

Delivering on the Promise of The Coal Mine Health and Safety Act of 1969

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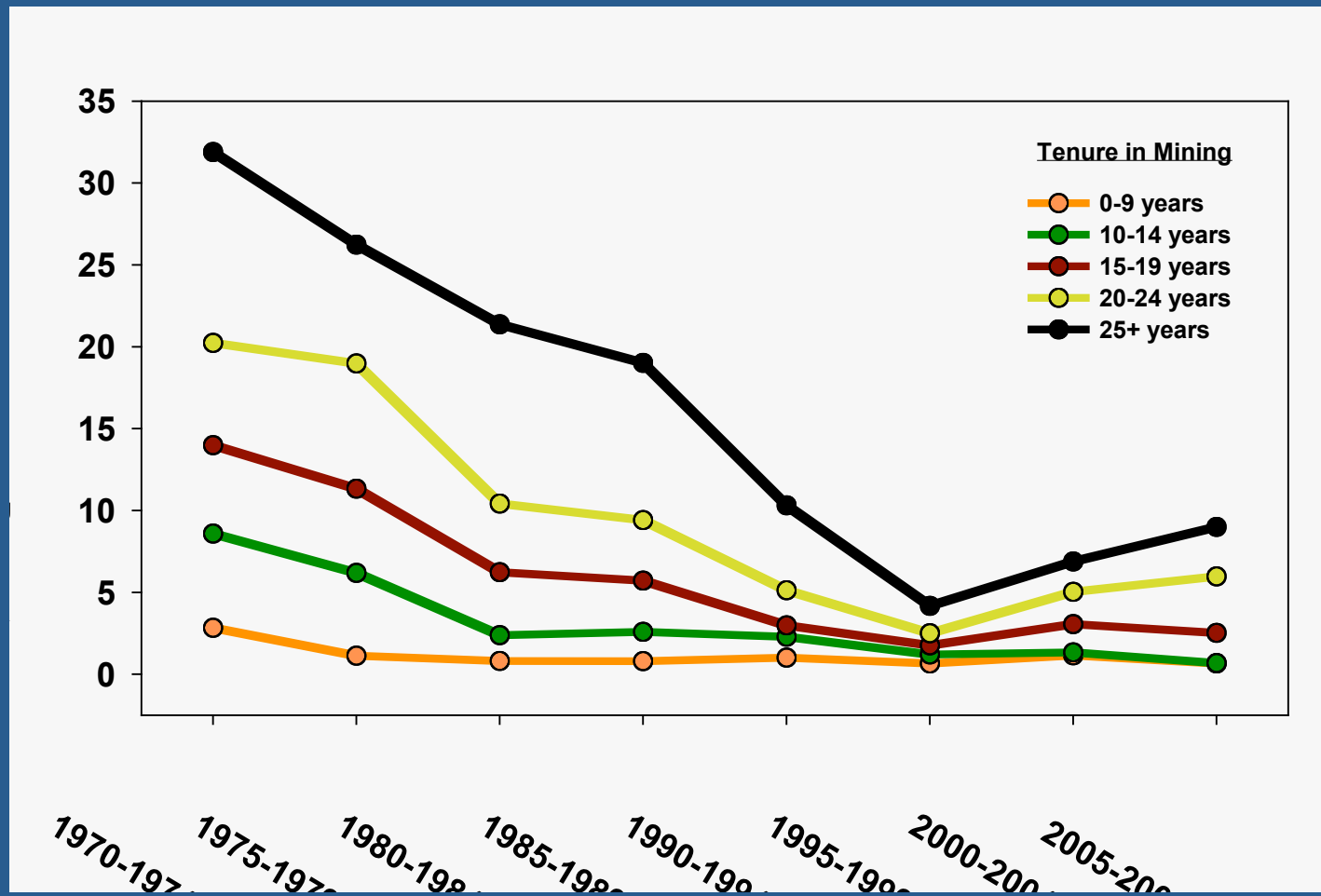
Federal Coal Mine Health and Safety Act of 1969

Congress mandated that respirable coal mine dust exposures be reduced to a level “...which will prevent new incidences of respiratory disease and the further development of such disease in any person.”

Federal Mine Safety and Health Act of 1977

The Secretary...shall...assure on the best available evidence that no miner will suffer material impairment of health or functional capacity even if such miner has regular exposure to the hazards dealt with by such standard for the period of his working life.

Percent of miners with Coal Workers' Pneumoconiosis (CWP) by tenure in mining, 1970-2006



SOURCE: NIOSH Coal Workers' X-ray Surveillance Program (CWSP) as cited in NIOSH 2007 WoRLD Report, Figure 2-4.

