Health Services Research and Policy Making in Ontario

Canadian Knowledge Transfer and Exchange Community of Practice

January 2016

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Ontario

Learning Objectives

1. Gaining an appreciation for the policy development process;
2. Learning about how the ministry funds research and conducts knowledge translation;
3. Demonstrate evidence and policy in action through case studies.
4. Showcase an approach to measure the impact of research on the policy process

What are the current policy challenges?

Change is Necessary to Our Environment

Ontario's health care system is facing significant challenges over the next few years

Fiscal Challenge

- Historic levels of investment growth are not seen to be sustainable

Demographic Challenge

- The cost of care for a senior is 3x higher than for the average person
- Changing demographics will result in a higher cost to the system

Complex Health Challenge

- A small number of patients use a disproportionate amount of resources
- Making better use of our health care resources so people get the most appropriate care

Unhealthy Lifestyle Challenge

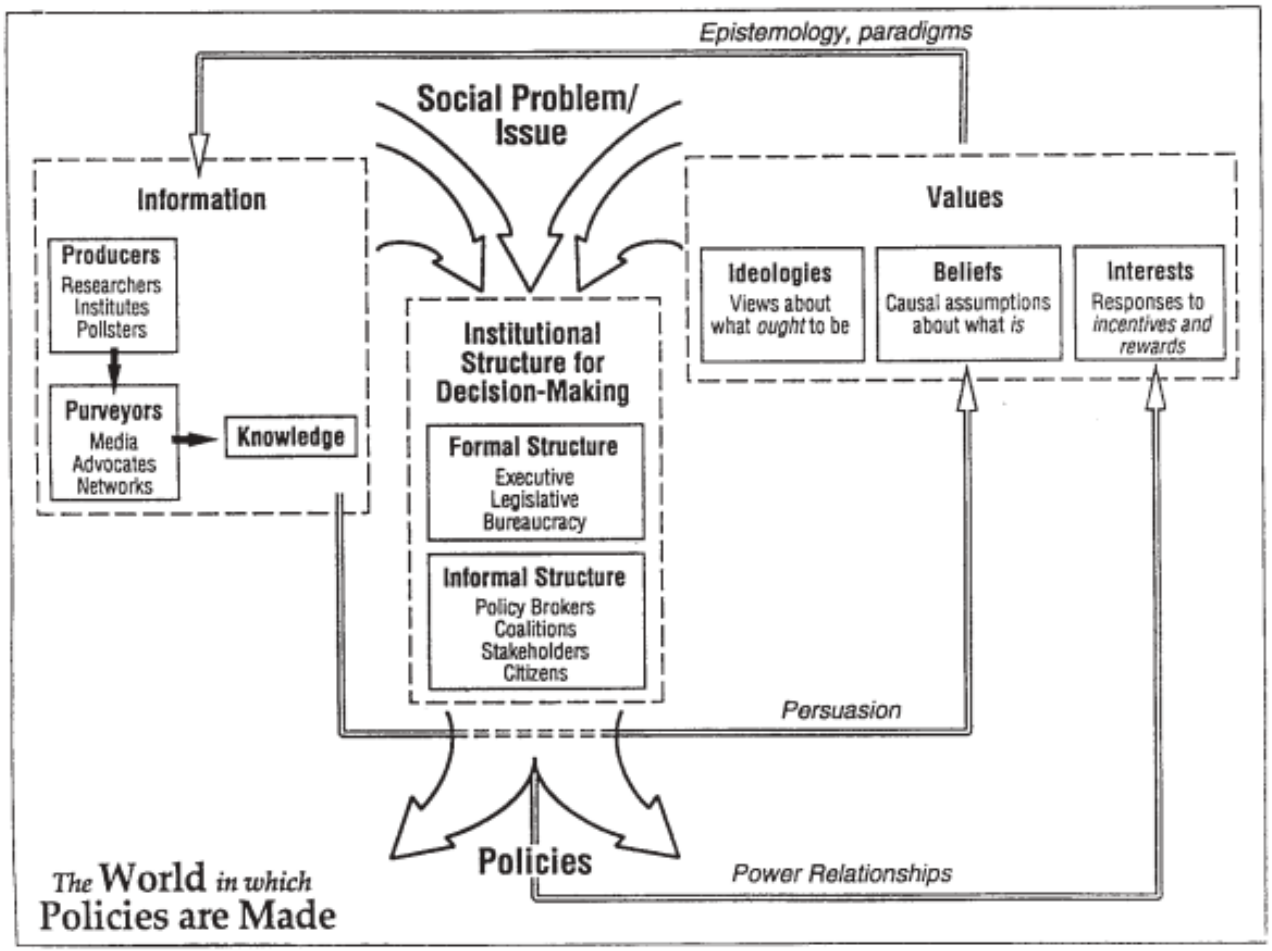
- Unhealthy eating, lack of activity and smoking levels may lead to increased chronic disease

Patients First: Action Plan for Health Care

Government Promise	Open, transparent, accountable, effectively managed government that provides value for tax dollars			
Health Promise	Patients First • *a caring, integrated experience for patients* • *faster access to quality health services* • *for all Ontarians at every life stage*			
	Access: • Providing faster access to the right care	**Connect:** • Providing better home and community care	**Inform:** • Providing information to make the right decisions about your health	**Protect :** • Ensuring our universal health care system is sustainable for generations to come
Policy Pillar:	**Improve System Integration, Accessibility**	**Modernize Home and Community Care**	**Increase the Health and Wellness of Ontarians**	**Ensure Sustainability and Quality**

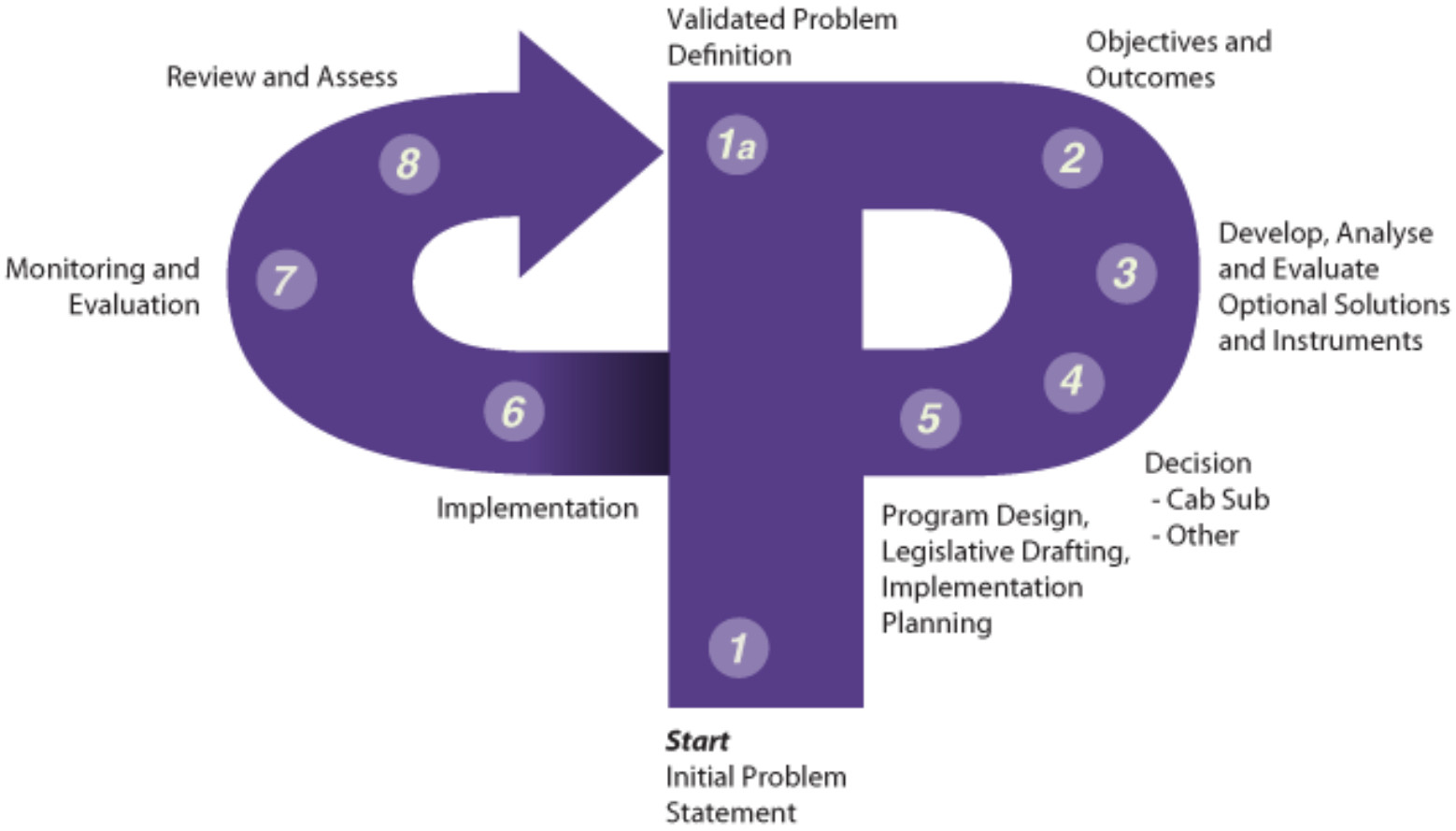
Broader context for policy making

A schematic of the contextual influences on the decision-making process



Lomas, J, 1997. http://www.sandy-campbell.com/sc/Knowledge_Translation_files/handclapping_e.pdf

