REMOTE PRESENCE ROBOTIC TECHNOLOGY:
NARROWING THE GAP OF INEQUALITY IN HEALTH CARE DELIVERY
Ivar Mendez, MD, PhD
Rural vs Urban Populations

Where do Saskatchewan Children Live
POINT OF CARE BLOOD WORK
SASKATCHEWAN PEDIATRIC INTERFACILITY TRANSPORT

![Helicopter Image]

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<tr>
<td>Count</td>
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# Data & Results

<table>
<thead>
<tr>
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<th>Robot Intervention</th>
<th>Control</th>
<th>p value</th>
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<tbody>
<tr>
<td><strong>Transported</strong></td>
<td>14/38 (37%)</td>
<td>31/31 (100%)</td>
<td>&lt; 0.05</td>
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<td><strong>Mean length of stay non-transported (days)</strong></td>
<td>0</td>
<td>4.9</td>
<td>&lt; 0.001</td>
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<td><strong>Regionalized</strong></td>
<td>6/14 (42.8%)</td>
<td>0/31 (0%)</td>
<td>&lt; 0.05</td>
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<td><strong>Mean Ped-CTAS score</strong></td>
<td>2.6 (1-4)</td>
<td>2.3 (1-4)</td>
<td>0.89</td>
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CTAS = Canadian Triage Assessment Score
Cost Effectiveness

Cost
- RP-7i remote presence robot: ~$70,000 USD
- 1 specialized inter-facility transport: ~$10,000 USD

Transports Prevented
- 24/38 over 13-month study period

Estimated Savings
- Transport: $240,000 (24 x $10,000/transport)
- Hospital bed: $120,000 (24 x $1,000/day x 5 days)
- Total: $360,000

Additional Savings
- Family: travel, accommodations, meals, childcare
- Specialized pediatric transport team availability
DIRECT U/S

REMOTE U/S
Teen parents
Census data reveal that 8% of Aboriginal teenage girls (15 to 19 years old) were parents, compared to 1.3% of their non-Aboriginal counterparts.
TELEPALPATION
3 D BRAIN PRINTING FOR NEUROSURGERY PLANNING
3D BRAIN PRINTED FROM PATIENT MRI
VIRTUAL REALITY SURGICAL PLANNING
VIRTUAL REALITY BRAIN FROM PATIENT MRI