Cost and Determinants of Privately-Financed Home-Based Health Care in Ontario, Canada

Guerriere DN, Wong AYM, Croxford R, Leong VW, McKeever P, Coyte PC

Department of Health Policy, Management and Evaluation, University of Toronto
AND Faculty of Nursing, University of Toronto

Funding From CHSRF/CIHR (Grant # RC1-0875-06) and the Ontario Ministry of Health and Long-Term Care
Background

- Home-based healthcare services in Canada are constrained by: limited resources, escalating healthcare costs, personnel shortages + high complexity of care

- Financing shift: Care recipients receive a mix of publicly + privately financed services

- Places economic demands on care recipients + families in terms of time and $

- A limited understanding of the economic outcomes and determinants of privately financed services exists
Purposes

- To assess the determinants of privately financed home-based care
- To identify whether public + private expenditures are complements or substitutes

Study findings may identify a role for caregiving allowances and other forms of caregiver support.
Definitions

Publicly Financed Care
- Government funded care
- Includes: ambulatory + home-based appointments, laboratory and diagnostic tests;
  Medications / supplies

Privately Financed Care
- Out-of-pocket: medications, supplies, travel costs, appointments, household help
- Payment to insurance companies
- Time costs (family caregivers)
Time Costs

• Time devoted by caregivers considered an opportunity cost
• Time taken from other activities such as labour market work, household work and leisure
• This time is valued in dollars – can be compared or combined with other costs
Methods

- Participants recruited from 6 home-care agencies across the province of Ontario, Canada (coordinate in-home + community services)

- 2 groups:
  - short-term clients (expected to receive nursing +/or personal support services <90 days)
  - continuing care clients (> 90 days)

- Weekly telephone interviews x 4 weeks
Data Collection

- Costs: AHCR (© Coyte & Guerriere, 1998)
  - Private and public expenditures
- ADLS: 1 (outstanding functioning)
  - 6 (complete impairment)
- Chronic Conditions (total #)
- Demographic Data Form (age, gender, etc.)
Data Analysis

★ Private expenditure:
★ self-reported out-of-pocket costs
★ time costs: monetary value assigned to each unit of time – human capital approach:

★ Public expenditure:
★ fee-for-service rate schedule to value physician + laboratory services
★ hospital/clinic/agency accounting systems to value home-based services + equipment
★ Government-sponsored drug benefit formulary rate to value medications
Data Analysis Continued

- Data log-transformed
- Backward, stepwise regression
- Age, gender, income, education level, marital status, rurality index, number of chronic conditions, ADL score, geographical region, public expenditure
Participants

- n=514
  - 258 short-term clients
  - 256 continuing care clients

Service Type: Nursing only (63%); Nursing + PSW (20%); PSW only (17%)

Age: mean=65; range 20-99
Married: 55%
Retired/disability: 73%
Mean ADL functioning: 4.1 (moderate impairment)
Results

- Mean total cost of care for 4-week period: $7,670.67 (Canadian Dollars)
- 75% of total costs were private expenditures
- 15% were publicly financed
- Almost all private expenditures were comprised of time costs (96%)
Determinants of Private Expenditures

- older age
- ↑ADL impairment
- being female
- 4+ chronic conditions

↑ private expenditures
Determinants of Private Expenditures

- Interaction: # Chronic Conditions + Age
- Interaction: public expenditure + ADL level

private expenditures
The Effect of the Interaction Between Number of Chronic Conditions and Age on Private Costs

Number of Chronic Conditions

Private costs (log transformed) vs. Age

- 0
- 1
- 2
- 3
- 4
- 5
- 6
The Effect of the Interaction Between ADL level and Public Expenditure on Private Costs
Public/Private Relationship

A 10% increase in public expenditures

6% increase in private expenditures

Public and private expenditures were complements rather than substitutes
Implications & Conclusions

- Burden of care is not experienced by the public sector (government funded)
- Burden of care is experienced by care recipients and family caregivers
- As care recipients become more impaired, their needs are not being met by the public system – rely more on family caregivers