

INTRODUCTION

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The use of cases and "real-life" problems to illustrate concepts to students has a long history in health sciences. There are many variations, including case-based learning and problem-based learning (PBL) that are grounded in pedagogical theories. Of the use of PBL in public health training, Trevena says that public health practice "involves considerable problem solving [and] usually involves working within groups and with numerous stakeholders" (p.6). Therefore, public health practitioners "need to be able to obtain and synthesize information from external sources and to apply this to the problems, projects or circumstances before them. Yet, the use of PBL in public health is largely uncharted territory" (p.6). The goal of incorporating cases in the MPH curriculum is to illustrate the application of knowledge and theory in public health practice and to generate an opportunity for students to pose and answer their own questions about an issue. In this program, MPH student cases emerge from student practicum placements, and are authored in collaboration with practicum preceptors. In Canada, the use of cases as a teaching method in graduate public health training is a novel addition to the standard curriculum. Although case-based learning in public health holds a tremendous amount of promise, its impact on students requires an evaluation similar to what has been performed in medical education with regards to PBL. For example, student performance on standardized tests, public health core competencies, or other indicators of knowledge and skill could be used to compare groups of students who trained with and without the use of cases. Also, qualitative interviews with employers and students could provide additional information to improve our understanding of the effects of case-based learning in public health graduate curricula.

In business schools with a history of case development and teaching, the use of cases in the curriculum acts as an interface between academia and practitioners. Teams of students will build a case around one or more issues in conjunction with a practitioner and an academic, to ensure that the structure and content of the case is relevant to practice and has construct validity as well as face validity. Both the creation of a case and its subsequent use are exercises that generate learning and enable reflection.

Cases can be used as a tool to bridge the theory of public health and its practice. Case-based learning in medicine and public health currently follows a unidirectional model. That is, the case is viewed as a mechanism connecting theory to practice. In its simplest form, discussion about a case is centred on the application of one or more theories to the practice of public health. A scenario describing a negative outcome can be viewed through the lens of theory to identify critical points at which different actions could have been taken to ensure success. Cases can also be used to compare and contrast different approaches to public health practice. For example, a case illustration of different governance models in public health might enable students to understand the strengths and challenges of each, and therefore to be effective practitioners within either model of governance. Looking to the future of case-based learning in public health, ***I believe a more comprehensive approach to using cases is to consider their potential as a bidirectional link between theory and practice and back to theory from practice.*** Cases can be used not just to apply theory but also to inform the development of new theories, based on a synthesis of observations in "the field" of practice. This is one reason why

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the use of MPH practicum placements to drive the content of student-generated cases is so exciting and so promising!

In this edition of the ***Western Public Health Casebook***, students have presented a range of relevant problems from "How can rural families in Ghana cook staple food without exposing themselves to harmful combustion products?" to "How should we involve families in the care of patients with mental illness in Ontario?" These problems expose students to real-life complexity and the challenges of arriving at a public health solution that is feasible, socially acceptable, and effective. Bringing these cases back into the curriculum enables current students from diverse professional and cultural backgrounds to consider multiple perspectives while working through the problem with their peers. Hopefully, these cases will also generate ideas for new theories about how public health should work. Helping to solve these problems is a shared goal of both current and future public health leaders, and using real-life examples to refine our students' thinking about public health issues may bring us one step closer to a safer, healthier world for all.

REFERENCES

1. Trevena, L. (2007). Problem-based learning in public health workforce training: a discussion of educational principles and evidence. *NSW Public Health Bulletin* 18(1-2): 4-8. Retrieved May 5, 2016 from <http://www.health.nsw.gov.au/phb/Documents/2007-1-2.pdf>

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