Sowing the Seeds of Knowledge
Transfer
Christina Weise, CEO, Research Manitoba
Three things...

- Knowledge to impact
- Measuring impact
- Characteristics of success
MANITOBA LEADS THE WAY IN THE RESEARCH AND TREATMENT OF A TYPE OF LEUKEMIA THAT AFFECTS OLDER ADULTS

RESEARCH GROUP USES TECHNOLOGY TO BUILD BETTER ROADS, BRIDGES AND OTHER CIVIL INFRASTRUCTURE
Knowledge Transfer

Knowledge Translation

Knowledge Mobilization

Commercialization

Do these mean the same thing?
Knowledge transfer
In Organizational theory it is the practical problem of transferring knowledge from one part of the organization to another.

Knowledge translation
All of the activities involved in moving research from the laboratory, the research journal, and the academic conference into the hands of people and organizations who can put it to practical use.
Knowledge mobilization
Moving available **knowledge** (often from formal research) into active use. More than just "bridging the gap", KMb seeks to make connections between research/expertise and policy/practice in order to improve outcomes in various organizations or sectors.

Commercialization
The process of introducing a new product or production method into commerce—making it available on the market.
Knowledge to impact doesn’t happen by itself.

It isn’t this easy
Research Manitoba
Measuring Impact
In 2014, the Manitoba Government announced the creation of Research Manitoba.
Why we measure impacts

- To be accountable and transparent;

- To inform Research Manitoba’s decision making, planning and programming;

- To encourage a proactive and prospective measurement and monitoring of research impacts among researchers, funders and users of knowledge; and

- To communicate the value and benefit of research to funders, stakeholders and the public through impact stories.
**Outputs** are the first set of short-term results most researchers typically see (e.g., number of publications, presentations, event attendees, new data sets, new partners added to a team, or new stakeholders and/or research users contacted or added to networks).

**Outcomes** (also called “results”) include all activities undertaken as a result of new insights. Outcomes may include: the number of people in various target audiences that use the research findings (including data sets), the number of students trained, new capacities created, policies developed, business strategies formulated, advancements in understanding reconciliation, etc. Outcomes may be either foreseen or unforeseen, direct or indirect, intended or unintended.

**Impacts** are long-term outcomes or effects that take the form of changed thinking and behaviours. Impacts are reflected through such indicators as global economic performance, competitiveness, public service effectiveness, new products and services, employment, policy relevance, learning skills enhancement, quality of life, community cohesion, and movement toward reconciliation and social inclusion.
About logic models

A logic model is a systematic and visual way to present the relationships among the resources of a program, the activities, and the desired/intended changes or results (outputs/outcomes/impacts).
Logic models

- Represents the theory of change or program theory i.e. a statement about the issue or problem being addressed by the proposed resources and activities in three dimensions: the program design, implementation, and assessment of the change or impact
- Helps to clarify assumptions that underlie program implementation and desired/intended change

Challenges to using logic models

- Not linear and change does not happen linearly
- Inadequate to represent complexity associated with implementation
- Programs are rarely designed and implemented at the same time
- Programs are rarely implemented the way they are intended to be
The Manitoba Personalized Lifestyle Research (TMPLR) Program: monitoring and evaluating research impacts

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes</th>
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</thead>
<tbody>
<tr>
<td>Funding</td>
<td>Setup governance system</td>
<td>Meetings: monthly, quarterly, semi-annual</td>
<td>Discovery of new associations and interactive mechanisms through which lifestyle factors modify health</td>
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<td>- RM funding ($)</td>
<td>- Undertake cross sectional investigation</td>
<td>- Program components</td>
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<td>- Other sources &amp; value ($)</td>
<td>- Ethics approval</td>
<td>- Nutrition</td>
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<td>- Multidisciplinary team</td>
<td>- Recruitment/data collection</td>
<td>- Physical activity</td>
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<tr>
<td>- Research infrastructure</td>
<td>- Develop TMPLR website and social media platform</td>
<td>- Genetics</td>
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<tr>
<td>- RCFNN</td>
<td>- Analysis</td>
<td>- Gut microbiota</td>
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<td>- TMPLR mobile unit</td>
<td>- Bioinformatics</td>
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<td>- Other resources/inputs</td>
<td>- Recruit/mentor highly qualified personnel</td>
<td>- Development of multiple highly qualified personnel</td>
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<td></td>
<td>- Secure additional funding</td>
<td>- Leveraged funds</td>
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<td></td>
<td>- Translate knowledge</td>
<td>- Inputs into research by knowledge users</td>
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<td></td>
<td>- Engage knowledge users/consult via public forums and focus groups</td>
<td>- Public engagement/participation in research via website and social media engagement</td>
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<td></td>
<td>- Disseminate findings</td>
<td>- Journal articles, media reports, presentations/others</td>
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<td></td>
<td>- Other activities?</td>
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**Milestones**

<table>
<thead>
<tr>
<th>Timeline</th>
<th>Year 1</th>
<th>Year 1-3</th>
<th>Year 3-4</th>
<th>Year 4</th>
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<tbody>
<tr>
<td>Setup of RCFNN TMPLR site</td>
<td>Recruitment of students and HQPs recruited to the team</td>
<td>Cross-sectional study initiation and progress</td>
<td>Presentations</td>
<td>Personalized lifestyles strategies to be tested (hypotheses)</td>
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<td>Set up of mobile TMPLR site</td>
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<td>Publications</td>
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<td>Media engagements</td>
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<td>Biobank</td>
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<td>Applications leveraging TMPLR submitted end/or received</td>
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**Outputs and Outcomes**

- **Advancing knowledge**
  - Engagement via website and social media
  - Biomarkers for lifestyle and chronic condition
  - New associations and interactive mechanisms
  - Publications

- **Building capacity**
  - Training of graduate students and postdoctoral fellows
  - Mentoring junior researchers
  - Access to comprehensive research database and biobank

- **Informing decision making**
  - Engagement with knowledge users
    - Decision makers, policy makers and health administrators
    - Practitioners and clinicians
    - Health researchers
  - Knowledge translation
    - Presentations (academic and public)
  - Design and test personalized lifestyle interventions

- **Health impacts**
  - Uptake of TMPLR program results by academia/informing others research
  - Recommendations on personalized lifestyles
    - New/changes in health care policy
    - Effective lifestyle prevention and treatment
  - Individualized health care of Manitobans
  - Change in lifestyles
  - Reduce morbidity
  - Cost savings in healthcare
Characteristics of Success
Factors for success

Relationships

• Meetings with knowledge users, especially at the outset of the project, are an effective vehicle for forging strong and lasting connections.

• When building relationships with organizations, build links across multiple levels, from front-line, program and policy staff to executives.

Deliberative efforts and planning

Resources

Persistence
Questions?
www.researchmanitoba.ca

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