



National Collaborating Centre
for Determinants of Health

Centre de collaboration nationale
des déterminants de la santé

LEARNING TOGETHER: HOW AND WHAT WE LEARNED ABOUT EQUITY INTEGRATED POPULATION HEALTH STATUS REPORTING



This document summarizes the results of the developmental evaluation report and reflections from the final meeting of the Learning Circle of the National Collaborating Centre for Determinants of Health (NCCDH) Population Health Status Reporting Initiative in March 2013.

POPULATION HEALTH STATUS REPORTING INITIATIVE

In order to better understand population health status reporting, the National Collaborating Centre for Determinants of Health (NCCDH) implemented a Population Health Status Reporting Initiative. The NCCDH engaged research support from Public Health Ontario to search, review and synthesize evidence from the scholarly and grey literature and incorporate experiential evidence from key informants. The materials were presented to a "Learning Circle" of managers, directors,

researchers, epidemiologists, and medical officers of health who, through a series of discussions and presentations, reflected on how to improve population health status reporting to illuminate health inequities and support the development of effective health-equity policies. Capital Health (Halifax, Nova Scotia) functioned as a practice site in relation to the learning circle, applying suggestions and bringing forward questions, needs and reflection based on their experience. Each learning circle meeting addressed a new topic.

BACKGROUND

The purpose of the Population Health Status Reporting (PHSR) project was to help Canadian public health organizations and practitioners improve methods to produce population health status reports that better illuminate health inequities in order to support the development of effective health equity policies.

The initiative utilized a **learning circle** (LC) approach to incorporate diverse perspectives on this complex topic. Project participants met face-to-face and via teleconference to discuss topics related to population health status reporting. The project team prepared and presented materials, including literature reviews and stories from the field, to support each learning circle. A **developmental evaluation** process was integrated into the LC to enhance critical thinking and creativity.

These two collaborative learning approaches were essential due to the fact that the integration of health equity into PHSR is not well understood and a LC intervention had not been attempted previously. More background on population health status reporting, the LC approach and developmental evaluation can be found in other documents in the Learning Together Series.¹⁻³

Evaluation Methodology

As part of the developmental evaluation approach, an evaluator worked alongside the project team and LC members to ask questions and provide active feedback. In contrast to a traditional “objective” evaluation role, the evaluator had an active role in the implementation process and was asked to provide a “critical”, not a neutral, perspective.

The developmental evaluation process consisted of the following steps:

ACTIVITY	2011/12	2012/13		2013/14	
Orientation Meetings – teleconferences with the LC and advisory committee to introduce the developmental evaluation approach and process					
Baseline Interviews – interviews with LC members to learn about their backgrounds and personal learning goals for the initiative					
Introductory Learning Circle Meeting – face-to-face meeting with LC members to share results of the interviews, facilitate clarification of learning goals, and facilitate the development of a “theory of change” for population health status reporting					
Learning Circle Meetings – meetings to mainly observe the process, but also ask questions for clarification					
Mid-Project Evaluation – interviews with key LC members to provide an assessment of the learning needs and process to date					
Advisory Committee Meetings – teleconferences to provide feedback on the LC process					
LC Member Survey – online survey and interviews to focus on the outcomes of the LC process and what was learned about PHSR					
Learning Circle Wrap-Up – face-to-face meeting to share results from the online survey and interviews and get feedback					
Developmental Evaluation Report – report summarizing the process and findings					

EVALUATION FINDINGS

Key lessons were pulled from the developmental evaluation process to answer the three central evaluation questions.

1. How do learning circles work, what is needed to make them successful, and in what context are they most helpful?

Choosing participants

One of the first and most important elements was the choice of participants. The implementation team wanted a group that brought diverse perspectives – geographic, as well as academic, managerial and practice (e.g. economics, epidemiology, prevention and promotion). They also wanted to have the viewpoint of an organization that was in the process of developing a population health status report and working to integrate health equity issues, in this case Capital Health (Halifax, NS).

