



Policy Paper

Advocacy and Leadership in Canadian Medical Student Curricula

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Executive Summary

Key Points:

1. **Need:** The CFMS and FMEQ believe that there is a need for an Advocacy and Leadership Curriculum (ALC) to prepare medical students to best serve their patients, and to fulfill their professional responsibility of social responsibility.
2. **Advocacy at Different Levels:** This ALC addresses three spheres of advocacy: the Patient level, the Institutional level, and the Population level (which includes the Community). Please refer to Definitions section for more detail.
3. **Partnership:** A guiding principle of the ALC is to form positive working partnerships with communities and patients and to collaborate with other health professionals to advocate **with**, and on behalf of, patients.
4. **Learning Objectives and Competencies:** The ALC is split into Theoretical, Skill-based, and Application-based learning objectives; through a focus on practical training, advocacy and leadership will be taught as *core skills*. **The ALC is also competency-based.**
5. **Learning By Doing:** The Application-based learning objectives are split into Clinical and Project-based objectives. Application-based learning objectives are prioritized, as these will help consolidate students' mastery of the material.
6. **Advocacy Preceptors:** Faculty will be prepared to act as advocacy preceptors that will provide guidance and assessment for students.
7. **Assessment, Evaluation and Scholarship:** Assessment of the students, and evaluation of the teachers, as well as of the program itself will be critical. and assessment methods will be incorporated into the curriculum. To track long term progress, research will be conducted to examine the eventual social impact of the ALC, as well as its effects on medical student wellness.
8. **Endpoint of the ALC:** At a minimum, students completing the ALC will be conversant in methods for advocating in all three spheres. The students will have developed organizational and communications skills needed to at least support ongoing advocacy causes, will be able to apply theoretical knowledge of social determinants of health and health policy to real-world problems, and will have a sense of social responsibility in their roles as future physicians.
9. **Current Document's Role:** This document, and in particular its appendices, are intended as a comprehensive resource for the CFMS and its members to use when working with Faculties and medical education bodies; therefore, it is intended to be reworked and tailored for these interactions, not sent as-is to decision-makers. Indeed, likely only the Learning Objectives, and a request for advocacy preceptors and advocacy projects will be sent initially.

The roles of Health Advocate and Leader are clearly articulated in the Royal College of Physicians and Surgeons of Canada's CanMEDS 2015 framework, and serve as a strong reminder of the social responsibility borne by physicians [33]. By both their peers and the society they serve, physicians are often expected to act as competent clinicians, to be informed about the social determinants of health, to engage with public health, and to impact the socioeconomic and cultural factors that, in large part, determine the health of the population. In the context of how evolving health systems are reacting to the increasing demand for health services, it is now imperative that physicians look beyond their clinics to the healthcare system and the health of the society in which they practice [50]. Physicians have worked both with and within governments and community and patient organizations in order to take action on improving individual, community, and population health [20]. As a result of their involvement, physicians, advocating alongside other health and public health professionals, have contributed to societal changes that have had positive impacts on population health. As a prime example, the anti-smoking campaigns in the state of New York led to a sharp decrease in smoking rates [1]; similar work has been done in Canada [48]. Another example is the Canadian Medical Association (CMA)'s recent advocacy for seniors' care through their "Demand A Plan" election campaign [58]. Empowering students to participate in advocacy may be protective against the cynicism that can develop in clinical practice [2,5], which in the long run may also improve physician wellness and professional satisfaction.

Despite the demonstrated benefits of physician advocacy, presently Canadian medical curricula do not usually teach practical advocacy and leadership skills to undergraduate medical students in an explicit and consistent manner [3]. Through several consultations, the authors have come to understand that many medical schools didactically teach students about social determinants of health, but few teach skills relevant to advocacy work. Skills such as effective letter writing, negotiation, communication with policy makers, and collaboration with community organizations are critical for advocacy efforts. Given that many of the CanMEDS Health Advocate and Leader learning objectives are of a practical, skill-based nature, it is clear that we must work with faculties of Medicine to create an Advocacy and Leadership Curriculum for Canadian medical students in order to prepare them for the real-world advocacy that is very much a part of residency and clinical practice. The CFMS hopes that tested as well as innovative methods to teach advocacy will create a new generation of advocacy-minded physicians who will be able to speak up for their patients, help create solutions for the problems faced by the Canadian healthcare system, and contribute to improving the health of communities and populations.

The conception of the relationship between advocacy, leadership, patient and population health in this curriculum is as follows: improving the health of individual patients, the health of a population, and the promotion of health within a patient population is the ultimate goal. Achieving this goals requires that students have strong foundations in leadership and communication skills, which are essential to successful advocacy efforts. By training medical students in both leadership and advocacy, they can be empowered to translate the theoretical principles of public health and social determinants of health from the classroom setting to practical applications in their practice and society at large.

This curriculum focuses on three spheres of advocacy: the Patient, the Institution, and the Population (which includes the Community). The Patient sphere focuses on what most

physicians do on a daily basis: advocating for individual patients who need access to tests, medications, or social services or those who have social, cultural or economic barriers to accessing healthcare. This sphere also includes health promotion and principles of preventive medicine. The Institutional sphere focuses on advocating for change and improvement within healthcare institutions and has a strong Quality Improvement component. The Population sphere, which encompasses community and, more broadly, population-level advocacy, focuses on community health planning and organising, health policy [29], healthcare system and government-level advocacy efforts. Advocacy training in all three spheres should emphasize the central theme of advocating *with*, and not just *for*, patients and populations.

This policy paper provides, in addition to the Learning Objectives, a sample curriculum and competencies as well as proposed implementation strategies and assessment schemes. Each school is expected to adapt curricula and competencies based on what they already teach and the resources they have available. This proposed curriculum is an effort to comprehensively collate key topics to effectively train medical students in advocacy. It does not aim to replace but rather to supplement current practices. It is presented with the hope that Faculties will endeavour to meet the Learning Objectives presented here.

Learning Objectives

[\(by CanMEDS Roles\)](#)

The Learning Objectives of the ALC are based on (and in many cases are identical to) the Key Concepts of the CanMEDS Health Advocate and Leader roles, and incorporate elements from other CanMEDS roles (notably Communicator and Collaborator). They are also based on the Medical Council of Canada's Objectives of Training, a review of the literature, the expert opinion of physician advocates, and input from medical students across the country. The Learning Objectives fall into three categories: Theoretical, Skills, and Application. Each category is further subdivided into themes in the appendix. For ease of review, the Theoretical and Skills Learning Objectives have been regrouped according to their parent CanMEDS roles here.

Note: Objectives marked * are from or directly adapted from CanMEDS Health Advocate key concepts

Note: Objectives marked ** are from or directly adapted from CanMEDS Leader key concepts

Note: Numbers at the end of an entry designate which of the three spheres the learning objective is affiliated with (1= Patient Level, 2= Institution Level, 3= Population Level)

Health Advocate:

Theoretical Learning Objectives:

1. *Health system literacy - From the Local to the Federal (2,3)
2. *Principles of health policy and its implications; health policy as a determinant of health (1,2,3)
3. *Determinants of health, including psychological, biological, social, cultural, environmental, educational, and economic determinants, as well as health

- care system factors. This should include factors, such as climate change or migrations, which are transnational in scope but have an effect on health locally. (1,2,3)
4. *Health equity - understanding the meaning of equity in the context of access to healthcare and the patient's course through the healthcare system (1,2,3)
 5. *Health promotion (and health education) - understanding how to educate patients, caregivers, colleagues, and communities (1,2,3)
 6. *Disease prevention - tying all three spheres of health advocacy to disease prevention (1,2,3)
 7. *Health protection - how all three spheres of advocacy are involved in the protection of patient health (1,2,3)
 8. *Social accountability of physicians: the social contract and the profession's relationship to society (1,2,3)
 9. *Adapting practice to respond to the needs of patients, communities, or populations served (1)
 10. *Advocacy in partnership with patients, communities, and populations served (2,3)
 11. *Continuous quality improvement (1,2)
 12. *Fiduciary duty - complying with deontological codes and professional expectations (1,2,3)
 13. *Responsible use of position and influence
 - a. Including the power of the norm: how physicians help decide what is 'normal' and what is disease, and the socio-politico-economic consequences of that (1,2,3)
 14. *Potential for competing health interests of the individuals, communities, or populations served (1,2,3)
 15. *Consideration of justice, efficiency, and effectiveness in the allocation of health care resources for optimal patient care (1,2,3)
 16. Definition of advocacy and of the three spheres of health advocacy (1,2,3)
 17. Tactics, levels, and pathways of advocacy depending on the sphere (1,2,3)
 18. Comparative health systems - understanding how to compare and contrast systems (2,3)
 19. Principles of the formulation and adoption of health and social policy by local, provincial, and federal governments and the role of Health Canada and related bodies (3)
 20. Non-governmental actors in the formulation of health policy (3)
 21. International health policy, the role of organizations like the WHO, and their effect on Canadian health policy (3)
 22. Determinants of Health

A proposed framework (18) is to group determinants of health into the following three categories: 1) health care systems, 2) behavioral and environmental determinants (such as smoking, physical activity, and the environments that support or inhibit these behaviors, as well as air pollution, etc.), and 3) social determinants (such as inadequate education, income inequality/poverty, social isolation). (1,2,3)
 23. Successful and unsuccessful attempts to change the determinants of health (2,3)
 24. Survey of local and prominent national barriers to patient health and an explanation of the nature and sources of these barriers (1,2,3)
 25. Health Law: a survey of the legislation at the local, federal and provincial levels governing the practice of medicine, physician responsibilities, public health, and patient rights (1,2,3)

Skills-Based Learning Objectives:

1. Framing issues, setting objectives, controlling scope of projects and initiatives (1,2,3)
2. Understanding Advocacy Projects and Campaigns, and Creative Problem Solving (2,3)
3. Policy research: understanding and critically assessing public policy (2,3)
4. How to study and understand health policy, and discern its strengths and weaknesses (1,2,3)
5. How to study and understand health systems, and discern systemic strengths and weaknesses (2,3)
6. Utilizing institutional pathways; advocating within the clinic or health network (2)
7. Utilizing government pathways - how to work with government structures when advocating (3)
8. * Mobilizing resources as needed
In this context, 'resources' refers to:
 1. The resources required in the running of institutional and population/community advocacy projects (2,3)
 2. The mobilizing of clinical resources, especially in the context of scarcity, to benefit individual patients (1)
9. Community organizing and community consultation: local-level grassroots advocacy in practice (3)
10. Working on long time-scales (a critical skill given the drawn-out nature of some advocacy initiatives, which depend on slow-moving bureaucracies or decision-making bodies) (1,2,3)
11. Helping patients navigate the healthcare system - understanding the patient perspective, and being able to help patients with their goals and needs (1)
12. Observation and analysis of social determinants of health: from epidemiology to community health issues (2,3)
13. Identifying and removing barriers to health for individual patients (1,2)
14. Identifying and removing barriers to health for communities or populations (1,2,3)
15. Reflective practice - critically reflecting on clinical behavior and using these reflections to fuel quality improvement and changes in practice, while focusing on both patient needs and physician wellness (1)
16. * Continuous quality improvement - learning to identify and act upon opportunities for quality improvement on a longitudinal basis (1,2)
17. How to analyze and apply health law - learning to read and apply key sections of health law; analyzing the basis and consequences of health law for patients, communities, and populations (1,2,3)
18. How to analyze ethical dilemmas - learning to use different ethical systems to approach and resolve ethical dilemmas inside and outside the clinical setting (1,2,3)

Leader:

Theoretical Learning Objectives:

1. ** Health human resources - understanding the mix of health professionals needed for effective service provision and understanding how policy determines the mix of health professionals available (2,3)
2. ** Consideration of justice, efficiency, and effectiveness in the allocation of health care resources for optimal patient care (1,2,3)
3. ** Physician roles and responsibilities in the health care system (1,2,3)
4. **Physicians as active participant-architects within the healthcare system (2,3)

Skills-Based Learning Objectives:

1. Organizing and mobilizing other physicians and other health professionals; interprofessional teamwork skills (2,3)
2. ** Effective committee participation (2,3)
3. ** Leading change - strategies for acting as a change leader (2,3)
4. ** Negotiation - strategies for negotiation in general, and with respect to health policy and institutional change in particular (1,2,3)
5. ** Organizing, structuring, budgeting, and financing - of projects, quality improvements, or advocacy campaigns (2,3)
6. ** Personal leadership skills - how to develop and best use one's leadership qualities (1,2,3)
7. ** Priority-setting - the importance of deciding goal and task hierarchy (1,2,3)
8. **Systems thinking - thinking beyond the examination room to how the system helps determine patient experience (1,2,3)
9. **Time management - strategies for managing busy schedules and keeping projects on-track (1,2,3)

Communicator & Collaborator:

Theoretical Learning Objectives:

1. Cultural Safety (In accordance with the Medical Council of Canada Objectives) (1,2,3)
2. Health communications - a survey of communication about healthcare and media advocacy, from the institution to the community/population (2,3)

Skills-Based Learning Objectives:

1. Communications skills (1,2,3)
2. Navigating health system hierarchies (1,2,3)
3. Navigating government hierarchies (2,3)
4. Dealing with the media (1,2,3)

5. Press releases, editorials and formal letter writing, including writing letters for patients (1,2,3)
6. Running a public awareness campaign, petition writing (2,3) (2,3)
7. Effective messaging, communicating with decision makers, and creating briefing notes (2,3)
8. Utilizing social media for advocacy (2,3)

Application-based Learning Objectives:

The application of theoretical knowledge and skills is encouraged to take place not just through essays or in-class projects, but through practical, real-world experiences. Indeed, clinical advocacy (i.e advocating on behalf of individual patients during clinical rotations) and advocacy projects can be seen as the culmination of the ALC and a true test of the principles it teaches. **As such, practical application of learned skills is the most important part of the ALC; all other elements aim to support this outcome.**

The Application-based Learning Objectives each touch on multiple CanMEDS roles, and as such are not divided by role.

