The Business Case for Publicly funded physiotherapy services as a component of optimal care for PLWHIV

The Challenge

HIV is now considered to be a chronic health condition, and is often complicated by multiple comorbidities, ageing, and the effects of medication.

More than 30% of people living with HIV (PLWHIV) in Ontario are also living with at least one other physical condition.

When people living with chronic health conditions, including HIV, look to access rehabilitation services, they may not have the capacity to pay out-of-pocket for private services.

- Poor health is a predictor of decreased income resulting partly from decreased labour force participation and cost of medical and ancillary services.

- Each province has the agency to determine how much out-patient physiotherapy is publicly-funded; at this time, most provinces have either delisted the service or provide physiotherapy in limited circumstances.

Definitions

Cost-effectiveness:
Measured by comparing the expected cost or cost savings to the expected gains in quality of life brought about through physiotherapy intervention

Quality Adjusted Life Years (QALY):
Generic measure of disease burden involving both quality and duration of life

Cost-utility:
Cost per QALY gained through physiotherapy intervention

The Data

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Health System Costs</th>
<th>Job Loss Costs</th>
<th>Outcome</th>
<th>Cost Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>Cost-effective</td>
<td>$1,097</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>Cost-effective</td>
<td>$6,561</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>Cost-saving</td>
<td>-$3,935</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>Cost-effective</td>
<td>$1,528</td>
</tr>
</tbody>
</table>

References:


Physiotherapy is an important component of overall care to assist people living with chronic health conditions manage their symptoms, functional impairments and overall health.\(^3\)

Improved access to publicly-funded community-based physiotherapy services would be beneficial for PLWHIV and their communities at large.

Physiotherapy for PLWHIV is cost-effective from both a health payer and societal perspective.

Additionally, as physiotherapy can decrease pain, improve endurance, and have an overall positive impact on quality of life for PLWHIV, this change could improve participation in community including work, volunteer pursuits, hobbies and social activities.

The overall cost-utility of publicly-funding physiotherapy was assessed using estimated costs associated with onset, and exacerbation of comorbidities among PLWHIV in Ontario, and cost models for community-based physiotherapy.

Four key scenarios were developed and compared to a base case in which no publicly-funded physiotherapy services were offered.

Health system costs

Cost-savings was found in one of the four scenarios (#3) in which publicly-funded physiotherapy treatment was implemented.

- In two of the remaining scenarios (#1,2), when only health system costs were considered, the cost per QALY gained ranged from $1,097 to $6,561.
- In the final scenario (#4) which took into consideration both health system costs and potential job loss from HIV or NCDs, and where high intensity physiotherapy was proposed for PLWHIV, the cost per QALY gained was $1,528.
- All three of these cases are still considered cost-effective by any conventional willingness to pay threshold.

When looking over the entire projected lifespan of PLWHIV, PT is estimated to add 1.6 additional QALYs through prevention or delay of certain NCDs and improved survival.

Cost savings and QALY gains resulted from downstream cost savings due to prevention of chronic condition onset, prevention of adverse events, and mitigation of health system usage following an adverse event.

The Data

The overall cost-utility of publicly-funding physiotherapy was assessed using estimated costs associated with onset, and exacerbation of comorbidities among PLWHIV in Ontario, and cost models for community-based physiotherapy.

Four key scenarios were developed and compared to a base case in which no publicly-funded physiotherapy services were offered.

Health system costs

Cost-savings was found in one of the four scenarios (#3) in which publicly-funded physiotherapy treatment was implemented.

- In two of the remaining scenarios (#1,2), when only health system costs were considered, the cost per QALY gained ranged from $1,097 to $6,561.
- In the final scenario (#4) which took into consideration both health system costs and potential job loss from HIV or NCDs, and where high intensity physiotherapy was proposed for PLWHIV, the cost per QALY gained was $1,528.
- All three of these cases are still considered cost-effective by any conventional willingness to pay threshold.

When looking over the entire projected lifespan of PLWHIV, PT is estimated to add 1.6 additional QALYs through prevention or delay of certain NCDs and improved survival.

Cost savings and QALY gains resulted from downstream cost savings due to prevention of chronic condition onset, prevention of adverse events, and mitigation of health system usage following an adverse event.

