

ALLERGY PREVALENCE, COST, AND PRODUCTIVITY LOSS IN AN INSURED EMPLOYEE POPULATION

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OBJECTIVES: This analysis quantifies the prevalence, health benefits cost, and real productivity loss experienced by employees as a result of allergies. Healthcare claims and employee population data are used to quantify the prevalence of respiratory system allergies. Additionally, demographic, health benefits, and output-based productivity data are used to compare the health benefits cost and productivity of employees with and without allergies. **METHODS:** Using data from October 2000 to September 2002, this study examines 86,000 geographically-disperse employees. An employee was defined to have an allergy diagnosis if the employee had a healthcare claim with a primary ICD9 code of 477.xx or 493.0x. Logistic regression was used to determine the demographic factors that were associated with the likelihood of filing an allergy claim. In addition, tobit and linear regression models were used to determine the isolated impact of an allergy diagnosis on an employee's health benefits cost and productivity output.

RESULTS: 17.3 percent of the employee population examined were diagnosed with allergies during the two-year period. An allergy diagnosis was associated with a subsequent isolated increase of \$106 per month ($p < 0.001$) in the employee's total benefits cost (including healthcare, prescription drug, sick leave, short- and long-term disability, and workers' compensation). Similarly, an allergy diagnosis was associated with a subsequent isolated decrease in productivity (units processed per hour) of 2.7 percent ($p < 0.001$). **CONCLUSIONS:** Nearly one in six employees were diagnosed with allergies during the study period, resulting in significantly higher costs to the employer and significantly lower productivity. Employers will use this information to more accurately assess the benefits of supporting effective allergy study and treatment.

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