Identifying the state of social accountability at the University of Ottawa Faculty of Medicine through an internal environmental scan

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**Abstract**

**Background:** The social accountability of medical schools is their obligation to address the priority health concerns of communities they serve, as identified together with governments, health care organizations, health professionals, and the public. Canadian faculties of medicine report regularly on their activities in this area, but it is unclear if communities are able to identify their needs in these processes.

**Methods:** We conducted a 10-week internal environmental scan of social accountability at the University of Ottawa Faculty of Medicine (FoM). We used available data sources to collect activities across domains of admissions, community outreach, curriculum, clinical service, professional affairs, and innovation and research. We analyzed data quantitatively by Faculty categories, values expressed, populations, and social obligation. We conducted thematic qualitative analysis of a small number of solicited project descriptions.

**Results:** Of 729 data items collected, 560 related to social accountability. Half of the items were classified in the Education category (281/560, 50.2%), with the vast majority falling under the curriculum domain (271/281, 96.4%). The values most frequently expressed were "quality" (293/560, 52.3%) and "partnership" (265/560, 47.3%), and the most frequently mentioned populations were "marginalized" (153/560, 27.3%), "Indigenous" (96/560, 17.1%) and "Francophone" (76/560, 13.6%). Only 17.1% (96/560) of all items were deemed socially accountable. In the qualitative analysis, partnership and maintaining relationships was again recognized as essential, as was a focus on priority health needs and populations.

**Conclusion:** Some FoM activities are clearly socially accountable. Other domains could benefit from a greater
emphasis on engagement and identification of priority health needs.

**Keywords:** Social accountability; social determinants of health; community engagement

**Introduction**

The concept of social accountability consists in medical schools’ obligation to direct their activities towards addressing the priority health concerns of the communities or regions they serve as identified jointly with governments, health care organizations, health professionals and the public (Boelen and Heck, 1995). On the social obligation gradient, social accountability goes beyond simple awareness of health inequities and the role of social determinants of health (social responsibility) or undertaking activities to address those health inequities (social responsiveness) (Boelen and Woollard, 2011; Boelen et al., 2016). In addition to these features, social accountability is defined by engagement with the communities served by the medical school (Boelen et al., 2016). Canadian faculties of medicine were early adopters (Health Canada, 2001; Association of Faculties of Medicine of Canada, 2010; Busing et al., 2015) and report regularly on the alignment of their activities in this area, for example, in the literature (Jarvis-Selinger et al., 2008; Meili et al., 2011; Ross et al., 2014; Duke and Brunger, 2015; Cobb et al., 2018; Strasser et al., 2018), and in their accreditation responses. However, it is not clear to what extent communities have been able to identify their needs in those activities, or how medical schools have engaged with communities to address these needs, even in those that emphasize the importance of such engagement (Strasser et al., 2018).

The Faculty of Medicine at the University of Ottawa (uOttawa FoM) has expanded its social accountability mandate to enhance the quality, equity, relevance and effectiveness of health care by integrating stakeholder and community engagement into medical education, clinical service, and health research (University of Ottawa Faculty of Medicine, 2020). The present study is part of this new commitment, with the purpose of improving organizational learning and performance. We conducted an internal environmental scan of documentary and other data sources such as websites and social media, to address the following questions: Where is social accountability informing uOttawa FoM activities? How is it doing so?

**Methods**

For our environmental scan, we adapted a previously-published seven-step environmental scan protocol (Wilburn, Vanderpool and Knight, 2016). The Ottawa Health Science Network Research Ethics Board and the Bruyère Continuing Care Research Ethics Board approved this scan as a quality improvement project.

**Data Sources**

For quantitative analysis, an extensive list of potential data sources was created based on the THEnet Evaluation Framework for Social Accountability in Health Professional Education and mapped to the uOttawa FoM official website (The Training for Health Equity Network, 2011; Larkins et al., 2013). We used a snowball process to iteratively update our list as new sources were identified. We submitted data requests to specific faculty departments and programs to fill in data gaps. We targeted searches for origins of data sources with a large number of items, such as PubMed, granting agencies, and social media, built around the word "community" (see Supplementary File 1). We used a look-back window of five years starting June 1, 2015 for all data sources and included items in both English and French.

For qualitative analysis, we solicited brief descriptions of projects involving community and stakeholder engagement to gain an additional perspective of social accountability within the FoM. We requested that each department and
office circulate a request to their respective Faculty members, and invited submission of descriptions in a Faculty-wide announcement. When potential projects were suggested by faculty members other than the project lead, we proactively sought descriptions from the leads themselves.