The LC members reported that they highly valued the range of perspectives, expertise, and personalities in the group. It was an atmosphere of “learning together” rather than “experts teaching learners.” Participants saw this as being very positive; everyone could contribute and learn through the experience.

“I initially felt nervous I wouldn’t have much to contribute. But then I realized that many others were in the same place and I got value from the sense of support and camaraderie in the group.”

LC participant

The number of participants in the LC seemed to work well.

With ten active members plus the facilitator, members felt they could participate fully. Members reported that the group could have been expanded, but probably not beyond 15 participants, in order to sustain the type of personal relationships the group had created.

Choosing a practice site

Capital Health was embarking on the preparation of its first population health status report, which made this organization in many ways an ideal “practical focus” for the LC. As such, the epidemiologist and Medical Health Officer were extensively involved in the LC. Much of their interest was in practical issues: choosing the focus for the report; starting from data

and systems that were available; building systems and capacity within the epidemiology unit; and demonstrating “proof of concept” for PHSR in Capital Health. Their project had defined timelines and a product that they needed to complete.

“We were looking for validation ... that PHSR matters, that it is of value, that we should be doing it, and that we were on the right track”

Capital Health

Implementing the learning circle

Participants reported that although the LC experience was new to them, they were well prepared by the implementation team. The information about the purpose, structure and level of commitment required was clear, so participants understood the scope of their commitment.

One important part of the experience for the participants was the initial face-to-face meeting. Most of the participants did not know each other prior to joining the LC. All of them felt that having the opportunity to spend two days together discussing the goals and vision for the LC helped them to develop personal relationships that they could then sustain virtually.

“Sometimes the best discussions were the unplanned ones that came from exploring people’s experiences with doing the work.”

LC participant

Participants felt the format for the sessions worked very well. They appreciated having the literature reviews on the topics, even when little information was available. The structure of the sessions, which included following an agenda and using discussion questions – worked well. The facilitation allowed for a mixture of structure and spontaneity in discussions. Many participants felt the most valuable part of discussions was when participants spoke about personal experiences in dealing with the issue being discussed. The stories from the field provided in the meeting materials helped to elicit these stories. In a topic where there is no single “correct” way to approach an issue, it was extremely valuable for participants to know what decisions others made and why they made them.

Although there was a conscious effort by the implementation team to keep the time commitment for the LC to a manageable level (limiting time to a 90-minute discussion approximately

every two months), some felt the infrequent nature of the discussions made it more challenging for participants to engage in the process each time. A few suggested that an alternative strategy of meeting more frequently (e.g. monthly) over a shorter period of time might have created better flow and continuity for the learning experience. However, it is not clear whether increasing the level of intensity might have prevented some participants from taking part.

Selecting topics

Participants felt the topics chosen for discussion were appropriate and important to the field of PHSR. As each of the topic areas was extremely broad, the challenge was in finding the balance of depth versus breadth in the discussions. There was a marked difference in interest and perspective among the LC members related to "technical" vs. "strategic" issues

of PHSR. The epidemiologists in the group tended to focus on the more technical side of some questions discussed (e.g. technical issues associated with choosing indicators and linking/analyzing certain types of data), while others focused more on the broader questions (e.g. working with decision makers and outside partners, and community engagement). LC members said the conversation was enriched by hearing from a variety of perspectives that may not normally come together as part of a PHSR discussion.

"One of the most useful parts was to see how people are using population health status reporting in the real world... Documenting the stories helped to make the conversation real."

LC participant

BUILDING CAPACITY TO DRIVE ACTION

In order to develop topics and key questions for discussion, the LC members identified nine areas where they felt the discussion could add value to understanding how PHSR can drive action on health equity and where to focus on building capacity. These areas included:

