INTERNATIONAL DATA SHARING COLLABORATION AND IMPACT

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Strategy of Impact Conference 2018
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OVERVIEW

1. International impact strategy

2. A tale of three international funders on a collaborative journey to data sharing
   - Use of key four elements to maximize the use of Researchfish
   - Exploring “proof of concept”

2. Lessons learned

3. Future directions
1. INTERNATIONAL IMPACT STRATEGY

A TALE OF THREE INTERNATIONAL FUNDERS
SETTING THE INTERNATIONAL STAGE – IMPACT FIVE YEARS AGO

• Too academic and not practitioner focused debate

• Poor ongoing local debate and isolation of interested stakeholders except in few countries

• A nascent but diffused community of practice

• A need to build **international capacity, share practice and develop standards**

• A need to create a context where people could **learn from experts and peers**
FUNDERS CAME TOGETHER TO BUILD GLOBAL CAPACITY FOR LOCAL NEEDS....

www.theinternationalschoolonria.com
WE WANTED TO MAXIMIZE THE USE OF RESEARCHFISH DATA

We had to start with a “safe harbor” of trust as there was no established roadmap for us to follow.

Source: https://www.kcl.ac.uk/sspp/policy-institute/publications/Researchfish%20A%20forward%20look.pdf
ISRIA PROVIDED A COMMON LANGUAGE
SHARED TAXONOMY AROUND PURPOSE

To support the development of effective funding strategy

To promote responsible management of funds

To demonstrate the benefits of research, education and innovation to society

To answer questions about ‘what works’. Make improvements based on data

4 A’S OF RESEARCH IMPACT ASSESSMENT

Advocacy
Allocation
Analysis
Accountability

Jonathan Grant
King’s College
USE OF KEY FOUR ELEMENTS TO MAXIMIZE THE USE OF RESEARCHFISH
**SHARED UNDERSTANDING**

1. Data analysis and data sharing

Provide a ‘safe harbour’ for sharing of data to encourage data sharing across multiple funders

### Shared Goals

<table>
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<tr>
<th>ALBERTA INNOVATES</th>
<th>NIHR</th>
<th>NOVO NORDISK FOUNDATION</th>
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<tbody>
<tr>
<td>To be indisputably recognized as a leader – provincially, nationally and internationally in catalyzing R&amp;I in Alberta</td>
<td>To improve the health and wealth of the nation (UK) through research</td>
<td>To contribute significantly to research and development that improves the lives of people and the sustainability of society.</td>
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Our mandate includes a “focus on outcomes”

The Canadian community is taking a bottoms up approach to implementing impact – many alliances

http://cahs-acss.ca/making-an-impact/
AI’S IMPACT STRATEGY:

Performance Measurement, Evaluation and Assessment Activities
USE A “FIT FOR PURPOSE” 6 BLOCK

Alberta continues to deliver regional training courses on Research Impact Assessment.

ISRIA developed an impact assessment plan (strategy) using the 6 block protocol.
National Institute for Health Research (NIHR)

- Aim: Improve the health and wealth of the Nation
- Public funder overseen by the UK’s Department of Health and Social Care
- Health, public health and social care
- Integrated research system
  - Infrastructure and support
  - Training
  - Research delivery
- Support translational research, addressing gaps in the translational pathway
Our Impact Approach

• NIHR-wide approach is currently in development
• Pockets of good practice
• Underpinned by basic logic modelling
  - What is the purpose of the funding?
  - How was it expected to work?
  - What has happened?
  - What has been produced?
• Development of ‘value framework’
• Data audit currently underway
• Focus on our contribution rather than attribution
• Recognising the cultural and behavioural challenge as well as the practical
The Research Pathway

Invention | Evaluation | Adoption | Diffusion
--- | --- | --- | ---
This way

www.nihr.ac.uk
The Research Pathway

**Invention**
- **Creation**
  - New things.
  - New ideas.
  - New techniques.
  - New approaches.

- **Basic research**
  - Medical Research Council

**Evaluation**
- **Assessment**
  - New things.
  - New ideas.
  - New techniques.
  - New approaches.

- **Applied research**
  - National Institute for Health Research

**Adoption**
- **Uptake**
  - New things.
  - New ideas.
  - New techniques.
  - New approaches.

- **Commissioning**
  - Commissioners

**Diffusion**
- **Spread**
  - New things.
  - New ideas.
  - New techniques.
  - New approaches.

- **Patient care**
  - Providers of NHS services

**Better quality • Better value**
Novo Nordisk Foundation (NNF) Independent Foundation with Corporate Interests

**Grant-awarding**
- New grants in 2017: DKK 5.2 bn (EUR 0.7 bn)
- Scientific research
- Diabetes treatment
- Innovation
- Education and outreach
- Humanitarian and social purpose

**Investments**
- Net profits in 2017: DKK 19.1 bn (EUR 2.6 bn)
- Principal investments
- Venture investments
- Seed investments
- Financial investments

Knowledge is the key
Areas of Support

...to improve the health and welfare of people.