**Data Extraction**

Data collection and extraction took place between June 3 and July 27, 2020. We used a pre-specified form (Supplementary File 2) to extract information on each item, highlighting social accountability factors such as the values addressed, populations represented, and determination of category on the social obligation gradient (Table 1). Two investigators (SL, GZ) piloted the form for a subset of items in each type of data source in duplicate to ensure reproducibility and adapted our form accordingly, creating working definitions along the way. Brief descriptions were collected free-form on a separate document, along with the contact information and the name of the project. We excluded data sources with no relevance to social accountability.

| Terms                             | Definition                                                                 |
|-----------------------------------|-----------------------------------------------------------------------------|
| **Social Obligation Gradient**     |                                                                             |
| Social responsibility             | Being aware of the duty to respond to society's priority health needs and challenges |
| Social responsiveness             | Taking action to address society's priority health needs based on data       |
| Social accountability             | Active engagement with communities and key stakeholders to ensure activities are aimed at addressing communities' priority health needs, as identified through engagement |
| **Values**                        |                                                                             |
| Quality                           | Varies with sociocultural context, but may include technical capability, competence, as well as meeting consumer and cultural expectations via patient-centred means |
| Relevance                         | Degree to which the most important problems are tackled first, involving an organized effort to constantly update a plan to address the priority health needs of the communities being served |
| Cost-effectiveness                | Having the greatest impact on the health of a society while making the best use of resources |
| Equity                            | Striving to make quality health care available to all people in all countries |
| Partnership                       | Extent to which community stakeholders are involved in decision-making processes and activities of medical schools to ensure they reflect the needs of the community |
| **Populations and Communities**   |                                                                             |
| Francophone                       | French-speaking population, particularly those living in minority language context |
| Indigenous                        | Descendants of the original people of North America, who in Canada are recognized as First Nations, Métis and Inuit |
| Terms   | Definition                                                                 |
|---------|----------------------------------------------------------------------------|
| Rural   | Communities in areas outside population centres                           |
| Remote  | Communities that are physically difficult to reach                        |
| Marginalized | A group that experiences one or more types of inequity                   |

Adapted from Boelen & Heck (1995).

**Analysis and Synthesis**
We used descriptive statistics to analyze characteristics of the items across the fields of the data extraction form. Fields were not mutually exclusive.

For qualitative analysis, four team members (SL, GZ, NK, MF) independently coded each brief description without a preconceived framework to identify initial codes, comparing each segment of data with other segments for similarities and differences. Team members met to discuss the codes and their relevance in relation to the research questions and established initial overarching themes and a corresponding coding framework. The final framework was reviewed and approved by the review team.

**Results/Analysis**

**Quantitative Results**
We collected and extracted data from 729 items. Of these, 560 remained for analysis as 169 were excluded due to dating outside of the look-back window, being a duplicate of another item, or having no potential relevance to social accountability. We sorted the items into five natural categories to facilitate data presentation: Faculty Administration, Departments and Offices, Education, Research Projects, and Communications (Table 2, see Supplementary File 3 for more detail).

**Table 2: Summary of number of items of the University of Ottawa Faculty of Medicine by category**

| Categories of Items | Faculty Administration | Departments and Offices | Education | Research Projects | Communications |
|---------------------|------------------------|-------------------------|-----------|-------------------|----------------|
| Total               | 13                     | 49                      | 281       | 127               | 90             |
| Faculty Domains*    |                        |                         |           |                   |                |
| Admissions          | 10                     | 6                       | 23        | N/A               | 6              |
| Clinical Service    | 12                     | 14                      | 55        | N/A               | 17             |
| Curriculum          | 11                     | 42                      | 271       | N/A               | 21             |
| Professional Affairs| 5                      | 3                       | 0         | N/A               | 15             |
| Community Outreach  | 3                      | 2                       | 18        | N/A               | 36             |
| Innovation and Research | 12                | 14                      | 3         | 127               | 29             |
Half of the items (50.2%) were classified in the Education category (281/560), with the vast majority (96.4%) falling under the curriculum domain (271/281). Within this category, most items (70.8%) were related to Undergraduate Medical Education (UGME) (199/281), while the rest were fairly equally distributed amongst Continuing Professional Development (33/281, 11.7%), Postgraduate Medical Education (26/281, 9.2%), and Graduate Studies (23/281, 8.2%). The values most frequently expressed were "quality" (293/560, 52.3%) and "partnership" (265/560, 47.3%), and the most frequently mentioned populations were "marginalized" (153/560, 27.3%), "Indigenous" (96/560, 17.1%) and "Francophone" (76/565, 13.6%). On the social obligation gradient, 29.5% (165/560) were found to relate to activities categorized as socially responsible, 43.0% (241/560) socially responsive.

