

Building capacity to support evidence-informed public health: An innovative knowledge broker mentoring program

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Background

One approach to support evidence-informed decision making in public health is knowledge brokering. This sixteen month program, executed in two phases, provides mentorship to teams of public health professionals from five public health departments in Ontario.

Objective

To provide public health professionals with the knowledge, skills and tools to demonstrate proficiency as knowledge brokers to advance the uptake and use of research evidence in public health practice.

Methods

Phase 1 Assessing organizational needs: Senior management from five health departments participated in a facilitated 2.5 hour focus group, in which they assessed the organizational culture in their health unit for evidence-informed decision making and identified key aspects of the organization requiring change to support evidence-informed decision making. Senior management from each health department selected six front line staff to participate in the 16 month knowledge broker mentoring program.

Phase 2 Building individual capacity of 'internal' knowledge brokers: A 16-month program, consisting of face-to-face workshops at McMaster University (initial 5-day session, 3-day session at six months, 2-day session at 12 months), monthly webinars, and monthly phone and email support, has been implemented among the front line staff. The focus has been on the development of knowledge and capacity in dissemination and implementation theory and practice. Changes in evidence-informed decision making knowledge and skills were measured using the EIDM Assessment Questionnaire at pre-test and post-test. Preliminary data analysis (simple linear regression and one-way ANOVA) on total scores was planned to assess if demographic factors are associated with EIDM knowledge and skills.

Findings

Oct-Dec'14: Five focus groups, held with senior management from each participating health department, assessed staff/organizational aptitude in the following domains: acquiring research; assessing research quality; adapting research to local contexts; and, processes/culture valuing research use. Facilitated discussion identified areas of evidence-informed decision making strengths and areas for development, which were used to tailor the mentor training program.

Jan'15-Apr'16: Two senior knowledge brokers implemented the knowledge broker training program to 30 front line public health professionals through ten in-person training days, 10 webinar sessions, and monthly phone and email support. Participants developed skills in critically appraising a range of research designs common in public health research, using a variety of internationally accepted tools (e.g. AGREE II, AMSTAR); learned about and used numerous sources to efficiently identify public health evidence; and, have begun to provide support to their front line colleagues in supporting evidence-informed decision making in their organization. Regression analysis of pre-test EIDM Assessment Questionnaire scores showed no statistically significant relationship between the number of years worked in public health and mean test scores. Similarly, one-way ANOVA showed no significant difference between job title and performance on test scores.

Conclusion

Participating health departments have gained internal knowledge broker expertise to independently work through the evidence-informed decision making process and address ongoing high-priority practice-based questions, supporting organizational change, and transforming evidence use in public health decision making.

Educational Objectives: In this section, please be prepared to identify and provide a minimum of 2 educational objectives

1. Learn about the conception and implementation of an innovative 16 month two-phase knowledge broker mentoring program.
2. Understand the role of a knowledge broker in facilitating evidence-informed decision making.
3. Consider implications of knowledge broker training on the uptake and use of research evidence in public health practice.

Demonstrating the impact of knowledge exchange: comparing practices across the five Centres of Excellence in Public Health

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In 2008, five UKCRC Public Health Research Centres of Excellence (PHR CoE) were created to develop a coordinated approach to improving the UK public health research environment. The PHR CoE aim to build local and national research capacity in public health and to engage with policy and practice across the UK to increase the flow of evidence into practice.

The five CoE have developed their own models for achieving these aims, and practices between centres have not been compared in detail to date. All centres have tried to directly influence local and national policy makers as part of their knowledge exchange strategy.

This paper aims to compare knowledge exchange activities with policy makers between the PHR CoE in order to identify and share good practices. The post holders of various roles, created within each centre to facilitate this process, will collectively reflect on their strategies and experiences in knowledge exchange with policy makers, and the methods they have developed for capturing these activities. The paper will provide practical examples of different ways of working with policy makers, and discuss barriers and facilitators to engaging policy makers in their research.

Where possible shared learning will be developed, particular around ways of capturing knowledge exchange activities across the PHR CoE and the impact these activities have on our policy partners. Although there is a growing number of metrics and methods to capture impact (e.g. Altmetric and REF impact case studies), there is no single agreed standard and evidence is currently scattered across a wide range of databases in each centre. By reflecting on current models of practice and the information captured on these models within the centres, this paper will make recommendations for capturing knowledge exchange activities and their impact more effectively and identify opportunities for future collaborative research.

Evaluation of the impact of an organizational strategy for evidence-informed decision making

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Peel Public Health is one of Canada's largest public health departments with 630 staff serving 1.4 million residents. In 2009 we set a 10-year strategy for evidence-informed decision making (EIDM). It involved development of a rapid review process, extensive work force development, consistent funding, supportive infrastructure, and highly visible leadership.

We conducted a midpoint evaluation at year five to assess the use and impact of research in program decisions. The strategy was evaluated in five ways:

1. Survey of senior leaders at three points about the impact of research in their division.
2. Uptake of EIDM training by staff at all levels of the organization.
3. Assessment of the change in skills to find, appraise and apply research.
4. Case study at three points to assess the penetration of EIDM into the organization.
5. Assessment of the practice outcome from each of 40 rapid reviews.

This presentation will focus on our assessment of the changes which occurred as a result of a systematic application of research to a program decision. Decisions arising from rapid reviews included 5 to stop a program, 20 to change a program, 12 to start a new program and 9 to maintain the status quo. Because public health initiatives often take years to implement and see impact, we have also followed the subsequent results. Our midpoint evaluation demonstrated that creating a culture for research use can be achieved by an organization. It requires:

- strong and persistent senior leadership
- investment in necessary infrastructure and funding,
- intensive staff training and mentorship, and
- an intentional change management strategy.

Challenges include staff turnover, competing priorities, and organizational fatigue.