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# Education of Future Public Health Professionals Through Integrated Workshops

Jacob Shelley, *Western University*

# Education of Future Public Health Professionals Through Integrated Workshops

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## Abstract

An important feature of public health education is integrating and synthesizing complex concepts across a variety of disciplines. Novel and effective approaches are required to successfully integrate learning and knowledge across Master of Public Health (MPH) programs. The MPH program at Western University uses Integrated Workshops (IW) as a unique approach to integrating learning and knowledge. Occurring three times over the course of the 1-year program, these workshops provide an opportunity to reflect on past learning and integrate interdisciplinary knowledge from across courses to solve a complex public health problem. IWs are designed for learners to explore the intricacies of a problem by synthesizing their current knowledge along with new information delivered from experts and stakeholders. Learners pull information from across subjects and seek out new information (as needed) to problem-solve under time constraints—basic information is provided 12 hours in advance and new information is added during the workshop, in real-time. Learners develop key public health skills in critical thinking and decision making with incomplete data. Integrated workshops are an effective approach to training the next generation of public health leaders to handle the intricate problems at the heart of public health today.

## Keywords

case-based learning, MPH education, team based learning, public health

## Introduction

Public health professionals work in diverse and complex fields that require varied skills and competencies to succeed. The challenge for educating public health professionals is creating a comprehensive learning environment that prepares students for the complexities that exist within public health issues today (Fleming et al., 2009). Public health learners must navigate through traditional disciplines, engaging content, and integrate seemingly disparate skillsets to tackle complex problems.

Public health professionals need to be able to identify, prevent, and solve complicated or “wicked” problems—problems without a clear definition nor a clear course of action to fix (Kreuter et al., 2004). Continuous evaluation, innovation, and improvement of teaching methods can assist students in achieving these goals (Council on Education for Public Health, 2020).

Workshops are rooted in the concept of group learning, and rely on active participation, leadership, evaluation, and cooperation (Gupte et al., n.d.). When workshops include collaborative aspects, they can

lead to higher quality learning outcomes compared to individual work (Bonwell & Eison, 1991). Utilizing workshops as an educational tool in the classroom has a positive effect on students’ attitudes and significant improvements in knowledge uptake (Barkley, 2009). Active engagement and participation in workshops enhance the exploration of new ideas and complex concepts, allowing for meaningful interaction with concepts beyond traditional classroom methods (Bonwell & Eison, 1991; Gupte et al., n.d.). This type of learning fosters critical thinking by enabling students to apply knowledge to situations where they may be less knowledgeable (Hotchkiss et al., 2013). In well-planned workshops, students experience problem solving and how to apply critical thinking skills broadly.

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## The MPH Program at Western University

Western University's MPH program is a unique 12-month public health program founded on competencies integral to public health, such as problem identification and priority setting. These skills are core competencies within any MPH program and are essential for students in the field of public health (Public Health Agency of Canada [PHAC], 2007). To master these skills, students must go beyond classroom learning and consider the integration of concepts along with the impacts on communities, policies, and the environment. The MPH program utilizes case-based pedagogy and team-based learning to enhance the uptake of knowledge and development of key public health skills (Sibbald et al., 2016). The Western MPH program also uses three daylong integrated workshops (IWs) to bridge learning done within individual classes and foster integrated learning across courses within the program (Sibbald et al., 2016). IWs give students an opportunity to practice essential public health skills in a simulated but realistic context and help prepare learners for the challenges that they will face in the workforce. Held once in the fall semester and twice in the winter semester, each IW presents students with a progressively more complex, real-world public health challenge. Within the Western MPH program, students work in pre-established learning teams for the duration of the program, including during IWs (Sibbald et al., 2016). IWs are evaluated on a pass/fail basis as a team. IW#1 challenges students to find, synthesize, and integrate evidence around a complex (but often demarcated) issue: such as e-cigarettes and vaping. IW#2 bring in more layers of complexity, forcing students to consider evidence within a broader social and political context (eg: taxation of sugar sweetened beverage). Finally, IW#3 integrates across all courses in the program through a complex scenario (such as an emergency evacuation) requiring students to synthesize evidence, make quick decisions, communicate effectively—with consideration of all social-ecological factors (see Table A1 in Appendix A for a summary of IWs across the years). IWs are a core part of the Western MPH program's curriculum; student participation in all three is compulsory. The MPH program has run 23 IWs since 2013; 21 have been organized and delivered by MPH faculty and two were run by external groups.

## Components of an IW

IWs within the Western MPH program have four key components: (1) a multidisciplinary perspective; (2) incomplete information about the nature, scope, and extent of a specific public health issue; (3) an overarching goal with progressive more complex and challenging objectives to meet; and (4) a well-designed deliverable to work toward meaningful and relevant solutions.

## *A Multidisciplinary Perspective*

Achieving a multidisciplinary perspective is done in a number of ways. IWs are planned and facilitated by the interdisciplinary faculty within the Western MPH program. This informs the way in which a topic is chosen and presented, the approach to defining and working to "solve" the problem, as well as the learning deliverables and outcomes of students. Content experts and stakeholders with diverse, and sometimes opposing, viewpoints are invited to play a key role in the workshop. For example, in our IW on wind turbines, we had a community member (living near wind turbines), and public health physician explaining the science behind wind turbines. IWs often start with a panel discussion where multiple viewpoints are presented. Faculty members are also used as panelists or experts and sometimes role-play as a protagonist or represent a particular position or voice (e.g., a disgruntled politician, an industry representative). Experts and stakeholders often stay the whole day, supporting learners in the development of deliverables, and providing feedback throughout the day as students seek out and synthesize information.

