

Social Mission Metrics Priorities II Survey

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INTRODUCTION

The Social Mission Metrics Initiative (SMMI), originated from the Social Mission Metric Study in 2016, aims to develop, disseminate and institutionalize a valid and usable instrument through which health professions schools can gauge their social mission engagement through the process of self-assessment. In 2018-19 this initiative obtained completed surveys from over 240 U.S. dental, nursing and medical schools. The Social Mission Metrics (SMM) Priorities Survey is a supplemental survey to SMMI, designed to address an additional challenge in the larger project: how should specific indicators be weighted to accurately reflect their relative importance in contributing to Social Mission? For example, is requiring students to serve in community health clinics more or less important than requiring them to take implicit bias training? Is having school research include community-engaged research projects more or less important than having schools establish well developed collaborations with local government's health department? We believe that the best answers to questions such as these should come from the preferences expressed by actual stakeholders in health professions education.

In order to address this challenge, we conducted the first stage SMM Priorities Survey in 2018 with stakeholders including members of the project's Advisory Committee, faculty and administrators at about 60 schools involved in pre-testing the SMMI instrument, and persons registered for the 2018 Beyond Flexner conference in Atlanta, Georgia. We computed item weights based on 293 respondents, and applied these weights in scoring results from schools who participated in the SMMI self-assessment. However, the first stage Social Mission Metrics Priority Survey did not include enough students and did not have enough respondent groups to support multivariate analysis and comparisons of their priorities on social mission. Therefore, we undertook a second stage Priority Survey (Priorities II) in 2019, with support from the Health Resources and Services Administration (HRSA).

This project addresses three objectives: (1) Surveying national samples of medical, dental and nursing students to see how their perception of social mission priorities is similar or different from faculty and other professionals. (2) Exploring differences in priorities among key respondent groups by applying multivariate models to the data that will link respondent characteristics to the relative ratings they provide. (3) Validating our definition of key domains by deploying a novel variant of the Paired Comparison method, known as Wiki Pairs. Using an online tool (developed at MIT and available at allourideas.com) respondents can propose new items for consideration, which (upon approval by the investigators) are incorporated into the ongoing data collection and tested for importance against the items already listed. This introduces a key 'crowdsourcing' element into the research that potentially broadens the set of relevant indicators.

The total number of participants we expected to enroll was 500, but we have yet to attain that goal. We began with Priorities II pilot study with a probability sample of 612 cases from the email mailing list of Beyond Flexner Alliance (BFA). The pilot study only yielded a 10% open rate and 3% completion rate with three email pushes, so we switched our focus to social media promotion and outreach to various student associations. The data collection is in preliminary stage

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and we expect to have an increase of respondents in December 2019 and January 2020, the time that many student associations agreed to send the survey to their members.

METHODS

The survey instrument used in this project is innovative and complicated, so we went through several rounds of internal test and revisions. The survey consists of two treatments. In the first treatment, selected participants first review informed consent information and provide demographics in a Qualtrics survey, then they are switched over seamlessly to the Sawtooth Software survey platform, on which we built a maxdiff (best/worst) rating questionnaire with the help of an outside consultant (Dr. Megan Peitz from Numerious Inc.). This is a more balanced and adaptive Maxdiff design compared to the Qualtrics-based maxdiff questions we used in the first stage Priorities Survey. It allows respondents to see 4 randomly chosen SMM indicators at one time and select one as most important and one as least important. After the 20 maxdiff questions, respondents are asked a final anchoring question asking them to select all 'really important' items from a list of items they have already chosen as relatively important.

The second treatment, presented to a different group of participants randomly chosen, starts with the same demographic questions in Qualtrics and continues with an embedded electronic 'widget' we programmed within Qualtrics. This widget links to the Wiki Pairs platform maintained by AllOurIdeas.com, a project by researchers at MIT that is supported by Google. The respondent sees a series of simple paired comparisons based on the 80 different SMM indicators, and chooses which of the two items is most important as an indicator of social mission performance. That platform will accept an unlimited number of answers, and keeps showing pairs until the respondent chooses to quit. It is clearly stated in the instructions that respondents are asked to rate 10-15 pairs. The Wiki Pairs platform allows respondents to suggest new items to add to the survey. Upon approval by the research team, these new items are incorporated into the ongoing data collection and tested for importance against the items already listed.

