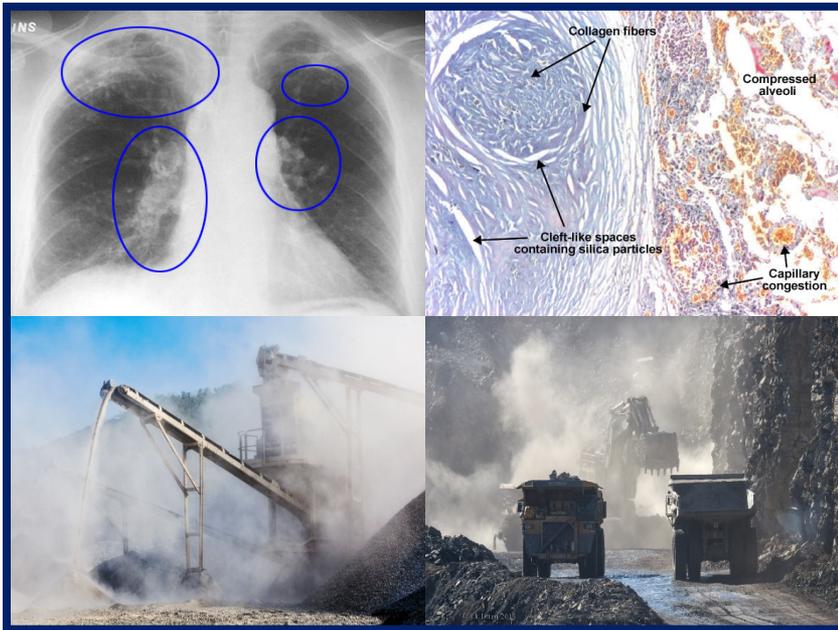


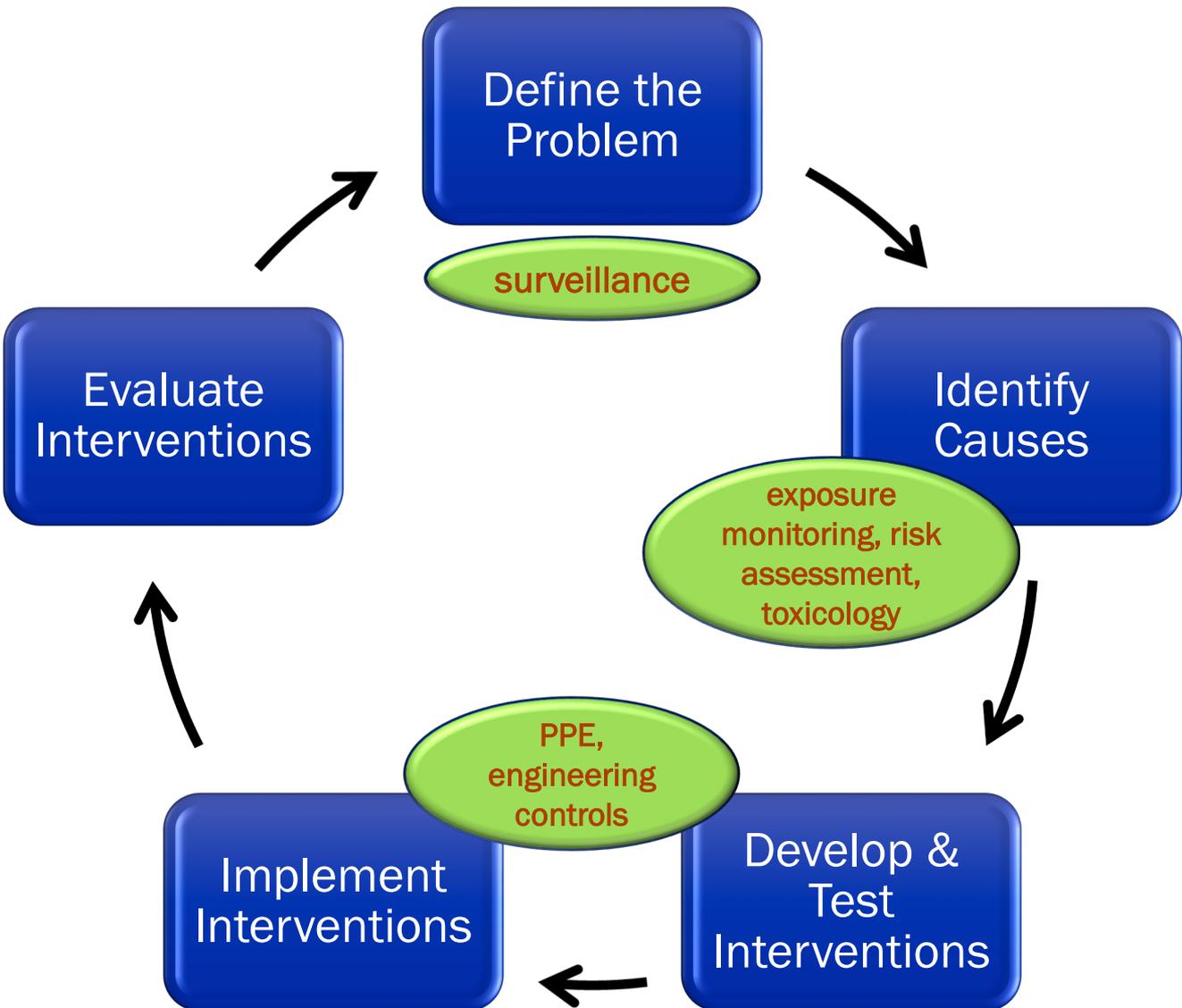
# Respirable Mine Dust Research at NIOSH



