A strategic approach to workforce development for local public health

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ABSTRACT

SETTING: In 2009, Peel Public Health set a vision to transform the work of public health from efficient delivery of public health services as defined by provincial mandate to the robust analysis of the health status of the local population and selection and implementation of programming to achieve best health outcomes. A strategic approach to the workforce was a key enabler. PPH is a public health unit in Ontario that serves 1.4 million people.

INTERVENTION: An organization-wide strategic workforce development program was instituted. It is theory-based, evidence-informed and data-driven. A first step was a conceptual framework, followed by interventions in workforce planning, human resources management, and capacity development. The program was built on evidence reviews, theory, and public health core competencies. Interventions spread across the employee work-life span.

OUTCOMES: Capacity development based on the public health core competencies is a main focus, particularly analytical capacity to support decision-making. Employees gain skill and knowledge in comprehensive population health. Leadership evolves as work shifts to the analysis of health status and development of interventions. Effective human resource processes ensure appropriate job design, recruitment and orientation. Analysis of the workforce leads to vigorous employee development to ensure a strong pool of potential leadership successors.

IMPLICATIONS: Theory, research evidence, and data provide a robust foundation for workforce development. Competencies are important inputs to job descriptions, recruitment, training, and human resource processes. A comprehensive workforce development strategy enables the development of a skilled workforce capable of responding to the needs of the population it serves.

KEY WORDS: Public health; evidence-based practice; evidence-based medicine; professional competence; health personnel

La traduction du résumé se trouve à la fin de l'article.

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Peel Public Health (PPH) is a public health unit in Ontario that serves the 1.4 million residents of Peel Region in the areas of population health assessment, chronic disease and injury prevention, family health, environmental health, and communicable disease control. The 650-plus workforce is multidisciplinary and includes public health nurses, medical officers of health, public health inspectors, nutritionists, epidemiologists, research and policy analysts, health promoters, oral health practitioners and community development workers.

In 2009, Peel Public Health set a vision to transform the work of public health from efficient delivery of public health services as defined by the provincial mandate to the robust analysis of the health status of the local population and selection and implementation of programming to achieve best health outcomes. Ontario at the time had a public health mandate outlined in provincial legislation, and our health unit was trying to act on it comprehensively. However, we were under-resourced, largely because of rapid population growth, and we needed to set priorities based on the actual needs of the local population. We found ourselves without the right mix of skills to move from a general mandate to a Peel-specific set of priorities.

During PPH's 2009 strategic planning process, Workforce Development was identified as a priority to develop a workforce with the right knowledge, skills and role-mix for such a transformation. We envisioned practitioners who would use public health methods to identify the most pressing problems, analyze their "*size and shape*" and choose interventions to address them. This report describes the development of the workforce strategy and the resultant tools and processes.

PPH's 2009 strategic plan[1] identified eight other priorities. Some, such as Evidence-Informed Decision Making (EIDM), have been described extensively elsewhere.[2–4] Taken together, these priorities demanded that staff work in new ways, some of which were dramatically different for both front-line employees and the leadership team. Workforce Development became the framework for leading this change.

Investing in a large workforce transformation initiative was not a common choice for strategy, but PPH leaders were keenly aware of its potential benefits. They had seen it championed at the federal level in the wake of SARS and Walkerton[5] with the development of the public health core competencies and were ready to engage with

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the transformative processes that would enhance capacity throughout the organization.

THREE KEY PILLARS OF A SYSTEMATIC APPROACH TO WORKFORCE DEVELOPMENT: A CONCEPTUAL MODEL, USE OF CHANGE THEORY, AND PUBLIC HEALTH CORE COMPETENCIES

The use of a conceptual model

In 2009, little had been written about the elements of a workforce development system for local public health. The department commissioned a *scan, review and synthesis of the literature*[6] of public health workforce development models. The authors noted the scarcity of published and grey literature and considered the results indicative of the cutting-edge nature of the work. Three key models were identified and promising elements were synthesized with input from PPH. A model was developed and refined (Figure 1). The model depicts three main system elements: Workforce Planning, Human Resource Management, and Capability Development. The system interacts with the education and training sector and the broader public health system.

