

and society) and provides an evidence base for selecting the strategy that maximises the cost-benefit ratio. The developed methodology was applied to two intervention strategies focusing on reducing respiratory diseases among Dutch bakery workers; an educational intervention program and a hypothetical strategy that combined health surveillance with individual workplace interventions.

**Methods** A cost-benefit framework describing all cost-elements was developed and used to set up a calculation spreadsheets. This was used to calculate total costs, total benefits, net costs and benefit-to-costs-ratio for both intervention scenarios.

**Results** Implementation of the first intervention program resulted in benefits of €16 848 546 over a 20-year period. For the health surveillance scenario intervention costs could not be calculated. Based upon a total benefit of €44 659 352 and an estimated 4200 individual interventions cost of an individual intervention should stay below 10 000 Euro or below 4650 Euro if the employer covers all costs.

**Conclusions** Our case study highlights the importance of considering the cost and benefit allocation among stakeholders. This is critical from an employer's perspective, as they frequently cover the costs of prevention, but also provides insight into societal benefits like maintaining employee income or reducing strain on government health programs.

# 8 COST-BENEFIT ANALYSIS IN OCCUPATIONAL HEALTH: A COMPARISON OF INTERVENTION SCENARIOS FOR OCCUPATIONAL ASTHMA AND RHINITIS AMONG BAKERY WORKERS

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**Objectives** Recently developed quantitative health impact assessment (HIA) methods provide insight into the impact of interventions on the population burden of disease. This information might subsequently be used in a cost-benefit analysis. In this study we developed a method that allocates costs and benefits across different stakeholders (employer, employees