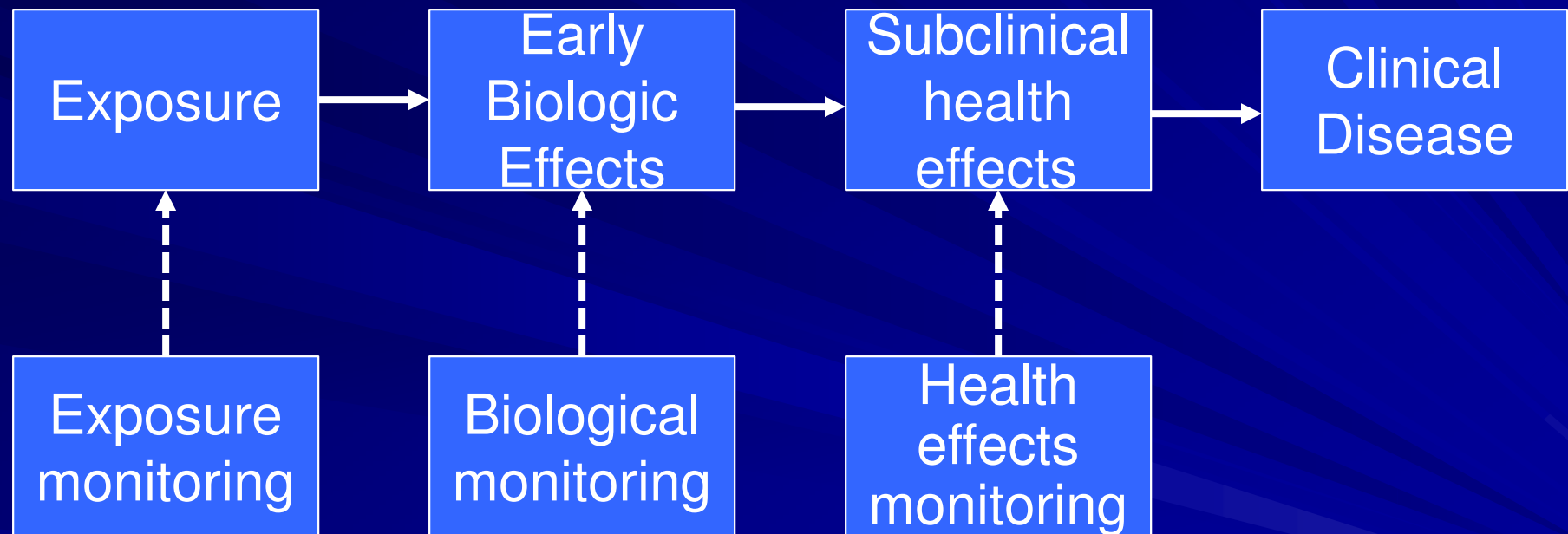
Hazards of lead, mercury, viscous rayon, CO, among immigrant workers in Chicago.