- **Evidence-based decision making:** With a focus on how to use PHSR as a tool to support more evidence-based decisions.
- **Partnership development:** As many of the determinants of health equity lie beyond the purview of health units or regional health authorities, the question of how to engage other partners in the process of PHSR was seen as especially important.
- **Choice of indicators:** This was identified as a critical issue. If PHSR is seen as a tool to support evidence-based decision making, then which indicators are most useful for this purpose? Which indicators can be operationalized now? How do we prepare for the use of new indicators?
- **Data collection:** Different jurisdictions have inherited very different collection systems and capacities, which have an enormous influence over where they are starting in the development of PHSR processes.
- **Data aggregation:** There is now increased capacity for the aggregation of data, and increased interest in aggregation at the local/neighbourhood level as a way of increasing engagement of partners, community members and decision makers.
- **Communication:** If the intent is to use PHSR data to influence decision making, then it needs to be communicated effectively.
- **Data accessibility:** There is a growing trend towards making data available to other partners and community members to allow them to conduct their own analyses. This has the potential to significantly change the type of relationship between public health and other partners around the generation and use of data in PHSR.
- **Building credibility and momentum:** In some jurisdictions PHSR is still a new idea and there is neither a well-established history nor an appropriate infrastructure.
- **Change process:** Greater use of PHSR needs to be recognized as part of a larger shift towards a culture of learning and evidence-based decision making. This can be as much an issue within public health units and regional health authorities as with decision makers.

Value of the learning circle

The participants found the LC experience to be positive, both personally and professionally. LC members identified five main areas of value:

1. They were able to establish personal and professional connections with a diverse group of colleagues. They felt the group was very open and supportive, and they felt comfortable bringing experiences and questions to the group.
2. There was significant value in having a group that could understand and affirm the shared challenges of working in this complex area. Some of the participants felt they did not have these supportive networks in their own workplaces or provinces, so they really appreciated the other members of the LC to help them know they are “on the right track.”
3. Particularly for those participants working in jurisdictions or organizations where PHSR was still relatively new, they felt there was a lot of value in connecting to a group that was regarded as representing the “state of the art” in this area as it added credibility to the work.
4. All participants felt the LC provided a supportive network with which they could share and discuss their experiences. There was a strong desire within the group to provide mutual support. Although they did not often do so, all participants said they felt they could reach out to each other.
5. The participants did not feel that the LC provided as much value for them in generating or applying new knowledge, although for many it provided one of the only opportunities they have had to really discuss some of the issues involved in doing this work. Several participants commented that they spend so much time in the “doing” of the work that they do not get the time to consider and discuss some of the broader issues that arise.

“We had hoped that our questions would have had clear and easy answers, but they didn’t ... An important part of the experience was to get some support and wisdom from a group in a field where no easy answers are available.”

LC participant

Disseminating what was learned

The implementation team developed a “Learning Together Series” that includes downloadable reports (in English and French) on the NCCDH website, relating to each of the topics that were discussed by the LC.⁴⁻⁸ The reports summarize the main points covered in the discussions, as well as information from the background literature review and stories from the field. The five discussion topics include:

1. Reviewing evidence on the purpose of population health status reports
2. Selecting population health status indicators to advance health equity
3. PHSR ethics and best practices for access and use of external data
4. Representing the data and telling the health equity story in PHSR
5. Knowledge translation methods and tools for PHSR

Videos from interviews with LC members at the beginning of the project were developed based on four different themes and posted on the website.⁹ The themes include:

1. The role of public health
2. The importance of local data
3. Learning together
4. Using data to drive change



2. In what way did the Learning Circle provide support to Capital Health in their process of developing a population health status report with a focus on health equity?

The Capital Health participants felt they benefitted from participating in the project. Some of the major benefit came in the “proof of concept” area, from being able to bring back to Capital Health some of the leading practices in PHSR from across Canada, as well as a sense of what the “state of the art” was in this area. According to the Medical Health Officer, this information was persuasive in Nova Scotia and helped shape the direction for the work in Capital Health and contributed to its ability to get legitimacy and local support for the work.

“Although the overall discussion was very good, the epidemiologists, in particular sometimes had a need for a deep, practical, methodological discussion.”

LC participant

As this was the first time that Capital Health was producing a report of this type, a great deal of work needed to happen to set up the process and resources required to support the PHSR process. There was a great deal of concern about developing a robust, credible process for data collection and analysis.