The Policy Roadmap

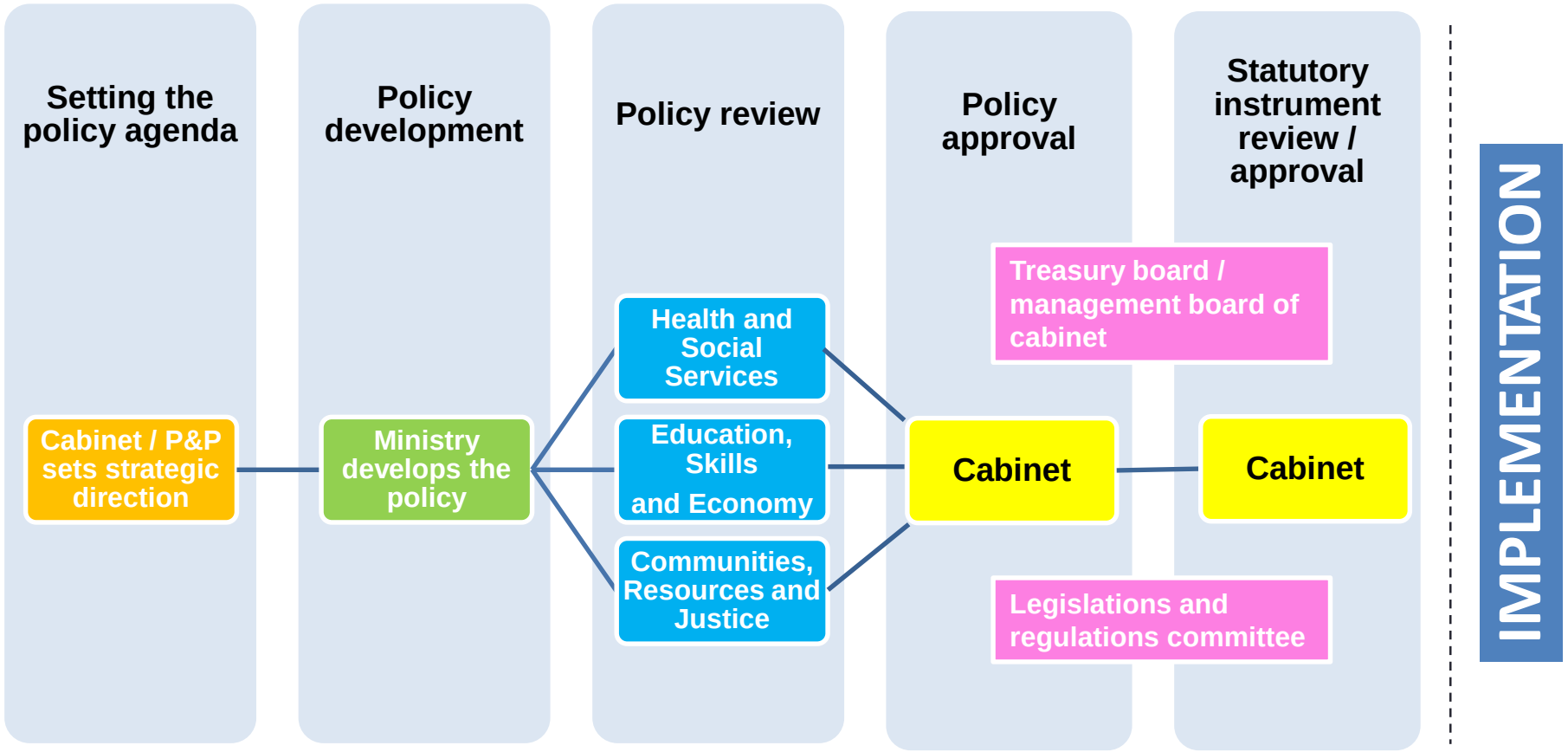


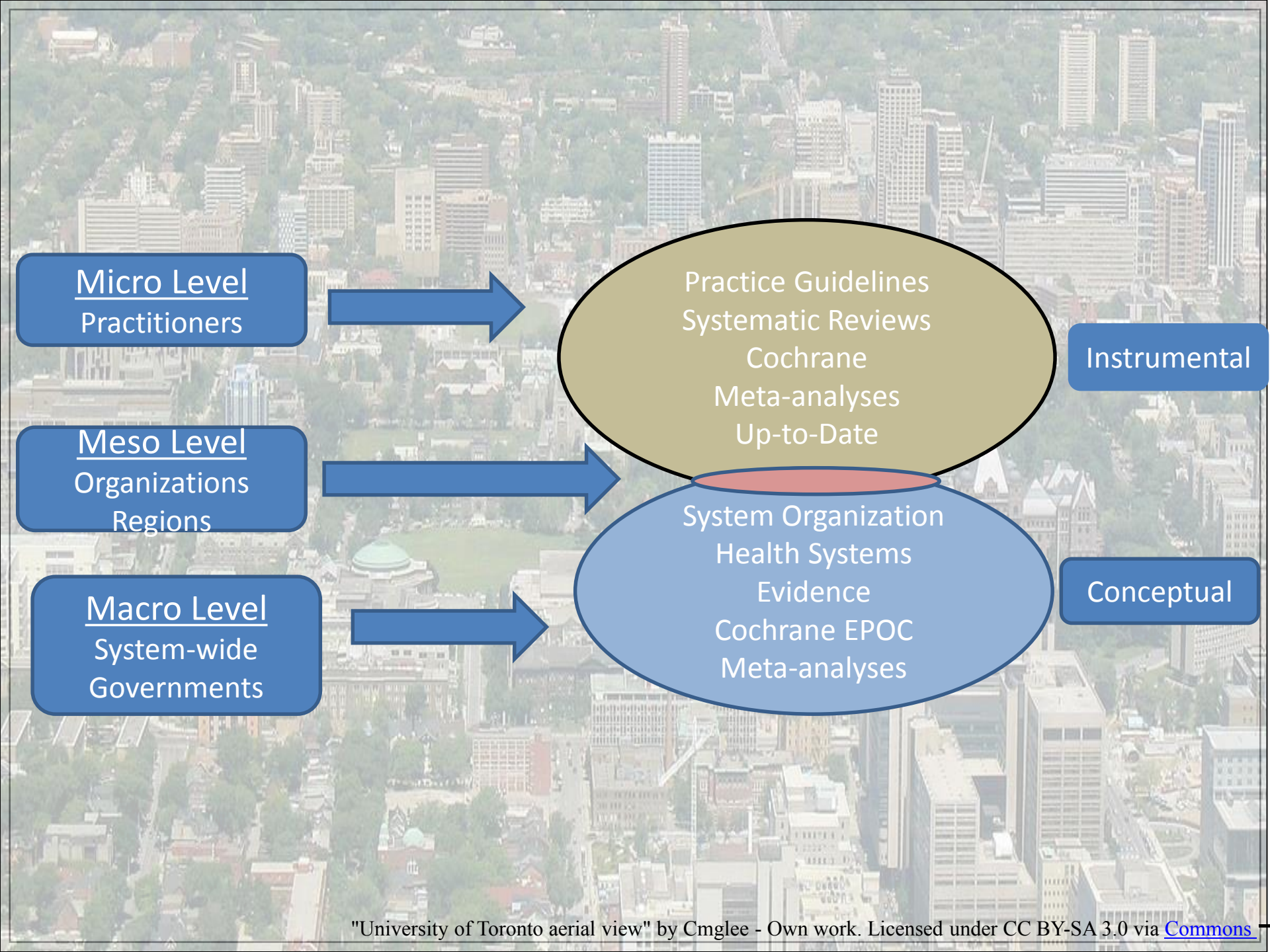
Cabinet level decision-making

Convention and precedent dictate when Cabinet decisions are required. Cabinet makes decisions about the following:

Decision Type	Description
Policy	• Program creation, expansion and elimination • New or revised government policy or position • Significant communication or consultation requirements
Statutory	• Legislation • Regulations • Orders in Council (including appointment OICs)
Finance and Resource	• Review items approved by Treasury Board/Management Board of Cabinet

Overview of the government decision-making process





Top 20 things scientists need to know about policy-making

Chris Tyler

There are some common misunderstanding among scientists about how governments make their policy decisions

http://www.theguardian.com/science/2013/dec/02/scientists-policy-governments-science

What do we know about influencing policymakers use of evidence?

Interactions / Relationships / Networks

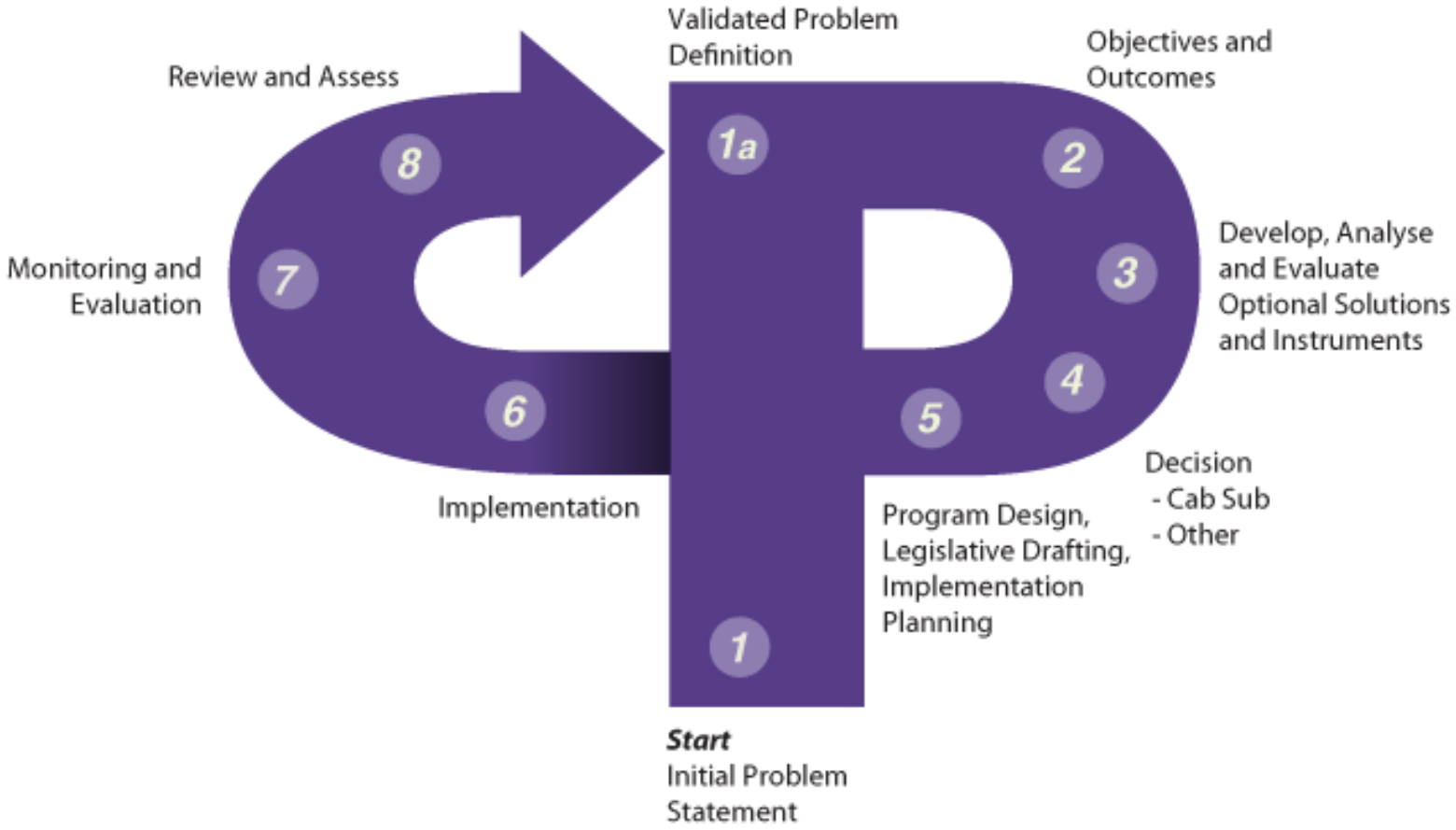
Timing / Timeliness of Evidence

Citation:
1. Nutley, Walters, Davies: Using Evidence. Chapter 8. 2007.
2. Innvaer, Vist, Trummald, Oxman (2002). *Journal of Health Services Research and Policy*
3. Lavis JN, Catallo C, editors (2014). Bridging the worlds of research and policy in European health systems. Copenhagen, Denmark: WHO Regional Office for Europe.

How can health systems support the use of evidence?