## *Incomplete Information*

IWs allow students to trial new knowledge and skills obtained in the program while also applying knowledge they bring from previous field(s) of education and practice. The information learners have about the nature, scope, and extent of the specific issue is incomplete or conflicting by design. Learners are provided limited background material the afternoon prior to the start of the workshop. During the workshop, they are provided with additional information—mostly through discussion and dialog with the experts and stakeholders. Learners are also required to do their own research to seek out new information (searching online, asking faculty, calling on experts/guests), however, this must be done in an efficient way since timing is fast-paced (to mimic real-world decision making). IWs are designed to require dynamic engagement, forcing students to work with incomplete information to ask poignant questions, to explore unique (often imperfect) alternatives, and to come up with a feasible and defensible solution.

## *Objectives and an Overarching Goal*

All three IWs share the common goal of synthesizing coursework through the exploration of a real-world "wicked" public health problem; each IW has its own objectives, which are progressively more challenging to align with the courses being taught and the skills being developed. Each of the three IWs have a specific objective that takes into account the different perspectives students

**Table 1.** Progressive Complexity of Integrative Workshops.

IW#1	IW#2	IW#3
<p>Assess and understand Focus: gathering, reviewing, and synthesizing evidence</p> <ul style="list-style-type: none"> <li>■ Perform literature review on current public health issue</li> <li>■ Find, synthesize, and integrate evidence</li> <li>■ Critically review and appraise literature</li> <li>■ Identify gaps in existing knowledge</li> <li>■ Practice effective communication</li> </ul>	<p>Plan, advocate, and apply Focus: work through a policy problem with diverse stakeholders; consider and analyze various approaches and perspectives</p> <ul style="list-style-type: none"> <li>■ Apply knowledge and skills from IW#1 against different public health issue</li> <li>■ Review literature from the lens of a particular position</li> <li>■ Formulate and effectively communicate to relevant stakeholders</li> <li>■ Integrate more complex thinking and consideration for contextual factors beyond public health (social and political implications of policy)</li> </ul>	<p>Create, evaluate, and execute Focus: synthesize evidence, make quick decisions, and communicate effectively—all within a tight timeframe and with consideration of all social-ecological factors.</p> <ul style="list-style-type: none"> <li>■ Use skills from IW#1 and IW#2 and integrate knowledge across all courses in the program through a complex scenario</li> <li>■ Synthesize evidence and make quick decisions</li> <li>■ Cooperate with experts inside and outside of public health</li> <li>■ Communicate effectively to various audiences</li> <li>■ limited information, and minimal time</li> </ul>

are exploring in their coursework as well as the growing skillset students are gathering throughout the program (see Table 1). The first IW centers on assessing current public health issues, focusing on critical review and synthesis of existing literature; there is a focus on gathering, reviewing, and synthesizing evidence, along with communicating it effectively. The second IW focuses on application of knowledge to a policy issue, often requiring students to formulate and advocate for a particular policy position. Students integrate more complex thinking and consideration for contextual factors. The final IW involves the most complex scenario that necessitates cooperation with experts outside of traditional public health roles (eg: industry representatives and politicians) in an urgent situation, with limited information, and minimal time. The third IW is intended to be a culminating experience that incorporates learning from across the program and is conducted near the completion of all coursework. For example, the final IW requires students to respond to a natural disaster or plan for a massive policy change with limited evidence or agreement (e.g., multiple community evacuation decisions following a chemical spill). Skills nurtured in IWs include identifying and conceptualizing problems, oral and written communication tailored to a specific audience, evaluation of public health programs and policies, collaboration and negotiation, advocacy, and decision-making all within a complex and changing context.

### *Meaningful Deliverables*

In IWs, students work toward meaningful and relevant solutions that are feasible within the context and defensible to experts, faculty, and their peers. Deliverables for

the day are intentionally designed to engage all learners, and much like the IWs themselves, deliverables become more complex and involved throughout the year. Most IWs leave the specific details of the deliverables unknown to students until the day of the IW to mimic real-world decision making and simulate a high-pressure situation. Common deliverables for IW#1 include a research summary and a concept map. While most of the work during an IW is done as a team, team members must also work independently on various components of the task to ensure the deliverable is completed on time. This becomes more evident in the deliverables for IW#2 which often require teams to delegate tasks to complete work on time (eg: a stakeholder analysis, a presentation, along with a policy brief, and a media statement). IW#3 builds on deliverables students have had exposure to during the program, but adds complexity through a tight timeline and more demanding requirements. Through meaningful deliverables, learning teams may be required to represent the interests of an assigned stakeholder position; this occasionally means being “forced” into a role that may counter their own personal position or values—for example, advocating for “big soda” or supporting members of the public who are opposed to a public health measure. Requiring students to adopt and adhere to a stakeholder position enhances learning opportunities, creative thinking, and understanding of differing perspectives. Feedback is an essential component of IWs; each deliverable is appraised by the other learning teams, experts, and faculty to assess the appropriateness and feasibility of their proposed solutions.

A newer addition to our IW deliverables has been the addition of individual work to support assessment and attainment of public health competencies. Each student

writes a short reflection paper on the working of their team, commenting on the contribution of different partners, what worked well and what didn't, and how to improve team functioning in the future..