The staff at Capital Health speculated that the LC might have been even more beneficial to them had there been a closer fit between the topics and schedule of the LC discussions and their own process. Due to the time needed to gather materials for each LC meeting, the discussions did not always line up with where Capital Health was in their work.

Capital Health, as well as some of the epidemiologists in the LC, expressed that because of the large number of very practical issues they were working through, they might have benefited from having a separate discussion group. They sometimes felt it was not appropriate to bring the “nuts and bolts” discussion to the LC.

Although it was hoped that the LC would indeed be a supportive “community” where participants could bring their questions and challenges, in reality, this was a challenge and was dependent on factors such as: 1) the level of comfort felt by participants with their colleagues; 2) the structure of the LC conversations (whether participants felt there was a “place” within the discussion to bring additional questions); 3) the appropriateness of the question (Was it “right” to bring to the LC?); and 4) the timeliness of the LC conversations (whether they happened in close proximity to the practical application of the issue). All of these factors merit consideration in the design of future LCs.

THE LEARNING TOGETHER SERIES

Increasingly, population health status reports are key evidence in the creation and realignment of public and population health policies.

The resources in this Learning Together series summarize the NCCDH Population Health Status Reporting Initiative, which is working to strengthen the integration of social determinants and health equity in population health status reporting processes.

To download the Learning Together series, visit www.nccdh.ca



The participants in the LC felt there was value in having a practical application as part of this experience. It helped to ground the discussions and give them a focus, without limiting them. It was also useful to see what information and assistance was most helpful to Capital Health at various points along the way, and how Capital Health was proceeding in their work.

3. What emerged as the best available methods for taking a focus on health equity in population health status reporting?

Reporting as a tool for change

The first step in the process of exploring the best methods for integrating health equity into PHSR was thinking about what change could be expected as a result of what was learned. A “theory of change” was developed as part of initiating the project to support a focus on the intended impact of PHSR. By making a shared understanding of how change occurs explicit, it was easier to identify the preconditions necessary for that change to occur and more likely that the results of the project would have the intended impact.

For the LC members, the long term goal of PHSR with an emphasis on health equity is to “[level up](#)” by improving the health of the entire population and reducing the gap between the most healthy and least healthy. The preconditions for this were identified as:

1. Key stakeholders have a clear understanding of the impact of health inequity
2. Broad-based partnerships exist to work on issues of health inequity
3. Key stakeholders have a positive perception of public health practitioners, programs and services
4. There is strong public support for action to address health inequity
5. Supportive, evidence-based policies are implemented

The developmental evaluation process identified the following implications from this “theory of change” for integrating health equity into population health status reporting:

- Public health practitioners and organizations, as leaders in PHSR, need to have the capacity to produce credible data and high quality analysis in a timely manner, and in a way that makes this data and analyses accessible to others.

- Public health practitioners and organizations have an emerging role in helping facilitate access to data for others to do their own analysis. This includes helping partners to develop their own capacity to access and use data, and working with these partners to collect and analyze various types of data.
- Decision makers need to be engaged early in the process of PHSR. It is important to know the policy interests of decision makers, as well as the kinds of evidence and indicators that will be most meaningful to them. In the analysis, PHSR must clearly communicate the policy implications.
- It is important for public health practitioners and organizations to develop effective partnerships early in the PHSR process with other groups that have an interest in social determinants (e.g. housing, poverty, early child development).
- Public support is essential to push for policy change. This means PHSR must include strategies for communicating information effectively to the general public, and have a strategy for engaging the public in a discussion of the implications of the data.

Reporting as a “values-based” practice

In reflecting on how health equity can be better integrated into PHSR, the LC members identified a number of essential elements.

The graphic (Figure 1) summarizes the necessary elements in a population health status reporting process that effectively integrates health equity. The elements are diverse and inter-related as part of the larger system. A change in any element affects the other elements in the system.

The core activities of the standard PHSR process are described as the Stages of **Population Health Status Reporting**. Although each element of the framework contributes to the overall system, **Health Equity Values** are the “driver” of the system and the ultimate outcome is **Improved Community Capacity**.

