Overview of Hearing Loss Prevention Program

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The Hearing Loss Problem

- **High rates** of hearing loss:
  - 50-90% of miners are *hearing impaired* by retirement age

- **High exposures** – difficult to control
  - 50-75% of miners have over 85dB(A)/8hrs exposure

- **Low and ineffective usage** of hearing protectors
  - Only 40-50% use protectors, and most use them improperly
SEVERAL BARRIERS TO REDUCING NIHL

• Gaps in knowledge of noise dose/source relationship.
• The unavailability of effective noise controls.
• Needs for worker education and worker empowerment.
• A related issue is the difficulty of communication in noisy workplaces by both hearing impaired and normal hearing workers.
4-Part Hearing Loss Program

1. Exposure source/dose measurement and tracking

2. Engineering noise controls

3. Worker empowerment & education

4. Communication in noise & PPE
HLPB Goals

Exposure Source & Dose

Controls developed

Engineering Controls

Controls needed

Barriers to implementation

25% Reduction in Overexposure (5 years)

Barriers and needed innovations

Empowerment & Education

Communication & PPE

Barrier solutions

Better PPE

Barrier solutions

Noisy tasks/settings

Admin. controls

Eng. controls

r2p products

CDC

NIOSH
Hearing Loss Prevention Branch
FY05-Staffing (Current)

• HLPB-21 FTE’s
  – 1-Chief
  – 16-Professional (3 Team Leaders)
  – 2-Technicians
  – 1-OAA
  – 1-Secretary

• Outside HLPB-1.60 FTE’s

• Total FTE’s-22.60

• 4-5 new recruitments.
## Project/Program Breakdown

<table>
<thead>
<tr>
<th>Program area</th>
<th>Project</th>
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<tbody>
<tr>
<td><strong>Exposure source &amp; dose</strong></td>
<td>Cross-Sectional Survey: Noise Exposure Patterns/Sources</td>
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<tr>
<td>(1 project)</td>
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<tr>
<td><strong>Engineering noise controls</strong></td>
<td>Study on Coal Cutting Noise Related to Continuous Mining Machines</td>
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<tr>
<td>(5 projects)</td>
<td>Engineering Noise Controls for Roof Bolters</td>
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<td>A Health Hazards Study of Surface Drilling Operations</td>
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<td></td>
<td>Coordination of the Engineering Noise Controls Projects</td>
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<td></td>
<td>Definition and Assessment of Engineering Noise Controls</td>
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<tr>
<td><strong>Empowerment &amp; education</strong></td>
<td>Health Communication Interventions for Hearing Loss Prevention</td>
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<tr>
<td>(1 project)</td>
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</tr>
<tr>
<td><strong>Communication &amp; PPE</strong></td>
<td>Hearing Protection and Audibility Considerations</td>
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<tr>
<td>(1 project)</td>
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Majority of resources devoted to engineering noise controls
Hearing Loss Prevention Branch

Questions?