In addition to the main components, the model includes elements that touch an employee across the lifespan of employment and even in some cases pre-employment, such as with student placement initiatives.

Use of the model has demonstrated several benefits:

- provides stakeholders or key informants with a *quick visual guide* to the conceptual framework for workforce development;
- provides *context setting* and makes it easier to speak about complex subject areas that have many interdependencies;
- supports leaders to act on *strategic opportunities*, without the risk of losing sight of elements that require intentional activity, such as succession planning.

Use of change theory

Setting an organization-wide strategic direction for workforce development was bound to provoke change. For example, we

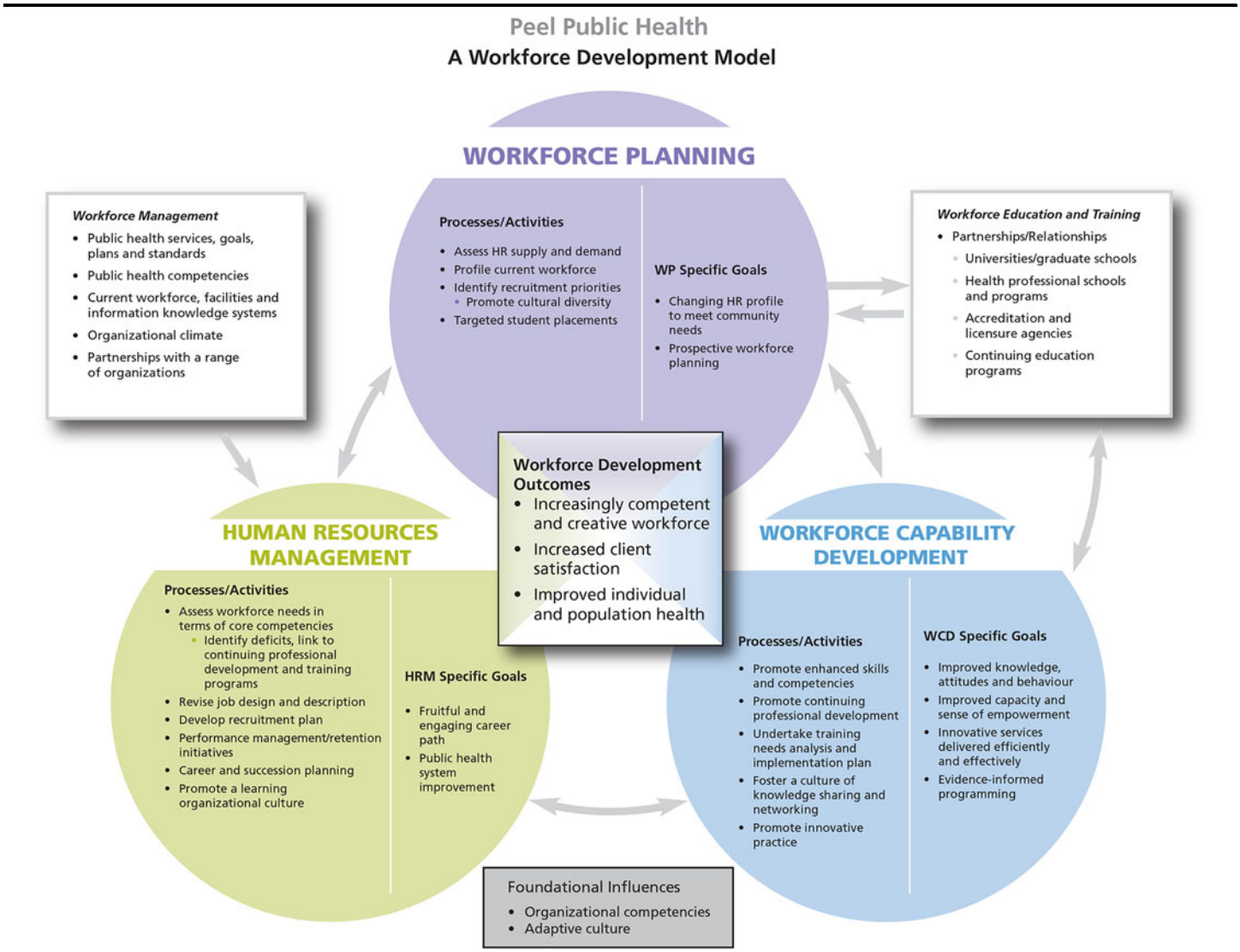

Figure 1. Workforce development model for Peel Public Health

decided to build capacity in EIDM. Staff with program proposals were asked to present the research evidence in a robust way to decision makers. It became apparent that new skills and knowledge were needed. We turned to a variety of theories to support the change.