For both instances, we undertook several rounds of internal tests to successfully pass the respondent ID from Qualtrics to the Sawtooth or Wiki Pairs platform in order to merge the data later. The two treatments were originally built in two Qualtrics surveys with different survey links, which make them difficult for social media posting and sharing. In order to reduce the complexity of splitting respondents for the two treatments, we finally combined the two treatments into one Qualtrics survey and randomly assign 75% of respondents to the Sawtooth platform and 25% of respondents to the Wiki Pairs platform.

PRELIMINARY FINDINGS

In planning this project, we expected to get 300 respondents from a probability sample of 2000 email addresses drawn from the email mailing list of Beyond Flexner Alliance (BFA) and 200 respondents from non-probability sample recruited from various student associations in health professions. We began our Priorities II data collection efforts with a pilot study with a probability sample of about 600 email addresses from the email mailing list of BFA. No mailing addresses or phone numbers were available for the listed people, many of whom turn out to have only weak affiliation with BFA.

The advance email was sent to 612 email addresses from the BFA to inform the respondents about the Social Mission Metrics Priorities survey they are about to receive soon and alert them to keep an eye on their inbox and spam folder. This email successfully went to 592 people, and others have unsubscribed from the email list. According to the records of BFA, about 86 people opened the advance email, and the open rate is 15%. After four days, we sent out the first invitation email to 592 people with the survey instruction and link, followed with a reminder email after one week and a closeout reminder in another 10 days. After three pushes of email, we have only 57 respondents started the survey, and 19 of them finished the survey. The open rate for the survey is less than 10% and the completion rate is about 3%.

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Lacking phone numbers, we were unable to conduct telephone reminder calling. Therefore, we decided to switch our focus from the mailing list to social media posting of the survey on BFA's Facebook and Twitter account. This is an ongoing process and we expect to get more respondents by advertising and promoting the survey to health professionals on Facebook and Twitter. At the same time, we also reached out to student associations, including the American Medical Student Association (AMSA), the American Student Dental Association (ASDA), the National Student Nurses Association (NSNA), and the Graduate Nursing Student Academy of the American Association of Colleges of Nursing (AACN). NSNA has sent our survey invitation to a list of program directors in undergraduate nursing schools, with promising results. AMSA agreed to help us send out the survey to their members for free and they have shared the survey on their social media account. NSNA and AACN also agreed to send the survey to their faculty members and students in early December with little or no charge. ASDA sought a high price for sending out the survey by email to its members, which is beyond our budget, so we started to reach out instead to the Student National Dental Association (SNDA) and the American Association of Women Dentists (AAWD) for a possible collaboration on sending out the survey to their student members. The data collection is in an early stage and we currently have 60 respondents who started the survey. About 20 of them have finished so far with Sawtooth Maxdiff treatment, and 8 of them have finished with the Wiki Pairs comparison treatment. We expect to get more respondent completions with our outreach efforts in December 2019 and January 2020.

Currently we do not have enough data from our second stage Priorities Survey to make any new conclusions about the stakeholders' preferences on social mission. In the following part of the report, we list some illustrative results from the current survey and the first stage survey.

The two figures below demonstrated the Wiki Pairs results we got so far out of 135 votes from 8 respondents. On average, each respondent has cast 17 votes. Figure1 shows the top 10 items out of the 79 indicators, and figure2 shows the bottom 10 items. We expect to get 125 respondents for the Wiki Pairs treatment and will analyse the voting results against their demographic information in the phase of data analysis.