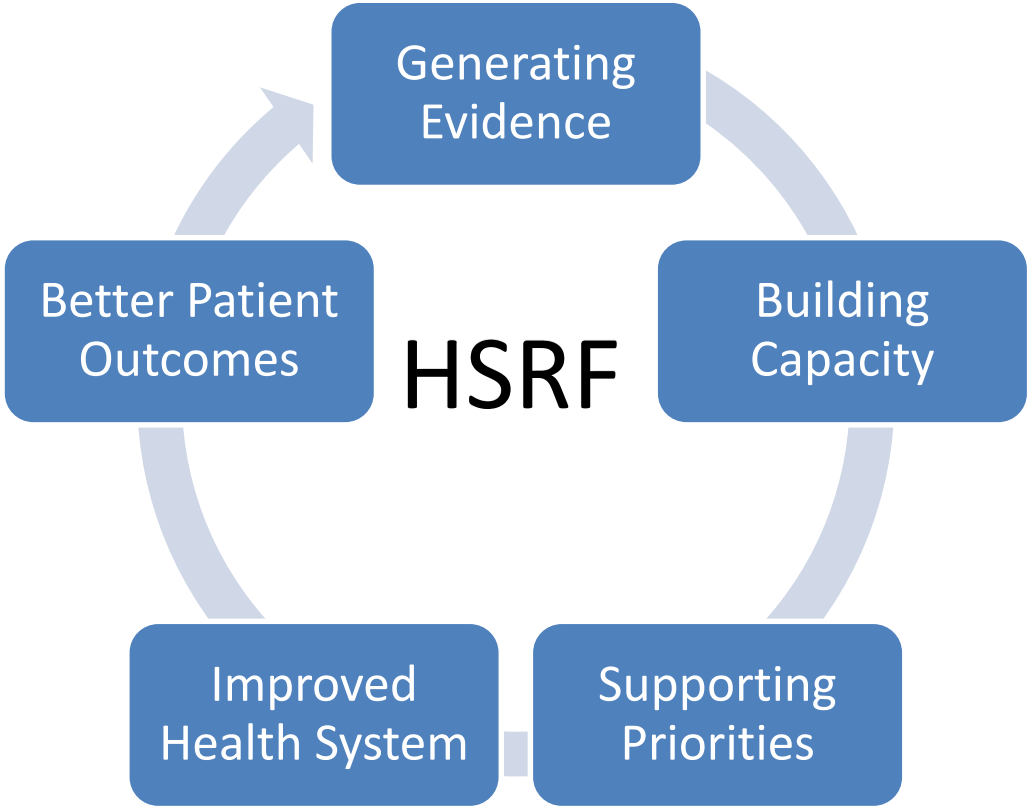
The Policy Roadmap

Research informs various stages of the policy cycle



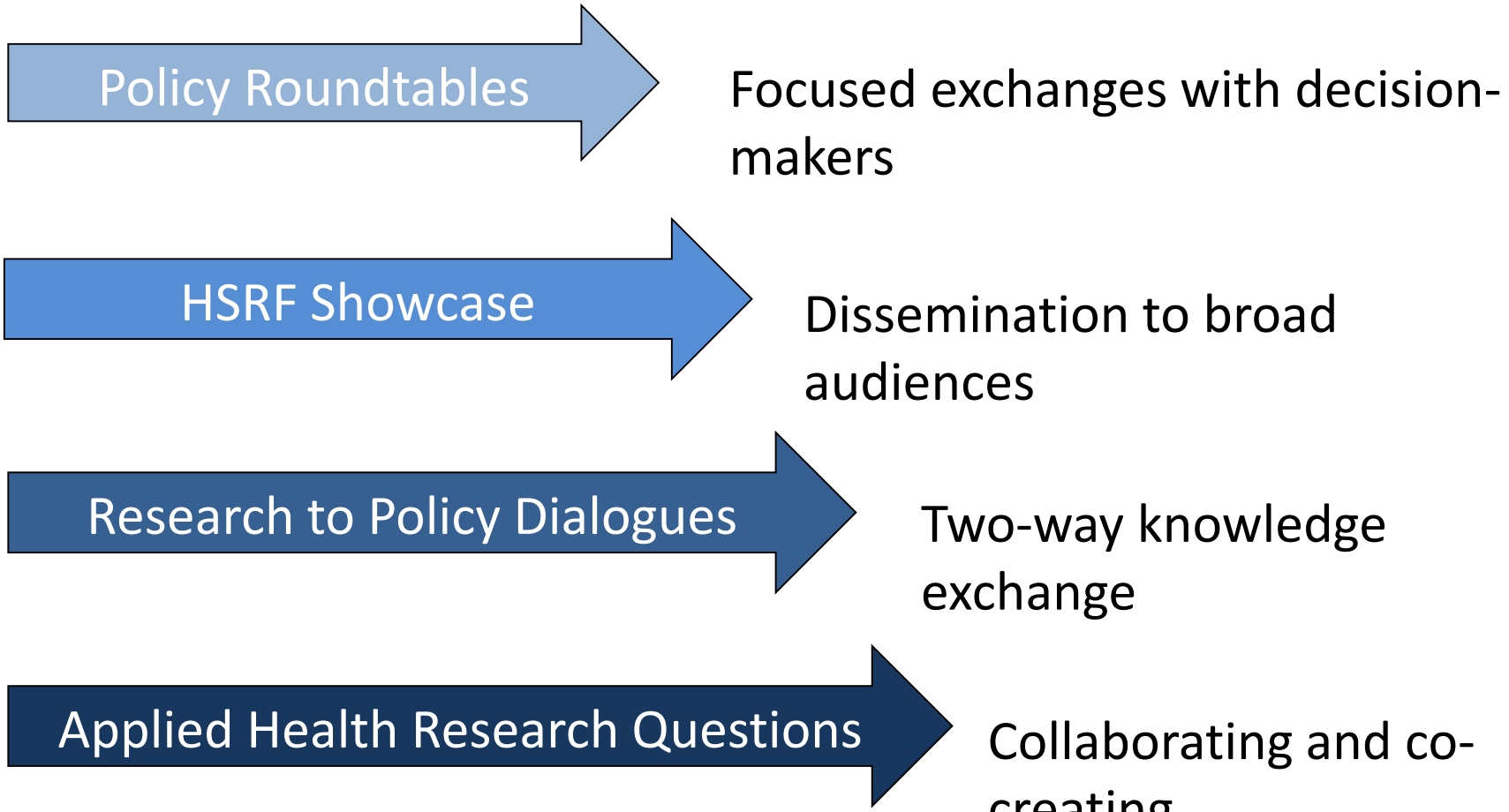
The Health System Research Fund (HSRF)

The Ministry of Health and Long-Term Care's Health System Research Fund (HSRF) generates policy-relevant evidence that informs policy development and supports health system transformation.



The HSRF aims to close the “knowledge to action” gap

Close ties to health researchers enables decision-makers to access key expertise to advise on policy development



Supporting Policy-Relevant Evidence in Ontario

- Rapid literature reviews (~800 so far)
- Economic analysis/modelling
- This capacity enables the ministry to better understand the existing evidence base, budgetary and downstream impact of new policies and initiatives.

- Examples of analysis include:
  - The expansion of pharmacist scope of practice to provide flu vaccines
  - The establishment two provincial Birth Centres
  - Working with the Better Outcomes Registry and Network (BORN) to develop a standardized list of economic evaluation indicators
  - Development of detailed performance measurement and evaluation frameworks for initiatives and programs

Demonstrating how research evidence is used to inform policy:
A Case Study Approach

Case Study: Multi-specialty physician networks in Ontario

Multispecialty physician networks in Ontario

Therese A Stukel, Richard H Glazier, Susan E Schultz, Jun Guan, Brandon M Zagorski, Peter Gozdyra, David A Henry

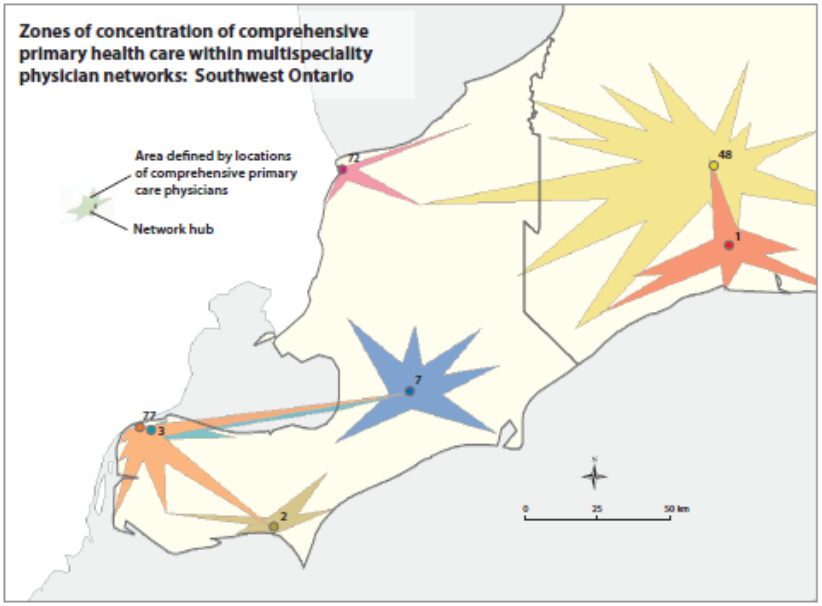
ABSTRACT

Background: Large multispecialty physician group practices, with a central role for primary care practitioners, have been shown to achieve high-quality, low-cost care for patients with chronic disease. We assessed the extent to which informal multispecialty physician networks in Ontario could be identified by using health administrative data to exploit natural linkages among patients, physicians, and hospitals based on existing patient flow.

Methods: We linked each Ontario resident to his or her usual provider of primary care over the p year 2008/2009 to fiscal year 2010/2011. We linked each specialist to the hospital where he or sh most inpatient services. We linked each primary care physician to the hospital where most of his o patients were admitted for non-maternal medical care. Each resident was then linked to the same her usual provider of primary care. We computed "loyalty" as the proportion of care to network re by physicians and hospitals within their network. Smaller clusters were aggregated to create netv minimum population size, distance, and loyalty. Networks were not constrained geographically.

