Comparing the Cost and Cost Effectiveness of Primary Care Service Delivery Models in Ontario

A report to the Primary Health Care System Program

July 16, 2010

Zhong, J. 1, Hogg, W. 1,2,3, Devlin, R.A. 4, Milliken, O. 4, Johnston, S. 1,2, Dahrouge, S. 2, Barham, V. 4

1. The Department of Family Medicine, University of Ottawa, Ottawa, Ontario.
2. C.T. Lamont Primary Health Care Research Centre, Élisabeth Bruyère Research Institute, Ottawa, Ontario.
4. The Department of Economics, University of Ottawa.

Key Messages

• Primary care is organized and delivered through a wide variety of models across the world, however, little is known about the cost effectiveness of different primary care service delivery approaches.

• Ontario has established a number of new primary care service delivery models which differ with respect to the method of physician payment, the emphasis on interdisciplinary teams, the range of services provided and management structure. From an economic perspective the evidence base is inadequate to guide these reforms.

• A new study will soon be published comparing the efficiency of four different primary care service delivery models in Ontario. Using data envelopment analysis and regression techniques it showed that;

  o Community Health Centers (CHCs) were the least efficient.
  o Fee-For-Services (FFS) and Health Service Organizations (HSOs) generally performed more efficiently than CHCs and Family Health Networks.
  o On average, HSOs operated most efficiently in terms of the ratio of patients to providers and administrative personnel. Smaller HSOs had higher efficiency scores.
  o When pure managerial efficiency in terms of patient mix was considered, Family Health Networks were the most efficient and HSOs were next most efficient.
  o The efficiency ranking of Family Health Networks, Health Service Organizations, and Fee-For-Service practices changed slightly depending on whether the input was calculated using monetary cost or labour. Similarly, two different return-to-scale assumptions caused differences in the efficiency rankings of these models.

• More cost effectiveness research comparing different primary care service delivery models is needed. It should address how to weigh performance measures, the relationship between marginal costs and marginal improvements in model performance and the contribution of different dimensions to the cost effectiveness of the models.