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

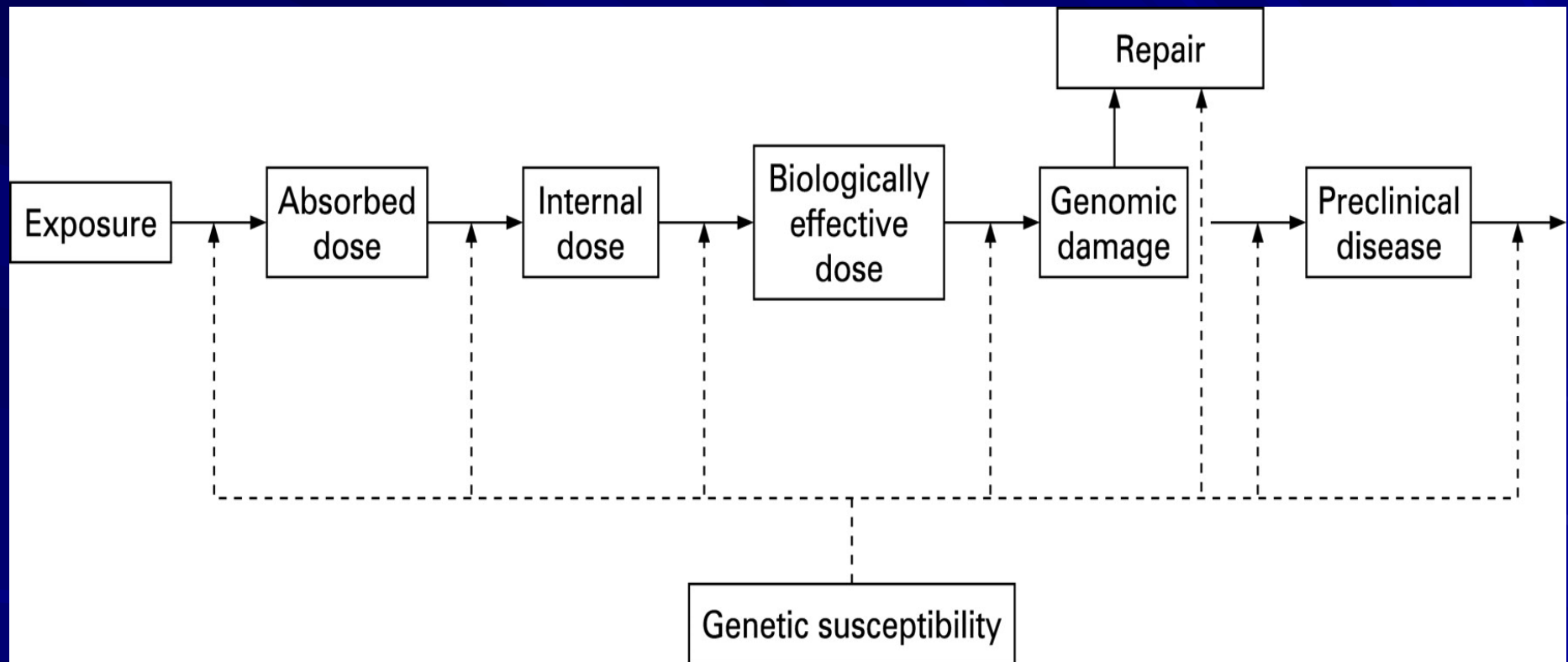


Exploring the Dangerous Trades:
The Autobiography of Alice
Hamilton, 1943

The Occupational Disease Paradigm



Genetic Susceptibility in Occupational Disease Development

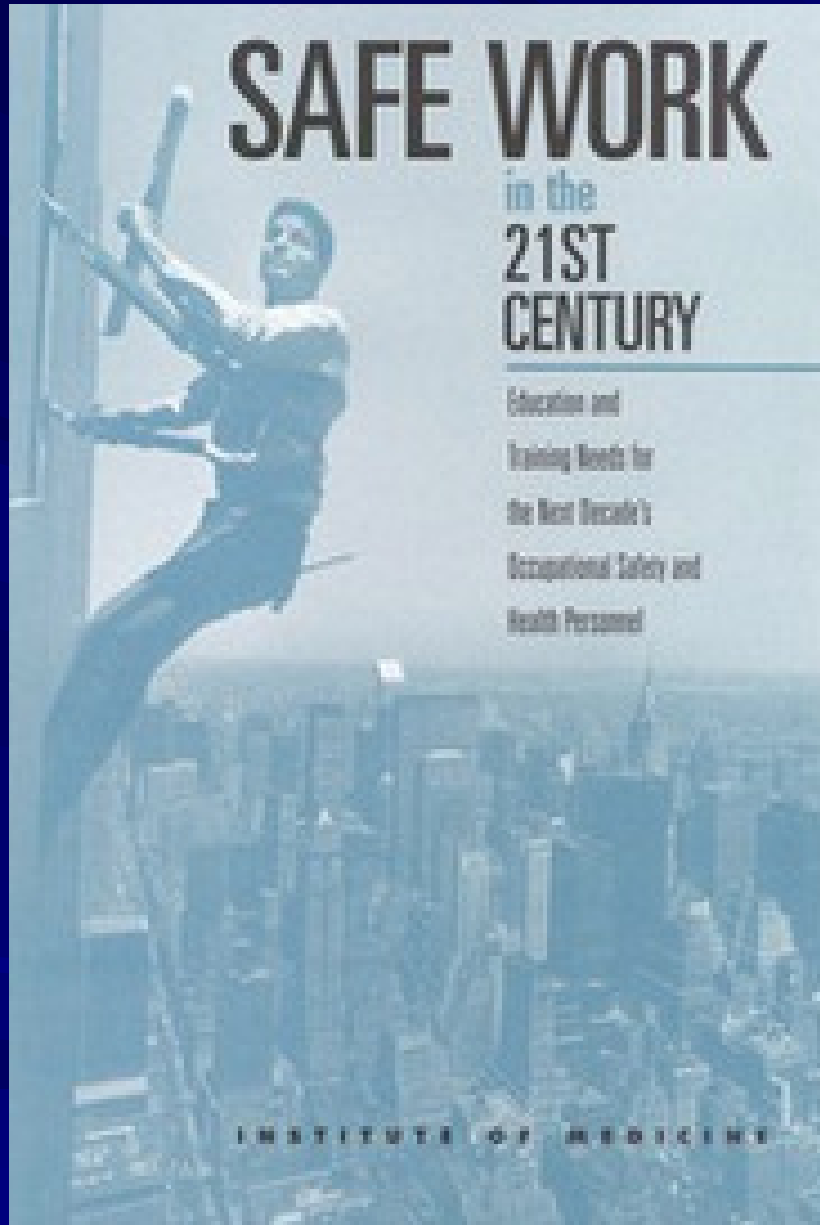


Christiani D C et al. Occup Environ Med
2008;65:430-436

OEM

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)



R E S E A R C H

Future Occupational
Safety and Health
Research Needs
and Priorities
in the Member
States of the European Union

- ◆ Psycho-social risk factors
- ◆ Ergonomic risk factors
- ◆ Chemical risk factors
- ◆ Safety risks

Priorities Within Main Categories



R E S E A R C H

Future Occupational
Safety and Health
Research Needs
and Priorities
in the Member
States of the European Union

- ◆ Society & work organization
 - ◆ Small & medium-sized enterprises
 - ◆ Subcontracted labour
 - ◆ Aging workers
 - ◆ People with reduced working ability
 - ◆ Self-employed
 - ◆ Temporary workers



**World Health
Organization**

Healthy workplaces: A model for action



**Dr Maria Neira
Director
Dept of Public Health &
Environment
WHO headquarters
Geneva, Switzerland**

2011

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



World Health
Organization

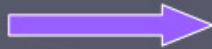
Paradigm shift

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 & environm. authorities, a.o.)

Negotiation between workers and employers

Health protection is a non-negotiable



World Health Organization

UK National Health Service (NHS) Future Forum for Occupational Health (2012)