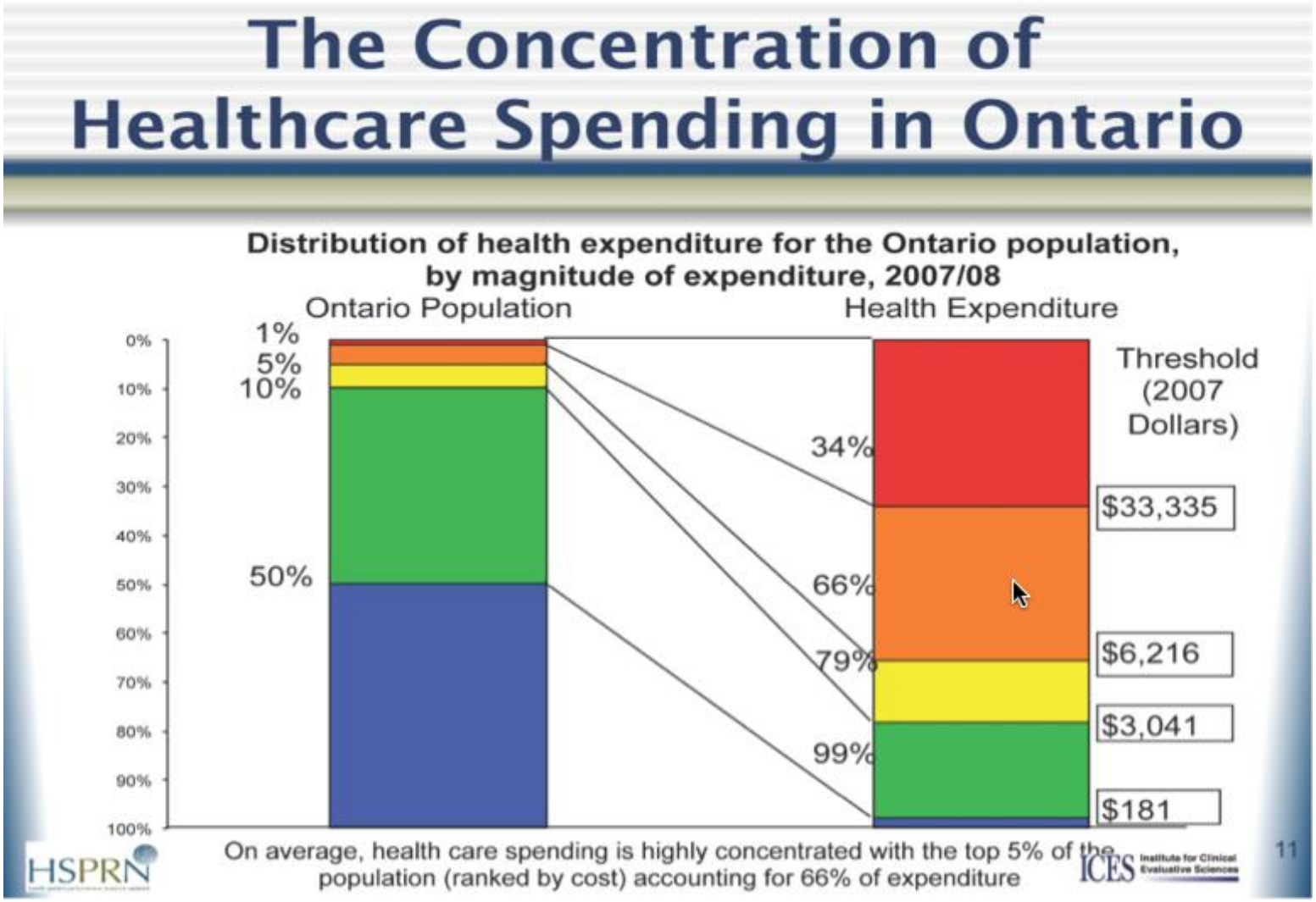
Results: We identified 78 multispecialty physician networks, comprising 12 410 primary care pl specialists, and 175 acute care hospitals serving a total of 12 917 178 people. Median network size dents, 125 primary care physicians, and 143 specialists. Virtually all eligible residents were linke vider of primary care and to a network. Most specialists (93.5%) and primary care physicians (98 to a hospital. Median network physician loyalty was 68.4% for all physician visits and 81.1% visits. Median non-maternal admission loyalty was 67.4%. Urban networks had lower loyalties a contained but had more health care resources.

Interpretation: We demonstrated the feasibility of identifying informal multispecialty physician tario on the basis of patterns of health care–seeking behaviour. Networks were reasonably self-c individual residents received most of their care from providers within their respective networks. tion of networks could foster accountability for efficient, integrated care through care managemer ity improvement, the ideas behind "accountable care organizations."



http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3863751/pdf/OpenMed-07-e40.pdf

Case study: Community Health Links



Case study : Community Health Links

Collaborative model of coordinated care which ensures greater access to existing health care services and minimizes waste in the system.

Case study: Treatment Approaches for Multimorbidity

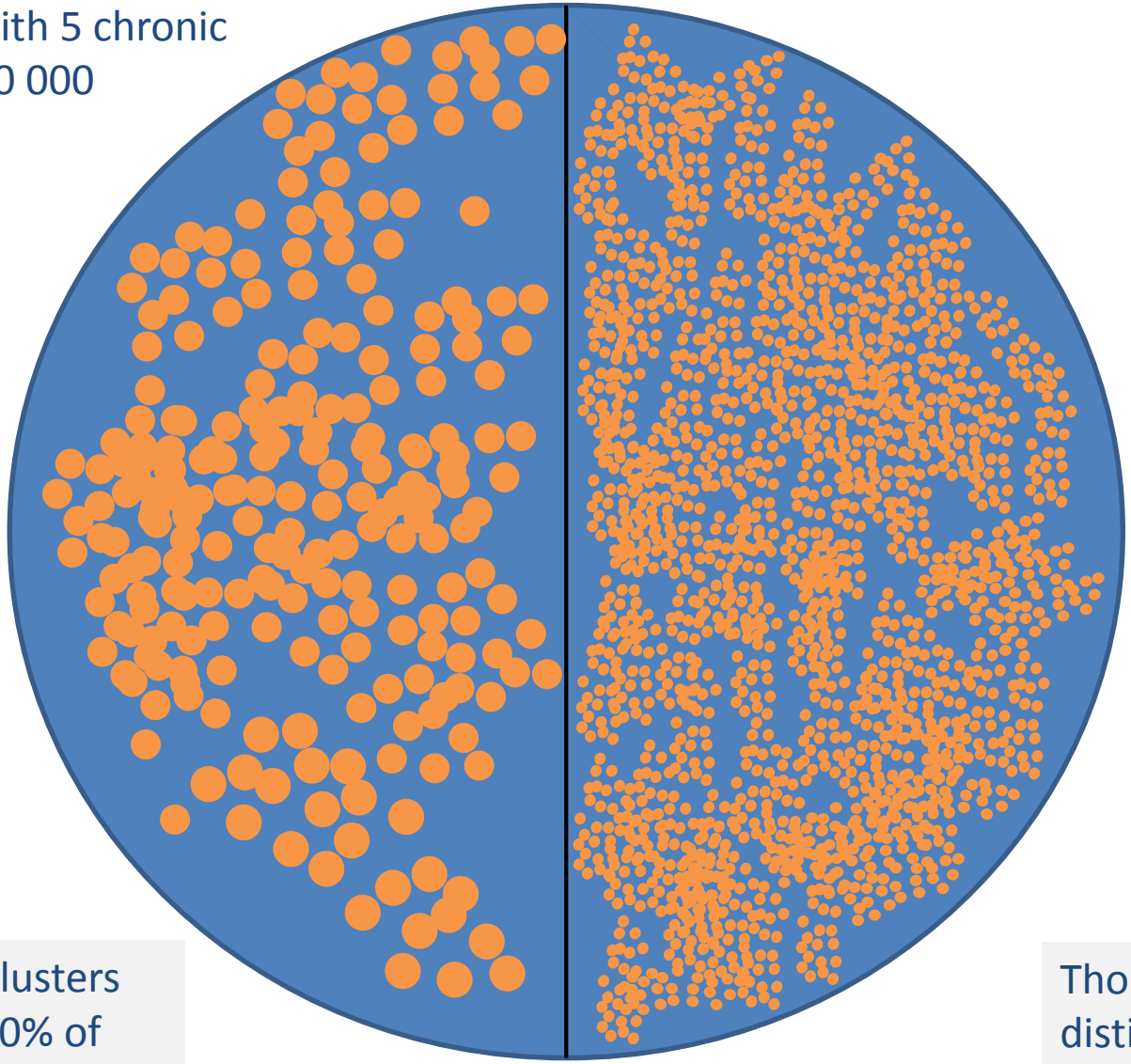
Case study: Treatment Approaches for Multimorbidity

There are no dominant chronic diseases in populations with multimorbidity in Ontario.

Cohort (n)	Top conditions or clusters	Proportion of cohort in top 5 clusters
1 condition (3 464 459)	Asthma (29.2%); Arthritis (24.2%); Hypertension (16.7%); Depression (14.7%); Cancer (6.2%)	91.0%
2 conditions (1 603 837)	Hypertension & Arthritis (17.5%); Depression & Arthritis (10.0%); Diabetes & Hypertension (9.0%); Asthma & Arthritis (8.8%); Asthma & Depression (6.6%)	52.0%
5 conditions (348 129)	Asthma & Depression & Diabetes & Hypertension & Arthritis (1.4%); Cancer & Coronary S & Diabetes & Hypertension & Arthritis (1.3%); Coronary S & Depression & Diabetes & Hypertension & Arthritis (1.2%); CHF & Coronary S & Diabetes & Hypertension & Arthritis (1.1%); Asthma & Coronary S & Diabetes & Hypertension & Arthritis (1.0%)	6.0%

The complexity of the morbidity patterns increases rapidly when looking at individuals with multiple conditions.

Individuals with 5 chronic diseases ~350 000 Ontarians



243 distinct clusters account for 50% of the population

Thousands more distinct clusters account for the rest.

Used with permission. Adapted from Health System Performance Network – 2013 - http://www.hsprn.ca/activities/conf_2013_11_22.html

- Context and “confounders” lie at the very heart of the diffusion, dissemination, and implementation of complex innovations. They are not extraneous to the object of study; they are an integral part of it.

Trisha Greenhlagh

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2690184/_

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MEASURING HEALTH RESEARCH FUNDING IMPACT IN ONTARIO
The Health System Research Fund (HSRF) Impact Assessment Framework

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Ontario Ministry of Health and Long-Term Care

19 January 2016

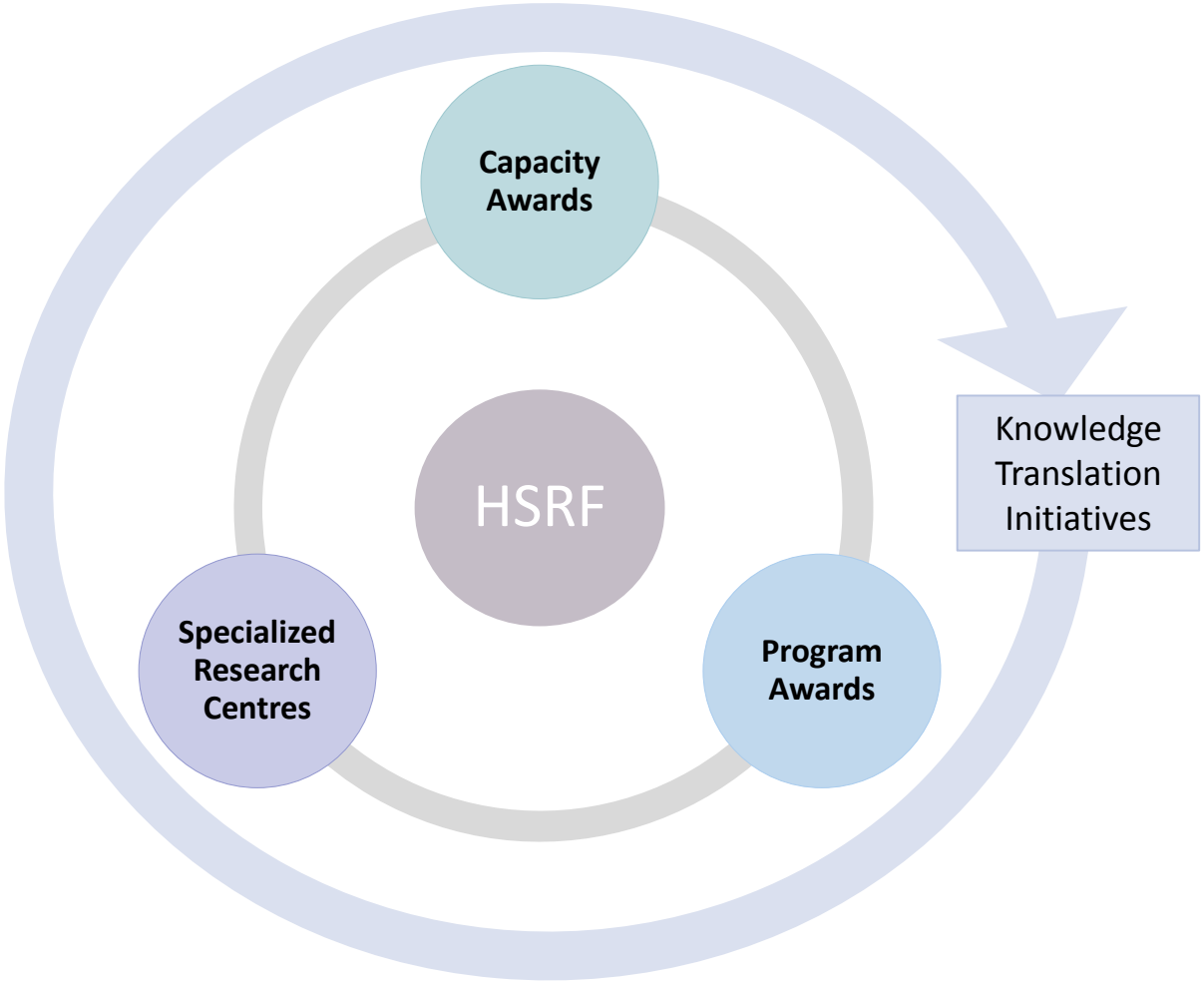
ONTARIO'S HEALTH SYSTEM RESEARCH FUND

The Ontario Ministry of Health and Long-Term Care's (MOHLTC) Health System Research Fund (HSRF) provides competitive funding to health system and population health research to:

