

# Prioritizing future resources for epidemiologic research on old and newly emerging occupational hazards

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## KEY WORDS

Epidemiology; emerging risk, occupational hazards

## SUMMARY

**Background:** *Inevitably, occupational epidemiologists must decide when and how to shift research attention and resources from investigations of old, established health hazards to a focus on newly emerging potential risk factors. As yet unknown occupational health consequences of burgeoning world-wide technologies, such as the microelectronics industry, and increasing recognition of the importance of common, yet non-traditional occupationally-related health effects, such as musculoskeletal disorders in office workers, give strong impetus for embarking in new directions. However, there remains much to be learned from continued investigation of well-established occupational hazards, such as asbestos, benzene, and lead.* **Objectives:** *A rational strategy for planning future research will need to consider optimizing resources.* **Conclusions:** *The following suggestions are offered. 1) First and foremost, occupational risk factors are most directly, and arguably most validly, identified by studying workers in well-defined cohorts, ideally when exposures are adequately characterized. To this end, industry-based cohort studies should be given priority, at least for older hazards, over population-based case-control and surveillance designs. 2) Defined cohorts with extensive exposure and health outcome data should continue to be followed, as resources permit; 3) Launching cohort studies for potential new hazards should incorporate extensive exposure assessments at the outset, and should preferentially select inception cohorts of newly hired workers. Valid biomarkers of pre-clinical disease will be especially valuable in this regard. 4) Capitalizing on new technological advances in exposure assessment, clinical medicine, molecular genetics should be encouraged.*