Ideally these experiences would be longitudinal across medical school, and undertaken with a dedicated advocacy preceptor [2] to whom students can report for assessment and guidance. When resources do not permit single students to be paired with preceptors, groups of students can be assigned to the same preceptor. Groups working together on the same project ideally would be assigned to the same preceptor. Group work should be encouraged in most cases as advocacy is almost never carried out successfully by single physicians. Single work may be appropriate when the student is working as part of a team, but is the only team member from their class.

For reasons of both student preference and practical limitations, students may not directly practice health advocacy in all three spheres (though students who wish to should be supported to do so). All students should at minimum have an understanding of what advocacy looks like in each of the three spheres and experience participating in the Clinical sphere as part of their clerkships. Consequently, the applied curriculum shall have two primary components:

1. Patient-level Advocacy Through Clinical Practice:

As stated above, all students will engage in individual patient advocacy as a matter of course as they progress through clerkship. Clinical preceptors must look for and evaluate advocacy competence as they would knowledge or technical skills. The student must also meet regularly with their advocacy preceptor to discuss clinical experiences pertaining to advocacy, to ask questions, and to receive guidance and formative comments as well as assessment. Students will be asked to reflect on and identify the impacts of the social determinants of health on their patients. The advocacy preceptor will support the student in identifying the role of a physician advocate in addressing these issues, as well as the role of other health professionals, community organizations and other services. The institution of "Advocacy Grand Rounds" would serve to create a culture of advocacy within academic medicine and provide students with an

opportunity to present their work advocating with individual patients to their staff and peers. Teaching of concepts of cultural safety should be woven into these experiences.

2. Health Advocacy Through Projects:

Students will be required to select and pursue an advocacy project or projects in one (or more) of the three spheres during their medical school, and to pursue these projects in a longitudinal fashion. They are to be provided with a list of pre-approved or ongoing projects, but must also have the opportunity to propose their own. Projects must be truly applied and cannot consist solely of academic research; the student must actively *advocate* at some point. In addition, a student should be permitted to switch projects if their interests change or if they wish to experience a different sphere or to apply a different skillset. Oversight and guidance is to be provided by an advocacy preceptor, a faculty member who may or may not be directly involved in the student's project, who will act as a resource and evaluator.

The most important part of this project is learning to advocate *with* and not just *for* patients, communities and populations. This means students will need to actively consult with patients and populations- or, when the project does not allow for this, must actively review relevant literature and consult with general members of the community and/or engage a 'citizen focus group'- in order to pursue their advocacy initiatives. When students lack the resources to carry out consultation with groups the project is to affect, or at least to consult general citizens on this issue, another project should be chosen. One model would be for students to engage in service learning prior to beginning their advocacy project in order to become familiar with a community.

Proposed Project Framework:

Projects, while varied in nature, should have a minimum level of difficulty and engagement to be valid. The following are a set of proposed guidelines for projects:

1. A project should require the use of several theoretical and skill-based learning objectives (at least four of each) imparted by the ALC and must have an academic component (e.g. the review or application of literature, the collection and interpretation of data, use of appropriate research methods, etc.), which must be of reasonable quality and relevance. The ALC objectives to be used in the project should be clearly articulated by the student and their preceptor at the beginning of the project and updated as the project evolves. These identified learning objectives and their associated competencies should form the basis for evaluation.
2. A project should be conceptualized as a service to patients, a community, or a population. This population may include fellow medical students, but in all cases projects must have the academic component described above in point 1.
3. A project should be undertaken, when possible, in partnership with the group it serves.
4. A project should be a meaningful advocacy and leadership opportunity aimed at filling an identified need, effecting or supporting some concrete change or improvement in one or more of the three spheres of advocacy.
5. A project should be longitudinal in nature or made up of a series of linked experiences. In the case of a series of linked experiences, a convincing argument must be made by

- the student that the experiences are thematically related, build on each other, and provide consistent opportunities to apply the chosen learning objectives longitudinally.
6. A project must provide an opportunity for the use of the practical skills relevant to the sphere(s) of advocacy which the project falls into.
 7. Projects, if not situational or one-off by necessity, should be sustainable and can be passed on to future students. The creation of new projects should be avoided when they would conflict with existing projects. The Faculty should support students by identifying projects that have already been initiated, and by limiting overlap.

When possible, it would be ideal to have projects run as group projects to encourage learning organisation and task sharing. In these cases, advocacy preceptors may be shared. The value of group work could be further increased by including other health professional students in the advocacy projects.

CFMS Position Statement

1. The CFMS hereby takes a position in favor of integrating an Advocacy and Learning Curriculum (ALC) into the curricula of all medical schools in Canada.
2. The CFMS endorses the Learning Objectives as described in this document as guiding principles for an ALC, and considers the enclosed Sample Curriculum, Sample Competencies, and Sample Evaluation and Implementation Guidelines as a suggested framework that medical school faculties can utilize to structure their ALC.

Accountability Statement:

As an official CFMS policy document, this paper shall fall under the jurisdiction of the CFMS Executive. In particular, the Vice-President Medical Education and the Vice-President Government Affairs shall be jointly responsible for ensuring the tasks, as outlined in this paper, are carried out. While these Executives may delegate tasks relating to the implementation of this document and of its Advocacy Plan (see next section) to appropriate Committees and National Officers, they are ultimately responsible for this paper. The CFMS Advocacy Tracker shall be used to track progress related to these items.

Advocacy Plan:

In order to support the integration of ALCs into Canadian medical school curricula, those identified in the Accountability Statement as being responsible for this paper will pursue the following advocacy plan. The plan may be altered in order to take advantage of potential opportunities or changes in information. Furthermore, when such changes are not confidential, they should be reported through the CFMS Advocacy Tracker.

The plan is as follows:

1. To complete consultation with professors, medical and health professions faculty, medical educators, program directors, residents, and other relevant stakeholders, and

- to incorporate these consultations into a final proposal to the Association of Faculties of Medicine of Canada (AFMC), Medical Council of Canada (MCC), Canadian Medical Association (CMA), the College of Family Physicians of Canada (CFPC) and the Royal College. The goal is to achieve as much consensus and buy-in as possible prior to moving to point two.
2. To present to the relevant bodies a finalized proposal, and to advocate for its adoption by these bodies. To prepare for and engage in discussions about identifying relevant priorities in the ALC, including which elements should be introduced in the short term versus the long term in the medical school curriculum, and which elements are best implemented in residency programs. Priorities will likely include projects and advocacy preceptors.
 3. To collaborate with Faculties, when possible, via students in said Faculties, in order to create and implement ALCs. This step should involve engaging in curricular mapping at each school to determine what ALC content is already being offered, and to better inform the integration of ALCs into existing curricula.
 4. To offer schools support, when required, by providing relevant research, literature, and frameworks to guide the development of a curriculum and to harmonize ALCs with a common ALC framework as negotiated with the aforementioned bodies.
 5. To encourage and engage in research assessing the outcomes of ALCs as outlined in this document, to engage in continual modification and improvement of ALCs at both individual schools and the national level, and to ensure ongoing dialogue with students and faculties on the implementation and effectiveness of the ALC.

Appendix A: Background

Writing about physicians' sense of social responsibility, the editors of *Educating for professionalism: creating a culture of humanism in medical education* [2] lament the fact that modern medical education tends to “suppress social consciousness” and create “non-reflective professionals.” Other authors [5] argue that modern undergraduate medical education teaches students “learned helplessness”, makes them feel distanced from patients, and that their “disillusionment may also make them disinclined to advocate for patients outside the exam room.” This is unfortunate, they argue, because “the ability to advocate—for patients, for self, and for society—is central to improving health.”

Wear, Delese, and Bickelf [2] argue that combating helplessness and disillusionment combined with increasing physician engagement with the populations they serve requires “socialization in medical education... medical ethics, health law... health economics, especially the structure and function of the health care delivery system” among other things. They argue that “the preclinical curriculum should also be redesigned to include socially relevant doing as well as studying” and include “a substantive multidisciplinary track that deals with social issues in medicine.” The authors also assert that in order to create socially responsible physicians, medical students should be exposed not only to the teaching and practice of social responsibility, but to a culture that promotes community engagement. They claim that theoretical courses are not enough, and that instilling a sense of social responsibility requires hands-on skill-based teaching. Letting students “practice their [advocacy] skills on issues they are passionate about” has been suggested [5], and would contribute to instilling student ownership as part of a longitudinal curriculum.

In Canadian medical schools, though many students are taught about the social determinants of health in preclinical years, very little is done to teach students the advocacy skills and related leadership qualities needed to act on their understanding of social issues in medicine [3, 29]. Many students become frustrated or hopeless when faced with patients who cannot access services they need, health institutions running on inefficient models, or changes to or deficiencies in health policies that constitute a threat to their patients' well being [5]. This context demonstrates the need for an Advocacy and Leadership Curriculum (ALC) that will help empower medical students with the knowledge and skills needed to become effective advocates for their patients, within health institutions, and for populations [23]. Indeed, calls for competency-based training for both patient *and* population level advocacy, and for a definition of the scope of physician advocacy are not new [30, 46]. Such training would not only reduce the frustration many students feel when faced with health inequities [6], but will likely result in many student and physician-led initiatives that will have real, positive impacts on patient care and population health [5, 20, 42].

The overarching goal of an ALC would be to help create a generation of physicians who will better serve their patients and communities by actively working on improving their respective systems and engaging with patients' holistic needs [23]. Indeed, LeMay et. al. [20] have found that leadership can be taught and measured, and that teaching leadership to developing world health teams can play a role in improving everything from hygiene to healthy births. Other

studies have shown advocacy teaching can be effective, at least in increasing knowledge and interest in advocacy. One study found that teaching social determinants of health in a pediatric advocacy rotation improved awareness of these issues among residents, indicating that advocacy curricula can be effective [39]. In addition, an elective course in health policy for residents improved self-reported knowledge and interest in health policy and advocacy [40]. A small qualitative study showed that, among other things, exposure to underserved communities and knowledge of social determinants of health motivated physicians in their advocacy work and led them to practice more community responsiveness [41].

This policy paper thus seeks to set out a plan for the ALC, its implementation, and program evaluation. In a Canadian context, the roles of Health Advocate and Leader are recognised as core competencies by the Royal College of Physicians and Surgeons of Canada [3, 4, 29]. Students must be taught the skills to succeed in these roles. Bhate et. al [3] echo the sentiments noted above and argue that training in advocacy should be mandatory in all Canadian medical schools, that this should be done by adding more skill and practice-based teaching to the didactic curriculum, and that such a curriculum may help students meet the “social accountability mandate” of medical education.

Bhate et. al [3], further describes the core problem with advocacy education in medical curricula today:

“... many medical schools provide lectures about theories of systems change and the social determinants of health, with occasional opportunities for service based learning... For many students, particularly those who are interested in social issues, these sessions do not adequately prepare them to advocate, and do little to stem the rise in apathy toward social issues during medical training...In addition, the success of student-led practical programs... suggests that the ubiquitous curricular content focusing solely on teaching the social determinants of health is incomplete without the provision of tools for students to address those determinants... The literature highlights the importance of acquiring both transferable skills and practical knowledge in successfully carrying out advocacy activities.”

