

Meningitis Outbreak Management: Measurement of the Cost of Public Health Intervention in Queensland

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The aims of this study are to estimate the cost of non-vaccination preventable meningococcal meningitis outbreak management. The ingredients method of cost estimation was applied retrospectively from the perspective of Queensland public health services. Administrative data on resources and their monetary value were collected during a two month period following disease outbreaks in two child care centres. Staff were interviewed to determine their time allocation. Short term hospital cost of treating a case of meningitis was obtained from a hospital clinical costing information system and contrasted with the case-mix payment for the relevant DRG category.

A multi-disciplinary public health team identified 48 adults and 240 children who were close contacts of the index cases in the centres. All were counselled, administered an initial dose of chemoprophylaxis, and given follow-up doses and instructions. The cost of the intervention was about \$8,000 for each child care centre. The top three items comprised 88 percent of the cost; 60 percent for health personnel, 16 percent for administration, and 12 percent for the prophylactic agents. The total cost for the public health management of each outbreak is only \$500 greater than the estimated cost of a single hospital episode of care for meningitis.

The study illustrates a costing method for local public health level services. Cost information assists in identifying areas for efficiency improvement, negotiation of service performance contracts, and economic evaluation for resource allocation and service production decisions.