

## WHO ARE THE HIGH-COST USERS? A METHOD FOR PERSON-CENTRED ATTRIBUTION OF HEALTH CARE SPENDING (PUBLICATION)



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### CONTEXT

Healthcare payers have traditionally focused on payments to providers within specific sectors such as acute, physician, pharmacy and other providers. Recently, there are renewed efforts to draw attention away from sector specific costs and focus on the characteristics of individuals who are the drivers of healthcare spending, such as profiling by patient, physician, and health care market characteristics. Targeting improvement interventions to modifiable factors among high-cost populations is an obvious approach but necessitates characterizing high-cost populations and matching interventions to applicable populations. Expanding cost methodology and tracking care through episodes across the continuum of care supports such intervention implementation and policy planning, particularly for persons in the top 5% of health care expenditures.

### OBJECTIVES

The study aims to develop person-centered episodes of care (PCE) for community-dwelling individuals, in the top fifth percentile of Ontario health care expenditures, in order to describe the main clinical groupings for spending and identify patterns of spending by health sector within and across PCE.

### METHODS

Data were drawn from population-based administrative databases housed at the Institute for Clinical Evaluative Sciences (ICES) for all publicly funded health care in Ontario, Canada in 2010/11. The cohort for this study was derived from the Registered Persons Database, which contains basic demographic and vital statistics information on all persons who are eligible for provincial health insurance. To create the PCE, all health care encounters were tracked for each individual in the top fifth percentile of health system costs from April 1, 2010 to March 31, 2011. PCE were determined for a 30-days window, beginning with an admission to an acute hospital setting or a designated inpatient mental health institution, and ended after individuals returned to community with no further institutional care within the next 30-days window.

### FINDINGS

Among this cohort, 697,059 PCE accounted for nearly 70% (\$11,815.3 million (CAD)) of total annual publicly-funded expenditures on high-cost community-dwelling individuals. The most common clinical groupings to start a PCE were Acute Planned Surgical (35.2%), Acute Unplanned Medical (21.0%) and Post-Admission Events (10.8%). Median PCE costs ranged from \$3,865 (IQR=\$1,712-\$10,919) for Acute Planned Surgical to \$20,687 (\$12,207-\$39,579) for Post-Admission Events. Inpatient acute (\$8,194.5 million) and inpatient rehabilitation (\$434.6 million) health sectors accounted for the largest proportions of allocated PCE spending over the year. The largest unallocated costs were related to drugs (86.2% unallocated; \$1,503.2 million, CAD), outpatient oncology (85.7% unallocated; \$517.7 million, CAD); and outpatient dialysis care (83.7% unallocated; \$638.9 million, CAD).

### CONCLUSIONS

While these categories are relatively broad, the methods introduced here provide a novel approach to understand episodes of care. These methods may be useful in setting the foundation for episode-related performance measurement and payment for high-cost patient groups. Refinement of this method has potential to facilitate service organization, care planning and payment for high-cost patients across all care providers.

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