Only 17.1% (96/560) of all items were deemed socially accountable. Of these, most highlighted the values

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| Categories of Items | Faculty Administration | Departments and Offices | Education | Research Projects | Communications |
|---------------------|------------------------|-------------------------|-----------|-------------------|----------------|
| Values*             |                        |                         |           |                   |                |
| Cost-Effectiveness  | 4                      | 10                      | 76        | 47                | 8              |
| Equity              | 10                     | 36                      | 84        | 49                | 55             |
| Quality             | 8                      | 25                      | 142       | 84                | 34             |
| Partnership         | 9                      | 25                      | 97        | 92                | 42             |
| Relevance           | 7                      | 24                      | 115       | 32                | 44             |
| Populations*        |                        |                         |           |                   |                |
| Francophone         | 7                      | 15                      | 39        | 2                 | 13             |
| Indigenous          | 6                      | 12                      | 41        | 13                | 24             |
| International       | 0                      | 2                       | 8         | 3                 | 3              |
| Marginalized        | 5                      | 8                       | 70        | 44                | 26             |
| Rural and Remote    | 2                      | 13                      | 21        | 9                 | 5              |

| Social Obligation Classification | Social Accountability | Social Responsiveness | Social Responsibility |
|----------------------------------|-----------------------|-----------------------|-----------------------|
|                                  | 2                     | 11                    | 20                    | 47                | 16             |
|                                  | 6                     | 23                    | 123                   | 53                | 36             |
|                                  | 5                     | 11                    | 84                    | 27                | 38             |

| Mention in Passing | N/A | N/A | 40 | N/A | N/A |

| Origin of Data Sources | Accreditation | COVID-19 Pandemic Response Funding Program | Engagement & Recognition | Leadership Team | Strategic Planning | Undergraduate Medical Education | Postgraduate Medical Education | Graduate Studies | Continuing Professional Development | Annual Report | Grants | Publications | MedPoint | @uOttawaMed Twitter |
|-----------------------|--------------|------------------------------------------|---------------------------|----------------|-------------------|-----------------------------|-----------------------------|-----------------|-------------------------------------|--------------|--------|----------------|----------|------------------|
|                       |              |                                          |                           |                |                   |                             |                             |                 |                                     |              |        |               |          |                  |

* Sub-categories are not mutually exclusive.
of “partnership” (92/96, 95.8%) and "equity" (70/96, 72.9%). The most frequently mentioned populations "marginalized" (43/96, 44.8%), followed by "Indigenous" (22/96, 22.9%) and "Rural/Remote" (13/96, 13.5%). Since June 2015, 12.3% (56/455) of MedPoint articles and 1.3% (34/2659) of unique Tweets and retweets from @uOttawaMed related to social accountability, with the majority of the latter (18/34, 52.9%) tweeted in the past year.

Qualitative Results
We received 29 brief descriptions of projects from FoM members, particularly from student organizations and Departments of Biochemistry, Microbiology, and Immunology; Epidemiology and Public Health; and Family Medicine. These projects related to research (9/29, 31.0%), outreach and education (9/29, 31.0%), clinical service (6/29, 20.7%), and COVID-19 student volunteering projects (5/29, 17.2%). We found varying interpretations of social accountability in these texts. For example, the description of the Men’s Access to Gay Informed Care (MAGIC) project exemplified the centrality of engagement to social accountability: our approach is gay-positive, gay-informed, community-oriented and empowering, and engages both gay men and healthcare providers, while the Access to Resources in the Community (ARC) project explicitly mentions priority health needs defined through engagement: With the help of the community organizations, policy and decision-makers, patient partners and health care professionals [...] ARC was able to address the priority needs as defined by the community.

We identified two predominant themes, which were found in 13 of the project descriptions. Each theme was featured in nine of these descriptions:

1. **Forming and maintaining relationships to develop new knowledge by sharing perspectives and experiences of the topic.** For example, one described their project as successful because it is based on collaboration, partnership, community involvement and social engagement. Another explained the process of their project becoming more socially accountable with an initial focus internally at [...] staff and physicians and, in time, expand[ing] to include professionals and community representation. A third project highlighted the importance of feedback to improve its project protocol by interview[ing] patients […] who participated in [their study] to learn what their experiences were and how we can improve a similar interventional trial in the same patient population in the future.

2. **Identifying and enhancing response to health needs through training and service to address priority populations and health inequities.** For example, a project aimed at addressing individuals of low-socioeconomic status and members of marginalized communities described how they addressed their specific health needs: Residents present at each clinic provide care, medical advice, and referral to the ED when needed. Another clinical service project aimed at addressing similar populations mentioned how their outreach approach enhances their response: allows us to successfully reach many clients who might not otherwise engage with prenatal care services. A third project mentioned that interdisciplinary collaboration allowed it to more effectively detect, reduce or eliminate sources of toxic stress and risk factors that affect the development of children.

