The Community Health and Social Medicine Incubator: a service-learning framework for medical student-led projects
Incubateur de Santé Communautaire et de Médecine Sociale : un cadre d’apprentissage par le service pour des projets menés par des étudiants en médecine

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Implication Statement
The Community Health and Social Medicine (CHASM) Incubator is a social impact venture that gives medical and other health care students the opportunity to develop initiatives that sustainably promote health equity for, and in partnership with, community partners and historically marginalized communities. Students learn how to develop projects with project management curricula, are paired with community health mentors, and are given seed micro-financing. As the first community health incubator driven by medical students, CHASM provides a framework for students interested in implementing sustainable solutions to local health disparities which extends the service-learning opportunities offered in existing curricula.

Énoncé des implications de la recherche
L’incubateur CHASM (Community Health and Social Medicine) est une initiative visant à créer un impact social en donnant aux étudiants en médecine et des autres sciences de la santé la possibilité de développer des initiatives durables en collaboration avec des partenaires communautaires et des communautés historiquement marginalisées. CHASM met en valeur l’équité en matière de santé. Les étudiants apprennent à élaborer des projets via un cursus de gestion de projet, sont jumelés à des mentors en santé communautaire et bénéficient de micro-financement de départ. Ce premier incubateur de santé communautaire mené par des étudiants en médecine fournit un cadre aux étudiants qui souhaitent mettre en œuvre des solutions durables aux inégalités en matière de santé. Il élargit également les possibilités d’apprentissage par le service offertes dans les cursus existants.

Introduction
Medical schools across Canada have incorporated service-learning into their curricula. Service learning allows students to dismantle the perceived separation of work and civic contributions at the root of many health inequities while also addressing social determinants of health that create profound health disparities.1,2

Numerous models have been suggested to best immerse medical students into this experiential learning,3 such as protected time for intermittent and short-term volunteering to fulfill the service-learning requirement. In
contrast, there are few student-led co-curriculars that offer interdisciplinary learning opportunities that promote deep engagement with health or related systems issues and that are sustainability-focused and designed for, and in partnership with, community stakeholders.

We adopted a student-led incubator model adapted to community health needs, entitled the Community Health and Social Medicine (CHASM) Incubator, as an approach to innovative service-learning.

**Innovation**

CHASM was founded by McGill medical students in June 2017 to improve the self-identified health outcomes of local, historically marginalized communities of Montreal. Our organization embeds principles of community engagement within an incubator model commonly used in the business sector, whereby it invests in startups and provides management training and infrastructure.

Multidisciplinary student teams apply through a web-based form to two categories: 1) impact stream, which targets teams with an actionable idea, and 2) needs assessment stream, which fosters inquiry skills for students investigating a community’s health needs to develop solutions. Teams are selected into CHASM through an annual blinded selection process vetted by community organizations and funders affiliated with CHASM evaluating the sustainability, potential, and importance of the proposal as well as relevant experience and commitment of applicants.

CHASM acts as a relationship broker to partner student teams with a community organization. Selected teams are given a novel framework that merges business incubator, community health, and service-learning principles to scale their project ideas; tailored mentorship from a network of clinicians, public health professionals and other experts; a social entrepreneurship curriculum with bimonthly, interactive workshops that features industry and community speakers (Table 1); and up to $1000 CAD in seed funding. Additional detail on this framework can be found in the Appendix A.

As part of the emphasis on sustainability, CHASM leadership secured formal partnerships to implement the incubator, including the McGill University's Global Health Program, the McGill Medical Student Society, and the Faculty of Medicine Social Office of Accountability and Community Engagement. Informal partnerships include the various community organizations, community leaders, and university faculty members tackling the social determinants of health of marginalized populations in Montreal. These organizations and individuals provide funding, strategic guidance, mentorship to selected teams, experts to lead workshops, and/or further connections with potential partners and stakeholders.

**Table 1. Example of workshops offered during the CHASM curriculum.**

<table>
<thead>
<tr>
<th>Workshops Provided</th>
<th>Description</th>
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<tbody>
<tr>
<td>Crowdfunding and Fundraising in Montreal</td>
<td>Teach ventures about how to run a successful fundraising campaign and leverage different financial resources available in their community.</td>
</tr>
<tr>
<td>Setting Up and Maintaining Safe and Effective Project Environments</td>
<td>Help ventures appreciate group process theory as well as strategies to enhance communication both within their teams and with their external partners.</td>
</tr>
<tr>
<td>Creatively Engaging with Stakeholders</td>
<td>Ventures learn about how to map out their community stakeholders, form new partnerships and maintain ongoing stakeholder relationships.</td>
</tr>
<tr>
<td>Design Thinking in Social Entrepreneurship</td>
<td>Teach ventures to employ design thinking processes to creatively approach solution-making with their target communities in mind.</td>
</tr>
<tr>
<td>Critical Consciousness in Community Work</td>
<td>Ventures develop skills for advocating for and with their communities and addressing the moral distress that can be encountered during community work.</td>
</tr>
<tr>
<td>Digital Marketing</td>
<td>Helping ventures launch their own website and leverage different platforms (google AdWords, Facebook ads, etc.) to drive users and backers to their website.</td>
</tr>
<tr>
<td>Knowledge Translation</td>
<td>Ventures refine their approach to key messaging to diverse audiences through applying the theory of change and principles of knowledge translation.</td>
</tr>
<tr>
<td>Mixed Methods in Public Health</td>
<td>Help ventures measure the impact that they are having in the community and with their target population through rigorous mixed methods approaches.</td>
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**Outcomes**

