Characterizing the Burden of Disease and Improving Health Among Western Miners

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September 11, 2014
Metal-Nonmetal (MNM) Mining Industry

- Employs ~ 66,000 workers
- Contributes up to $232 billion to U.S. GDP
- Mined resources ubiquitous in everyday products
Physical Hazards

- Roof collapse
- Heavy machinery
- Toxic exposures
Miners are Vulnerable

Physical hazards

- Long hours
- Remote locations
- High turnover
- Mobile population
Program Goals

- Assess the health status of MNM miners
- Identify opportunities for disease prevention
- Improve miner health
MNM Program Goals

- Assess the health status of MNM miners
- Identify opportunities for disease prevention
- Improve miner health
Sources of Information about MNM Miners’ Health

Published literature

- Literature review
- National Survey of the Mining Population
- National Health Interview Survey
Sources of Information about MNM Miners’ Health

- Existing public health data
  - National Occupational Mortality Surveillance
  - Mining Safety and Health Administration
Sources of Information about MNM Miners’ Health

Existing public health data

- National Occupational Mortality Surveillance
- Mining Safety and Health Administration
- State and local health departments
- State rural health offices
- Federal agencies
Published literature

Existing public health data

Existing clinical data: miner-specific

- Miners’ clinics and hospitals
  - Specialize in caring for miners
- Two miners’ clinics/hospitals data collection in progress
Sources of Information about MNM Miners’ Health

- Published literature
- Existing public health data
- Existing clinical data: miner-specific
- Existing clinical data: primary care

**Existing clinical data: primary care clinics**
- Mapped mines in 12 states
- Called 151 clinics near mines
  - 64 clinics see miners
Sources of Information about MNM Miners’ Health

- Published literature
- Existing public health data
- Existing clinical data: miner-specific
- Existing clinical data: primary care

Existing clinical data: primary care clinics
- Mapped mines in 12 states
- Called 151 clinics near mines
  - 64 clinics see miners
- No recorded occupation
- Partner with 1 clinic
  - Add industry and occupation to medical records
# Sources of Information about MNM Miners’ Health

<table>
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<th>Published literature</th>
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**Collect our own data: mobile clinic**
Sources of Information about MNM Miners’ Health

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Collect our own data

Collect our own data: mobile clinic

- Chest X-ray
- Pulmonary function test
- Height and weight
- Blood pressure
- Cholesterol and diabetes test
- Questionnaire
Sources of Information about MNM Miners’ Health

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- Collect our own data

Collect our own data: mobile clinic

Questionnaire
- Work history
- Exposures
- Job stress
- Musculoskeletal symptoms
- Chronic disease
Next Steps

- Complete data collection from miners’ hospitals
- Capture industry and occupation in primary care visits
- Complete preparations for NIOSH mobile clinic
...Next Steps

- Engage labor and industry partners
- Pilot health assessments in 2015
Summary

- Economically important industry
- Concentrated in western U.S.
- Vulnerable workforce
- Limited existing data
- NIOSH program in development
Ultimate Objective

- Data-driven interventions to improve the health of miners

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
Acknowledgments

Kristin Yeoman
Cara Halldin
Alice Shumate

Scott Laney
Eileen Storey
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