In their reflection on the components of an advocacy curriculum, Bhate et. al. [5] suggest that medical students should

“...focus on building knowledge in areas such as health care quality, access, disparities, and financing. Once that foundation is laid, medical students should be taught relevant skill sets, such as effective education, grassroots organizing, and policy-making tactics. Furthermore, interns [i.e clerks] and residents should be offered opportunities to identify problems, gaps, or needs in the health care system and to address such problems, cultivating critical-thinking, problem-solving, and advocacy skills in the process. Faculty mentorship and institutional support will play an important role in ensuring that trainees are not only provided such opportunities but also value and engage in them.”

Many medical schools have mandatory or voluntary faculty-supported advocacy curricula, including the LEAD (Leadership Education Development) program at the University of

Toronto [22], UCSF's PRIME program, the LEADS (Leadership Education Development Scholarship) program at the University of Colorado, and the new advocacy curriculum being implemented at the University of Manitoba. The existence of these initiatives suggests that creating an ALC is both possible and desired by faculty at several institutions. In addition, student-led advocacy experiences, such as national lobby days, have a positive impact on medical students' appreciation of advocacy [7], and medical students are often receptive to these experiences. Several publications [15, 23, 33] have called for increased social accountability in medical schools, which could be attained, in part, by the incorporation of an ALC. Likewise, Faulkner, author of *Teaching Medical Students Social Accountability* [16] has concluded that medical schools have a duty to teach social responsibility. Indeed, in 2005, Professor Sarita Verma, the Associate Dean of Postgraduate Medical Education at the University of Toronto, wrote that, as part of their social contract, a "medical school's primary obligation is to improve the nation's health." [47]. The institution of advocacy and leadership training will better equip graduates to achieve this goal [59].

There is also a need to begin advocacy training before residency. One reason for this is the need to address the fact that residents are less likely than staff to view advocacy as an integral part of their practice. A 2006 survey of US physicians, over 90% of respondents deemed community and population-level advocacy to be an important part of medical practice, and over two thirds of respondents had engaged in at least one type of advocacy activity beyond their individual clinical practice in the last three years [24]. However, a 2002 Queen's study [36] of residents showed that most staff and residents knew very little about teaching or learning health advocacy. The staff in this study were more likely than residents to say that advocacy was a part of their daily practice, clearly showing the need for more formalized teaching and faculty development, and supporting advocacy teaching *before* residency so that junior residents are sensitized to and are prepared to engage in advocacy [38]. In addition, Mu et. al. [38] found that pre-residency factors, such as early exposure to social injustice, inspired residents to engage in advocacy. As such, there seems to be a need to change curricular expectations [29, 37] and Canadian medical school culture. These changes, including advocacy training prior to residency, will help to better prepare medical students for the full range of expected activities as they transition into their role as physicians.

In summary, this policy paper calls for the creation of a mandatory Advocacy and Leadership Curriculum (ALC), which aims to teach medical students both the theory and skills they will need to become effective advocates for patient and population health. It sets out our belief, agreeing with many authors [above, 42], that being an advocate is inherently part of being a physician. We believe that such a curriculum will help create a new generation of empowered, socially conscious, reflective medical students and future physicians who will be at home caring for patients in clinical and advocacy contexts.

Appendix B: Proposed Curriculum Details

The objective of the Advocacy and Leadership Curriculum (ALC) is to prepare medical students for their roles as health and patient advocates in the patient, institutional, and population/community contexts.

At the core of the ALC is the expectation that all physicians must learn to advocate for and with their individual patients, as this is something they will do on a nearly daily basis. Starting from the core skill- patient level advocacy- the ALC broadens in order to encourage understanding of the institutional and community/population level spheres of advocacy, and the significant effects these spheres have on their individual patients. Together with other curricular elements, the ALC aims to teach the value of public health and institutional and population-level work aimed at improving social determinants of health, interventions with far greater potential to save and improve lives compared to the work of any single clinician [1]. Above all else, it is the objective of the ALC to teach advocacy as a *core skill* to be used in the service of patients, communities, and populations.

Successful completion of the ALC is intended to leave students with a good understanding of the theory of advocacy, the social determinants of health, the functioning of the health system and health institutions, legal issues in health, and the social responsibility [16, 33] of physicians. As per *The Committee on Accreditation of Canadian Medical Schools (CACMS) Standards and Elements* [49], students should be able to recognize opportunities for health promotion and illness prevention as well as potential implications of behavioural and socioeconomic factors on health upon completion of the ALC. They will ideally have learned advocacy, leadership, and communication skills, and will have tested many of these skills in various practical settings, including at least one longitudinal advocacy project experience. Students who complete the ALC should be conversant with techniques for advocating within the patient, institutional, and community/population spheres (though they may have had practical experience in only one or two of the spheres).

The ALC is also intended to combat the sense of helplessness and cynicism that many medical students begin to feel throughout their education [2,5] by helping students to continue to see the “big picture” throughout medical school, demystifying the hierarchies and structures that determine the clinical environment, and, most importantly, giving them the tools they need to actually make systemic change happen and help individual patients. The Committee on the Accreditation of Canadian Medical Schools (CACMS) requires Canadian medical schools to teach students the critical skills required “to solve problems of health and illness” [49]. The ALC seeks to provide the necessary knowledge, skills, and experience to effectively solve problems of health and illness while considering both clinical and non-clinical aspects of health. The reflective component of the curriculum is meant to teach students to view their own practices critically and always seek to improve.

The ALC is meant to inspire and empower students as agents of positive change who are duty-bound to serve their patients in the clinical setting and beyond. Furthermore, implementing an ALC should help redefine medical schools as centers for service to the community, as medical students strive to advocate with the populations from which they learn .

With an ALC, medical schools will ideally not only be seen as centers for advanced learning, but will also be resituated, so to speak, in the community and societal context [16, 29].

A Note on Politicization:

It should be noted from the outset that the objective of the ALC is not the politicization of medical students. The curriculum's objective is to teach medical students the skills they need to become effective health advocates; the positions that they decide to advocate for are theirs to determine in partnership with patients and their communities.

Definitions:

A recurring theme in our literature review was the absence of a clear definition and scope for health advocacy, acting as a barrier to curricular progress. As such, we provide here both general definitions of health advocacy and leadership, and then define the three 'spheres' which, together, based on our literature review and consultation with experts in the field, define the scope of health advocacy.

Health Advocacy:

The act of supporting and actively pursuing, verbally or otherwise, a cause or program related to patient or population health. The advocate works *with* patients and populations to identify needs and strengths, and elaborate strategies to address and maximise them, respectively. It is important to understand that in cases where a physician is advocating on behalf of a patient or a patient population, this must be done in collaboration with said patient or patient population. In cases where a physician launches an advocacy effort of their own accord, this must be in response to current or future patient needs and based, as much as possible, on the best available evidence. Physicians are always working *with* patients, and must make efforts to be actively engaged with relevant patients, patient groups and patient populations. These collaborative efforts encourage greater understanding of patient and community needs, and more effective application of health advocacy.

CanMEDS Definition of Health Advocate [4]:

"As Health Advocates, physicians contribute their expertise and influence as they work with communities or patient populations to improve health. They work with those they serve to determine and understand needs, speak on behalf of others when required, and support the mobilization of resources to effect change."

CanMEDS Definition of Leader [4]:

"As Leaders, physicians engage with others to contribute to a vision of a high-quality health care system and take responsibility for the delivery of excellent patient care through their activities as clinicians, administrators, scholars, or teachers."

The Three Spheres of Health Advocacy:

1. Patient-level Health Advocacy [51]:

Advocating with or on behalf of individual patients, such as in cases where physician advocacy is needed to ensure access to services for a patient; adapting one's clinical practice in order to better serve patients; engaging in disease prevention and promoting health for

individual patients. In essence, Patient-level Health Advocacy refers to all situations where the physician acts to change and improve their own practice in response to patient needs or works to advocate for the needs of individual patients. This includes having a methodology for identifying the non-clinical barriers to health experienced by their patients, and developing methodologies and partnerships to address these barriers.

2. Institution-level Health Advocacy [52]:

Advocating for change or improvement of practices (or against a negative change in practices) within one's health institution (or network of institutions) in response to the present or future needs of all patients or a subset of patients, especially those from vulnerable groups. In essence, Institution-level Health Advocacy refers to all situations where a physician, or group of physicians, acts to improve the practices of other physicians, health professionals, and administrators within a defined institutional framework. For example, the restructuring of clinic scheduling to better serve a specific population (such as working single parents) would be considered Institution-level Health Advocacy.

3. Population-level Health Advocacy (including communities) [30,53]:

Advocating for change or improvement of practices (or against a negative change in practices) in response to the present or future needs of all patients or a subset of patients, especially those from vulnerable groups. This includes a spectrum of activities, ranging from health promotion and education within communities to working on municipal, provincial, federal, or global policy change. This spectrum includes public awareness and health promotion targeted at populations instead of individual patients. Community and Population-level Health Advocacy have been combined since both levels of advocacy require similar skills, differing mostly in aspects related to scale. As front-line workers, physicians have insight into the direct impact of policy on the health of their patients, and therefore a responsibility to advocate for policies that most effectively promote the health of their patients. In essence, Population-Level Health Advocacy refers to any situation where a physician, or a group of physicians, acts to change the course of political, administrative, community or popular practices and policies *outside* of a defined health institution framework.

A Note on Physician Engagement in the Three Spheres:

It is understood that the majority of physicians will spend most of their advocacy time engaging in the first and perhaps the second spheres of health advocacy [54]. However, the third sphere is an important aspect of physician social responsibility and one that will yield the most significant benefits for patient populations and communities writ-large [1]. In addition, as different issues come to public attention, many physicians who do not regularly practice in the third sphere may wish to do so [see the example of Bill 20 in Quebec]. Advocacy in this sphere requires a strong foundation in the principles of public health and a broad understanding of health policy and the healthcare system, as well as a skill set that enables physicians to effectively communicate with decision makers outside of the health care system. The ALC will provide all future physicians with the skills to practice collaboratively in all three spheres.

A Note on Rigour:

Health advocacy- like the host of medical, biological and social sciences that inform its practice- requires rigorous training [55]. Good health advocates are not only well informed on every aspect of the issues in which they are engaged, but also have strong analytical capacities to help them synthesize positions from large amounts of data [30]. Other attributes of good health advocates include strong planning and strategic-thinking skills that help them prepare their campaigns and respond to reversals. *They must also possess thorough knowledge of the rules according to which their health systems and governments function [25].* As such, the ALC puts a strong emphasis on teaching students *how* to think, not solely providing them with information. In addition, the level of sophistication and the mental effort required to pass the ALC are both high. For example, students will not be asked simply to memorize passages in health law in order to answer multiple-choice tests; they will have to analyze these passages and apply them to complex situations.

The ALC will likely not be able to ensure that every medical student becomes an expert health advocate who possesses all of the attributes described in the preceding paragraph. For this reason, medical students would be expected to meet certain competencies. These competencies (samples of which can be found below) will focus on ensuring that medical students are aware of and able to define the spheres of advocacy and social determinants of health and are able to apply knowledge as well as leadership, communications, and advocacy skills to real-world projects.

A Note on Interdisciplinarity:

The ALC seeks to expose medical students not only to physician advocates, but to experts in other professions and sectors (education, community organizations, etc...) who are involved in health advocacy on a regular basis. This provides the benefit of learning about the work of colleagues, in addition to offering medical students access to a level of expertise on certain issues that may not commonly be possessed by physicians [56]. For example, while a given physician may be well-versed in health laws governing their practice, they are unlikely to have equal knowledge, in breadth and in depth, to a lawyer or health law scholar. Similarly, while physicians are certainly aware of the difficulties patients face in accessing welfare and other elements of the 'social safety net', most are not as adept at helping patients access these resources as a social worker, and lack the patient's perspective. Collaboration with allied specialists and communities should be seen as integral and essential to the advocacy work done by physicians. Therefore, we encourage faculties to take full advantage of the value of interdisciplinary teaching, and to reciprocate by offering physician expertise to other training programs.

Advocacy Preceptors:

We recommend recruiting and training physicians and residents, preferably those with prior experience in health advocacy [41], to act as advocacy preceptors in support of this curriculum. Advocacy preceptors will provide standardized assessment and guidance for reflective practice, reflection on clinical experiences that relate to advocacy [32], and will act as mentors for the longitudinal advocacy project. The importance of the advocacy preceptors to

the success of the ALC is difficult to overstate. The advocacy preceptors program will be structurally similar to the McGill Osler Fellows program. Students may be paired with preceptors on a one-to-one basis, or groups of students may be paired with one preceptor. Alternatively, students might be assigned to an interdisciplinary advocacy group (made of a mix of medical students and students from other health professions), or be assigned an advocacy preceptor from outside of medicine, providing other opportunities for interprofessional education. Preceptors will be responsible for helping students reflect on cases of patient advocacy, helping guide students through their advocacy projects, and providing formative feedback to, as well as assessment of, students. If possible, students should be given the opportunity to match their assigned advocacy preceptor to their interests.