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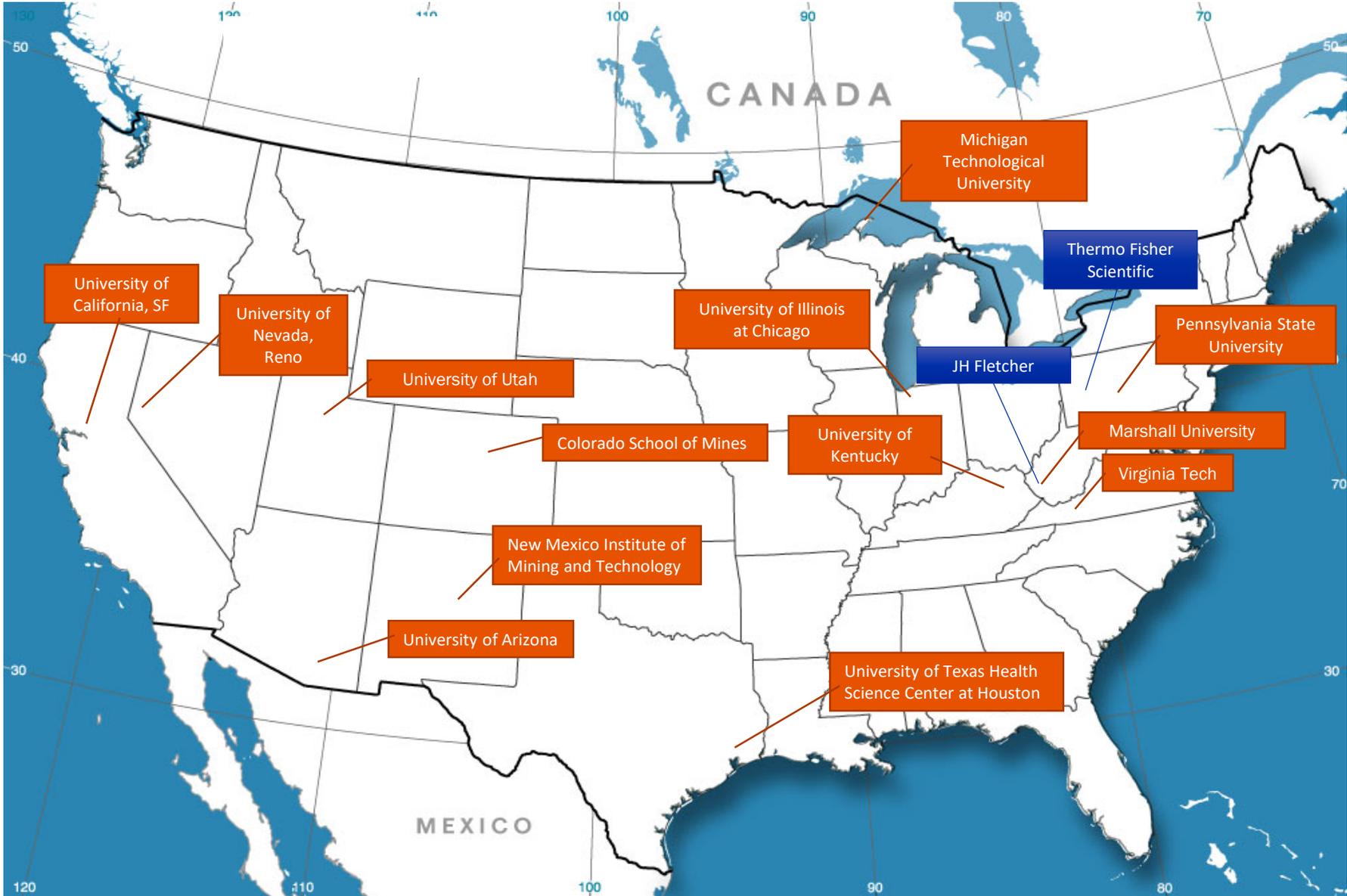
# NIOSH takes a public health approach to reducing occupational illness from exposure to respirable mine dust (RCS, EMPs, DPM)



