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Medical Workforce Productivity in Canada: Drivers, Measures and Promising Practices



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- “Productivity measures are a useful statistic for policy-makers in the health care sector. Estimates of productivity can identify ways in which resources can be allocated more efficiently as well as enable monitoring of activities in the health care sector.”
- Some have called into question how such measures “may seriously underestimate the true contribution of the health care sector to real output, and more importantly to the economic well-being of Canadians.” (CSLS 2007, p. 2)

Centre for the Study of Living Standards. (2007). *The Measurement of Output and Productivity in the Health Care Sector in Canada: An Overview*. p.25



How to Define/Measure Productivity

- Medical workforce productivity is a multifaceted concept and there are significant technical and conceptual problems in its measurement
- It is necessary to better define & measure productivity (*that include inputs, activities, outputs, outcomes*) and the factors that influence productivity

$$Productivity = \frac{\sum (Outputs + Outcomes)}{\sum (Inputs + Activities)}$$

- There is a downward trend in productivity (crudely measured) from data collected by the CMA - “less has been done for more”

Organizational Efficiency Case-Studies



- Case-studies have shown that productivity can be improved through:
 1. Alignment of role definition, training, and practice within specific settings - ***Collaborative and Interprofessional models of care***
 2. Analysis of practice variations - ***Variations in Clinical Practice Patterns***
 3. The application of technology - ***Health technologies to improve productivity***

Barriers and Facilitators to Productivity Initiatives



- Some Organizational of practice level barriers:
 - Output-based measurements have limitations, but this may not be applicable to outcome-based measures
 - Inefficient substitutions could lead to wasteful duplication of services = Potential savings of the transfer of tasks has not materialized
- Some organization or practice level facilitators:
 - Payment methods that foster interprofessional practice
 - Financial incentives aligned to the productivity of health care providers
 - Breaking down barriers allowing for greater overlap in scopes of practice



Conclusions and Lessons Learned

- Improving productivity can improve access and outcomes
 - Some evidence, but need consensus on definition of HHRP
- Improving productivity can lower costs
 - When all work to full scope
 - must also consider lower cost vs. pay equity considerations
- Gaps and Future Research
 - More research that specifically targets HHRP and focuses on professions in combination rather than isolation and tracked over time
 - Better sense of what health professionals actually do
 - Better appreciate some of the unintended consequences of innovations and of interprofessional teams