- Build research capacity in Ontario;
- Strengthen the uptake and use of evidence into policy and decision-making;
- Promote research that supports and informs Ontario's Action Plan for Health Care, *Patients First*, including:
  - Faster access to quality health services;
  - A caring and integrated experience for patients;
  - Support for patients to make the right decisions about their health; and,
  - Sustainability of our universal health care for generations to come.

ONTARIO'S HEALTH SYSTEM RESEARCH FUND (Cont'd.)

The HSRF supports research and knowledge translation and exchange activities to address important and complex health issues in Ontario. The HSRF is designed to offer a range of opportunities to researchers and teams across the province. Three main streams of support form the foundation of the fund.



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CHALLENGE

Increasingly, it is becoming important to demonstrate the impact of research investments both in Ontario and across provincial jurisdictions. However, it remains challenging to measure outcomes in a research and Knowledge Translation and Exchange (KTE) context. Here are some of the reasons:

- Heterogeneity of evaluation methodologies, data collection techniques and performance measures used.

- Difficulty attributing causality between research/KTE outputs and impacts.

- Delayed impact on policy due to externalities.

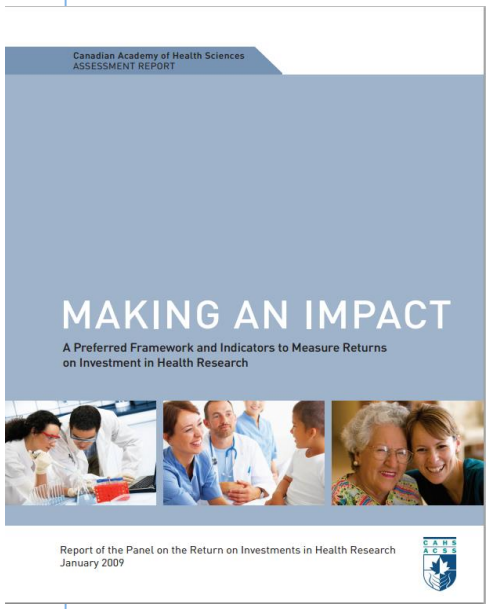
Goals:

1. To document the development of a conceptual framework in measuring different domains of research impact; and,

2. To demonstrate the impact of research projects funded by the HSRF on health policy and practice.

Methods:

- A mixed methods design was used to evaluate the impact of HSRF investments.
- Two performance measurement tools were developed to capture outcomes from the funded recipient and knowledge user perspective.
    - Both tools are survey questionnaires administered annually.
- Two reviewers independently coded qualitative data using Nvivo.
- Quantitative data were analyzed using descriptive analyses.
- The Canadian Academy of Health Sciences (2009) framework provided the foundation for both quantitative and qualitative analyses. Additional frameworks were used to guide qualitative analyses.



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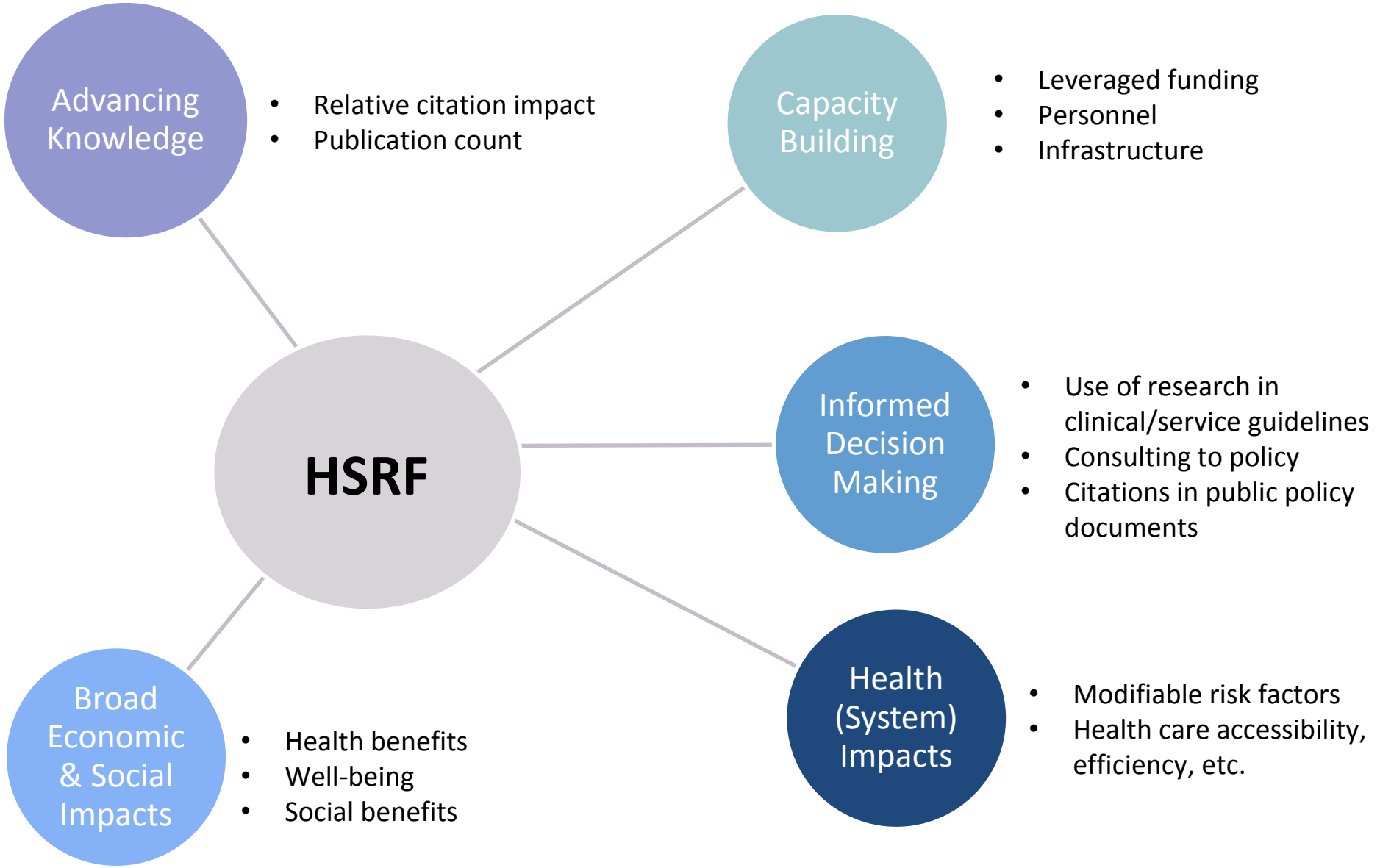
CANADIAN ACADEMY OF HEALTH SCIENCES (CAHS) FRAMEWORK



*Canadian Academy of Health Sciences (2009). *Making an impact: A preferred framework and indicators to measure returns on investment in health research.* Report of the Panel on the Return on Investments in Health Research.