At the level of organization-wide change, we found the work of John Kotter[7] instructive. In our application of Kotter's theory for workforce development, we created a clear vision through our strategic plan and reinforced it with our conceptual model. Also, his theory suggests that in order to get change off the ground, leaders need to create a sense of urgency, build a guiding team and communicate a compelling vision of the change. Rather than a fully planned change initiative, the theory proposes a more opportunistic approach of generating quick wins and then sustaining the change with wave after wave of new initiatives. Following this approach, we have tried many different initiatives, keeping those which were successful and quickly discarding the rest.

The Normalization Process Theory (NPT)[8] developed by Dr. Carl May, a sociologist in Great Britain, has been useful in understanding the diffusion of change through the organization. The theory proposes four steps to normalize interventions in complex environments.

- **Build coherence:** ensure the change *makes sense*; create a story of how the organization arrived at this point and how this change is the logical next step.
- Appraise potential outcomes through **cognitive participation**: think through all the steps of enacting the change from various points of view, discern potential consequences, and make plans to alleviate unintended effects.
- Take **collective action**: implement the change.
- **Reflexively monitor** the outcomes: collect information, assess impacts, adjust as necessary, and then reflect these outcomes back to the participants.

We have applied NPT to assist managers in thinking through how to implement complex change. Although it may seem surprising, often the steps that need the most attention are the first two. These involve making the change explicit for staff and working through potential outcomes before implementation. This makes implementation more straightforward and takes into account the valuable perspective of the affected staff. Reflexive monitoring or adjusting after the change has been in place for a while allows for on-the-ground improvements.

Essential practices of middle managers[9] is a literature review completed by our staff that delved more deeply into the specific behaviours required of managers as they implement change initiatives (see Figure 2). The review draws from the business and sociology literature and highlights the importance of middle managers as they connect the strategy and direction of senior leaders with the activity and the initiative of the front line. They are the *sense-makers* of the organization and must do this through three practices: *reframe work*, *clarify roles* and *engage in dialogue*. We also learned that middle managers must spend time garnering a deep understanding of the change, the organizational context into which the change is introduced, and the impacts of the change at the organizational and individual level. They assess consequences for employees and prepare for potentially challenging conversations within the context of their relationship with the employee.

Implicit and explicit use of public health core competencies

In 2003, the Public Health Agency of Canada (PHAC) was considering the Naylor[10] report that said more attention was needed to develop capacity within the Canadian public health system. A consensus approach to public health competencies emerged. The document, Core Competencies for Public Health in Canada: Release 1.0,[11] was instrumental in developing elements of the Peel workforce system. Core competencies are used to:

- build awareness of the full scope of public health practice among all staff,
- create a vision and shared language for public health work,
- add specific knowledge and skills to job descriptions, recruitment processes and orientation protocols, and
- form a basis for learning and development plans.

Discipline-specific core competencies are also used. For example, the Public Health Nursing Discipline-Specific Core Competencies[12] developed by the Community Health Nurses of Canada are essential to our work with public health nurses (PHNs). We refer to this document to evolve PHN roles and responsibilities to the full scope of public health nursing practice. In Canada, baccalaureate nursing training remains largely clinical. The core competencies provide a focus on additional population-level skills to be integrated throughout the employee's work-life. In this way, we gradually broaden the skill set of an employee and the entire team.

THE WORKFORCE DEVELOPMENT SYSTEM IN ACTION: WORKFORCE PLANNING, HUMAN RESOURCES MANAGEMENT, AND CAPABILITY DEVELOPMENT

Workforce planning

Workforce planning assesses and analyzes characteristics of the workforce, such as education, types of roles, retirement projections and *turn-and-churn* rates. This informs processes such as the identification of recruitment and student placement priorities, team needs for new skills and knowledge, and development of succession planning initiatives.