Discussion

We conducted a comprehensive environmental scan of the University of Ottawa Faculty of Medicine. There is little consensus in the literature as to design, analysis, and reporting of such scans (Charlton et al., 2019). Therefore, we drew on previously published methods to design our processes, and on existing frameworks of social accountability for our data extraction and triangulation of data sources. Half of the items our scan found were education-related, with the majority taking place in UGME, which was the only origin of data sources with specific committees explicitly dedicated to social accountability. However, overall, only a small percentage (17.1%) of the items overall
were socially accountable, suggesting that many FoM activities still need to embrace key traits of social accountability.

Socially accountable activities were more likely to address specific populations/communities than were FoM items overall. We found that "partnership" was the value most often exemplified by socially accountable items, highlighting their extensive engagement with communities and stakeholders. These findings were also reflected in the qualitative analysis of the brief descriptions, which described a diverse range of projects, spanning Faculty domains, populations/communities, and the social obligation gradient. Many of these projects also met social accountability criteria such as a focus on priority health needs and populations affected by health inequities.

Although there is extensive literature on social accountability and medical schools, only a small number of studies have actually assessed social accountability across all activities of a medical school, and fewer still have relied primarily on the medical school's documentation in their analyses. Hosny, Ghaly and Boelen combined document review with interviews to assess the level of social accountability at the Faculty of Medicine, Suez Canal University using Boelen and Woollard's Conceptualisation/Production/Usability model (Boelen and Woollard, 2009), and found that, although it didn't meet the criteria in some areas, its "history of community engagement" meant that it would be able to "fulfill a socially accountable mandate in the near future" (p. S53) (Hosny, Ghaly and Boelen, 2015). Elsanousi et al. (2016) used the WHO social accountability grid (Boelen and Heck, 1995) to assess faculty documents, internal and external reports, and some programme data from the University of Gezira faculty of medicine, a member of THEnet. Social accountability was less prominent in the research domain, but, overall, the authors concluded that the faculty "is socially responsible and responsive and is progressing successfully towards being fully socially accountable" (p. 265) (Elsanousi et al., 2016). A third study also combined document analysis with interviews, assessed against the WHO social accountability grid, to assess progress towards social accountability at the College of Medicine, Qassim University (COMQU). These authors found that COMQU "needs to have more interaction with stakeholders" to realize "the full spectrum of social accountability". Although these studies reinforce the usefulness of document analysis in assessing social accountability, none involved the granularity of the THEnet evaluation framework from which we drew. The level of detail provided by that framework is useful for medical schools to more accurately assess their social accountability strengths and weaknesses.

An advantage of the environmental scan approach we used is that it provides an overview across both categories and domains, as we have defined them, and thus has the potential to indicate relevant socially accountable activities that might otherwise be missed. For example, we found evidence of social accountability in the domains of Admissions and Curriculum across three categories (Faculty Administration, Departments and Offices, and Education), although we might have expected to find them only in the Education category. Our use of the social obligation gradient in our evaluation framework has allowed us to map out the FoM's progress towards full social accountability and, in particular, to identify areas and activities that are in the vanguard.

Our study has some limitations. Our efforts to fill gaps in the data through direct email contact with departments, offices or project personnel did not always result in a timely response. As grants and publications are collated differently by different research institutes, we were unable to collect these data across the entire Faculty, and we were also only able to search the databases of the three major funding agencies, rather than those more likely to fund community and stakeholder engagement activities. While we anticipate our broad request for projects related to social accountability filled in some of these potential gaps, it is still likely that we missed some items and activities occurring in the Faculty.
Conclusion

This study demonstrates the value of the environmental scan approach in assessing the current state of social accountability at a medical school. In the case of the University of Ottawa Faculty of Medicine, some activities clearly meet the criteria for social accountability, whereas other domains could benefit from a greater emphasis on engagement and identification of priority health needs. We anticipate our methods may be useful to other Faculties of Medicine seeking to comprehensively strengthen their own social accountability mandates.

Take Home Messages

- 78% of data items collected had some relation to social accountability, but only 17% met the criteria to actually be socially accountable.
- Quality and partnership were the values most frequently expressed.
- The most frequently mentioned populations were marginalized, Indigenous and Francophone.
- Some University of Ottawa Faculty of Medicine activities are clearly socially accountable, whereas other domains could benefit from a greater emphasis on engagement and identification of priority health needs.

Notes On Contributors

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Table 1 was created by the authors, adapted from the work of Boelen and Heck (1995).

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**Appendices**

None.

**Declarations**

The author has declared that there are no conflicts of interest.

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**Ethics Statement**

The Ottawa Health Science Network Research Ethics Board and the Bruyère Continuing Care Research Ethics Board approved this scan as a quality improvement project and thus did not require full ethics evaluation.
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