### **Case Example: Policy-Focused IW on E-Cigarettes and Vaping**

To explore how IWs are conducted in greater depth, this section outlines one of the policy-focused IWs run by the Western MPH program. IW#2 was designed to address the growing public health concern surrounding vaping and e-cigarettes. At 1:00pm on the day prior to the scheduled IW, learners received limited information about the workshop. They were asked to read relevant peer-reviewed articles, were provided a brief agenda and details for the day, and were given instructions to prepare three questions to facilitate critical thinking and discussion with the panelists (see Appendix B for description of the IW, tasks/deliverables, and guests).

The IW began at 8:30am with a brief introduction to the topic and review of the day's events. A panel of experts and stakeholders immediately followed. For this IW, the panel included representatives from the local health unit, a physician from Smoke-Free Canada, a representative for smoke-free campus student organizations, and a vaping researcher. Given the controversy associated with vaping and tobacco products, we also had a faculty member representing a pro-vaping perspective. Each panelist had 15 minutes to present their perspective on the issue, after which students were given an opportunity to ask questions. The purpose of the panel was to provide both an overview of the different positions and expert insight into the research and current evidence. Following the panel presentations, learners were given instructions about their specific task. Each learning team was assigned a unique stakeholder position advocating for or against the use of vaping and e-cigarettes. Stakeholder groups included industry, professional, and not-for-profit perspectives (e.g., Juul, Vape-MD, and Drug Free Kids Canada). Teams were provided with a brief description of their stakeholder positions and were encouraged to further research their assigned stakeholder group. For this IW, each learning team was charged with developing a policy brief from the perspective of their assigned stakeholder, and preparing a brief pitch presentation for a government committee (in the IW, this was called the "Standing Committee on Health Promotion"). Specifically, students were asked to use the policy brief to propose solutions for the regulation of vaping products. In the Western MPH program, students received instruction on how to prepare policy briefs throughout their coursework, but in programs where this skill is not taught, students may require training in advance or be provided with a template to guide this activity. Teams were informed the presentation would

occur later in the day and were given just under 2 hours to prepare for it. During the preparation of the policy brief and presentation, learning teams could consult with the invited experts and faculty present.

A mere 30minutes before the presentations were set to occur, students were informed that plans for the presentations had changed. Rather than presenting to the "Standing Committee on Health Promotion," they would be presenting to members of a "Youth Advisory Committee." As a key demographic targeted by vape marketing, youth are disproportionately affected by the growing prevalence of vaping and e-cigarettes (Al-Hamdani et al., 2020; Goldenson et al., 2019). Presenting to youth forced students to consider a different, yet crucial perspective on vaping. It also required teams to tailor their completed presentation to inform a youth audience, communicating their ideas in a way that was audience appropriate (Schulich School of Medicine and Dentistry, 2020). For this IW, members of an already established and active youth organization, the Human Environments Analysis Laboratory Youth Advisory Committee (HEALYAC), were invited. The HEALYAC had independently identified vaping as one of its priority issues and were active in advocating for vaping regulations in our community.

One representative from each team presented their proposal to the youth advisory committee from their assigned stakeholder's position. The committee posed questions and responded to each stakeholder's ideas and proposal. After each team presented, there was an open discussion among all participants, including MPH students, the experts, and faculty. This open dialog began with discussion of the positions of the stakeholders, potential policy outcomes, challenges, and key learnings. The discussion concluded with an opportunity for faculty, students, and guests to debrief and reflect on the overall learnings and objectives of this IW.

### **Learning Opportunities in IWs**

The use of IWs provides students with rich and integrated learning that can be difficult to attain in a traditional classroom approach. Based on our experience with IWs, feedback from current students during IW debriefs, and feedback from our graduates working in public health, IWs provide a unique training opportunity that is useful to achieve numerous learning outcomes. Learners, faculty, and guests alike appreciate the planning, organization, and deliberate attention paid to interprofessional and interdisciplinary learning. We have learned several important lessons in the use of IWs as a key component of the Western MPH program.

First, learners benefit when they are given a multifaceted challenge with real-world constraints. Teams must work quickly and collaborate efficiently to formulate a feasible solution. Bringing in experts and stakeholders

from different backgrounds/professions supports learners in understanding and appreciating the diversity of roles and perspectives in public health (Johnson et al., 2015). Working with experts and stakeholders exposes students to professionals outside of the traditional public health field, and their unique perspectives within a public health context (Ammerman et al., 2014). Of particular importance is the incorporation of perspectives that may represent marginalized or underrepresented views such as a community member impacted by a public health issue (Eckstrand et al., 2016). It is also important to try and build in challenges that may oppose public health action. For example, in an IW on wind turbines, we recruited an expert on wind turbines who could explain the science but also a resident of a town surrounded by turbines to highlight the lived experience. In this case, there was no clear solution; experts said there were no health risks while the resident had many examples of how her health had been impacted. Through this, students were given an opportunity to consider a more holistic approach to “expertise” and a broad definition of evidence that should include lived experience (Rycroft-Malone et al., 2004).

Second, incomplete and imperfect information facilitates students’ critical thinking skills and supports learning strategies to tackle complex public health problems. Learners must find and critically appraise literature on a given topic, identify gaps in knowledge, and work to reduce uncertainty all within a strict timeframe. To enrich the student experience, IWs can be structured to limit the type or quantity of research that can be used. Having access to “the best” and highest quality evidence is a privilege that is not held by many who work in public health (Brownson et al., 2009). Further, learners must be critical of what is taken to be quality evidence (Maudsley & Strivens, 2001). Often, high quality, context-specific information is lacking or inaccessible when needed (Parsons et al., 2003).