PPH recently conducted a review of pension plan data to identify leaders eligible to retire within 2, 5 and 10 years. These data are then complemented with one-on-one discussions between leaders and their reporting staff to build individual development plans. These analyses and conversations create a solid understanding of potential gaps in business continuity and underscore the importance of active and focused staff development.

The department has a strategic approach to student placements. We aim for a *win-win* whereby the student experiences public health practice and the organization may identify a potential employee. Our rapid review, Organizational Student Placement Practices and Recruitment,[13] identified core elements of an optimal student placement strategy. These elements inform our policies and practices. For example, PPH is pursuing intentional connections with educational institutions whose curricula

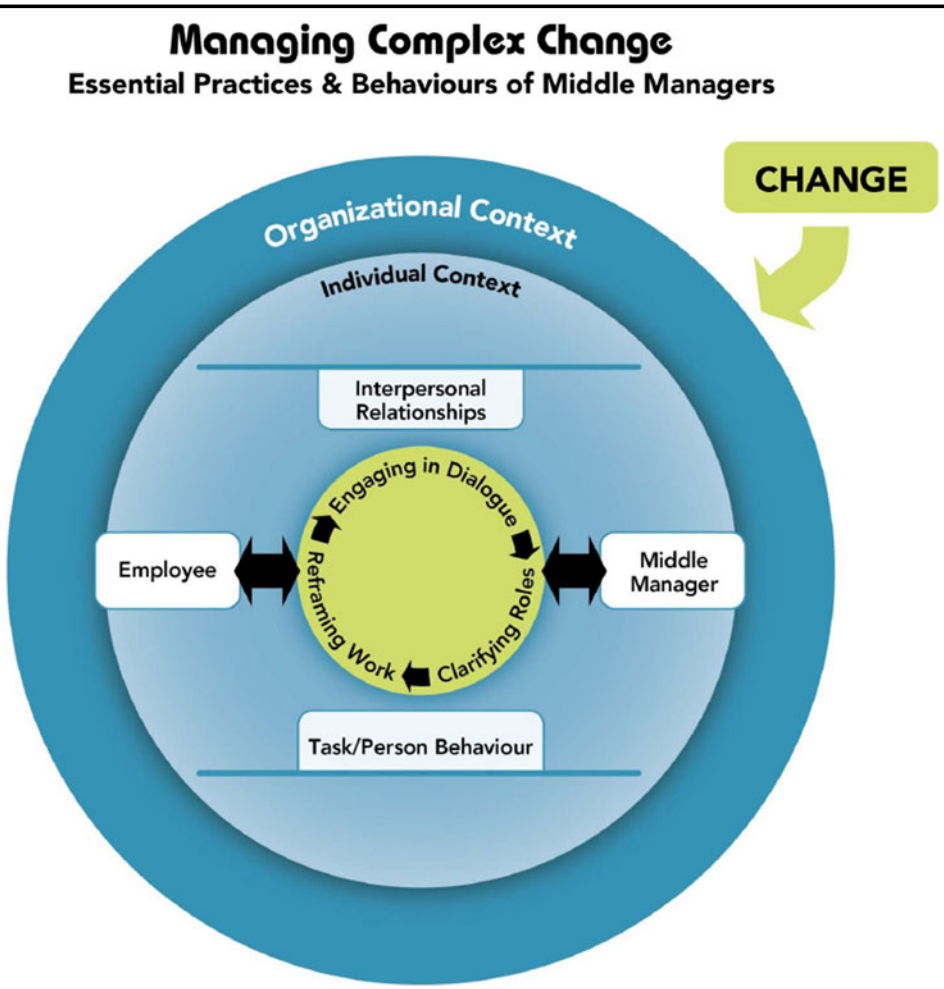

Figure 2. Essential practices of middle managers in managing complex change

complement our strategic direction. Particular attention is given to job roles where we know impending vacancies are high. Once in the organization, students are assigned work that contributes to desired health outcomes. Successful students are assessed and streamed towards upcoming vacancies. In this way, we can hire new employees who are already partially trained and socialized to the organization.

