GUIDELINES ON PERSON-LEVEL COSTING USING ADMINISTRATIVE DATABASES IN ONTARIO

(WORKING PAPER SERIES)

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CONTEXT

Understanding how healthcare dollars are spent, and attributing healthcare spending to individuals, is an important activity for accountability and comparative performance monitoring and evaluation. Macro-level cost information can offer insights into how much spending is directed toward broad categories of health services, such as hospital-based acute care, or physician reimbursement and, depending on the detail available in the underlying data, it is also common to attribute costs and understand spending for particular disease groups. Such approaches do not, however, provide insight into costs at the individual or person-level over time. Accurate person-level costing data has wide application in research including cost-of-illness, and for cost effectiveness studies and efficiency analysis. But this approach to costing also has considerable value for designing and evaluating policy initiatives such as bundled payment and capitation models.

OBJECTIVES

The primary objective of this report is to introduce a costing methodology that can be used to derive person-level costs in a variety of healthcare settings, including inpatient acute care, ambulatory emergency department and same day surgery, inpatient rehabilitation, inpatient mental health, complex continuing care, long-term care, physician services, home care, pharmaceuticals, and other direct reimbursement programs such as for assistive devices.

METHODS

This report provides two valuable contributions to the practice of costing using administrative data in Ontario that are also generally applicable in other jurisdictions where similar data are available. The first contribution is the method of allocating health system costs to the person-level in all sectors of the health system. The second is the use of micro- or person-level utilization in combination with encounter-specific costs to estimate full health system costs for any individual in the population.

FINDINGS

Person-level costs can be derived by linking utilization data from administrative healthcare databases, and both individual provider and corporate cost information collected by ministries of health. Person-level costing data can be aggregated to estimate the direct cost of publicly-paid healthcare services for any population or sector of interest (e.g. diabetics in primary care or cancer survivors across the entire healthcare system), and over any time period for which cost and utilization data are available. There are many health care costs that are not attributable to individual utilization but there are also attributable costs that have not been allocated. The most substantive gap is ambulatory care in acute care hospitals such as specialist clinics. These costs amount to between 15 and 17% of acute care hospital costs.

CONCLUSIONS

These costing methods provide a useful template for other jurisdictions and payers. There are still future improvements to be made to the methods including appropriately allocating ambulatory care costs incurred in acute care settings, additional non-service based physician payments, non-billed laboratory costs.

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