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DEVELOPING THE HSRF IMPACT ASSESSMENT FRAMEWORK

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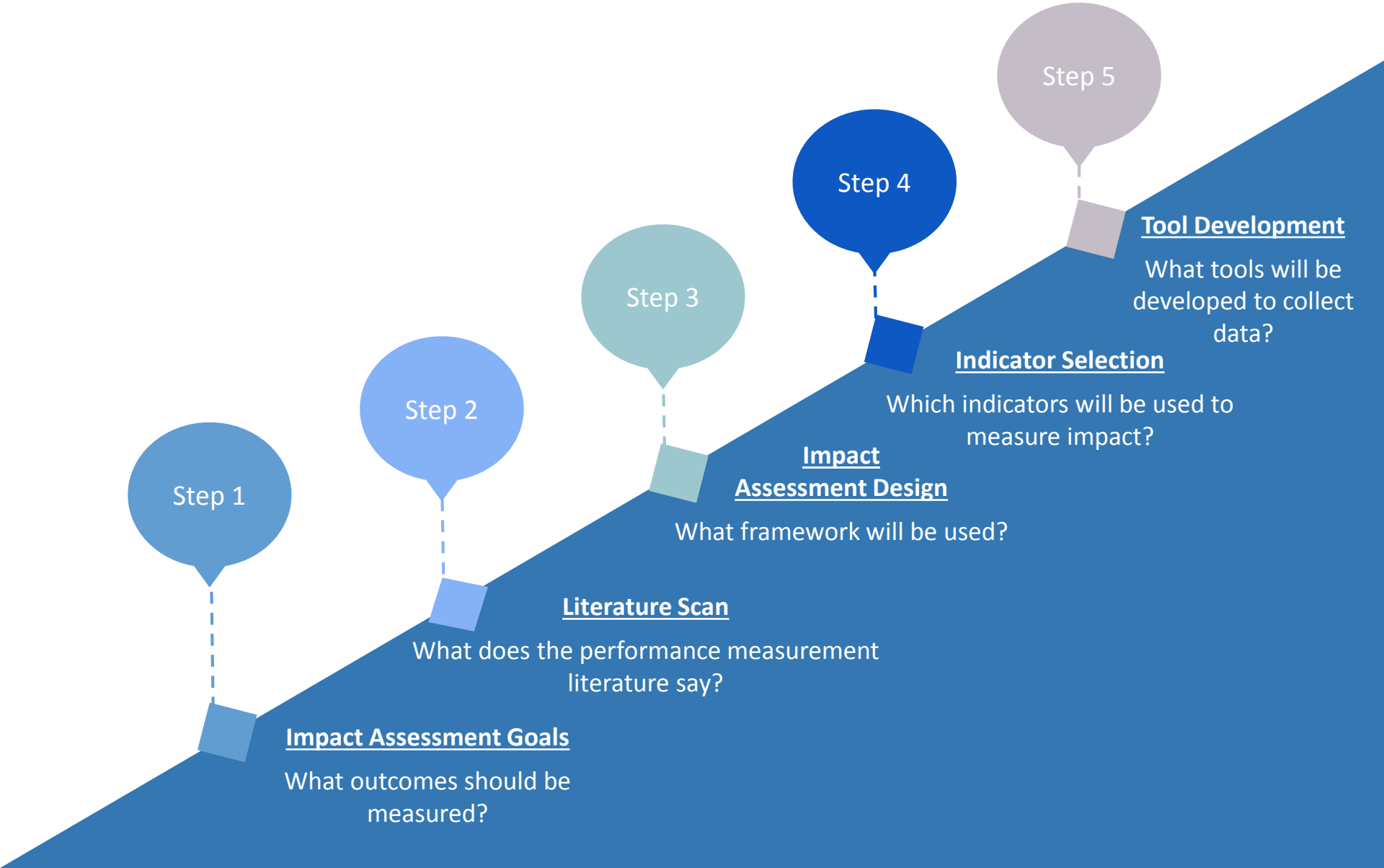
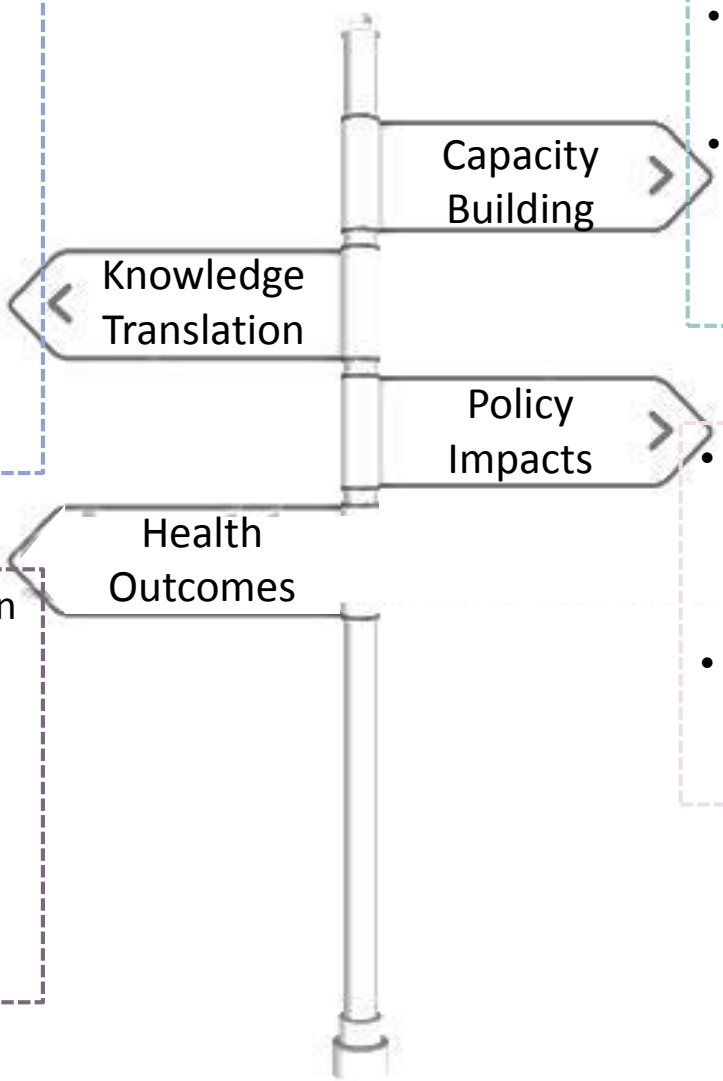


DEVELOPING PERFORMANCE MEASUREMENT TOOLS

Productivity/ Impact Questionnaire	PERSPECTIVE: FUNDED RECIPIENT • Four-part questionnaire administered annually to HSRF recipients (n=22 in 2013/14) • Grounded in the CAHS Framework (2009) • Evaluates research impact on policy & Ontarian's health outcomes • Tracks progress towards HSRF target outcomes • Includes a qualitative self-reporting section used as the basis for multiple analyses • Includes quantitative and qualitative indicators
Knowledge User Survey	PERSPECTIVE: KNOWLEDGE USER • Three-part electronic survey administered annually to knowledge users (n=21 in 2013/14) • Grounded in the knowledge translation & implementation science literature • Evaluates research impact on knowledge users' work • Aims to improve knowledge users' experience in the research/KTE process • Includes quantitative and qualitative indicators

Sample Indicators

- **Citations**: Total # of citations in public policy, peer-reviewed journals, advocacy/consumer publications, and traditional media
- **Knowledge user engagement**: Degree of knowledge user involvement



- **Leveraged funding**: total $CAD leveraged/fiscal year
- **Human resources**: # of trainees who completed primary graduate/post-doctoral work

- **Research uptake**: proportion of reported impacts per type of policy use
- **Collaborations**: Degree of impact on knowledge users' work

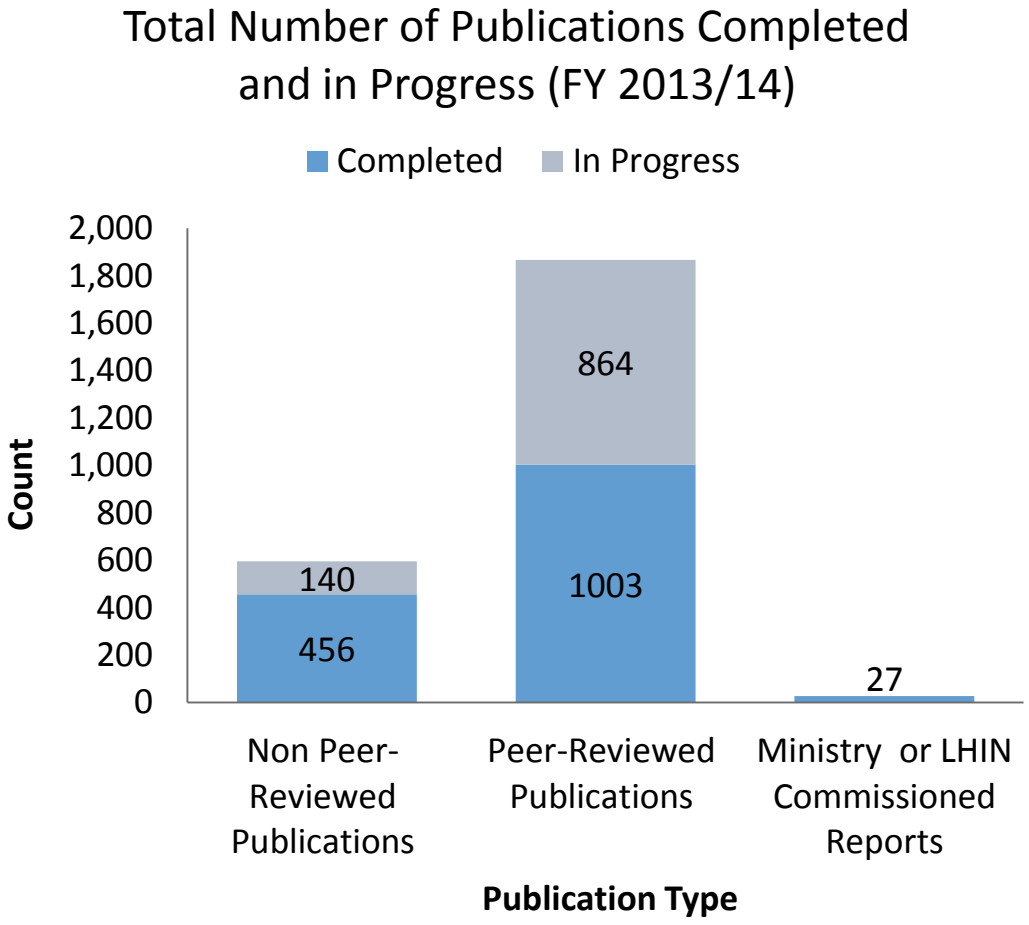
System-level impacts: Proportion of reported impacts per system-level variable

Population-level impacts: Proportion of reported impacts per health and socio-economic variable

Preliminary Findings

In 2013/14 HSRF-funded researchers were cited over **5000** times. Citation types ranged from peer-reviewed journals to media releases.

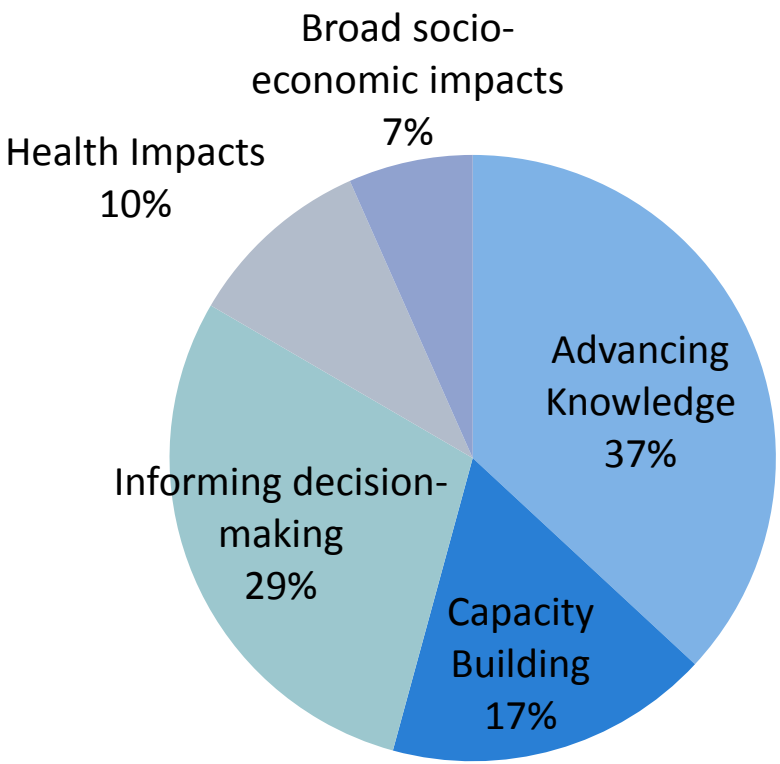
Citation Type	Count
Public policy documents	29
Peer-reviewed journals	4,992
Advocacy/consumer group publications	11
Traditional media	224
Total	**5,256**



In 2013/14, HSRF-funded researchers completed a total of **1486** publications; **1004** publications are currently under development.

In total, 271 self-reported impacts were coded across HSRF recipients and categorized based on the CAHS domains.

Self-Reported Impacts Across CAHS Domains* (FY 2013-14)



Impacts within each CAHS domain were then further categorized into sub-categories, within each CAHS domain.

*Canadian Academy of Health Sciences (2009). *Making an impact: A preferred framework and indicators to measure returns on investment in health research.* Report of the Panel on the Return on Investments in Health Research.

