Telehealth: a strategy to support the practice of physicians in remote areas

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Key Implications for Decision Makers

This study highlights the urgent need to experiment with and share the potential of telehealth in light of its effects on recruiting and especially retaining medical staff in outlying regions. Among its main effects, telehealth can help improve access, continuity, and quality of care.

There are several parallels between telehealth and the availability of medical staff in outlying regions. Environments are changing very quickly through rapidly evolving technology and changes in healthcare systems and physician cohorts. Both areas share a number of influential factors, especially professional, organizational, and educational ones. The strategies used are generally partial and isolated, in one case based on a technological approach and in the other, financial incentives.

It is important to research innovative solutions through strategies that integrate the issues of telehealth and staff retention, change management, and an approach that fosters learning, sharing, and taking full advantage of evidence.

The study calls for much more extensive and systematic communication of information to and participation by potential users to provide solutions more adapted to various practice settings and methods. Finally, a major finding of this study is the importance of further innovation and experimentation based on the needs in the field and service delivery.
Executive Summary

The factors that influence distribution of medical staff are changing with the generations: the impact of major transformations in physician cohorts is becoming clear and must be closely tracked when selecting and implementing recruiting and retention strategies. Information and communication technology now plays a growing role in the healthcare sector. Some studies of telehealth have suggested it could have positive effects on medical practice, implying it might be a factor to consider when promoting recruiting, and retaining physicians in outlying regions. Perhaps it should also form part of new strategies to be adopted for recruiting and maintaining physicians in remote areas?

The findings of this study give reason to believe that telehealth could form part of such a strategy. It can have an effect on several types of recruiting factors but even more so on physician retention. The potential effects of telehealth primarily involve 1) organizational factors, by offsetting excess workloads, expanding the range of care available, and creating a stimulating work environment; 2) professional factors, by promoting better support and contact between colleagues, support for decision-making and discussion of complex cases, and less professional isolation; and 3) educational factors, by promoting access to updated knowledge and in-service training (see Table 1).
This study also highlights the probable effect of telehealth on quality of professional life, by lightening excess workloads through the implementation of regional on-duty systems, and/or homecare and continuity of services, by fostering better remote monitoring of patients. Telehealth also favours bidirectional knowledge transfer between major centres and outlying regions.

However, the study also shows there are certain constraints on the influence of telehealth. It must not provide an incentive for physicians to remain in major centres instead of practising in outlying regions, project the image of staff shortages in a hospital, increase the case load, or block access to external training. It must serve instead as a tool for supporting practice.

Telehealth is still seriously misunderstood by most physicians in eastern Quebec and its potential should be further explored. This study attempted to identify the conditions for integrating telehealth into practice that cover the individual, professional, organizational, sociopolitical, technical, and ethical aspects. These point to the importance of a system based on the needs of physicians, access to resources for help in using telehealth, ease of use, and compensation.

In brief, although these findings are unsuited to broader application, they do provide decision makers with avenues for enriching physician recruiting and retention strategies and for developing,
integrating, and disseminating telehealth. They indicate the importance of continuing integrated research on strategies to discover innovative solutions. Finally, they highlight the urgent need to experiment with the potential of telehealth in light of its effects on medical staffing.

Table 1: Recruiting and retention factors related to telehealth

<table>
<thead>
<tr>
<th>Organizational Factors</th>
<th>Research Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Offset excess workloads through (RC+ &amp; RT+):</td>
<td>Document analyses; interviews; Delphi study; questionnaire for residents; questionnaires for physicians</td>
</tr>
<tr>
<td>o Implementation of on-duty systems</td>
<td></td>
</tr>
<tr>
<td>o Stabilization of services</td>
<td></td>
</tr>
<tr>
<td>• Justify the fact that physicians remain in major centres (RC-)</td>
<td>Interviews; questionnaires for physicians</td>
</tr>
<tr>
<td>• Expand the range of care available (RC+ &amp; RT+)</td>
<td>Delphi study; interviews</td>
</tr>
<tr>
<td>• Project an image of staff shortages (RC-)</td>
<td>Interviews; questionnaires for physicians</td>
</tr>
<tr>
<td>• Stimulating work environment (RC+ &amp; RT+)</td>
<td>Delphi study</td>
</tr>
<tr>
<td>• Increased case load (RC-)</td>
<td>Delphi study</td>
</tr>
<tr>
<td><strong>Professional Factors</strong></td>
<td></td>
</tr>
<tr>
<td>• Access to support from colleagues in major centres (RC+ &amp; RT+)</td>
<td>Document analyses; interviews; Delphi study; questionnaire for residents</td>
</tr>
<tr>
<td>• Decrease in professional isolation (RC+ &amp; RT+)</td>
<td>Document analyses; interviews; Delphi study</td>
</tr>
<tr>
<td>• Option of obtaining a second opinion (RC+ &amp; RT+)</td>
<td>Document analyses; interviews; Delphi study</td>
</tr>
<tr>
<td>• Familiarity with medical teams in regions through teletraining (RC+)</td>
<td>Interviews; questionnaires for physicians</td>
</tr>
<tr>
<td>• Recruiting of people without the necessary skills to practice in outlying regions (RT-)</td>
<td>Interviews; questionnaires for physicians</td>
</tr>
<tr>
<td>• Contacts among peers (RC+ &amp; RT+)</td>
<td>Interviews; Delphi study</td>
</tr>
<tr>
<td>• Discussion of complex cases (RC+ &amp; RT+)</td>
<td>Delphi study</td>
</tr>
<tr>
<td>• Support for decision-making (RC+ &amp; RT+)</td>
<td>Delphi study</td>
</tr>
<tr>
<td><strong>Educational Factors</strong></td>
<td></td>
</tr>
<tr>
<td>• Updated knowledge (RT+)</td>
<td>Document analyses; interviews; Delphi study; questionnaire for physicians</td>
</tr>
<tr>
<td>• Enhanced access to in-service training (RC+ &amp; RT+)</td>
<td>Document analyses; interviews; questionnaire for residents</td>
</tr>
<tr>
<td>• Limit external training (RC-)</td>
<td>Interviews; questionnaires for physicians</td>
</tr>
<tr>
<td>• Option of teaching (RC+)</td>
<td>Interviews</td>
</tr>
<tr>
<td>• Provide recruits with training better adapted to needs in outlying regions (RT+)</td>
<td>Interviews</td>
</tr>
</tbody>
</table>

Legend: RC+ promotes recruiting; RT+ promotes retention; RC- hinders recruiting; RT- hinders retention