Introduction

It is well established that exposure to environmental contaminants can have significant health effects. The oil and gas industry is a major source of air emissions, and there is growing concern about the potential health impacts of these emissions on communities living near oil and gas operations.

Methods

To evaluate the potential health effects of exposure to oil and gas emissions, we conducted a comprehensive review of the existing literature. We identified 12 epidemiological studies that evaluated the health effects of residents living near oil and gas operations.

Results

We grouped each finding into similar health categories and rated the strength of evidence for each association. The results of our review varied across different health effects and exposure scenarios.

Conclusions

Our review of the literature indicates that there is limited evidence of the possibility for harmful health effects of oil and gas emissions. However, continued monitoring of exposures and health effects in communities with substantial oil and gas operations is necessary to better characterize the potential health risks.

Tables and Figures

Figure 1: Summary of study findings on the potential health effects of oil and gas emissions.

Table 1: Rating of study findings based on strength of evidence.

Figure 2: Comparison of air measurements to agency-established toxicity thresholds.

Figure 3: Example of exposure scenario with calculated hazard quotient.

Implications

Our findings suggest that the health risks associated with oil and gas emissions are not immediate, but rather may manifest over the long term. Continued monitoring and research are essential to better understand the potential health impacts of oil and gas emissions.

References