Third, IWs support higher order thinking by deliberately scaffolding skill development and knowledge application across IWs (Anderson, 2001). While the topic of each IW varies, the approach to expand the complexity of the problem and demands of students with each subsequent IW matches the increase of knowledge obtained by students in their coursework and facilitates synthesis across courses. Participation in three IWs per year allows students the opportunity to learn from prior IWs and hone their skills to apply, synthesize, and create new knowledge while working cooperatively under constraint. Repeating similar IW formats is advantageous because it provides students the opportunity to prepare for and become accustomed to the process, increasing the chance of learning success for students (Morris, 2016). To this end, the first IW requires students to apply newly developed skills of critical review and knowledge synthesis. The second IW aims to assist students with working

through a policy problem with diverse stakeholders to consider and analyze various approaches and perspectives. The third IW comprehensively addresses learning from across the entire program and integrates the breadth of students’ knowledge.

Student feedback suggests that in addition to providing students with an opportunity to apply the skills and knowledge they have acquired in the classroom, IWs help to refine advocacy skills and build their confidence in communication skills (e.g., being required to present to different audiences without much time to prepare). Informally, students appreciate the interaction and networking with experts that the IWs provide. Experts also appreciate coming into the classroom, and engaging with students in such an interactive way. From the perspective of faculty, IWs allow students to demonstrate competencies and identify areas that may require additional instruction or refinement. Faculty also benefit from the networking and growing connections with experts in the field. We recommend IWs be organized and delivered by faculty and staff internal to the program who have both an intimate knowledge of the students and the curriculum. Future research and quality improvement research should look more critically and rigorously at the value-added by IWs within the MPH program at Western University.

### Limitations

Further research is needed to better understand which components of IWs are essential to create an exceptional learning experience. Our work demonstrates, anecdotally, the process and benefits of using IWs in health education. More rigorous research is required to determine the impact IWs have on specific outcomes such as overall learning and competency attainment. It would also be relevant to explore the implications of this type of learning on employment and job-related skills. As well, while IW can be run virtually, it is unclear how the recent shift to online learning (from the COVID-19 pandemic) might impact the potential benefits of the IW. Finally, in future years, the Western MPH program would benefit from a more formal assessment of practice through student and faculty evaluation at the end of each workshop.

### Conclusion

Public health is a notoriously complicated field. Public health leaders require thoughtful and intricate framing. The purpose of IWs in the Western MPH program is to provide a safe yet challenging interdisciplinary education space in which key concepts from courses can be integrated and applied in real-time, with limited information, to an increasingly complex public health challenge. Students benefit from the active learning components that are built into IWs, which encourage interprofessional and

collaborative learning and knowledge application while exposing learners to the intricacies of a problem from diverse perspectives. Learners must synthesize information across subjects and through expert opinion, challenging tasks, and limited oversight from faculty, apply this knowledge to problem-solve under the simulation of real-world constraints. The unique format of the IWs allow for the cultivation of skills and competencies such

as problem-solving, oral and written communication, advocacy, and teamwork that will aid learners in their public health careers. Ultimately, IWs provide a learning environment that simulates the real-world complexity of public health while providing students with an experience that challenges the knowledge and skills they are acquiring to contribute to their overall development as public health leaders.

## Appendix A

**Table A1.** List of Integrated Workshop Topics and Invited Speakers/Resource Experts, 2013 to 2021.

Cohort	IW	Topics	Tasks + example of expert/stakeholder
2013–2014	1	Wind turbines in Ontario	(1) Prepare questions prior to workshop (2) Town hall presentation of advice for community Guests: community member (living near turbine), public health physician
	2	Supervised injection sites	(1) Prepare questions prior to workshop (2) Presentation of vision and implementation of London InSite Guests: policy expert, chief of police
	3	Community evacuation following chemical spill	(1) Preparation of public communique (released to public)  (2) Recommendations for “least worst” decisions that should be made Guests: experts in disaster management, trainers for local municipality, academics, and community member
2014–2015	1	E-cigarettes	(1) Presentation on PH aspects of e-cigarettes (2) Summarize and rank research recommendations Guests: director of policy development (Canadian Public Health Association), professor (Department of Community Health and Health Behavior)
	2	Organizational response in urgent times	(1) Determine the cause of a dermatological condition (questionnaire and odds ratio calculation) (2) Determine source of exposure: create three questions for experts (3) Create organizational response, crisis management, and communication; and press conference statement Guests: municipal water and sewage engineer, manager at public health unit, and food industry leader
	3	Policy development in public health	(1) Determine actionable items to deal with a current PH policy challenge (assigned) (2) Create and present a policy brief regarding assigned topic Guests: medical officer of health, manager of health promotion, registered dietician, and dean of law
2015–2016	1	Migrant workers’ health	(1) Create concept map and town hall presentation (2) Create research project Guests: migrant agriculture worker’s agency, public health manager
	2	Policy meets practice: IV drug users	(1) Prepare three questions for speakers day before workshop  (2) Create policy plan for assigned organization and presentation Guests: infectious diseases physician, palliative care family physician, and policy analyst
	3	Disaster workshop <sup>a</sup>	<i>Offsite</i>
2016–2017	1	Syrian refugees in Canada	(1) Create concept map on refugee struggles based on research/practice perspective (assigned) (2) Conduct literature search on research/practice (3) Present on research/practice recommendations Guests: internationally trained MD/member of Syrian-Canadian community