Human resources management

Job Descriptions

Job descriptions are a foundation of human resources management. When we began, job descriptions were inconsistently available and often contained job elements that reflected an old way of working, rather than the work envisioned in the core competencies and our strategic plan. Detailed review of job descriptions is allowing us to adjust the skill mix on teams. Additionally, we created multi-incumbent job descriptions, for example at the manager and specialist level, to ensure the consistency of roles across the organization.

New Staff Orientation

Underlying the need for a formal approach to staff orientation was the substantial transformative change occurring as a result of the 2009 strategic plan. We undertook a literature review, New Employee Understanding of Public Health Practice,[14] to understand employee orientation processes that had the most impact on workforce outcomes both for the employee and the organization.

The research indicated that helping a new employee transition from an *outsider* to an *insider* could be a year-long process, referred to as organizational socialization. When undertaken intentionally, the process can have important outcomes, such as reduced intention to quit, decreased levels of anxiety and stress in new employees and increased overall satisfaction and engagement with the organization.

The review identified key elements of an orientation program, how to structure the process and coach supervisors about their role and that of their team. We developed a curriculum that stretches over nine months and covers key elements of the Peel approach to public health practice, organizational goals and values, and foundational skills and knowledge.

The program was implemented in 2015 and early outcomes include a high degree of satisfaction from new employees and positive feedback from supervisors and managers. More distal outcomes named in the literature, such as overall satisfaction, engagement, reduced intention to quit, anxiety, and stress, will be assessed over time.

Capability development

The third pillar of the workforce model, capability development, was the one launched first in the organization and at that time focused on the application of research to practice. In 2008, we completed an organizational assessment and identified three main areas for development: capacity to find and access research, skill in critically appraising it, and shifting work to include time for these activities. Based on the change theory by Kotter,[7] we provided intensive training and support for 100 staff in the processes of EIDM. Eight years later, more than 130 have the skills to robustly apply research to practice questions and lead their teams in EIDM.

This approach was replicated in numeracy and data analysis, using training and mentoring as well as hiring of individuals with strong epidemiological skills. These more advanced skills were embedded primarily in leadership roles and specialist positions, such as epidemiologists and research and policy analysts. This model works well to ensure strong technical expertise for specific processes that are outside the job descriptions of many staff.

In addition to these strategies, we took advantage of other learning opportunities offered nationally or through local universities. An example that supported both leadership and strategy development was the Executive Training Program for Research Application (EXTRA)[15] offered through the Canadian Foundation for Healthcare Improvement. This national fellowship trains mid-career leaders in the application of research to practice and is available at low cost to participants. PPH participated in six EXTRA Fellowships from 2008 to 2015.

OnCore

In 2012, in response to a need for front-line staff to "catch up" on skill development, we began development of a new program with many partners and sponsored by PHAC. OnCore[16] is a professional development program to build foundational public health skills for front-line staff. It focuses on public health sciences, assessment and analysis, and the application of research to practice. This program supports front-line staff to address the kinds of questions that arise in their work, such as:

- What does a PHN need to understand about the *rates* of breastfeeding at various times in the first year post-partum?
- How does *shifting the curve* apply to work in obesity prevention?
- What is the difference between *incidence* and *prevalence* and how does that affect program planning in Hepatitis B management?

OnCore is nationally available and has been promoted throughout 2016. By the end of 2017, all PPH staff will have completed the three modules of OnCore. Early evaluation of participants demonstrates an increased understanding of these public health core competencies, and supervisors say that OnCore is "changing the conversation" in the team.

OnCore builds on PPH's vision that teams of public health practitioners, with some centralized expert support such as that from our population health assessment unit, will have the skills and knowledge to analyze and solve public health problems.

IMPACT

Are we achieving the vision?

The workforce development strategy is entering its ninth year. We see impact on several levels.

One of the main goals of the strategy was to build analytical capacity to support decision-making. Determining strategy still involves analysis of community needs, assessment of resources, balancing of potential outcomes, and seasoned leadership. However, decisions taken today at PPH are also based on thorough analysis of the local public health problem and reviews of the literature to determine best options.