Learning Objectives:

The Learning Objectives of the ALC are closely aligned with the Key Concepts of the CanMEDS Health Advocate and Leader roles, and incorporate elements from other CanMEDS roles (such as Communicator and Collaborator), the Medical Council of Canada's Objectives site, a review of the literature, the expert opinion of physician advocates, and input from medical students. The Learning Objectives fall into three categories: Theoretical, Skills, and Application (through clinical advocacy and projects). Each category is further subdivided into themes. Application is meant to solidify and expand upon what is learned in the Theoretical and Skills categories, and is arguably the most important part of the curriculum.

It is likely that many of the learning objectives, especially the theoretical ones, overlap with teaching on public and global health and social determinants of health which is often already present in the curricula at most Canadian medical schools. When adapting this proposed curriculum for their own use, we encourage Faculties to ensure that the relevance of public and global health courses to health advocacy is made clear.

Note: Objectives marked * are from or directly adapted from CanMEDS Health Advocate key concepts

Note: Objectives marked ** are from or directly adapted from CanMEDS Leader key concepts

Note: All Medical Council of Canada Health Advocate objectives are met by this curriculum

Note: Numbers at the end of an entry designate which of the three spheres the learning objective is affiliated with.

Note: Some Learning Objectives appear under multiple sections, in order to highlight their affiliation with more than one theme.

Theoretical Learning Objectives:

T1. Advocacy

- a. Definition of advocacy and of the three spheres of health advocacy (1,2,3)
- b. Tactics, levels, and pathways of advocacy depending on the sphere (1,2,3)

T2. Communications

- a. Cultural Safety- understanding the importance of cultural safety in patient interactions and policy and project planning (1,,2,3)

- b. Health communications- a survey of communication about healthcare/media advocacy from the institution to the community to the population (2,3)

T3. Health Systems

- a. Health system literacy- From the Local to the Federal (2,3)
- b. Comparative health systems- understanding how to compare and contrast systems (2,3) (Note: T3b, comparative healthcare systems, also has a skills component and should have a small group/assignment component)
- c. **Health human resources- understanding the mix of health professionals needed for effective service provision (2,3)
- d. **Consideration of justice, efficiency, and effectiveness in the allocation of health care resources for optimal patient care (1,2,3)
- e. ** Physician roles and responsibilities in the health care system (1,2,3)

T4. Health Policy

- a. *Principles of health policy and its implications; health policy as a determinant of health (1,2,3)
- b. **Health human resources- understanding how policy determines the mix of health professionals available (1,2,3)
- c. Principles of the formulation and adoption of health and social policy by local, provincial, and federal governments and the role of Health Canada and related bodies (3)
- d. Non-governmental actors in the formulation of health policy (3)
- e. International health policy, the role of organizations like the WHO, and their effect on Canadian health policy (3)

T5. Determinants of Health

- a. *Determinants of health, including psychological, biological, social, cultural, environmental, educational, and economic determinants, as well as health care system factors. This should include factors, such as climate change or migrations, which are transnational in scope but have an effect on health locally.
 - i. A proposed framework (18) is to group determinants of health into the following three categories: 1) health care systems, 2) behavioral and environmental determinants (such as smoking, physical activity, and the environments that support or inhibit these behaviors, as well as air pollution, etc.), and 3) social determinants (such as inadequate education, income inequality/poverty, social isolation). (1,2,3)
- b. *Health equity- understanding the meaning of equity in the context of access to healthcare and the patient's course through the healthcare system (1,2,3)
- c. *Health promotion (and health education)- understanding how to educate patients, caregivers, colleagues, and communities (1,2,3)
- d. Successful and unsuccessful attempts to change the determinants of health (2,3)
- e. * Disease prevention- tying all three spheres of health advocacy to disease prevention (1,2,3)
- f. *Health protection- how all three spheres of advocacy are involved in the protection of patient health (1,2,3)

T6. Patient Barriers to Health

- a. Survey of local and prominent national barriers to patient health and an explanation of the nature and sources of these barriers (1,2,3)

(Note on T5 and T6: these are mostly covered in the Public Health, Global Health, Social Determinants of Health, Quality Improvement, and Evidence-Based-Medicine Curricula that are already in place at most schools. Programs should ensure that they are covering all of the points listed here, and that an effort is made within these sessions to relate the knowledge students are gaining to application in an advocacy context. It should be understood that extensive training in Evidence Based Medicine, Health promotion and disease prevention, patient education, epidemiology, public health, global health and the various determinants of health should be included as part of T5 and T6. Details are not given here as they are out of the scope of this paper; for a review of global health competencies see the CFMS Global Health Core Competency policy paper [21]).

T7. Physician Social Responsibility

- a. *Social accountability of physicians: the social contract and the profession's relationship to society (1,2,3)
- b. *Adapting practice to respond to the needs of patients, communities, or populations served (1)
- c. *Advocacy in partnership with patients, communities, and populations served (1,2,3)
- d. *Continuous quality improvement- how to critically appraise and continuously improve services provided (1,2)
- e. *Fiduciary duty- complying with deontological codes and professional expectations (1)
- f. *Responsible use of position and influence (1,2,3)
 - Including the power of the norm: how physicians help decide what is 'normal' and what is disease, and the socio-politico-economic consequences of that
- g. **Physicians as active participant-architects within the healthcare system (2,3)

T8. Legal and Ethical Considerations

- a. Health Law: a survey of the legislation at the local, federal and provincial levels governing the practice of medicine, physician responsibilities, public health, and patient rights (1,2,3)
- b. *Potential for competing health interests of the individuals, communities, or populations served (1,2,3)
- c. *Consideration of justice, efficiency, and effectiveness in the allocation of health care resources for optimal patient care (1,2,3)

Skill-Based Learning Objectives:

S1. Advocacy

- a. Framing issues, setting objectives, controlling scope projects and initiatives (2,3)
- b. Understanding Advocacy Projects and Campaigns (2,3)

- c. Policy research- understanding how to research health policy, including how to use appropriate databases (2,3)
 - d. Utilizing institutional pathways; advocating within the clinic or health network (2)
 - e. Utilizing government pathways- how to work with government structures when advocating (3)
 - f. * Mobilizing resources as needed (1,2,3)
 - In this context, 'resources' refers to:
 - 1. The resources required in the running of sphere 2 and 3 advocacy projects (2,3)
 - 2. The mobilizing of clinical resources, especially in the context of scarcity, to benefit individual patients (1)
 - g. Community organizing and community consultation: local-level grassroots advocacy in practice (3)
 - h. Organizing and mobilizing other physicians and other health professionals (2,3)
 - i. ** Effective committee participation (2,3)
 - j. ** Leading change- strategies for acting as a change leader (2,3)
 - k. ** Negotiation- strategies for negotiation in general, and with respect to health policy and institutional change in particular (1,2,3)
 - l. ** Organizing, structuring, budgeting, and financing- of projects, quality improvements, or advocacy campaigns (2,3)
 - m. ** Personal leadership skills- how to develop and best use one's leadership qualities (1,2,3)
 - n. ** Priority-setting- the importance of deciding goal and task hierarchy (1,2,3)
 - o. **Systems thinking- thinking beyond the examination room to how the system helps determine patient experience (1,2,3)
 - p. **Time management- strategies for managing busy schedules and keeping projects on-track (1,2,3)
- (Note: i-p are from the CanMEDS 'Leader' Key Concepts, and are best learned through projects or in aggregate in skills sessions)
- q. Working on long time-scales (this is a critical skill given the drawn-out nature of some advocacy initiatives which depend on slow-moving bureaucracies or decision-making bodies) (1,2,3)
 - r. Creative problem solving- recognizing that many problems have multiple solutions, which can often only be arrived at through creative thinking; strategies for creative thinking (1,2,3)

S2. Communications

- a. Communications skills- interpersonal communications, off and on-line (1,2,3)
- b. Navigating health system hierarchies (1,2,3)
- c. Navigating government hierarchies (2,3)
- d. Dealing with the media- an overview of media strategies, how to do interviews, and how to answer questions to get your message across effectively (1,2,3)
- e. Press releases, editorials and formal letter writing, including writing letters for patients: appreciating and using the power of the written word(1,2,3)
- f. Running a public awareness campaign- messaging, scope, and logistics (2,3)
- g. Effective messaging, communicating with decision makers, and creating briefing notes for decision makers (2,3)

- h. Petition writing- writing clear and concise questions for the public (2,3)
- i. Utilizing social media for advocacy- how to use popular social media platforms for effective advocacy campaigns, while avoiding social media pitfalls (2,3)

S3. Health Systems

- a. Helping patients navigate the healthcare system- understanding the patient perspective, and being able to help patients with the goals and needs (1)
- b. How to study and understand health systems and system strengths and weaknesses (2,3)

S4. Health Policy

- a. How to study and understand health policy and its strengths and weaknesses (1,2,3)

S5. Determinants of Health

- a. Observation and analysis of social determinants of health: from epidemiology to community health issues (2,3)

S6. Patient Barriers to Health

- a. Identifying and removing barriers to health for individual patients (1,2)
- b. Identifying and removing barriers to health for communities or populations (1,2,3)

S7. Physician Social Responsibility

- a. Reflective practice- critically reflecting on clinical behavior and using these reflections to fuel quality improvement and changes in practice, while focusing on both patient needs and physician wellness (1)
- b. *Continuous quality improvement- learning to identify and act upon opportunities for quality improvement on a longitudinal basis (1,2)

S8. Legal and Ethical Considerations

- a. How to analyze and apply health law- learning to read and apply key sections of health law; analyzing the basis and consequences of health law for patients, communities, and populations (1,2,3)
- b. How to analyze ethical dilemmas- the use of different ethical systems to approach and resolve ethical dilemmas inside and outside the clinic (1,2,3)

Application-based Learning Objectives:

The application of theoretical knowledge and skills should not only take place through essays or in-class projects, but through practical experiences. Indeed, patient-level advocacy and projects can be seen as the culmination of the ALC and the true test of the principles it teaches. **As such, clinical advocacy and projects should be seen as the most important part of the ALC- the activity everything else supports.**

It is important that these experiences be longitudinal, and that the student be given an advocacy preceptor [2] to whom they can report for assessment and guidance. For reasons of

both student preference and practical limitations, it will likely be impossible for all students to directly practice health advocacy in all three spheres. However, all students should be participating in the Clinical sphere as part of their clerkships. As such, the applied curriculum shall have two primary components:

A1: Patient-level Advocacy Through Clinical Practice (1)

As stated above, all students will engage in individual patient advocacy as a matter of course as they progress through clerkship. Clinical preceptors must look for and evaluate advocacy competence as they would medical knowledge or technical skills. The student must also meet regularly with their advocacy preceptor to discuss clinical experiences pertaining to advocacy, to ask questions, and to receive guidance and formative comments as well as evaluation. Concepts of cultural safety should be woven into this experience.

A2: Health Advocacy Through Projects (1,2,3)

Students will also be required to select and pursue an advocacy project or projects in one (or more) of the three spheres during their medical education, and to pursue these projects in a longitudinal fashion. They are to be provided with a list of suggested approved projects, but must also have the opportunity to propose their own. Projects must be truly applied and cannot consist solely of academic research; the student must actually *advocate* at some point. Projects may be single long-term experiences (for example, a student may work at their provincial anti-tobacco commission for four years); or several linked experiences (the student may occupy several student government roles over the course of their time in medical school). In addition, a student should be permitted to switch projects if their interests change or they wish to experience a different sphere or apply a different skillset.

The most important part of this project is learning to advocate *with* and not just *for* patients, communities and populations. This means students will need to actively consult with patients and populations- or, when the project does not allow for this, must actively review relevant literature and consult with general members of the community and/or engage a 'citizen focus group'- in order to pursue their advocacy initiatives. When students lack the resources to carry out consultation with groups the project is to affect or to survey citizens on the issue, another project should be chosen. In one possible model, students would first engage in service learning (community service done through the medical school; see McGill Community Health Alliance Project [CHAP] and the University of Toronto's Health, Illness and the Community [HIC] program) and then use this experience to get to know a population and to better understand social determinants of health in practice [32]. Students would then design an advocacy project in partnership with this population or community, and execute the project while working closely with them. An excellent example of this is a description of the HIC program at the University of Toronto found in [44].