(continued)

**Table A1. (continued)**

Cohort	IW	Topics	Tasks + example of expert/stakeholder
2017–2018	2	Policy meets practice: sugar-sweetened beverages	(1) Create policy brief for assigned stakeholder  (2) Conduct Town Hall round table discussion based on policy recommendations Guests: youth advisory council, lobbyist, physicians, and manager of health promotion
	3	Wainfleet water	(1) Complete influence diagram to present to experts (2) Complete risk/bowtie/action plan, present to class, and experts (3) Complete written commentary for submission Guests: medical officer of health and groundwater/septic systems expert
	1	The case of opioids: public health response	(1) Create concept map  (2) Create presentation Guests: executive director of public health professional organization, epidemiologist from public health unit, and manager from public health Ontario
	2	Cannabis policy in Canada: public health vs public safety	(1) Debate  (2) Create briefing note Guests: director of policy development (Canadian Public Health Association), professor (Department of Community Health and Health Behavior)
	3	Wainfleet water	(1) Communicate to a “Town Hall” meeting on their assessment of the problem, the solutions, the risks, or acting/not acting Guests: medical officer of health and groundwater/septic systems expert
	2018–2019	1	The case of opioids: public health response
2		Innovative solutions to complex problems in the developing world <sup>a</sup>	(1) Create solution pitch  Guests: humanitarian worker
3		The evolution of health systems and health governance at the global level	(1) Create briefing note  (2) Present pitch for different stakeholders Guests: internationally trained MD, community members, students, and academics
2019–2020	1	The case of opioids: public health response	(1) Create comprehensive bibliography  (2) Create public presentation Guests: executive director of public health professional organization, epidemiologist from public health unit, and manager from public health Ontario
	2	E-cigarettes and vaping	(1) Create policy brief for assigned Stakeholder (2) Conduct town Hall round table discussion based on policy recommendations/switch audience Guests: director, policy development, Canadian Public Health Association, professor, Department of Community Health and Health Behavior

*(continued)*



Table A1. (continued)

Cohort	IW	Topics	Tasks + example of expert/stakeholder
2020–2021	3	Cancelled—COVID	
	1	COVID and its impact on Mental Health	(1) Create literature review  (2) Create concept map (3) Conduct oral presentation of research priorities and strategies Guests: physician in global health, community medicine doctor, and researcher in indigenous health
	2	Technology and mental health (2 days)	(1) Create pitch  (2) Create planning document (3) Present planning document (4) Prepare 7-minute presentation Guests: eHealth/mHealth Experts, community stakeholders, peer development leaders, and policymakers (provincial and federal)
	3		

<sup>a</sup>Run by external group.

## Appendix B

### *Integrated Workshop on Vaping: Instructions*

*Policy Meets Practice: E-Cigarettes and Vaping  
Integrated Workshop*

February 13 2020

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Schulich Interfaculty Program in Public Health

Schulich School of Medicine & Dentistry

Western University

*Research Support from Lina El-Aloul (BHSc 2020),  
School of Health Studies*

### *Purpose*

The purpose of this workshop is to introduce you to the concepts of policy development, analysis, and implementation. You will be using the skills and knowledge you have gained in the MPH program to analyze a situation which involves e-Cigarettes and Vaping.

### *Background*

An e-cigarette was created with the intended purpose of acting as a less harmful alternative to traditional tobacco smoking (U.S. Department of Health and Human Services, 2016). An e-cigarette is an electronic device that heats liquid into an aerosol solution that can be smoked (NIDA, 2019). The liquid solution normally contains nicotine and comes in a wide range of flavors (Control for Disease Control and Prevention, n.d.). E-cigarettes come in a variety of different styles, many of which mimic the appearance of everyday items like pens and USB sticks (NIDA, 2019). The use of an e-cigarette is referred to as vaping (Control for Disease Control and Prevention, n.d.).

Recently, e-cigarettes have been growing in popularity amongst youth and studies have shown that vaping has become a potential introductory product to smoking, rather than an alternative to current tobacco smokers (Control for Disease Control and Prevention, n.d.). The popularity of e-cigarettes has been attributed to the marketing of the product, which includes over 7,000 different liquid flavors. Researchers have even found that many youths choose to start vaping because of the appealing flavors available such as candy and fruit flavors (NIDA, 2019). The danger in this upward trend is that, although it is less harmful than traditional tobacco smoking, there is little known about the health effects of digesting these flavors as well as other dangerous materials found in liquid solutions such as cancer-causing chemicals, lead, and tin (Control for Disease Control and Prevention, n.d.; U.S. Department of Health and Human Services, 2016). The current regulations put in place have been deemed ineffective in preventing Canadians from possessing these devices. As well, there are currently no federal restrictions on the e-liquids, meaning consumers of all ages have legal access to these solutions. There is growing public health concern about e-cigarettes and support for regulations about quality, safety standards, and advertising (Parliament of Canada, 2004).

### *Current State*

There has been a growing concern across North America about the health effects e-cigarettes and vaping has on people, in particular, young people. As of October 29th, 2019, there have been almost 2,000 incidences of lung injuries and 37 deaths that can be linked to vaping across the United States of America (Center for Disease Control and Prevention, 2019). There is yet to be one

single ingredient identified as the cause of these deaths and injuries; however, tetrahydrocannabinol (THC), the intoxicating component of cannabis, seems to present among most of these cases (Center for Disease Control and Prevention, 2019; Ontario Cannabis Store, 2019). These occurrences have not been reserved to just south of the border; A young person in the Middlesex-London area experienced a severe case of pulmonary illness in September 2019. Similar to the cases in the United States, it cannot be confirmed that this incident was the direct result of vaping but it is the only identifiable cause as of right now (Middlesex-London Health Unit, 2019).