The primary actors in an equity-integrated PHSR process are the **Public Health sector** and their **Community Partners**, all operating within the **Local Health and Community Context**, and the **Research Context**. Capacity for leadership and action across sectors is critical to being able to effectively integrate health equity into a PHSR process.

Figure 1: Key factors for integrating health equity into population health status reporting

FRAMEWORK OF KEY ELEMENTS

Equity-Integrated Population Health Status Reporting

COMMUNITY PARTNERS

CAPACITY FOR LEADERSHIP AND ACTION

The community (including government, community organizations and other leaders) is engaged throughout the entire population health status reporting process, around issues of social determinants and health equity, and capacity for leadership and action is built.

RESEARCH CONTEXT

The research and data environment includes peer reviewed research, evaluation findings and health status data from a variety of sources including academia, public health and other programs and services, and government survey sources.

IMPROVED COMMUNITY CAPACITY

THE IMPACT

The community is better equipped to take action to address health equity issues.

LOCAL HEALTH AND COMMUNITY CONTEXT

The community context and local issues inform the reporting process, and are impacted by it, as part of the larger system.

HEALTH EQUITY VALUES

THE DRIVER

Differences in health status are assessed for fairness and justice, recognizing that many differences are socially produced and unfair. The social, economic and political structures and systems that create these health inequities can be modified through collective action so that resources for health (including power and money) are more fairly distributed.

PUBLIC HEALTH

CAPACITY FOR LEADERSHIP AND ACTION

Public health has the leadership capacity to integrate health equity into a population health status reporting process.

STAGES IN POPULATION HEALTH STATUS REPORTING

The stages in population health status reporting are part of the larger process of generating action on the social determinants of health and improving health equity.

Adapted from: Stages in Evidence Informed Public Health www.nccmt.ca/eiph-eng.html

IN SUMMARY

Using a learning circle approach

One important area of investigation through this initiative was the usefulness and applicability of the LC model to support knowledge generation and transfer. A number of conclusions relating to the potential applicability of the LC model to equity-integrated PHSR and other issues emerged from project:

- **Collaborative learning** – This type of approach is highly applicable to environments and questions where participants share a diversity of experience and expertise, as opposed to an environment where expertise lies with a small number of individuals.
- **Complex issues** – The LC approach lends itself well to complex issues that benefit from a variety of perspectives.
- **Shared goals/diverse experience** – The choice of participants for the LC is a critical element that contributes to the success of the experience. Members need to bring a variety of perspectives and experiences to the table, and must have compatible (but not necessarily identical) learning goals for the experience.
- **Creating space** – Finding the “right” balance between depth and breadth in LC discussions can be an ongoing point of tension in any LC. It may be necessary for members to consider how to create additional opportunities for those LC participants who are interested in going deeper or further with an issue, possibly outside the LC structure.
- **Practice based** – Having a practical focus for the LC may be important for grounding the discussions and allowing the conversation to move away from the conceptual level. This was supported in a number of ways: 1) by selecting a learning site (i.e., Capital Health) as a practical example; and 2) by encouraging the LC members to apply particular approaches in their own settings and report back.
- **Connected to the real world** – When there is a practical application to the LC work, the LC discussions should align as closely as possible in timing to actual decision making by the relevant organizations in order to be most useful and relevant.
- **Personal relationships** – One important ingredient to the success of LCs is the creation of supportive personal relationships between the participants. It is, therefore, important to keep the number of members relatively small. The opportunity for participants to meet face-to-face also proved to be important in this example of a national LC as it helped to initiate these relationships.