Oversight, assessment, and guidance should be provided by an advocacy preceptor, who may or may not be directly involved in the student's project. While the precise structure of the project will vary, the competencies, milestones, and proposed project framework below will give some indication of what is expected.

When possible, it would be ideal to have projects run as group projects to encourage learning organisation and task sharing. In these cases advocacy preceptors may be shared. The value of group work could be further increased by making it interdisciplinary in nature (i.e. medical students could work with students from other health professions on projects relevant to all parties involved).

Proposed Project Framework:

Projects, while varied in nature, should have a minimum level of difficulty and engagement to be valid. The following are a set of proposed guidelines for projects:

- 1) A project should require the use of several theoretical and skill-based learning objectives (at least four of each) imparted by the ALC and must have an academic component (e.g. the review or application of literature, the collection and interpretation of data, etc...) which must be of reasonable quality and relevance. The ALC objectives to be used in the project should be clearly articulated by the student and their preceptor at the beginning of the project and updated as the project evolves. These identified learning objectives and their associated competencies should form the basis for assessment.
- 2) A project should be conceptualized as a service to patients, a community, or a population. This population may include fellow medical students, but in all cases projects must have the academic component described above in point 1.
- 3) A project should be undertaken, when possible, in partnership with the group it serves.
- 4) A project should be a meaningful advocacy and leadership opportunity aimed at affecting or supporting some concrete change or improvement in one or more of the three spheres of advocacy.
- 5) A project should be longitudinal in nature or made up of a series of linked experiences. In the case of a series of linked experiences, a convincing argument must be made by the student that the experiences are thematically related, build on each other and provide consistent opportunities to apply the chosen learning objectives longitudinally.
- 6) A project must provide an opportunity for the use of the practical skills relevant to the sphere or spheres of advocacy which the project falls into.
- 7) Projects, if not situational or one-off by necessity, should be sustainable and passed to future students. The creation of new projects should be avoided when they would conflict with existing projects.

Projects would begin with a project proposal, which would be evaluated by the advocacy preceptor with reference to the above guidelines. Once a project is accepted in principle, the student would commence work by outlining, in conjunction with their preceptor, which sphere the project falls into and which Learning Objectives and skills the project would help meet and develop, respectively. The preceptor would then decide if the project has enough educational value for final acceptance. Assuming the project is accepted, it would progress as follows:

Step 1: Relevant research and planning of consultation of relevant stakeholders. Forming of project group

Step 2: Consultation and problem formulation (when applicable, in partnership with the groups the project intends to serve and other relevant stakeholders (experts, clinic staff, nurses, etc...))

Step 3: Proposition of solutions followed by discussion and choice of paths to pursue (these may cut across spheres)

Step 4: Planning for implementation of solutions proposed (when applicable, in partnership with the groups the project intends to serve)

Step 5: Carrying out implementation plan (with review and reformulation when necessary; when applicable, in partnership with the groups the project intends to serve and other relevant stakeholders). Evaluation of the implementation should be undertaken.

Step 6: Reflection on project effectiveness and need for changes to the approaches taken. Handover of the project to the next students taking on the project (when applicable). Written exit reports should be prepared to ensure institutional memory.

Another useful potential planning framework for projects is the A3 methodology [10,11].

Sample Project:

Project title: Better Obstetric Clinic Scheduling for Working Women in a Low SES Region

Objective: This project will focus on planning Obstetrical clinic schedules in a low SES region to better meet the needs of working pregnant women. Divide group tasks effectively.

Introduction: Working pregnant women from low SES regions often cannot attend, or incur significant costs in attending, regularly scheduled prenatal visits during working hours. Physicians and clinics have economic and logistical barriers to changing schedules that must be addressed.

Applicable Learning Objectives:

A. Theoretical

- I. Social determinants of health (T5a)
- II. Adapting practice to conform to the needs of patients (T7b)
- III. Patient barriers to health (T6a)
- IV. Health Equity (T5b)

B. Skills-based

- I. Framing issues, setting objectives, controlling scope (S1a)
- II. Creative problem solving (S1r)
- III. Negotiation (S1k)
- IV. Effective committee participation (S1i)

Step 1: Divide group tasks. Research of best practices elsewhere. Design and administer a survey to low-SES women on barriers to accessing care and times when they are more able to come to the clinic. Meet with clinic management and obtain a date to present to the clinic's directorship.

Step 2: Work with a focus group of low-SES women to develop a proposal to bring to the clinic's directors. Assign group members to data collection, conversation facilitation, and other roles.

Step 3: Meet with clinic directors and present initial proposal; modify proposal to meet clinic's limitations. Identify these limitations and attempt to create creative solutions.

Step 4: Once proposal has been accepted, create an implementation plan.

Step 5: Carry out plan and evaluate effectiveness as per agreed-upon measures (i.e how many more women find the clinic more accessible). Survey women to see if new hours work better for them.

Step 6: Reflect on project experience and prepare exit report to hand over to another student (who will be trying to implement the project in another region).

Appendix C: Sample Curriculum (for a 4 year program)

The following is an *example* of a curriculum; it is not a definitive guide to course content and it is expected that programs will adapt it, or create their own content, in order to meet the learning objectives described above. Programs will likely already be meeting some of the learning objectives; in these cases, programs are invited to use the sample curriculum to inform the development of the courses needed to fulfill the remaining learning objectives. It is also understood that many of the learning objectives are already addressed in existing Public Health, Global Health, Professionalism, Social Determinants of Health, and Evidence-Based-Medicine curricula; thus for purposes of curriculum mapping, existing courses may be incorporated into an ALC and do not need to be replicated (though some modifications may be needed in order to broaden the scope of some lectures in order to include a clear link to applied advocacy- for example, the integration of health promotion and disease prevention into pathology courses [45]).

Time commitment: Roughly 22-24 hours of class/lecture and small group time plus 1-2 days at the simulation center. This estimate does not include time spent on the advocacy projects, doing clinical advocacy, or meeting with advocacy preceptors.

***Note that letters and numbers in brackets after course titles refer to related Learning Objectives. Estimated lecture/small group length is indicated. Any Learning Objectives not *specifically* addressed by the sample Curriculum's small groups and classes are expected to be met by the advocacy projects and service learning opportunities.

Note on Lectures: some schools may choose to substitute the lectures presented here for problem-based-learning session. If resources permit, this is the preferred option.

Year 1:

In year one, the focus is on acquiring the theoretical foundation for health advocacy, as well as the basic skills needed to start working on advocacy projects. A first in-class project allows the student to begin using their newly acquired skills and knowledge and begin thinking like an advocate. Service learning is also ideal at this point, or in second year, in order to cement understanding of social determinants of health in an applied setting and to begin training in community organising and consultation.

Theoretical Courses:

1. **Defining Health Advocacy (1 hour) (T1a)**
 - a. What does Health Advocacy mean?
 - b. What are the three spheres?
 - c. What are the benefits of advocacy in each sphere? What does it look like in practice?
 - d. Format: speaker series, with physician advocates practicing in all 3 spheres.
2. **Physician Social Responsibility (1.5 hours) (T7a, T7g)**
 - a. What is physician social responsibility in each of the three spheres?

- b. What is the social contract and its history?
- c. How do physicians fail and succeed in their social responsibility?
- d. Why is it important for patients that physicians be active advocates in all three spheres?
- e. Format: introductory lecture followed by discussion in small groups. Academic reading- not simply guidelines- should be provided. Students should be encouraged to discuss and debate the relative importance of advocacy in the practice of the average physician.

3. Advocating for and with communities and populations (1.5 hours) (T1c)

- a. Social justice vs. paternalism- when do we cross the line?
- a. How does one understand the issues different socio-cultural-economic groups face?
- b. How does one advocate WITH a patient group?
- c. How does one reach out to a community to get a better understanding of their needs?
- d. Format: joint presentation by a socially engaged physician and representatives from a community group. A small group led by community representatives discussing how physicians can best support patients through advocacy should follow.

4. All points under T5 and T6 should be covered under the rest of the regular curriculum's teaching on social determinants of health, public health, and global health. Specific topics, such as socioeconomic class, indigenous health and socioeconomic issues, and a comprehensive overview of LGBTQ population needs (including the trans* population) should be included, and links made by professors back to the main ALC curriculum. In addition, at some point an analysis of successful and unsuccessful examples of physician advocacy should be demonstrated. Students should come away with a clear understanding that the direct provision of healthcare is not the deciding factor in determining the overall health of the population. The goal should not be simply raising student awareness of the struggles patients face and their social contexts; it should be able to convince students that health protection, and therefore physician responsibility, starts long before patients ever reach the clinic; in fact it begins long before they are even born. Whenever possible courses and small groups about vulnerable population groups should be taught by both a physician and an empowered representative of that group. It is also understood that these courses will include strong public health content, and that a parallel Evidence-Based-Medicine curriculum is being provided (including training in epidemiology and the critical appraisal and application of data), as these subjects are relevant to physician advocacy (T5,T6)

5. Health Systems Introduction (see format for time) (T2a,c,e)

- a. A discussion of the history and current state of the Canadian health care system and an analysis of the provincial health care system. Emphasis should be placed on understanding the roles of primary, secondary, and tertiary care; on understanding the role of the physician in the health system as a leader and team member; on understanding the movement of patients through the system; on understanding health care system hierarchies; the public health system, and health human resources and interdisciplinary teams; and on the

financing of healthcare and the relationship of financing models to patient access and care quality. A survey of current issues facing the healthcare system should be included.

- b. Format: introductory lecture followed a few days later by a small group discussing readings about successful and unsuccessful healthcare system practices and interventions. The small group should solidify what is learned in lecture.

6. Hard Choices (1 hour) (T3d)

- a. The impact of social policy, institutional, and physician choices on patient health. This should be a small group focused at discussing difficult ethical questions about how to decide which services to fund, how to deal with situations where what is good for an individual patient may not be good for society and vice versa. Discussion of relative effectiveness and impact of different public health and medical interventions (ex. Vaccination programs vs. heart transplants) and the importance of non-clinical public health policy (such as environmental policies related to smoking). The impact of local work and changes in local practices on the whole system should be discussed.
- b. Format : small group

7. Health policy as a determinant of health (1 hour lecture and small group) (all of T4)

- a. What is health policy? Who sets it? How is it decided?
- b. What policies are in the jurisdictions of local, provincial, federal, and international authorities?
- c. What non-governmental and corporate actors are involved?
- d. What is the role of the international organisations, like WHO? (optional)
- e. What impact does health policy have on patient health and access?
- f. Concrete examples of beneficial and harmful health policies should be given.
- g. Cultural safety in health policy
- h. Format: survey-style lecture to be given by a physician or other professional who has been directly involved in health policy creation. A discussion of the real impacts of health policy should occur in the following small group.

8. Communications (T2b)

A lecture on institutional, community-level, and mass-media communications for health advocacy and patient education. The focus should be on medical students understanding and being able to critically analyze mass-media campaigns, and may expand to the implementation of such campaigns in advocacy work.

Skills Courses (one hour small groups unless otherwise noted)

1. **Advocacy as a practical skill**: A series of workshops on how to approach issues and become an effective health advocate and leader. Each session begins by introducing the listed concepts, and then having students apply them through an in-class exercise and discussion. For these sessions to be effective, the problems posed must be *difficult*. Students should be presented with situations that challenge their abilities. The

situations should not simply have ‘no right answer’; there must be consequences for every decision, and students will need to learn to think strategically.

- Session 1 (S1a, S1n, S1j, S1k, S1m, S1q)
 - I. Framing issues, setting objectives, controlling scope
 - II. Priority setting
 - III. The importance of learning to work on long time-scales
 - IV. Leading change- effective and ineffective leadership styles

- Session 2: Effective organizing (S1f, S1g, S1h, S1l, S1p)
 - This session focuses on the organizational aspects of running advocacy campaigns and should teach:
 - I. Community and professional organizing
 - II. Time and budget management
 - III. Resource and personnel mobilization.
 - IV. Communicating and consulting with patients, communities and patient groups: how to be an effective listener and advocate for patient needs

This is best done via a scenario where students are given actual and potential resources and are challenged to organize and recruit resources, build governance structures, and assign tasks and funds to team members. A situation focusing on community organizing, identifying an issue with a community, consulting with that community, and working with that community to address the issue should be included.

- Session 3 (S1b, T1b, S1o)
 - I. Advocacy Projects and Campaigns; dealing with counter-campaigns
 - II. Tactics, levels, and pathways of advocacy depending on the sphere
 - III. Thinking about advocacy strategically and from a systems-level

Creativity in the design of these small groups and workshops is key. For example, when being taught about campaigns and counter campaigns, the teacher can bring in a board game, such as Risk™, and visually represent student progress and failures as they build their campaign and respond to counter-tactics by their opponents. Casting students in roles- for example, a third of the room is the tobacco industry, a third is a legislature, and a third is an anti-tobacco advocacy group trying to convince the legislature to tighten tobacco laws- is another way to get students engaged and thinking. It is also important not to leave activities to the end, and to give students enough time to sink their teeth into the problems posed to them.