Many health officials have raised concerns about the threat vaping poses to the health of Canadians. Following the incident of pulmonary illness in the London area, the Medical Officer of Health and CEO at the Middlesex-London Health Unit expressed the need to advise the public on the health risks associated with e-cigarettes. Christine Elliot, Ontario Health Minister, issued an order under the Health Protection and Promotions Act (HPPA) that requires hospitals to release information about severe pulmonary diseases linked to vaping to the Ontario Chief Medical Officer of Health (Middlesex-London Health Unit, 2019). Arguably, the largest stride made in e-cigarette regulation is the *Tobacco and Vaping Products Act (TVPA)*, updated in May 2018 to include vaping. The *TVPA* prohibits the sale of vape products to those under the age of 18 and limits the exposure Canadians get to vaping promotional tools (Government of Canada, 2019).

While efforts have been made in terms of public health, there is still much work to be done. A study done by the Ontario Tobacco Research Unit found that only 30% of youth surveyed did not remember seeing e-cigarette promotion in the last 30 days and even more were exposed through non-traditional outlets such as the internet, vape shops, and convenience stores. Of the youth that did vape, over half of them felt they were addicted to it (The Ontario Tobacco Research Unit, 2018).

### Workshop Challenge

Each Learning Team (LT) will be assigned a specific stakeholder position (to be identified and distributed on the day of the workshop). Each LT will be provided with some basic information about the stakeholder they have been assigned, and the LT will have an opportunity to familiarize themselves with the stakeholder's interests and views concerning e-cigarettes and vaping. The LT will be required to represent the interests of their stakeholder before the Federal Standing Committee on Health Promotion, given the Federal government's interests in reconsider *how* they regulate vaping products.

### The Workshop

The day will start with our guest speakers' insights on the problems associated with e-cigarettes and vaping. This opening session features a panel of experts discussing the importance of addressing e-cigarettes and vaping, and reflections on challenges with regulating e-cigarettes and vaping.

This will be followed with a discussion about how the remainder of the day will proceed, including instructions and guidelines for presenting to the Standing Committee. LTs will then be assigned their respective stakeholder positions and will be given time to familiarize themselves with the stakeholder and their view on vaping products. LTs should think about a strategic plan for the remainder of the day. During this time students will also have an opportunity to ask questions of any experts/faculty available to assist them in developing their presentation to the Standing Committee.

After the concurrent sessions there will be a short break for lunch. Afterwards, LTs will head to the break-out session, LTs will work toward two deliverables: (1) a policy brief and (2) a presentation on the brief. Teams should consider the planning models presented in the MPH courses and come up with a comprehensive plan which should include the actions you would take as your assigned group/organization to influence policy. Presentations should be no more than 5 minutes, and *one* member will represent the LT before the Standing Committee. I. Importantly, the Standing Committee has indicated that they are not equipped technologically for slides or digital presentations.

LTs will meet together to prepare a policy brief (max one page) that it will present to the Standing Committee. These policy briefs are due at 13:45 pm.

At 2 pm, each LT will present to the Standing Committee on Health Promotion its proposed approach(es) for addressing vaping. LTs *must* represent the interest of their stakeholder group. Importantly, LTs are not restricted to proposing only those measures identified by the experts. After hearing from each of the stakeholders, the Standing Committee will identify which approach it will pursue, and will give reasons for its decision. It is within the mandate of the Standing Committee to decide to take no action.

All presentations will be graded pass/fail by faculty members.

### Workshop Learning Objectives

1. To apply knowledge gained from MPH coursework in analyzing public health issues (e.g., effectiveness and cost-effectiveness of approaches to a complex policy problem), particularly from a policy and legal perspective.
2. To develop skills in producing plans to influence policy.

3. To gain an understanding of multiple stakeholder perspectives, roles, and responses with regard to healthcare dilemmas.
4. To develop skills in advocacy.
2. Conduct “step 1” of a stakeholder analysis. That is: create a comprehensive list of all stakeholders involved in this issue. Briefly discuss the power and interest of each.

### Speakers

1. Manager, Middlesex-London Health Unit.
2. A physician from Physicians for a Smoke-free Canada.
3. Three representatives from HEAL Lab, Western University.
4. Masters trainee, School of Health Studies, Western University.
5. Director, Health Ethics, Law & Policy Lab, Western University.

### Learning Team Tasks

#### Prior to the Workshop

1. In your learning teams prepare *three* questions that you would like to pose to our speakers regarding the integrated workshop topic. One question must pertain to evidence, one to policy, and finally, one to legal issues that may arise.

Submit three questions and comprehensive stakeholder list by 5:00pm February 12th to Assignments in the MPH 9015Y Transforming Public Health OWL site.