Normal



'Simple'
CWP



Coal Workers'
Pneumoconiosis (CWP)

PMF



Progressive massive fibrosis
Complicated pneumoconiosis

Source: NIOSH Coal Workers' X-ray
Surveillance Program (CWSP)

Diseases Caused by the Inhalation of Respirable Coal Mine Dust

- Fibrotic diseases – damages / destroys lung tissue
 - Coal Workers' Pneumoconiosis (CWP)
 - Silicosis
- Airflow diseases – Chronic Obstructive Pulmonary Disease (COPD) – block movement of air in and out of lungs
 - Bronchitis
 - Emphysema
 - Mineral dust airway disease
- TB—risk is increased in coal miners, particularly those with high silica exposure

ORIGINAL ARTICLE

Rapidly progressive coal workers' pneumoconiosis in the United States: geographic clustering and other factors

V C dos S Antao, E L Petsonk, L Z Sokolow, A L Wolfe, G A Pinheiro, J M Hale, M D Attfield

Occup Environ Med 2005;**62**:670–674. doi: 10.1136/oem.2004.019679

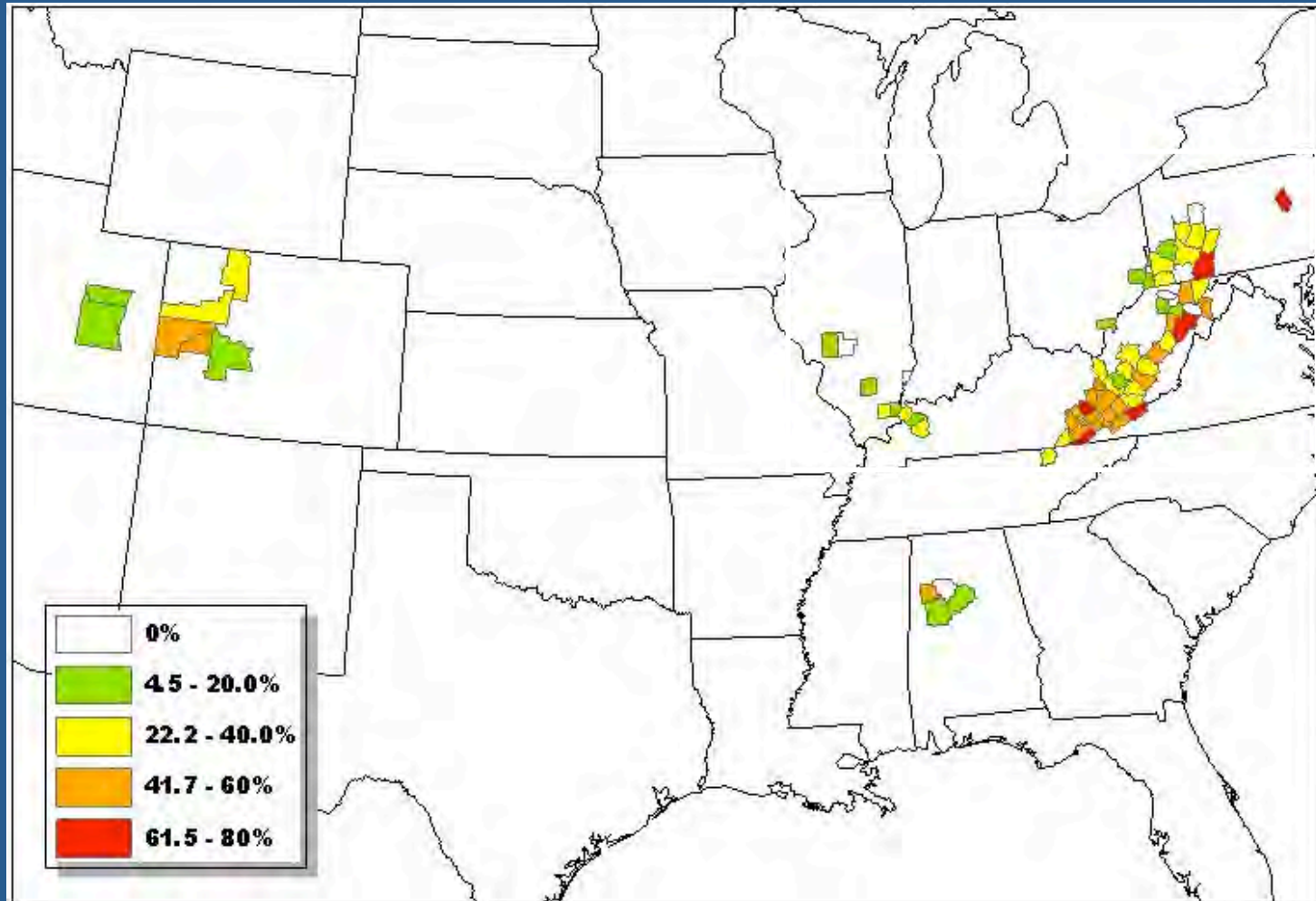
Background: Despite significant progress made in reducing dust exposures in underground coal miners in the United States, severe cases of coal workers' pneumoconiosis (CWP), including progressive massive fibrosis (PMF), continue to occur among coal miners.

Aims: To identify US miners with rapidly progressive CWP and to describe their geographic distribution and associated risk factors.