Figure 1. Top 10 items of Wiki Pairs results



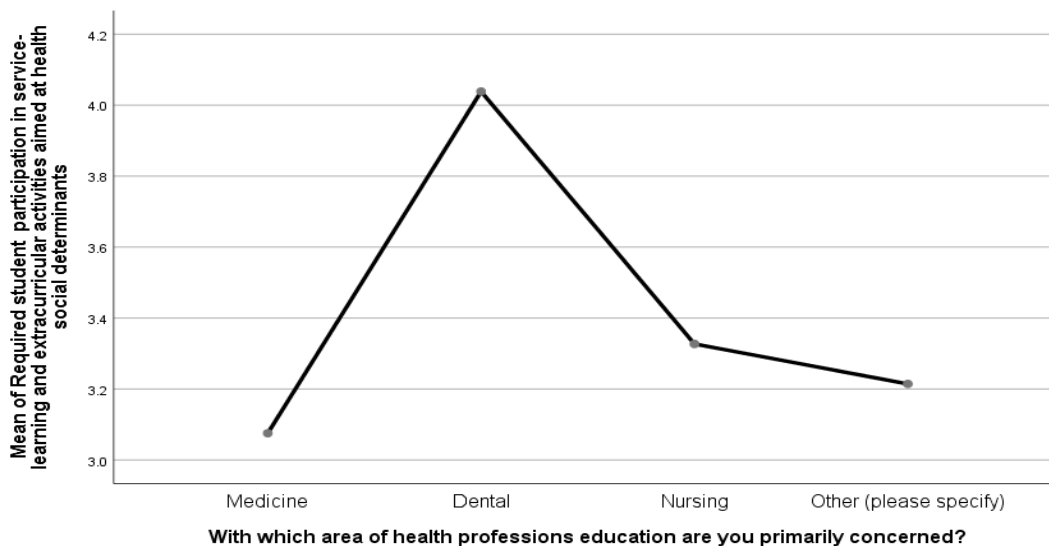
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Figure 2. Bottom 10 items of Wiki Pairs results

School's Public Health certificate or degree program involves large percentages of its students	25
School has well developed collaborations with local K-12 schools	22
Faculty includes women and men equally	20
K-12 pipeline programs include many from minority groups	20
School has well developed collaborations with legal professionals	20
Dental - High percentage of graduates entering general practice dentistry	20
School has well developed collaborations with Federally Qualified Health Centers	20
School offers compensation to faculty or staff for work in off-campus clinics or programs in a medically underserved population or community	20
Clinical rotations working with patients from a medically underserved population or community are long in duration	20
Medical - High percentage of graduates entering primary care practice after residency	14

Our first stage Priorities Survey showed significant differences in the social mission priorities of professionals in dentistry, medicine and nursing. For example, figure3 demonstrated that dental professionals gave significantly higher ratings to the area that requires student participation in service-learning and extracurricular activities aimed at social determinants of health, compared to nursing and medical professionals.

Figure 3. Mean score of area3 by Health professions education



Additionally, the first stage Priorities Survey showed different preferences of social mission areas among people taking different roles in health professions education. For instance, figure 4 demonstrated that house staff, residents, and fellows gave significantly higher ratings to the area that emphasizes K-12 and undergraduate pipeline programs having large minority enrollment and including first-generation college students, compared to faculty members, academic leaders (Deans and Associate Deans, etc.), administrative staff and students.