- “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

U.S. in 2020 and Beyond

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

NIOSH

NIOSH eNews

Volume 12 Number 12 April 2015

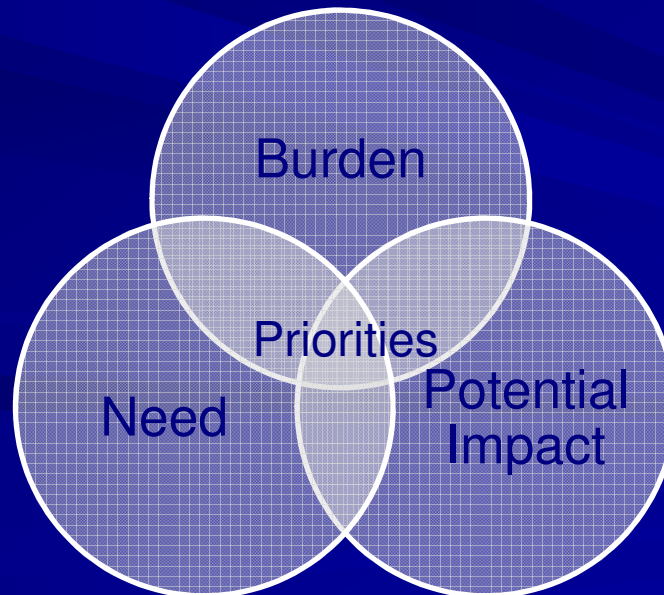
From the Director's Desk

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**



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