At the level of the individual employee, we find that team members are gaining a greater sense of the full scope of public health practice. They are more focused on the health status of the whole population and the role of evidence at all points of decision-making. A shift in thinking is emerging. It is a shift from a program-based mindset focused on the *effective delivery of a provincially prescribed intervention* to one that is focused on the *public health problem we are aiming to solve* and the *population level outcome we are trying to achieve*.

For management staff, the changes in their roles have been complex. Day-to-day operations continue as data and evidence analysis is added to the work of the team. At times, this analysis is conducted through centralized supports, but more and more, we believe the optimal situation is one where the multidisciplinary team is deeply involved in the analysis of the health status, identification of the problem, and development of new solutions. This involves the development of new skills at the supervisory level to manage and direct the work of employees.

Questions arise as to the cost of this initiative. It started with the transfer of one full-time vacancy into a manager role for workforce development. Shortly thereafter, the library was expanded by one position and an analyst and coordinator were added. Some funds were spent on training, especially in the capacity building, but much of the mentoring was handled internally, using a just-in-time approach. The biggest cost is time for employees to learn new skills. We believe these costs are recouped through more effective interventions.

For our corporate partners within Regional government, we are seen as leaders with capacity and insight into practices that are often centralized in the human resource function. The work on orientation, student placements, job descriptions and succession planning positions us as key informants for related Regional initiatives.

One of Kotter's tenets for leading change is to create a powerful vision and then relentlessly communicate and enact that vision through many small wins and wave after wave of initiatives. This is the case with PPH's vision of public health practice and the workforce development needed to support it. All of the activities mentioned in this report as well as many other smaller initiatives and context-setting conversations contribute to the evolution of the whole system. This systematic approach to workforce development has proven effective in guiding the changes needed on strategic and operational levels. Our experience is that when an organization makes the effort to implement a comprehensive workforce development strategy, the outcome is a workforce that

conducts robust analyses of the health issues facing the population and oversees the implementation of targeted and effective programs and services.

REFERENCES

1. *Peel Public Health's Strategic Plan: 2009–2019 Staying Ahead of the Curve*. Mississauga, ON: Peel Public Health, 2008. Available at: https://www.peelregion.ca/health/health-status-report/stay-ahead-curve/ph-way.htm (Accessed January 13, 2017).
2. Ward M. Evidence-informed decision making in a public health setting. *Healthc Manage Forum* 2011;24(Suppl 1):S8–16. PMID: 21717945. doi: 10.1016/j.hcmf.2011.01.005.
3. Ward M, Mowat D. Creating on organizational culture for evidence-informed decision making. *Healthc Manage Forum* 2012;25:146–50. PMID: 23252330. doi: 10.1016/j.hcmf.2012.07.005.
4. Ward M, Dobbins M, Peirson L. Lessons learnt from implementing an organizational strategy for evidence-informed decision making. *Public Health Panor* 2016;2(3):249–400.
5. Mowat D, Moloughney B. Developing the public health workforce in Canada: A summary of regional workshops on workforce education and training. *Can J Public Health* 2004;95(3):186–87. PMID: 15191120. doi: 10.17269/cjph.95.498.
6. Bourgeault I, Demers C, Donovan S. *Public Health Workforce Development Models Literature Scan, Review and Synthesis*. Mississauga, ON: Region of Peel, 2009. Available at: https://www.peelregion.ca/health/resources/pdf/Ivy-Bourgeault-Workforce%20Development.pdf (Accessed December 16, 2016).
7. *Kotter International: The 8-Step Process for Leading Change*. Available at: http://www.kotterinternational.com/the-8-step-process-for-leading-change/ (Accessed December 16, 2016).
8. Murray E, Treweek S, Pope C, MacFarlane A, Ballini L, Dowrick C, et al. Normalization process theory: A framework for developing, evaluating and implementing complex interventions. *BMC Med* 2010;8:63. doi: 10.1186/1741-7015-8-63.
9. Bryant B, Gola M, Johnston C. *What are the Essential Practices of Middle Management That Will Increase Their Capacity to Effectively Lead Complex Change?* Mississauga, ON: Region of Peel, 2012. Available at: https://www.peelregion.ca/health/library/pdf/Essential-practices-of-middle-management.pdf (Accessed December 16, 2016).
10. Naylor CD. *Learning from SARS: Renewal of Public Health in Canada: A Report of the National Advisory Committee on SARS and Public Health*. Ottawa, ON: National Advisory Committee on SARS and Public Health, 2003. Available at: http://www.phac-aspc.gc.ca/publicat/sars-sras/naylor/index-eng.php (Accessed March 11, 2017).
11. Public Health Agency of Canada. *Core Competencies for Public Health in Canada, Release 1.0*. Ottawa, ON: PHAC, 2008. Available at: http://www.phac-aspc.gc.ca/php-psp/ccph-cesp/pdfs/cc-manual-eng090407.pdf (Accessed December 16, 2016).
12. Community Health Nurses of Canada. *Public Health Nursing Discipline Specific Competencies Version 1.0*. Toronto, ON: CHNC, 2009. Available at: https://www.chnc.ca/en/publications-resources (Accessed October 16, 2017).
13. Lapos N, Bryant B, Johnston C. *Organizational Student Placement Practices and Recruitment*. Mississauga, ON: Region of Peel, 2014. Available at: https://www.peelregion.ca/health/library/pdf/organiz-student-placement-dec14-2014.pdf (Accessed December 16, 2016).
14. D'sylva Barlow J, Bryant B, Atkinson J. *New Employee Understanding of Public Health Practice: Orientation to Peel Public Health*. Mississauga, ON: Region of Peel, 2013. Available at: https://www.peelregion.ca/health/library/pdf/new-empl-understand-pub-hlth-practice.pdf (Accessed December 16, 2016).
15. *Canadian Foundation for Healthcare Improvement: Executive Training Program (EXTRA)*. Available at: http://www.cfhi-fcass.ca/WhatWeDo/extra (Accessed January 11, 2017).
16. Region of Peel, Institut National de Santé Publique, Durham Region Health Department. *OnCore-EnCours: Core Skills for Public Health Practice*. Waterloo, ON: Public Health Ontario, University of Waterloo, 2015. Available at: https://oncore-encours.ca/ (Accessed December 16, 2016).