Strategic issues in PHSR

Participants expressed that many of the LC discussions did not seem to be occurring in other settings or networks. The following strategic issues for PHSR and potential solutions were identified:

- **Guide to PHSR indicators** – LC members indicated that it would be very useful to compile a guide to indicators that are used for PHSR, specifically to comment on the utility of indicators for specific purposes and the experience of health authorities/health units in using these indicators for the purpose of advancing health equity.
- **Sharing the experience of PHSR** – The reviews of literature completed during the project revealed that very little is published in recognized journals on the subject of PHSR. While some reporting is available in the grey literature, the fact is that the vast majority of experience in this area is not documented. This makes it very challenging to advance the practice in Canada. There was a strong desire among the participants to research and write more about experiences of PHSR.
- **Evaluation of PHSR** – There seems to be little formal evaluation of PHSR practices in the field. While all health units and authorities strive for high quality data and analyses (and within the epidemiological community there are defined “best practices” for some of these), there is very little evaluation of other important goals of PHSR (e.g. providing clear and useful information to various stakeholders that will help them to make more informed decisions). It would be very useful for health authorities/health units to adopt the practice of setting clear goals for their PHSR (including the impact of this reporting) and to evaluate based on these goals.

WHAT'S NEXT?

The NCCDH has identified the need to continue engaging with public health practitioners about integrating health equity issues into PHSR. In addition to periodic conversations in the Health Equity Clicks online community, the NCCDH is currently identifying tools and approaches to support population health status reporting as an effective public health practice to advance health equity.

REFERENCES

1. National Collaborating Centre for Determinants of Health. Learning together: collaborating to improve population health status reporting [Internet]. Antigonish, NS : National Collaborating Centre for Determinants of Health, St. Francis Xavier University; 2012 [cited 2013 October]. Available from: http://nccdh.ca/images/uploads/Learning_Circle_2.pdf
2. National Collaborating Centre for Determinants of Health. Learning together: a learning circle approach [Internet]. Antigonish, NS: National Collaborating Centre for Determinants of Health, St. Francis Xavier University; 2012 [cited 2013 October]. Available from: http://nccdh.ca/images/uploads/Learning_Circle_1.pdf
3. National Collaborating Centre for Determinants of Health. Learning together: what is a population health status report and why is it important [Internet]? Antigonish, NS: National Collaborating Centre for Determinants of Health, St. Francis Xavier University; 2012 [cited 2013 October]. Available from: http://nccdh.ca/images/uploads/Learning_Circle_3.pdf
4. National Collaborating Centre for Determinants of Health. Learning together: reviewing evidence on the purpose of population health status reporting [Internet]. Antigonish, NS: National Collaborating Centre for Determinants of Health, St. Francis Xavier University; 2012 [cited 2013 October]. Available from: http://nccdh.ca/images/uploads/Learning_Circle_4.pdf
5. National Collaborating Centre for Determinants of Health. Learning together: selecting population health status indicators to advance health equity [Internet]. Antigonish, NS: National Collaborating Centre for Determinants of Health, St. Francis Xavier University; 2012 [cited 2013 October]. Available from: http://nccdh.ca/images/uploads/Learning_Circle_5.pdf
6. National Collaborating Centre for Determinants of Health. Learning together: population health status reporting ethics and best practices for access and use of external data [Internet]. Antigonish, NS: National Collaborating Centre for Determinants of Health, St. Francis Xavier University; 2012 [cited 2013 October]. Available from: http://nccdh.ca/images/uploads/Ethics_EN.pdf
7. National Collaborating Centre for Determinants of Health. Learning together: representing the data and telling the health equity story in population health status reporting [Internet]. Antigonish, NS: National Collaborating Centre for Determinants of Health, St. Francis Xavier University; 2012 [cited 2013 October]. Available from: http://nccdh.ca/images/uploads/Telling_the_Story_EN_Final.pdf
8. National Collaborating Centre for Determinants of Health. Learning together: knowledge translation methods and tools for population health status reporting [Internet]. Antigonish, NS: National Collaborating Centre for Determinants of Health, St. Francis Xavier University; 2012 [cited 2013 October]. Available from: [http://nccdh.ca/images/uploads/KT_EN_Final_\(2\).pdf](http://nccdh.ca/images/uploads/KT_EN_Final_(2).pdf)
9. Integrating health equity into reporting [Internet]. Antigonish, NS: National Collaborating Centre for Determinants of Health, St. Francis Xavier University; 2013 [cited 2013 October]. Available from: <http://www.youtube.com/watch?v=ymQri2vBfRQ&list=PLFvgvG0d0W24LdkeL4r78tDhXBTj0522M>

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