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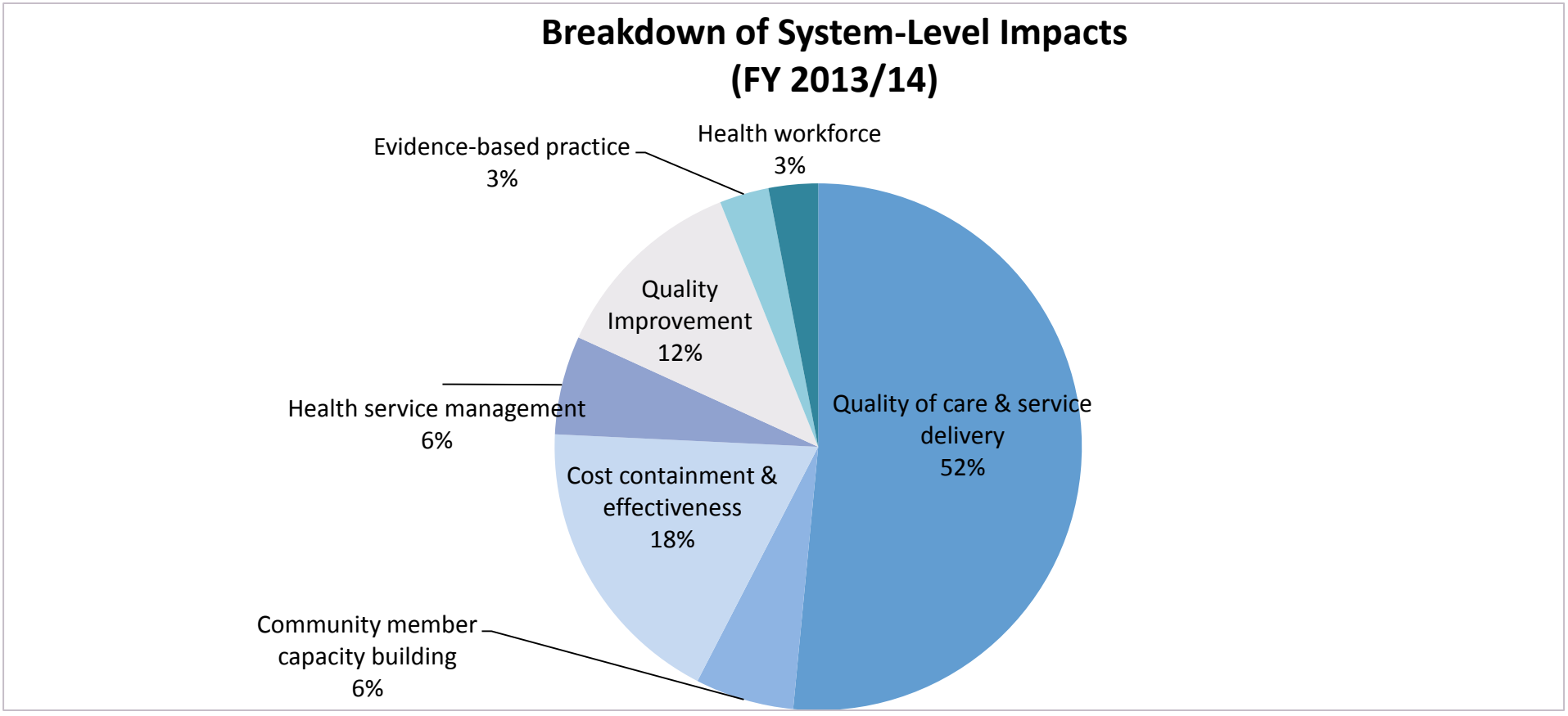
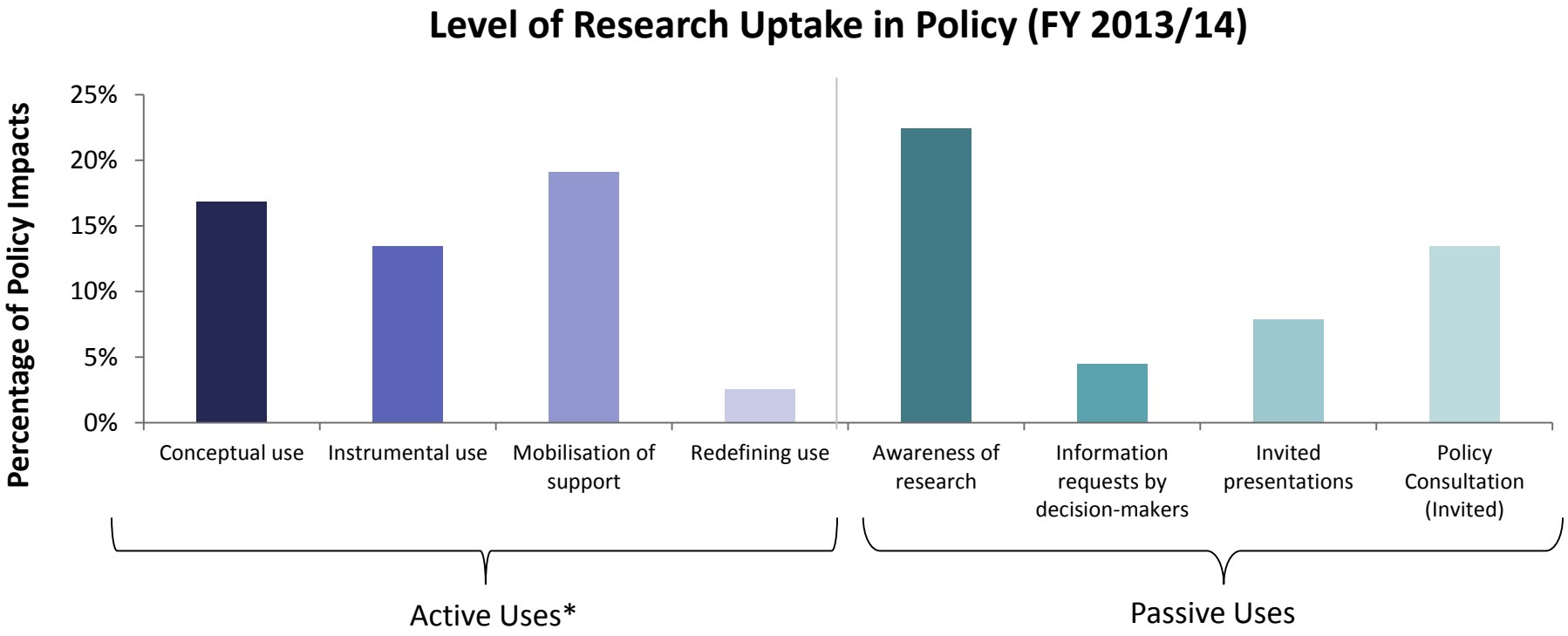
In total, 52 self-reported health impacts were coded and broken down into system-level vs. population-level health impacts. The graph below represents the percentage of ***system-level*** impacts, coded by sub-category.



*Based on Kuruvilla, S., Mays, N., Pleasant, A., and Walt, G. (2006). Describing the impact of health research: a Research Impact Framework. *BMC Health Services Research, 6*(134), 1-18 and Buykx, P. et al. (2012). 'Making evidence count': A framework to monitor the impact of health services research, *Aust. J. Rural Research, 20*. 51-58.

Data Source: Productivity/Impact Questionnaire



In total, 89 self-reported policy impacts were recorded; **52%** of research/KTE outputs were **actively used to inform policy**.

Research influences policy both through active and passive routes. The former involves the active use or application of research/KTE outputs in policy.

Passive use of research outputs might result in awareness of research results but does not necessarily imply research uptake into policy.

*Based on Kuruvilla, S., Mays, N., Pleasant, A., and Walt, G. (2006). Describing the impact of health research: a Research Impact Framework. *BMC Health Services Research, 6*(134), 1-18.

Data Source: Productivity/Impact Questionnaire

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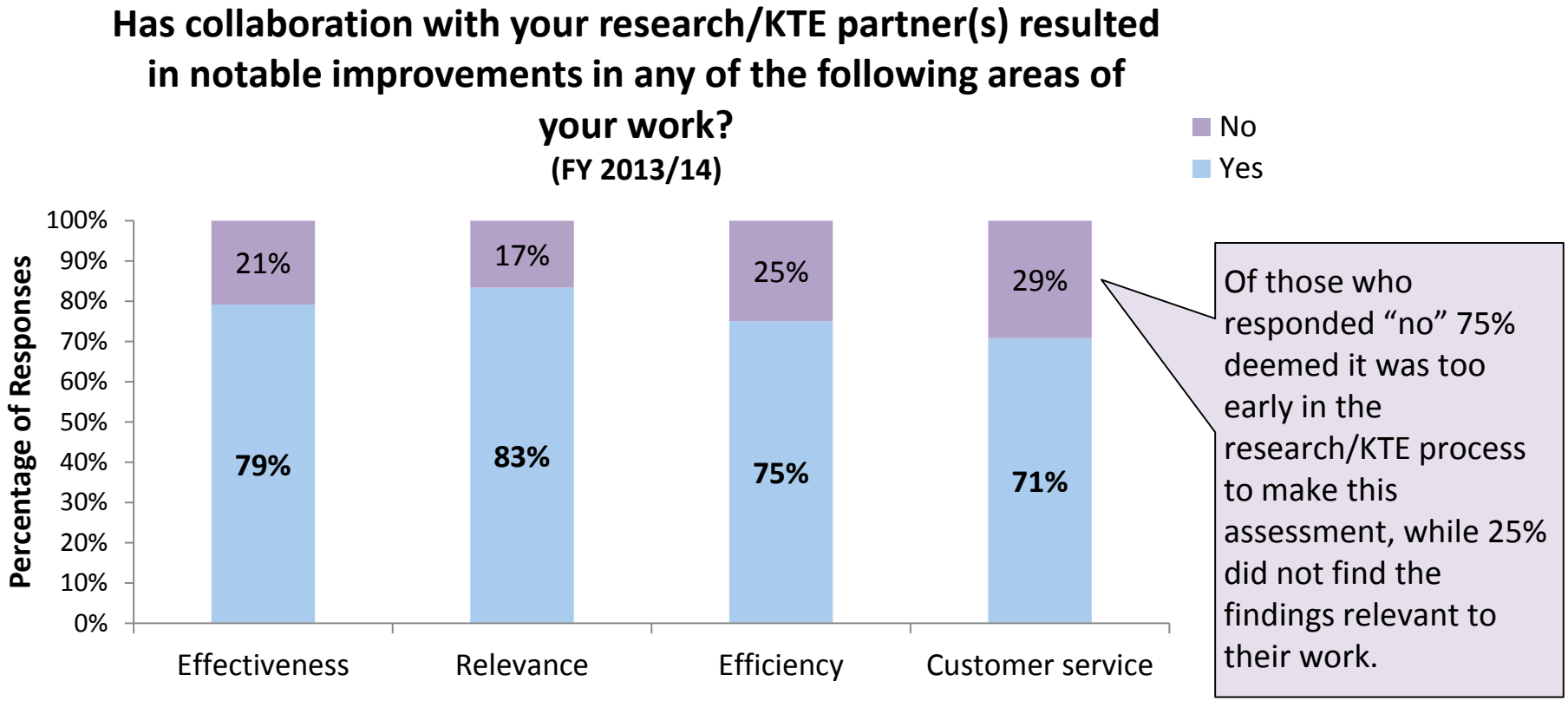

HSRF projects positively impacted knowledge users' work, with 77% indicating improvements in effectiveness, relevance, efficiency and/or customer service.