- Session 4 (S1i)
 - I. Effective committee participation: what is a medical student’s role on a committee? How do you speak up? How do you read the politics around the table? This session should simulate a committee session on a given topic. Students are assigned roles, given preparatory reading, and the teacher acts as committee chair. Students- and physicians- spend a lot a time on committees, so this session should be well structured. Students may also take turns chairing in order to improve their meeting management skills

(given limited time, only students who have not chaired committees in the past should be given this opportunity).

- Session 5 (S1d, S1e):
 - I. Negotiation skills
 - II. Utilizing institutional and government pathways
 - III. Creative Problem Solving and application to policy formulationNote: this session should be taught by an experienced negotiator- call on colleagues in law, lobbying, or government as needed.

2. Communications (S2a, S2b, S2c, S2g)

- Session on effective communications skills, navigating hierarchies intelligently, email writing, and effective messaging (ideally taught by a marketing or communications expert with healthcare experience)

3. Patient barriers to health (S6a, S6b)

- I. Identifying and removing barriers to health for individual patients
- II. Identifying and removing barriers to health for populations

It is recommended that this session is run as a problem solving session (i.e students are given a hypothetical patient and asked to create a plan to improve that patient's access to care). Working with other health professionals and other community resources is key to this session.

4. Quality improvement (S7b)

Describe a clinical program (i.e emergency stroke protocols) and identify and come up with a plan to correct shortfalls in the program. The focus should not only be on the proper protocols to put into place, but on how to secure the buy-in, funding and infrastructure needed for the program to succeed.

Application (S5a):

1. Applied social determinants of health project: writing a project proposal

- Students should pick a vulnerable population, meet with representatives from that population when possible, and design an institutional or population level intervention to improve a specific health issue in that population. The project should focus on addressing a barrier identified during the meeting and demonstrate the students' ability to recognize the impacts of the social determinants of health and the role of health care and allied professionals in addressing these barriers. The project should begin with research, followed by writing a proposal for the intervention. This proposal should include a clear and well thought out plan to implement the intervention, should have an implementation timeline, and should have measures to determine how successful the intervention is. In the implementation section the pathways that will be utilized in order to bring the project to fruition should be laid out. The final product is a project proposal. Once

completed, students should be encouraged to put this proposal into practice and may use that as the foundation for their longitudinal advocacy project.

2. Longitudinal advocacy project

- In year one, after completing their longitudinal advocacy project proposal, students should focus on getting their project started (defining their initial goals, setting up meetings with their advocacy preceptor, and beginning to apply what they are learning in class to the 'real world'). Students should be well supported to begin their own advocacy projects if they are so motivated; if they wish to join an existing effort, an exhaustive list of local initiatives- run by students, physicians, other health professionals, patient groups, or other professionals- should be made available by the faculty, and the faculty should aid the student in contacting these organisations and setting up their project.

3. Service Learning

- Schools are encouraged, in the first or second year, to have students rotate through community organisations (see the McGill CHAP program). This is an applied form of learning the social determinants of health, also known as service learning; these experiences should be reflected upon and the faculty should encourage students to use these experiences to inspire student-led advocacy initiatives or the longitudinal advocacy project [for a review of the historical and current importance of social and community service, see 28]. These community exposure programs, while often being more observer and service experiences than advocacy experiences *per se*, have an important role in informing advocacy work [41]. For a model of how working with communities and focusing on strengths and capacity building (and not solely on needs) can be effective, see the CPT program at UC Davis [31].
- An alternative experience to rotating through community organisations is to have medical students, once they have completed a workshop on guiding patients through the healthcare system, volunteer as patient guides and patient advocates. This has the benefit of showing students the 'other side' of healthcare and experiencing first hand the difficult social, logistical and bureaucratic situations that patients face. It is also less resource intensive than loading local community organisations with medical students. Tasks would include helping patients keep track of and attend appointments, ensuring patients are given appropriate explanations of conditions and treatments, helping patients navigate complex care (i.e complex cancer care with multiple providers) and advocating for vulnerable patients who may be the object of neglect or abuse either within the healthcare system or in their daily life.
- It is important to understand that service learning, by itself, is not sufficient to meet the criteria of a socially accountable medical school [17] and as such should be seen as a first step towards longitudinal advocacy projects.

Year 2:

In year two, more advanced skills are learned, and concepts from year one are refreshed and solidified through simulation-center activities and analytical projects and essays. Theoretical knowledge expands to health law. By the end of year two, most theoretical knowledge should have been acquired.

Theoretical sessions:

1. Physician social responsibility (1 hour) (T7a,e)

- a) Adapting practice to respond to the needs of patients, communities, or population served and the responsibility for continuous quality improvement
- b) Fiduciary duty and responsible use of position and influence as well as an acknowledgment of the privileged place physicians hold in society and the power structures and potential for oppressive practices that come with that power (This is paired well with courses on professionalism). Examples of physician abuse of power should be presented- not only extreme cases like Tuskegee or the Holocaust, but more subtle and controversial examples such as striking against medicare, or refusing to treat refugees. Include power of the norm: how physicians help decide what is 'normal' and what is disease, and the socio-politico-economic consequences of that.

2. Health Law and Laws Affecting Health (2 hours) (T8a)

- a) The Canada Health Act
- b) Provincial Health Laws
- c) Laws affecting health (i.e food regulation, consumer protection, laws governing social programs not directly related to healthcare)
- d) Deontological Codes
- e) How the profession is regulated
- f) Relevant readings should be assigned and tested through MCQs, short-answer questions, or assignments.

Skill sessions:

1. Policy Research (S1c) (1 hour small group)

- a) How to research policy, appropriate databases to use, how to research local and federal health policies- in preparation for small group on letter writing (see 2b)

2. Communications (to be provided in small groups of length and design determined by the faculty)

- a) Media training (can be provided by the CMA) (S2d)
- b) Press release, petition, and formal letter writing (S2e, S2h)
 - i. All students will need to prepare a letter to an Member of Parliament or member of a local governing body or legislature (or to a newspaper or other relevant public outlet) on a topic of their choice. Students who are able to secure meetings with government officials should be trained by their advocacy preceptor for the meeting, and a debrief should take place after the meeting.

- c) Writing letters for patients- the power of a physician letter (S2e)
- d) Creating and running a public awareness campaign (this should be an interactive workshop run by a professional with experience in health-related public awareness campaigns) (S2f)
- e) Social media- how to use social media for advocacy (and avoid misusing it) (S2i)

3. Health Systems

- a) Workshop on helping patients navigate the healthcare system. Ideally given by a social worker or patient advocate. Include concepts of cultural safety (1 hour) (S3a)
- b) Health system analysis: a workshop on analyzing healthcare system organization and data. (1 hour small group and assignment)
 - i. Comparative health systems project: students are to be assigned a specific topic (i.e how patients access specialty care) and asked to compare and contrast practices in different provinces or countries. (T3b)

4. Health Policy

- a) A workshop on health policy analysis; the intersection of health and social policy (S4a) (1 hour)
 - i. Students are to select and analyze a health or social policy and generate a critique of the policy in short essay format

5. Legal and Ethical Considerations

- a) A workshop on analyzing health law, given by a lawyer in the field if possible. (S8a) (1 hour)
 - i. Students will be expected to present an explanation, impact analysis and critique of a segment of health law to their classmates based on assigned readings.
- b) A series of workshops on analyzing ethical dilemmas using several different ethical systems (deontological, utilitarian, etc...). These should be led by a bioethicist or physician with ethics training. Time for discussion and debate should be allowed; controversial subjects should be presented. In the final session, small groups should be pre-assigned an ethical issue, separated into randomized teams, and present formal arguments using a specified ethical system in a debate. (S8b) (2 hours)

Note that throughout these sessions the teacher's role is to incite debate, show students weaknesses in their arguments, play devil's advocate, and generally encourage- if not demand- rigorous academic thought.

6. Physician Social Responsibility (30 minute talk and discussion followed by meetings with advocacy preceptors) (S7a)

- a) An introduction to reflective practice. This should be a presentation and class discussion followed by meetings with the advocacy preceptors. Students must begin thinking about how they will engage in reflective practice during their clerkship years.

Application and application training sessions:

- 1. Longitudinal Advocacy Project- the project continues, under the supervision of the advocacy preceptor.**
- 2. Simulation Center Sessions (Interprofessional when possible)**

During the course of the 2nd year, medical students following the ALC will have their accumulated advocacy knowledge and skills put to the test via simulation center, OSCE type *formative* sessions. In fourth year, when these sessions are repeated, progress from 2nd year will be noted and discussed. These sessions will explore each of the three spheres of advocacy.

Here is an example of a simulation center advocacy program:

6 OSCE stations. 3 stations dealing with the first sphere (patient-level advocacy); 2 stations dealing with the second sphere (institutional advocacy) and 1 station dealing with the third sphere (community/population level advocacy)

Example first sphere station: The student is asked to help a patient from a First Nations reserve navigate the health system as they attempt to access services. They must deal with a prejudiced physician.

Example first sphere station: The student is the physician of a young transgendered biologically male child who has been living as a girl at his school. His school inadvertently discovers that the child is trans* and wants to make the information available to the parents of other children. The student must convince the school not to release the information.

Example second sphere station: a student, given a clinic schedule and a fact sheet about the needs of the local population, must convince the clinic manager to change the clinic schedule to better serve patient needs. The student must deal with the budgetary pressures the manager is facing.

Example third sphere station: The student is given in advance a policy paper on stricter tobacco legislation. They must then come before a simulated parliamentary commission and present the paper and then endure cross-examination by tobacco industry lobbyists.

After each station, the students should debrief and discuss with a preceptor who was watching the situation.

Year 3:

As the student moves into clerkship, most skills training will be focused on the first, clinical sphere of advocacy. The Advocacy Project takes on more importance as a balancing force to help the student keep seeing the "bigger picture". Reflective writing and conversations with the advocacy preceptor take on increased importance. Protected time for the longitudinal project should be provided.

Application:

1. Reflective practice- the student should regularly meet with the preceptor to discuss how they are implementing reflective practice and adapting to their patient's circumstances and needs. Clinical situations of note should be discussed. Reflective writing should be undertaken.
2. Longitudinal Advocacy Project

Year 4:

As the student moves into fourth year and CARMS/electives, the primary focus is on the Advocacy Project. The student must not only complete a detailed report on the project, but must take stock of the impact they have had. The class should be polled with respect to their comfort level in a variety of topics and time should be set aside for refresher courses on the topics that students are least comfortable with (this is recommended but optional). Protected time for the longitudinal project should be provided.

Theoretical and Skill based sessions:

- Refresher courses as dictated by survey results

Application:

- Longitudinal Advocacy Project
- Quality Improvement Project (see the Quality Improvement competency for more details)
- Longitudinal Advocacy Project final report and handover (if applicable and with advocacy preceptor support if needed)
- Second advocacy sim center session

NOTE: Given time constraints, some theoretical and skills classes from years 1 and 2 may be transferred to year 4, but this is not ideal given that the knowledge and skills imparted by these classes will inform the execution of the longitudinal advocacy project, which will be already advanced in year 4.

Sample list of Approved Longitudinal Advocacy Projects (if the student is not involved in a single long-term project, they must involve themselves in a number of smaller short-term projects):

- Sphere 1:
 - ❖ Working long-term at a clinic for underserved populations and demonstrating advocacy on behalf of individual patients
 - ❖ Engaging in patient accompaniment and advocating for patients as they move through the health system
 - ❖ Engaging in formal research about better health practices and applying that research to their own practice; presenting this work for the benefit of colleagues (mixed sphere 1 and 2)
- Sphere 2:
 - ❖ Sitting on University, Faculty or Hospital committees that deal with healthcare access, vulnerable patient groups, inclusiveness and equity, etc...

- ❖ Working with physicians who are reforming their clinical practices to better meet patient needs.
- ❖ A quality improvement project, potentially using the A3 and Lean methodologies, that aims at changing practice in a hospital or other clinical environment, completed while working with a patient population with the goal of improving the services available to them
- Sphere 3:
 - ❖ Model World Health Organisation simulations conferences, other global health conferences with an active component
 - ❖ Working with a special interest group (ex: provincial anti-tobacco coalition)
 - ❖ Internship at a public health department or NGO (not just research; the student must at least produce some recommendations and present them to an internal committee or supervisor).
 - ❖ Political or student government involvement that relates to health issues (including student health and wellness)
 - ❖ Provincial or national lobby days
 - ❖ Public health selectives
 - ❖ “Millions Saved” is a compendium of successful Global Health projects and can be found here: <http://www.cgdev.org/initiative/millions-saved>

Note that some projects may cut across spheres; that is not only to be expected but encouraged as it provides a more complete advocacy experience. In addition, the more interdisciplinary and interprofessional projects can be, the better.

