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**Abstract #61890**

## **Examining racial disparity within occupation versus adjusting for race using the National Occupational Mortality Surveillance database**

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**Background:** Surveillance of racial disparity may be a valuable tool for detecting hazardous occupational exposures. Reasons for this are twofold: (1) workers of different racial or ethnic groups may be clustered as to task or work area, possibly resulting in one group being more highly exposed to occupational hazards,<sup>1-3</sup> and (2) comparing workers within the same occupation may help control for confounders such as socioeconomic status and tobacco use.

**Objective:** Demonstrate the potential utility of occupation-specific black/white mortality odds ratios (MORs) in occupational health surveillance.

**Methods:** The National Occupational Mortality Surveillance database was used to analyze lung cancer mortality of 184,736 black and white employees of primary metal industries, adjusting for age and cohort effect.

**Significance/Results:** Coke oven workers have increased lung cancer mortality due to occupational exposures.<sup>4</sup> Additionally, non-white coke oven workers are more likely than white coke oven workers to occupy positions with the highest exposure levels, resulting in greater lung cancer mortality among non-whites.<sup>1</sup> Our analyses agreed with these findings when black vs. white MORs were calculated for oven workers and other blue-collar workers (oven workers MOR = 1.37, 95% CI 1.09-1.73; other blue-collar MOR = 1.01, 95% CI 0.96-1.06). However, when the oven worker vs. other blue-collar worker MOR (adjusted for race) was calculated, no increased risk was detected for coke oven workers (MOR = 1.03, 95% CI 0.94-1.13).

**Conclusion:** Where exposure varies by race, examination of the occupation-specific black vs. white mortality odds ratio may increase the ability to detect potentially hazardous exposures.

**Learning Objectives:** 1. Describe the National Occupational Mortality Surveillance system. 2. Discuss the importance of racial disparity in occupational health surveillance. 3. List potential limitations of death certificate studies.

**Keywords:** Surveillance,

**Related Web page:**

Presenting author's disclosure statement:

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I do not have any significant financial interest/arrangement or affiliation with any organization/institution whose products or services are being discussed in this session

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