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RÉSUMÉ

LIEU : En 2009, le Bureau de santé de la région de Peel (BSRP) s'est donné pour vision de transformer le travail de santé publique en passant de la prestation efficace des services, définie par mandat provincial, à l'analyse robuste de l'état de santé de la population locale et à la sélection et à l'exécution de programmes visant à obtenir les meilleurs résultats sanitaires. Une démarche stratégique à l'égard de la main-d'œuvre a été un outil clé. Le BSRP est un bureau de santé publique de l'Ontario qui sert 1,4 million d'habitants.

INTERVENTION : Un programme de perfectionnement stratégique de la main-d'œuvre a été institué à l'échelle de l'organisme. Ce programme repose sur la théorie tout en étant fondé sur les faits et guidé par les données. La mise en place d'un cadre conceptuel a été suivie d'interventions de planification de la main-d'œuvre, de gestion des ressources humaines et de renforcement des capacités. Le programme s'est construit sur des examens des données probantes, sur la théorie et sur les compétences essentielles en santé publique. Les interventions couvrent toute la durée de vie professionnelle des employés.

RÉSULTATS : Le renforcement des capacités fondé sur les compétences essentielles en santé publique est un axe principal, particulièrement la capacité analytique à l'appui de la prise de décisions. Les employés acquièrent des habiletés et des connaissances globales en santé des populations. Le leadership évolue à mesure que le travail se recentre sur l'analyse de l'état de santé et l'élaboration d'interventions. La conception des tâches, le recrutement et l'orientation sont appropriés grâce à l'efficacité des processus de ressources humaines. L'analyse de la main-d'œuvre entraîne un perfectionnement intensif des employés pour avoir un large bassin de futurs leaders.

CONSÉQUENCES : La théorie, les résultats de recherche et les données constituent des bases solides pour le perfectionnement de la main-d'œuvre. Les compétences sont des éléments importants dans les descriptions de postes, le recrutement, la formation et les processus de ressources humaines. Une stratégie complète de perfectionnement de la main-d'œuvre permet le développement d'une main-d'œuvre qualifiée, capable de répondre aux besoins de la population qu'elle sert.

MOTS CLÉS : santé publique; pratique factuelle; médecine factuelle; compétence professionnelle; personnel de santé