Required readings: (all readings posted to OWL MPH 9015Y)

- [1] Colacci, M. (2020, January 21). *E-cigarettes and vaping: The bad, the good, and the unknown*. <https://healthydebate.ca/2020/01/topic/a-deep-dive-into-vaping>
- [2] Center on Addiction. (2018). *E-cigarettes: Weighing the pros and cons*. <https://www.centeronaddiction.org/e-cigarettes/about-e-cigarettes/e-cigarettes-weighing-pros-and-cons>
- [3] Hartmann-Boyce, J., Begh, R., & Aveyard, P. (2018). Electronic cigarettes for smoking cessation. *BMJ*. <https://doi.org/10.1136/bmj.j5543>
- [4] International Development Research Centre. *How to Write a Policy Brief*. <https://www.idrc.ca/en/how-write-policy-brief>

#### Detailed schedule and instructions:

Time	Activity	Location
8:30–8:40	Introductions and overview of workshop day	Classroom
8:40	Expert panel on e-cigarettes and vaping	
10:00	Break	Foundation lounge
10:20	Question and answer period with expert panel	Classroom
	Summary and instructions	
	<i>Your task is to determine how best to communicate to the Standing committee of Health Promotion the pros, cons and perspectives of vaping. What should be done, and why? What is the evidence? What do we still not know – but need to know? What can we learn from other jurisdictions?</i>	
11:00–12:00	LT stakeholder analysis and Q&A	LT rooms
	<i>Students will be given a list of stakeholders relevant to this case. Use this list to conduct a thorough stakeholder analysis using a tool from HP9004. Determine power, interest and position of each group. Think of strategies for engagement and communication. During this time, our guest will circulate and ask LTs questions. LTs should be prepared to talk with the guests, ask questions for clarification and guidance.</i>	
12:00–12:45	Lunch	Foundation lounge
12:45–13:45	LT preparation for standing committee (Policy Brief—max one page)	LT rooms
	<i>Students will be assigned one of the 10 stakeholder groups to take the position of. Your policy brief should be from the perspective of that stakeholder group – advocating for, or against vaping. Think about your audience and the information needed to support your claims.</i>	
13:45	Policy brief due	OWL
14:00–15:45	Presentations to standing committee on health	Classroom
	<i>Come back to the classroom prepared to present your side of the case! Are you advocating for, or against vaping? Your presentation does not need slides. 1 or 2 members of each team should be prepared to present and succinct “pitch” of the issue and your perspective of it.</i>	
15:45–16:15	Reflection/question period	
16:15–16:20	Conclusion and close of workshop	

## Purpose of Integrated Workshop

This Integrated Workshop is one of the learning activities for MPH 9015Y Transforming Public Health. Its purpose is to introduce students to an exercise of synthesis and integration of the body of knowledge developed to date in the MPH Program.

Each of the specific situations presented in the Integrated Workshop are meant to provide a backdrop and a context to which key concepts and learnings from each of the courses can be synthesized and integrated. The most advanced team presentation will demonstrate holistic integration of learning across courses.

Objectives of the Integrated Workshop (same as the course MPH 9015Y Transforming Public Health):

By engaging with your colleagues and professors after studying and thinking deeply about the material presented, you will be able to:

1. Analyze information from multiple disciplinary and indigenous stakeholder perspectives to determine appropriate implications, uses, gaps, and limitations in a specific situation;
2. Determine the meaning of this information, considering the current ethical, political, scientific, socio-cultural, and economic contexts;
3. Synthesize and integrate knowledge across disciplines, situation specific information, and meaning of this information;
4. Recommend specific actions based on the analysis, synthesis, and integration of information from multiple disciplinary and indigenous stakeholder perspectives; and
5. Revise judgments and change behavior in light of new evidence.

### Competencies assessed:

1. Demonstrate knowledge of the systems in which public health functions, including current public health challenges.
2. Recognize how the determinants of health (biological, social, cultural, economic, and physical) influence the health and well-being of specific population groups.
5. Critically appraise the literature to understand patterns of health and ill health, establish causal associations, and recommend courses of actions.
6. Demonstrate a professional appreciation of the ethical, legal, and social issues in public health policy and practice.
8. Develop and implement a sustainable plan to address public health challenge(s).
12. Discuss the legal framework of public health practice including legislative authority, rights, obligations, and risks, at the federal, provincial, and municipal levels.
13. Optimize organizational performance by applying systems thinking.

## Grading

Consistent with the overall grading for MPH 9015Y, the deliverable from the Integrated Workshop will be a pass/fail. The presentation is intended to be a team effort.

## References

- Center for Disease Control and Prevention. (2019, October 28). *Outbreak of lung injury associated with e-cigarette use, or vaping*. [https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/severe-lung-disease.html](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html)
- Control for Disease Control and Prevention. (n.d.). *About electronic cigarettes (e-cigarettes) | Smoking & tobacco use*. [https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/about-e-cigarettes.html](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.html)
- Government of Canada. (2019, July 31). *Tobacco and vaping products act*. <https://www.canada.ca/en/health-canada/services/smoking-tobacco/vaping/product-safety-regulation.html>
- Middlesex-London Health Unit. (2019, September 18). *Health unit investigates pulmonary illness linked to vaping products*. <https://www.healthunit.com/news/health-unit-investigates-pulmonary-illness-linked-to-vaping-products>
- NIDA. (2019, September 23). *Electronic cigarettes (e-cigarettes)*. Retrieved October 13, 2019, from <https://www.drugabuse.gov/publications/drugfacts/electronic-cigarettes-e-cigarettes>
- Ontario Cannabis Store. (2019) *THC*. <https://ocs.ca/blogs/cannabis-anatomy/thc>
- The Ontario Tobacco Research Unit. (2018). *Youth and young adult vaping in Canada*. [https://otru.org/wp-content/uploads/2018/10/recigwp\\_project\\_news\\_oct2018.pdf](https://otru.org/wp-content/uploads/2018/10/recigwp_project_news_oct2018.pdf)
- Parliament of Canada. (2004). *Vaping: Toward a regulatory framework for e-cigarettes*. <https://www.ourcommons.ca/DocumentViewer/en/41-2/HESA/report-9/page-30#4>
- U.S. Department of Health and Human Services. (2016). *E-cigarette use among youth and young adults. A report of the surgeon general*. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.