Over four years since inception, CHASM has hosted 34 workshops, incubated 16 student-initiated projects, developed a network of 30 mentors, won numerous awards (such as the OsEntreprendre award which
recognizes successful entrepreneurial initiatives in Quebec), and received over $40,000 in funding from governmental grants, donations, and awards. We have partnered with 10 community groups, from youth services to senior groups to healthcare clinics. The McGill medical school curriculum has integrated CHASM, offering credits for students completing their service-learning requirement. The CHASM leadership team also conducts public engagement and capacity-building work through community presentations and consultations, and collaborative initiatives with other Canadian institutions, acting as a hub for student-led community health innovation.

Each team selected is different in its scope. The inaugural cohort, for example, included initiatives such as Monthly Dignity (MD), which has distributed over 160,000 feminine hygiene products to homeless shelters; Supporting Young Black Students (SYBS), which mentors Black Montreal youth to facilitate admission into health professional programs; and Community Ambassadors to Conquer HPV (CATCH), which provides HPV vaccines to underprivileged women.

Next steps
This innovative service-learning framework partners students with communities and organizations to design projects that address social determinants of health or health disparities, while simultaneously providing the opportunity for students to practice leadership, project development, and advocacy. CHASM serves as a successful model of community service for medicine and health care students. Next steps include sharing our program with students at other medical schools for adaptation and implementation in other settings and communities, and systematically evaluating student learning outcomes.

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Authorship: David-Dan Nguyen and Kacper Niburski contributed equally to this work.

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References
Appendix A.
Additional detail on CHASM’s framework

CHASM’s framework is built to help projects grow. It borrows from business incubator models that provide funding, but also numerous non-financial resources to succeed. In the context of incubating student-led community health initiatives, CHASM uses four aspects to situate the project and give it the resources to enact sustainable impact:

- Mentoring by a network of community health, business, and academic leaders;
- A social entrepreneurship and sustainability curriculum with interactive workshops;
- A committed group of student leaders that support, offer expertise, and publicize the projects;
- Financial support (up to $1000 per project);

The mentors provide an avenue for advice and support, broadening the individual’s sense of connection to the field in which they are working. Applied to CHASM, this means mentors connect teams to the people that have been active in the particular challenge of interest. Each selected initiative is paired with one mentor at the beginning of the curriculum which is selected based on needs expressed by the selected initiative. The CHASM team also facilitates additional punctual connections throughout the curriculum and once selected initiatives graduate.

The social entrepreneurship and sustainability curriculum takes human-centered design thinking principles, including co-creation, systems-level change, and the idea of “nudge”, where a small action can have profound impact, to teach students how best to grow and scale their community health impact. Included in this is developing a sense of critical consciousness and constantly “checking assumptions,” as well as being cognizant on how to grow an initiative to ensure long-term impact. For community health, this means catalyzing relationships between teams and organizations that have long been active serving marginalized communities.

The third component of the framework is the CHASM team itself which supports the initiatives in tasks that do not directly relate to their core mission. For example, this includes, but is not limited to, assistance in:

- Media outreach by leveraging existing partnerships with student, local and provincial media outlets
- Recruitment
- Event logistics
- Website creation
- Fundraising
- Strategic planning

Lastly, there is financial support in the form of a micro-grant. It allows initial support in the project, which will later snowball into greater funding opportunities. While CHASM acts as an intermediate between existing funds and initiatives, the value-added of CHASM is increasing the return of the provided funding by offering the aforementioned curriculum, support, and network. Additionally, there is a strong emphasis on inclusive crowdfunding and grant writing. By educating selected initiatives about funding sources available to them, CHASM helps them become financially sustainable early on in development.

Teams are all composed of students who during their work on their projects are learning by doing. By working on these health challenges hand in hand with the community, students contribute in meaningful, ethical ways while also building skill in all the CanMed roles, namely those of advocate, leader, collaborator, and communicator. While not all selected initiatives will be successful in creating long-term, sustainable community health organizations, all participants will develop essential skills to improve healthcare outcomes of marginalized populations.