Appendix D: Sample Competencies

Based off of relevant McGill Faculty of Medicine and University of Toronto Faculty of Medicine competencies [14,34]

Competencies

Upon completing the ALC and allied curricula in Social Determinants of Health, Public Health, Global Health, and Evidence-Based-Medicine, students should be able to perform at the level specified by the following sample competencies. Milestones are included for *some* competencies in order to break down expected progress and to aid in assessment. Milestones noted as 'stretch goals' are to be considered 'extra credit'. Milestones must be planned to be completed at certain points in the curriculum, based on the specific makeup of the curriculum at each Faculty. Ideally, each competency will have specific milestones, but in recognition of the fact that different faculties will decide to evaluate students in different ways for a variety of reasons, we have not included a complete list of milestones for each competency. These are proposed competencies and are expected to be adapted by schools as they adopt the ALC.

Advocacy

Note: given limitations on time and resources, a student is only expected to reach milestone 5 for one of the competencies numbered 1-4. As long as milestone 5 is reached in one of these competencies, the student must only reach milestone 2 in the other competencies.

1. Demonstrate the ability to advocate for the health of individual patients

Milestone 1: Identify social determinants of health (see learning objective T5a-i for definitions)

Milestone 2: Apply an understanding of the social determinants of health to a particular patient's case; consult any relevant literature

Milestone 3: Work with a patient to identify barriers to health

Milestone 4: Work with a patient to identify an action plan that addresses barriers to health

Milestone 5: Execute the action plan

Milestone 6 (stretch goal): succeed in addressing the patient's barriers to health and write a reflective case report

2. Demonstrate the ability to advocate for change within a healthcare institution

Milestone 1: Identify social determinants of health

Milestone 2: Apply an understanding of the social determinants of health to specific institutional practices; perform a literature review

Milestone 3: Work with institutional stakeholders to identify barriers to health

Milestone 4: Work with institutional stakeholders to identify an action plan that addresses barriers to health and that implements some institutional change or improvement

Milestone 5: Execute the action plan

Milestone 6 (stretch goal): succeed in carrying out the institutional change or improvement and write a reflective report

3. Demonstrate the ability to advocate for the health of a population

Milestone 1: Identify social determinants of health

Milestone 2: Apply an understanding of the social determinants of health to the health of a specific population; perform a literature review

Milestone 3: Work with representatives of a patient population to identify barriers to health that can be targeted with advocacy initiatives

Milestone 4: Work with the representatives from the population, experts, and/or the literature to create an action plan that addresses barriers to health and that implements change on a population or systems-level

Milestone 5: Execute the action plan

Milestone 6 (stretch goal): succeed in carrying out the population or systems-level change or improvement and write a reflective report

4. Demonstrate the ability to advocate for the health of communities or vulnerable populations

Milestone 1: Identify social determinants of health relevant to a community or vulnerable population

Milestone 2: Apply an understanding of the social determinants of health to the community or population; perform a literature review

Milestone 3: Work with community or vulnerable population to identify barriers to health

Milestone 4: Work with the vulnerable population or community to identify an action plan that addresses barriers to health

Milestone 5: Execute the action plan

Milestone 6 (stretch goal): succeed in addressing the community's barriers to health and write a reflective report

5. Describe and apply strategies for health promotion and disease prevention for a community.

This may be achieved through projects or the completion of a small group session with an in-class assignment component.

6. Describe and apply strategies for health promotion and disease prevention at the population level.

To be completed through the project, as well as small groups.

7. Demonstrate the ability to identify and apply advocacy strategies appropriate to each of the three spheres of health advocacy

To be completed through the project, as well as small groups.

8. Demonstrate the ability to pursue an advocacy project or campaign in any of the three spheres

Milestone 1: Be able to identify an objective and scope for the project

Milestone 2: Show an ability to prioritize

Milestone 3: Conduct relevant research and consultation

Milestone 4: Use research and consultation to synthesize a proposal (show effective group work if possible)

Milestone 5: Create an advocacy strategy

Milestone 6 (stretch goal): Implement the strategy and produce a reflective report

Communications

1. Be culturally aware and be able to communicate in a culturally safe manner

Evaluated during clinical rotations.

2. Demonstrate ability to negotiate on matters of health care and/or health policy

This can be achieved through projects, small groups, and simulation centers and requires effective research skills and the ability to synthesize information.

3. Demonstrate the ability to communicate in an advocacy context in writing, while on committees, and/or through presentations

- This should be demonstrated through the writing of an editorial, op-ed, advocacy briefing note, or letter to a member of parliament, provincial legislature, or relevant interest group or industry representative.
- Bonus points/awards may be awarded to students whose letters are published or lead to some outcome, such as a meeting with a government official. [19]

Health Systems

1. Describe the underlying tenets and key issues of the Canadian health system and relevant laws and legislation.

Milestone 1: Describe, through an essay or presentation, the application of a specific section of health law to a clinical or public-health situation and the implications for patient health of the nature of the law

2. Demonstrate an understanding of comparative healthcare systems analysis

Milestone 1: Prepare a presentation or essay comparing and contrasting specific elements of two or more health systems, or complete a small group session on this topic

3. Demonstrate the ability to analyze and critique the functioning of the healthcare system and of specific healthcare programs via presentation, debate, or essay

Health Policy

1. Describe key health policies governing health care federally and provincially

2. Describe the process of health policy formation and identify relevant actors (government, interest groups, industry, etc...)

3. ***Demonstrate the ability to analyze, critique, and generate alternatives to health policies through in-class discussion, essays, or presentations***

Determinants of Health

1. ***Identify determinants of health and risk factors for illness relevant to the individual including but not limited to demography, culture, socioeconomic status, race, ethnicity, gender, sexual orientation, and circumstances of living.***
2. ***Describe, assess, measure and record the health status at the population level and demonstrate the ability to construct and assess surveys.***
3. ***Identify local and global sociocultural, economic, political (including public policy), and environmental factors that affect health and the delivery of health care.***

Patient Barriers to Health

1. ***Describe issues related to health care for vulnerable and marginalized communities, such as disabled people and aboriginal populations, and apply strategies to the provision of care in these circumstances.***

Physician Social Responsibility

1. ***Demonstrate an understanding of the social contract between physicians and society***
[See 25 for discussion of physician social responsibility]
 - Milestone 1:** Be able to formulate clearly, in writing or verbally, the obligation of physicians to improve patient and population health
 - Milestone 2:** Be prepared to explain and describe cases in which physicians violate the social contract and the reasons (personals, economic, political, etc...) for these violations
 - Milestone 3 (Stretch goal):** Propose changes in the society-physician contract that may make violations of the social contract less frequent
2. ***Demonstrate an understanding of the important role physicians play in health advocacy***
 - Milestone 1:** Provide examples of successful and unsuccessful health advocacy initiatives
 - Milestone 2:** Explain the importance of working with the population one is advocating for and the dangers of not consulting effectively with patients and communities
3. ***Demonstrate the capacity to improve one's own practice according to the principles of evidence based medicine and in response to patient and community needs***
 - Milestone 1:** Select an element of their practice they wish to improve on
 - Milestone 2:** Conduct a literature review

Milestone 3: Prepare an A3 form in order to structure an approach to the quality improvement initiative and have the A3 form reviewed by the advocacy preceptor

Milestone 4: Identify, as part of the A3 process, any stakeholders that will need to be consulted, and consult them

Milestone 5: Carry out the quality improvement initiative, following the A3 form

Milestone 6 (stretch goal): Prepare an evaluation of the quality improvement initiative

4. *Demonstrate the capacity to use an understanding of the social determinants of health in one's practice*

Milestone 1: Identify in a variety of patients examples of where evaluating social determinants of health is relevant to maximising the patient's health and wellbeing

Milestone 2: For each of these cases, perform an evaluation of the social determinants of health for the patient in question

Milestone 3: Develop, with the patient and staff, a plan to address these social determinants of health in order to maximise patient health and wellbeing

Milestone 4: Reflect on these experiences with the advocacy preceptor

5. *Incorporate preventive measures such as lifestyle changes into management strategies for individuals*

[Legal and Ethical Considerations](#)

1. *Describe the underlying tenets and key issues of the Canadian health system and relevant laws and legislation and demonstrate familiarity with the Canada Health Act, provincial health legislation, relevant municipal laws, labor laws, and other laws impacting health as well as relevant sections of the Charter of Rights and Freedoms, verbally or in writing*

Focus to be placed only on sections of law directly relevant to the clinical context, or to the overarching organization and functioning of the healthcare system

2. *Demonstrate the ability to apply ethical systems of thought to complex clinical and population-level scenarios, verbally or in writing*

3. *Demonstrate the ability to apply relevant laws to clinical and population-level scenarios, verbally or in writing*

4. *Demonstrate an understanding of the laws and regulations applying to physician practice, verbally or in writing*

Appendix E: Proposed Implementation Guidelines

Time Burden and Fitting the ALC into the Wider Medical School Curriculum:

The ALC calls for roughly 22-24 hours of class time and small groups, 1 to 2 days of simulation center time, and time for service learning and projects. This does not include the points covered in T5 and T6 (such as Evidence-Based Medicine, social determinants of health, etc...) as most schools already teach these topics. However it is our estimation that the incorporation of the ALC at individual faculties will not be unduly burdensome with respect to time.

At most schools what may be called for is a reorganization and refocusing of existing classes, and the linking of currently taught material to advocacy and social responsibility [41], rather than simply the addition of new classes. For example, the current McGill curriculum was surveyed by the working group which prepared this document and it was found that most theoretical learning objectives were already covered by the existing curriculum, albeit not necessarily under the banner of 'advocacy and leadership'. In addition, the existence of both service learning in the form of the Community Health Alliance Program (CHAP) and the existence of certain public health themed projects in first year covered some, but not the majority, of the skills and applications goals. Conversations with relevant professors revealed that more skills could be added via some small groups. In addition, some current practices could be reformed in order to better meet the learning objectives outlined here. For example, the initial social determinants of health project could be reimaged to include an advocacy component, and could be used as a foundation for students to create longitudinal projects. Group-specific feedback could be provided, aimed at helping them take their project from the realm of the theoretical to that of the applied. In general, the goal is to weave ALC learning objectives as much as possible into existing curricula.

Longitudinal projects and meetings with advocacy preceptors would occur on student time, but would be no more taxing than the extra-curricular activities many medical students are already engaged in. For example, as our sample curriculum would allow for student government involvement to count in most cases as a longitudinal advocacy project, many medical students would already be fulfilling the criteria for this part of the curriculum, but would gain the benefit of an advocacy preceptor's mentorship to support them in their work.

As such there is not likely to be a great burden with respect to time when faculties begin to implement their ALCs if they make a careful inventory of their existing classes and work to mold them into a coherent program harmonized with the ALC's learning objectives. There will be the need for a few new classes, likely in the form of small groups dedicated to skills teaching if the McGill experience is assumed to be generalizable. There are always many demands on time, and instituting new classes is not a trivial matter at most schools. While each faculty will need to make an independent appraisal of their curricula to determine where best to place these classes, we suggest the following guidelines for these decisions:

- Consider doing away with didactic lectures in the realm of advocacy, leadership, and public health in order to free up time for small groups. Assign readings to cover material

- that is no longer covered in didactic lectures and ensure that the skills-based small groups touch on and are informed by this reading material
- Focus first on implementing the longitudinal advocacy projects, as these can be implemented without adding class time and represent a chance for medical students to both learn and implement skills while working towards projects with social value
 - Create a curriculum map of all classes offered that fall under leadership and advocacy and create an inventory of the learning objectives they do and do not cover
 - After determining what is lacking, look at other, related courses (such as physicianship and professionalism) and determine if those courses could be modified in a way that would enrich them with appropriate ALC learning objectives
 - Review the content of current courses that touch on ALC themes. Where these courses are simply introductory level courses, have the students read the introductory material on their own time and use class time to teach advanced ALC concepts
 - Where a choice needs to be made between retaining a didactic lecture or adding a new skills-based small group, opt to introduce the small group and have students read and discuss didactic content with their advocacy preceptor
 - Include, where possible, ALC learning objectives into courses from other disciplines (for example, when learning about musculoskeletal injury, a portion of the talk can be devoted to how to advocate for patients who have lost their employment due to workplace injury). This blending of clinical and ALC material will serve to reinforce the relevance and practical nature of advocacy
 - Utilize projects, essays, and meetings with advocacy preceptors to give students an opportunity to learn and demonstrate advocacy skills, while ensuring that core workshops are available to teach basic ALC learning objectives

Most of these guidelines cover scenarios where faculties must choose how to deliver ALC content, but do not touch on whether faculties should prioritize ALC content over other content (such as basic science or other clinical skills). These decisions belong to faculties in consultation with their students and will not be touched upon here. It should only be noted that the ALC aims to teach skills that physicians will need and that will benefit patients, and that may help, as suggested in the introduction, to ensure the improved professional satisfaction and moral character of those graduating medical school. Thus, the ALC should be treated with serious consideration as a core part of medical education and not as something to be added only if time and resources permit.

