

Higher energy prices are associated with diminished resources, performance and safety in Australian ambulance systems

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Abstract

Objective : To evaluate the impact of changing energy prices on Australian ambulance systems.

Methods : Generalised estimating equations were used to analyse contemporaneous and lagged relationships between changes in energy prices and ambulance system performance measures in all Australian State/Territory ambulance systems for the years 2000–2010. Measures included: expenditures per response; labour-to-total expenditure ratio; full-time equivalent employees (FTE) per 10,000 responses; average salary; median and 90th percentile response time; and injury compensation claims. Energy price data included State average diesel price, State average electricity price, and world crude oil price.

Results : Changes in diesel prices were inversely associated with changes in salaries, and positively associated with changes in ambulance response times; changes in oil prices were also inversely associated with changes in salaries, as well with staffing levels and expenditures per ambulance response. Changes in electricity prices were positively associated with changes in expenditures per response and changes in salaries; they were also positively associated with changes in injury compensation claims per 100 FTE.

Conclusion : Changes in energy prices are associated with changes in Australian ambulance systems' resource, performance and safety characteristics in ways that could affect both patients and personnel. Further research is needed to explore the mechanisms of, and strategies for mitigating, these impacts. The impacts of energy prices on other aspects of the health system should also be investigated.

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