Methods: Radiographic evidence of disease progression was evaluated for underground coal miners examined through US federal chest radiograph surveillance programmes from 1996 to 2002. A case of rapidly progressive CWP was defined as the development of PMF and/or an increase in small opacity profusion greater than one subcategory over five years. County based prevalences were derived for both

See end of article for
authors' affiliations

CWP hot spot areas



Coal Workers' Pneumoconiosis (CWP)

Source: VC dos S Antao, et al, Occupational Environ. Med 2005: 62:671



2000 – Category 3/3 – Stage B
40 years old – 19 years underground

Upshur County, West Virginia
Started mining in 1981 at 21 years of age
Roof bolter



Tazewell County, VA

**Started mining in 1980
at 20 years old**

2002 – Category 3/3
Stage C

42 years old with
22 years underground

Roof Bolter/
Shuttle Car Operator/
Scoop Operator

Scientific Evidence Favoring Intervention

- Prevalence of pneumoconiosis is rising in miners with greater than 20 years of mining tenure (among those who were x-rayed in the NIOSH monitoring program)
- Cases of severe disease being seen in young workers (<40 years old)
- Prevalence of pneumoconiosis far greater than expected
- More miners are dying with CWP than from mining injuries due to accidents
- Miners are at greatly increased risk for other chronic lung diseases (COPD) from dust

U.S. Department of Labor

END

BLACK LUNG

ACT NOW!

www.msha.gov

Mine Safety and Health Administration

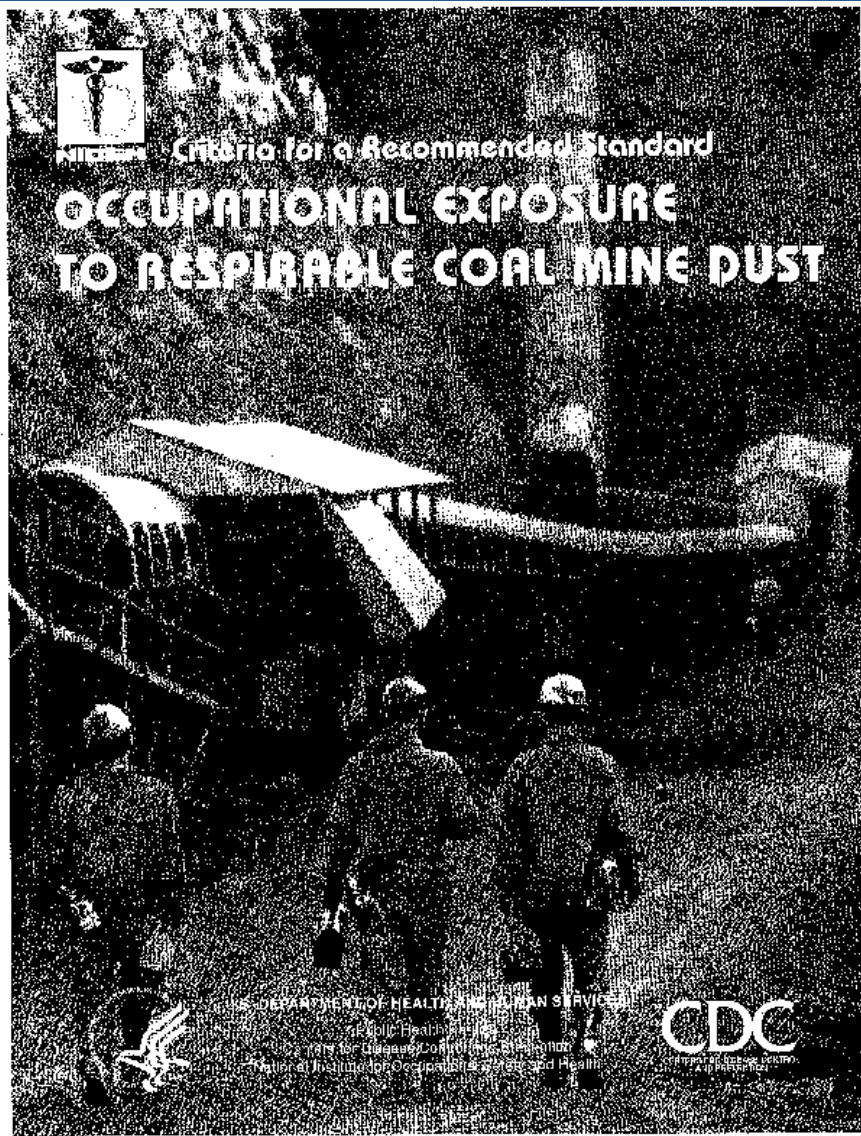
Elements of MSHA's Comprehensive Black Lung Reduction Strategy

- Rulemaking
- Enhanced Enforcement
- Education and Training
- Collaborative Outreach



Criteria for a Recommended Standard

OCCUPATIONAL EXPOSURE TO RESPIRABLE COAL MINE DUST



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institute for Occupational Safety and Health

CDC
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institute for Occupational Safety and Health

Report of the Secretary of Labor's Advisory Committee on the Elimination of Pneumoconiosis Among Coal Mine Workers



Submitted by the Committee to:

U.S. Department of Labor
Robert R. Reich, Secretary

Mine Safety and Health Administration
J. David McAteer, Assistant Secretary

October 1996