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## References

- Al-Hamdani, M., Hopkins, D. B., & Park, T. (2020). Vaping among youth and young adults: A "red alert" state. *Journal*

- of *Public Health Policy*, 41, 63–69. <https://doi.org/10.1057/s41271-019-00193-2>
- Ammerman, A., Smith, T. W., & Calancie, L. (2014). Practice-based evidence in public health: Improving reach, relevance, and results. *Annual Review of Public Health*, 35(1), 47–63. Doi:10.1146/annurev-publhealth-032013-182458
- Anderson, L. W. (2001). *A revision of Bloom's taxonomy of educational objectives*. Longman.
- Barkley, E. F. (2009). *Student engagement techniques: A handbook for college faculty*. Wiley.
- Bonwell, C. C., & Eison, J. A. (1991). *Active learning: creating excitement in the classroom*. School of Education and Human Development, George Washington University.
- Brownson, R. C., Fielding, J. E., & Maylahn, C. M. (2009). Evidence-based public health: A fundamental concept for public health practice. *Annual Review of Public Health*, 30, 175–201. <https://doi.org/10.1146/annurev.publhealth.031308.100134>
- Council on Education for Public Health. (2020). *About*. Author. <https://ceph.org/about/org-info/>
- Eckstrand, K. L., Eliason, J., St. Cloud, T., & Potter, J. (2016). The priority of intersectionality of academic medicine. *Academic Medicine*, 91(7), 904–907. <https://doi.org/10.1097/ACM.0000000000001231>
- Fleming, M. L., Parker, E., Gould, T., & Service, M. (2009). Educating the public health workforce: Issues and challenges. *Australia and New Zealand Health Policy*, 6, 8. <https://doi.org/10.1071/HP090608>
- Goldenson, N. I., Leventhal, A. M., Simpson, K. A., & Barrington-Trimis, J. L. (2019). A review of the use and appeal of flavored electronic cigarettes. *Current Addiction Reports*, 6, 98–113. <https://doi.org/10.1007/s40429-019-00244-4>
- Gupte, G., Wolff, J., Bonawitz, R., Lowe, R., Ananthkrishnan, S., & Maalouf, A. (n.d.). *Workshop A: Activity-based learning—John McCahan Medical Campus Education Day*. Boston University. <http://www.bumc.bu.edu/jmedday/archives/2016-workshops/activity-based-learning-disruptive-innovation-in-education-across-three-schools/>
- Hotchkiss, R. B., Cantiello, J., & Warbington, M. (2013). Active learning in action: Preparing future leaders for policy reform. *Journal of Health Administration Education*, 30(1), 59–67.
- Johnson, S. C., Lynch, C., Lockeman, K. S., & Dow, A. W. (2015). Student-defined needs during interprofessional learning: The role of faculty as facilitators. *Journal of Interprofessional Education & Practice*, 1(2), 37–42. <https://doi.org/10.1016/j.xjep.2015.07.068>
- Kreuter, M. W., De Rosa, C., Howze, E. H., & Baldwin, G. T. (2004). Understanding wicked problems: A key to advancing environmental health promotion. *Health Education & Behavior*, 31(4), 441–454.
- Maudsley, G., & Strivens, J. (2001). Promoting professional knowledge, experiential learning and critical thinking for medical students. *Medical Education*, 34(7), 535–544. <https://doi.org/10.1046/j.1365-2923.2000.00632.x>
- Morris, J. (2016). Implementation of a team-based learning course: Work required and perceptions of the teaching team. *Nurse Education Today*, 46, 146–150. <https://doi.org/10.1016/j.nedt.2016.09.002>
- Parsons, J. E., Merlin, T. L., Taylor, J. E., Wilkinson, D., & Hiller, J. E. (2003). Evidence-based practice in rural and remote clinical practice: Where is the evidence? *The Australian Journal of Rural Health*, 11(5), 242–248. <https://doi.org/10.1111/j.1440-1584.2003.00527.x>
- Public Health Agency of Canada. (2007). *Core competencies for public health in Canada: Release 1.0*. Author. <https://canada.ca/content/dam/phac-aspc/documents/services/public-health-practice/skills-online/core-competencies-public-health-canada/cc-manual-eng090407.pdf>
- Rycroft-Malone, J., Seers, K., Titchen, A., Harvey, G., Kitson, A., & McCormack, B. (2004). What counts as evidence in evidence-based practice. *Journal of Advanced Nursing*, 77(9), 81–90. <https://doi.org/10.1111/j.1365-2648.2004.03068.x>
- Schulich School of Medicine and Dentistry. (2020). *Competencies. Master of Public Health Program*. [https://www.schulich.uwo.ca/publichealth/future\\_students/why\\_western.html](https://www.schulich.uwo.ca/publichealth/future_students/why_western.html)
- Sibbald, S., Speechley, M., & Thind, A. (2016). Adapting to the needs of the public health workforce: An integrated case-based training. *Frontiers in Public Health*, 4, 200. <https://doi.org/10.3389/fpubh.2016.00221>