Asthma And Asthma-Like Symptoms Among Veterans' Administration Healthcare Workers

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Background:
Healthcare workers are at an increased risk for asthma and work-related asthma (WRA). Data from a study of workers (n=566) at a Veterans Health Administration Medical Center were analyzed to determine the prevalence of asthma and asthma-like symptoms by healthcare occupation, and workplace exposures. Our goal was to establish the burden of asthma and asthma-like symptoms among healthcare workers and to identify occupational risk factors in the healthcare setting to prevent asthma and related symptoms among workers at a large health care facility.

Methods:
We conducted a cross-sectional study of healthcare workers employed at Milwaukee VA Medical Center. Study eligibility was open to all individuals employed at the facility for the period 2012–2014. The survey instrument included assessments of respiratory health, work characteristics (tasks), employment history, and worker exposures. Prevalence of current physician-diagnosed asthma (defined by fulfilment of two criteria: (1) lifetime physician diagnosed asthma and (2) positive response to at least one of the following: "Do you still have asthma?", "Have you had an attack of asthma at any time in the last 12 months?", or "Are you currently taking any medications for asthma?) and self-reported asthma-like symptoms in the past 12 months (wheezing, chest tightness, shortness of breath, asthma attack, and taking asthma medications) were computed.

Results:
The prevalence of Behavioral Risk Factor Surveillance System (BRFSS)-defined self-reported current asthma among adults ≥18 was 18.2% (95% CI 15.0–21.4), higher than the population estimates in Wisconsin (10.4%, 95% CI=9.2–11.6) and national estimates (9.0%, 95% CI=8.8–9.1). The prevalence of asthma-like symptoms was 49.1% (95% CI 45.0–53.3). Among workers reporting their current job (n=558), occupations with the highest prevalence of asthma included nurses (6.1% physician diagnosed, 15.1% self-reported symptoms), health technologists, technicians, and healthcare support workers (3.2% physician diagnosed, 6.5% self-reported symptoms), and office and administrative support workers (2.9% physician diagnosed, 4.7% self-reported symptoms).
Asthma prevalence was highest among workers reporting exposure to accidental chemical spills or gas release (32.3% physician diagnosed, 64.5% self-reported symptoms), aerosolized medicines used with patients (29.4% physician diagnosed, 56.9% self-reported symptoms), and cleaning and disinfectant products used on fixed surfaces (23.3% physician diagnosed, 53.8% self-reported symptoms).

Conclusions:
We found elevated rates of asthma and asthma-like symptoms among study participants compared to a representative sample of adults residing in the state where respondents worked. Prevalence of asthma and asthma-like symptoms were highest among nurses, highlighting the need to focus asthma prevention efforts on specific healthcare occupation groups.

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