Staffing, Preceptors and Community Relations:

There may be significant difficulty finding enough staff to act as “advocacy preceptors,” though this problem will be alleviated as more students who have gone through the advocacy curriculum become preceptors in turn as residents, and as more faculty members undergo advocacy training [3]. A solution that has been proposed [3], at least initially, is to call on professionals from relevant disciplines (such as law or social work) who could act as mentors for advocacy projects. Initially, faculties may also rely on collaboration with student groups (i.e GAACs, IFMSA, CFMS, FMEQ) with advocacy experience to help mentor students in their advocacy projects (though they should not be asked to evaluate other students). An excellent resource will be the Government Affairs and Advocacy Committees active at most schools. However, it should be clear that the ultimate burden for assessment and mentorship should rest

with the faculty. The faculty should also provide continuing medical education opportunities and pedagogical support for advocacy preceptors and should consider offering faculty appointments to community physicians who would make suitable advocacy preceptors when this is identified as being desirable by potential preceptors.

Faculties must develop strong relationships with community groups and advocacy organizations in order to provide opportunities for service learning and advocacy projects. However, they must be careful to ensure the quality of placements in community groups (i.e. students must have assigned duties and not simply act as observers). During service learning and advocacy project placements it will be important for students to be beneficial to community groups and to contribute in a way that respects community needs, as determined by the community. The projects should aim to avoid flooding community groups with students who are more burdensome than useful to the groups. The primary goal must always be service to the community, as defined by the community. When there are not enough community opportunities available, having students act as patient guides and advocates in hospital, as discussed above, is a viable alternative which will expose students to health system realities from the patient perspective and which will also be of tremendous value to the patient.

Faculties should work to build strong links with other health professional education programs, as advocacy projects represent an excellent opportunity for interdisciplinary learning (i.e. medical students could be paired with nurses or pharmacists when carrying out projects relevant to both specialties).

As a final note on implementation, each faculty should create an implementation timeline for their ALC and hold student consultation on how best to structure their ALCs.

Appendix F: Proposed Evaluation Guidelines

Assessing students:

At a minimum, students completing the ALC will be conversant in methods for advocating in all three spheres. Students will have developed organizational and communications skills needed to at least support ongoing advocacy causes, will be able to apply theoretical knowledge of social determinants of health and health policy to real-world problems, and will have a sense of physician social responsibility.

The assessment of students must take into account the nature of the proposed learning objectives- whether they are theoretical, skills-based, or application-based. The sample competencies described above act as guidelines for determining what is expected of students, so that assessments can be as standardised as much as possible and progress can be measured. Special care should be taken to look at the *milestones* where they are provided. These not only allow evaluators to measure progress and to determine what stage of subject mastery a student should be at any given time (useful properties that have led them to be adopted by several U.S. residency training programs [12]), but also shift the focus of the assessment from the *results* (i.e. making a given systemic change) to the *effort, comprehension, and attitudes* of the student. This is important as not all advocacy work will bear fruit, especially not in the timeframe of a medical student's journey through medical school. One must remember that being 'at the right place at the right time' often has much to do with any given advocate's success, and that all advocates build upon the work done by others. This means that working on a largely neglected cause will usually be more difficult than working on one that receives large grants and media attention. Student achievement is, however, recognised in the stretch goals of certain milestones, and awards can be created for students achieving these stretch goals. The specific format and conditions of these awards are left to the faculties.

A note should be made of the importance of measuring effort, comprehension, and attitude within the framework of the competencies and associated milestones. Effort, it goes without saying, is critical for all aspects of the physician role, and lack of it is sure to make a lackluster- and therefore ineffective- advocate. When working on projects, it is important to evaluate the student based on the effort they put into going beyond an excellent literature review and synthesizing and *applying* their knowledge to a given problem. A good way to encourage effort is to provide stimulating and inspiring experiences to students. This can be accomplished by encouraging discussion and debate in class, selecting interesting advocacy preceptors, creating challenging but cognitively engaging essays and assignments, running engaging workshops that teach skills in a practical ready-to-apply way, and providing formative feedback at every opportunity through the advocacy preceptor, who should be involved as much as possible in the development of their students as advocates. Giving students some control over who becomes their advocacy preceptor would help build a stronger training relationship based on mutual interest.

Comprehension is another key element, as many of the concepts of advocacy and social medicine may be foreign to the average medical student, and should be encouraged by deep class discussions led by community members and interdisciplinary professionals.

Comprehension is also tested well by prepared class debates and essay assignments which should be graded with the same rigor as they would be in a humanities class. We recommend that faculties reach out to colleagues in the humanities and learn about their grading methods.

Attitudes have a complex relationship with behaviour, and only predict behaviour under certain circumstances, but they clearly do have a role in determining behaviour [13]. As such, when monitoring the progress of medical students through the ALC it will be important to measure overt attitudes (through self-report questionnaires) and more subtle attitudes (through class discussions, analysis of clinical encounters, and the videotaping and reviewing of encounters with patients or actors in simulation centers with the advocacy preceptor). One factor that is known to improve attitude-behaviour consistency is advanced moral reasoning and knowledge of one's own feelings and beliefs [13]. Through the reflective practice and ethics courses that form core parts of the ALC, students should grow in both of these domains. Showing students that their work matters and that the community or individual patients appreciate their advocacy is also likely to improve attitude and, hopefully, behaviour. A further discussion of attitude-based assessment- on which there exists an extensive literature- is out of the scope of this paper. We recommend that faculties review this literature as they craft their assessment framework.

Evaluation by learning objective type:

Evaluating theoretical learning objectives may be achieved through traditional testing methods, i.e. multiple choice and short answer questions, and essays graded by the advocacy preceptor. In addition, as is already done at many schools, assessment of patient-care interactions by supervisors during practical rotations will help evaluators decide if students have been able to assimilate and apply theoretical information.

Skills-based learning objectives are best evaluated within the small group session framework proposed above. Most problem-based learning sessions should include an active discussion followed by a presentation of findings. Upon completing all small group sessions, students should complete a reflection where they review the skills taught and hypothesize applications to their patient-care interactions, service learning, or community involvement. Skills will also be evaluated in prepared work such as class presentations, class debates, and essays.

With regards to application and patient-level advocacy, students may be evaluated on the level of effort and ingenuity put into their responses to cases or issues facing the community as opposed to the direct outcome. Their attitudes should also be evaluated and formative feedback should be given. Independent reflections shared with the advocacy preceptor would allow individual students to review the determinants of health involved in cases, identify barriers to health and demonstrate the ability to continually improve care provided.

Longitudinal advocacy projects should be reviewed on a regular basis with the advocacy preceptor, and formative feedback should be provided in line with the proposed project framework in order to guide the project's development and the student's application of their learned advocacy, leadership, and communications skills.

Simulation center days should be treated as opportunities for formative development and not for assessment; assessment should be left to the advocacy preceptors and small group leaders, who will have a better picture of the full range of a student's skills, their comprehension of the material, and their attitudes towards advocacy.

Students should meet with their advocacy preceptors to discuss cases seen in clinic and to have progress sessions. During these sessions, a discussion of the student's progress through the ALC is discussed, milestones and learning objectives achieved are reviewed, and recommendations are made. A twice-annual advocacy 'report card' should be prepared by the advocacy preceptor and added to the class and assignment assessments to generate an overall ALC standing. We leave the details to the individual faculties, given the heterogeneity of assessment timelines and structures that exist across schools.

Evaluation of professors teaching and mentoring advocacy

Evaluation of the professors mentoring advocacy will need to take into account the fact that many professors will be just becoming familiar with the material, or will be non-medical professionals from other disciplines. Standard evaluations of the teachers, their teaching methods, and the materials they use should be carried out (i.e via student feedback forms). Initially, a more experienced advocate-professional may sit in on classes and small groups in order to provide expert feedback.

Advocacy preceptors are perhaps the most important pedagogical piece of the ALC, and the most difficult to evaluate given that student-preceptor meetings will take place outside of the structures of classes and small groups. Student feedback should be sought regularly by faculties with regards to the quality of preceptors. In addition, new preceptors may be mentored by a more senior advocate-professional, who may 'audit' the first few meetings a student has with a new preceptor in order to provide expert feedback.

Evaluation of the program itself:

On a high level, the program can only be truly evaluated by observing the shift in medical culture in the decade or so after the ALC's implementation and monitoring the qualitative and quantitative changes in physician advocacy behavior. While the CFMS would welcome this kind of study, it is beyond the scope of our paper and our organization. However, models such as the CPU ("Conceptualization, Production and Usability") model from the authors of [15], developed to guide measurement of social accountability of medical schools based on their ability to deliver on society's priority needs, could be used here. With respect to leadership in particular, the authors of [20] have created a model for leadership program evaluation that could be adapted to evaluating the ALC. This model included both quantitative, outcome-based data, and qualitative data reflecting changes in practices and behavior.

More concretely, the program will need to be evaluated, school by school, on two major dimensions: efficacy and implementation. Efficacy will be further broken down into Attitude, Behavior, and Skill. With respect to Implementation, the Faculties will need to take stock of the human, financial, and temporal resources that were required to put the ALC in place and will need to determine if the ALC is sustainable and, if it is not, how to make it so.

Efficacy refers to how well the program achieves the goals outlined above. It is subdivided into Attitude (how students think about advocacy), Behavior (how students act, given their knowledge of advocacy) and Skill (how well students understand the ALC's content and are able to apply it). Measuring Skill is perhaps the least challenging- ALC related student evaluations should be tracked over time, and a successful program should show students becoming more competent and confident in the ALC's subject matter and in using the skills it imparts as they progress through it. A control group for this measurement could be the last cohort graduating before the ALC is implemented. Behavior and Attitude are more difficult to measure. While questionnaires on student behaviors and attitudes towards relevant topics will be of some use, perhaps more useful would be questionnaires given to advocacy preceptors and staff supervising medical students in clinical contexts. These professionals have the benefit of knowing how medical students generally act and feel across cohorts; if they notice that students become more comfortable advocating for patients or asking questions about quality improvement, for example, this would likely represent a significant positive change.

Finally, a survey of student wellness and satisfaction should be carried out after the implementation of the ALC and compared to the 2015-2016 CFMS-FMEQ Wellness survey, given the statements in the introduction that advocacy learning may improve student wellness and satisfaction. ALC course content, content sequencing, advocacy preceptor quality, and student experiences would be reviewed by a curriculum committee on an ongoing basis, as per the *CACMS Standards and Elements* requirements on curricular review [49].

Appendix G: Suggested Readings for Medical Students in an ALC

1. The Canada Health Act and the Canadian Charter of Rights and Freedoms
2. Readings in aboriginal, LGBTQ, and minority/vulnerable population advocacy
3. Farley, Tom. *Saving Gotham: A Billionaire Mayor, Activist Doctors, and the Fight for Eight Million Lives*.
4. Elyn Saks, *The Center Cannot Hold: My Journey Through Madness*
5. Farley and Cohen, *Prescription for a Healthy Nation (PHN)*
6. Lindblom and Woodhouse, *The Policy-Making Process, 3rd Edition*
7. Wallack, Dorfman, Jernigan, and Themba, *Media Advocacy and Public Health*
8. Weissert and Weissert, *Governing Health: The Politics of Health Policy*
9. Stone, *Policy Paradox*
10. Litman and Robins, *Health Politics and Policy*
11. Glantz and Balbach, *Tobacco War*
12. "Millions Saved- Proven Successes in Global Health"
<http://www.cgdev.org/initiative/millions-saved>
13. Dharamsi, S. 2010 The Health Advocate Role: Preparing Future Physicians for Socially Responsive Practice, UBC Open Library
14. Readings in social science research and in applying evidence-based medicine to advocacy
15. Heat Wave: A Social Autopsy of Disaster in Chicago, Eric Klinenberg

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