IS IT WORTHWHILE TO INVEST IN HOME CARE?

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Objective

To examine outcomes by community to determine whether there appears to be any relationship between the rates of Ambulatory Care Sensitive Conditions (ACSC, or avoidable hospitalization) and

1. Level of local access to primary health care (services delivered by nurses with an expanded scope of practice), and

2. The implementation of the Home and Community Care program.

Why First Nations?

• Local access to care is known

• Home and community care program was rolled out in a similar way in every community in 2001
Methods

Sample: defined by postal code, no FN identifier (5% “error” but same access issues).

N = 64,933 in 1984/85, 71,510 in 2004/05.

Rates of hospitalization for Ambulatory Care Sensitive Conditions (avoidable hospitalization):
  a) Focused on the number of hospital separation in a fiscal year
  b) Also looked at the number of hospital-days in a fiscal year

GEE modeling
# Method: Ambulatory Care Sensitive Conditions

## Chronic Conditions
- Asthma
- Angina
- Heart Failure and pulmonary edema
- Grand mal status and other epileptic convulsions
- Diabetes with complications
- Hypertension
- Chronic Obstructive Pulmonary Disease (COPD)
- Pneumonia (only when a secondary diagnosis of COPD is present)
- Acute Bronchitis (only when a secondary diagnosis of COPD is present)
- Iron deficiency anemia; Other deficiency anemia

## Vaccine Preventable Conditions
- Diptheria
- Hemophilus Influenza type B
- Hepatitis A
- Hepatitis B
- Influenza
- Measles
- Meningococcal disease (meningitis)
- Mumps
- Pertussis
- Pneumococcal
- Poliomyelitis
- Tuberculosis
- Rubella
- Tetanus

## Acute Conditions
- Dental Conditions
- Cellulitis
- Pelvic Inflammatory Disease
- Gastroenteritis
- Severe ENT Infections
## On-reserve health care services

### Facility designation criteria and number of Manitoba communities*

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th># of ind (comm)</th>
<th>Community characteristics (the community should meet a majority of the following criteria)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing Station</td>
<td>N=28,321</td>
<td><strong>On-reserve health services funded:</strong> Treatment and prevention, accessible 24/7</td>
</tr>
<tr>
<td></td>
<td>22 comm</td>
<td></td>
</tr>
<tr>
<td>Health Centre</td>
<td>N=22,933</td>
<td><strong>On-reserve health services funded:</strong> Emergency, screening and prevention available 5 days per week, with limited or no after hour care locally</td>
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<tr>
<td></td>
<td>11 comm</td>
<td></td>
</tr>
<tr>
<td>Health Office</td>
<td>N=19,225</td>
<td><strong>On-reserve health services funded:</strong> Part-time, often non-resident screening and prevention services only</td>
</tr>
<tr>
<td></td>
<td>24 comm</td>
<td></td>
</tr>
<tr>
<td>No facility</td>
<td>N=1,031</td>
<td>No on-reserve facility</td>
</tr>
<tr>
<td></td>
<td>2 comm</td>
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</tbody>
</table>

*Health Canada (FNIHB), 2003; 2004a*
Findings: What is the relationship between local access to home care and the rates of avoidable hospitalization
Proposition:

Rates of avoidable hospitalization reflect levels of local access to primary health care (health office, health centre, nursing station) over time

• Two separate time periods: between 1989/90 and 1993/94, and between 2000/01 and 2004/05.

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<td>Communities with no facility had lower rates than communities served by a Health Office ($p=0.0006$) or a Health Centre ($p=0.0044$).</td>
<td>Communities with Nursing Station, a Health Centre or a Health Office had lower rates of avoidable hospitalization than communities that had no local access to a health facility ($p&lt;0.0001$, $p=0.0001$, and $p=0.0002$ respectively).</td>
</tr>
<tr>
<td>Communities with Nursing Stations had lower rates than those served by a Health Centre ($p&lt;0.0001$) or a Health Office ($p&lt;0.0001$).</td>
<td></td>
</tr>
</tbody>
</table>
Findings: Access to home care

Adjusted ACSC Rates per 1000 population by facility type

A. Health Centre
B. Health Office
C. Nursing Station
D. No Facility
All Rural MB
All MB
Conclusions

- The introduction of the FNIHCCP expanded primary healthcare activities in communities served by Health Offices/Health Stations. Rates of avoidable hospitalization decreased.

- Rates of hospitalization decreased in communities served by Nursing Stations. The same gains were not documented for chronic conditions, however.

- Communities where the FNIHCCP was not available did not report the same gains.

- This brings evidence to suggestions to include home care as an insured service under the Canada Health Act.
Acknowledgements

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