Purpose of impact assessment

• Develop novel and research-based impact assessment, analysis of funding science and capacity building

• Document and measure the impact of public research in Denmark

• Develop, collect, process and analyze information on all activities the Foundation supports
NNF Model

INPUT

Awarded grants and payout

ACTIVITIES AND OUTPUT

Production of knowledge, education and patient-oriented activities

OUTCOME

Dissemination and use of knowledge in academia
Dissemination and use of knowledge in the public sector
Dissemination and use of knowledge in the private sector

IMPACT

Translation of knowledge into impact on economic and health, social well-being and welfare of people
2. GLOBAL IMPACT STRATEGY

PROOF OF CONCEPT EXPLORATIONS
All organizations conduct quality data checks – Future opportunity to share integrity protocols
We have started to share practices with each other that we each would like to adopt.
Harmonization of award types and programs will help us characterize our investment strategies internationally.
IMPACT ANALYSIS EXPLORATION

Timeline
• 2015 to 2017

Analytic Groupings
1: (Projects) 0-3 years,
   0 - €400.000
2: (Small programs) 3-5 years,
   €400.000 - €2.7M
3: (Large programs) 5-7 years
   €2.7 million - €8M
Group 4: (Very large programs/ Research Centers) >5 years,
   €66,7 - €267 million.
5: Fellowships/post-docs

Impact Results
• Publications
• Collaborations
• Promising practices

All organizations report annually -
future opportunity to harmonize and do deep dive analysis
NNF Promising Practice – Bibliometrics

Share of journal articles by co-authorship, NNF

We can start to do deep dive on co-authorship analytics
NNF Promising Practice – Bibliometrics
Co-authorships distributed on WoS subject categories, NNF

We can start to do deep dive on subject categories
Advancing Knowledge Impact is broken down by: Quality, Activity, Outreach, Contextual. Taxonomy can be used to structure analysis in the future.
We can start to analyze collaborators across sectors.
NIHR PROMISING PRACTICE
KEEPING PATIENTS AT THE HEART OF RESEARCH

• Sample PPI* questions
Q1: Have you involved patients and/or members of the public in your research?
A1: *Yes/No/**Not applicable/Unknown

**Q2 [Only for those answering Not applicable to Q1] Why was PPI not applicable in your research?
A2: [Free text]

*Patient and Public Involvement

Involving patients and the public is very important in helping address some of the most important challenges in healthcare. Using tools to document it further encourages researchers and funders to engage them by showing examples of how this involvement can help make their work even better. It will also encourages more patients and members of the public to get involved by showing them that it is an interesting and good use of their time and how their experiences can be used to help others. Data already captured on Researchfish shows a wide range of ways

*If Q1 answered Yes.

Q3: How have patients and the public been actively involved in your research? (Please indicate all that apply)
A3:
1. Prioritising the research question(s)
2. Developing the application for funding
3. Design of the research
4. Management of the research
5. Undertaking the research
# AI PROMISING PRACTICE

## HEALTH TAXONOMY FROM CAHS

- Additional questions on six dimensions of health and sample indictors
- Taxonomy also used by Alberta’s health system
- We are using to assess the scale up and spread of research evidence to impact

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<th>Acceptability</th>
<th>Accessibility</th>
<th>Appropriateness</th>
<th>Effectiveness</th>
<th>Efficiency</th>
<th>Safety</th>
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<td>• Self-reported</td>
<td>• Wait times</td>
<td>• Adherence to clinical</td>
<td>• Re-admission rates</td>
<td>• Actual vs. expected</td>
<td>• Adverse drug effects</td>
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<tr>
<td>patient satisfaction</td>
<td>• Appointment statistics</td>
<td>guidelines</td>
<td></td>
<td>• Hospital stay</td>
<td>• Hospital acquired infections</td>
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<td>• Cost input versus output</td>
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We all use impact narratives – Future opportunity share templates and products
## FUTURE DIRECTIONS

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<td>• Ex-ante focus - impact planning</td>
<td>• Build data collection into business as usual</td>
<td>• Ex-ante focus</td>
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<td>• Schedule follow up analysis</td>
<td>• Develop value framework</td>
<td>• Impact assessment on patient oriented initiatives, educational grants and humanitarian and social grants</td>
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<td>• Assessing scale up and spread</td>
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<td>• Follow up analysis on industry collaboration</td>
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<td>• Apply across sectors</td>
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We need new ways of working to move collaborations forward and new governance mechanisms for connecting and sharing data. We will continue to work on expanding the “elements” and proof of concept as a means of understanding “what works, does not work, under what conditions”.
REFLECTIONS ON INCREASING THE USE OF IMPACT DATA
TRACKING IMPACT ACROSS THE RESEARCH CYCLE

1. Pre Grant
2. Grant Period
3. End of Grant
4. Post Grant

- Internal Data Sources
- External Data Source
- Researchfish

Explore further potential in connectivity with other parts of the research ecosystem.
LESSONS LEARNED

• Need a collaborative **protocol** for sharing, querying analyzing data
  - Establish principles
  - Identify assessment questions to drive meaningful analysis
• Adopt **international** standards, guidelines, and taxonomies to make more use of the data
• **Add a fifth element** – application and sharing of leading and promising practices in health (aka international alliance) and across sectors
• Having theme working groups helps increase use:
  - Public and patients
  - Impact narratives

Need a safe place to test ideas – a safe to fail Innovations such as Implementation labs
THANK YOU

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