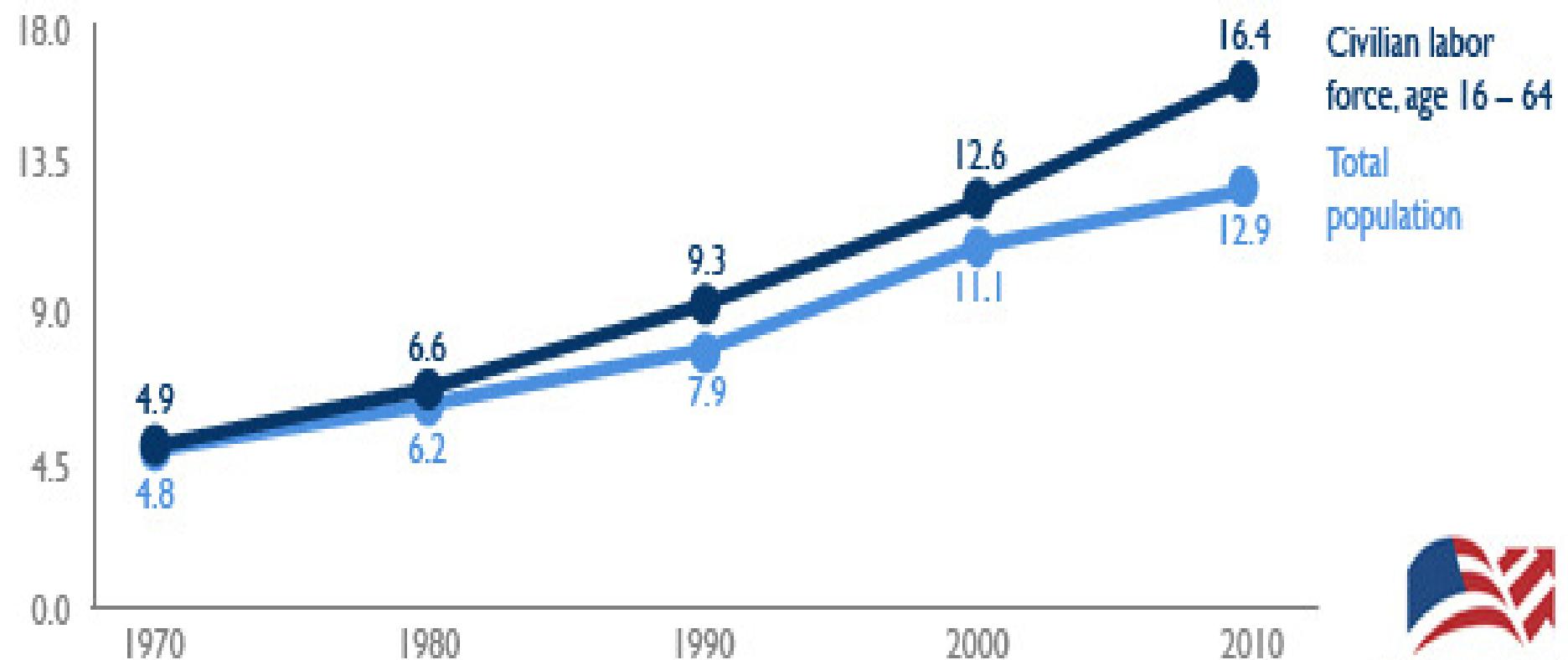




I. Immigrants are a growing part of the labor force

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

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



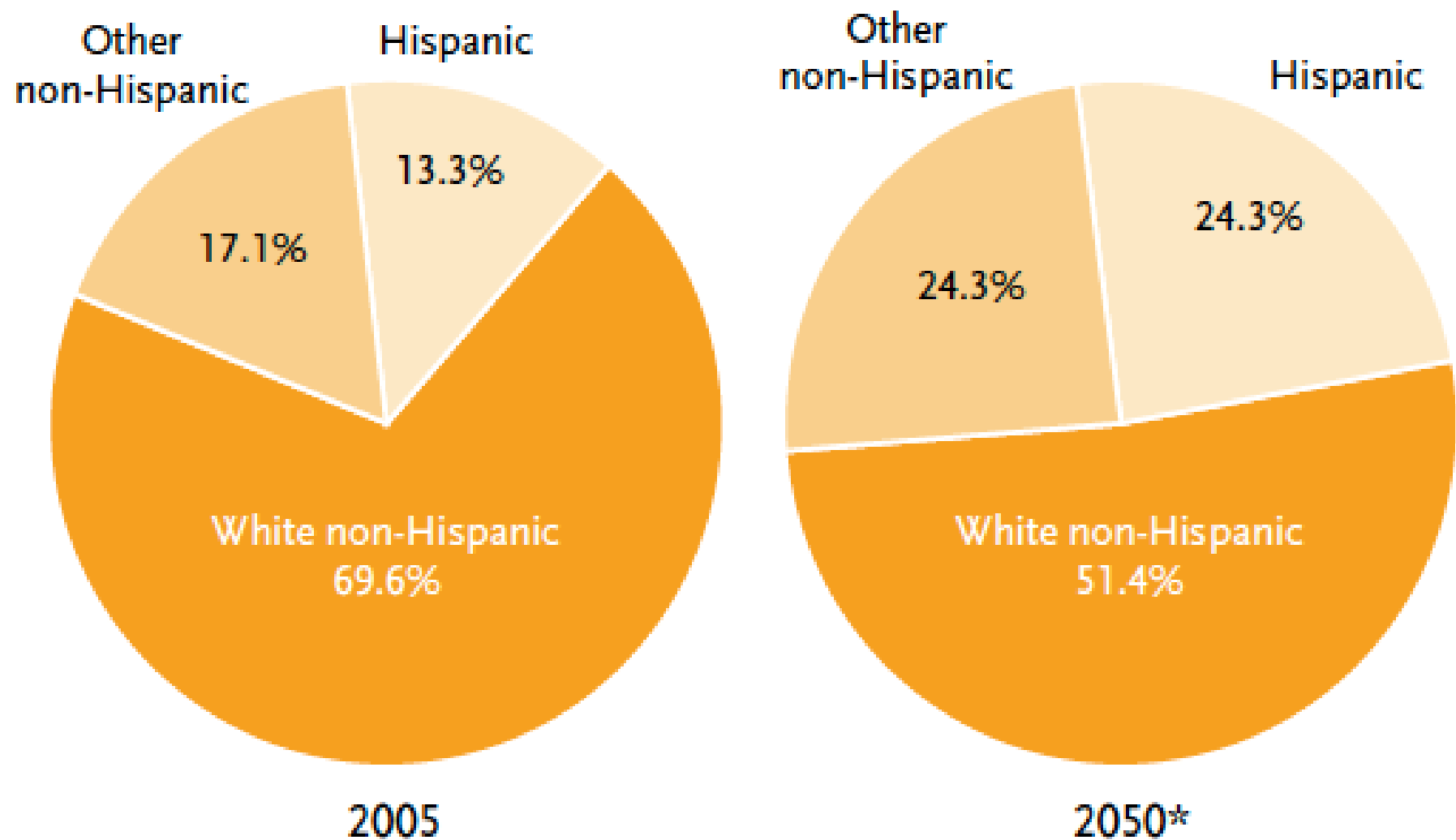
Source: U.S. decennial census data, 1970-2000 and ACS 2010, accessed from IPUMS.org