Figure 4. Mean score of area11 by Main roles in health professions education

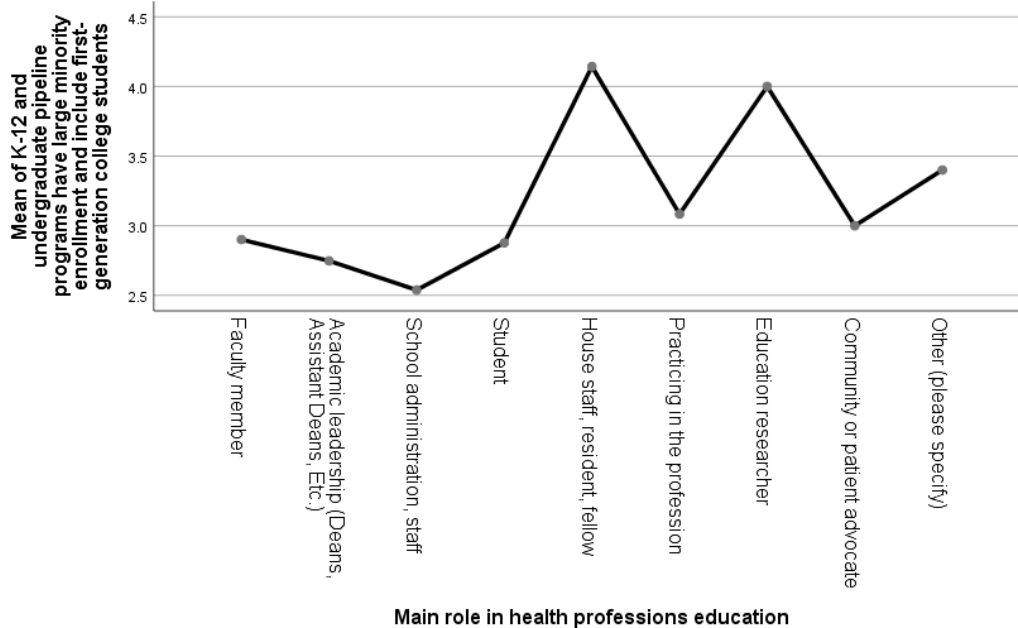
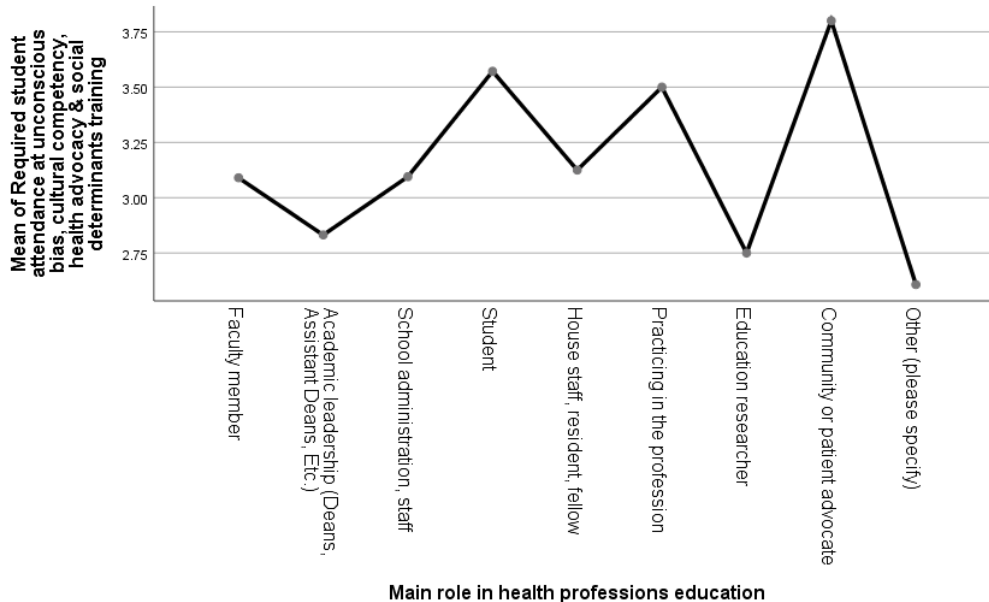


Figure 5 illustrated that students gave significantly higher ratings to the area that requires students to attend training in unconscious bias, cultural competency, health advocacy and social determinants of health, compared to academic leaders. The small number of community or patient advocates in the sample rated this area even higher, on average.

Figure 5. Mean score of area12 by Main roles in health professions education



It should be noted that due to the small number of respondents within certain professional roles, such as students (36), education researchers (3), community or patient advocates (9), a lot of differences in social mission indicators are not

statistically significant. We anticipate the second phase survey will further illuminate these differences and also demonstrate that student priorities differ from those of established health professionals.

CONCLUSION

Our first stage Priorities Survey showed significant differences in the social mission priorities of professionals in dentistry, medicine and nursing, and people with different roles in health professions education. Currently our second stage Priorities Survey has not enough data to make any new conclusions about the stakeholders' preferences on social mission. We are expecting to see differences in priorities between students and full-time employees in health professions education.

In addition, our work will have significant policy implications. The movement to improve the performance of health professions schools in educating for social mission has moved to a critical stage, as efforts like the SMMI national self-assessment have awakened the interest and concern of hundreds of schools across dentistry, medicine and nursing. The support of HRSA and of foundations such as RWJ are important for encouraging positive change, but a primary driver of continuing progress will be student demand. Health professions schools are in competition for the best students, and if students are seeking to enroll in programs that directly address health disparities, diversity and inclusion, and the social determinants of health, then health professions schools will respond. To direct this process of change, we need to understand better what the priorities for social mission are for students and how priorities differ across the three professions. With this knowledge, health professions schools in dentistry, medicine and nursing can more effectively target their efforts at changing their programs and curricula to address not only social mission in general, but the particular social mission areas that are of most importance to their current and prospective students—the next generation of health professionals. That process of positive change will bring our nation closer to realizing a culture of health for all residents.

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