Data Source: Knowledge User Survey

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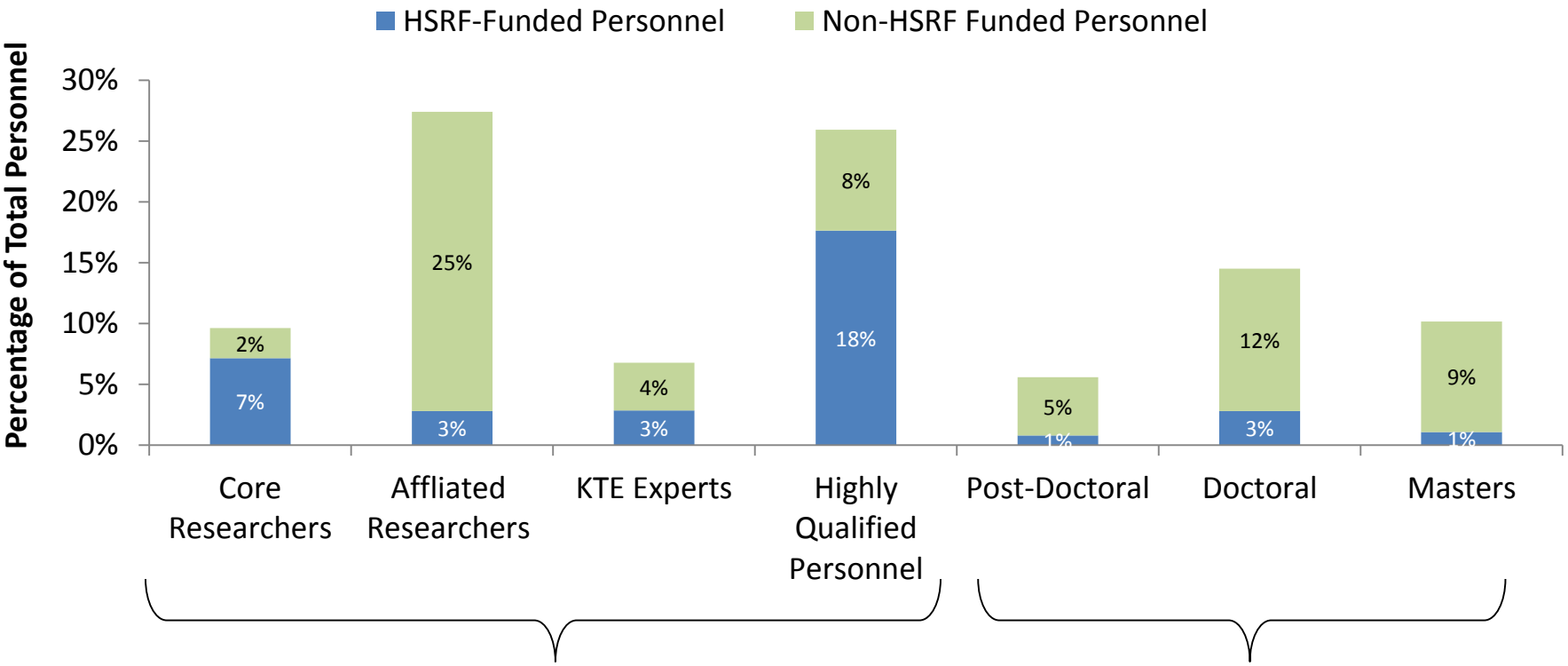
Breakdown of HSRF- and non HSRF-Funded Personnel (FY 2013/14)



The HSRF funds the greatest proportion of Highly Qualified Personnel, followed by Core Researchers. Employing a larger number of Highly Qualified Personnel is a cost-effective way to increase research capacity.

Overall trainees make up 31% of all personnel associated with HSRF funded projects.

Data Source: Productivity/Impact Questionnaire

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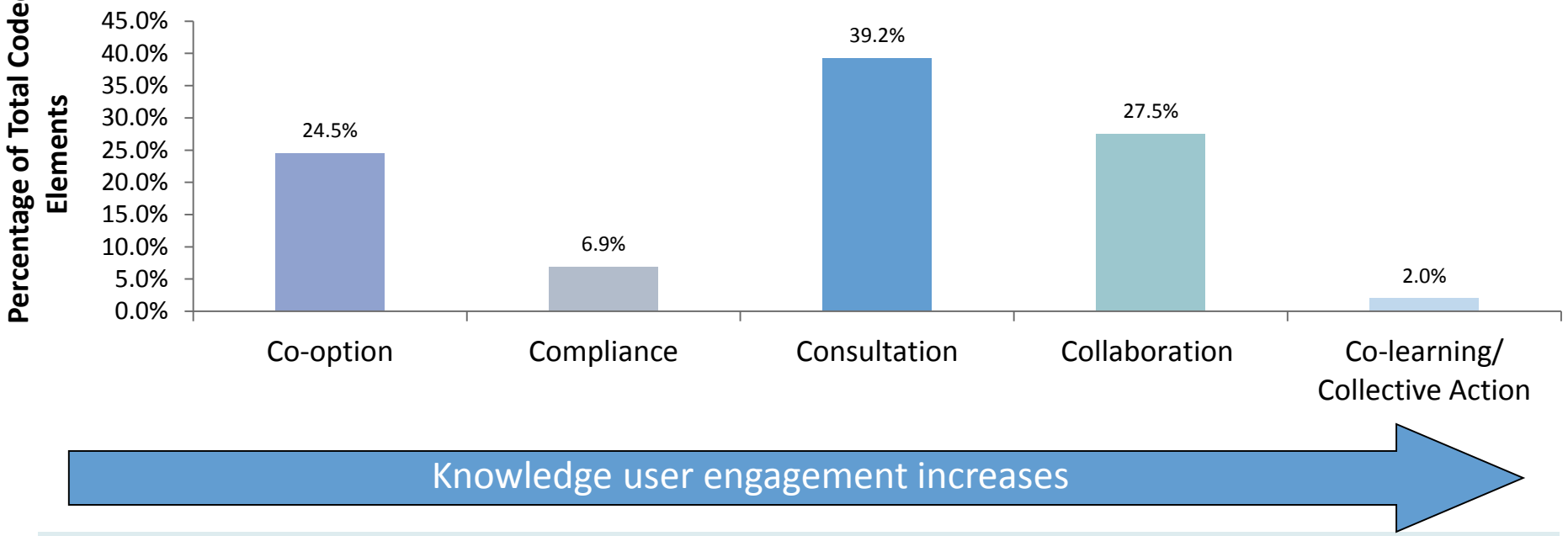
Knowledge User Engagement Strategies* (FY 2013/14)



The most common forms of Knowledge User engagement in research are *consultation*, *co-option* and *collaboration*:

- In *co-option*, **Knowledge Users are identified** but not engaged in a meaningful way (i.e. they do not have any control over the research process).
- In *consultation*, **Knowledge Users' opinions are asked** but there is no commitment from the research team to adopt these recommendations.
- In *collaboration*, researchers **partner with Knowledge Users** in an active and ongoing manner over the course of the project, and control is shared.

*Based on Truman, C. & Raine, P. (2001). Involving users in evaluation: the social relations of user participation in health research. *Critical Public Health, 11*(3), 215-29 and Szmukler, G., Staley, K. & Kabir, T. (2011). Service user involvement in research. *Asia-Pacific Psychiatry, 3*, 180-6.

Data Source: Productivity/Impact Questionnaire

SUMMARY & LIMITATIONS

The MOHLTC Impact Assessment Framework provides a systematic means of capturing how research/KTE outputs are used to inform health care policy and practice.

Evaluating impacts from the funded recipients' and knowledge users' perspective helps understand the HSRF's emerging impact on the health of Ontarians and Ontario's health care system.

However, a number of limitations remain, including:

- Difficulty establishing causality between HSRF-funded research/KTE outputs and reported impacts;
- Data collection was limited by the information reported by HSRF-funded recipients & knowledge users;
- Limited number of empirically-based tools to measure research impact on policy and health system outcomes;
- Limited ability to carry out time series analyses due to inconsistent measures in place prior to/following the creation of the HSRF; and,
- Manual data extraction and entry, possibly resulting in omissions or errors.

ACKNOWLEDGEMENTS

Ontario Ministry of Health and Long-Term Care

- **Dr. Shannon Fenton**, Manager (*previously*)
- **Christine Cobbler**, Policy Assistant *(on leave)*
- **Alexandra Clemmensen**, Senior Research/Planning Advisor *(on leave)*
- **John Ward**, Research/Planning Analyst *(previously)*

Other

- **Dr. Vansanthi Srinivasan**, Founding Executive Director, Ontario Strategy for Patient-Oriented Research (SPOR) SUPPORT Unit
- **Dr. Alison Paprica**, Director, Strategic Partnerships, Institute for Clinical Evaluative Sciences (ICES)

We would also like to thank all HSRF recipients and knowledge users who completed the Productivity/Impact Questionnaire and Knowledge User Survey.

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King, G., et al. (2009). A measure of community members' perceptions of the impacts of research partnerships in health and social services.

Kuruvilla, S., Mays, N., Pleasant, A., and Walt, G. (2006). Describing the impact of health research: a Research Impact Framework. *BMC Health Services Research, 6*(134), 1-18.

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Szmukler, G., Staley, K. & Kabir, T. (2011). Service user involvement in research. *Asia-Pacific Psychiatry, 3*, 180-6.

Truman, C. & Raine, P. (2001). Involving users in evaluation: the social relations of user participation in health research. *Critical Public Health, 11*(3), 215-29.

APPENDIX A: STRATEGIC HSRF PRIORITY AREAS

Strategic Priority Research Areas	Cross-Cutting Components
• Community- and Home-Based Care • Health Promotion • Health System Performance and Sustainability • Mental Health and Addictions • Quality Improvement and Safety • Long-Term Care	• Equity • Aboriginal Health • Patient-Centred Care • Implementation Science

APPENDIX B: TYPES OF RESEARCH USE IN POLICY

Types of Research Use in Policy*	Definition
Conceptual use	Research concepts and ideas influence and are reflected in policy discourse and debates.
Instrumental use	Research and evaluation findings directly influence or drive policy.
Mobilisation of support	Research findings provide persuasive evidence to support ongoing/proposed policies or raise support for new policies.
Redefining use	Research results in widespread changes in accepted beliefs and practices.

*Kuruvilla, S., Mays, N., Pleasant, A., and Walt, G. (2006). Describing the impact of health research: a Research Impact Framework. *BMC Health Services Research, 6*(134), 1-18.

APPENDIX C: KNOWLEDGE USER ENGAGEMENT STRATEGIES

Mode of Participation	Definition
Co-option*	Representatives are chosen but no real action
Compliance*	Tasks are assigned, with incentives; researchers decide the agenda and direct the process
Consultation***	Users' opinions are asked, researchers analyse and decide on a course of action. There is no undertaking by the research team to adopt the service user recommendations but the project may be significantly influenced by them.
Cooperation*	Users work together with researchers to determine priorities; responsibility remains with researchers for directing the process (i.e. power sharing is minimal)
Collaboration**	Active, ongoing partnership with service users over the course of the project. There is a commitment from the research team that control over the project will be shared to a greater or lesser extent
Co-learning*	Users and researchers share their knowledge to create new understanding and work together to form action plans with researcher facilitation
Collective Action*/User Control**	Users set their own agenda and mobilize to carry it out, in the absence of outside researchers or facilitators

*Truman, C. & Raine, P. (2001). Involving users in evaluation: the social relations of user participation in health research. *Critical Public Health, 11*(3), 215-29.
**Szmukler, G., Staley, K. & Kabir, T. (2011). Service user involvement in research. *Asia-Pacific Psychiatry, 3*, 180-6.
***Cited in both of the above resources.