BROOKINGS



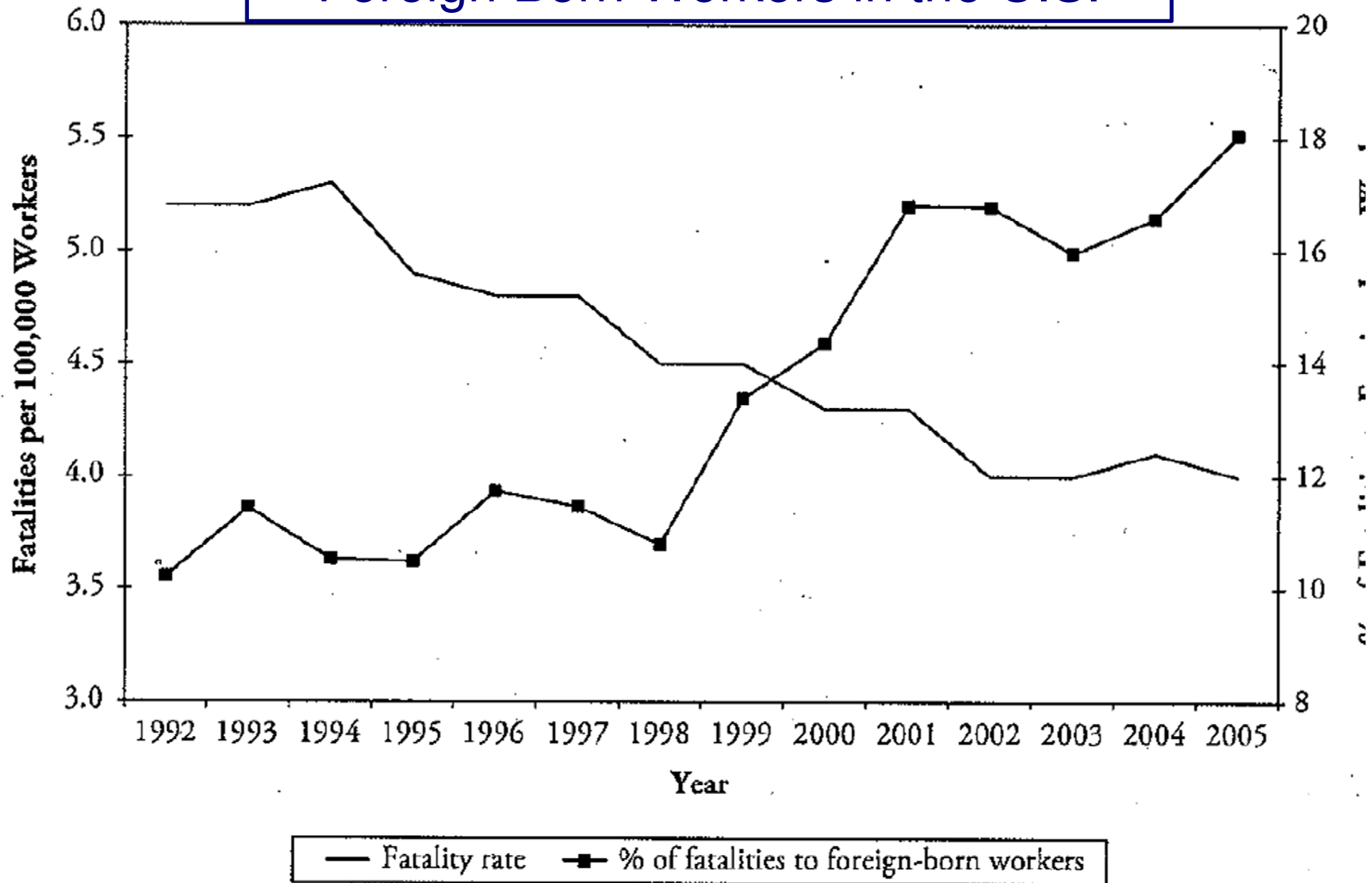
Figure 3

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



* Projected

Fatality Rate and % of Fatalities to Foreign Born Workers in the U.S.



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

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

CHAPMAN
Los Angeles Tribune



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UT Sailing 4-26-12
CREATORS.COM

HARDWORKING:



NOT SO MUCH:



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

BACK
TO
THE FUTURE

Thank you!

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twitter 

@migranthealth



www.ucghi.universityofcalifornia.edu/



<http://mahrc.ucdavis.edu/>