# Respirable mine dust research is conducted across the institute



# and by our extramural partners



# Respirable Crystalline Silica constitutes a large portion of the NIOSH funded Respirable Mine Dust research portfolio

**38** active  
RMD projects

**58%** address  
crystalline silica

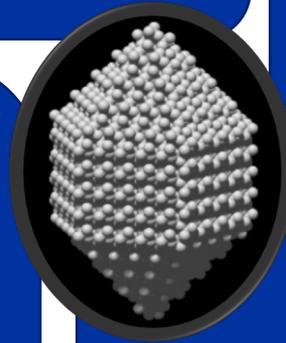
Research spans the  
spectrum from:

Surveillance to  
Exposure Assessment to  
Intervention

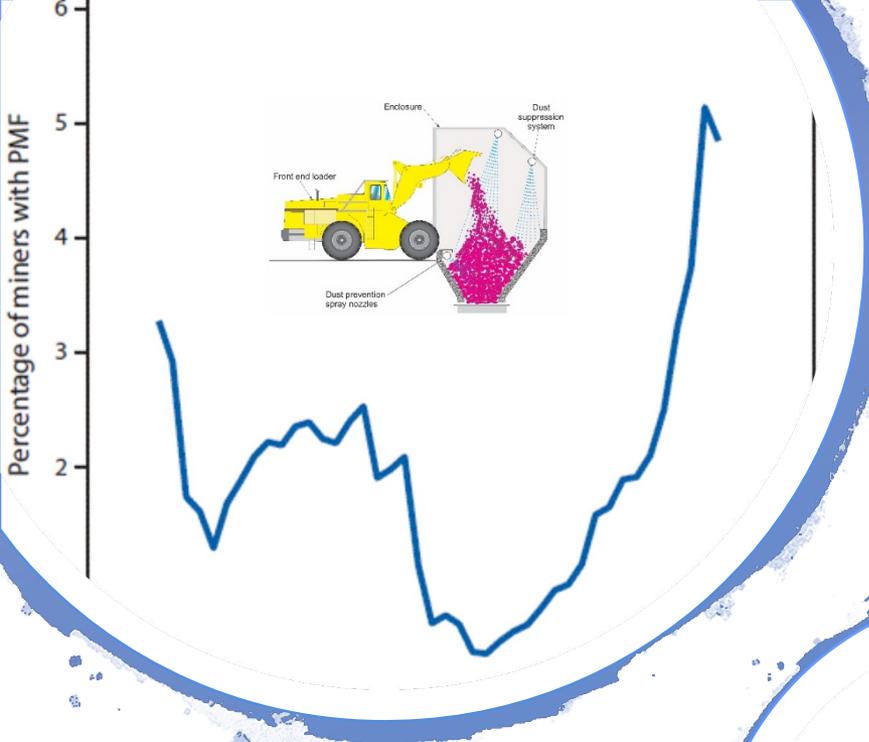
Remaining **42%** address:  
EMPs,  
DPM,  
RCMD,

Products include:

- Surveillance data
- New knowledge
- Analytical methods
- Monitoring Devices
- Control Technologies
- Best Practices & Guidelines



## A FEW EXAMPLES....



*-Hand-portable Real-time Aerosol Raman Spectrometer for automated, continuous measurement of crystalline silica aerosol*

*-Advanced Strategies for Controlling Exposures to Diesel Aerosols*

*-Understanding elongate mineral particle exposure in mining*

*-Coal Workers' Health Surveillance Program*

*-Direct-reading method for measurement of elemental carbon in DPM using Raman spectroscopy*

*-Methods for measurement of crystalline silica using Raman and Infrared Hyperspectral Imaging*

*-Developing and Improving Respirable Dust Controls in Mines*

*-Emerging Respirable Dust Sensing and Control for M/NM Mining*

