THE HEALTHY IMMIGRANT EFFECT IN CANADA: A SYSTEMATIC REVIEW

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Healthy Immigrant Effect (HIE)

- Immigrants healthier than non-migrants in sending country and native-born population in receiving country
- HIE observed in USA, Western Europe, Australia, and Canada

Goals of project:
- Examine extent of HIE in immigrant-receiving countries for select health outcomes (meta-analysis)
- Assess HIE across different life-course stages and health outcomes in Canada
Why Are Immigrants Healthier?

- Immigrant health selection
  - Self
  - State

- Acculturation

- Other post-migration (negative) exposures and experiences
The Canadian Context

- **Self-selection**

- **State selection:**
  - Point system: high human capital ~ better health
  - Medical exam

- **Prior research shows:**
  - Foreign-born (adult) health advantage
  - Health advantage disappears the longer immigrants are in Canada
Methodology

- Systematic review

- Published studies: 1980-2014 (French and English)

- Search engines:
  - PubMed
  - Medline
  - Embase
  - Global Health
  - SOC Index
  - JSTOR
  - Clinical Key

- Study inclusion criteria:
  - Quantitative
  - Original research articles with explicit FB vs CB comparison

- Dependent variables:
  - mortality,
  - self-rated general health
  - mental health
  - chronic conditions
  - functional limitations/disability
  - risk behaviors
  - perinatal health
  - child/adolescent health
Methodology, cont’d

N=75 eligible studies

- Divide studies by:
  - Life-course stage
  - Health outcome

- Analysis:
  - For each study, assess whether FB had **Better**, **Worse**, or **Similar** health relative to CB
  - **Mixed** → FB health (dis)advantage depends on sociodemographic & other characteristics
  - FB-CB comparisons based on adjusted point/parameter estimates (some unadjusted estimates)
Key Findings

- The healthy immigrant effect is not a universal phenomenon in Canada.

- Immigrants’ health advantage varies across the life-course, and within each stage of the life-course, by different health outcomes.

- The healthy immigrant effect appears to be strongest during adulthood but less so during childhood/adolescence and late life.

- A foreign-born health advantage is robust for mortality but less so for morbidity, with immigrants in Canada exhibiting a survival advantage over their Canadian-born counterparts.
Detailed findings across the life-course

- **Perinatal period (N=21)**
  - Birth outcomes → **Worse/Same**
    - PTB → **Better/Same**
    - PTB advantage disappears after 10 years
  - FB mothers → **Worse** maternal and mental health

- **Childhood/adolescence (N=7)**
  - Mental health, weight gain/obesity → **contradictory**
  - Risk behaviors → **Better** (alcohol, delinquency only)
Detailed findings across the life-course

- Late life (N=6):
  - Chronic conditions → Same
  - Mental health → Same
  - Self-rated health → Worse/Same
  - Disability/functional limitations → Worse
<table>
<thead>
<tr>
<th>Health Outcome</th>
<th>No. studies</th>
<th>Worse</th>
<th>Better</th>
<th>Similar</th>
<th>Mixed</th>
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</thead>
<tbody>
<tr>
<td>Chronic conditions (at least one)</td>
<td>9</td>
<td>✔ ✔ ✔ ✔ ✔ u</td>
<td>✔ u</td>
<td>✔ (b/s)</td>
<td>(b/s)</td>
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<tr>
<td>Arthritis</td>
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<td>✔</td>
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<tr>
<td>Asthma</td>
<td>3</td>
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<tr>
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<tr>
<td>Cardiovascular/hypertension</td>
<td>3</td>
<td>✔ u</td>
<td>✔</td>
<td></td>
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</tr>
<tr>
<td>Diabetes</td>
<td>3</td>
<td>✔ u</td>
<td>✔</td>
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<td></td>
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<tr>
<td>Overweight/obesity</td>
<td>4</td>
<td>✔ ✔</td>
<td>✔</td>
<td>✔ (b/w)</td>
<td>(w/s)</td>
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<tr>
<td>Disability/Functional limitations</td>
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<td>✔ u</td>
<td>✔ ✔ ✔ u ✔ u</td>
<td>✔ (b/s)</td>
<td>(b/s)</td>
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<tr>
<td>Mental health</td>
<td>10</td>
<td>✔</td>
<td>✔ ✔ ✔ ✔ u ✔ u</td>
<td>✔ (b/s)</td>
<td>(b/s)</td>
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<tr>
<td>Risk behaviors</td>
<td>4</td>
<td>✔</td>
<td>✔</td>
<td>✔ (b/s)</td>
<td>(b/s)</td>
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<tr>
<td>Self-rated health</td>
<td>16</td>
<td>✔ ✔ u ✔ u</td>
<td>✔ ✔ ✔</td>
<td>✔ ✔ ✔</td>
<td>✔ (w/s)</td>
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## Mortality (N=12)

<table>
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<th>Health Outcome</th>
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<th>Better</th>
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<tr>
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<td>Cause-specific mortality:</td>
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<tr>
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<tr>
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<td>Other¹</td>
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Future Research Recommendations

- Premigration experiences
- Longitudinal analysis
- More research on early & late stages of life
- Further research on health selection effects
Policy Recommendations

- One-size-fits-all approach would be ineffective

- Policies and interventions need to target specific life-course stages and health outcomes for which immigrants are vulnerable
  - Eg: immigrant mothers
Thank you

Merci!